

**Elder, Jessica**

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**From:** Small UAV Coalition <brian@smalluavcoalition.org@mail71.atf11.rsgsv.net> on behalf of Small UAV Coalition <brian@smalluavcoalition.org>  
**Sent:** Monday, January 19, 2015 9:49 AM  
**To:** Morris, John  
**Subject:** Bring Friends - Private Party with Grammy Award Winners, OK GO

Private Party with OK GO

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## Private Party with Grammy Award Winners OK GO - Bring Friends -

Join Us As We Explore the Potential of Small UAVs  
And Promote the [Know Before You Fly](#) Campaign



[OK GO](#) is an alternative rock band from Chicago known for their highly creative viral videos. They've garnered numerous awards including a Grammy in 2007 for Best Music Video. They've collaborated with pioneering dance companies, tech giants, animators, and Muppets. OK GO continues to prove themselves creative visionaries; their [latest video](#) is shot entirely with a small UAV, ending with an unforgettable sequence.

January 21

7-8 pm

Technology Discussion with Industry Leaders  
and Special Performance by OK GO

8:30 pm

Concert by OK GO

Location

9:30 Club

815 V Street, NW

Washington, DC 20001

## Bring Friends!

Space is limited, but you may bring up to three people. Make sure they register at the link below to reserve their spot.

## Event is Free, However...

The first portion of the evening is **FREE** to all. The concert portion of the evening is free to individuals who are not government employees. **Government employees are absolutely welcome, however, in order to comply with ethics rules, we are required to charge \$25 for entrance BY GOVERNMENT EMPLOYEES to the concert portion of the event, which begins at 8:30.**

Refreshments will be available for purchase.

Questions may be directed to Brian Holl:

[brian@smalluavcoalition.org](mailto:brian@smalluavcoalition.org)

**RESERVE YOUR SPOT**

Button will take you to this link:

<http://www.smalluavcoalition.org/registration>



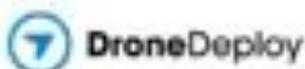
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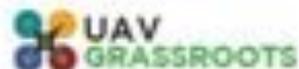
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UNMANNED AIRCRAFT  
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Google [X]



The Academy of Model Aeronautics is a 501(c)(3) non-profit organization. We seek to comply with the Standing Rules of the U.S. House and Senate regarding charitable events. Please contact Roger Murry at (202) 416-5119 with any questions.

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**From:** [Remaley, Evelyn](#)  
**To:** [John Verdi](#); [Sloan, Tim](#); [Goldberg, Rafi](#); [Lee, Alfred](#); [Morris, John](#)  
**Subject:** clips  
**Date:** Monday, December 22, 2014 4:00:11 PM

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**TODAY: FAA AND DRONE GROUPS TO LAUNCH SAFETY CAMPAIGN** — Just in time for all the drones set to be unwrapped on Christmas morning, several drone groups and the Federal Aviation Administration are today announcing a safety campaign aimed at providing folks using drones with the information they need to fly safely and responsibly. The campaign comes from the Association for Unmanned Vehicle Systems International, the Academy of Model Aeronautics and the Small UAV Coalition, in partnership with the FAA. We're tracking.

-- All that comes just days after Senate Commerce Committee Chairman Jay Rockefeller, who's retiring, used his last days in office to put forth a drone privacy draft bill. The legislation would prohibit private companies from spying on people without explicit prior consent and would require drone operators to protect any personally identifying information collected in the course of their use. It also would require the FTC, in consultation with the DOT, to establish privacy guidelines to govern their use, including legal obligations of people who purchase drones on the retail market. The draft is here: <http://politico.pro/1x9Ja5e>

**REID TO McCONNELL AND THUNE: DON'T USE THE COMM ACT TO WEAKEN NET NEUTRALITY** — Senate Democrats — led by Senate Majority Leader Harry Reid and Sen. Maria Cantwell — sent a letter late Friday to warn Republican leaders against using an upcoming overhaul of telecommunications law to weaken net neutrality rules. The eleven Dems who signed on, including Sens. Al Franken, Richard Blumenthal, Patrick Leahy and Patty Murray, said they "wholeheartedly agree" with Commerce Committee Chairman John Thune's push to update the Communications Act, but warned that they "would forcefully oppose any reforms that would undermine the FCC's authority to act to adopt meaningful net neutrality rules to protect consumers." In their letter, the signatories also laid out their requirements for the new net neutrality rules. "They must prohibit fast lanes, prevent discrimination against and blocking of lawful content, prohibit throttling, and increase transparency," the lawmakers wrote. "We hope the FCC will adopt such rules without delay." Read the whole thing, here: <http://1.usa.gov/1x9FTmh>

**INDUSTRY WANTS LEGISLATION TO PREEMPT TITLE II** — Incoming Senate Commerce Committee Chairman John Thune told Kate early this month that he'd like to move a bill "that might be an alternative to Title II" — and those plans are getting a little firmer, according to the Washington Post. They report that Republicans are likely to drop such a bill next month, in hopes of preempting FCC boss Tom Wheeler's official announcement of the new rules — which isn't expected until February or March. "The industry officials said they are discussing details of the proposal with several Republican lawmakers, whom they declined to name. The officials also said the proposal is being backed by several large telecommunications companies, which they also declined to name." The bill would establish a new "Title X" provision of the Communications Act under which telco's would be held to strict net neutrality principles — which would importantly supersede any regulation under "Title II" of the law. More: <http://wapo.st/1x0HUOx>

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**Evelyn L. Remaley**  
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Office of Policy Analysis and Development  
National Telecommunications and Information Administration

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**From:** Heather Phillips  
**To:** [John Verdi](#); [Morris, John](#)  
**Cc:** [Joelle Tessler](#)  
**Subject:** FW: drones panel  
**Date:** Wednesday, May 27, 2015 11:20:28 AM  
**Attachments:** [Drone Panel Invite.docx](#)

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Can you please let me know soonest if one of you plans to participate?

Thanks,  
Heather

**Heather Phillips**

Director of Public Affairs  
National Telecommunications and Information Administration (NTIA)  
U.S. Department of Commerce  
(202)482-0147

## Prying Eyes in the Sky or News You Can Use? A Panel on Drones, Privacy and the Media

Join the Society of Professional Journalists D.C. chapter at 6:30 p.m. on Wednesday, June 17, 2015, for a panel discussion about the First Amendment, privacy and other implications of news media use of drones. Hosted by the Specialized Information Publishers Association, the one-and-a-half-hour event will include brief mingling over light refreshments and a discussion by lawyers and other experts on all sides of the issue. Because space is limited, make sure to RSVP to Jonathan Make of the SPJ D.C. chapter by June 8, at [press@warren-news.com](mailto:press@warren-news.com).

Panelists are: Harley Geiger, senior counsel of the Center for Democracy and Technology, which has some concerns about drone privacy; Bob Corn-Revere, a First Amendment lawyer at Davis Wright Tremaine, who represents media companies interested in using drones; Michael Drobac, executive director of the Small UAV Coalition, which represents drone manufacturers; and Mike Cavender, executive director of the Radio Television Digital News Association, representing broadcasters seeking to use drones in news coverage. The moderator is Jonathan Make, managing editor of Warren Communications News and publications including Communications Daily.

Areas of discussion will include a consideration of the First Amendment rights of private citizens and companies to gather public information through drones, the privacy implications of such activities, and the ways different types of media wish to use drones. Also discussed will be a multistakeholder privacy proceeding on drones ongoing at the Department of Commerce's National Telecommunications and Information Administration, and the Federal Aviation Administration's rulemaking, waiver and other proceedings on civilian use of drones.

Join us at 6:30 p.m. at the Software & Information Industry Association, the parent of the Specialized Information Publishers Association, at 1090 Vermont Ave. NW, between K and L streets in downtown Washington, D.C. Go to the sixth-floor board room: <http://www.siiia.net/contactus>. Admission is \$5 for SPJ and National Press Club members, \$10 for the public.

**From:** [Gruenwald, Juliana](#)  
**To:** [John Verdi](#); [Morris, John](#)  
**Subject:** FW: Google gets into game of drones  
**Date:** Thursday, August 28, 2014 8:48:32 PM

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**From:** POLITICO Pro [[politicoemail@politicopro.com](mailto:politicoemail@politicopro.com)]  
**Sent:** Thursday, August 28, 2014 6:11 PM  
**To:** Juliana Gruenwald  
**Subject:** Google gets into game of drones

### Google gets into game of drones

By Tony Romm  
8/28/14 6:10 PM EDT

Google long ago embarked on the road to self-driving cars — and now the company is turning its ambitions to the skies with drones. The top secret Google[x] research lab announced Thursday it is investing in and testing unmanned aerial vehicles — an endeavor called Project Wing — that someday might deliver packages to consumers. The gambit puts Google in a growing camp of companies like Amazon and Facebook, which increasingly are sponsoring their own research — or trying to buy their way — into the emerging drone market.

For the moment, Google only is experimenting with its prototype craft in Australia, not the United States. It has hired Dave Vos, a well-known aerial technology expert, to lead its drone team. And it's only the beginning of the journey: Google now must navigate a host of technology challenges in the lab — and a thicket of regulatory hurdles in Washington — if it really wants its new drones to take flight worldwide.

"Self-flying vehicles could open up entirely new approaches to moving goods — including options that are cheaper, faster, less wasteful and more environmentally sensitive than what's possible today," according to the company's research team.

But Google cautioned it would "take years to develop a service with multiple vehicles flying multiple deliveries every day."

The company flashed its interest in drone technology in April when it purchased Titan Aerospace, a firm that makes solar-powered craft. But Google is hardly alone with its drone ambitions.

Facebook vied for the very firm Google ultimately bought and has tasked its Connectivity Lab to research drones and other tools that might help it expand Internet access to unserved areas globally. Amazon, meanwhile, raised eyebrows last year when CEO Jeff Bezos revealed on "60 Minutes" that his e-commerce titan has been testing package-delivering drones.

Google's research team began thinking about automating small, flying vehicles as far back as 2011. After years of research and work to hone its mission, the company began testing Project Wing craft in August. For its experiment, Google said it delivered candy bars and radios to local farmers in Queensland, Australia.

Much further down the line, the hope is that Project Wing can "fly a programmed route with just a push of a button," while also automatically following local safety rules and adapting to wind conditions.

Google likely has opted to test its prototype in Australia because of the country's historically relaxed drone regulations. The company declined to comment Thursday as to whether it would seek to test its drones in the United States, where federal rules are more strict. For the moment, operators of all unmanned aerial vehicles in the United States must first obtain permission from the Federal Aviation Administration — a regulatory hurdle that prompted Amazon earlier this year to hire lobbyists focused on the issue.

Google did not indicate Thursday whether it would add drones to its regulatory wish list in the nation's capital. But one of its outside lobbying hires — Gephardt Group Government Affairs — has spoken this year with FAA officials generally about unspecified "aviation safety" issues.

Drones mark only the latest endeavor at the highly guarded Google[x] lab, which has pioneered research into glucose-delivering contact lenses and wireless Internet-broadcasting balloons, as well as the company's self-driving car. Before Google could test its early, laser-mounted Prius, though, the company had to lobby individual states' legislatures for permission. In Washington, meanwhile, Google has committed some of its \$8.8 million lobbying tab toward warding off any new federal restrictions on its autonomous vehicles, according to its 2014 disclosures.

Privacy hawks often question Google's latest innovations, and many consumer groups have been especially uneasy at the fast proliferation of drone technology. The news of Amazon's package-delivering drone drew a sharp statement last year from Sen. Ed Markey (D-Mass.), who urged the FAA to step in first and "deliver privacy protections for the American public." While Congress is unlikely to advance drone-privacy legislation this year, President Barack Obama is expected to sign an executive order soon that begins a process to create industry best practices.

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From: Madeline R. Tucker  
Sent: Monday, July 20, 2015 10:16 AM  
To: Juliana Grunwald  
Subject: NTIA Clips 7-20-2015



## National Telecommunications & Information Administration

United States Department of Commerce

INTERNET

PRIVACY

SPECTRUM

TELECOMMUNICATIONS

### Internet

#### [A Light Bulb Goes On, Over the Mail](#)

20 Jul 2015 - New York Times

Among the many promises of the Internet of Things — a network of Wi-Fi-connected devices and equipment managed with smartphones — is the automation of everyday life, whether finding a parking space or discovering a discounted blouse at the mall or lighting the streets when day shifts to dusk. But public lighting, it turns out, offers more than illumination. Using a combination of LEDs and big-data technology, public lighting is the potential backbone of a system that could use billions of dollars to collect data about traffic congestion at an intersection or a consumer walking down the cereal aisle, to name just a couple of applications.

#### [Communicators with Gordon Crovitz](#)

20 Jul 2015 - C-SPAN

Gordon Crovitz talked about technology issues and public policy, the implications of the U.S. turning oversight of ICANN over to an international body, regulation of the Internet, and other issues affecting the Internet and technology.

#### [MPAA Disputes 'Distorted' Statements About Involvement With ICANN Proxy Services Working Group](#)

20 Jul 2015 - Comics Daily

MPAA said Friday that it wants to "set the record straight" on its position on the ICANN Privacy & Proxy Services Accreditation Issues Working Group's work on proposed revisions to ICANN's proxy services registration policies. The association said in an email that groups opposed to aspects of PPSA's initial report on revision proposals have "distorted" MPAA's position. Privacy advocates and some industry groups have opposed aspects of PPSA's initial report, particularly a proposal to bar owners of domain names associated with websites engaged in commercial activity from using proxy services to mask ownership information on WHOIS registration (see 10/7/10/000). MPAA said that ICANN hasn't adopted any final changes to its proxy service rules and noted that "while we are working to develop a framework to help creators protect their content when clear and verifiable abuse is occurring, we've made it very clear that we also support the legitimate use of privacy and proxy services."

#### [US applauds India's multi-stakeholder approach on Internet](#)

20 Jul 2015 - The Economic Times

The US has applauded India's recent support for multi-stakeholder approach on Internet, saying the decision is critical for ensuring the vitality of the World Wide Web. "Just a few weeks ago, (Indian) Communications Minister Ravi Shankar Prasad announced the Government of India's support for the multi-stakeholder approach at the last Internet Corporation for Assigned Names and Numbers (ICANN) meeting," said Catherine A. Novell, Under Secretary of State for Economic Growth, Energy and Environment, yesterday.

#### [Public Revolts Against Plan to Kill Domain Name Privacy](#)

20 Jul 2010 - General Focus

A new ICANN proposal currently under review suggests various changes to how WHOIS protection services should operate. The changes are welcomed by copyright holders, as they will make it easier to identify the operators of pirate sites, who can then be held responsible. However, several domain registrars, digital rights groups and the public at large are less enthusiastic. They fear that the changes will also prevent many legitimate website owners from using private domain registrations. To allow the various parties to weigh in ICANN launched a public consultation, and the overwhelming number of responses over the past several weeks show that domain name privacy is a topic that many people have taken to heart.

### [Rage Against the ICANN Machine](#)

20 Jul 2010 - Cited

I'm going to do what no professional journalist should ever do: take a story at face value. So full disclosure: I have not checked the facts behind the story that sparked this title but I'm about to embark on that I've known the author for a number of years as being a consummate professional when it comes to reporting facts. And I've known ICANN, the organization, for even longer. I have therefore seen first hand the organization's ability to be at times borderline duplicitous in its attempts to reach a desired result. The story is Karen McCarthy's piece just published by The Register and claiming that ICANN had a hand in skewing the results of an ongoing battle over who should operate the new gTLD africa. Karen's article, and the broader issue of the africa debacle, is set to become a major item in ICANN's side. I won't waste the reader's time recounting both, as they are readily accessible online.

### [Will 2010 Politics Trump Bipartisan Support for the MSM and DOTCOM Act?](#)

20 Jul 2010 - Cited

The bitter partisan divide that characterizes so many of official Washington's current policy discussions was conspicuous in its absence at the July 16th hearing held on "Internet Governance Progress After ICANN 53" by the House Energy and Commerce Committee's Subcommittee on Communications and Technology. In opening remarks that asked "What is the multi-stakeholder community, anyway?", Subcommittee Chairman Greg Walden went on to declare that he and his colleagues "sought to strike the right balance between supporting the multi-stakeholder model of internet governance, while still protecting the invaluable tool of communications and commerce the internet has become". Walden also noted that the Subcommittee "heard from the multi-stakeholder community over the last year. And with respect to at least one part of this transition the world spoke with one voice: ICANN must be more accountable if it is to be trusted with the stewardship of IANA".

### [Having been alarmed and embarrassed, ICANN tells the world: We've done noet wrong](#)

20 Jul 2010 - The Register

Last week, a group of retired judges slammed domain name overseer ICANN for breaking its own bylaws by having failed to "act fairly, neutrally [and] non-discriminatory" in a dispute over the africa top-level domain. Yesterday, we revealed that ICANN's staff redacted the judges' final report to remove all evidence that the organization had avoided one of the two groups vying for ownership of africa. Today, the ICANN board and its staff told the world that they had done nothing wrong. In an emergency meeting held Thursday morning, the ICANN board made five resolutions, and issued a 3,500-word announcement. At no point does it apologize. Moments later, ICANN staffers drew up a 100-word explanation for why they had redacted the final report. For the next few days, a working group from the internet community will meet in Paris to decide on new accountability measures that would force ICANN to be more open in its decision-making.

### [After internet domain purchase, Regina lawyer now a Merchant of love](#)

20 Jul 2010 - Leader Post

Tony Merchant wants to spread the love. The prominent Regina lawyer is the new owner of the top-level internet domain love, which went on sale to the public on Friday. Merchant edged out internet giants such as Google and Amazon in a bidding war for the domain, for which he paid \$9 million to the Internet Corporation for Assigned Names and Numbers (ICANN). So far he appears well on his way to making his money back. In the first three and a half hours of being on sale, the domain earned \$20,000 US.

## Privacy

### [OPM IDENTITY PROTECTION CONTRACTORS DEFEND THEIR REPUTATION](#)

20 Jul 2010 - Politics

The companies that won a \$20-million contract to protect the identities of 4.2 million Americans compromised in the Office of Personnel Management's first massive data breach are pushing back on complaints they've come up short on their responsibilities. Tal reports this morning CISO and its contracting partner Winstate have been pummeled with complaints about website crashes, two-hour hold times, unclear service offerings and what critics say was a slapdash contract delivered too speedily by a panicked OPM. The companies spent much of last week doing damage control on the Hill even while they plan to bid to offer identity protection services for the second, and much more damaging, OPM hack that compromised 21 million security clearance background checks.

### [NTIA to address drone privacy, transparency, accountability early next month](#)

20 Jul 2010 - House Government

In two weeks, the National Telecommunications and Information Administration will launch the first of a series of meetings with a wide range of stakeholders to discuss privacy, transparency and accountability issues around usage of commercial and private drones. The Aug. 3 kickoff of the so-called multistakeholder process stems from a Feb. 15 presidential memo that sought to build best practices around those particular issues with the NTIA in charge of developing a framework to use drones or unmanned aircraft systems in U.S. airspace, according to a July 13 blog post. Subsequent meetings are scheduled for Sept. 15, Oct. 21 and Nov. 20 at the American Institute of Architects in New York.

### [Drone Delivers Medicine to Rural Virginia Clinic](#)

20 Jul 2010 - Wall Street Journal

A pop-up health clinic in rural Virginia received deliveries of medicine from a drone Friday, the first government-approved drone delivery in the U.S. But the orchestrated event also highlighted the hurdles that remain before such deliveries become everyday occurrences in U.S. skies, as evidenced by Amazon.com Inc. and Google Inc. A manned aircraft carried the packages most of the way, and the flight plan—originally called for the drone to make six round trips to carry a total of 10 pounds. But after two successful deliveries, officials decided to send the rest of the payload

## U.S. vs. Hackers: Still Lopsided Despite Years of Warnings and a Recent Push

20 Jul 2015 - New York Times

In the month since a devastating computer systems breach at the Office of Personnel Management, digital threat teams have been racing to plug the most glaring security holes in government computer networks and prevent another embarrassing theft of personal information, financial data and national security secrets, top senior cybersecurity officials, lawmakers and technology experts said in interviews. But the 30-day "cyberprint" ordered by President Obama after the attacks is little more than digital triage on federal computer networks that are cobbled together with out-of-date equipment and defended with the software equivalent of bubble wrap.

## Energy Companies and Utilities Are Well Advised to Engage in Drone Privacy Discussions

20 Jul 2015 - The National Law Review

The Federal Aviation Administration (FAA) reports that, as of July 9, 2015, it has granted 746 Petitions for Exemption under Section 333 of the FAA Modernization and Reform Act of 2012 authorizing commercial operations with small unmanned aircraft systems (sUAS). These Exemptions have been granted to a variety of users in industries ranging from agriculture to telecommunications. Energy companies and electric utilities have been among the early adopters of this technology and are beginning to deploy small sUAS for various infrastructure monitoring and inspection applications. More than a dozen electric utilities and energy companies have already obtained Section 333 Exemptions and several others have Petitions pending. In addition to establishing certain policies and procedures for federal government domestic use of sUAS, the Presidential Memorandum directed the National Telecommunications and Information Administration (NTIA) to undertake a multi-stakeholder engagement process to develop and communicate best practices related to privacy, accountability, and transparency issues associated with commercial and private use of small sUAS in the United States. The NTIA stakeholder process represents the primary federal government initiative focused on sUAS and privacy concerns.

## NTIA presses on with commercial facial recognition talks

20 Jul 2015 - Planet Intensions

The National Telecommunications and Information Administration has announced plans for new round of multistakeholder talks, despite privacy advocates leaving the process. The NTIA revealed in a statement on Wednesday that the next meeting will be held on 28 July. In June, representatives from privacy groups including the American Civil Liberties Union, Electronic Frontier Foundation, and Center for Democracy and Technology quit the talks over issues surrounding a voluntary code of conduct for companies using facial recognition.

## Spectrum

### F.C.C. Votes to Limit Discounts in Airwaves Auction

20 Jul 2015 - New York Times

The Federal Communications Commission on Thursday approved plans to prevent large businesses from gaining access to small business discounts in a much-anticipated auction of airwaves expected early next year. The new rules are in part a response to actions taken last year by Dish Network, the large satellite television operator, in another auction of airwaves. In that auction, Dish teamed up with smaller entities. Those corporations received a \$3.25 billion discount on the \$13-billion worth of spectrum they bought. While the F.C.C. has not concluded whether Dish Network broke any auction rules, the moves by the company led to calls for changes in the rules.

### WIRELESS INDUSTRY'S NEXT SPECTRUM PUSH

20 Jul 2015 - Pundit

We haven't even gotten final rules set for the broadcast incense auction yet, but wireless companies say it's not too soon to work on the next round of spectrum reallocation. CTIA -- The Wireless Association is out with a report today saying it takes, on average, 13 years for wireless carriers to deploy new spectrum after policymakers tick off the reallocation process. Looking past the incentive auction, CTIA says wireless carriers will need an additional 350 MHz of spectrum by the end of the decade to keep up with growth and to work on 5G networks. "The timelines can be accelerated both pre- and post-auction," the group writes. "But it is incumbent upon policymakers to take that first step, to begin the process as soon as possible." The report: <http://bit.ly/1vz0G0H>

### FCC Likely Referring Dish DE AWS-3 Spectrums Buys to Enforcement Bureau, Wells Fargo Says

20 Jul 2015 - Coxon Daily

The FCC likely hasn't rejected outright long-term applications of Northstar Wireless and 19th Wireless, the document writes. But Dish Network used to indirectly buy, using bidding credits, the second-most AWS-3 spectrum of any player in the auction (see 1507100054). Wells Fargo enabled investors Friday. Various news outlets reported Thursday the licenses are rejected under the order circulated by FCC Chairman Tom Wheeler. Industry officials told us that the order appears instead to refer questions about possible collusion to the Enforcement Bureau for further investigation. "We checked with our contacts" and "this order could just be a referral to the FCC's Enforcement Bureau to investigate unlawful collusive bidding," Wells Fargo said. "Clearly this wouldn't be a positive either, but our point is no one knows what the document actually says." Lawyers with ties to the DEs told us they have not been briefed on the FCC order. In comments on the competitive bidding rules approved by the agency Thursday, Commissioner Mignon Clyburn referred only to the "alleged activity that people have criticized in the AWS-3 auction."

### Public Interest Groups, Carriers Disagree on Final Rules for Shared Spectrum Band

20 Jul 2015 - Coxon Daily

Public interest groups, carriers and other industry commenters offered additional arguments on the 3.5 GHz band, responding to an FCC request for comment released by the agency as part of final rules for the band. The further notice asks a battery of questions on how the agency should define the rights of priority access licensees, allow for a secondary market for PALS and protect fixed satellite service use of the 3600-3700 MHz portion of the band (see 150410001). Comments were filed in-docket 12-354. New America's Open Technology Institute and Public Knowledge called for a dynamic system for giving general authorized access (GAA) to PAL spectrum that is not in use, especially since a spectrum access system (SAS) will oversee use of the band. "The Commission has the opportunity to leverage the capability of the SAS -- using information reported to the SAS under the rules already adopted -- to dynamically determine where and when the licensed spectrum is in actual use," OTI and PK said.

### [Unlicensed spectrum holds key for broadband revolution in India](#)

20 Jul 2010 - Your Story

The use of devices in unlicensed spectrum was first authorized by the Federal Communications Commission (FCC) in the U.S. in 1936. The initial qualifying devices had low power emission and effectiveness in a limited area. These were wireless record players and remote control devices, followed by wireless microphones, garage door openers, telemetry systems, security alarms and cordless telephones. With advancement in technology and increase in functionality of devices, new bands have been released by FCC for unlicensed use, at 900 (28 megahertz (MHz)), 3400 – 3493.3 MHz, and 5725 – 5850 MHz. By 2008, 955 MHz were allocated to unlicensed users below 6 gigahertz (GHz). The pivotal moment in the history of unlicensed spectrum came in 1985 when the FCC ruled to allow the use of Direct-Sequence Spread Spectrum technology for communications in the Industrial Scientific and Medical (ISM) band in the US. Thereafter, a number of important deployments in this band emerged, such as Wi-Fi, Bluetooth and radio-frequency identification (RFID). The number of Wi-Fi hot spots around the world is growing at an estimated annual rate of about 370 per cent, with a count of more than 70 million spots, out of which 63 million are present in residential homes.

### [FCC approves spectrum auction reforms](#)

20 Jul 2010 - The Hill

The Federal Communications Commission approved reforms Thursday to a program that critics say allows large corporations to take advantage of discounts intended for small businesses. In a party-line vote, the commission approved a proposal to reform the discount program aimed at helping small, minority and women-owned businesses and rural providers obtain valuable wireless spectrum. Those businesses are known as designated entities. During a spectrum auction that closed earlier this year, Dish Network claimed \$3 billion in discounts by bidding in coordination with two smaller companies. That prompted an outcry among the firm's competitors and in Congress, where Sen. John Thune (R-S.D.) has launched an investigation into the companies' behavior from his position as chairman of the Commerce Committee. Dish says it did not violate the law.

## Telecommunications

### [PAI: GO AHEAD, DEFUND NET NEUTRALITY](#)

20 Jul 2010 - Politics

It's no secret GOP Commissioner Ajit Pai doesn't like the FCC's open Internet order. Asked about a congressional effort to defund it - given the uncertainty it might create in a market that's arguing against precisely that - Pai seemed to side with the House GOP. He stressed the agency needs to "make do with less," but it's going to spend "hundreds of hours defending that [order] in court." Pai said he supported "congressional efforts to make sure, in terms of funding, the agency is really focusing financial resources on things that really" increase broadband investment and access.

### [FCC Cracking Down on 911 Service Failures](#)

20 Jul 2010 - Wall Street Journal

For three hours last August, almost all T-Mobile US Inc.'s about 50 million customers couldn't reach 911. The nationwide outage, disclosed on Friday, was at least the third major outage by a variety of telecom operators of the 911 call system in three years, raising concerns among federal regulators that the country's emergency response system is becoming more vulnerable. The system has evolved away from local networks connected by copper lines to a more national model based on Internet technologies. In the past any outage was localized. Now it can affect millions of people in multiple states, whether they use cellphones or landlines. Regulators slapped T-Mobile with a record \$17.5 million fine for the malfunction that debilitated the part of carrier's network that handles emergency calls.

### [Mobile data could soon be included in federal analyses of high-speed Internet deployment](#)

20 Jul 2010 - Washington Post

When the Federal Communications Commission decided in January to raise the minimum official speed for "broadband" by more than 500 percent, it did so on the rationale that it would help promote the rollout of high-speed Internet. But the analysis that produced that decision only covered providers of fixed or wired Internet connections, such as Comcast or Time Warner Cable. Now the agency will consider whether to account for mobile Internet providers too, when it studies whether broadband is being adequately deployed in the United States. FCC Chairman Tim Wheeler has circulated a proposal to his fellow commissioners that would, if approved, kick off a process to add cellular carriers to an annual review of the U.S. broadband market, according to an FCC official.

**From:** [Gruenwald, Juliana](#)  
**To:** [John Verdi](#); [Morris, John](#); [Jade Nester](#)  
**Subject:** FW: US News & World Report: Should Obama Take Executive Action on Drone Privacy?  
**Date:** Friday, July 25, 2014 1:46:21 PM

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fyi

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**From:** Horowitz, Sarah [mailto:SHorowitz@doc.gov]  
**Sent:** Friday, July 25, 2014 12:45 PM  
**To:** Hock, Jim; Cummisky, Margaret; Stowers, Jim; Antonipillai, Justin; Ratliff, John; Valencia, Stephanie; LeCompte, Theodore; Juliana Gruenwald; Heather Phillips  
**Subject:** US News & World Report: Should Obama Take Executive Action on Drone Privacy?

U.S. News & World Report

Should Obama Take Executive Action on Drone Privacy?

By Rachel Brody

July 25, 2014, 11:45 a.m. EDT

<http://www.usnews.com/opinion/articles/2014/07/25/should-obama-take-executive-action-on-commercial-drone-privacy>

President Obama plans to wield his executive authority in a new area: drones. The president is planning to order the National Telecommunications and Information Administration, an arm of the U.S. Commerce Department, to draw up [privacy guidelines](#) for commercial drone use. The Federal Aviation Administration is already drafting commercial drone regulations, but experts predict the agency will miss its September 2015 deadline.

It's unclear when exactly Obama will issue the executive order, but Politico reports that the National Telecommunications and Information Administration plans to bring together consumer groups and companies to outline draft rules. White House spokesman Ned Price told Politico, "We don't have any details to share at this time, but there is an inter-agency process underway."

While commercial drones remain illegal under FAA rules, the agency has faced increasing pressure from companies like Amazon to lift restrictions. Earlier this month, the online retailer [filed a petition](#) with the FAA, asking to test its drones outdoors and in other parts of the country. Currently, the FAA limits commercial drone testing to certain areas of the U.S.

But privacy concerns remain at the center of the drone debate. The Electronic Privacy Information Center has advocated for limits on drone use and privacy regulations. "The increased use of drones poses an ongoing threat to every person residing within the United States," reads a post on the center's website. "Companies are developing 'paparazzi drones' in order to follow and photograph celebrities. Private detectives are starting to use drones to track their targets. Google, inc. has deployed street-level drones in other countries to supplement the images of Street View." Lawmakers like Sen. Ed Markey, D-Mass. have also [pushed for drone privacy rules](#). "Before drones start delivering packages, we need the FAA to deliver privacy protections for the American public," Markey said in a statement last year.

But the increasing popularity and shrinking price of drone technology mean more and more

American businesses are flying in the face of FAA prohibitions. Recently, a Texas-based search and rescue team, which uses small Spectra planes to find deceased missing persons, [challenged the FAA](#) on its ban. In a letter from the company's lawyer, Texas Equusearch claims its team's purpose is "purely humanitarian: to save a life when possible and to ease the suffering of families by bringing closure when that life can no longer be saved."

The National Telecommunications and Information Administration does not have the authority to propose rules on government-operated drones, another area of major concern for privacy groups. "Rules must be put in place to ensure that we can enjoy the benefits of this new technology without bringing us closer to a 'surveillance society' in which our every move is monitored, tracked, recorded, and scrutinized by the government," says the American Civil Liberties Union. A number of states have already [taken action](#) to limit the use of drones by law enforcement.

So what do you think? **Should Obama take executive action on drone privacy?** Vote and comment below.

**From:** Jade Nester  
**To:** [Strickling, Larry](#)  
**Cc:** [Simpson, Angela](#); [Morris, John](#); [Duane, Jennifer A.](#)  
**Subject:** Google's Loon making progress, adding LTE capabilities  
**Date:** Monday, June 16, 2014 1:37:10 PM

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## [Google's Balloon Internet Experiment, One Year Later](#)

- By [Steven Levy](#)
- 06.16.14 |
- 11:00 am |

Earlier this month, Mike Cassidy, a project director at Google's high-risk research division X, woke before dawn in the Northwest Brazilian state of Piauí. It was already warm and humid. He drove for an hour to a clearing in a rural area and helped his team launch several high-altitude balloons with a payload of Internet connectivity technology—the nub of the project he directs called Loon. Then he jumped into another car to race against the balloons' flight path, speeding along an unpaved road, dodging chickens and pigs, and finally arriving at Agua Fria, a tiny community on the outskirts of the town Campo Maior.

Cassidy pulled up to a rural schoolhouse that had never been able to receive high-quality Internet signals. (Locals sometimes climb trees to try to get a signal for their mobile phones.) The principal, who doubles as the lunchroom cook, ushered him into a classroom filled with middle-school-age kids. Within minutes, one of the balloons he'd launched that morning was overhead, enabling a teacher to get a high-speed connection on his computer. The instructor was able to supplement that day's lesson about Portugal with Google maps and Wikipedia. Students asked off-the-wall questions—and got answers courtesy of Google. Later when Cassidy spoke to the kids, they shared their goals: One wanted to be an engineer; another, a doctor.

Cassidy has always contended that by providing the Internet to unserved areas, his project could help make those dreams achievable. **A year after the project's public launch, he's confident that Internet service enabled by high-altitude balloons is more than a possibility. "We've definitely crossed the point where there's a greater than 50 percent chance that this will happen," he says.**

**When Google [announced Project Loon on June 15 last year](#), a lot of people were skeptical. But Google reports that since then, it has been able to extend balloon flight times and add mobile connectivity to the service.** As a result, Google's expectations are flying even higher than the 60,000-foot strata where its balloons live.

"This is the poster child for Google X," says Astro Teller, who heads the division. "The balloons are delivering 10x more bandwidth, 10x steer-ability, and are staying up 10x as long. That's the kind of progress that can only happen a few more times until we're in a problematically good place." A year ago, balloons typically remained aloft for a few days at most, and download speeds averaged one or two megabits per second—comparable to the slowest wired Internet service.

Since the [first public test flights in New Zealand](#), Google's balloons have clocked over a million and half kilometers. Increasing the crafts' endurance has been a key challenge. One balloon expert originally scoffed at the claim that Loon balloons would eventually keep going for an average of 100 days. "Absolutely impossible—even three weeks is rare," said [Per Lindstrand](#), known for his highly publicized forays with entrepreneur Richard Branson.

Indeed, during the first New Zealand tests, the balloons generally lasted only a few days. Google bumped up flight durations by extensively analyzing its failures. Using former military operations people, it took pains to recover nearly every downed balloon. Google's testing procedures also got a boost from winter's polar vortex: Ground temperatures in South Dakota, where some of the balloons are manufactured, went as low as -40 degrees Celsius, about the same as what balloons encounter at 60,000 feet. So Google could test the inflated materials at leisure. Ultimately, Loon engineers concluded that one of the biggest factors in failure were small, almost undetectable leaks in the polymer skins that must withstand huge atmospheric pressure and up to 100 mph winds. Even a pinhole can shorten a balloon's lifespan to a few days.

The Loon crew not only strengthened the fragile seams where leaks often occurred but took fanatic care in handling the envelopes. They used to walk on the flattened polymer in stocking feet. Now only super-fluffy socks will do. Google, being Google, tested this protocol before implementing it. Teams were created, one wearing conventional socks and the other donning fuzzy footwear. Both groups performed a rigidly proscribed line dance, as if the spread-out balloon polymers were Urban Cowboy-style dance floors. The fluffy-footed team created significantly fewer pinholes. "We're getting the next five billion online through a line dance!" Teller says.

Google also improved Loon flight times by dramatically upgrading the altitude control system, increasing the vertical range of the balloons so they can catch more favorable winds. (Its balloons "steer" their way around the world by placing themselves in wind currents headed in the right direction.) As a result, it's not unusual for Google to keep balloons flying for 75 days. One craft, dubbed Ibis 152 (Google uses bird species to nickname its balloons), has been aloft over 100 days and is still flying. An earlier balloon, Ibis 162, circled the globe three times before descending. (It completed one circumnavigation in 22 days, a world record.)

The longer times aloft threatened to overwhelm the Loon software that adjusts the flight plans. "We didn't have the infrastructure ready," Cassidy says. When flights were shorter, Google could rely on data from the National Oceanic and Atmospheric Administration. But since NOAA only supplies forecasts for 16 days out, Google now has to make sophisticated guesses using a giant database of historical wind and weather data. To plot the optimal path—one that minimizes battery life and avoids crummy weather conditions—Google's software recalculates as often as once a minute. (During the long, speedy flight of Ibis 162, Google recalculated 8 million times.)

Google made a different kind of advance with Loon when it added the capability to send data using the LTE spectrum—making it possible for people to connect directly to the Internet with their mobile phones. (Loon's original Wi-Fi connection required a base station and a special antenna.) Using LTE also helped Google boost the capacity of its connections. Recent Loon payloads are providing as much as 22 MB/sec to a ground antenna and 5 MB/sec to a handset. With the advances made over the last year, Google has a clearer idea of how it might eventually make money with Loon. In addition to connecting the last few billion (and often cash-poor) Internet users, the project might serve already-connected people with fat wallets by partnering with existing providers to deliver a super-roaming experience. "It's not limited to rural areas," Teller says. "Even in the middle of Silicon Valley you can lose connections while driving; large buildings and hills can block the signals. Balloons can fill in dead spots."

When Loon began, Teller's biggest worry was that powerful telecommunications companies would view the project as a threat and attempt to snuff the project. But in part because LTE makes it possible for Google to interweave its service with existing mobile data networks—standard service in cities, Loon connectivity in more remote areas—the reaction has been the opposite. "Every telco wants to partner with us," Cassidy says. Google is working with the regional giant Vivo and Telebras in its Brazil tests. It's also working with Vodafone in New

Zealand. “They’re teaching us about what they need and how they can help,” Teller says.

Cassidy ticks off the goals for the next year: routine flights of 100 days, 100 balloons in the air at once (that’s four times the previous high), and then a full ring of between 300 to 400 balloons circling the globe to offer continuous service to a targeted area. Teller predicts that Loon may actually make enough progress to become operational, at least in the guise of a pilot program. Just where this will happen and how many people it will serve, he doesn’t say. Not surprisingly, the Loon team is growing. Though Google won’t reveal headcounts, it allows that the muscle behind the balloon effort is comparable to other Google X projects like Glass or self-driving cars.

Still, Google seems to be hedging its bets on how to connect the world. Last April, it bought Titan Aerospace, a two-year-old company that makes high-altitude, solar powered drones that offer a non-inflatable approach to wireless Internet. (Facebook reportedly also bid on Titan; not long afterward it bought another drone company, [Ascenta](#).) And earlier this month Google paid \$500 million to acquire [Skybox Imaging](#), a startup that makes low-cost satellites; though the orbiting payloads will be mainly used to augment its mapping operations, Google also said that the technology might eventually help improve Internet access.

Teller contends that the multi-pronged approach is not chaos but synergy. “The ethos of Google is to be loosely coupled,” he says. “If everyone is dependent on one approach, the whole system slows down.” He sees opportunities for collaboration. “Loon works with satellites as a backup system,” he says. “Titan Aerostar might need Loon’s wind data.” Loon’s leaders acknowledge there are plenty of potential obstacles that may well pop their aspirations. But for now, Teller is optimistic. “On Loon’s two-year birthday, I would hope, instead of running experiments, we’ll have a more or less permanent set of balloons. In one or several countries, you will turn on your phone and talk to the balloons,” he says. “Yes, Loon will be offering service.”

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# National Telecommunications & Information Administration

United States Department of Commerce

INTERNET

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SPECTRUM

TELECOMMUNICATIONS

## Internet

### [Lawmakers Dig Reauthorization, Modernization of Federal Broadband Programs](#)

11 Jun 2014 - [Caren Dale](#)

Sen. Amy Klobuchar, D-Minn., urged the White House to support reauthorization of the Broadband Technology Opportunities Program. In comments posted Friday on the Broadband Opportunity Council's (BOC) request for comment on broadband availability and deployment issues. A group of House Democrats led by House Communications Subcommittee leading member Anna Escobedo Cabral, D-Calif., and Rep. Jared Huffman, D-Calif., urged the U.S. Department of Agriculture in a separate blog to "reauthorize" regulations for the Rural Utility Services' Telecommunications Loan and Loan Guarantee program to "better facilitate high-speed rural broadband deployment." BOC, which the White House created March 21 to spur broadband investment and adoption (see 130328966), sought comment on ways the federal government can reauthorize "outdated regulations," identify regulatory barriers to broadband deployment and promote broadband adoption.

### [Amendment to Senate's Commerce Budget Would Require 45-Day Warning on NNA Transition](#)

11 Jun 2014 - [Caren Dale](#)

The Senate Appropriations Committee passed version of the FY 2015 budget for the departments of Commerce and Justice and related federal agencies, released Thursday, contains an amendment from Sen. James Lankford, R-Okla., that directs NTIA to inform the committee and the Senate Commerce Committee no later than 45 days before it makes a decision on approving ICANN's proposed Internet Assigned Numbers Authority (IANA) transition plan. A House passed version of the FY 2014 Commerce Budget (HR 2676) included an amendment that would prohibit NTIA from using its funds on the IANA transition through the end of FY 2016 (see 130804032 and 130802043). The Senate Appropriations amendment, among those included in a manager's amendment package that Senate Appropriations cleared 21-5, also directs NTIA to continue to seek quarterly reports to Senate Appropriations on "all aspects" of the IANA transition process.

### [Senate Ways, Means Welcomes Broadband's Arrival](#)

11 Jun 2014 - [Jordan Clark](#)

When people think of the Massachusetts tech economy, they probably don't think of the town of 1,100 built into the woods about 10 miles north of Amherst. That could change. Since April, the Western Massachusetts community has steadily converted homes, businesses, and town offices to a municipal fiber optic network offering broadband services that have long spanned the rest of the state. The network, financed with state and federal stimulus money, will extend broadband to 42 isolated towns where 40 percent of houses have no Internet access and the rest are relegated to dial-up, DSL, and satellite connections operating at a fraction of speeds available in Eastern Massachusetts.

### [House Defunds Internet Gateway...again](#)

11 Jun 2014 - [Michael Conway, Senior](#)

"I think they are now realizing that this is actually a good thing for the Internet." That was Internet Corporation for Assigned Names and Numbers (ICANN) CEO Paul Chiou's, declaring to Reuters that congressional opposition to an Obama administration plan to transfer key Internet names and numbers authorities from the Department of Commerce was fading. Chiou added, "I am optimistic and I believe that all interests are now aligned." "Everybody seems that the waters are calm." There is only one problem. Within a day of the statement, the U.S. House of Representatives voted once again to deny funds to the National Telecommunications and Information Administration (NTIA) to perform the transfer.

### [Europe Docks Plan for U.S. to Loosen Control of Internet](#)

11 Jun 2014 - [Ward Stone, Analyst](#)

European governments Friday endorsed a plan for the U.S. to step back from governing the Internet, part of an effort by the group that administers Web addresses to win more independence. The U.S. government last year said it plans to give up the job it has held since 1997 governing the Internet Corporation for Assigned Names and Numbers, or ICANN, which hands out Web addresses. The European Council, representing 28 governments, Friday backed that notion, as long as Internet governance is kept free of "capture by narrow commercial or government interests." The European endorsement was part of an effort by ICANN Chief Executive Paul Chiou to arrange support from world governments to let ICANN manage itself. ICANN is governed by a complex structure of governments, business interests and user-independent consumers. In an interview, Chiou said China and Brazil had backed the idea. Chiou, who recently announced plans to step down in March 2016, said France is willing to see if the U.S. will follow through with its pledge.

### [Don't Go Soft on the ICANN Handoff \(Op-Ed\)](#)

11 Jun 2014 - [U.S. News](#)

Paul Hoff writes, "If, as ICANN says reported Thursday, GOP congressional leaders are suddenly going soft on the issue of the Obama administration's intention to hand off the Internet Assigned Numbers Authority to the Internet Corporation for Assigned Names and Numbers, then someone has gone soft in the head. The pending transfer, something the administration last year said it would like to see concluded by the end of the year, involves not just the critical operations of the Internet's technical infrastructure but the values that govern its operations down to the level of the individual user. There is too much at stake to rush the transfer through. For some time now, the plan has been to turn the responsibility for the Internet over to the world. American ingenuity developed it, American capital resources built it up and out, and American generosity made it possible for every country on Earth to take part in the revolution it spawned, even those countries that have weak governments, poor education and underdeveloped infrastructure. This, the land of the free and the home of the brave."

### [Electronic Frontier Foundation Tells ICANN Not To Extend DNS To Israel](#)

11 Jun 2014 - [The Domain](#)

The Electronic Frontier Foundation (EFF) has filed a comment with ICANN opposing the Extension of Uniform Rapid Suspension (URS) to Israel. The Electronic Frontier Foundation is the leading nonprofit organization defending civil liberties in the digital world. Founded in 1996, EFF champions user privacy, free expression, and innovation through Internet litigation, policy analysis, grassroots activism, and technology development. We work to ensure that rights and freedoms are enhanced and protected as our use of technology grows. We write to provide our comments on the proposed agreement for renewal of the 2005 Registry Agreement for .Israel, which contains significant revisions to the original terms. Most notable amongst these is a new requirement for a Uniform Rapid Suspension (URS) process, originally developed for the new gTLD program, that would abrogate the suspension of domain names that a third party alleges violates its rights.

### [Monsters of the web's own domain names, Rightside builds a marketplace for web addresses](#)

11 Jun 2014 - [Special Business Journal](#)

Newspapers of general top-level domain? You're not alone. Michigan-based Rightside has pressed down millions of dollars to build a portfolio of so-called gTLDs. Now comes the hard part: selling them. He says the internet is becoming overcrowded, and Rightside is in the business of selling unpaired digital real estate. And he just happens to own some of the best search-engine property around. Top-level domains are alternatives to the traditional ones like .com, .org or .gov. The Internet Corporation for Assigned Names and Numbers, or ICANN, kicked off a bidding frenzy in 2011 when it opened a window to let registry companies such as Rightside create their own new endings.

## THE HILL'S WEEK-AHEAD

10 Jun 2015 - Politics

One markup to watch for in the House this week: The full Energy and Commerce Committee on Wednesday will vote on the bipartisan COTCOM fix, advanced last week by the committee's interim panel (My Republic just/MyCJ4). And some hearings of interest: The CAC Internet subcommittee on Tuesday will discuss Proffitt, the House Oversight Committee on Tuesday will dig into the OPM data breach, and on Wednesday the same committee will talk about Shriver and the future of commerce.

### Google testing the waters in Cuba

10 Jun 2015 - Politics

A Google executive is headed to Cuba this weekend to explore bringing better internet access to the island, and the search giant has made a related proposal to the Cuban government, according to a State Department official. It's the latest sign that U.S. tech companies are testing the waters of Cuba's internet in opening up to outside investment after President Barack Obama's announcement of a historic thaw in relations and the Raúl Castro-led government's recent pledge to bring internet access to all Cubans by 2018. The Google executive, Scott Proffitt, is a New York-based member of the company's Google Ideas panel aimed at helping to solve the world's biggest tech problems. He's taking part in a five-day trip to Havana with about a dozen other U.S. business representatives and "will focus on helping the Cuban government think through their publicly stated goal of improving internet access," a company spokesperson said.

### Saving Internet Freedom

10 Jun 2015 - The Federal Post

...propose U.S. withdrawal from its long-standing oversight role in Internet governance (such as the assignment of email addresses and website names).

### Law and Disorder: When Brand Meets Crime

10 Jun 2015 - District

...enforce. The article discusses that ambiguity and several considerations that ICANN may weigh in considering how to interpret and enforce the agreement.

### ICANN Refuses to Play Privacy Police

10 Jun 2015 - TelecomPost

ICANN Refuses to Play Privacy Police as recent months copyright lobby groups have pressured the domain name system oversight body ICANN to take...

## Privacy

### OSAMA ANNOUNCES 'SPRINT' TO BETTER SECURE FEDERAL NETWORKS

10 Jun 2015 - TN Daily

In the wake of the breach of U.S. Office of Personnel Management networks that exposed personal information on millions of current and former federal employees, President Obama today announced a "30-Day Cybersecurity Sprint" under which U.S. Chief Information Officer Tony Scott has instructed federal agencies to take several immediate steps to protect federal information and assets and improve the resilience of federal networks. The White House detailed the steps in a fact sheet released late this afternoon, in which it recounted the initiatives the Obama administration has taken to improve cybersecurity, including the naming of the first Cybersecurity Coordinator in 2009 and a comprehensive Cybersecurity Policy Review, as well as several subsequent steps designed to better secure networks. "And we have seen significant progress," the administration said in the document today. "Federal departments and agencies have implemented capabilities to better manage cyber vulnerabilities when they arise, and agencies are instituting new methods of conducting business like requiring employees to log on to networks using protected credentials, instead of other less secure means of identification and authentication."

### Second Hack of Government Data May Have Compromised Security Clearance Information

10 Jun 2015 - National Journal

A second breach of the Office of Personnel Management by hackers believed to be associated with China exposed sensitive security clearance information of intelligence and military personnel, officials confirmed Friday, potentially creating an intelligence disaster for U.S. spies stationed abroad. "During the investigation into the cyber intrusion of OPM that compromised personnel records of current and former Federal employees announced last week, OPM along with its intelligence partners became aware of the possibility of a separate intrusion affecting a different set of OPM systems and data," a senior administration official said in a statement. Officials investigating the OPM hack that was announced last week discovered the second breach on Monday, the official said. "On June 5, as the investigation proceeded, the incident response team shared with relevant agencies that there was a high degree of confidence that OPM systems containing information related to the background investigations of current, former, and prospective Federal government employees, and those for whom a federal background investigation was conducted, may have been affected," the official said. "Since the investigation is ongoing, we are in the process of assessing the scope of the information that has been compromised, but we expect OPM will conduct additional verifications as necessary."

### After OPM Debacle, Three-Step Biometric ID Checks Are Coming

10 Jun 2015 - National Journal

Expect computers to require that federal personnel use a smartphone, a password and their fingerprints before logging on, as a way to shore up defenses in the wake of a massive government cyber assault, a top official from the Department of Homeland Security said this week. So-called three-factor authentication goes one step further than today's governmentwide sign-on routine, which involves only a badge and PIN, if that. Most agencies, including the recently hacked Office of Personnel Management, only require a PIN. Foreign spies, who allegedly extracted details on millions of current and former federal employees from OPM's network, might change that. "Several organizations are looking at three-factor authentication," said Dennis Lynn, acting director of the DHS Office of Biometric Identity Management. Lynn, who was speaking at an industry event on Thursday, did not name the agencies. "I think that's the way things are going to have to go."

### WHITE HOUSE UNVEILS 'CYBERSECURITY SPRINT' AND REPORTS OF EXPANDED HACK

10 Jun 2015 - Politics

The White House this morning announced a new federal cybersecurity initiative in an attempt to get ahead of reports that even more federal workers and the national intelligence workforce had massive amounts of information compromised by Chinese hackers. The White House fact sheet is just minutes north of what the administration has done on cybersecurity over the last term, but adds that U.S. CIO Tony Scott recently instructed federal agencies to launch a "30-day Cybersecurity Sprint."

### CONSUMER GROUP PUSHES FCC ON 'DO NOT TRACK'

10 Jun 2015 - Politics

Push of the implementation of the FCC's net neutrality order, Consumer Watchdog wants the agency to give a regulatory nod to the long-delayed Do Not Track effort. The group will submit comments today outlining a way to craft rules that require "edge providers" — pretty much any online service, including Google and Facebook — to honor users' requests not to collect their personal information as they browse the Internet. The FCC has said privacy concerns could stand in the way of expanding broadband adoption, and Consumer Watchdog argues the agency has the regulatory authority to take "immediate action" to address hurdles to broadband deployment around the country.

## Public Safety

### Week ahead, FCC looks to expand 'Obama phone' program

10 Jun 2015 - The Hill

... House Energy and Commerce Committee will hold a hearing about President Barack Obama's proposed and recent communications reform for 911 responders.

## Spectrum

### Wireless Remains To Find Spectrum As Wireless Industry, CTR Says

10 Jun 2015 - Green Daily

Much more work remains to find the spectrum the wireless industry needs to meet growing demand, said Mark Rosengren, CTR director-regulatory affairs. Friday is a big post-CTR...

is encouraged by the success of the Broadband Opportunity Council, which looks at federal efforts to speed deployment of broadband. Thomason said. "Federal agencies can -- among other things -- work to improve their spectrum usage in order to free up additional capacity for providing wireless broadband service, coordinate multi-agency activities and improve cross-agency processes, remove barriers to broadband deployment on federal and tribal lands, and encourage growth of federal models wireless platforms, mobile health applications and mobile learning applications." she said.

### **Google, Facebook Support Calls That NRC Look at Spectrum Needs of Drones**

11 Jun 2013 - [Comm Daily](#)

Google supports a proposal that the U.S. delegation endorse an agenda item looking at spectrum for unmanned aerial systems at the World Radiocommunication Conference in 2015, the company said in comments to the FCC. Facebook offered similar comments. One task of NRC-15, which starts Nov. 2 in Geneva, is to decide on whether there will be an agenda item on drones at the next NRC meeting (see 100200002). The FCC NRC Advisory Committee (NAC) submitted two alternative proposals on the topic. Comments were posted in [docket 04-286](#). Google said it supports Item A, the one promoted by Klaus Lorenz and Haris Wilshire, in favor of a U.S. position seeking an examination of expanding the frequencies that could be used for drones. "Item A is preferable to Item B because it provides a wider range of specific bands to study for a new generation of lightweight aircraft to deliver broadband, thereby providing stakeholders greater flexibility to respond to emerging technological developments," the high-tech company said.

### **PARTIES REITERATE ARGUMENTS CONCERNING NRC-15 AGENDA ITEMS**

11 Jun 2013 - [TR Daily](#)

Terrestrial wireless and satellite industry entities and others have reiterated their positions about controversial agenda items scheduled for the 2015 World Radiocommunication Conference (WRC-15) including those identifying spectrum for mobile broadband services and high altitude platform stations (HAPS). Comments were filed by industry's deadline of 8 o'clock PM EST in response to recommendations approved last month by the FCC's Advisory Committee for the WRC-15 (TRDaily, May 20). Agenda item 1.1 for the WRC-15, which deals with identifying spectrum for mobile services on a primary basis and additional bands for advanced terrestrial MF services, split an informal working group of the advisory committee. Informal working group 5, which deals with terrestrial services, was not able to reach a consensus on two documents concerning consideration of bands for additional wireless broadband services.

### **Court clears way for next year's FCC spectrum auction**

11 Jun 2013 - [TR Daily](#)

The U.S. Court of Appeals for the D.C. Circuit on Friday rejected a lawsuit from broadcasters that challenged some of the procedures of the Federal Communications Commission's (FCC) upcoming spectrum auction. The decision removes one roadblock that will allow the agency to move ahead early next year with the auction, which is meant to free up more spectrum to help satisfy the increasing demand from mobile phones. Initially scheduled for mid-2011, the auction was delayed because of the court challenge. A three judge panel on the court rejected arguments from the National Association of Broadcasters (NAB) that some of the FCC's decisions on the auction are arbitrary and capricious and conflict with the Spectrum Act, which was passed in 2012 to set up the first of the kind auction. "The decision provides the commission and all stakeholders with the certainty necessary to proceed speedily toward a successful auction in the first quarter of next year," FCC Chairman Tom Wheeler said.

## **Telecommunications**

### **Widespread net neutrality, whatever that means**

11 Jun 2013 - [TR Daily](#)

The United States has entered a new era of net neutrality on the Internet -- for now, at least -- and that after previous regulations were struck down -- and in the midst of a new legal battle -- the Federal Communications Commission's strongest Internet rules ever went for Friday. What that means depends on who you ask. Proponents say they will create clear standards to ensure Internet service providers like Comcast or AT&T allow equal access to all Internet traffic. But critics claim the rules could harm Internet deployment and give unprecedented -- and unclear -- authority to the government. "Starting Friday, there will be a reference on the Web to keep the Internet fast, fair, and open," FCC Chairman Tom Wheeler tweeted. "Working, thinking, say for clearly laid lanes and other efforts to bring between consumers and the Internet are new things of the past."

### **Record Shows New Neutrality Rules Not Slowing Economy, Wheeler Tells CAC**

11 Jun 2013 - [Comm Daily](#)

Friday was a "red letter day" for consumers, innovators and those who build networks, FCC Chairman Tom Wheeler told the Consumer Advisory Committee Friday, an February net neutrality rules formally took effect (see 100110046). Wheeler said, "There have never been rules like this before and the future going forward is uncertain." The CAC received a briefing on the role it will play in helping shape how the rules are enforced. When the U.S. Court of Appeals for the D.C. Circuit Thursday (see 100110046) turned down a stay request by a "coalition of ISPs," it was "an historic moment for consumers and for innovation," Wheeler said. CAC will play an important role, he said. The FCC will be a "referee on the field who can make a call and throw the flag as necessary to address conduct that no one has anticipated," Wheeler said. "Things just got a lot clearer." The FCC's position is clear, Wheeler said. "They're headed, hopefully you're rules before in the Commission, not at the FCC." The three light blue rules -- no blocking, no throttling, no paid prioritization -- are all critical, he said. "Top-down management of networks by the agency cannot continue to exist because of the very nature of the fast changing technology." The rules are written in a way that ensures that old style regulation won't return, Wheeler said. "There won't be rate-of-regulation," he said. "There won't be uncertainty. We're not going to require drafts of accounts and accounting rules."

### **WHEELER SEEKS CAC'S HELP IN IMPLEMENTING HISTORIC OPEN INTERNET ORDER**

11 Jun 2013 - [TR Daily](#)

FCC Chairman Tom Wheeler today told the Commission's newly formed Consumer Advisory Committee that the agency will need its help in implementing the processes outlined in its Open Internet order, which he said amounts there is now a "referee on the field" to help consumers, innovators, and network operators alike. Speaking at the first meeting of the newly rechartered CAC this morning, Chairman Wheeler noted that the FCC gave the CAC an assignment in its Open Internet order, directing it to discuss and submit to the FCC a proposal aimed at helping consumers make decisions to consumers on network providers. CAC's input is due to the FCC by Oct. 31. Chairman Wheeler noted that today is the "first day that the open Internet rules go in effect. There have never been rules like this before and the future going forward is uncertain. So it's a red letter day for consumers, for innovation, and for those that build and operate networks." When the U.S. Court of Appeals for the District of Columbia Circuit yesterday declined to stay the effectiveness of the order (TRDaily, June 11), it was "an historic moment for consumers and for innovation because now there is a referee on the field, and we need your help to make that process roll and get up working."

### **D.C. CIRCUIT UPHOLDS FCC'S INCENTIVE AUCTION RULES**

11 Jun 2013 - [TR Daily](#)

The U.S. Court of Appeals for the District of Columbia Circuit today backed the FCC's major victory by upholding the incentive auction order it adopted last year (TRDaily, May 15, 2013), as well as a secondary ruling concerning the agency's channel reassignment approach (TRDaily, Sept. 30, 2014). The legal challenges filed by the National Association of Broadcasters and Sinclair Broadcast Group, Inc., had threatened to force the FCC to push back the start of the auction, which is scheduled to commence in the first quarter of 2016. The six-judge panel said the court agrees with the Commission's balanced, market-based approach to freeing up more valuable spectrum for incentive services broadband services. "FCC Chairman Tom Wheeler said in a statement. "This decision provides the Commission and all stakeholders with the certainty necessary to proceed speedily toward a successful auction in the first quarter of next year. However, the FCC could still face other legal challenges to orders related to the auction. For example, the patent TV interests have said they plan to go to court over what they see as unfair treatment of LPTV stations as the FCC plans for the incentive auction (TRDaily, May 27). Some observers have also speculated that Verizon Wireless or AT&T, Inc., may file a challenge if the FCC reuses the spectrum reserve, while some say broadcasters could appeal any order reserving at least one channel in each market for unlicensed devices."

### **New Internet Regulations Take Effect, and Web Users See No Change**

11 Jun 2013 - [New York Times](#)

Open Internet activities started down to the Friday. After years of advocacy and months of legal procedure, the federal government's rules for strictly regulating the web took effect. The demarcation of the Internet became enforceable, with the government ready to protect the principles of net neutrality and Internet service providers required to treat every site at the same speed. But for all the buildup, the dawn of the new rules was unremarkable. For the average user, many of video interruptions and "buffering screen" pop-up messages, nothing changed. "The big news today is that there is no news," said Timothy Barr, senior director of strategy for Free Press, an activist group that worked again outside of the Federal Communications Commission for the last year in support of net neutrality and the new regulations. "With net neutrality protections in place, there are no dramatic changes to the way the Internet works. Internet users are logging onto a network that's open, as they've long expected it to be."

### **FCC has selected two thirds of eligible TV stations on 2016 auction, FCC official**

11 Jun 2013 - [Network World](#)

**FCC Lifeline program has a problem**

17 Jun 2015 - Fox News

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# National Telecommunications & Information Administration

United States Department of Commerce

INTERNET

PRIVACY

TELECOMMUNICATIONS

## Internet

### [Thousands of Weather Satellites Drop What Do They Do For Years](#)

29 Aug 2014 - [Natlgeopolitics](#)

The Commerce Department inspector general is leading a federal climate satellite program and its supporting contractors. Playback, by ignoring tens of thousands of major cyber vulnerabilities. The weaknesses identified in a new IG report could impact operations controlling the Joint Polar Satellite System, the nation's next-generation fleet of polar-orbiting environmental satellites. The ground system routes information for the National Oceanic and Atmospheric Administration and the Pentagon, as well as other U.S. and foreign government agencies. NOAA, part of Commerce, manages the information technology system.

### [NE Founded INITIATIVE TO CONTINUE WORK ON INTERNET GOVERNANCE](#)

29 Aug 2014 - [ITW Daily](#)

The World Economic Forum, an international not-for-profit institution based in Geneva, Switzerland, today announced the launch of an initiative to apply the principles of the NE Foundational conference in Zurich in April. The NE Foundational initiative on Internet governance preparation is intended to provide an international multistakeholder platform "to sustain and strengthen an effective and distributed approach to Internet governance." Specifically, the initiative will work to identify and address "a set of emerging non-technical policy challenges" to undertake "various development initiatives to ensure global participation in Internet governance, especially from underrepresented regions and nations" and to promote "efforts to facilitate progress through Internet Governance Forum (IGF) processes, as well as coordination with existing Internet governance bodies." U.S. Commerce Secretary Penny Pritzker said, "I want to thank the World Economic Forum for taking on the important task of facilitating discussions for the global Internet community on how to apply the foundational principles in practice. I hope the framework for these discussions is open and transparent and allows for the participation of all interested parties. These discussions also should consider how to build bridges between the NE Foundational initiative and existing governance institutions and processes, including the Internet Governance Forum, taking care to complement and bolster them through its work. The U.S. Department of Commerce looks forward to working with all the stakeholders on the important effort."

### [NE Foundational Initiative to Identify, Offer Advice on New Internet Governance Questions](#)

29 Aug 2014 - [Washington Internet Daily](#)

A newly formed NE Foundational initiative will work to identify and offer advice for Internet governance problems that lack formal institutions to address those issues, said initiative members at a news conference Thursday (8/28/14) in DC. The World Economic Forum (WEF), ICANN government officials, civil society groups and industry groups met Thursday in Geneva to build on the multistakeholder and Internet governance principles announced at the April NE Foundational conference in Zurich (NEF April 25/26 April 27/28 April 29/30 April 30/31 April 29/30). The WEF has taken on the "important task of facilitating discussions for the global Internet community on how to apply the foundational principles in practice," said Commerce Secretary Penny Pritzker in a statement Thursday (8/28/14) [\(http://www.commerce.gov\)](#). The discussions should "build bridges" between the initiative and "existing governance institutions and processes," including the IGF, "taking care to complement and bolster them through its work," she said.

### [WHITE HOUSE ANNOUNCES APPOINTMENT NOMINEE](#)

29 Aug 2014 - [ITW Daily](#)

President Obama announced his intention to nominate Doreen Mark as the White House's intellectual property enforcement coordinator. He is managing partner of Klipshitz Treatment & Studios's Washington office. "We are pleased that the President has appointed Doreen Mark as the next U.S. Intellectual Property Enforcement Coordinator and urge Congress to more quickly to confirm his nomination to this important position," commented Kim Flamm, general counsel at BCCGOnline.

### [New domain comes with a price](#)

29 Aug 2014 - [The Washington Times](#)

... Justice, the National Association of Realtors announced last week. The Internet Corporation for Assigned Names and Numbers just gave the IANs the go.

### [WEL unveils 'accelerating' push on how to run the Web](#)

29 Aug 2014 - [Yahoo News](#)

... WorldE to help prepare the main issues and problems surrounding Internet governance globally and to begin creating a bank of expertise that.

### [ICANN Community Issues Unprecedented Letter Questioning ICANN's Proposed Accountability Process](#)

29 Aug 2014 - [ICANN](#)

ICANN Community Issues Unprecedented Letter Questioning ICANN's Proposed Accountability Process is another unprecedented development for the entire.

## Privacy

### [Google gets into game of drones](#)

29 Aug 2014 - [Proton](#)

Google (ny ny) embarked on the road to self-driving cars — and now the company is turning its attention to the skies with drones. The big search (Google) research lab announced Thursday it is investing in and testing unmanned aerial vehicles — an endeavor called Project Wing — that someday might deliver packages to consumers. The giant tech Google is a growing cast of companies like Amazon and Facebook, which increasingly are sponsoring their own research — or trying to buy their way — into the emerging drone market. For the moment, Google only is experimenting with its prototype craft in Australia, not the United States. It has hired Drew Via, a well-known aerial technology expert, to lead its drone team. And it's only the beginning of the journey. Google now must navigate a host of technology challenges in the air — and a thicket of regulatory hurdles in Washington — if it really wants to take drones to take flight worldwide.

### [Google Joins Amazon in Dreams of Drone Delivery](#)

29 Aug 2014 - [New York Times](#)

Amazon, it seems, is not the only big technology company dreaming of a drone delivery service. After two years of stealth research, Google on Thursday filed the suit on an experimental program to deliver goods with tiny unmanned, or "drone," aircraft that are a cross between a plane and a helicopter, according to Google. The project was detailed in a lengthy 14-page story. If the idea sounds familiar, that's because online retailer Amazon announced an experimental program last year that would also deliver goods through the air.

### [Ireland Fined to Pick Privacy Regulator With Global Reach](#)

29 Aug 2014 - [New York Times](#)

In the coming weeks, an Irish government committee is set to pick the country's new data privacy regulator, a relatively obscure position but one with global reach. The five-person panel of judges and privacy experts will choose a data protection commissioner, who will have a large say in how Internet giants including Facebook and Apple use online information from roughly a billion users. That is because the regulator has the power to police any company based in Ireland, and over the past few decades many of the world's largest

technology companies have moved their international headquarters there, in large part because of the country's low corporate tax rates.

### Why Some Privacy Apps Get Dropped From the Android Play Store

23 Aug 2014 - [Wired](#) (David S. Reardon)

Google Tuesday removed a smartphone app called "Disconnect Mobile" from its Android Play store because it violated a policy prohibiting software that interferes with other apps. Interference was precisely the point of Disconnect Mobile, a privacy tool aimed at stopping other apps from collecting data on users. In the six days it was available in Google's store, it was downloaded more than 1,000 times. Disconnect, a San Francisco startup that spent a year and \$200,000 to develop the app, says it was careful to build its product according to Google's rules, but that the policies are so vague that Google could, at whimsy, ban any app in its store. "It's like a Kafka novel... you're getting kicked out or arrested for reasons you don't even know," says Casey Capersmith, Disconnect's co-founder. Google has banned similar ad-blocking apps before because they, too, could interfere with other apps. "When we were kicked out, actually every other advertiser was kicked out as well," said Sam Williams, a spokesman for Cyma, maker of AdBlock Plus, which was removed from the Play store in March 2013.

### Apple tightens privacy rules for health apps

23 Aug 2014 - [Financial Times](#)

Apple is tightening up its privacy rules to ensure a new generation of health and fitness apps are not thwarted by growing concerns over how developers use personal data. The rules will stop personal data collected through Apple's new HealthKit platform being used to target adverts for products such as weight loss remedies.

## Telecommunications

### 5 GHz DMM SHARING REGIME MUST BE TESTED BEFORE IMPLEMENTED, ITS AMERICA, ITI SAYS

23 Aug 2014 - [ITU Daily](#)

Any framework to share spectrum in the 5GHz ISM frequency band between connected vehicle applications and enhanced services must be tested first to ensure that no lives are compromised or endangered, the heads of the Intelligent Transportation Society of America (ITS America) and the Information Technology Industry Council (ITI) agreed today. "We agree with sharing of this spectrum, but we're absolutely committed to making sure that before a decision is made, we know that that sharing will not put lives at risk," ITS America President and Chief Executive Officer, Jack Salsinger said at a Washington event. "We are a little bit concerned that there is a lot of political pressure to move to a sharing solution before this happens, and we all need to be vigilant to make sure that that doesn't happen."

### FCC Asks D.C. Circuit to Expedite Incentive Auction Challenge Proceedings

23 Aug 2014 - [Crain's Daily](#)

The FCC wants D.C. Circuit to expedite incentive auction proceedings, the agency told the U.S. Court of Appeals for the D.C. Circuit Thursday. "It would be in the public interest" to resolve D.C.'s petition "as promptly as possible," said the commission. The NAB filed an emergency motion Wednesday (22 Aug 20 p/14) seeking a quick resolution. Though industry observers have said in days past the case is to be resolved through negotiations outside court (22 Aug 10 p/1), it's all in both the FCC's and NAB's interests to have the court proceeding go as quickly as possible, said Fletcher Head, broadcast attorney Frank Jaccoté in an interview. He represents NAB members, but is not involved in the challenge of the auction order.

23 Aug 2014 - [Crain's Daily](#)

The FCC seeks comment on draft recommendations approved by the advisory committee for the 2015 World Radiocommunication Conference. Comments are due Sept. 10, the commission said Thursday in a public notice (18p/14 p/1424). "It is necessary that all comments be received by that date to allow sufficient time to finalize the WRC position before commencement of regional WRC-11 preparatory meetings," it said. The commission seeks comment on the recommendations (18p/14 p/1424), and draft proposals from NTIA (18p/14 p/1424), it said.

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# National Telecommunications & Information Administration

United States Department of Commerce

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## Internet

### [ICE KICKS OUT IN INSTANT](#)

07 Sep 2014 - [Politics](#)

A host of Internet experts and industry and government officials are scheduled for work for a meeting of the Internet Governance Forum, where they'll discuss everything from the Snowden disclosures to net neutrality and, of course, the so-called U.S.-Iranian. The opening ceremony kicked off early this morning, but NTIA chief Larry Spivack took a few minutes yesterday to talk up the agency's conditional access efforts yesterday. (Watch here, at around 1:20:30 <http://bit.ly/1u305>.) The U.S. delegation is set to continue its ongoing discussions about Internet governance and more specifically the Obama administration's plans to transition oversight of the domain-name system, senior State Department officials said last week ahead of the meeting. They added that they're hoping the forum doesn't get postponed, and cautioned that the IGF "shouldn't be a place to make binding decisions. The agenda is long, and we'll have to see as it comes the week." <http://bit.ly/1u305>

### [Radical Shift of Power Proposed at ICANN Meeting Levels as Primary Decision Making Role](#)

02 Sep 2014 - [Cyber](#)

ICANN has proposed a major change to its bylaws that would require the organization to adopt all policy "advice" issued by the Governmental Advisory Committee (GAC) within 20 of ICANN's non-voting board members vote to approve the adoption of that governmental role. This discussion proposal to change ICANN's bylaws would fundamentally transform ICANN away from being a "bottom-up" and "private sector self" organization and into a governmental regulatory agency by changing the GAC's role from "advisory" into "primary decision maker" by essentially creating a "governmental veto" on all of its organizational decisions. This would mark a truly significant change in the normal power structure at ICANN that would dramatically empower national governments (some themselves, some authorized) over the management of critical Internet resources at the expense of those who participate in the bottom up policy development process.

02 Sep 2014 - [Washington Internet Daily](#)

ICANN assumed a new 20-minute session on its accountability process (ICANN Aug 27 21) at the Internet Governance Forum (IGF) Tuesday in Istanbul (<http://bit.ly/1u305>) (8-2 Aug 28 21), and an ICANN news release (Friday <http://bit.ly/1u305>). ICANN received a letter Aug. 28 from its major constituencies and stakeholder groups questioning its accountability process (released Aug. 14 <http://bit.ly/1u305>) (8-14 Aug 28 21). The ICANN community is "very passionate about every detail" of all ICANN processes, and it will plan to discuss the accountability process with constituent stakeholders at IGF, said Sarah James, ICANN's vice president. Major stakeholder engagement, in an intensive last week.

02 Sep 2014 - [Cyber Daily](#)

A model spectrum city, as envisioned by the Obama administration, could prove "quite useful as a test to facilitate experimentation and validation of proposed concepts that could lead to improved spectrum sharing methods and techniques," Nokia Solutions and Networks (NS) said in comments (<http://bit.ly/1u305>) filed at the FCC, posted Friday in docket 14-28. In July, NTIA and the FCC sought comment on a public-private partnership to create a spectrum test city (CC July 14 21), a recommendation of the President's Council of Advisors on Science and Technology in its July 2013 spectrum sharing report. The city could be used to advance the understanding of the propagation among the different systems being to share the same spectrum, Nokia said. The irregular Terrain Model (TM) is the one generally used by government agencies, but "there is limited empirical data to validate the parameterization of the TM models," Nokia said.

02 Sep 2014 - [Cyber Daily](#)

A model spectrum city, as envisioned by the Obama administration, could prove "quite useful as a test to facilitate experimentation and validation of proposed concepts that could lead to improved spectrum sharing methods and techniques," Nokia Solutions and Networks (NS) said in comments (<http://bit.ly/1u305>) filed at the FCC, posted Friday in docket 14-28. In July, NTIA and the FCC sought comment on a public-private partnership to create a spectrum test city (CC July 14 21), a recommendation of the President's Council of Advisors on Science and Technology in its July 2013 spectrum sharing report. The city could be used to advance the understanding of the propagation among the different systems being to share the same spectrum, Nokia said. The irregular Terrain Model (TM) is the one generally used by government agencies, but "there is limited empirical data to validate the parameterization of the TM models," Nokia said.

02 Sep 2014 - [Cyber Daily](#)

The Electronic Frontier Foundation criticized the NETmundial initiative (CC Aug 28 21) for its lack of transparency and its association with the World Economic Forum. Jeremy Malinin, EFF senior global policy analyst, said in a blog post Thursday (<http://bit.ly/1u305>). The EFF was invited to participate in the initiative, he said. The initiative's participants and advisory committee members were "hand-picked by the organizers rather than being recruited by their own stakeholder groups (as, normally, the NETmundial Principles set out as a best practice)," he said. Malinin said civil society groups were accused of being "outspoken and either" for raising such concerns.

### [Inspired by His Father's Activism, Tim Wu Is Running for Lieutenant Governor as an Outsider](#)

02 Sep 2014 - [New York Times](#)

Nothing after his father died, Tim Wu remembers, an uncle barged into his house in Toronto and switched a folder of Chinese-language materials from a file cabinet because of them that the "secret police" would get them. Only when he learned to read Chinese, as an adult, did Wu learn that his father had been a prisoner in the classified Taiwan independence movement and had endured beatings, in the extent documents, to join the "Third Liberty" group and his father's government. "They were revolutionaries who basically said, 'Let's organize,'" Mr. Wu said. "Maybe I am inheriting from that tradition." For the last couple of months, Mr. Wu, a Columbia Law School professor, has waged a fundraising and establishment campaign for lieutenant governor in the Democratic primary, which is scheduled for Sept. 8, alongside his top of the ticket running mate, Zephyr Teachout.

### [Turkey sees no trial while Turkey hosts key UN Internet summit](#)

01 Sep 2014 - [Computer World](#)

... while in a highly hypothetical stance for the host of the Internet Governance Forum, the Turkish government a prosecution of Twitter critics.

### [Stress Test, Accountability Recommendation Request Filed with ICANN Board](#)

01 Sep 2014 - [CyberDaily](#)

Stress Test, Accountability Recommendation Request Filed with ICANN Board in a rapid follow-up to the unprecedented past letter sent on August...

## Privacy

### [Leak of mobile celebrity photos raises concerns about security of the cloud](#)

07 Sep 2014 - [Washington Post](#)

The leaking of hundreds of private and intimate photographs of Hollywood celebrities last year shook up the security of popular online storage sites Monday, as investigators pushed for explanations of the high-profile breach. Privacy experts joined Hollywood publicists in denouncing the leaks, which revealed that sites over the weekend with much images of more than a half dozen A-list actresses and performers, including Oscar winner Jennifer Lawrence, star of "The Hunger Games" and "Silver Linings Playbook." The breach — reported as one of the most wide-ranging involving celebrities — has sparked concerns about the security of photographs, videos and documents that millions of Americans store in popular Internet "cloud" accounts. Lawrence's photographs allegedly were obtained from a personal iCloud account, a service operated by Apple and often used to automatically store photos taken by a user's mobile phone.

#### Once No. 1 Concern, Swift Dismantled of Cookie Use

02 Sep 2014 - CyberDaily

Despite site predators and concerns, online advertisers are no longer worried about the imminent dismantling of cookie-based tracking, they said in interviews last week. In December, Interactive Advertising Bureau General Counsel Mike Jarvis told us a self-dismantling of the cookie — prompted by browser operators and the ongoing Do Not Track (DNT) discussions — was "the biggest issue facing the digital advertising space." "It was an all hands-on-deck, but now we're," Jarvis said last week. "Today?" "It's kind of a dull issue in the background," he said. "The fire has largely gone out, but there are some embers there." With no federal legislation passed, the diminished prominence of the 2012 Advertising Industry (AAI) White a sudden transition to target billing, mobile tracking and cross-device trackers will eventually usurp the desktop browser-based cookie, industry representatives said. "It's an evolution, not a revolution," Jarvis said.

#### Tech looks ahead to keep drones in the air

02 Sep 2014 - PTOInfo

Amazon, Facebook and Google have sky-high hopes for drones — but government regulations have grounded their plans in the United States and pushed some companies to fly their full overseas. Most federal rules still prohibit such goods, movie studios and other commercial operators from flying their unmanned aerial vehicles. Even before those rules can be lifted, experimenters must learn to win the Federal Aviation Administration's blessing. Those government hurdles have some drone advocates worried the United States might lose out on new investments and jobs. And the signs of overseas flight already are surfacing. Google on Thursday said it is testing its new drone effort in Australia, which is known for its relaxed rules. Meanwhile, commercial drone enthusiasts continue to pop up around the world, from Japan to India.

#### Drone Developers Consider Obstacles That Cannot Be Flown Around

02 Sep 2014 - New York Times

The tech industry's enthusiasm for building small delivery drones may be getting ahead of figuring out what to do with them. On Thursday, with much fanfare, Google revealed Project Wing, an experimental program out of the company's long-term projects division, called Google X. In a video, Google showed a flying aircraft — half-plane, half-helicopter — using a 200-foot battery line to drop dog treats to a farmer in Queensland, Australia. But for all the technological wonder of a potential delivery-by-drone service, plenty of issues will be tricky to solve. Drone technology has not been thoroughly tested in populated areas, and commercial use of drones is not allowed in the United States. Even if it were, it is not clear that companies could make a profit using advanced, helicopter-like vehicles to deliver dog food, backpacks or whatever else a modern family might want.

#### NATO Set to Battle Pledge on Joint Defense in Case of Major Cyberattack

02 Sep 2014 - New York Times

When President Obama meets with other NATO leaders later this week, they are expected to rally what seems, at first glance, a far-reaching change in the organization's notion of collective defense. For the first time, a cyberattack on any of the 28 NATO nations could be declared an attack on all of them, much like a ground invasion or an airborne landing. The most obvious target of the new policy is Russia, which was believed behind computer attacks that disrupted finance and telecommunications systems in Estonia in 2007 and Georgia in 2008, and is believed to have used them in the early days of the Ukraine crisis as well.

## Telecommunications

### FCC APPROVES FORMER DEFAULTER WINNER UNDER FONAR 3-BAY DECISION

02 Sep 2014 - TR Daily

The FCC today approved an order granting a limited waiver of its "former defaulter" rule under certain circumstances to spur participation in the upcoming 4G LTE advanced wireless services 2 auction. Several industry groups had urged the FCC to grant the waiver by this week, noting yesterday's opening of the 800 MHz spectrum for which form applications for the 4G LTE-LTE, which starts this 10. The waiver states Sept. 10. FCC Chairman Tom Wheeler had asked his colleagues to vote on the item, which was circulated late yesterday, to today. It 2017. Oracle Group, Inc., and Cottelco LLC had a petition for expedited rulemaking asking the FCC to amend the former defaulter rule, which requires applicants that have previously defaulted on a Commission license or loan to request or a new fee paid to a federal agency to submit an upfront payment that is 50% higher than would otherwise be required. The Commission never acted on the request.

### WIRE BROADCASTING AND THE PREEMPTION CONUNDRUM

02 Sep 2014 - PTOInfo

A whole host of legal questions weighed in to the FCC last week. Big questions on a municipal broadband petition from a pair of local, government-backed broadband networks in the South. They are asking the agency to challenge state laws restricting their expansion. US Telecom, for one, told the FCC that it should look to preempt local regulations blocking expansion before they take any of state laws prohibiting municipal broadband. Filed in the House Circuit, on the other hand, argued that sometimes the government has to step in. That sentiment is similar to the one Chairman Tom Wheeler has looked at in a number of recent speeches.

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# National Telecommunications & Information Administration

United States Department of Commerce

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## Internet

### [Clear ICANN Accountability Process Needed Before IANA Transition, Say IITA, ccNSO Council](#)

29 Sep 2014 - [Common Data](#)

ICANN groups reaffirmed the need to solidify the non-profit's accountability process before moving forward with the Internet Assigned Numbers Authority (IANA) transition. In public comments last week ([http://bit.ly/1v9f0Gw](#)), the Internet Committee of the International Trademark Association (ITA) criticized the ICANN community's lack of input in choosing experts and advisors for the nonprofit's accountability review ([http://bit.ly/1v9f0Gw](#)). The County Code Names Supporting Organization (ccNSO) Council doubted that ICANN's proposed "community working group" would serve the accountability process any better than the "non-community working group" ([http://bit.ly/1v9f0Gw](#)). Stakeholders have asked whether ICANN is intent on developing an accountability process that holds the non-profit accountable to itself or to the community it serves. (CC Aug 27 p8)

### [SIPULVEDA, 'SUCCESS' FOR PLEDGE WILL BE BRINGING IT BACK TOGETHER AFTER WCIE](#)

29 Sep 2014 - [ITN Daily](#)

The "measure of success" of the upcoming International Telecommunication Union Plenipotentiary Conference in Busan, South Korea, will be ensuring that the ITU has a plan for the next four years consistent with its mandate, and "at the end of the day, for Sushrutee Acharya will be measured as being the country that was able to bring the ITU back together" after the failure of the World Conference on International Telecommunications in 2012, according to Glenn Sepulveda, U.S. coordinator for communications and information policy at the State Department. Speaking at a meeting of the State Department's Advisory Committee on International Communications and Information Policy this afternoon, Mr. Sepulveda said that the State Department has found "extreme disappointment" by its former counterparts. Mr. Sepulveda also said that "to date," regional meetings to develop proposals for the program "have gone well" from the U.S. point of view, adding that the regional proposals developed by ITU's, the International Telecommunication Commission, "met all of our goals going in."

### [SIPULVEDA, U.S. 'CATEGORICALLY REJECTS' CHANGE IN ITS MANDATE REGARDING INTERNET GOVERNANCE](#)

29 Sep 2014 - [ITN Daily](#)

The U.S. government "categorically rejects" the idea that the mandate of the International Telecommunication Union should be changed to mean that would permit to give governments the sole authority over the Internet content, technologies or services. Glenn Sepulveda, U.S. coordinator for communications and information policy at the State Department, said in a blog and podcast. Writing at the next plenipotentiary meeting of the ITU approached, Mr. Sepulveda said, "Shifting the Internet to intergovernmental control—whether the ITU or otherwise—would produce from negative outcomes. First, as intergovernmental institutions get done in making decisions, the process would slow down. The Agency of the Internet. Second, the proposal does not necessarily include a technical-making the crucial views of civil society, academia, and industry—all essential stakeholders in Internet public policy making. And finally, intergovernmental control would necessarily encourage "government agencies to attempt to introduce censorship or content controls. Thus, intergovernmental control would radically undermine the effectiveness, freedom, and inclusion that the existing multistakeholder approach to Internet governance provides."

### [STROCKING WILL TALK INTERNET GOVERNANCE](#)

29 Sep 2014 - [ITN Daily](#)

NTIA administrator Lary Stroking will keynote a Media Institute launch today on ICANN and Internet governance issues. It's a good time for the chat, too — the transition plan for replacing NTIA's oversight of essential Web functions is due to take effect one year, as of this month. His remarks also come just a few weeks after he testified in front of the Internet Governance Forum, which convened interested parties on all manner of issues, from surveillance practices and net neutrality to ICANN oversight and accountability.

### [3 questions, answers on government effort to regulate the Internet: What is 'net neutrality'?](#)

29 Sep 2014 - [Fiber Business](#)

### [What to Do if Someone Uses Your Trademark](#)

29 Sep 2014 - [Yahoo Finance](#)

• [Cyberbullying, who can sue to file an expedited complaint with one of ICANN's approved dispute resolution providers. If you're not familiar with them,](#)

### [US moves to fight new effort for UN control of Internet](#)

29 Sep 2014 - [Yahoo News](#)

• [radically change the existing multi-stakeholder approach to Internet governance by centralizing control over the Internet under an intergovernmental](#)

### [Experts call for restrictions on use of new internet domain health](#)

29 Sep 2014 - [Common Data](#)

• [restrictions on use of new internet domain health by the Internet Corporation for Assigned Names and Numbers move forward with plans to launch](#)

## Privacy

### [Devices 'Stripped' Status as Batteries for Commercial Drivers, Group Warns](#)

29 Sep 2014 - [Common Data](#)

Notifying the Federal Nuclear Administration for an exemption may well not be the only challenge for companies or group seeking permission to operate commercial drones. A day after the FAA's chief announced a sweeping set of rules for agency "to open to receiving petitions from anyone" seeking an exemption like those granted Thursday to filmmakers to operate commercial unmanned aircraft systems (UAS) Sept 26 p8), an industry group representing major battery suppliers issued a stern advisory warning that "companies should be aware of the stringent transportation regulations applicable to the lithium ion batteries that power virtually every" commercial drone. "Major companies" like Amazon and Google, and several industries, "are desecrating ways to maximize the commercial utility of small unmanned aircraft," said PPSA. The Rechargeable Battery Association, Thursday in an advisory ([http://bit.ly/1v9f0Gw](#)) with the FAA requested to release a clarifying letter this year on commercial operations of small drones, which can batteries, the "largest" of virtually all commercial drones, "are already stringently regulated by the FAA as hazardous materials," and the PPSA, "failure to comply with these regulations can result in significant civil penalties levied against companies whose employees are found to be in violation of these regulations."

### [EUROPEAN DATA PROTECTION AUTHORITIES AIM TO PROMOTE DATA PROTECTION ENGINEERING](#)

29 Sep 2014 - [ITN Daily](#)

European data protection authorities and privacy experts met today in Berlin to discuss how to close the gap between technical solutions and privacy needs in the development of Internet structures, services, and apps. Today's workshop was the first gathering of the Internet Privacy Engineering Network (IPEN), which was created by the European Data Protection Supervisor (EDPS) in collaboration with national data protection authorities, academics, and engineers. EDPS Peter Huber said the event "marks a new phase in the dialogue of [data protection] authorities with system developers to start responding directly to the privacy engineering challenge." Peter Schwan, chairman of the European Academy for Information Freedom and Data Protection, said, "Cooperation of data protection experts and internet developers requires both communities to make efforts to understand each other. Bridging the communication gap is a learning challenge that ICAO can facilitate with our access to experts from all of the relevant fields."

## Governor vetoes bill that would have limited police use of drones

28 Sep 2014 - Los Angeles Times

Democratic Gov. Jerry Brown on Sunday vetoed a bill that would have required law enforcement agencies to obtain warrants to use drones for surveillance. Brown, in his only message, said that although there may be some circumstances when a warrant is appropriate, the bill went too far. The measure appeared to impose restrictions on law enforcement that go beyond federal and state constitutional protections against unreasonable search and seizures and the right to privacy, the governor stated.

26 Sep 2014 - Washington Internet Daily

The Department of Homeland Security gave the security document "TrustHood" (an impact report of 10 out of 10 [http://www.govinfo.gov/doi/pdf/10.1016/j.cse.2014.09.001]) to the U.S. Computer Emergency Response Team (US CERT) and the vulnerability researchers. The common command-line shell used in most Linux/UNIX operating systems and Apple's Mac OS X is a "Thursday zero [http://www.godpwn.com/]. The flaw could allow an attacker to remotely execute shell commands by attaching malicious code to environment variables used by the operating system," it is stated. Apple said, "The vast majority of OS X users are not affected. Only those who have configured their computers for advanced UNIX services are at risk. We strongly advise they are working to quickly provide a software update for our advanced UNIX users." The TrustHood security flaw was the last major open source software vulnerability to get similar widespread attention (9/11 report 11 p.10).

## With New Ad Platform, Facebook Opens Gates to Its Wealth of User Data

28 Sep 2014 - New York Times

Facebook last week ran the No. 3 digital advertising platform in the world by analyzing the vast amount of data it had on each of its 1.3 billion users to sell individually targeted ads on its social network. Now it is going to take those targeted ads to the rest of the internet, mounting its most direct challenge yet to Google, the leader in digital advertising with nearly one-third of the global market. On Monday, Facebook will roll out a robust ad platform, called Ads, that will allow marketers to tap its detailed knowledge of its users to direct ads to those people on thousands of other websites and mobile apps.

## Public Safety

### Denver area public safety realizes benefits of Adams County Band MLTE during local concert

26 Sep 2014 - Urgent Communications

Denver area public safety agencies utilized Adams County Band MLTE spectrum from FirstNet and deployable LTE communications to gain unprecedented access to network addresses during a recent concert by the band Phish, even when commercial carrier systems in the area were saturated by social-media traffic from attendees. Phish concluded the three-day concert on Aug. 28-31 at Dick's Sporting Goods Park—home of the Colorado Rapids MLS soccer team—in Commerce City, Colo., which is near Denver and part of Adams County.

### STORY CITES FIRSTNET CONSULTANT FEES

29 Sep 2014 - IT Daily

During the first eight months of the First Responder Network Authority's (FirstNet) existence, at least 30 technical consultants were retained under sole-source contracts without competitive bidding, with two of those consultants drawing fees of \$200 an hour and the average consultant fee totaling \$172 an hour, according to a story by the Washington Washington bureau that cited internal documents and other sources. The story noted that most of the consultants were affiliated with 4G Partners LLC Inc. It said that sole source contracts were actually awarded by Wireless Resources, Inc., a privately owned management consulting firm with no emergency communications background. The Commerce Department's Office of Inspector General is reviewing FirstNet contractual procurement practices in its early months following complaints last year by former board member Paul Fitzgerald. The chief of Adams County, says, "That many board members were kept in the dark about spending for consultants." (Daily, April 23, 2013). "Since its inception in 2012, FirstNet has been focused on its mission to give our nation's first responders the best technology available to improve communication and save lives," a FirstNet spokesman said today in response to a request for comment on the Washington story. "As today's emergency organizations, FirstNet leverages skilled consulting resources, and we do particularly so when FirstNet was formed and had no full-time staff. The Commerce Department Inspector General is auditing contracts from that early period. FirstNet and the Commerce Department remain committed to full compliance with all laws and regulations and ensuring the integrity of the federal procurement process." The spokesman added that FirstNet now has a staff of more than 60 people and has implemented internal processes and procedures, in coordination with the Department, with the continuing goal of ensuring the highest level of integrity and ongoing compliance with federal rules and regulations."

### FirstNet REPORTS PROLONGED CONSULTATION WITH MINNESOTA

29 Sep 2014 - IT Daily

Officials with the First Responder Network Authority (FirstNet) are pleased with the initial state consultation they conducted yesterday with the state of Minnesota. Dave Buchanan, FirstNet's director state consultation, said in a blog posting today. "During the meeting, Minnesota representatives discussed specific incidents and how public safety broadband capabilities could help beyond requests, including during the 2013 interstate 35W bridge collapse, a wildfire, and flooding of the Red River. The meeting was productive from a planning standpoint for the state, as well as for helping FirstNet prepare for future consultation meetings." Mr. Buchanan said. Minnesota is the second state where initial consultation has occurred. Next up are Oregon on Oct. 9 and Washington state on Oct. 16. The first meeting was held in Maryland in July 19th July, 2013. "One lesson learned from the Maryland meeting was the importance of having directly from local public safety officials," Mr. Buchanan said in a separate statement released this afternoon. "We thought the lesson learned to our planning with Minnesota, which resulted in multiple representatives from a diversity of agencies and public safety disciplines participating in the consultation."

### Thinking locally

27 Sep 2014 - Washington Arkansas Online

Thinking locally FirstNet funding, local TV talked in a world where anyone can call, text, or email anyone that, just about anywhere on the planet etc...

### Examining the Future for Technology and Policing

28 Sep 2014 - Government Technology

Operations 1. The National Public Safety Broadband Network, also known as FirstNet, the proposed network was signed into law in 2012 with the mission...

## Telecommunications

### Check Your Phone During Meetings? Your Boss is Probably Perurbed

26 Sep 2014 - Newsday

You are answering your boss and colleagues any time you take your phone out during meetings, says new research from University of Southern California's Marshall School of Business, and if you work with women and people over forty they're even more perturbed by it than men are. The researchers conducted a nationwide survey of 124 full-time working professionals earning above \$20,000 and working in companies with at least 50 employees.

### Oct. 11 FCC Agenda Includes LPTV, Interference, Small Cell Deployment Items

29 Sep 2014 - CommScoop

FCC Chairman Tom Wheeler said the FCC will take up orders of its Oct. 17 meeting on speeding deployment of distributed antenna systems (DAS) and small cells, an order on avoiding interference, and a public notice that would suspend low-power TV construction permit deadlines in the auction. The agency also will launch a rulemaking on LPTV spots related to the incentive auction and a notice of inquiry looking at new spectrum frontiers -- the use of spectrum above 24 GHz, the subject of a speech Monday by Commissioner Jessica Rosenworcel (CC Sept 23 p.4). The LPTV and auction items had been expected (CC Sept 9 p.6).

### ROSENWORCEL'S NET TO TALK FEDERAL SPECTRUM

28 Sep 2014 - PhishNet

Democratic FCC Commissioner Jessica Rosenworcel is joining the Defense Department's Robert Wheeler and OSTP's Deputy Chief Technology Officer Tom Thorne for a Middle Future Q&A on federal spectrum incentives this afternoon. Look for her to call for more incentives for sharing federal spectrum. As she did at a speech in Georgia last week, "Across the board, to 70 the spectrum policies we need to provide federal users with incentives for efficient use of their antennas," she said, adding that incentives could be straightforward payments, or offers of spectrum for sharing or leasing spectrum. (The speech is here: <http://bit.ly/1CzE03D>). Sunday's San Jose Mercury News also includes an op-ed from Rosenworcel and Marly Cooper on the same question, here: <http://bit.ly/1CzE03D>

### Phone Databases at Center of Debate

28 Sep 2014 - Wall Street Journal

Analysts can easily take their phone number along when switching carriers, but try to move the entire database of those numbers, and things can get complicated. Law-enforcement and national-security officials are closely watching the sale of the database, which lacks the user identity—about 660 million—of the U.S. cellphone and service phone numbers in use.

### With Perspective From Both Sides of His Desk, F.C.C. Chairman Fonders Net Neutrality

20 May 2014 | New York Times

As a lobbyist for the cable and wireless industries, Tom Wheeler played a role in shaping almost every major telecommunications policy and innovation over the last three decades. Cable and telephone deregulation, internet access in schools and libraries, C-SPAN. None of them, though, have generated as much public interest as net neutrality, the policy most likely to define his time as chairman of the Federal Communications Commission. In the last few months, Mr. Wheeler's guidelines for net neutrality, the concept that users should have equal access to any legal online content, have become a lightning rod for criticism. More than 2.7 million comments about the policy have flowed to the commission. Many of them argue that Mr. Wheeler's plan does not go far enough to protect an open internet.

Juliana Gruenewald  
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# National Telecommunications & Information Administration

United States Department of Commerce

INTERNET

PRIVACY

PUBLIC SAFETY

TELECOMMUNICATIONS

## Internet

### [DMCA Section 1201 Exemptions Should Extend Beyond Mobile Devices, Key Consumer Advocates](#)

25 Nov 2014 - Washington Internet Daily

Wireless associations and consumer advocates requested exemptions to allow for the circumvention of technological protection measures (TPMs) beyond mobile devices under Section 1201 of the Digital Millennium Copyright Act, in a plea for the Copyright Office's annual rulemaking process Monday. The debate over DMCA Section 1201 has pitted some tech industry officials, who argue that TPMs help boost profits, against those who believe that Section 1201 stifles consumer innovation (see 1409100021). The former group includes the Association for Competitive Technology and Entertainment Software Association; the latter, Public Knowledge and the Electronic Frontier Foundation (EFF). The plea, which wasn't available on the Copyright Office's website, was advanced to us. President Barack Obama signed the underlying Consumer Choice and Wireless Competition Act into law in August (see 1408000004). It lets consumers unlock their mobile devices if they choose to switch service providers. CTA said Monday it expects the Copyright Office to exempt software used to circumvent TPMs for mobile devices (see 1411000000).

22 Nov 2014 - Washington Internet Daily

"Community concerns" with ICANN prompted its board to change the location of ICANN 52 to Singapore, said an ICANN news release Monday. The meeting was originally scheduled to be in Montreal, Quebec, Feb. 8-11, it said. Some in the ICANN community felt the Montreal location would "prevent maximum participation" in the meeting, it said. The date wasn't changed. The board said it expects to hold its first ICANN meeting of 2015 in Istanbul.

### [ITU REGIONAL GROUP CLEARS INTERNET RESOLUTIONS, INDIA PROPOSAL DROPPED](#)

20 Nov 2014 - ITU Daily

A consensus study of Internet-related resolutions officially cleared the working group on agenda of the International Telecommunication Union's Plenipotentiary Conference in Busan, South Korea today without the inclusion of a controversial Internet security proposal authored by the government of India. The vote of resolutions was considered together at the request of the senior group on Internet resolutions chairman, Faleh Sag of Iraq, who called for a "very carefully negotiated and ultimately balanced package." Included in the package were four Internet resolutions, Res. 101 on Internet protocol-based networks, Res. 102 on ITU's role in international public policy issues pertaining to the Internet and management of Internet resources, including domain names, Res. 103 on the role of administrative of member states in the management of international domain names, and Res. 104 on facilitating the transition from IPv4 version 4 to IPv6.

### [Cisco Seen Rise in Data Center Traffic Through 2018](#)

25 Nov 2014 - Green Daily

Data center traffic likely will triple over the next five years, Cisco predicted in its Global Cloud Index. The cloud is expected to represent 75 percent of total data center traffic, it said Tuesday in a press release. In 2013, the cloud accounted for 34 percent of data center traffic, it said. By 2018, 53 percent of all residential Internet users globally will use personal cloud storage, it said. The average consumer cloud storage traffic per user will be 271 MB per month by 2018, compared to 100 megabytes per month in 2013, it said. Countries with the best fixed network performance this year include Japan, the Netherlands and Taiwan, it said. Countries with the best mobile network performance this year include China, Denmark and Uruguay.

### [ICANN's Updated Proposal for Enhanced Engagement in Africa](#)

20 Nov 2014 - DomainTribune.com

ICANN's Updated Proposal for Enhanced Engagement in Africa (RED HAT) OBJECTIVE: This website aims to cover ICANN's Africa Strategy framework...

### [Internet Governance After Busan: Playing the Long Game](#)

20 Nov 2014 - GreenDaily

Internet Governance After Busan: Playing the Long Game As you might imagine, I've been following the ITU's Plenipotentiary Conference very closely.

### [Shinkov continues push for DOTCOM Act](#)

20 Nov 2014 - The Register Australia

Continued Oversight Matters (DOTCOM) Act of 2014 during the most recent Congress. The bill would require a Government Accountability Office report to Congress before the U.S. relinquishes global internet-oversight responsibilities. It has been approved by the full Energy and Commerce Committee and passed the House as an amendment to the defense authorization bill. "The global internet has for nearly 25 years been a U.S. oversight assured, authoritative government-led construct over the Internet beyond our own borders," Shinkov told the House. "While the administration can guarantee that will remain the case under the oversight of international stakeholders, we should not surrender our oversight role."

### [Government concludes on 'submarine'](#)

22 Nov 2014 - Project Moses

... next effective way would also help correct coverage issues, he added. Mobile operators auctioned last year was well-suited to covering rural areas...

## Privacy

### [TERRY COULD BE OUT, AND THAT'LL DAMPEN WORK ON PATENTS AND DATA BREACH](#)

20 Nov 2014 - ProPublica

Rep. Lou Terry — who chairs an H.C. subcommittee on commerce, manufacturing and trade — was making Democratic floor control by a slim vote night, but all signs point to an eventual Terry resignation. (The Obama administration has more on that in their election briefing, here: [http://bit.ly/13uakur](#)) This could be a tough loss for many in tech who considered the House Republican to be a thoughtful ally on issues like patent reform and data breach notification, and quite a few lobbyists and trade groups will be very busy working to convince their legislators next year. "I would be very sad to lose him," Virginia O'Connell, vice president of congressional affairs at CSA, told IP in October. "He's really worked hard to understand the issues."

### [House Lawmakers Level Wares Pressure on Data Flow Protection in ITU](#)

20 Nov 2014 - Green Daily

House Ways and Means Committee members and other House members reached across the aisle to request that prominent U.S. Trade Representative Michael Froman to safeguard digital products and cross-border data flow in the Trans-Pacific Partnership and other trade agreements. The bipartisan group of 33 House members threatened to reject a TPP implementation bill that fails to meet a robust standard of digital protection. "We encourage you to exert efforts by other countries to include overly broad exceptions that would unnecessarily undermine these provisions and provide lower levels of protection for digital products and services than other areas of trade," said the letter, led by committee members Mike Kelly, R-Pa., and Ron Kind, D-Ore. "We encourage you to resist any delay in the implementation of digital resolution mechanisms." The list of letter authors has other similar letters from lawmakers in recent weeks (see 1410000000).

### [With Utah's Defeat, NSA Returns Loss an Ally on the Inside](#)

22 Nov 2014 - Washington Post

Sen. Colin Allred Sen. Mark Udall's defeat Tuesday night, the Senate will lose one of its most vocal, most active and most powerfully positioned advocates for dialing back the intelligence

community's surveillance powers. The Democrat has pushed aggressively to control the government's bulk collection of phone and digital data, as he did in an op-ed published with Sen. Ron Paul (R-La.) and Rep. Snyder (D-Ore.) in the Los Angeles Times in June. "It is time to end the dragnet ... and to affirm that we can keep our nation secure without trampling on and abridging Americans' constitutional rights."

#### **Drives set to take off in Europe before US ... as thanks to Amazon**

04 Nov 2014 - IT/OT

Light years in the world of drives make the industry in set to take off in Europe before it does in the US ... but Amazon and Google could be left grounded. At the 2014 Storage Technology Conference here on Tuesday, a panel headlined "State of Drives" discussed the future of spinning disks. The panel consisted of Christian Sato, co-founder and CEO of Skyatch, which uses aerial drones to gather data for mining, construction and other companies; Jonathan Owens, boss of iStorage, which develops software for drives; and Jay Byrnes, recently departed co-founder of a leading app maker.

## **Public Safety**

#### **LA FCC's helped by 700 MHz broadband order ... set to begin LTE network deployment next week**

04 Nov 2014 - Technology News

... LTE network on Band 14 700 MHz broadband spectrum that is being leased from T-Mobile. Walter said. By getting started soon, LA-FCC will be on...

## **Telecommunications**

#### **Walden expects GOP support to keep chairmanship**

03 Nov 2014 - Politics

Rep. Greg Walden said on Tuesday he expects House Republicans to back his re-election campaign for National Republican Congressional Committee chairman. The Oregon Republican was set to face possible challenges from Rep. Roger Williams, a Texas Republican, or Rep. Isaac Lohrback of Texas winning from early competitors that Walden didn't make the most of a favorable election climate to boost GOP seats in the House. But Republicans broadly had a better than expected turnout on Tuesday, winning a number of competitive House seats. Walden said during a press conference Tuesday evening that he is "pretty confident" he'll have the support of his conference.

#### **What the Election Results Mean for Federal Employees**

03 Nov 2014 - Governmental Executive

Republicans won control of the Senate Tuesday, with several senators historically friendly toward federal employees defeated. In Arkansas, Democratic incumbent Sen. Mark Pryor was defeated by Republican Rep. Tom Cotton. Pryor sits on the Senate Homeland Security and Governmental Affairs Committee, which has oversight over the federal workforce. He is one of the most conservative Democrats in the Senate, but still generally regarded his friendly votes. With Republicans in control, Sen. Mitch McConnell -- who was declared an early winner in his own re-election race Tuesday -- will become the chamber's leader. Asked how he would run the Senate, McConnell previously told Politico, "We're going to pass spending bills, and they're going to have a lot of restrictions on the activities of the bureaucracy."

#### **FCC's Spectrum Price List Has Many Licensees Doing The Math**

03 Nov 2014 - TV Technology

Broadcasters are looking at their balance sheets, now that the FCC has issued its "price list" for the "maximum" and "median" values to be paid for stations that relinquish their licenses in the incentive spectrum auction now scheduled to begin in 2015. In many cases, the proposed sums are substantially higher than expected, especially if signals cause interference problems in nearby larger markets. The commission's purchase proposals, issued as the federal government's new fiscal year began on Oct. 1, establish an offset of up to \$2M billion in broadbands, based on the recovery of 124 MHz of spectrum and AT&T's pledge to spend \$6 billion in the auction. It is an acquisition of Core TV is approved. It, as some observers expect, only two-thirds of that goal (about 80 MHz of spectrum) is relinquished. The pay-out would be about \$28 billion at top valuations. A portion of the relinquished spectrum will not be sold to wireless carriers (whose spectrum purchases will fund the FCC payments to stations); about 20 MHz will be retained for use as guard bands and buffers between broadcast and wireless services sharing the bands.

#### **WITHOUT PEYON, WHO WILL LEAD SENATE DEBTS ON TELECOM?**

03 Nov 2014 - Politics

Subcommittee Chairman Mark Pryor lost his Senate seat Tuesday night to Republican Rep. Tom Cotton in a rout -- leaving a gap in leadership on telecom and tech issues. The loss of Pryor, who led the Senate Commerce subcommittee on communications, comes as Senate Commerce Committee Chairman Jay Byrnes takes office and his likely successor, Sen. Bill Nelson, has not been officially sworn in on telecom issues. Industry observers will say they're keeping an eye on Sen. Claire McCaskill and Amy Klobuchar -- who debate in telecom issues as subcommittee chair. The Commerce subcommittee on consumer protection and the Judiciary subcommittee on antitrust, respectively -- as well as Senate Commerce members Ed Markey, who joined the panel chairmen from the House last year. Public Knowledge Service Vice President Harold Ford joined in Walden's track record on telecom issues, including his work on the 1996 Telecommunications Act, which could come in handy if a Republican majority votes to continue that law. According to F&T, Walden is "one of the most knowledgeable members of the committee" when it comes to telecom, and "can be a real draw on the committee, even in the minority," especially when working with other committee members like Sen. Richard Blumenthal and Cory Booker.

#### **Wheeler's Draft NISCM Sets Up 'Last Mile' Debate Between Incumbents, Competitive Carriers**

03 Nov 2014 - Comm Daily

The draft rulemaking notice FCC Chairman Tom Wheeler said Friday he's circulating (see 140340047) raises an issue competitive carriers have been pushing: that a key part of ensuring competition during the IP transition is to allow them to continue having last-mile access to customers when incumbents refuse TDM services. But the NISCM, and its tentative companion that incumbents should be required to offer an equivalent service, set up a debate, with Verizon and AT&T taking up the competitive market" is working as is.

#### **WHEELER: OPEN INTERNET RULES MUST BAIL 'SPECIAL DEALS'**

03 Nov 2014 - TN Daily

Rules the FCC adopts to its open internet proceeding "must not broadband networks from cutting special deals to prioritize some websites and applications' traffic over others to harm consumers, harm competition, and limit innovation on the internet," FCC Chairman Tom Wheeler said today in the text of comments he submitted to a gathering of the Mid-Atlantic Telecommunications Association. Mr. Wheeler, a former venture capitalist, noted that he has "repeatedly stated that all proposals, including different methods of applying Title I of the Communications Act, are on the table. Our Notice of Proposed Rulemaking was responsive to the alternatives on which I sought input. Included in that input are a series of proposals from a diverse set of groups that an Open Internet rule should use both Title I and Section 706 of the Communications Act to stop paid prioritization from harming an Open Internet through a "double-dipping" approach." Mr. Wheeler also noted that he wants his fellow Commissioners to vote at their Nov. 17th meeting on two items addressing the effect of the ban on networks and sub-networking functions to IP internet protocol technology.

#### **Ruizoka, Virginia, to Move Forward With Regional Broadband Network**

03 Nov 2014 - Comm Daily

State Telecom Subfund, Nov 2014(Red) Ruizoka, Virginia, plans to move ahead as a participant in a 40 mile broadband network after its City Council voted 6-0 Monday night to appropriate \$700,000 toward final engineering costs for the project. The Ruizoka Valley Broadband Authority-proposed (RVA) network also will connect nearby Salem. There are also proposals to extend the network into adjacent Ruizoka and Bristol counties.

#### **ERGEN WOULD CONTROL LightSquared UNDER PLAN**

03 Nov 2014 - TN Daily

Under a new plan for LightSquared, Inc., Dish Network Corp. Chairman Charles Ergen would get 90% of the equity in the company in addition to \$1 billion in junior debt, according to a "leak" first reported "upstream" on the plan as it was described in court proceedings. The written plan has not yet been filed with the court. The plan is the product of negotiations by U.S. Bankruptcy Judge Robert Drain, in a filing with the court, the judge said the only party that does not support the plan is Challenger Capital Partners, which had controlled LightSquared.

#### **AND WITH TILLY, WE GET ANOTHER ANTI-MIRE BROADCASTING VOICE IN THE SENATE**

03 Nov 2014 - Politics

These bills beat out Sen. Ray Mabus last night in a tight race, and while both policy won't a huge part of his campaign, he did tell the FCC back in September that he opposes payoffs by the agency to give-which state laws restricting the expansion of municipal broadband networks. FCC Chairman Tom Wheeler has made the issue a focus as he continues to work to increase competition in broadband.

Email: [jgruenwald@ntia.doc.gov](mailto:jgruenwald@ntia.doc.gov)

Elder, Jessica

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**From:** Small UAV Coalition <brian@smalluavcoalition.org@mail181.wdc02.mcdlv.net> on behalf of Small UAV Coalition <brian@smalluavcoalition.org>  
**Sent:** Friday, January 16, 2015 4:25 PM  
**To:** Morris, John  
**Subject:** OK GO Concert - Clarification & RSVP Reminder

Clarification & RSVP Reminder

[View this email in your browser](#)



## OK GO Concert

### RSVP Reminder & Clarification

The concert will be preceded by a presentation by the leading companies and associations in the UAV industry and the "Know Before you Fly" campaign along with a few songs by OK GO.

To clarify the invite, the OK GO concert is free to all attendees. Government employees are absolutely welcome, however, in order to comply with ethics rules we are required to charge \$25 for entrance **BY GOVERNMENT EMPLOYEES** to the concert portion of the event, which begins at 8:30.

Questions may be directed to Brian Holl:

[brian@smalluavcoalition.org](mailto:brian@smalluavcoalition.org)

RESERVE YOUR SPOT

Join Us As We Explore the Potential of Small UAVs  
And Promote the [Know Before You Fly](#) Campaign

January 21

7-8 pm

Technology Discussion with Industry Leaders  
And Special Performance by OK GO

8:30 pm

Concert by OK GO

Location

9:30 Club

815 V Street, NW

Washington, DC 20001



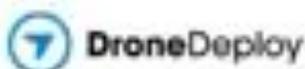
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The Academy of Model Aeronautics is a 501(c)(3) non-profit organization. We seek to comply with the Standing Rules of the U.S. House and Senate regarding charitable events. Please contact Roger Murry at (202) 416-5119 with any questions.

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**From:** John Verdi  
**To:** [Morris, John](#); [Jade Nester](#); [Cyril J. Dadd](#); [Gruenwald, Juliana](#); [Heather Phillips](#); [Remaley, Evelyn](#)  
**Subject:** picture, 1,000 words and Google UAS  
**Date:** Friday, August 29, 2014 11:02:03 AM

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<https://www.youtube.com/watch?v=cRTNvWcx9Oo&feature=youtu.be>

-John

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John Verdi  
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**From:** Heather Phillips  
**Sent:** Wednesday, May 06, 2015 10:58 AM  
**To:** John Verdi; John Morris; Evelyn Remaley  
**Cc:** Joelle Tessler  
**Subject:** Drones panel

The Society of Professional Journalists is doing a panel discussion for its member on the issue of drones in reporting and other uses and the privacy issues it raises. They are looking at doing an event June 17 or 18 and are wondering if we would be interested in participating. The audience will mostly be journalists, but also privacy experts and media lawyers. Other possible participants include CDT, the small UAV Coalition, and a first amendment lawyer. They are interested in hearing from us on the multistakeholder process. Thoughts? I don't see this as a must, but if you are interested, it could be a good way to just continue to educate about our process.

**Heather Phillips**

Director of Public Affairs

National Telecommunications and Information Administration (NTIA)

U.S. Department of Commerce

(202)482-0147

**From:** Heather Phillips  
**To:** [John Verdi](#); [Morris, John](#); [Kinney, Linda I.](#); [Remaley, Evelyn](#)  
**Cc:** [Gruenwald, Juliana](#)  
**Subject:** Washington Internet Daily/ comm Daily  
**Date:** Friday, June 19, 2015 7:44:02 AM

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## Many Watching NTIA Drone Multistakeholder Privacy Process

**SECTION:** TOP NEWS

**LENGTH:** 1155 words

Many eyes are on NTIA's multistakeholder proceeding on drones, since other agencies and Congress may not enact comprehensive privacy measures. At a Society of Professional Journalists D.C. chapter panel [Wednesday night](#), a privacy advocate, drone and media industry lawyers, and the NTIA official helping oversee the agency's nascent privacy discussion voiced some optimism that accord could be reached. Some pointed out that would be in contrast with the agency's multistakeholder dialogue on facial recognition privacy, from which privacy advocates withdrew Tuesday (see [1506160041](#)).

The Federal Aviation Administration has said it won't issue privacy rules and is focused on drone safety, and a rulemaking is expected to wrap up next year or in 2017, panelists noted. "The FAA has disclaimed responsibility for regulating privacy in this space," said NTIA Director-Privacy Initiatives John Verdi, who said all his remarks were only on his behalf. The FAA proposed in February to amend rules to allow operation of small unmanned aircraft systems (UAS) (see [1502160003](#)).

As "a safety agency, we do not have the expertise to regulate privacy, and we fully support the presidential memo assigning NTIA" to convene stakeholders to discuss privacy, an FAA spokesman said Thursday. "The FAA plans to finish its part of the rulemaking by the end of this calendar year," and it must go through its parent agency, the Department of Transportation, and the Office of Management and Budget, he said.

On Capitol Hill, there may be a "gap filler until the rule is handed down by the FAA," said Small UAV (unmanned aerial vehicle) Coalition Executive Director Michael Drobac. Verdi said "there is not a live bill in Congress right now that is going to get out of committee and that is going to go to the floor and pass the House that is going to regulate commercial operations from a privacy perspective." So NTIA is where substantial progress from a federal perspective on privacy may occur, if accord can be worked out between privacy advocates and industry, speakers said. Some like Center for Democracy and Technology Senior Counsel Harley Geiger said they hope the media industry will agree to a code of conduct to protect consumers' privacy. "You will be defined, I think, by the worst of you," he said of the sector.

Advocates and industry acknowledge that in using drones, media organizations should take steps to protect people's privacy, which some panelists said gives them optimism that a deal can be reached through the NTIA discussion. "I think companies get this," Geiger said of privacy concerns. "So far, the folks that I talk to are largely saying positive things. But we'll see how it works." NTIA's parent, the Commerce Department, has "been very open minded" about drone technology "to have some reasonable" privacy measures, said Drobac, who said his coalition includes Amazon, Google, flying and camera stabilization systems developer DJI

and others making UAVs and hardware and software for drones for civilian use. "Privacy is a major issue which we all need to get behind."

The drone industry sees privacy as important, though safety is even more important and the concepts go together, Drobac said. "This case I would say is unique in that I think companies are genuinely on the side of generally moving forward with some really forward-thinking privacy measures that are taking into account what technologies are available." Industry "is going to be on the side of putting in very reasonable and productive privacy kind of guardrails," Drobac said. He said to beware of anti-drone "hysteria" and that media companies should use drones to gather news even though it's not permissible under FAA rules if it's deemed a business use. "I would ask for forgiveness -- I would not ask for permission," he said.

## FAA and News Media

There's an FAA "anomaly" that hobbyists can use unlicensed drones and sell footage to a news organization but only if the person didn't fly the drone with the purpose of selling it, said Davis Wright First Amendment lawyer Bob Corn-Revere, who represents media companies interested in using drones. "Commercial news organizations can't do the same thing."

Media can use drones, but in different ways, responded the FAA spokesman. Anyone can apply for an FAA Modernization and Reform Act Section 333 exemption for commercial drone use, while Fox is using an exemption holder for unmanned coverage of the U.S. Open, the spokesman said. That network had no immediate comment Thursday. Time Warner's CNN has a cooperative research agreement with the FAA on developing newsgathering drone technology, while the cable network is also part of another agency initiative to test such newsgathering, the spokesman said. CNN had no immediate comment.

Drones have many news-media applications, with much interest in the technology, said Corn-Revere, Radio Television Digital News Association (RTDNA) Executive Director Mike Cavender and others. "The capabilities are amazing," said Corn-Revere, who showed news and other videos taken from drones. "Rather than a recognition of the capabilities, the policy discussion has focused on how do we put this back into a box, before it spreads." RTDNA members, which include radio and TV stations and digital operations, "across the board are looking to ultimately get these UAS in flight because of the tremendous opportunities they offer in terms of newsgathering," Cavender said: Managing the privacy concerns, if not easily done, certainly is "well within the purview of the privacy concerns our members deal with every day, with other technologies." Drones are "just another newsgathering technology, just one that hasn't been utilized yet," he said.

NTIA's Verdi said he disagrees "that Washington's first instinct in this area is to put it back in the box." The "first thing" in President Barack Obama's February memo on drone privacy "acknowledges the benefits of UAS," and 90 to 95 percent of the document "addresses government use of this technology," Verdi said. He said the memo "directed NTIA to begin a voluntary process, not a rulemaking, to bring industry and others together to craft best practices that will build trust in this technology." In March, NTIA began its drone privacy undertaking (see [1503040035](#)). Obama could have proposed legislation or regulation, "but he didn't do it," Verdi said. "I can make no guarantee that privacy advocates aren't going to walk out" of, or even show up for, drone multistakeholder privacy talks, he said when asked whether this dialogue could go the way of the facial recognition discussion-- where advocates withdrew. "I've heard from advocates and industry that they believe there is common ground"

on drones, he said. It's "up to the group to come together as they did in the mobile app process, which was very successful," Verdi said of NTIA's mobile app code of conduct (see report in the July 29, 2013, issue).

Sent from my iPad

**Elder, Jessica**

---

**From:** Small UAV Coalition <brian@smalluavcoalition.org@mail70.atl31.mcdlv.net> on behalf of Small UAV Coalition <brian@smalluavcoalition.org>  
**Sent:** Thursday, January 15, 2015 1:29 AM  
**To:** Morris, John  
**Subject:** You're Invited - Small UAV Discussion and OK GO Performance

Invitation

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## You're Invited

Join Us As We Explore the Potential of Small UAVs  
And Promote the [Know Before You Fly](#) Campaign

January 21

7-8 pm

Technology Discussion with Industry Leaders  
And Special Performance by OK GO

8:30 pm

Concert by OK GO

Location

9:30 Club  
815 V Street, NW  
Washington, DC 20001

In accordance with U.S. Government Ethics Rules, government employees wishing to attend the concert, after the technology discussion and special performance, should register to reserve their tickets. **Purchasing instructions will be emailed to registrants. Tickets are \$25.**

Questions may be directed to Brian Holt:

[brian@famalliance.org](mailto:brian@famalliance.org)

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1333 New Hampshire Ave, NW  
Washington, DC 20006

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**From:** [Krysten Jenci](#)  
**To:** [John Vitell](#)  
**Subject:** FW: IAPP Piece Outlines Drone Privacy State-of-Play | HL Chronicle of Data Protection  
**Date:** Friday, April 04, 2014 12:46:42 PM

---

Hi John - Thought this one might be of interest...

Many thanks. - Krysten

---

**From:** [hdataprotect@aweber.com](mailto:hdataprotect@aweber.com) [mailto:[hdataprotect@aweber.com](mailto:hdataprotect@aweber.com)] **On Behalf Of** Hogan Lovells Chronicle of Data Protection  
**Sent:** Friday, April 04, 2014 12:47 PM  
**To:** Krysten Jenci  
**Subject:** IAPP Piece Outlines Drone Privacy State-of-Play | HL Chronicle of Data Protection

HL Chronicle of Data Protection



---

## [IAPP PIECE OUTLINES DRONE PRIVACY STATE-OF-PLAY](#)

POSTED ON 2014-04-04 12:00:38-04

Summary:

Over the next five years in the United States, thousands of drones are expected to be deployed for an array of commercial and governmental purposes. This prospect has captured the public's imagination, and there are concerns about the privacy implications and whether new laws and regulations are needed. We here provide an overview of existing privacy requirements for Unmanned Aerial Systems (UAS) operating in the United States, describe new privacy proposals, and outline three scenarios that, depending on decisions by policymakers, could govern the privacy requirements for the commercial use of UAS for years to come. [Read More>>](#)

---

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**From:** John Verdi  
**To:** [Krysten Jenci](mailto:Krysten.Jenci)  
**Subject:** RE: IAPP Piece Outlines Drone Privacy State-of-Play | HL Chronicle of Data Protection  
**Date:** Friday, April 04, 2014 12:51:00 PM

---

Super interesting. Thank you!

-John

---

**From:** Krysten Jenci [mailto:Krysten.Jenci@trade.gov]  
**Sent:** Friday, April 04, 2014 12:49 PM  
**To:** John Verdi  
**Subject:** FW: IAPP Piece Outlines Drone Privacy State-of-Play | HL Chronicle of Data Protection

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**From:** hdataprotect@aweber.com [mailto:hdataprotect@aweber.com] **On Behalf Of** Hogan Lovells Chronicle of Data Protection  
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**To:** Krysten Jenci  
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**From:** [Murry, Roger](#)  
**To:** [John Verdi](#)  
**Cc:** [Drobac, Michael](#)  
**Subject:** Connecting over email  
**Date:** Wednesday, August 06, 2014 11:22:34 AM

---

Hi John – Thanks again for the call on Friday. If you ever want to shoot Michael or me relevant docs, I wanted to the put us on the same email.

Otherwise, we look forward to staying in touch should NTIA begin work on drones and privacy.

Best-

**Roger P. Murry** | Policy Advisor

**AKIN GUMP STRAUSS HAUER & FELD** LLP

1333 New Hampshire Avenue, N.W. | Washington, DC 20036-1564 | USA | Direct: +1 202.416.5119 | Internal: 25119  
Fax: +1 202.887.4288 | [rmurry@akingump.com](mailto:rmurry@akingump.com) | [akingump.com](http://akingump.com)

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**From:** John Verdi  
**To:** ["Murry, Roger"](#)  
**Cc:** [Drobac, Michael](#)  
**Subject:** RE: Connecting over email  
**Date:** Tuesday, August 12, 2014 4:45:00 PM

---

Roger,

It was great to speak with you about NTIA's multistakeholder efforts regarding consumer privacy. You and Michael might find these resources helpful:

- The Consumer Privacy Bill of Rights, released by the President in 2012, directs NTIA to convene stakeholders – including companies, privacy and consumer advocates, technical experts, international partners, and academics – to establish specific practices or codes of conduct that implement the general principles in the document. More: <http://www.whitehouse.gov/the-press-office/2012/02/23/we-can-t-wait-obama-administration-unveils-blueprint-privacy-bill-rights> and <http://www.whitehouse.gov/sites/default/files/privacy-final.pdf>

- As I mentioned, NTIA does not have rulemaking authority in this area, nor are we an enforcement agency. Instead, we strive to be a neutral convener for stakeholder-driven dialogues that are open, transparent, and consensus-based. The group's goal is to develop codes of conduct. The first NTIA process focused on mobile applications. More: <http://www.ntia.doc.gov/blog/2012/putting-consumer-privacy-bill-rights-practice> and <http://www.ntia.doc.gov/other-publication/2013/privacy-multistakeholder-process-mobile-application-transparency>.

- As we do this work, we have sought comment from stakeholders in informal meetings, as well as through more formal requests for comment. More: [http://www.ntia.doc.gov/files/ntia/publications/fr\\_privacy\\_rfc\\_notice\\_03052012\\_0.pdf](http://www.ntia.doc.gov/files/ntia/publications/fr_privacy_rfc_notice_03052012_0.pdf) and <http://www.ntia.doc.gov/federal-register-notice/2012/comments-multistakeholder-process>.

- We are currently working with companies and privacy advocates on the second multistakeholder process, which focuses on facial recognition technology. More: <http://www.ntia.doc.gov/blog/2014/ntia-convene-first-facial-recognition-technology-multistakeholder-meeting> and <http://www.ntia.doc.gov/other-publication/2014/privacy-multistakeholder-process-facial-recognition-technology>.

If you have any questions about NTIA's stakeholder outreach on consumer privacy issues, I would be happy to discuss.

Thanks!

-John

---

**From:** Murry, Roger [mailto:[rmurry@AKINGUMP.com](mailto:rmurry@AKINGUMP.com)]  
**Sent:** Wednesday, August 06, 2014 11:22 AM

**To:** John Verdi  
**Cc:** Drobac, Michael  
**Subject:** Connecting over email

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**From:** [John Verdi](#)  
**To:** [John Morris](#); [Jade Nester](#); [Glenn Reynolds](#); [Juliana Gruenwald](#); [Cyril J. Dadd](#)  
**Subject:** Heads up re: Google UAS announcement tomorrow  
**Date:** Wednesday, August 27, 2014 6:59:29 PM

---

I just received a call from Google. They reached out to give me a heads up re: their plans to make a public announcement tomorrow afternoon highlighting their recent (and heretofore confidential) research into small UASs. The research was conducted in Australia by their Google X division. It focuses on applying lessons learned from Google's automated car work to automated aircraft. The focus is primarily on safety and efficiency improvements.

There is no ask from Google. They called to ensure we weren't surprised, as they know NTIA has an interest in the issue. I defer to Glenn and Jade re: giving the 5th floor a heads up. Were it up to me, I would let SPP's office know so that she isn't surprised.

I'm happy to answer questions to the extent I am able, and to set up a follow up call with Google to the extent you have questions I cannot answer.

-John

**From:** [Jade Nester](#)  
**To:** [John Verdi](#); [John Morris](#); [Glenn Reynolds](#); [Juliana Gruenwald](#); [Cyril J. Dadd](#)  
**Subject:** RE: Heads up re: Google UAS announcement tomorrow  
**Date:** Wednesday, August 27, 2014 7:06:58 PM

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If Glenn agrees, we could let Andy Grotto know about this, and he can share it with SPP.

-Jade

-----Original Message-----

From: John Verdi  
Sent: Wednesday, August 27, 2014 6:59 PM  
To: John Morris; Jade Nester; Glenn Reynolds; Juliana Gruenwald; Cyril J. Dadd  
Subject: Heads up re: Google UAS announcement tomorrow

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-John

**From:** [Glenn Reynolds](#)  
**To:** [Jade Nester](#)  
**Cc:** [John Verdi](#); [John Morris](#); [Juliana Gruenwald](#); [Cyril J. Dadd](#)  
**Subject:** Re: Heads up re: Google UAS announcement tomorrow  
**Date:** Wednesday, August 27, 2014 7:21:19 PM

---

Definitely. I'll do this now. Thanks all.

Sent from my iPhone

> On Aug 27, 2014, at 7:06 PM, "Jade Nester" <JNester@ntia.doc.gov> wrote:  
>  
> If Glenn agrees, we could let Andy Grotto know about this, and he can share it with SPP.  
>  
> -Jade  
>  
> -----Original Message-----  
> From: John Verdi  
> Sent: Wednesday, August 27, 2014 6:59 PM  
> To: John Morris; Jade Nester; Glenn Reynolds; Juliana Gruenwald; Cyril J. Dadd  
> Subject: Heads up re: Google UAS announcement tomorrow  
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>  
> -John

**From:** [Johanna Shelton](#)  
**To:** [John Verdi](#); [John Morris](#)  
**Cc:** [Heather West](#)  
**Subject:** Google unveils self-flying delivery project  
**Date:** Thursday, August 28, 2014 6:17:24 PM

---

the Atlantic story is [here](#) - let us know if you have any questions!

## Inside Google's Secret Drone-Delivery Program

---

After two years of development, the Silicon Valley company reveals to *The Atlantic* that it has substantial research effort into building flying robots that can deliver products across a city in a minute or two.

Alexis C. Madrigal Aug 28 2014, 3:00 PM ET

A zipping comes across the sky.

A man named Neil Parfitt is standing in a field on a cattle ranch outside Warwick, Australia. A white vehicle appears above the trees, a tiny plane a bit bigger than a seagull. It glides towards Parfitt, pitches upwards to a vertical position, and hovers near him, a couple hundred feet in the air. From its belly, a package comes tumbling downward, connected by a thin line to the vehicle itself. Right before the delivery hits the ground, it slows, hitting the earth with *atop*. The delivery slows, almost imperceptibly, just before it hits the ground, hardly kicking up any dust. A small rectangular module on the end of the line detaches the payload, and ascends back up the vehicle, locking into place beneath the nose. As the wing returns to flying posture and zips back to its launch point half a mile away, Parfitt walks over to the package, opens it up, and extracts some treats for his dogs.

The Australian test flight and 30 others like it conducted in mid-August are the culmination of the first phase of Project Wing, a secret drone program that's been running for two years at Google X, the company's whoa-inducing, long-range research lab.

Though a couple of rumors have escaped the Googleplex—because *of course* Google must have a drone-delivery program—Project Wing's official existence and substance were revealed today. I've spent the past week talking to Googlers who worked on the project, reviewing video of the flights, and interviewing other people convinced delivery by drone will work.

Taken with the company's other robotics investments, Google's corporate posture has become even more ambitious. Google doesn't just want to organize all the world's *information*. Google wants to organize all *the world*.

During this initial phase of development, Google landed on an unusual design called a tail sitter, a hybrid of a plane and a helicopter that takes off vertically, then rotates to a horizontal position for flying around. For delivery, it hovers and winches packages down to the ground. At the end of the tether, there's a little bundle of electronics they call the "egg," which detects that the package has hit the ground, detaches from the delivery, and is pulled back up into the body of the vehicle.



The Google delivery drone releasing a package (Google).

That Parfitt would be the man on the receiving end of the tests was mostly happenstance. Google's partner in the country, Phil Swinsburg of Unmanned Systems Australia, convinced him to take part in the demonstration deliveries launched from a nearby farm. (Australia's "remotely piloted aircraft" policies are more permissive than those in the United States.)

Standing with Parfitt as he received dog treats from a flying robot was Nick Roy, the MIT roboticist who took a two-year sabbatical to lead Project Wing. In all the testing, Roy had never seen one of his drones deliver a package. He was always at the takeoff point, watching debugging information scroll up the screen, and anxiously waiting to see what would happen. "Sergey [Brin] has been bugging me, asking, 'What is it like? Is it actually a nice experience to get this?'" and I'm like, "Dude, I don't know. I'm looking at the screen," Roy told me.

So, this time, as he prepared to end his tour of duty at Google X and return to MIT, he watches as the Wing swoops and delivers. Recalling that moment, he struggles not to sound too rapturous or lose his cool technical objectivity. "Once the package is down and the egg is back up, the vehicle gains altitude, and does this beautiful arc, and it's off again," he said. "That was delightful."



Google

The parting between Roy and Google X seems amicable. When Astro Teller, director of the lab, described it to me in an interview in Mountain View, he literally patted Roy on the knee. "Nick was super ultra-clear with us from day one, despite lots of pressure from me," —

Teller pat Roy on the knee—“that he was going to leave after two years.” But the timeline was good, Teller maintained, because it gave the project shape and a direction.

In the two years, Roy’s goal was simple: figure out if the idea of drone delivery made sense to work on. Should Google pursue creating a real, reliable service? Was it possible? Could a self-flying vehicle be built and programmed so that it could take off and land anywhere, go really fast, and accurately drop a package from the air?

The answer, Roy and Teller say, is yes. They have not built a reliable system Google users can order from yet, but they believe the challenges are surmountable. Now, Google will begin growing the program in an ultimate push to create a service that will deliver things people want quickly via small, fast “self-flying vehicles,” as they like to call them.

Teller has found a replacement for Roy in Dave Vos, a 20-year veteran of automating flying machines, who sold his drone software company, Athena Technologies, to Rockwell in 2008. Where Roy got to play what-if and why-not, Vos must transform the Wing into a service that real people might use.

“What excited us from the beginning was that if the right thing could find anybody just in the moment that they need it, the world might be radically better place,” Teller said.

There are already dozens of Googlers working on the project, concocting everything from new forms of the vehicle to the nature of its delivery mechanism to the user experience of the app for ordering drones. There will be more recruits soon. Google will enter the public debate about the use of civilian unmanned aerial vehicles. Regulators will start hearing from the company. Many packages will be dropped from the sky on a tiny winch from a robot hovering in the air.

This may sound crazy. This may *be* crazy. But Google is getting serious about sending packages flying through the air on tiny drones. And this is how that happened.

*Of course* Google wants the world to believe in delivery by drone as part of the natural progression of technological society to deliver things faster and faster. This is how the world works, according to Google co-founder, Sergey Brin.

Imagine Brin in 2011. Perhaps he’s wearing a Google Glass prototype and a long-sleeved technical t-shirt, maybe even Vibram FiveFinger footwear. He is rich beyond all comprehension, a billionaire many times over. In his 39th year on Earth, he has decided to

grow a beard, wisdom-enhancing salt-and-pepper sprinkled around his chin.

While Larry Page runs the mainline cash cow Internet advertising business, Brin (or Sergey, as everyone at Google X invokes him) is building a second, much wilder company inside the envelope of the old one. Over the next few years, he will unveil self-driving cars, Google Glass, help acquire eight robotics companies and a high-altitude, solar-powered drone maker, and do whatever else Google is doing in secret.

And one day in 2011—before any of us had seen these new ideas—he is talking with Astro Teller, whose goatee is more salt than pepper, and they make an observation about the world.

--

Johanna Shelton  
Director, Public Policy  
Google  
25 Mass Ave NW, 9th FL  
Washington, DC 20001  
202.709.7005 Google Voice  
[jshelton@google.com](mailto:jshelton@google.com)

**From:** John Verdi  
**To:** ["Johanna Shelton"](#); [John Morris](#)  
**Cc:** [Heather West](#)  
**Subject:** RE: Google unveils self-flying delivery project  
**Date:** Friday, August 29, 2014 9:28:00 AM

---

Thanks! Much appreciated.

-John

**From:** Johanna Shelton [mailto:jshelton@google.com]  
**Sent:** Thursday, August 28, 2014 6:17 PM  
**To:** John Verdi; John Morris  
**Cc:** Heather West  
**Subject:** Google unveils self-flying delivery project

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So, this time, as he prepared to end his tour of duty at Google X and return to MIT, he watches as the Wing swoops and delivers. Recalling that moment, he struggles not to sound too rapturous or lose his cool technical objectivity. “Once the package is down and the egg is back up, the vehicle gains altitude, and does this beautiful arc, and it’s off again,” he said. “That was delightful.”



Google

The parting between Roy and Google X seems amicable. When Astro Teller, director of the lab, described it to me in an interview in Mountain View, he literally patted Roy on the knee. “Nick was super ultra-clear with us from day one, despite lots of pressure from me,” — Teller pat Roy on the knee—“that he was going to leave after two years.” But the timeline was good, Teller maintained, because it gave the project shape and a direction.

In the two years, Roy’s goal was simple: figure out if the idea of drone delivery made sense to work on. Should Google pursue creating a real, reliable service? Was it possible? Could a self-flying vehicle be built and programmed so that it could take off and land anywhere, go really fast, and accurately drop a package from the air?

The answer, Roy and Teller say, is yes. They have not built a reliable system Google users can order from yet, but they believe the challenges are surmountable. Now, Google will begin growing the program in an ultimate push to create a service that will deliver things people want quickly via small, fast “self-flying vehicles,” as they like to call them.

Teller has found a replacement for Roy in Dave Vos, a 20-year veteran of automating flying machines, who sold his drone software company, [Athena Technologies](#), to Rockwell in 2008. Where Roy got to play what-if and why-not, Vos must transform the Wing into a service that real people might use.

“What excited us from the beginning was that if the right thing could find anybody just in the moment that they need it, the world might be radically better place,” Teller said.

There are already dozens of Googlers working on the project, concocting everything from new forms of the vehicle to the nature of its delivery mechanism to the user experience of the app for ordering drones. There will be more recruits soon. Google will enter the public debate about the use of civilian unmanned aerial vehicles. Regulators will start hearing from the company. Many packages will be dropped from the sky on a tiny winch from a robot hovering in the air.

This may sound crazy. This may *be* crazy. But Google is getting serious about sending packages flying through the air on tiny drones. And this is how that happened.

*Of course* Google wants the world to believe in delivery by drone as part of the natural progression of technological society to deliver things faster and faster. This is how the world works, according to Google co-founder, Sergey Brin.

Imagine Brin in 2011. Perhaps he’s wearing a Google Glass prototype and a long-sleeved technical t-shirt, maybe even Vibram FiveFinger footwear. He is rich beyond all

comprehension, a billionaire many times over. In his 39th year on Earth, he has decided to grow a beard, wisdom-enhancing salt-and-pepper sprinkled around his chin.

While Larry Page runs the mainline cash cow Internet advertising business, Brin (or Sergey, as everyone at Google X invokes him) is building a second, much wilder company inside the envelope of the old one. Over the next few years, he will unveil self-driving cars, Google Glass, help acquire eight robotics companies and a [high-altitude, solar-powered drone maker](#), and do whatever else Google is doing in secret.

And one day in 2011—before any of us had seen these new ideas—he is talking with Astro Teller, whose goatee is more salt than pepper, and they make an observation about the world.

--

Johanna Shelton  
Director, Public Policy  
Google  
25 Mass Ave NW, 9th FL  
Washington, DC 20001  
202.709.7005 Google Voice  
[jshelton@google.com](mailto:jshelton@google.com)

**From:** John Verdi  
**To:** [Glenn Reynolds](#); [Jade Nester](#); [Cyril J. Dadd](#)  
**Subject:** FW: Google gets into game of drones  
**Date:** Friday, August 29, 2014 9:32:00 AM

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Google UAS news below from the Atlantic and Politico. We flagged this for Larry and SPP earlier this week.

-John

## Inside Google's Secret Drone-Delivery Program

After two years of development, the Silicon Valley company reveals to *The Atlantic* that it has substantial research effort into building flying robots than can deliver products across a city in a minute or two.

[Alexis C. Madrigal](#) Aug 28 2014, 3:00 PM ET

A zipping comes across the sky.

A man named Neil Parfitt is standing in a field on a cattle ranch outside Warwick, Australia. A white vehicle appears above the trees, a tiny plane a bit bigger than a seagull. It glides towards Parfitt, pitches upwards to a vertical position, and hovers near him, a couple hundred feet in the air. From its belly, a package comes tumbling downward, connected by a thin line to the vehicle itself. Right before the delivery hits the ground, it slows, hitting the earth with *atap*. The delivery slows, almost imperceptibly, just before it hits the ground, hardly kicking up any dust. A small rectangular module on the end of the line detaches the payload, and ascends back up the vehicle, locking into place beneath the nose. As the wing returns to flying posture and zips back to its launch point half a mile away, Parfitt walks over to the package, opens it up, and extracts some treats for his dogs.

The Australian test flight and 30 others like it conducted in mid-August are the culmination of the first phase of Project Wing, a secret drone program that's been running for two years at Google X, the company's whoa-inducing, long-range research lab.

Though a couple of rumors have escaped the Googleplex—because *of course* Google must have a drone-delivery program—Project Wing's official existence and substance were revealed today. I've spent the past week talking to Googlers who worked on the project, reviewing video of the flights, and interviewing other people convinced delivery by drone will work.

Taken with the company's other robotics investments, Google's corporate posture has become even more ambitious. Google doesn't just want to organize all the world's *information*. Google wants to organize all *the world*.

During this initial phase of development, Google landed on an unusual design called a tail

sitter, a hybrid of a plane and a helicopter that takes off vertically, then rotates to a horizontal position for flying around. For delivery, it hovers and winches packages down to the ground. At the end of the tether, there's a little bundle of electronics they call the "egg," which detects that the package has hit the ground, detaches from the delivery, and is pulled back up into the body of the vehicle.



The Google delivery drone releasing a package (Google).

That Parfitt would be the man on the receiving end of the tests was mostly happenstance. Google's partner in the country, Phil Swinsburg of [Unmanned Systems Australia](#), convinced him to take part in the demonstration deliveries launched from a nearby farm. (Australia's "[remotely piloted aircraft](#)" policies are more permissive than those in the United States.) Standing with Parfitt as he received dog treats from a flying robot was [Nick Roy](#), the MIT roboticist who took a two-year sabbatical to lead Project Wing. In all the testing, Roy had never seen one of his drones deliver a package. He was always at the takeoff point, watching debugging information scroll up the screen, and anxiously waiting to see what would happen. "Sergey [Brin] has been bugging me, asking, 'What is it like? Is it actually a nice experience to get this?' and I'm like, 'Dude, I don't know. I'm looking at the screen,'" Roy told me. So, this time, as he prepared to end his tour of duty at Google X and return to MIT, he watches as the Wing swoops and delivers. Recalling that moment, he struggles not to sound too rapturous or lose his cool technical objectivity. "Once the package is down and the egg is back up, the vehicle gains altitude, and does this beautiful arc, and it's off again," he said. "That was delightful."



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## **Google gets into game of drones**

By Tony Romm  
8/28/14 6:10 PM EDT

Google long ago embarked on the road to self-driving cars — and now the company is turning its ambitions to the skies with drones.

The top secret Google[X] research lab announced Thursday it is investing in and testing unmanned aerial vehicles — an endeavor called Project Wing — that someday might deliver packages to consumers. The gambit puts Google in a growing camp of companies like Amazon and Facebook, which increasingly are sponsoring their own research — or trying to buy their way — into the emerging drone market.

For the moment, Google only is experimenting with its prototype craft in Australia, not the United

States. It has hired Dave Vos, a well-known aerial technology expert, to lead its drone team. And it's only the beginning of the journey: Google now must navigate a host of technology challenges in the lab — and a thicket of regulatory hurdles in Washington — if it really wants its new drones to take flight worldwide.

"Self-flying vehicles could open up entirely new approaches to moving goods — including options that are cheaper, faster, less wasteful and more environmentally sensitive than what's possible today," according to the company's research team.

But Google cautioned it would "take years to develop a service with multiple vehicles flying multiple deliveries every day."

The company flashed its interest in drone technology in April when it purchased Titan Aerospace, a firm that makes solar-powered craft. But Google is hardly alone with its drone ambitions.

Facebook vied for the very firm Google ultimately bought and has tasked its Connectivity Lab to research drones and other tools that might help it expand Internet access to unserved areas globally.

Amazon, meanwhile, raised eyebrows last year when CEO Jeff Bezos revealed on "60 Minutes" that his e-commerce titan has been testing package-delivering drones.

Google's research team began thinking about automating small, flying vehicles as far back as 2011. After years of research and work to hone its mission, the company began testing Project Wing craft in August. For its experiment, Google said it delivered candy bars and radios to local farmers in Queensland, Australia.

Much further down the line, the hope is that Project Wing can "fly a programmed route with just a push of a button," while also automatically following local safety rules and adapting to wind conditions.

Google likely has opted to test its prototype in Australia because of the country's historically relaxed drone regulations. The company declined to comment Thursday as to whether it would seek to test its drones in the United States, where federal rules are more strict. For the moment, operators of all unmanned aerial vehicles in the United States must first obtain permission from the Federal Aviation Administration — a regulatory hurdle that prompted Amazon earlier this year to hire lobbyists focused on the issue.

Google did not indicate Thursday whether it would add drones to its regulatory wish list in the nation's capital. But one of its outside lobbying hires — Gephardt Group Government Affairs — has spoken this year with FAA officials generally about unspecified "aviation safety" issues.

Drones mark only the latest endeavor at the highly guarded Google[x] lab, which has pioneered research into glucose-delivering contact lenses and wireless Internet-broadcasting balloons, as well as the company's self-driving car. Before Google could test its early, laser-mounted Prius, though, the company had to lobby individual states' legislatures for permission. In Washington, meanwhile, Google has committed some of its \$8.8 million lobbying tab toward warding off any new federal restrictions on its autonomous vehicles, according to its 2014 disclosures.

Privacy hawks often question Google's latest innovations, and many consumer groups have been especially uneasy at the fast proliferation of drone technology. The news of Amazon's package-delivering drone drew a sharp statement last year from Sen. Ed Markey (D-Mass.), who urged the FAA to step in first and "deliver privacy protections for the American public." While Congress is unlikely to advance drone-privacy legislation this year, President Barack Obama is expected to sign an executive order soon that begins a process to create industry best practices.

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**From:** John Verdi  
**To:** [Juliana Gruenwald](#); [John Morris](#)  
**Cc:** [Jade Nester](#)  
**Subject:** RE: Drone alliance sets sights on D.C.  
**Date:** Monday, October 06, 2014 3:17:00 PM

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Thanks!

-John

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**From:** Juliana Gruenwald  
**Sent:** Monday, October 06, 2014 3:17 PM  
**To:** John Verdi; John Morris  
**Cc:** Jade Nester  
**Subject:** FW: Drone alliance sets sights on D.C.

fyi

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**From:** POLITICO Pro [<mailto:politicoemail@politicopro.com>]  
**Sent:** Monday, October 06, 2014 3:18 PM  
**To:** Juliana Gruenwald  
**Subject:** Drone alliance sets sights on D.C.

## **Drone alliance sets sights on D.C.**

By Tony Romm

10/6/14 3:15 PM EDT

Amazon, Google and other drone makers are combining forces in a new trade group that aims to loosen federal restrictions on testing and flying unmanned aerial vehicles in the United States.

The Small UAV Coalition, formally unveiled Monday, arrives at a critical juncture for drone technology. Tech giants are investing heavily in smaller craft that someday might deliver packages, monitor traffic patterns, take aerial photographs or expand Internet access to hard-to-reach areas. And Washington is increasingly wading into the debate over when, how and where those drones can be deployed.

The coalition, which focuses on drones under 55 pounds, is helmed by Michael Drobac, a top attorney at Akin Gump Strauss Hauer & Feld. The law firm also has registered to lobby on behalf of the group, according to ethics documents filed in September.

The FAA has set up six test sites for commercial drones scattered across the country — but the agency requires companies to obtain its permission before they can launch their UAVs. FAA regulators also are penning longer, more detailed rules on commercial drone usage, but those guidelines aren't expected until at least September 2015.

In the meantime, the aviation agency has cracked down on drone operators who don't follow the law. And the Obama administration has suggested it may soon open a deeper inquiry into

drone privacy. Drobac said he expected an executive order “any day now.”

The uptick in federal activity has touched off a flurry of new industry lobbying. Amazon in 2014 signed up outside consultants specifically to tout Prime Air, its ambitious plan to deliver packages by way of the sky. Google, meanwhile, spoke with the FAA months before it unveiled Project Wing, the new drone research initiative at the search giant’s top secret lab.

And those two tech giants — along with 3DR, Aerialtronics, Airware, DJI Innovations, GoPro and Parrot — appear ready to turn up the volume with the new coalition. The group already has been active at the FAA, filing a formal comment in September that offered “enthusiastic support” for Amazon’s application to begin testing its drone.

“Small UAVs can be utilized for stunning aerial photography, surveying and mapping, advances in precision agriculture, consumer delivery, disaster management, journalism and to monitor flare stacks and gas pipelines,” Drobac said in a statement.

“The Small UAV Coalition believes safe commercial, philanthropic and civil use of small UAVs will benefit the lives of consumers and promote U.S. competitiveness,” he added. “We look forward to working with the FAA, FCC, the Administration and Congress to ensure this industry can flourish.”

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**To:** [John Verdi](#); [John Morris](#)  
**Cc:** [Jade Nester](#)  
**Subject:** FW: Drone alliance sets sights on D.C.  
**Date:** Monday, October 06, 2014 3:17:13 PM

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**From:** John Verdi  
**To:** "[Heather West](#)"  
**Subject:** RE: Call next week re: facial recognition?  
**Date:** Monday, October 20, 2014 10:55:00 AM

---

Sounds great! The best number to reach me is 202.482.8238. Thanks!

-John

**From:** Heather West [mailto:[heatherwest@google.com](mailto:heatherwest@google.com)]  
**Sent:** Friday, October 17, 2014 8:32 PM  
**To:** John Verdi  
**Subject:** Re: Call next week re: facial recognition?

Agree! Flying things are always fun :) And Travis is great!

I'm travelling this week, but am free Monday morning (before I fly at 1230) or Thurs/Fri. How about I aim to be at the airport early, and we chat 1130ish? Makes waiting post security feel more productive.

On Fri, Oct 17, 2014 at 2:35 PM, John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> wrote:  
Heather,

I hope you're well!

Do you have a few minutes next week to discuss the NTIA facial recognition process? I'd like to get a sense of where folks are in advance of the Nov. 6 meeting. My Monday (10/20) is fairly clear, and I can move things around on Tuesday (10/21) pretty easily aside from an 11:30am-12:30 ET meeting. What might work for you?

Also, I had the pleasure of talking UAS with your colleague Travis Mason yesterday. This fall should be exciting on the unmanned aircraft front!

-John

----  
John Verdi  
Director of Privacy Initiatives  
NTIA/OPAD  
[\(202\) 482-8238](tel:(202)482-8238)  
[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

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Heather West	Public Policy	<a href="mailto:heatherwest@google.com">heatherwest@google.com</a>	202-643-6381
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**From:** John Verdi  
**To:** ["Drobac, Michael"](#)  
**Subject:** RE: Today  
**Date:** Tuesday, October 28, 2014 12:28:00 PM

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Yes indeed. Café du Parc?

-John

---

**From:** Drobac, Michael [mailto:[mdrobac@akingump.com](mailto:mdrobac@akingump.com)]  
**Sent:** Tuesday, October 28, 2014 12:29 PM  
**To:** John Verdi  
**Subject:** Today

Still on for 3pm?

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**From:** [Drobac, Michael](#)  
**To:** [John Verdi](#)  
**Subject:** Today  
**Date:** Tuesday, October 28, 2014 12:28:36 PM

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Still on for 3pm?

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**From:** [Drobac, Michael](#)  
**To:** [John Verdi](#)  
**Subject:** Re: Today  
**Date:** Tuesday, October 28, 2014 2:35:03 PM

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On Oct 28, 2014, at 12:29 PM, "John Verdi" <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> wrote:

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-John

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**From:** [Heather Phillips](#)  
**To:** [John Morris](#); [John Verdi](#); [Evelyn Remaley](#)  
**Cc:** [Juliana Gruenwald](#); [Joelle Tessler](#)  
**Subject:** FYI - Politico on Drone coalition  
**Date:** Tuesday, January 20, 2015 2:13:03 PM

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## TOP NEWS

### [Drone makers turn up heat on FAA](#)

By Tony Romm

A coalition of Amazon, Google and other firms seeks allies in Congress as it presses for long-awaited rules for unmanned aerial vehicles.

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### **Drone makers turn up heat on FAA ([back](#))**

By Tony Romm | 1/20/15 12:12 PM EST

Amazon, Google and other commercial drone makers are launching a new lobbying push in Washington this week, aiming to recruit allies in Congress while pressuring the FAA to deliver its long-awaited rules for operating unmanned aerial vehicles in U.S. skies.

The members of so-called Small UAV Coalition, speaking at the National Press Club on Tuesday, expressed frustration that FAA delays threaten to keep most commercial drones grounded in the United States until 2017 or later. While the group's leader, Michael Drobac, said drone makers didn't intend to "lay blame" or "criticize," the message from the assembled companies was clear.

The FAA's work is "slowly opening the skies, but isn't fast enough to give commercial drones the liftoff they need," warned Lucas Van Oostrum, the chief technology officer of Aerialtronics. He spoke from a podium flanked by parked UAVs.

Congress tasked the FAA with incorporating commercial drones into U.S. airspace by September 2015, but the agency appears to be falling behind: One estimate from the Government Accountability Office suggested a final set of rules won't be ready for at least

another two years.

The Small UAV Coalition has set up meetings with lawmakers this week as it looks to speed up the FAA's work, Drobac said. The group also plans a concert to raise awareness about a new drone safety campaign. The concert, at the 9:30 Club in Washington, will feature the band OK Go, which chose to film its latest music video with a drone in Japan.

"We're asking the Hill to help educate the FAA about what needs to be done," Drobac said. "We want the FAA to have more resources ... [and] push this higher up on the list of priorities."

As the rule-making process plays out, the FAA has carved out some ability for commercial drone operators to take to the skies: The agency set up six test sites while permitting some operators, like film production and agriculture firms, to operate their craft under strict conditions.

But some drone makers feel the agency's initial steps are insufficient. Lee Cheng, the director of Aerial Imaging at DJI, said there's "confusion" about how companies can access the test sites. And Van Oostrum lamented that the FAA has only issued 14 waivers — "less than the number of businesses operating drones on the tiny island of Malta," he said.

The hurdles have raised some eyebrows on Capitol Hill — and the subject is sure to arise again Wednesday, when the House's top science committee hears from the FAA and drone makers after lawmakers see a first-hand demonstration of a small drone in action.

"The mindset that we need to restrict, we need to slow down ... [is] missing the point," said Rep. Earl Blumenauer (D-Ore.), who spoke at the event. "I hope you are aggressive in making this message on the Hill."

The biggest tech companies in the business, Amazon and Google, long have lobbied Congress and the FAA on drones. Both firms are part of the Small UAV Coalition, but Amazon officials did not appear at Tuesday's event, and Google had a limited presence with no tech on display.

"We're behind the curve of figuring out what the rules are," said David Vos, the project lead for Google's Project Wing. At the same time, he urged the industry to "respect" the regulatory process while figuring out its own solutions to some of the safety challenges.

### **State of the Union 2015: Will there be any surprises? ([back](#))**

By Kendall Breitman | 1/19/15 6:43 PM EST

President Barack Obama has spent the past few weeks [previewing](#) some of the biggest ideas that will be in Tuesday's State of the Union address, touring the country to keep its attention on him even as the new Republican Congress makes its debut.

Through a mix of announcements and strategic leaks, the White House has already outlined much of what he'll propose in the address, from [two years of free community college tuition](#) to more stringent [methane emissions standards](#). But the president could still have a few political and policy surprises up his sleeve, aides have suggested. POLITICO asked top political strategists to take a stab at predicting — or wildly speculating on — what those surprises might be.

\*\*\*

**Frank Luntz, Republican messaging guru**

“Obama will deliver the shortest State of the Union speech of his career.”

**Stephanie Cutter, former Obama deputy campaign manager and White House aide**

“I expect the president to speak more forcefully than he has during any other State of the Union about the enormous economic growth and high job numbers the country is experiencing, and the tough choices we made to get us here. I also think this will be one of the president’s shortest State of the Union addresses, given all that’s already rolled out and the White House’s trend of putting more detailed content online and using new digital tools to share directly with the people and communities who care a lot about specific issues.”

**Ron Bonjean, Republican strategist**

“The surprise of the night will likely be that President Obama will not make any significant programs or policy announcements, but he will instead simply remind Americans he is still very relevant after the November elections. That’s why he will deliver a political speech in order to spin up the liberal wing of his party and to define and marginalize the Republican Party as the country slowly heads toward the 2016 elections.

“He will contrast his governing philosophy versus the GOP to remind Americans that Republicans now own potential gridlock on Capitol Hill and the solutions to America’s problems rests with their majorities in the House and Senate.

“Obama will also try to put Republicans on the spot with Hispanic voters by bringing up his veto threat over Department of Homeland Security funding because of his immigration executive actions. He’ll also make demands to act ‘reasonable’ over issues that he disagrees with, such as the Keystone Pipeline.

“Of course, Obama is likely to provide a laundry list of standard policy initiatives over everything from cutting methane emissions, education funding to space exploration. However, we should also be prepared for the president to throw down the gauntlet and challenge conservatives to work with him in a bipartisan manner on issues like trade promotion authority and tax reform.”

**Jim Manley, former top communications adviser to Senate Minority Leader Harry Reid**

“I am not sure what kind of surprises the administration has up its sleeve for the State of the Union, if only because of their unusual strategy to roll out much of the agenda beforehand, but there are at least two things that I will watch for on Tuesday.

“No. 1 is how many Democrats sit on their hands and or scowl for the camera when the president makes the case for passage of his trade agenda, including trade promotion authority that allows trade agreements to be fast-tracked under expedited rules. Key Democratic constituencies including labor and environmental groups are dead set against it — and many Democrats are going to need convincing to vote for it.

“The other thing that I will be watching for is to see whether — or how many — Republican

members of Congress — especially the 28 Republican women — will applaud the president’s push for paid family leave.”

**Ana Navarro, Republican strategist**

“Surprises at President Obama’s State of the Union next week? Hell, who knows. Maybe Raúl Castro will be sitting in the first lady’s box. At this point, little would surprise me.”

**Sam Wang, co-founder, Princeton Election Consortium**

“The conventional interpretation of what political journalists do is that they react to the style (and of course the substance, too) of what the president says at the State of the Union address. However, there is also an 800-pound gorilla in the room: what people think of the president at the time — call it the mojo factor.

“The best measure of President Obama’s mojo is his net approval/disapproval rating: the number of Americans approving of his job performance, minus those who disapprove. For nearly all of 2014, this number was stuck around negative 9 percent. [Based on my calculations at the Princeton Election Consortium](#), Obama’s numbers jumped suddenly after the election, and today, he is at [a net disapproval of only 1.5 percent](#) — very close to a tie. That’s the median of six polls, so it’s a pretty solid estimate.

“President Obama’s recent actions on immigration and Cuba bespeak a new boldness, that of a man who never has to busy himself with electioneering ever again, if he so chooses. I suspect we’ll find out whether he still wants to drive a grand bargain with congressional Republicans on Social Security or whether, emboldened by the progressive wing of his party, he’ll push back. In this and other matters, I expect to see Obama Unbound.”

**Anita Dunn, former Obama White House communications director**

“The White House has taken a new approach already, with a policy rollout run-up instead of coming out of the speech. I think that leads down the path to the impossible dream of most SOTU speechwriters — a shorter, more thematic speech, and that, given the innovations the White House continues to make in their communications shop, farther down the path toward the SOTU digital experience of the future! We’ve come a long way from presidents sending their speech up to Congress to be read by the clerk!”

**Rick Wilson, Republican media consultant**

“President Obama’s State of the Union speech will be what every other Obama speech and policy is about as his days in the White House mercifully wind down: legacy. He’ll work to frame the next year with his usual construct: ‘I’ll work with anyone, from either party, as long as they give me exactly what I want without compromise or modification.’ He’ll declare the economy is awesome, take full credit for gas prices going down, talk tough on ISIS/AQAP, touch on the Ferguson issue in an attempt to blame it on the GOP and propose trillions in new spending on soft, focus-group-friendly giveaways and boondoggles. Almost all of it will slip into obscurity and slow political death.

“He knows very well that his laundry lists of ‘free’ goodies are already dead on arrival, but he’ll make the point anyway, trying to capture a day or two of ‘Good Obama/Bad Republican’ press. The frame of ‘I want to give you all this free stuff’ is in collision with the

fact that elections have consequences, and a Republican majority in both the House and Senate gives Obama a very different legislative landscape.

“The 800-pound gorilla in the room is the deep rift forming between this White House and the Congress on presidential power and executive action. On Obamacare, immigration and a growing laundry list of issues, this president has given Congress the middle finger on their constitutional role and duties. It’s unprecedented, and it’s deeply contemptuous ... and the anger in Congress isn’t just political. Expect a chilly reception from the GOP.”

**Mark Penn, former pollster and strategist for Bill and Hillary Clinton**

“I think the biggest possible surprise would be a carbon tax — he might say that energy will never be lower so now is the time to place a carbon tax with the proceeds going to Social Security and take advantage of the windfall for the good of all. You are a lot more likely, though, to hear some tough language on ISIS and talk right upfront on how our economy and jobs outlook are improving.”

**Douglas Schoen, strategist and author**

“The biggest and best surprise the president could offer would be a comprehensive and coherent strategy to fight Islamic terror and extremism worldwide, to acknowledge the problem frankly, to call for bipartisan cooperation to take on a threat that puts our way of life and values in jeopardy.

“If the president offered a coherent and rational analysis of the problem and proactive strategy to attack ISIS and Al Qaeda wherever they operate, and under whatever name or label they use, the American people would rally behind him and he would win unprecedented support.

“We do not need a laundry list of proposals that poll well. We’ve been there, and he’s done that. He needs to make it clear we are in a war, and he needs to reassure the American people he understands that and is pursuing a strategy that uses the best of American hard and soft power to eradicate the scourge of Islamic terror.

“That, and that alone, would truly change America for the better.”

**Mark McKinnon, former campaign adviser to President George W. Bush and Sen. John McCain**

“President Obama will announce at his State of the Union address that in an effort to thaw the hyperpartisan climate in Washington, D.C., which is making it difficult to come to agreement on any important issues, he will be issuing an executive order proclaiming Casual Fridays for the entire U.S. government for the remainder of his term.”

**Supreme Court limits Federal Circuit's review power in patent cases ([back](#))**

By Erin Mershon | 1/20/15 11:48 AM EST

The federal appeals court with special jurisdiction over patent cases must be more deferential to lower court rulings, the Supreme Court ruled today in [a 7-2 decision](#).

The U.S. Court of Appeals for the Federal Circuit, which handles all appellate patent cases,

should not reopen factual questions that were decided by lower courts, the justices said. The decision is a blow to the power of the Federal Circuit, which had until now been re-litigating certain parts of patent cases when it heard appeals.

"To overturn the judge's resolution of an underlying factual dispute, the appellate court must find that the judge, in respect to those factual findings, has made a clear error," wrote Justice Stephen Breyer in the opinion.

The Supreme Court's decision goes against the arguments made by tech companies like Google, Facebook and Intel, which asked the court to uphold the Federal Circuit's ability to examine certain questions anew, saying it lets the court more easily toss badly written or vague patents. The firms say that power is one of the few effective weapons against so-called patent trolls.

Justices Clarence Thomas and Samuel Alito dissented.

### **Google signs student privacy pledge without fanfare ([back](#))**

By Caitlin Emma | 1/20/15 1:11 PM EST

About a week after President Barack Obama [called out](#) companies that haven't signed a voluntary Pledge to Protect Student Privacy, Google has quietly added its signature last week.

"If you don't join this effort, we intend to make schools and parents know that you haven't joined this effort," Obama said last week.

Google is now [listed](#) as one of 91 signatories to the pledge.

"We're pleased to see the ed tech industry come together to support this important issue and have signed the pledge to reaffirm the commitments we've made directly to our customers," the company told POLITICO.

Amplify, Apple, Houghton Mifflin Harcourt, Microsoft and others have signed the pledge, [first unveiled](#) in October after months of urging by Reps. Jared Polis and Luke Messer. Khan Academy also initially declined to sign the pledge, but has since changed its mind. Pearson has yet to sign.

Just 13 companies committed to the pledge when it was first unveiled in October.

### **White House again cautions Republicans on net neutrality bill ([back](#))**

By Brooks Boliek | 1/17/15 11:37 AM EST

The White House warned Republicans against net neutrality legislation that would reduce the FCC's power, telling Senate Commerce Committee Chairman John Thune the agency needs authority to protect an open Internet.

"As technology continues to evolve, and uses of it continue to increase, the FCC needs the right balance of flexibility and strong authorities to promote competition and access," Katie Beirne Fallon, the White House director of legislative affairs, told Thune [in a letter](#) Friday. "Equally vital is the FCC's ability to enforce, interpret, and flexibly apply, the principles of

an open Internet.”

The letter comes as Thune and House Republicans draft legislation that would reinstate and bolster the FCC’s 2010 net neutrality rules while keeping the agency from using its authorities under Title II of the Communications Act or Section 706 of the Telecommunications Act.

Fallon in the letter reiterated Obama’s push for the FCC to treat broadband as a utility-like service under Title II. The FCC is set to release and vote on net neutrality rules next month.

“Title II reclassification would be a recognition of the kind of telecommunications service that ISPs provide consumers today, as well as the obligations that accompany providing an essential service to homes and business,” Fallon wrote.

The White House had previously said on Thursday that no legislation is needed to ensure net neutrality and that the FCC has the authorities it needs on the issue.

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**From:** [John Morris](#)  
**To:** [John Verdi](#); [Heather Phillips](#); [Juliana Gruenwald](#); [Joelle Tessler](#); [Evelyn Remaley](#)  
**Subject:** RE: 4/9: Business Forward Meeting on Drones  
**Date:** Wednesday, February 18, 2015 6:04:05 PM

---

Agreed.

I am happy for John Verdi to do this, but I could also do it if needed. I would not support Larry doing it.

Thanks, John

---

**From:** John Verdi  
**Sent:** Wednesday, February 18, 2015 5:40 PM  
**To:** Heather Phillips; Juliana Gruenwald; Joelle Tessler; John Morris; Evelyn Remaley  
**Subject:** Fwd: 4/9: Business Forward Meeting on Drones

Folks,

This strikes me as a good event to do. Happy for me to do it or for someone else to.

-John

Begin forwarded message:

**From:** Nadia Mulji <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)>  
**Date:** February 18, 2015 at 3:32:13 PM EST  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Cc:** "Ellman, Lisa" <[lellman@mckennalong.com](mailto:lellman@mckennalong.com)>  
**Subject:** 4/9: Business Forward Meeting on Drones

John,

I hope this email finds you well. I received your contact information from Lisa Ellman. Business Forward is working to put together a member meeting on April 9 at 12PM to discuss Unmanned Aircraft Systems and the nexus between policy and innovation. We would like to have you or Larry Strickling join us for a panel discussion with Lisa Ellman and Jim Williams, FAA. Would you be able to hop on the phone to discuss this opportunity in further detail? Please let me know when works best for you. Additional details are below.

**When:** Thursday, April 9 from 12PM – 1PM

**Where:** Business Forward member company will host— likely Google

**Who:** 25-30 Government affairs representatives from Fortune 500 companies who partner with Business Forward — please see attached for a full list of our current members

**Materials:** Business Forward will provide you with a briefing memo the Tuesday before the meeting which includes an RSVP list and a run-of-show

Best,  
Nadia

**NADIA K. MULJI** > **BUSINESS FORWARD** > **1717 RHODE ISLAND AVE., NW, SUITE**  
**660** > **WASHINGTON, D.C., 20036** > **202.861.1275** > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)

**From:** [Wolf, Christopher](#)  
**To:** [John Verdi](#)  
**Cc:** [Tobin, Timothy P.](#); [Bomberg, Jared A.](#)  
**Subject:** Invitation  
**Date:** Wednesday, March 04, 2015 4:10:41 PM

---

John,

It was great to see you today at the FPF De-ID meeting.

As I previewed, we would like to invite you to speak at an event on UAS we are having in Silicon Valley on April 16th. My colleagues Tim Tobin and Jared Bomberg, copied here, can fill you in on the details, but I first wanted to reach out to see if the date worked for you. Of course, we would cover your travel and expenses.

Thank you for considering!

Best regards,

Chris

**Christopher Wolf**

Partner

---

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**From:** [John Verdi](#)  
**To:** [Wolf, Christopher](#)  
**Cc:** [Tobin, Timothy P.](#); [Bomberg, Jared A.](#)  
**Subject:** Re: Invitation  
**Date:** Wednesday, March 04, 2015 9:13:27 PM

---

Chris - great to see you too!

I am free April 16. I need to run the ethics traps at Commerce, but I hope to be able to do it. I will follow up with Tim and Jared.

-John

On Mar 4, 2015, at 4:10 PM, Wolf, Christopher  
<[christopher.wolf@hoganlovells.com](mailto:christopher.wolf@hoganlovells.com)> wrote:

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**Cc:** [Tobin, Timothy P.](#); [Bomberg, Jared A.](#)  
**Subject:** Re: Invitation  
**Date:** Wednesday, March 04, 2015 9:55:05 PM

---

Hope it works! Thanks so much.

On Mar 4, 2015, at 9:13 PM, John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> wrote:

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**From:** John Verdi  
**To:** ["Tobin, Timothy P."](#)  
**Cc:** [Bomberg, Jared A.](#)  
**Subject:** RE: Drones - Silicon Valley, April 16  
**Date:** Friday, March 13, 2015 12:23:00 PM

---

Tim,

Still working on the 4/16/15 question.

On the IAPP front, please list me as "invited" on the panel submission. I'm very much interested, but would need to clear the appearance and allocate travel \$, which couldn't happen today. So let IAPP know I'm interested but cannot inform. Sound good?

-John

---

**From:** Tobin, Timothy P. [mailto:[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)]  
**Sent:** Friday, March 13, 2015 8:07 AM  
**To:** John Verdi  
**Cc:** Bomberg, Jared A.  
**Subject:** Drones - Silicon Valley, April 16

Hi John,

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Tim

**Timothy Tobin**

Partner

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**From:** John Verdi  
**To:** [Johanna Shelton](mailto:Johanna.Shelton); [dlieber@google.com](mailto:dlieber@google.com); ["travismason@google.com"](mailto:travismason@google.com)  
**Subject:** NTIA unmanned aircraft systems (UAS) multistakeholder process  
**Date:** Tuesday, March 17, 2015 1:12:00 PM

---

Johanna, David, and Travis,

It seems like a good time to touch base on UAS now that the Presidential Memorandum and NTIA Request for Comment have been published. I'm not sure who will be point on this for Google. Whomever is point – can we chat informally over coffee this week or early next? I'm happy to meet with one or more folks if there is interest.

I am primarily interested in discussing what Google would see as a good outcome for the NTIA UAS process. Of course, I'm also happy to talk about whatever is top of mind for you. Thanks!

UAS PM: <https://www.whitehouse.gov/the-press-office/2015/02/15/presidential-memorandum-promoting-economic-competitiveness-while-safegua>

NTIA RFC: <http://www.ntia.doc.gov/press-release/2015/ntia-seeks-comment-process-developing-best-practices-commercial-and-private-use-u>

-John

----

John Verdi  
Director of Privacy Initiatives  
NTIA/OPAD  
(202) 482-8238  
[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#)  
**Cc:** [Bomberg, Jared A.](#)  
**Subject:** RE: Drones - Silcon Valley, April 16  
**Date:** Tuesday, March 17, 2015 6:24:52 PM

---

Sounds good – thanks John.

---

**From:** John Verdi [mailto:JVerdi@ntia.doc.gov]  
**Sent:** Friday, March 13, 2015 12:23 PM  
**To:** Tobin, Timothy P.  
**Cc:** Bomberg, Jared A.  
**Subject:** RE: Drones - Silcon Valley, April 16

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**To:** [John Verdi](#)  
**Cc:** [Bomberg, Jared A.](#)  
**Subject:** RE: Drones - Silcon Valley, April 16  
**Date:** Thursday, March 19, 2015 6:26:46 PM

---

Hi John – just checking in on the 4-16 session. Any word?

---

**From:** John Verdi [mailto:JVerdi@ntia.doc.gov]  
**Sent:** Friday, March 13, 2015 12:23 PM  
**To:** Tobin, Timothy P.  
**Cc:** Bomberg, Jared A.  
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Fax: +1 202 637 5910  
Email: [tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)  
Blog: [www.hldataprotection.com](http://www.hldataprotection.com)  
[www.hoganlovells.com](http://www.hoganlovells.com)

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**From:** John Verdi  
**To:** [OPAD](#)  
**Subject:** whereabouts  
**Date:** Wednesday, March 25, 2015 12:19:00 PM

---

I am heading to Google for a meeting re: UAS and then have a call with Interior on the same topic. I should free up around 4pm. The best way to reach me is my mobile – 202.740.0645.

-John

----

John Verdi  
Director of Privacy Initiatives  
NTIA/OPAD  
(202) 482-8238  
[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

**From:** [Nadia Mulji](#)  
**To:** [John Verdi](#)  
**Subject:** Re: 4/9: Business Forward Meeting on Drones  
**Date:** Friday, March 27, 2015 9:48:25 AM

---

John,

Hope you're doing well. I just wanted to let you know that we've confirmed the location for the April 9th member lunch on drones. The lunch will be hosted by Business Forward member company Google at 25 Massachusetts Ave NW, 9<sup>th</sup> Floor.

I will be in touch as the lunch gets closer; however, please let me know if you have any questions in the meantime. Our members are greatly looking forward to it!

Thanks,

Nadia

**NADIA K. MULJI** > BUSINESS FORWARD > 1717 RHODE ISLAND AVE., NW, SUITE 660 > WASHINGTON, D.C., 20036 > 202.861.1275 > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)

---

**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Date:** Friday, February 20, 2015 3:13 PM  
**To:** Nadia Mulji <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)>  
**Subject:** RE: 4/9: Business Forward Meeting on Drones

No problem. Thanks for reaching out!

-John

---

**From:** Nadia Mulji [<mailto:nmulji@businessfwd.org>]  
**Sent:** Friday, February 20, 2015 2:10 PM  
**To:** John Verdi  
**Subject:** Re: 4/9: Business Forward Meeting on Drones

Great thank you!

Also, my apologies — I must have missed the below email confirming 2pm. Glad we were able to connect.

Best,  
Nadia

**NADIA K. MULJI** > BUSINESS FORWARD > 1717 RHODE ISLAND AVE., NW, SUITE 660 > WASHINGTON, D.C., 20036 > 202.861.1275 > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)

---

**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>

**Date:** Friday, February 20, 2015 2:08 PM  
**To:** BusinessFWD <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)>  
**Subject:** RE: 4/9: Business Forward Meeting on Drones

-John

---

**From:** John Verdi  
**Sent:** Friday, February 20, 2015 9:35 AM  
**To:** 'Nadia Mulji'  
**Subject:** RE: 4/9: Business Forward Meeting on Drones

Let's plan on 2pm. The best number to reach me is 202.482.8238.

-John

---

**From:** Nadia Mulji [<mailto:nmulji@businessfwd.org>]  
**Sent:** Friday, February 20, 2015 9:16 AM  
**To:** John Verdi  
**Subject:** Re: 4/9: Business Forward Meeting on Drones

John,

Just circling back here. Wanted to check if a call today still works for you.

I hope you're feeling better!  
Nadia

**NADIA K. MULJI > BUSINESS FORWARD > 1717 RHODE ISLAND AVE., NW, SUITE 660 > WASHINGTON, D.C., 20036 > 202.861.1275 > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)**

---

**From:** BusinessFWD <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)>  
**Date:** Thursday, February 19, 2015 5:43 PM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Cc:** "Ellman, Lisa" <[lellman@mckennalong.com](mailto:lellman@mckennalong.com)>  
**Subject:** Re: 4/9: Business Forward Meeting on Drones

John,

Great! Would tomorrow anytime between 1PM and 3PM work for you — permitted that you're feeling better.

Thanks,  
Nadia

**NADIA K. MULJI > BUSINESS FORWARD > 1717 RHODE ISLAND AVE., NW, SUITE 660 > WASHINGTON,**

D.C., 20036 > 202.861.1275 > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)

---

**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Date:** Thursday, February 19, 2015 5:34 PM  
**To:** BusinessFWD <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)>  
**Cc:** "Ellman, Lisa" <[lellman@mckennalong.com](mailto:lellman@mckennalong.com)>  
**Subject:** Re: 4/9: Business Forward Meeting on Drones

Nadia,

Thanks for the kind invitation. I would be pleased to participate. I am under water today, but could discuss via phone tomorrow. Afternoon is preferable.

-John

On Feb 18, 2015, at 3:32 PM, Nadia Mulji <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)> wrote:

John,

I hope this email finds you well. I received your contact information from Lisa Ellman. Business Forward is working to put together a member meeting on April 9 at 12PM to discuss Unmanned Aircraft Systems and the nexus between policy and innovation. We would like to have you or Larry Strickling join us for a panel discussion with Lisa Ellman and Jim Williams, FAA. Would you be able to hop on the phone to discuss this opportunity in further detail? Please let me know when works best for you. Additional details are below.

**When:** Thursday, April 9 from 12PM – 1PM

**Where:** Business Forward member company will host— likely Google

**Who:** 25-30 Government affairs representatives from Fortune 500 companies who partner with Business Forward — please see attached for a full list of our current members

**Materials:** Business Forward will provide you with a briefing memo the Tuesday before the meeting which includes an RSVP list and a run-of-show

Best,  
Nadia

**NADIA K. MULJI > BUSINESS FORWARD > 1717 RHODE ISLAND AVE., NW, SUITE 660 >  
WASHINGTON, D.C., 20036 > 202.861.1275 > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)**

<BF Members HQ 1-20 Members.pdf>

**From:** [John Verdi](#)  
**To:** [Nadia Mulji](#)  
**Subject:** RE: 4/9: Business Forward Meeting on Drones  
**Date:** Friday, March 27, 2015 10:11:25 AM

---

Nadia,

Thanks. This sounds great. To confirm - it will be me, Lisa Ellman and Jim Williams. I look forward to the RSVP list and run of show next Tuesday. Do you anticipate a panel pre-call? If Business Forward doesn't organize it, I imagine Jim, Lisa and I will do an informal one; we all know each other pretty well. :)

-John

---

From: Nadia Mulji [[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)]  
Sent: Friday, March 27, 2015 9:47 AM  
To: John Verdi  
Subject: Re: 4/9: Business Forward Meeting on Drones

John,

Hope you're doing well. I just wanted to let you know that we've confirmed the location for the April 9th member lunch on drones. The lunch will be hosted by Business Forward member company Google at 25 Massachusetts Ave NW, 9th Floor.

I will be in touch as the lunch gets closer; however, please let me know if you have any questions in the meantime. Our members are greatly looking forward to it!

Thanks,  
Nadia

NADIA K. MULJI > Business Forward > 1717 Rhode Island Ave., NW, Suite 660 > Washington, D.C., 20036 > 202.861.1275 > [NMulji@BusinessFwd.org](mailto:NMulji@BusinessFwd.org) <<mailto:NMulji@BusinessFwd.org>>

From: John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> <<mailto:JVerdi@ntia.doc.gov>>>  
Date: Friday, February 20, 2015 3:13 PM  
To: Nadia Mulji <[nmulji@businessfwd.org](mailto:nmulji@businessfwd.org)> <<mailto:nmulji@businessfwd.org>>>  
Subject: RE: 4/9: Business Forward Meeting on Drones

No problem. Thanks for reaching out!

-John

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Sent: Friday, February 20, 2015 2:10 PM  
To: John Verdi  
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Best,  
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NADIA K. MULJI > Business Forward > 1717 Rhode Island Ave., NW, Suite 660 > Washington, D.C., 20036 > 202.861.1275 > [NMulji@BusinessFwd.org](mailto:NMulji@BusinessFwd.org) <<mailto:NMulji@BusinessFwd.org>>

From: John Verdi <JVerdi@ntia.doc.gov<<mailto:JVerdi@ntia.doc.gov>>>  
Date: Friday, February 20, 2015 2:08 PM  
To: BusinessFWD <nmulji@businessfwd.org<<mailto:nmulji@businessfwd.org>>>  
Subject: RE: 4/9: Business Forward Meeting on Drones

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20036 > 202.861.1275 > NMulji@BusinessFwd.org<<mailto:NMulji@BusinessFwd.org>>

From: BusinessFWD <nmulji@businessfwd.org<<mailto:nmulji@businessfwd.org>>>  
Date: Thursday, February 19, 2015 5:43 PM  
To: John Verdi <JVerdi@ntia.doc.gov<<mailto:JVerdi@ntia.doc.gov>>>  
Cc: "Ellman, Lisa" <lellman@mckennalong.com<<mailto:lellman@mckennalong.com>>>  
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20036 > 202.861.1275 > NMulji@BusinessFwd.org<<mailto:NMulji@BusinessFwd.org>>

From: John Verdi <JVerdi@ntia.doc.gov<<mailto:JVerdi@ntia.doc.gov>>>  
Date: Thursday, February 19, 2015 5:34 PM  
To: BusinessFWD <nmulji@businessfwd.org<<mailto:nmulji@businessfwd.org>>>  
Cc: "Ellman, Lisa" <lellman@mckennalong.com<<mailto:lellman@mckennalong.com>>>

Subject: Re: 4/9: Business Forward Meeting on Drones

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When: Thursday, April 9 from 12PM – 1PM

Where: Business Forward member company will host— likely Google

Who: 25-30 Government affairs representatives from Fortune 500 companies who partner with Business Forward — please see attached for a full list of our current members

Materials: Business Forward will provide you with a briefing memo the Tuesday before the meeting which includes an RSVP list and a run-of-show

Best,  
Nadia

NADIA K. MULJI > Business Forward > 1717 Rhode Island Ave., NW, Suite 660 > Washington, D.C., 20036 > 202.861.1275 > NMulji@BusinessFwd.org<<mailto:NMulji@BusinessFwd.org>>

<BF Members HQ 1-20 Members.pdf>

**From:** [Nadia Mulji](#)  
**To:** [Erik.Amend@faa.gov](mailto:Erik.Amend@faa.gov); [james.h.williams@faa.gov](mailto:james.h.williams@faa.gov); [John Verdi](#); [Ellman, Lisa](#)  
**Subject:** Business Forward Member Lunch on Drones

---

When: Thursday, April 09, 2015 12:00 PM-1:00 PM. Eastern Standard Time  
Where: Google, 25 Massachusetts Ave NW, 9th Floor

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

<http://action.businessfwd.org/page/s/member-luncheon-drones>

Member Luncheon on Drones  
Please join Business Forward for a member luncheon focused on Unmanned Aircraft Systems (UAS) and the nexus between regulations and commercial use. The luncheon will feature three panelists:

John Verdi  
Director of Privacy Initiatives at the National Telecommunications and Information Administration  
U.S. Department of Commerce

Jim Williams  
Manager of the UAS Integration Office  
Federal Aviation Administration  
Lisa Ellman  
Counsel and UAS Practice Group Co-chair  
McKenna Long & Aldridge

When:  
Thursday, April 9  
12:00 p.m. to 1:00 p.m.  
Where:  
Google  
25 Massachusetts Ave NW, 9th Floor  
Washington, DC

**From:** [Nadia Mulji](#)  
**To:** [Ellman, Lisa](#); [John Verdi](#); [james.h.williams@faa.gov](mailto:james.h.williams@faa.gov); [Erik.Amend@faa.gov](mailto:Erik.Amend@faa.gov); [Ami Copeland](#)  
**Subject:** Pre-Drones Lunch Planning Call

---

When: Tuesday, April 07, 2015 3:00 PM-3:15 PM. Eastern Standard Time

Where: Dial: **Not Responsive**

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

This planning call is in preparation for the Business Forward member lunch on drones. We wanted to make sure the panelists had a chance to go over the main talking points you plan to make during your brief remarks (about 5 minutes) before the Q&A portion (about 40 minutes). I will send out a briefing memo prior to this call which will include a run-of-show and RVSP list.

For your reference, the invite is below.

---

Member Luncheon on Drones

Please join Business Forward for a member luncheon focused on Unmanned Aircraft Systems (UAS) and the nexus between regulations and commercial use. The luncheon will feature three panelists:

John Verdi

Director of Privacy Initiatives at the National Telecommunications and Information Administration  
U.S. Department of Commerce

Jim Williams

Manager of the UAS Integration Office  
Federal Aviation Administration

Lisa Ellman

Counsel and UAS Practice Group Co-chair  
McKenna Long & Aldridge

When:

Thursday, April 9

12:00 p.m. to 1:00 p.m.

Where:

Google

25 Massachusetts Ave NW, 9th Floor  
Washington, DC

**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#)  
**Subject:** Question  
**Date:** Tuesday, April 07, 2015 7:04:50 AM

---

Hi John,

I had a question about the UAS multistakeholder process. Is NTIA coordinating with the FAA on it?

Tim

**Timothy Tobin**

Partner

---

**Hogan Lovells US LLP**  
Columbia Square  
555 Thirteenth Street, NW  
Washington, DC 20004

Tel: +1 202 637 5600  
Direct: +1 202 637 6833  
Fax: +1 202 637 5910  
Email: [tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)  
Blog: [www.hldataprotection.com](http://www.hldataprotection.com)  
[www.hoganlovells.com](http://www.hoganlovells.com)

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**From:** [Nadia Mulji](#)  
**To:** [Ellman, Lisa](#); [John Verdi](#); [james.h.williams@faa.gov](mailto:james.h.williams@faa.gov); [Erik.Amend@faa.gov](mailto:Erik.Amend@faa.gov); [Bean, Courtney](#)  
**Cc:** [Ami Copeland](#)  
**Subject:** Briefing Materials for Thursday's Lunch  
**Date:** Tuesday, April 07, 2015 2:00:47 PM  
**Attachments:** [Parking for 4-9.docx](#)  
[04092015 Briefing Memo Drones.docx](#)

---

Hi all,

Thank you for agreeing to participate in our Business Forward member lunch this Thursday. In advance of our call today, please find attached the briefing memo which includes the current RSVP list and run-of-show. I have also attached additional partaking options in case the garage in Google's building is full. I will send you an updated RSVP list Wednesday evening.

Talk to you all at 3pm!

Thanks,  
Nadia

**NADIA K. MULJI** > **BUSINESS FORWARD** > **1717 RHODE ISLAND AVE., NW, SUITE 660** > **WASHINGTON, D.C., 20036** > **202.861.1275** > [NMULJI@BUSINESSFWD.ORG](mailto:NMULJI@BUSINESSFWD.ORG)

## Business Forward Member Luncheon

**To:** Panelists for Business Forward Member Lunch on Drones

**From:** Ami Copeland, Business Forward

**Event Date:** Thursday, April 9, 2015

**Subject:** Business Forward Member Lunch on Drones

---

We look forward to having you participate in our member meeting on drones with 20-25 senior government affairs representatives from Business Forward member companies. You will discuss drone regulations and issues being addressed by the public and private sector.

### **LOGISTICS**

Event Time: 12:00 PM – 1:00 PM

YOUR Time: 12:00 PM – 1:00 PM

Location: Google  
25 Massachusetts Ave NW, 9<sup>th</sup> Floor  
Washington, D.C.

Press: CLOSED

Audience: 20 – 25 government affairs executives

Attire: Business

Format: Informal remarks followed by moderated Q&A

Remarks: Informal remarks

Parking: There is underground parking onsite; however, space is limited. If parking is unavailable at Google, alternative parking options are attached.

Outside Point of Contact: Nadia Mulji; [nmulji@businessfwd.org](mailto:nmulji@businessfwd.org); (818) 427-5168

### **PURPOSE**

You will participate in a member lunch with government affairs representatives and senior executives from Fortune 500 companies that partner with Business Forward.

Lisa Ellman, Counsel and UAS Practice Group Co-chair at McKenna Long & Aldridge, will provide a brief overview of drones regulations and what they mean for businesses. Jim Williams, Manager of the UAS Integration Office at the Federal Aviation Administration, will deliver brief remarks focusing on the safety issues associated with drones. John Verdi, Director of Privacy Initiatives at the National Telecommunications and Information Administration at the U.S. Department of Commerce, will deliver brief remarks focusing the

privacy issues associated with drone use. Each panelist will speak for five minutes, followed by a 40-minute question and answer session moderated by Ami Copeland, Executive Director of Business Forward.

## **BACKGROUND**

With the help of more than 50 of the world's most respected companies, Business Forward is making it easier for tens of thousands of business leaders from across America to advise Washington on how to create jobs and accelerate our economy. Business Forward is active in 100 cities and works with more than 450 senior Administration officials, Members of Congress, mayors, and governors. To date, the organization has also brought more than 3,000 business leaders to the White House to brief the President's economic advisors. Business leaders who have participated in these briefings have seen their suggestions implemented in the Affordable Care Act, the Jobs Act, three trade agreements, and every one of the President's budgets. Many have also shared their recommendations with their representatives in Congress and through op-eds and interviews with local media. Ninety-eight out of 100 business leaders who have participated in a Business Forward briefing would be interested in participating in another one.

## **PARTICIPANTS**

1. **Caitlin Brosseau**, *Senior Manager, eBay*
2. **Elizabeth Chernow**, *Senior Manager of Public Policy, Comcast NBC Universal*
3. **Laurie Cook**, *Senior Account Executive, SAS*
4. **Adam Hemphill**, *Director, Walmart*
5. **Josh Hurvitz**, *Vice President of Public Policy, Time Warner*
6. **Theodore Johnston**, *Director of the Office of Business Liaison, U.S. Department of Commerce*
7. **Holly Kinnamon**, *Founder, HJK Strategies*
8. **Melissa Lavinson**, *Vice President, Federal Affairs, Pacific Gas & Electric*
9. **Jill Lockett**, *Senior Vice President of Program Network Policy, National Cable & Telecommunications Association*
10. **Marissa Mitrovich**, *Vice President of Program Development, PCIA - The Wireless Infrastructure Association*
11. **Meredith Monti**, *Government Relations Fellow, eBay*
12. **Mike Moran**, *Assistant Vice President of Government Affairs, Zurich*
13. **Charon Phillips**, *Assistant General Counsel, Verizon*
14. **Gregg Sheiowitz**, *Assistant Vice President, Zurich*
15. **Johanna Shelton**, *Director, Google*
16. **Stephanie Spear**, *Regulatory Policy Representative, National Association of Realtors*
17. **Phil Tahtakran**, *Vice President of Government Relations, Comcast NBCUniversal*
18. **Melissa Tye**, *Vice President of Public Policy, Verizon*
19. **Jennifer Warren**, *Vice President of Technology Policy and Regulation, Lockheed Martin*

## **SEQUENCE OF EVENTS**

- 12:00pm – 12:05pm: Ami welcomes group, facilitates group introductions, and introduces the panelists
- 12:05pm – 12:10pm: Lisa Ellman flies drone and delivers brief remarks
- 12:10pm – 12:15pm: Jim Williams delivers brief remarks
- 12:15pm – 12:20pm: John Verdi delivers brief remarks
- 12:20pm – 12:58pm: Ami opens room for Q&A and discussion
- 12:58pm – 1:00pm: Ami calls for last question, thanks panelists, and closes

## **BIOGRAPHIES**

### **Ami Copeland**

*Business Forward, Executive Director*

Ami Copeland is the Executive Director of Business Forward. Prior to joining Business Forward, Ami served as Deputy National Finance Director for Barack Obama's first presidential campaign and Senior Finance Advisor to the Democratic National Committee during the 2008 presidential election cycle. His participation in nearly every aspect of the Obama for America Finance Department led to an all-time high contribution record and culminated in the election of President Barack Obama. Since 2008, Ami served as a Partner at New Partners Consulting where he advised numerous corporations, non-profits, and campaigns by providing strategic direction, overseeing successful fundraising operations, and creating and managing advocacy efforts.

Ami began his political career in 2001 in Iowa working for Senator Tom Harkin's successful reelection campaign. After, he held leadership positions at the Democratic Senatorial Campaign Committee, with Senate Majority Leader Tom Daschle's 2004 campaign and with Senator Bill Nelson's 2006 reelection campaign.

Before launching his professional political career, Ami lived abroad and obtained the rank of First Sergeant in the Israeli Defense Forces, completed his B.A. in International Relations from Bard College, and worked as an investment banker and business journalist in Europe. Ami hails from Iowa and lives in Washington, D.C. with his wife, another Iowan, and their young son.

### **Lisa Ellman**

*Counsel and UAS Practice Group Co-chair, McKenna Long & Aldridge*

Lisa Ellman is a Counsel in the Washington, D.C. office of McKenna Long & Aldridge LLP and serves as co-chair of the firm's Unmanned Aircraft Systems (UAS) Practice Group. She is also a member of the firm's Public Policy and Regulatory Affairs practice. Ms. Ellman uses her experience in the Federal government to help bridge the sizable knowledge gap between government policymaking and business innovation. In November 2014, Ms. Ellman gave a Tedx talk about "politivation" – a new approach to balancing the needs of innovators and policymakers that will enable society to make good use of new technologies, including commercial and private UAS, in a way that wins the public's trust and serves its interests. In February 2015, Lisa was featured in Fortune magazine's "Most Powerful Women" series for her efforts to develop policy to govern drone use in the domestic United States.

Ms. Ellman's practice focuses on legislative and public policy issues in the U.S., Canada, and Mexico, with an emphasis on emerging high level trends, including UAS. She also assists clients to legally and ethically interact with government at the highest federal and state levels on a range of political and election law issues.

Ms. Ellman brings deep substantive experience and perspective in law and policy at the top levels of the Executive branch in positions both at the White House and the U.S. Department of Justice. As a Senior Counsel in the Justice Department's Office of Legal Policy, Ms. Ellman worked to develop and implement policy initiatives of high priority to the Obama Administration. She led the Justice Department's policy work on campaign finance in the wake of the Citizens United decision. Most recently, Ms. Ellman led the Department's Working Group on Domestic Use of UAS. She also represented the Justice Department in the interagency process considering UAS-related policy issues that are shared across departments and agencies.

Ms. Ellman has served in senior positions within three White House agencies: the Office of Science and Technology Policy, the Office of Management and Budget / Office of Information and Regulatory Affairs (OIRA), and the Office of Presidential Personnel (PPO). She served as Chief Counselor for the Open Government Partnership for the Executive Office of the President where she represented the U.S. internationally and led the Obama Administration's domestic effort to make government more efficient, effective, transparent, and collaborative. She coordinated with and advised over 40 countries on open government strategy and worked in close partnership with civil society organizations and private industry to further these commitments.

At the White House, Ms. Ellman also served as Senior Advisor to the U.S. Chief Technology Officer and Counselor to OIRA Administrator Cass Sunstein. While at OIRA, she served as the U.S.'s point person with Mexico to enhance the economic competitiveness and economic well-being of both countries through improved international regulatory cooperation. She also coordinated trilateral regulatory cooperation among Mexico, Canada, and the United States. Earlier in the Obama Administration, Ms. Ellman served as the White House Legal Director for PPO. In that role, she managed the nominations and appointments process for legal positions in the Obama Administration.

Ms. Ellman also has campaign experience with the Obama for America primary campaign and with the Obama-Biden Transition Team, where she led the effort to designate leadership for all Federal government agencies on President Obama's first day in office.

Earlier in her career, Ms. Ellman practiced law at a Washington, D.C. law firm and served in the U.S. Senate as an aide to Senator Carl Levin.

### **Jim Williams**

*Manager, UAS Integration Office, Federal Aviation Administration*

Jim Williams is the Manager of the FAA's Unmanned Aircraft Systems (UAS) Integration Office. This office functions as the single agency focal point for all UAS-related activities and is uniquely positioned to develop and coordinate solutions to UAS challenges across the FAA and with external organizations.

UAS are often described as the most disruptive aviation technology since the invention of the jet engine, and the FAA's UAS Integration Office has the daunting challenge of accomplishing the safe, efficient, and timely integration of this technology into the National Airspace System (NAS), while balancing the political pressure and economic needs of the nation.

Before taking the helm of the UAS Integration Office in March 2012, Jim spent six years as the Director of Engineering Services in the FAA's NextGen Organization, where he led the coordination and integration of all systems engineering work needed to move the NAS toward NextGen. This work gave him a deep understanding of how FAA research progresses into a mature concept and eventually into the many technologies that become operational in the NAS. His office also led the development of the NAS Enterprise Architecture and NAS-level Requirements. Together these engendered a great appreciation for the interrelationships of the many systems which will be touched by the UAS integration effort.

During his long career with the FAA, Jim has led the organization tasked with lifecycle management of all FAA communications systems and the implementation of the Safety Management System in the Technical Operations Service Unit. He has also worked with the FAA Command Center to transition personnel into the Air Traffic Organization, directed the team that developed, procured, and installed all air/ground communications services for the FAA, and led the team that designed, procured, and fielded the FAA's prototype Air/Ground Data Link Communications System.

Prior to 1998, Jim held various FAA positions related to the regulation and certification of avionics systems. During this time, he led the offices responsible for writing standards for all avionics installed in U.S. civil aircraft and the certification standards and guidance for all navigation systems used on U.S. civil aircraft.

Before coming to FAA Headquarters in Washington, D.C., Jim worked in the Atlanta Aircraft Certification Office as a systems engineer where his responsibilities focused on approving the avionics installed in the Gulfstream G-IV airplane. He also worked on revisions to the RTCA standards for the development of computer software used in avionics.

Prior to joining the FAA, Jim was a flight test engineer and a production liaison engineer for the Lockheed Georgia Company's C5, C-141, and C-130 programs. He also worked for the National Aeronautics and Space Administration (NASA) on the U.S. Space Shuttle Program.

A native of Tennessee, Jim is a graduate of The Georgia Institute of Technology with a Bachelor's degree in Aerospace Engineering. He currently lives in Reston, VA, with his wife, son, mother-in-law, and two standard poodles. He enjoys umpiring Little League baseball.

**John Verdi**

*Director of Privacy Initiatives, National Telecommunications and Information Administration,*

## *U.S. Department of Commerce*

John Verdi is Director of Privacy Initiatives at the National Telecommunications and Information Administration (NTIA). NTIA, located within the US Department of Commerce, is the principal advisor to the President on telecommunications and information policy issues. Mr. Verdi's work focuses on digital privacy and security issues; he leads NTIA's privacy multistakeholder process.

Prior to joining NTIA, Mr. Verdi was General Counsel for the Electronic Privacy Information Center, where he supervised the organization's litigation program, pursued federal lawsuits regarding privacy issues, and authored Supreme Court briefs. He is the co-editor of *Litigation Under the Federal Open Government Laws* (25th Edition).

Mr. Verdi earned his J.D. from Harvard Law School in 2002 and his B.A. in Philosophy, Politics, and Law from SUNY-Binghamton in 1998.

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500 New Jersey Ave NW

Washington, DC 20001

\$20.00 for 2 Hour Parking

7:00am-7:00pm

<https://www.ecolonial.com/>

**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#)  
**Subject:** FW: Video Conference  
**Date:** Tuesday, April 07, 2015 2:15:22 PM

---

John,

Needless to say per below, we would indeed greatly appreciate it if you could join us for the event remotely.

Thanks,

Tim

---

**From:** Ballew, Carrie L.  
**Sent:** Tuesday, April 07, 2015 1:56 PM  
**To:** John Verdi  
**Cc:** Tobin, Timothy P.; Segal, Randy S.  
**Subject:** Video Conference

Hi John –

I'm pleased to hear you can join our panel via video conference! I will need the following information from you to move forward in adding you to our event:

- Your biography for inclusion in our Speakers Bio booklet
- To set up the video conference, we need to get or give routing info...might be best if you can put me in touch with you IT folks. Let me know!

Best,  
Carrie

**Carrie Ballew**  
Events Coordinator

---

**Hogan Lovells US LLP**  
One Tabor Center, Suite 1500  
1200 Seventeenth Street  
Denver, CO 80202

Tel: +1 303 899 7300  
Direct: +1 303 454 2407  
Fax: +1 303 899 7333  
Email: [carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)  
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**From:** [Drobac, Michael](#)  
**To:** [John Verdi](#)  
**Subject:** Catching up  
**Date:** Wednesday, April 08, 2015 8:10:54 AM

---

Hi John -

Hope you're doing well - it's been a while since the Small UAV Coalition bothered you. We're back. Assume you are gearing up - we're happy to assist. Let me know how we may be helpful. I am hearing that this stakeholder process may delve into geofencing, nuisance and other related issues.

If true, let us know if you need any engineers etc.

Hope you're doing well.

Michael

---

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**From:** [John Verdi](#)  
**To:** [Drobac, Michael](#)  
**Subject:** Re: Catching up  
**Date:** Wednesday, April 08, 2015 10:51:34 AM

---

Michael,

Always good to hear from you!

We are eager to see the written comments from everyone. I'm happy to chat this week it would be helpful.

Folks have raised nuisance as a concern and geofencing as a possible privacy/accountability measure. I've heard mixed views about both issues. Happy to discuss.

I have free time this afternoon and Friday. Tomorrow is tough.

-John

On Apr 8, 2015, at 8:10 AM, Drobac, Michael <[mdrobac@akingump.com](mailto:mdrobac@akingump.com)> wrote:

Hi John -

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**From:** [Tobin, Timothy P.](#)  
**To:** [Bronfman, Jill](#)  
**Cc:** [Bomberg, Jared A.](#); [John Verdi](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Wednesday, April 08, 2015 1:52:17 PM

---

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Tim

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**From:** Bronfman, Jill [mailto:[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)]  
**Sent:** Thursday, March 26, 2015 5:35 PM  
**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

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Best,  
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Regards,

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**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

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Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
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**To:** Mammen, Christian E.; Feldman, Robin  
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I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

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Dear Robin,  
Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

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**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
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Dear Chris,

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Best wishes,  
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Dear Robin,  
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Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

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3 Embarcadero Center, Suite 1500  
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Direct: +1 415 374 2325

Fax: +1 415 374 2499

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**Date:** Wednesday, April 08, 2015 1:53:00 PM

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**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Wednesday, April 08, 2015 1:54:58 PM

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**Christian Mammen**  
Partner

---

**Hogan Lovells US LLP**  
3 Embarcadero Center, Suite 1500  
San Francisco, CA 94111

Tel: +1 415 374 2300  
Direct: +1 415 374 2325  
Fax: +1 415 374 2499  
Email: [chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)  
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**About Hogan Lovells**

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**To:** [Tobin, Timothy P.](#); [Bomberg, Jared A.](#); [John Verdi](#)  
**Cc:** [Bronfman, Jill](#)  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Date:** Thursday, April 09, 2015 6:47:13 PM

---

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Thx

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
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San Francisco, California 94102

innovation.uchastings.edu  
bronfmanj@uchastings.edu  
@privacytechlaw

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**To:** Ballew, Carrie L.  
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**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
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Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,

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I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

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In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

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Dear Chris,

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Best wishes,  
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Bio and publications available at  
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**From:** John Verdi  
**To:** ["Tobin, Timothy P."](#); [Bronfman, Jill](#); [Bomberg, Jared A.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Friday, April 10, 2015 11:46:00 AM

---

Monday works for me. I have a meeting running right up to the noon ET/9am PT time, so I apologize in advance if I am a minute or two late dialing in.

-John

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**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
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**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

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**Sent:** Thursday, March 26, 2015 5:04 PM  
**To:** Ballew, Carrie L.  
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**Subject:** Re: Opportunity for Innovation Law Institute  
**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

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Program Director of Privacy and Technology Project  
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Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

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**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#); [Bronfman, Jill](#); [Bomberg, Jared A.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Friday, April 10, 2015 11:47:10 AM

---

Great – thanks all – I’ll send a dial in around.

---

**From:** John Verdi [mailto:JVerdi@ntia.doc.gov]  
**Sent:** Friday, April 10, 2015 11:46 AM  
**To:** Tobin, Timothy P.; Bronfman, Jill; Bomberg, Jared A.  
**Subject:** RE: Opportunity for Innovation Law Institute

Monday works for me. I have a meeting running right up to the noon ET/9am PT time, so I apologize in advance if I am a minute or two late dialing in.

-John

---

**From:** Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
**Sent:** Thursday, April 09, 2015 6:48 PM  
**To:** Bronfman, Jill; Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

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Prefer Monday but could manage Friday.

Thx

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**To:** Bomberg, Jared A.; John Verdi; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

Sorry all, I received Jill's out of office and have not heard from her (it says she is out through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

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**From:** Bomberg, Jared A.  
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**Subject:** RE: Opportunity for Innovation Law Institute

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Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
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800-470-7005  
press \*; then 8016833; then #

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**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Sunday, April 12, 2015 11:38:53 PM  
**Attachments:** [SF\\_Topics.docx](#)

---

Jill and John,

Attached is a proposed set of discussion topics for Thursday's session. Please let us know your thoughts. And, if there are other topics that we should add, just let us know.

We can discuss on tomorrow's call.

-Jared and Tim

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Carrie

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

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**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
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**Christian Mammen**

Partner

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## Panel Discussion

1. Welcome and Overview. **(Jared)**
2. Introduction of Panelists **(Jared)**
3. Technology Overview
  - Can you provide a snapshot of the technology at issue? What is the surveillance capability today? Where is it headed? **(TBD)**
4. Common Law Causes of Action
  - Can you describe trespass, nuisance, and intrusion upon seclusion claims and how they relate to the commercial use of UAS? **(Tim/Slides)**
  - Follow up. Are these viable theories? How should UAS operators and manufactures mitigate these risks? **(TBD)**
  - Follow up. Will other privacy torts provide avenues for redress? How do issues of “standing” and “harm” influence the outcome of these actions? **(TBD)**
  - Follow up. Even if harm can be shown, would a person know who operated or manufactured the UAS in order to bring an action? Would a person always know they were recorded? **(TBD)**
5. State Laws Impacting the Use of UAS
  - Can you describe what we’re seeing at the state level? **(Tim/Slides)**
  - Follow up. Where do you think this is headed? Will we see more UAS privacy bills at the state level? What will they look like? **(TBD)**
  - Follow up. Does this make patchwork sense? **(TBD)**
6. The Federal Role (NTIA and FTC)
  - Can you describe the President’s Memorandum and the NTIA multistakeholder process? **(John)**
  - Will the FTC participate in the NTIA process? Will the FAA? **(John)**
  - Can you describe the FTC’s privacy enforcement authority? **(Tim/Slides)**
  - Can you describe the FTC’s data security enforcement authority and data security and breach notification requirements at the state level? **(Tim/Slides)**
7. Concluding Thoughts / Other Audience Questions

**Other Potential Topics**

- 4<sup>th</sup> Amendment considerations
- Federal UAS privacy legislation
- FAA proposed rule on UAS (Direct/Indirect Impact on Privacy)

**From:** [John Verdi](#)  
**To:** [Bomberg, Jared A.](#)  
**Cc:** [Bronfman, Jill](#); [Tobin, Timothy P.](#)  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Date:** Monday, April 13, 2015 8:41:27 AM

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We can discuss on tomorrow's call.

-Jared and Tim

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<SF\_Topics.docx>

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**Date:** Monday, April 13, 2015 2:49:34 PM  
**Attachments:** [SF.PPTX](#)

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Jill and John,

Please find attached a draft slide deck for Thursday's session. I see it as a jumping off point for further discussion. Please let us know if you have any changes or comments. We're going to take another look at it as well and may have some edits.

Jill, I added a few pictures for the technology discussion. Of course, we can amend or remove them if they are not useful.

John, I added a slide on the Presidential Memorandum. Feel free to edit as you see fit.

Regards,  
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**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
200 McAllister Street  
San Francisco, California 94102

[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](https://twitter.com/privacytechlaw)

---

**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Dear Robin,

Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,

Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]

**Sent:** Monday, March 23, 2015 7:43 PM

**To:** Mammen, Christian E.

**Cc:** Bronfman, Jill

**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,

Robin

Robin Feldman

Professor of Law

Harry & Lillian Hastings Chair

Director, Institute for Innovation Law

University of California Hastings College of the Law

Bio and publications available at

<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>

**Date:** Monday, March 23, 2015 at 6:19 PM

**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>

**Subject:** Opportunity for Innovation Law Institute

Dear Robin,

Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

**Hogan Lovells US LLP**

3 Embarcadero Center, Suite 1500  
San Francisco, CA 94111

Tel: +1 415 374 2300

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[www.hoganlovells.com](http://www.hoganlovells.com)

---

*Please consider the environment before printing this e-mail.*

---

**About Hogan Lovells**

Hogan Lovells is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP. For more information, see [www.hoganlovells.com](http://www.hoganlovells.com).

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<SF\_Topics.docx>

# UAS Privacy, Data Protection, and Property Rights Issues



# Panelists

---



**John Verdi**

Director of Privacy Initiatives

The National Telecommunications & Information Administration



**Tim Tobin**

Partner, Privacy & Information Management

Hogan Lovells



**Jill Bronfman**

Director, Privacy & Technology

Project

UC Hastings



**Jared Bomberg**

Associate,

Privacy & Information Management

Hogan Lovells

# Topics

---

- Background on UAS technology
- Common Law Causes of Action
- State Laws Impacting the Use of UAS
- The Federal Role (NTIA and FTC)
- Concluding thoughts

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# Background on UAS Technology

# Background on UAS technology

---

## Fixed-wing aircraft



# Background on UAS technology

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## Hand-launched aircraft



# Background on UAS technology

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Nano aircraft



# Background on UAS technology

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Delivery aircraft



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# **Private and Commercial Use of UAS**

## ***Common Law Causes of Action***

# Private and Commercial Use of UAS

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## Key Common Law Doctrines Protecting Property & Privacy:

### Trespass

- Flights constitute a trespass only if (a) the aircraft enters into the immediate reaches of the airspace next to the land, and (b) it interferes substantially with the other's use and enjoyment of the land.

RESTATEMENT (SECOND) OF TORTS § 159(2) (1965).

# Private and Commercial Use of UAS

---

## Key Common Law Doctrines Protecting Privacy & Property:

### Nuisance

- A private nuisance is “a nontRESPASSORY invasion of another's interest in the private use and enjoyment of land. Use and enjoyment of the land encompasses the “pleasure, comfort, and enjoyment that a person normally derives from the occupancy of the land.”

RESTATEMENT (SECOND) OF TORTS § 821(D) (1979).

# Private and Commercial Use of UAS

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## Key Common Law Doctrines Protecting Privacy & Property:

### Intrusion Upon Seclusion

- Under a common formulation of the tort, “[o]ne who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.”

RESTATEMENT (SECOND) OF TORTS § 652B

---

# **Private and Commercial Use of UAS**

## ***Recently Enacted State Laws***

# Private and Commercial Use of UAS

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## State Law Developments:

- **California**
- **Idaho**
- **Indiana**
- **Louisiana**
- **North Carolina**
- **Oregon**
- **Tennessee**
- **Texas**
- **Wisconsin**



# Examples of State UAS Laws

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## Enumerated Lawful Uses of UAS

**Texas** law prohibits the collection of images by UAS unless at least one of nineteen exceptions applies. Exceptions include:

- If the image is captured by a satellite for the purposes of mapping;
- If the image is captured by or for an electric or natural gas utility (for limited purposes);
- With the consent of the individual who owns or lawfully occupies the real property captured in the image.

*Tex. Gov't Code Ann. § 423; Texas Privacy Act, Texas House Bill 912, (2014).*

# Examples of State UAS Laws

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## Written Consent

**Idaho** law prohibits UAS from photographing or recording an individual for purposes of publicly disseminating the information without the individual's **written** consent.

*Idaho Code Ann. § 21-213; Idaho Senate Bill 1134, (2014).*

# Examples of State UAS Laws

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## License Requirements

**North Carolina** prohibits the use of UAS to monitor a person or a person's property without that person's consent.

Persons that operate UAS for commercial purposes must **possess a license** issued by the state.

*N.C. Gen Stat. § 15A-300.1; North Carolina Session Law 2014-100, (2014)*

# Examples of State UAS Laws

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## Notification by Property Owner

To bring an action under **Oregon** law, the UAS must have flown over the property at a height of less than 400 feet on at least one previous occasion and the person must have notified the owner or operator of the UAS that the person did not want the UAS flown over the property at less than 400 feet.

*Or. Rev Stat. § 837.380; Oregon House Bill 2710, (2014).*

# Examples of State UAS Laws

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## General Laws that Reach UAS Activities

**California** law prohibits the capture of images taken in an offensive manner of an individual engaging in a personal or familial activity.

The law does not explicitly mention UAS but is broad enough to cover UAS activities.

*Cal. Civ. Code § 1708.8; California Assembly Bill 2306, (2014).*

---

## Criminal Charges:

- **Peeping-Tom Laws.** If an offender knowingly observes or photographs “another person’s intimate parts” for the purpose of the observer’s own sexual gratification.
- **Stalking.** If an offender repeatedly places a person “under surveillance in a manner that would cause a reasonable person to suffer serious emotional distress.”
- **Eavesdropping.** If the offender knowingly overhears or records a conversation without the consent of at least one of the involved parties.

---

# **Private and Commercial Use of UAS**

## ***Federal Privacy Considerations***

# Private and Commercial Use of UAS

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## Presidential Memorandum on UAS



The Presidential Memorandum directs the Department of Commerce's National Telecommunications and Information Administration (NTIA) to lead a group of private sector entities in the creation of commercial UAS privacy standards. Once completed, adoption of these standards by industry would be voluntary. They would not be preemptive of state laws.

# Private and Commercial Use of UAS

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## Federal Privacy Law

### Federal Trade Commission Act.

- Under the FTC Act, a company's potential liability for violations of consumer privacy stems primarily from two enforcement paradigms related to findings of “deceptive” or “unfair” acts or practices in commerce.



# Background on Privacy Law

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## FTC Enforcement

- Section 5 of the FTC Act – prohibits “unfair or deceptive acts or practices”
  - Broken data use promises = deceptive
  - Insufficient notice of sensitive data collection = deceptive
  - Retroactive changes to data use practices = unfair
- Enforcement typically triggered by media coverage or complaints

# Background on Privacy Law

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## Privacy Litigation & Class Action Lawsuits

- Filed with more frequency in the last few years
- Brought under diverse causes of action
  - Breach of contract
  - Computer hacking and eavesdropping statutes
  - Invasion of privacy
  - Fraud, Conversion
  - State consumer protection statutes
- When litigated, these lawsuits have largely been unsuccessful due to lack of damages, but can still be costly
- Private plaintiff litigation may continue following data breaches and privacy mishaps, but absent a statutory private right of action, cases face challenges



# Private and Commercial Use of UAS

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## Federal Legislation

### *Drone Aircraft Privacy and Transparency Act of 2015 (HR 1229)*

- Senator Markey's proposal would, among other requirements, force UAS operators to publish:
  - Flight plans, data collection practices, and information sharing and retention policies.
- Both the FTC and State Attorneys General would be empowered to bring enforcement actions against operators for privacy violations related to these policies.

# Private and Commercial Use of UAS

## Industry Self Regulation

- AUVSI – Code Of Conduct
- Noflyzone.org

The screenshot displays the No Fly Zone website interface. At the top, the logo "NO FLY ZONE" is visible. The main heading reads: "Enter your address below to create a No Fly Zone over your home. It's free!". Below this is a registration form with a text input field labeled "ENTER A LOCATION". A note below the field states: "You will be prompted for your name and e-mail address after confirming your property address." To the right of the form is a cartoon illustration of a house with a drone flying over it, with a blue arrow pointing from the house towards the drone. Below the form and illustration is a three-step process diagram:

- 1** Enter your home address and provide basic info. Takes 30 seconds and free for life!
- 2** We verify your information and register your address and GPS coordinates in our NoFlyZone.org database.
- 3** We coordinate with participating drone manufacturers to automatically prevent drones from flying over your property.

# Private and Commercial Use of UAS

---

## Federal Aviation Administration

- In February, 2015, the FAA released its long-awaited Notice of Proposed Rulemaking on UAS weighing under 55 pounds.
- The proposed FAA rule does not include specific privacy restrictions. In the rule the FAA states that privacy issues, “are beyond the scope of this rulemaking.”
- The FAA will participate in the multi-stakeholder process led by the NTIA.

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# **U.S. Government Use of UAS / 4th Amendment Protections**

# Government Use of UAS / 4<sup>th</sup> Amendment Protections

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The Fourth Amendment provides the “right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.”

While the Supreme Court has never ruled specifically on when UAS use constitutes a Fourth Amendment search, there is a long list of relevant precedents.

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# **Private and Commercial Use of UAS**

## ***Data Security Considerations***

# Private and Commercial Use of UAS

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## **Data Protection Issues**

- UAS operators that maintain personal information of individuals also must comply with data protection standards enforced at the federal and state level.
- At the federal level, the Federal Trade Commission (FTC) is the primary regulator of data security for most businesses.
- Inadequate data security measures for personal information also can lead to violations of state laws. Twelve states—Arkansas, California, Connecticut, Florida, Maryland, Massachusetts, Minnesota, Nevada, Oregon, Rhode Island, Texas, and Utah—impose various levels of data security requirements on businesses that collect personal information about residents of that state.

# Background on Privacy Law

## **Past : FTC Data Security “Cop on the Beat”**

Since 2001, the Commission has used its authority to settle 50 cases against businesses that it charged with failing to provide reasonable protections for consumers’ personal information.

(FTC Statement Marking the FTC’s 50th Data Security Settlement, Jan. 31, 2014)

## **Present:**

*FTC v. Wyndham Worldwide Corp.* (April 7, 2014): New Jersey federal judge denied Wyndham’s challenge to the FTC’s authority to regulate data security under Section 5 of the FTC Act. Wyndham Worldwide Corp. appealed the decision.

## **Future:**

“[Federal data security legislation] should give the FTC authority to seek civil penalties where warranted to help ensure that FTC actions have an appropriate deterrent effect. It should also provide rulemaking authority under the Administrative Procedure Act and jurisdiction over non-profits, which have been the source of a large number of breaches.”

-- **Edith Ramirez**, Chairwomen, Federal Trade Commission before the Senate Committee on the Judiciary, February 4, 2014

# Background on Privacy Law

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## Data Breaches

- 47 states and DC, Puerto Rico, Guam, and US Virgin Islands require notification of data breaches
  - California and Florida – recently amended laws to broaden definition of “personal information”
    - Now will include user names or email addresses, in combination with a password or security question and answer that would permit access to an online account.
- Average Cost of Data Breach: **\$5.85 million**
  - \$201 per compromised record

# Private and Commercial Use of UAS

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## Steps to Reduce Risk Once Approved to Fly

- Develop a baseline set of practices to satisfy applicable privacy and data security requirements
- Implement UAS “privacy by design.”
  - Adopt privacy policies and decide whether and how to make these policies visible.
  - Develop a process by which to record and respect opt-out preferences
  - Develop data retention policies
  - Implement physical, administrative, and technical controls to secure data
- Monitor legislative and regulatory developments

**From:** [John Verdi](#)  
**To:** [Bomberg, Jared A.](#); [Bronfman, Jill](#)  
**Cc:** [Tobin, Timothy P.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Monday, April 13, 2015 3:05:17 PM

---

Thanks! And thanks for a great call today!

---

From: Bomberg, Jared A. [[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)]  
Sent: Monday, April 13, 2015 2:47 PM  
To: John Verdi; Bronfman, Jill  
Cc: Tobin, Timothy P.  
Subject: RE: Opportunity for Innovation Law Institute

Jill and John,  
Please find attached a draft slide deck for Thursday's session. I see it as a jumping off point for further discussion. Please let us know if you have any changes or comments. We're going to take another look at it as well and may have some edits.

Jill, I added a few pictures for the technology discussion. Of course, we can amend or remove them if they are not useful.

John, I added a slide on the Presidential Memorandum. Feel free to edit as you see fit.

Regards,  
Jared

From: John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
Sent: Monday, April 13, 2015 8:41 AM  
To: Bomberg, Jared A.  
Cc: Bronfman, Jill; Tobin, Timothy P.  
Subject: Re: Opportunity for Innovation Law Institute

Thanks! I am happy to say a few words on the 4th amendment issues (which you have flagged but not assigned in the doc). The law is pretty straightforward, and the impact for this crowd is fairly limited, so I would plan to spend 2-3 minutes on it, leave it at that, and folks can ask questions if there is further interest.

-John

On Apr 12, 2015, at 11:38 PM, Bomberg, Jared A.  
<[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)<<mailto:jared.bomberg@hoganlovells.com>>> wrote:  
Jill and John,  
Attached is a proposed set of discussion topics for Thursday's session. Please let us know your thoughts. And, if there are other topics that we should add, just let us know.

We can discuss on tomorrow's call.

-Jared and Tim

From: Tobin, Timothy P.  
Sent: Thursday, April 09, 2015 6:48 PM  
To: Bronfman, Jill; Bomberg, Jared A.; John Verdi  
Subject: RE: Opportunity for Innovation Law Institute

Monday works for me.

From: Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]

Sent: Thursday, April 09, 2015 6:47 PM  
To: Tobin, Timothy P.; Bomberg, Jared A.; John Verdi  
Cc: Bronfman, Jill  
Subject: Re: Opportunity for Innovation Law Institute

Prefer Monday but could manage Friday.

Thx

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
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San Francisco, California 94102

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bronfmanj@uchastings.edu <<mailto:bronfmanj@uchastings.edu>>  
@privacytechlaw

---

From: Tobin, Timothy P. <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)> <<mailto:tim.tobin@hoganlovells.com>>>  
Sent: Thursday, April 9, 2015 2:38:35 PM  
To: Bomberg, Jared A.; John Verdi; Bronfman, Jill  
Subject: RE: Opportunity for Innovation Law Institute

Sorry all, I received Jill's out of office and have not heard from her (it says she is out through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

Tim

From: Bomberg, Jared A.  
Sent: Wednesday, April 08, 2015 1:55 PM  
To: John Verdi; Tobin, Timothy P.; Bronfman, Jill  
Subject: RE: Opportunity for Innovation Law Institute

That works for me.

From: John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
Sent: Wednesday, April 08, 2015 1:54 PM  
To: Tobin, Timothy P.; Bronfman, Jill  
Cc: Bomberg, Jared A.  
Subject: RE: Opportunity for Innovation Law Institute

Friday at 9 am pacific/noon eastern works for me.

-John

From: Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
Sent: Wednesday, April 08, 2015 1:52 PM  
To: Bronfman, Jill  
Cc: Bomberg, Jared A.; John Verdi  
Subject: RE: Opportunity for Innovation Law Institute

Hi all, my apologies as vacation last week and the press of work diverted my attention from this. Perhaps we could have a brief panel prep call Friday at 9 am pacific/noon eastern? Would that work for everyone?

Tim

From: Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
Sent: Thursday, March 26, 2015 5:35 PM  
To: Tobin, Timothy P.; Ballew, Carrie L.  
Cc: Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
Subject: Re: Opportunity for Innovation Law Institute

Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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@privacytechlaw

From: <Tobin>, "Timothy P." <tim.tobin@hoganlovells.com<<mailto:tim.tobin@hoganlovells.com>>>  
Date: Thursday, March 26, 2015 at 2:29 PM  
To: Jill Bronfman <bronfmanj@uchastings.edu<<mailto:bronfmanj@uchastings.edu>>>, "Ballew, Carrie L." <carrie.ballew@hoganlovells.com<<mailto:carrie.ballew@hoganlovells.com>>>  
Cc: "Bomberg, Jared A." <jared.bomberg@hoganlovells.com<<mailto:jared.bomberg@hoganlovells.com>>>, "Mammen, Christian E." <chris.mammen@hoganlovells.com<<mailto:chris.mammen@hoganlovells.com>>>  
Subject: RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6th.

Regards,

Tim

From: Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
Sent: Thursday, March 26, 2015 5:04 PM  
To: Ballew, Carrie L.  
Cc: Tobin, Timothy P.; Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
Subject: Re: Opportunity for Innovation Law Institute  
Importance: High

I'm in.

Thanks,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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From: <Ballew>, "Carrie L."  
<carrie.ballew@hoganlovells.com<<mailto:carrie.ballew@hoganlovells.com>>>  
Date: Thursday, March 26, 2015 at 12:51 PM  
To: Jill Bronfman <bronfmanj@uchastings.edu<<mailto:bronfmanj@uchastings.edu>>>  
Cc: "Tobin, Timothy P." <tim.tobin@hoganlovells.com<<mailto:tim.tobin@hoganlovells.com>>>,  
"Bomberg, Jared A." <jared.bomberg@hoganlovells.com<<mailto:jared.bomberg@hoganlovells.com>>>,  
"Mammen, Christian E."  
<chris.mammen@hoganlovells.com<<mailto:chris.mammen@hoganlovells.com>>>  
Subject: RE: Opportunity for Innovation Law Institute

Hi Jill –

We'd like to have you participate in the Privacy, Data Protection, and Property Rights panel at our April 16th event and, by way of introduction, have copied the two Hogan Lovells attorneys that are heading up that panel, Timothy Tobin<<http://www.hoganlovells.com/tim-tobin/>> and Jared Bomberg<<http://www.hoganlovells.com/jared-a-bomberg/>>.

Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

From: Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
Sent: Tuesday, March 24, 2015 9:35 AM  
To: Mammen, Christian E.; Feldman, Robin  
Cc: Ballew, Carrie L.; Bronfman, Jill  
Subject: Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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@privacytechlaw

From: <Mammen>, "Christian E."  
<chris.mammen@hoganlovells.com<<mailto:chris.mammen@hoganlovells.com>>>  
Date: Tuesday, March 24, 2015 at 6:16 AM  
To: Robin Feldman <feldmanr@uchastings.edu<<mailto:feldmanr@uchastings.edu>>>  
Cc: Jill Bronfman <bronfmanj@uchastings.edu<<mailto:bronfmanj@uchastings.edu>>>, "Ballew, Carrie L."  
<carrie.ballew@hoganlovells.com<<mailto:carrie.ballew@hoganlovells.com>>>  
Subject: RE: Opportunity for Innovation Law Institute

Dear Robin,  
Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

From: Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
Sent: Monday, March 23, 2015 7:43 PM  
To: Mammen, Christian E.  
Cc: Bronfman, Jill  
Subject: Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,  
Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law  
University of California Hastings College of the Law

Bio and publications available at  
<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

From: <Mammen>, "Mammen, Chris"  
<chris.mammen@hoganlovells.com<<mailto:chris.mammen@hoganlovells.com>>>  
Date: Monday, March 23, 2015 at 6:19 PM  
To: Robin Feldman <feldmanr@uchastings.edu<<mailto:feldmanr@uchastings.edu>>>  
Subject: Opportunity for Innovation Law Institute

Dear Robin,  
Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

Christian Mammen  
Partner  
Hogan Lovells US LLP  
3 Embarcadero Center, Suite 1500  
San Francisco, CA 94111

Tel:

+1 415 374 2300

Direct:

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www.hoganlovells.com<<http://www.hoganlovells.com>>

Please consider the environment before printing this e-mail.

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About Hogan Lovells

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<SF\_Topics.docx>

**From:** [Bronfman, Jill](#)  
**To:** [Bomberg, Jared A.](#); [John Verdi](#)  
**Cc:** [Tobin, Timothy P.](#); [Bronfman, Jill](#)  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Date:** Tuesday, April 14, 2015 4:45:32 PM

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Here's my blog post which just went up today for the USC Annenberg school, coincidentally on drones. It's educational but with a dose of sci-fi and humor. <http://blog.uscannenberg.org/alumni/alumni-column-very-personal-air-traffic-control>

Thanks,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
200 McAllister Street  
San Francisco, California 94102

[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

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**From:** <Bomberg>, "Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>  
**Date:** Monday, April 13, 2015 at 11:47 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
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We can discuss on tomorrow's call.

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**Subject:** RE: Opportunity for Innovation Law Institute

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**Subject:** RE: Opportunity for Innovation Law Institute

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**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill

**Subject:** Re: Opportunity for Innovation Law Institute

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**Cc:** "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

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**Importance:** High

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**From:** <Ballew>, "Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
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Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other

digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
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**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Dear Robin,  
Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,  
Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law  
University of California Hastings College of the Law

Bio and publications available at  
<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Monday, March 23, 2015 at 6:19 PM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Subject:** Opportunity for Innovation Law Institute

Dear Robin,  
Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

**Hogan Lovells US LLP**  
3 Embarcadero Center, Suite 1500  
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*Please consider the environment before printing this e-mail.*

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**About Hogan Lovells**

Hogan Lovells is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP. For more information, see [www.hoganlovells.com](http://www.hoganlovells.com).

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**To:** ["Bronfman, Jill"; Bomberg, Jared A.](#)  
**Cc:** [Tobin, Timothy P.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Thursday, April 16, 2015 1:00:00 PM  
**Attachments:** [SF\\_jav.pptx](#)

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All,

I made two minor edits to slides 22 and 27. I clarified some language re: the Presidential Memorandum on slide and added a reference to the AMA code of conduct (it is similar to the already-noted AUVSI code of conduct) on slide 27.

Neither edit is critical. If this email is too late in the game to make changes, don't worry about it. If the deck hasn't yet been finalized, I think these are helpful edits. Either way, I'm looking forward to our discussion later today!

-John

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---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]

**Sent:** Monday, March 23, 2015 7:43 PM

**To:** Mammen, Christian E.

**Cc:** Bronfman, Jill

**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,

Robin

Robin Feldman

Professor of Law

Harry & Lillian Hastings Chair

Director, Institute for Innovation Law

University of California Hastings College of the Law

Bio and publications available at

<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>

**Date:** Monday, March 23, 2015 at 6:19 PM

**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>

**Subject:** Opportunity for Innovation Law Institute

Dear Robin,

Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

**Hogan Lovells US LLP**

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---

*Please consider the environment before printing this e-mail.*

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**About Hogan Lovells**

Hogan Lovells is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP. For more information, see [www.hoganlovells.com](http://www.hoganlovells.com).

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<SF\_Topics.docx>

# UAS Privacy, Data Protection, and Property Rights Issues



# Panelists

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**John Verdi**

Director of Privacy Initiatives

The National Telecommunications & Information Administration



**Tim Tobin**

Partner, Privacy & Information Management

Hogan Lovells



**Jill Bronfman**

Director, Privacy & Technology

Project

UC Hastings



**Jared Bomberg**

Associate,

Privacy & Information Management

Hogan Lovells

# Topics

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- Background on UAS technology
- Common Law Causes of Action
- State Laws Impacting the Use of UAS
- The Federal Role (NTIA and FTC)
- Concluding thoughts

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# Background on UAS Technology

# Background on UAS technology

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## Fixed-wing aircraft



# Background on UAS technology

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## Hand-launched aircraft



# Background on UAS technology

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Nano aircraft



# Background on UAS technology

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Delivery aircraft



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# **Private and Commercial Use of UAS**

## ***Common Law Causes of Action***

# Private and Commercial Use of UAS

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## Key Common Law Doctrines Protecting Property & Privacy:

### Trespass

- Flights constitute a trespass only if (a) the aircraft enters into the immediate reaches of the airspace next to the land, and (b) it interferes substantially with the other's use and enjoyment of the land.

RESTATEMENT (SECOND) OF TORTS § 159(2) (1965).

# Private and Commercial Use of UAS

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## Key Common Law Doctrines Protecting Privacy & Property:

### Nuisance

- A private nuisance is “a nontRESPASSORY invasion of another's interest in the private use and enjoyment of land. Use and enjoyment of the land encompasses the “pleasure, comfort, and enjoyment that a person normally derives from the occupancy of the land.”

RESTATEMENT (SECOND) OF TORTS § 821(D) (1979).

# Private and Commercial Use of UAS

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## Key Common Law Doctrines Protecting Privacy & Property:

### Intrusion Upon Seclusion

- Under a common formulation of the tort, “[o]ne who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.”

RESTATEMENT (SECOND) OF TORTS § 652B

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# **Private and Commercial Use of UAS**

## ***Recently Enacted State Laws***

# Private and Commercial Use of UAS

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## State Law Developments:

- **California**
- **Idaho**
- **Indiana**
- **Louisiana**
- **North Carolina**
- **Oregon**
- **Tennessee**
- **Texas**
- **Wisconsin**



# Examples of State UAS Laws

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## Enumerated Lawful Uses of UAS

**Texas** law prohibits the collection of images by UAS unless at least one of nineteen exceptions applies. Exceptions include:

- If the image is captured by a satellite for the purposes of mapping;
- If the image is captured by or for an electric or natural gas utility (for limited purposes);
- With the consent of the individual who owns or lawfully occupies the real property captured in the image.

*Tex. Gov't Code Ann. § 423; Texas Privacy Act, Texas House Bill 912, (2014).*

# Examples of State UAS Laws

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## Written Consent

**Idaho** law prohibits UAS from photographing or recording an individual for purposes of publicly disseminating the information without the individual's **written** consent.

*Idaho Code Ann. § 21-213; Idaho Senate Bill 1134, (2014).*

# Examples of State UAS Laws

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## License Requirements

**North Carolina** prohibits the use of UAS to monitor a person or a person's property without that person's consent.

Persons that operate UAS for commercial purposes must **possess a license** issued by the state.

*N.C. Gen Stat. § 15A-300.1; North Carolina Session Law 2014-100, (2014)*

# Examples of State UAS Laws

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## Notification by Property Owner

To bring an action under **Oregon** law, the UAS must have flown over the property at a height of less than 400 feet on at least one previous occasion and the person must have notified the owner or operator of the UAS that the person did not want the UAS flown over the property at less than 400 feet.

*Or. Rev Stat. § 837.380; Oregon House Bill 2710, (2014).*

# Examples of State UAS Laws

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## General Laws that Reach UAS Activities

**California** law prohibits the capture of images taken in an offensive manner of an individual engaging in a personal or familial activity.

The law does not explicitly mention UAS but is broad enough to cover UAS activities.

*Cal. Civ. Code § 1708.8; California Assembly Bill 2306, (2014).*

---

## Criminal Charges:

- **Peeping-Tom Laws.** If an offender knowingly observes or photographs “another person’s intimate parts” for the purpose of the observer’s own sexual gratification.
- **Stalking.** If an offender repeatedly places a person “under surveillance in a manner that would cause a reasonable person to suffer serious emotional distress.”
- **Eavesdropping.** If the offender knowingly overhears or records a conversation without the consent of at least one of the involved parties.

---

# **Private and Commercial Use of UAS**

## ***Federal Privacy Considerations***

# Private and Commercial Use of UAS

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## Presidential Memorandum on UAS



The Presidential Memorandum directs the Department of Commerce's National Telecommunications and Information Administration (NTIA) to lead a group of private sector entities in the creation of commercial UAS privacy best practices. Once completed, use of these standards by industry would be voluntary. They would not preempt state laws.

# Private and Commercial Use of UAS

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## Federal Privacy Law

### Federal Trade Commission Act.

- Under the FTC Act, a company's potential liability for violations of consumer privacy stems primarily from two enforcement paradigms related to findings of “deceptive” or “unfair” acts or practices in commerce.



# Background on Privacy Law

---

## FTC Enforcement

- Section 5 of the FTC Act – prohibits “unfair or deceptive acts or practices”
  - Broken data use promises = deceptive
  - Insufficient notice of sensitive data collection = deceptive
  - Retroactive changes to data use practices = unfair
- Enforcement typically triggered by media coverage or complaints

# Background on Privacy Law

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## Privacy Litigation & Class Action Lawsuits

- Filed with more frequency in the last few years
- Brought under diverse causes of action
  - Breach of contract
  - Computer hacking and eavesdropping statutes
  - Invasion of privacy
  - Fraud, Conversion
  - State consumer protection statutes
- When litigated, these lawsuits have largely been unsuccessful due to lack of damages, but can still be costly
- Private plaintiff litigation may continue following data breaches and privacy mishaps, but absent a statutory private right of action, cases face challenges



# Private and Commercial Use of UAS

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## Federal Legislation

### *Drone Aircraft Privacy and Transparency Act of 2015 (HR 1229)*

- Senator Markey's proposal would, among other requirements, force UAS operators to publish:
  - Flight plans, data collection practices, and information sharing and retention policies.
- Both the FTC and State Attorneys General would be empowered to bring enforcement actions against operators for privacy violations related to these policies.

# Private and Commercial Use of UAS

## Industry Self Regulation

- AUVSI – Code Of Conduct
- AMA – Code Of Conduct
- Noflyzone.org

The screenshot displays the No Fly Zone website interface. At the top, the logo "NO FLY ZONE" is visible. The main heading reads: "Enter your address below to create a No Fly Zone over your home. It's free!". Below this is a form with a text input field labeled "ENTER A LOCATION". A note below the field states: "You will be prompted for your name and e-mail address after confirming your property address." To the right of the form is a cartoon illustration of a house with a drone flying over it, and a person holding a sign that says "NO DRONES". Below the form and illustration is a three-step process diagram:

- 1** Enter your home address and provide basic info. Takes 30 seconds and free for life!
- 2** We verify your information and register your address and GPS coordinates in our NoFlyZone.org database.
- 3** We coordinate with participating drone manufacturers to automatically prevent drones from flying over your property.

# Private and Commercial Use of UAS

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## Federal Aviation Administration

- In February, 2015, the FAA released its long-awaited Notice of Proposed Rulemaking on UAS weighing under 55 pounds.
- The proposed FAA rule does not include specific privacy restrictions. In the rule the FAA states that privacy issues, “are beyond the scope of this rulemaking.”
- The FAA will participate in the multi-stakeholder process led by the NTIA.

---

# **U.S. Government Use of UAS / 4th Amendment Protections**

# Government Use of UAS / 4<sup>th</sup> Amendment Protections

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The Fourth Amendment provides the “right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.”

While the Supreme Court has never ruled specifically on when UAS use constitutes a Fourth Amendment search, there is a long list of relevant precedents.

---

# **Private and Commercial Use of UAS**

## ***Data Security Considerations***

# Private and Commercial Use of UAS

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## **Data Protection Issues**

- UAS operators that maintain personal information of individuals also must comply with data protection standards enforced at the federal and state level.
- At the federal level, the Federal Trade Commission (FTC) is the primary regulator of data security for most businesses.
- Inadequate data security measures for personal information also can lead to violations of state laws. Twelve states—Arkansas, California, Connecticut, Florida, Maryland, Massachusetts, Minnesota, Nevada, Oregon, Rhode Island, Texas, and Utah—impose various levels of data security requirements on businesses that collect personal information about residents of that state.

# Background on Privacy Law

## **Past : FTC Data Security “Cop on the Beat”**

Since 2001, the Commission has used its authority to settle 50 cases against businesses that it charged with failing to provide reasonable protections for consumers’ personal information.

(FTC Statement Marking the FTC’s 50th Data Security Settlement, Jan. 31, 2014)

## **Present:**

*FTC v. Wyndham Worldwide Corp.* (April 7, 2014): New Jersey federal judge denied Wyndham’s challenge to the FTC’s authority to regulate data security under Section 5 of the FTC Act. Wyndham Worldwide Corp. appealed the decision.

## **Future:**

“[Federal data security legislation] should give the FTC authority to seek civil penalties where warranted to help ensure that FTC actions have an appropriate deterrent effect. It should also provide rulemaking authority under the Administrative Procedure Act and jurisdiction over non-profits, which have been the source of a large number of breaches.”

-- **Edith Ramirez**, Chairwomen, Federal Trade Commission before the Senate Committee on the Judiciary, February 4, 2014

# Background on Privacy Law

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## Data Breaches

- 47 states and DC, Puerto Rico, Guam, and US Virgin Islands require notification of data breaches
  - California and Florida – recently amended laws to broaden definition of “personal information”
    - Now will include user names or email addresses, in combination with a password or security question and answer that would permit access to an online account.
- Average Cost of Data Breach: **\$5.85 million**
  - \$201 per compromised record

# Private and Commercial Use of UAS

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## Steps to Reduce Risk Once Approved to Fly

- Develop a baseline set of practices to satisfy applicable privacy and data security requirements
- Implement UAS “privacy by design.”
  - Adopt privacy policies and decide whether and how to make these policies visible.
  - Develop a process by which to record and respect opt-out preferences
  - Develop data retention policies
  - Implement physical, administrative, and technical controls to secure data
- Monitor legislative and regulatory developments

**From:** [Bomberg, Jared A.](#)  
**To:** [John Verdi](#); [Bronfman, Jill](#)  
**Cc:** [Tobin, Timothy P.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Thursday, April 16, 2015 1:11:18 PM

---

Thanks. Great. We'll work with our A/V team to try to swap the slides.

Looking forward to the panel. John, too bad you're missing the whiskey tasting after the event!

---

**From:** John Verdi [mailto:JVerdi@ntia.doc.gov]  
**Sent:** Thursday, April 16, 2015 1:01 PM  
**To:** Bronfman, Jill; Bomberg, Jared A.  
**Cc:** Tobin, Timothy P.  
**Subject:** RE: Opportunity for Innovation Law Institute

All,

I made two minor edits to slides 22 and 27. I clarified some language re: the Presidential Memorandum on slide and added a reference to the AMA code of conduct (it is similar to the already-noted AUVSI code of conduct) on slide 27.

Neither edit is critical. If this email is too late in the game to make changes, don't worry about it. If the deck hasn't yet been finalized, I think these are helpful edits. Either way, I'm looking forward to our discussion later today!

-John

---

**From:** Bronfman, Jill [mailto:[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)]  
**Sent:** Tuesday, April 14, 2015 4:45 PM  
**To:** Bomberg, Jared A.; John Verdi  
**Cc:** Tobin, Timothy P.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

I'm happy to discuss privacy issues, including notice and transparency issues. If I'm on for technology, I can discuss it at a high-level and from a non-engineering perspective, focusing on consumer and industry uses, range, and locations for UAS.

Here's my blog post which just went up today for the USC Annenberg school, coincidentally on drones. It's educational but with a dose of scifi and humor. <http://blog.uscannenberg.org/alumni/alumni-column-very-personal-air-traffic-control>

Thanks,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy

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[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

---

**From:** <Bomberg>, "Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>  
**Date:** Monday, April 13, 2015 at 11:47 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Jill and John,

Please find attached a draft slide deck for Thursday's session. I see it as a jumping off point for further discussion. Please let us know if you have any changes or comments. We're going to take another look at it as well and may have some edits.

Jill, I added a few pictures for the technology discussion. Of course, we can amend or remove them if they are not useful.

John, I added a slide on the Presidential Memorandum. Feel free to edit as you see fit.

Regards,  
Jared

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Monday, April 13, 2015 8:41 AM  
**To:** Bomberg, Jared A.  
**Cc:** Bronfman, Jill; Tobin, Timothy P.  
**Subject:** Re: Opportunity for Innovation Law Institute

Thanks! I am happy to say a few words on the 4th amendment issues (which you have flagged but not assigned in the doc). The law is pretty straightforward, and the impact for this crowd is fairly limited, so I would plan to spend 2-3 minutes on it, leave it at that, and folks can ask questions if there is further interest.

-John

On Apr 12, 2015, at 11:38 PM, Bomberg, Jared A. <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)> wrote:

Jill and John,

Attached is a proposed set of discussion topics for Thursday's session. Please let us know your thoughts. And, if there are other topics that we should add, just let us know.

We can discuss on tomorrow's call.

-Jared and Tim

---

**From:** Tobin, Timothy P.  
**Sent:** Thursday, April 09, 2015 6:48 PM  
**To:** Bronfman, Jill; Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Monday works for me.

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, April 09, 2015 6:47 PM  
**To:** Tobin, Timothy P.; Bomberg, Jared A.; John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Prefer Monday but could manage Friday.

Thx

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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University of California Hastings College of the Law  
200 McAllister Street  
San Francisco, California 94102

[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

---

**From:** Tobin, Timothy P. <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Sent:** Thursday, April 9, 2015 2:38:35 PM  
**To:** Bomberg, Jared A.; John Verdi; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

Sorry all, I received Jill's out of office and have not heard from her (it says she is out through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

Tim

---

**From:** Bomberg, Jared A.  
**Sent:** Wednesday, April 08, 2015 1:55 PM  
**To:** John Verdi; Tobin, Timothy P.; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

That works for me.

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, April 08, 2015 1:54 PM  
**To:** Tobin, Timothy P.; Bronfman, Jill  
**Cc:** Bomberg, Jared A.  
**Subject:** RE: Opportunity for Innovation Law Institute

Friday at 9 am pacific/noon eastern works for me.

-John

---

**From:** Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
**Sent:** Wednesday, April 08, 2015 1:52 PM  
**To:** Bronfman, Jill  
**Cc:** Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi all, my apologies as vacation last week and the press of work diverted my attention from this. Perhaps we could have a brief panel prep call Friday at 9 am pacific/noon eastern? Would that work for everyone?

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:35 PM  
**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

---

**From:** <Tobin>, "Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 2:29 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Cc:** "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:04 PM  
**To:** Ballew, Carrie L.  
**Cc:** Tobin, Timothy P.; Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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[@privacytechlaw](https://twitter.com/privacytechlaw)

---

**From:** <Ballew>, "Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>

**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill –

We'd like to have you participate in the Privacy, Data Protection, and Property Rights panel at our April 16<sup>th</sup> event and, by way of introduction, have copied the two Hogan Lovells attorneys that are heading up that panel, [Timothy Tobin](#) and [Jared Bomberg](#).

Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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University of California Hastings College of the Law  
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San Francisco, California 94102

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---

**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Dear Robin,

Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,  
Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law  
University of California Hastings College of the Law

Bio and publications available at  
<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Monday, March 23, 2015 at 6:19 PM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>

**Subject:** Opportunity for Innovation Law Institute

Dear Robin,

Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

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**About Hogan Lovells**

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<SF\_Topics.docx>

**From:** John Verdi  
**To:** ["Bomberg, Jared A."](#); [Bronfman, Jill](#)  
**Cc:** [Tobin, Timothy P.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Thursday, April 16, 2015 1:19:00 PM

---

One of the many reasons I'm disappointed to be dialing in remotely!

-John

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**From:** Bomberg, Jared A. [<mailto:jared.bomberg@hoganlovells.com>]  
**Sent:** Thursday, April 16, 2015 1:11 PM  
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Thanks. Great. We'll work with our A/V team to try to swap the slides.

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Thanks,  
Jill Bronfman

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Adjunct Professor of Law, Data Privacy  
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[innovation.uchastings.edu](http://innovation.uchastings.edu)  
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**From:** <Bomberg>, "Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>  
**Date:** Monday, April 13, 2015 at 11:47 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
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Jill and John,  
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Regards,  
Jared

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We can discuss on tomorrow's call.

-Jared and Tim

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**Subject:** RE: Opportunity for Innovation Law Institute

Monday works for me.

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Prefer Monday but could manage Friday.

Thx

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**To:** Bomberg, Jared A.; John Verdi; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

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through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

Tim

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Hi all, my apologies as vacation last week and the press of work diverted my attention from this. Perhaps we could have a brief panel prep call Friday at 9 am pacific/noon eastern? Would that work for everyone?

Tim

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:35 PM  
**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
Jill Bronfman

Jill Bronfman

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**Cc:** "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:04 PM  
**To:** Ballew, Carrie L.  
**Cc:** Tobin, Timothy P.; Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

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**From:** <Ballew>, "Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill –

We'd like to have you participate in the Privacy, Data Protection, and Property Rights panel at our April 16<sup>th</sup> event and, by way of introduction, have copied the two Hogan Lovells attorneys that are heading up that panel, [Timothy Tobin](#) and [Jared Bomberg](#).

Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

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**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
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Dear Robin,

Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,

Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,

Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law

University of California Hastings College of the Law

Bio and publications available at

<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>

**Date:** Monday, March 23, 2015 at 6:19 PM

**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>

**Subject:** Opportunity for Innovation Law Institute

Dear Robin,

Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,

Chris

**Christian Mammen**

Partner

---

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Indeed, we'll miss you in person but I'm looking forward to seeing you all even virtually!

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**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill –

We'd like to have you participate in the Privacy, Data Protection, and Property Rights panel at our April 16<sup>th</sup> event and, by way of introduction, have copied the two Hogan Lovells attorneys that are heading up that panel, [Timothy Tobin](#) and [Jared Bomberg](#).

Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year

from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
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University of California Hastings College of the Law  
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[innovation.uchastings.edu](http://innovation.uchastings.edu)  
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[@privacytechlaw](#)

---

**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Dear Robin,  
Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

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Best wishes,

Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law  
University of California Hastings College of the Law

Bio and publications available at  
<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

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**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
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Dear Robin,  
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Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

---

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<SF\_Topics.docx>

**From:** [Bronfman, Jill](#)  
**To:** [Tobin, Timothy P.](#); [John Verdi](#); [Bomberg, Jared A.](#)  
**Cc:** [Bronfman, Jill](#)  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Date:** Friday, April 17, 2015 1:25:15 PM

---

Great meeting you all and putting on an entertaining multi-media presentation.

Thank you for including me,

Jill Bronfman

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Program Director of Privacy and Technology Project  
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**From:** <Tobin>, "Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Date:** Thursday, April 16, 2015 at 10:20 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Indeed, we'll miss you in person but I'm looking forward to seeing you all even virtually!

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Thursday, April 16, 2015 1:20 PM  
**To:** Bomberg, Jared A.; Bronfman, Jill  
**Cc:** Tobin, Timothy P.  
**Subject:** RE: Opportunity for Innovation Law Institute

One of the many reasons I'm disappointed to be dialing in remotely!

-John

---

**From:** Bomberg, Jared A. [<mailto:jared.bomberg@hoganlovells.com>]  
**Sent:** Thursday, April 16, 2015 1:11 PM  
**To:** John Verdi; Bronfman, Jill  
**Cc:** Tobin, Timothy P.  
**Subject:** RE: Opportunity for Innovation Law Institute

Thanks. Great. We'll work with our A/V team to try to swap the slides.

Looking forward to the panel. John, too bad you're missing the whiskey tasting after the event!

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**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Thursday, April 16, 2015 1:01 PM  
**To:** Bronfman, Jill; Bomberg, Jared A.  
**Cc:** Tobin, Timothy P.  
**Subject:** RE: Opportunity for Innovation Law Institute

All,

I made two minor edits to slides 22 and 27. I clarified some language re: the Presidential Memorandum on slide and added a reference to the AMA code of conduct (it is similar to the already-noted AUVSI code of conduct) on slide 27.

Neither edit is critical. If this email is too late in the game to make changes, don't worry about it. If the deck hasn't yet been finalized, I think these are helpful edits. Either way, I'm looking forward to our discussion later today!

-John

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**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, April 14, 2015 4:45 PM  
**To:** Bomberg, Jared A.; John Verdi  
**Cc:** Tobin, Timothy P.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

I'm happy to discuss privacy issues, including notice and transparency issues. If I'm on for technology, I can discuss it at a high-level and from a non-engineering perspective, focusing on consumer and industry uses, range, and locations for UAS.

Here's my blog post which just went up today for the USC Annenberg school, coincidentally on drones. It's educational but with a dose of scifi and humor. <http://blog.uscannenberg.org/alumni/alumni-column-very-personal-air-traffic-control>

Thanks,  
Jill Bronfman

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[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)

@privacytechlaw

---

**From:** <Bomberg>, "Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>  
**Date:** Monday, April 13, 2015 at 11:47 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Jill and John,

Please find attached a draft slide deck for Thursday's session. I see it as a jumping off point for further discussion. Please let us know if you have any changes or comments. We're going to take another look at it as well and may have some edits.

Jill, I added a few pictures for the technology discussion. Of course, we can amend or remove them if they are not useful.

John, I added a slide on the Presidential Memorandum. Feel free to edit as you see fit.

Regards,  
Jared

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Monday, April 13, 2015 8:41 AM  
**To:** Bomberg, Jared A.  
**Cc:** Bronfman, Jill; Tobin, Timothy P.  
**Subject:** Re: Opportunity for Innovation Law Institute

Thanks! I am happy to say a few words on the 4th amendment issues (which you have flagged but not assigned in the doc). The law is pretty straightforward, and the impact for this crowd is fairly limited, so I would plan to spend 2-3 minutes on it, leave it at that, and folks can ask questions if there is further interest.

-John

On Apr 12, 2015, at 11:38 PM, Bomberg, Jared A. <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)> wrote:

Jill and John,

Attached is a proposed set of discussion topics for Thursday's session. Please let us know your thoughts. And, if there are other topics that we should add, just let us know.

We can discuss on tomorrow's call.

-Jared and Tim

---

**From:** Tobin, Timothy P.  
**Sent:** Thursday, April 09, 2015 6:48 PM

**To:** Bronfman, Jill; Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Monday works for me.

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, April 09, 2015 6:47 PM  
**To:** Tobin, Timothy P.; Bomberg, Jared A.; John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Prefer Monday but could manage Friday.

Thx

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[@privacytechlaw](mailto:@privacytechlaw)

---

**From:** Tobin, Timothy P. <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Sent:** Thursday, April 9, 2015 2:38:35 PM  
**To:** Bomberg, Jared A.; John Verdi; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

Sorry all, I received Jill's out of office and have not heard from her (it says she is out through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

Tim

---

**From:** Bomberg, Jared A.  
**Sent:** Wednesday, April 08, 2015 1:55 PM  
**To:** John Verdi; Tobin, Timothy P.; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

That works for me.

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, April 08, 2015 1:54 PM  
**To:** Tobin, Timothy P.; Bronfman, Jill  
**Cc:** Bomberg, Jared A.  
**Subject:** RE: Opportunity for Innovation Law Institute

Friday at 9 am pacific/noon eastern works for me.

-John

---

**From:** Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
**Sent:** Wednesday, April 08, 2015 1:52 PM  
**To:** Bronfman, Jill  
**Cc:** Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi all, my apologies as vacation last week and the press of work diverted my attention from this. Perhaps we could have a brief panel prep call Friday at 9 am pacific/noon eastern? Would that work for everyone?

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:35 PM  
**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
Jill Bronfman

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**From:** <Tobin>, "Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 2:29 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Cc:** "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>

**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:04 PM  
**To:** Ballew, Carrie L.  
**Cc:** Tobin, Timothy P.; Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

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**From:** <Ballew>, "Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 12:51 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
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Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

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All the best,

Chris

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**Cc:** Bronfman, Jill

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Robin Feldman

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Many thanks,  
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**From:** John Verdi  
**To:** ["Bronfman, Jill"](#); [Tobin, Timothy P.](#); [Bomberg, Jared A.](#)  
**Subject:** RE: Opportunity for Innovation Law Institute  
**Date:** Friday, April 17, 2015 3:42:00 PM

---

Thanks, all! It was great meeting you. I'm sorry I couldn't be there in person – it looks like it was a great group of folks!

-John

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Friday, April 17, 2015 1:25 PM  
**To:** Tobin, Timothy P.; John Verdi; Bomberg, Jared A.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

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**Subject:** RE: Opportunity for Innovation Law Institute

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**Cc:** Tobin, Timothy P.; Bronfman, Jill  
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San Francisco, California 94102

[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

---

**From:** <Bomberg>, "Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>  
**Date:** Monday, April 13, 2015 at 11:47 AM  
**To:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>, Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Jill and John,

Please find attached a draft slide deck for Thursday's session. I see it as a jumping off point for further discussion. Please let us know if you have any changes or comments. We're going to take another look at it as well and may have some edits.

Jill, I added a few pictures for the technology discussion. Of course, we can amend or remove them if they are not useful.

John, I added a slide on the Presidential Memorandum. Feel free to edit as you see fit.

Regards,  
Jared

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Monday, April 13, 2015 8:41 AM  
**To:** Bomberg, Jared A.  
**Cc:** Bronfman, Jill; Tobin, Timothy P.  
**Subject:** Re: Opportunity for Innovation Law Institute

Thanks! I am happy to say a few words on the 4th amendment issues (which you have flagged but not assigned in the doc). The law is pretty straightforward, and the impact for this crowd is fairly limited, so I would plan to spend 2-3 minutes on it, leave it at that, and folks can ask questions if there is further interest.

-John

On Apr 12, 2015, at 11:38 PM, Bomberg, Jared A. <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)> wrote:

Jill and John,

Attached is a proposed set of discussion topics for Thursday's session. Please let us know your thoughts. And, if there are other topics that we should add, just let us know.

We can discuss on tomorrow's call.

-Jared and Tim

---

**From:** Tobin, Timothy P.  
**Sent:** Thursday, April 09, 2015 6:48 PM  
**To:** Bronfman, Jill; Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Monday works for me.

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, April 09, 2015 6:47 PM  
**To:** Tobin, Timothy P.; Bomberg, Jared A.; John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Prefer Monday but could manage Friday.

Thx

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
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[@privacytechlaw](mailto:@privacytechlaw)

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**From:** Tobin, Timothy P. <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Sent:** Thursday, April 9, 2015 2:38:35 PM  
**To:** Bomberg, Jared A.; John Verdi; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

Sorry all, I received Jill's out of office and have not heard from her (it says she is out through this week). Let's plan for Monday. Would Monday at 9 am pacific/noon eastern work?

Tim

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**From:** Bomberg, Jared A.  
**Sent:** Wednesday, April 08, 2015 1:55 PM  
**To:** John Verdi; Tobin, Timothy P.; Bronfman, Jill  
**Subject:** RE: Opportunity for Innovation Law Institute

That works for me.

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, April 08, 2015 1:54 PM  
**To:** Tobin, Timothy P.; Bronfman, Jill  
**Cc:** Bomberg, Jared A.  
**Subject:** RE: Opportunity for Innovation Law Institute

Friday at 9 am pacific/noon eastern works for me.

-John

---

**From:** Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
**Sent:** Wednesday, April 08, 2015 1:52 PM  
**To:** Bronfman, Jill  
**Cc:** Bomberg, Jared A.; John Verdi  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi all, my apologies as vacation last week and the press of work diverted my attention from this. Perhaps we could have a brief panel prep call Friday at 9 am pacific/noon eastern? Would that work for everyone?

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:35 PM  
**To:** Tobin, Timothy P.; Ballew, Carrie L.  
**Cc:** Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Ideally, on the 6th if that works for all. I'm heading to Seattle on the 7th for spring break/robotics law conference at Udub. If necessary, I can dial in later that week from the top of the space needle or wherever.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
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[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

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**From:** <Tobin>, "Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 2:29 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Cc:** "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill – welcome to the panel! I'll be out next week – maybe you, Jared and me can touch base early the week of the 6<sup>th</sup>.

Regards,

Tim

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, March 26, 2015 5:04 PM  
**To:** Ballew, Carrie L.  
**Cc:** Tobin, Timothy P.; Bomberg, Jared A.; Mammen, Christian E.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute  
**Importance:** High

I'm in.

Thanks,  
Jill Bronfman

Jill Bronfman  
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**From:** <Ballew>, "Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Date:** Thursday, March 26, 2015 at 12:51 PM

**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Cc:** "Tobin, Timothy P." <[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)>, "Bomberg, Jared A." <[jared.bomberg@hoganlovells.com](mailto:jared.bomberg@hoganlovells.com)>, "Mammen, Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Hi Jill –

We'd like to have you participate in the Privacy, Data Protection, and Property Rights panel at our April 16<sup>th</sup> event and, by way of introduction, have copied the two Hogan Lovells attorneys that are heading up that panel, [Timothy Tobin](#) and [Jared Bomberg](#).

Tim/Jared, please see below for some of Jill's history and loop her into your presentation/talking points and etc. for our upcoming event.

We look forward to having you be a part of our workshop!

Best,  
Carrie

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Tuesday, March 24, 2015 9:35 AM  
**To:** Mammen, Christian E.; Feldman, Robin  
**Cc:** Ballew, Carrie L.; Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Chris,

Thank you for including us in this project. I've got some history with UAS: (1) presented at the National Association of Broadcasters/Broadcast Educator Association (NAB/BEA) Meeting last year on drones and 3D printing, (2) speaking this year at IAPP on drones and other digital companions, and (3) lectured on drones and privacy as part of my data privacy law class this semester.

I'm especially interested in industry self-regulation moves, having come to Hastings last year from a 7-year stint as an AGC at Verizon.

Please let me know how we can help and please send me the attachment mentioned below.

Best,  
Jill Bronfman

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law

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[@privacytechlaw](https://twitter.com/privacytechlaw)

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**From:** <Mammen>, "Christian E." <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Tuesday, March 24, 2015 at 6:16 AM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Cc:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>, "Ballew, Carrie L." <[carrie.ballew@hoganlovells.com](mailto:carrie.ballew@hoganlovells.com)>  
**Subject:** RE: Opportunity for Innovation Law Institute

Dear Robin,

Thanks so much. I'm looping in Carrie Ballew at Hogan, who can work with Jill on the details.

In full disclosure, and so there are no surprises, I also reached out to BCLT and got a positive response from them as well.

All the best,  
Chris

---

**From:** Feldman, Robin [<mailto:feldmanr@uchastings.edu>]  
**Sent:** Monday, March 23, 2015 7:43 PM  
**To:** Mammen, Christian E.  
**Cc:** Bronfman, Jill  
**Subject:** Re: Opportunity for Innovation Law Institute

Dear Chris,

Thank you for thinking of us. We would love this opportunity. I am copying Jill Bronfman, Program Director of the Institute's Privacy & Tech Project to follow up.

Best wishes,  
Robin

Robin Feldman  
Professor of Law  
Harry & Lillian Hastings Chair  
Director, Institute for Innovation Law  
University of California Hastings College of the Law

Bio and publications available at  
<http://uchastings.edu/academics/faculty/facultybios/feldman/index.php>

---

**From:** <Mammen>, "Mammen, Chris" <[chris.mammen@hoganlovells.com](mailto:chris.mammen@hoganlovells.com)>  
**Date:** Monday, March 23, 2015 at 6:19 PM  
**To:** Robin Feldman <[feldmanr@uchastings.edu](mailto:feldmanr@uchastings.edu)>  
**Subject:** Opportunity for Innovation Law Institute

Dear Robin,

Hogan Lovells is sponsoring a workshop on Unmanned Aerial Systems (i.e., drones) in Silicon Valley next month. See the attached draft announcement. By any chance, would the Innovation Law Institute be interested in being a names-only co-sponsor for the event? (I'm part of the drone working group at the firm.)

Note: we're still awaiting confirmation from NTIA and InQtel.

Many thanks,  
Chris

**Christian Mammen**

Partner

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**Hogan Lovells US LLP**

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*Please consider the environment before printing this e-mail.*

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<SF\_Topics.docx>

**From:** [Turetsky, David](#)  
**To:** [UASrfc2015@ntia.doc.gov](mailto:UASrfc2015@ntia.doc.gov)  
**Cc:** [John Verdi](#)  
**Subject:** Comments of the Small UAV Coalition (UAS RFC 2015)  
**Date:** Monday, April 20, 2015 3:29:07 PM  
**Attachments:** [scanned copy comments re UAS RFC 2015 - Small UAV.PDF](#)

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Attached for filing are the comments of the Small UAV Coalition.

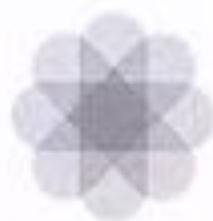
**David S. Turetsky**

**AKIN GUMP STRAUSS HAUER & FELD LLP**

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Fax: +1 202.887.4288 | [dturetsky@akingump.com](mailto:dturetsky@akingump.com) | [akingump.com](http://akingump.com) | [Bio](#)

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**SMALL UAV  
COALITION**  
*A Partnership for  
Safety & Innovation*

April 20, 2015

National Telecommunications and Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue NW, Room 4725  
Washington, D.C. 20230

Via email to [UASrfc2015@ntia.doc.gov](mailto:UASrfc2015@ntia.doc.gov)

Re: UAS RFC 2015

Dear Mr. Verdi,

The Small UAV Coalition<sup>1</sup> was formed by leading technology companies in order to expedite the safe use of small unmanned aerial vehicles (UAVS) for commercial, recreational, civil, and philanthropic purposes.<sup>2</sup> Small UAVs will provide major economic, public safety, environmental, and other benefits to U.S. consumers and businesses.<sup>3</sup> Moreover, participants in the commercial sector of this developing industry have a wide range of different objectives and innovative capabilities, and include entities of different sizes, types, resources, and technologies such as sensors or photographic tools. In realizing these benefits, our members are committed to safeguarding privacy and safety. Accordingly, the Small UAV Coalition welcomes the opportunity to submit these comments about the multi-stakeholder process to be initiated by NTIA in response to the Presidential Memorandum.<sup>4</sup>

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<sup>1</sup> The Members of the Small UAV Coalition are 3D Robotics, Aerialtronics, Airware, Amazon Prime Air, BeLink, Drone Deploy, DJI, EHANG, Intel, Google [X] Project Wing, GoPro, HAZON Solutions, Kestry, Parrot, Precisionhawk, Sky-Futures, SkyWard, Strat Aero, SkyPan, Transport Risk Management, Verifly, and Zero Tech.

<sup>2</sup> The term UAV (unmanned aerial vehicle) refers to the vehicle and the term UAS (unmanned aircraft system) refers to the vehicle with control platform.

<sup>3</sup> See <http://www.smalluavcoalition.org/> (Benefits). Congress also recognized the great potential benefits of UAV technology in 2012 when it enacted the FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, which required a plan to safely integrate civil UAS into the National Airspace System (NAS) by the end of Fiscal 2015.

<sup>4</sup> PRESIDENTIAL MEMORANDUM: PROMOTING ECONOMIC COMPETITIVENESS WHILE SAFEGUARDING PRIVACY, CIVIL RIGHTS, AND CIVIL LIBERTIES IN DOMESTIC USE OF UNMANNED AIRCRAFT SYSTEMS (Feb. 15, 2015) ("Presidential Memorandum") <http://www.whitehouse.gov/the-press-office/2015/02/15/presidential-memorandum-promoting-economic-competitiveness-while-safegua>.

The Small UAV Coalition is pleased that the Presidential Memorandum directs the NTIA to expeditiously initiate a multi-stakeholder process to develop best practices for privacy, accountability, and transparency issues regarding commercial and private UAS use. The NTIA is the appropriate entity to lead such a process, as the Federal Aviation Administration (FAA) itself realizes that it is not the proper agency forum to lead on privacy. Moreover, the production of reasonable “best practices” is exactly the right way to proceed at this time. It is a workable mechanism to safeguard privacy while, if done right, flexible enough for an innovative, highly diverse industry that is still taking shape and where the safety regulator, the FAA, is still working to finalize its rules. These same considerations also make it important to articulate best practices at a high level, both to make them useful and to avoid unintended consequences, including impediments to innovation, safety and First Amendment rights. Finally, it is imperative that the NTIA not exceed its mission beyond the Presidential Memorandum into issues that are outside the scope of a privacy review.

We encourage the NTIA to complete this process both expeditiously as well as thoroughly, while keeping in mind the following four considerations. First, our current privacy legal framework is, due to its technology neutral nature, adequate to protect citizens from privacy issues related to small UAVs. Second, the commercial and recreational uses of small UAVs are distinct, as noted by Congress and the FAA. They should also be treated as distinct by the NTIA, with standards that would not unduly burden individual recreational users. Third, best practices must be sufficiently flexible, reasonable, and high-level in order to serve this industry, which is still taking shape. Fourth, any assessment of technology regarding aviation, including airspace, should remain within the FAA’s jurisdiction.

Finally, this process should never lose sight of the innovative, expanding, diverse and transformative benefits of small UASs.<sup>5</sup> The Presidential Memorandum states that these technologies “may play a transformative role in fields as diverse as urban infrastructure management, farming, public safety, coastal security, military training, search and rescue, and disaster response.”<sup>6</sup> The “technology continues to improve rapidly, and increasingly UAS are able to perform a variety of missions with greater operational flexibility and at a lower cost than comparable manned aircraft.”<sup>7</sup> The positive economic impact “... could be substantial and likely will grow ...”<sup>8</sup>

Participants in this developing industry produce benefits such as obtaining information for journalists and cinematography; making timely deliveries, including to remote areas, and in a

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<sup>5</sup> See <http://www.smalluavcoalition.org/> (Benefits). Congress also recognized the great potential benefits of UAV technology in 2012 when it enacted the FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, which required a plan to safely integrate civil UAS into the National Airspace System (NAS) by the end of Fiscal 2015.

<sup>6</sup> Presidential Memorandum at Introduction.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*; see also Testimony of John B. Morris, Associate Administrator, NTIA, before the Subcommittee on Aviation Operations, Safety, and Security, Committee on Commerce, Science, and Transportation, United States Senate, Hearing entitled “Unmanned Aircraft Systems: Key Considerations Regarding Safety, Innovation, Economic Impact, and Privacy” (Mar. 24, 2015) (“Morris Testimony”), [http://www.commerce.senate.gov/public/index.cfm?peHearings&ContentRecord\\_id=ed8ac57-d9a5-4bd8-9938-2017a3e896d0&Content\\_Type\\_id=148992b9-d8c5-407a-9d35-56cc7152a70d&Group\\_id=b2af0036-c20d-49ac-9211-b5c08d7ca62d&MonthDisplay=3&YearDisplay=2015](http://www.commerce.senate.gov/public/index.cfm?peHearings&ContentRecord_id=ed8ac57-d9a5-4bd8-9938-2017a3e896d0&Content_Type_id=148992b9-d8c5-407a-9d35-56cc7152a70d&Group_id=b2af0036-c20d-49ac-9211-b5c08d7ca62d&MonthDisplay=3&YearDisplay=2015) (follow Witness Panel 1 – Mr. John B. Morris, Jr.).

manner that reduces surface road congestion and reduces wear-and-tear on our nation's infrastructure, of a host of goods that may add enjoyment, or could save and improve lives, including medicine and life-saving supplies.<sup>9</sup> UAVs can be used to provide valuable communications tools,<sup>10</sup> produce new, accurate and up-to-date maps of many kinds, assist with farming, and help manage fish and wildlife.<sup>11</sup> They can be used to spot and sometimes even fix a multitude of infrastructure problems, affecting bridges, pipelines, wind turbines, mines, cell towers, roads, etc.<sup>12</sup> They may be able to rapidly, systematically and effectively plant trees over large areas, and produce critical environmental information.<sup>13</sup> UAVs can quickly and safely locate injured persons or others needing help, track fires, and survey disaster damage, as well as speed insurance assessments of damage to foster more rapid recovery.<sup>14</sup> Separate from the commercial sector, as noted by Congress and the FAA, are the UAV recreational users and hobbyists who enjoy this technology. For some of these recreational users, the benefits also include that this technology is educational and can provide an important gateway to other aeronautic interests, opportunities and innovations.<sup>15</sup> This only scratches the surface of what those with very different profiles, aspirations and responsibilities can achieve through this industry to the benefit of U.S. businesses and consumers.

We will now address the four areas raised by NTIA: General, Privacy, Transparency and Accountability.

## I. General

NTIA should complete this process expeditiously so as to provide guidance to the industry as it develops. In order to do this, the NTIA should structure its multi-stakeholder process with clear timetables, goals, recognition that unanimity is not required to reach consensus, and an understanding that not every issue must be addressed in detail at this early stage, given the limited industry experience thus far, the great diversity of industry participants,

<sup>9</sup> See, e.g., *Mayo Clinic Surgeons Investigate Use of Drones for Medicine*, MEGAGADGET, (Mar. 16, 2015 2:29 PM), <http://www.megagadget.com/2015/03/mayo-clinic-surgeons-investigate-use-of>

<sup>10</sup> See Morris Testimony.

<sup>11</sup> See e.g., *Drones could affect US food supply from herding cattle to counting fish and scouting farms*, FOX BUSINESS, (Jan. 26, 2015), [http://www.foxbusiness.com/markets/2015/01/26/drones-could-affect-us-food-supply-from-herding-cattle-to-counting-fish-and/...](http://www.foxbusiness.com/markets/2015/01/26/drones-could-affect-us-food-supply-from-herding-cattle-to-counting-fish-and/)

<sup>12</sup> See, e.g., *T-Mobile Trains Own Pilot to Inspect Cell Towers*, UAS VISION, (Apr. 1, 2015), <http://uasvision.com/2015/04/01/t-mobile-trains-own-pilot-to-inspect-cell-towers/>

<sup>13</sup> See e.g., *1 Billion Trees at a Time- by Quadcopter*, UAS VISION (Apr. 9, 2015) <http://www.uasvision.com/2015/04/09/1-billion-trees-at-a-time-by-quadcopter/>; Edward Ortiz, *Drones are latest tool in conservation science*, THE SACRAMENTO BEE, (Mar. 7, 2015 8:32 PM) <http://www.sacbee.com/news/local/environment/article12964940.html>.

<sup>14</sup> See e.g., <http://www.smalluavcoalition.org/> (Benefits); see also Jimmy Hoover, *ARG Scores Green Light From FAA To Use Drones*, LAW360 (Apr. 8, 2015 6:11 PM), <http://www.law360.com/privacy/articles/541920/arg-scores-green-light-from-faa-to-use-drones->

<sup>15</sup> See Unmanned Aircraft Systems: Key Considerations Regarding Safety, Innovation, Economic Impact, and Privacy, John Villasenor, Testimony Before the Senate Committee on Commerce, Science, and Transportation Subcommittee on Aviation Operations, Safety, and Security (Mar. 24, 2015) at 2 ("Villasenor Testimony") [http://www.commerce.senate.gov/public/index.cfm?c=hearings&ContentRecord\\_id=ed8ac57-d9a5-4b68-9938-2017a3e896d0&Content\\_Type\\_id=14099589-dfa5-407a-9d35-56cc7152a7cd&Group\\_id=b2faf036-c201-49ac-9211-b5c08d7ca62d&MonthDisplay=3&YearDisplay=2015](http://www.commerce.senate.gov/public/index.cfm?c=hearings&ContentRecord_id=ed8ac57-d9a5-4b68-9938-2017a3e896d0&Content_Type_id=14099589-dfa5-407a-9d35-56cc7152a7cd&Group_id=b2faf036-c201-49ac-9211-b5c08d7ca62d&MonthDisplay=3&YearDisplay=2015) (follow Witness Panel 1 – Prof. John Villasenor).

regulatory uncertainty, and the rapid pace of innovation and technological change. Moreover, the Small UAV Coalition believes that the issues of privacy, transparency and accountability tend to overlap substantially. Therefore, it would not be preferable to address these topics through three separate working groups. Separate groups could create a variety of difficulties and coordination issues due to the overlap as well as efficiency and resource issues.

NTIA also inquires about whether the approach should be different based on the size of the UAS platform. That distinction is not helpful for these issues. Most privacy laws focus on a set of rights and the various intrusions against them and remain technology and platform neutral. The NTIA should follow this approach. For example, distinctions could instead be based on the type of data collected and the ways in which it will be used rather than on the underlying technology.

While the terms and limitations that should accompany governmental use of UAVs are very different in important ways than for either commercial or recreational use, the Presidential Memorandum can nevertheless be a reference point in developing best practices, particularly for the commercial sector. Another important starting point should be America's existing privacy protection legal framework. As noted below, there is a large body of relevant law that addresses this area and is well-equipped to provide guidance.

## **II. Privacy**

As noted above, while it would not be practical, desirable or wise to propose highly detailed privacy practices at this stage, it would be a valuable contribution to the industry and public to develop a reasonable and flexible set of high-level best practices that individual companies and other industry participants can adapt to their situations and that can be updated with experience.

In accomplishing this objective, it is important to be sensitive to the fact that there are significant unknowns in light of the major pending small UAS rulemaking at the FAA. The final rules could affect design, data retention, the role of cameras for guidance and other matters that, in turn, could potentially impact privacy, transparency and accountability. Any attempt in developing best practices to get too granular or stray into what are potentially FAA issues could make the results unhelpful, inapposite or worse.

In developing best practices concerning privacy, it is important to recognize that the privacy-related issues that UAVs may raise are not unique from those raised by many other technologies and circumstances. In fact, with sensors of all kinds getting smaller and cheaper, all sorts of data will be transmitted from unlikely places. This understanding should help narrow and focus the development of UAS privacy best practices and increase the prospects for timely success. For example, issues concerning the collection of information through the use of UAS cameras are similar to those raised by the use of cameras on mobile devices and on a variety of structures in a variety of locations, including non-UAS aviation platforms. At the same time, because this multi-stakeholder process should be focused on generating high-level best practices, care should be taken in this multi-stakeholder process not to attempt to "boil the ocean" and take on every point in the wider discussion of privacy going on across the country and the world. It is important to remember too that different applications of this technology support very different

business plans and function differently in the collection and use of information, warranting caution and flexibility in developing best practices. Some information collection and use, such as by news and media organizations, implicate the most classic and vital of First Amendment freedoms. Participants in this industry are also very different from one another in other fundamental ways, with recreational users and commercial companies of varying types and sizes, and best practices need to take this into account. In developing privacy practices, and in light of all this diversity, it is very important to keep in mind that collecting information, retaining information, and using sensitive personal information, are not the same thing.

As suggested above, the process of developing best practices should focus on privacy rather than particular technologies, as does the extensive body of privacy law and related doctrines that already exists, which our members abide by and encourage others in the industry to as well.<sup>16</sup> This body of law is rooted in statutes, regulations, and common law. It comes from many different jurisdictions. It protects property rights by restricting trespassing, providing a cause of action for invasion of privacy, and protects reasonable expectations of privacy. It includes laws against harassment, peeping toms, stalking, intrusion on seclusion, and misuse of sensitive personally identifiable information.<sup>17</sup> It helps protect against bad actors and behaviors inside and outside the UAS world alike. Flexible, high-level best practices relating to privacy can promote operations within these laws.

In addition, the Presidential Memorandum identifies certain aspects of privacy that, if adapted with the idea of generating reasonable and flexible high-level best practices for a diverse industry, can be considered as a reference point in the multi-stakeholder process. At the same time, it is important to remember that the Fourth Amendment can impose tighter limits on what the government can do as compared to private citizens and the First Amendment can expand what the commercial and recreational sectors can do. Adapting some principles from the Presidential Memorandum, consideration should be given to:

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Privacy issues will evolve with technology and experience. That is also something the Presidential Memorandum recognizes by its suggestion that federal agencies that use this technology should review their policies and procedures and update as needed, including in

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relation to privacy. That is consistent with our suggestion that this process should and will need to be high-level and flexible given the early stage of this industry and the importance of avoiding interference with innovation, rather than seek to anticipate and address all future developments.<sup>19</sup>

Privacy issues will evolve with technology; however, it would be prudent to provide opportunities to industry participants to learn of relevant developments. That is why we suggest consideration of the possibility of education through, among other forums, the knowledge-based test centers through which the FAA proposes to authorize the issuance of unmanned aircraft operator certificates, which could, among other possible activities, make materials and information available to operators. As noted earlier, privacy, transparency and accountability are intertwined, and we discuss education further in the context of accountability.

### III. Transparency

As with privacy, some aspects of transparency that the Presidential Memorandum identifies may, if adapted with the idea of generating reasonable and flexible high-level best practices for a diverse industry, be a possible reference point for the multi-stakeholder process. This comes with caveats that include, as noted earlier, that both recreational users and the commercial sector are in very different positions from government and one another, and that those differences are very important with respect to transparency. There are a host of differences arising from the First Amendment, from the realities and practicalities of participating in a competitive market, from differences in resources and burdens, and from a set of countervailing privacy considerations. That being said, we think that for commercial operators, a reference point for reasonable, flexible and high-level best practices that allow for variation among industry participants to address their unique circumstances, could relate to where UAVs operate; notice of any significant changes in operations or privacy policies that have been disclosed; and annual high-level summaries of operations. Consideration could be given to whether there are best practices regarding disclosure of general aggregated information about the purposes of commercial UAS flights and associated data practices, privacy and safety protections.

In connection with best-practices around transparency, it is also important to recognize that physical markings for UAVs is an issue within the purview of the FAA, as are some other matters NTLA raises. It is also important to bear in mind the major practical and other distinctions between hobby and recreational users, and the commercial industry. It would be impractical and unworkable to impose disclosure or burdensome information requirements on hobbyists and recreational users and beyond the scope of a multi-stakeholder process for the development of best practices.<sup>20</sup>

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<sup>19</sup> *Id.*

<sup>20</sup> In addition, any suggestion of loading personal information of recreational users and hobbyists into a database would jeopardize their privacy interests. Cf. [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2015/0603/15/FCC-15-40A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/0603/15/FCC-15-40A1.pdf) (In this pending NPRM, the Federal Communications Commission proposes to specify that historical amateur radio licensee information will no longer be routinely available for public inspection; and recognizing increased privacy and safety concerns, seeks comment on whether other information, such as current address information of licensees, should be removed from public view.)

#### IV. Accountability

The Coalition favors development of reasonable high-level best practices relating to transparency and, in turn, accountability, that are flexible so as to recognize that in the commercial sector there are very different business models and applications, which potentially intersect sensitive personally identifiable information in different ways, and that recreational users and hobbyists are in a vastly different position.

The Presidential Memorandum, subject to all of the qualifications mentioned earlier and the fundamental point that government accountability is much different, could be used as a possible reference point for commercial UAS. For example, a possible best practice is to identify, adopt and disclose policies and procedures relating to privacy. Depending on the company, its applications and its available resources, this could include a variety of information.

Disclosures that commercial companies choose to make may foster accountability in addition to transparency. These companies seek to comply with law. To the extent that companies make relevant disclosures on their web site, those disclosures should be accurate. Further assuring accountability, under existing law in some circumstances, the Federal Trade Commission would be able to bring an action under Section 5 of the FTC Act against a company for unfair or deceptive acts or practices in connection with disclosures that are misrepresentations.

Education is one of the strongest ways to provide accountability. Manufacturers, distributors and consumers have a common interest in promoting knowledge of, sensitivity to, and compliance with, privacy laws and best practices. For commercial users, one potential opportunity is to enable FAA-designated aeronautical knowledge test centers to help serve that function. The FAA proposes that these test centers have authority to administer the aeronautical knowledge tests for each person seeking an unmanned aircraft operator certificate. These centers can also be a location to obtain updated materials as experience and technology develop. For recreational users, the Academy of Model Aeronautics ("AMA"), local model aircraft clubs, and similar groups can be part of the educational program.

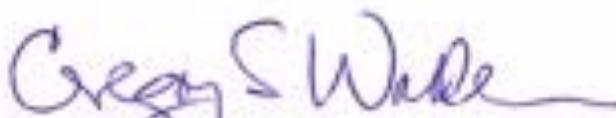
Industry will also continue its own efforts to provide education about privacy as well as safety and other concerns. For example, the Small UAV coalition, together with the Association for Unmanned Vehicle Systems International (AUVSI) and the AMA, in partnership with the FAA, formed the "Know Before You Fly Campaign," to educate prospective users about safe and responsible operation of UAVs. This campaign incorporates some privacy and best practices information and teams up with manufacturers and distributors to inform consumers and businesses about what they need to know before taking to the skies. The campaign includes a website, educational, video and point-of-sale materials and a digital and social media campaign to ensure that prospective operators have the information and guidance on what they need to know before they fly. Among other things, advice is included to check and follow all local laws before flying over private property and not to conduct surveillance or photograph persons in areas where there is an expectation of privacy without the individual's permission.

V. Conclusion

The Small UAV Coalition is pleased to participate in the multi-stakeholder process on privacy that NTIA will lead. We share the view that privacy considerations are important for this industry, as for others, and we encourage responsible use of UAVs.

The Small UAV Coalition urges the NTIA to proceed in a timely manner toward producing reasonable, flexible, and high-level best practices that can be used and adapted by a variety of industry participants who are in very different positions and make different uses of UAVs. These best practices also can be adjusted over time as the industry takes shape, experience grows and technology advances. We also urge the NTIA to remain cognizant that any assessment of technology regarding aviation, including airspace and restricted areas, should remain within the FAA's jurisdiction.

Sincerely,



Michael E. Drobac  
Jennifer L. Richter  
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For The Small UAV Coalition

**From:** [Turetsky, David](#)  
**To:** [John Verdi](#)  
**Subject:** UAS RFC 2015 Small UAV Coalition  
**Date:** Monday, April 20, 2015 3:32:03 PM  
**Attachments:** [UAS RFC 2015 -Small UAV \(Verdi s-copy\).pdf](#)

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Here is a copy that has an s/ for signature. It is a pdf that has not been scanned (unlike the filed version). And it is in color!

**David S. Turetsky**

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**SMALL UAV  
COALITION**  
*A Partnership for  
Safety & Innovation*

April 20, 2015

National Telecommunications and Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue NW, Room 4725  
Washington, D.C. 20230

**Via email to [UASrfc2015@ntia.doc.gov](mailto:UASrfc2015@ntia.doc.gov)**

**Re: UAS RFC 2015**

Dear Mr. Verdi,

The Small UAV Coalition<sup>1</sup> was formed by leading technology companies in order to expedite the safe use of small unmanned aerial vehicles (UAVS) for commercial, recreational, civil, and philanthropic purposes.<sup>2</sup> Small UAVs will provide major economic, public safety, environmental, and other benefits to U.S. consumers and businesses.<sup>3</sup> Moreover, participants in the commercial sector of this developing industry have a wide range of different objectives and innovative capabilities, and include entities of different sizes, types, resources, and technologies such as sensors or photographic tools. In realizing these benefits, our members are committed to safeguarding privacy and safety. Accordingly, the Small UAV Coalition welcomes the opportunity to submit these comments about the multi-stakeholder process to be initiated by NTIA in response to the Presidential Memorandum.<sup>4</sup>

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<sup>1</sup> The Members of the Small UAV Coalition are 3D Robotics, Aerialtronics, Airware, Amazon Prime Air, Botlink, Drone Deploy, DJI, EHANG, Intel, Google [X] Project Wing, GoPro, HAZON Solutions, Kespry, Parrot, PrecisionHawk, Sky-Futures, SkyWard, Strat Aero, SkyPan, Transport Risk Management, Verify, and Zero Tech.

<sup>2</sup> The term UAV (unmanned aerial vehicle) refers to the vehicle and the term UAS (unmanned aircraft system) refers to the vehicle with control platform.

<sup>3</sup> See <http://www.smalluavcoalition.org/> (Benefits). Congress also recognized the great potential benefits of UAV technology in 2012 when it enacted the FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95, which required a plan to safely integrate civil UAS into the National Airspace System (NAS) by the end of Fiscal 2015.

<sup>4</sup> PRESIDENTIAL MEMORANDUM: PROMOTING ECONOMIC COMPETITIVENESS WHILE SAFEGUARDING PRIVACY, CIVIL RIGHTS, AND CIVIL LIBERTIES IN DOMESTIC USE OF UNMANNED AIRCRAFT SYSTEMS (Feb. 15, 2015) (“Presidential Memorandum”) <http://www.whitehouse.gov/the-press-office/2015/02/15/presidential-memorandum-promoting-economic-competitiveness-while-safegua>.

The Small UAV Coalition is pleased that the Presidential Memorandum directs the NTIA to expeditiously initiate a multi-stakeholder process to develop best practices for privacy, accountability, and transparency issues regarding commercial and private UAS use. The NTIA is the appropriate entity to lead such a process, as the Federal Aviation Administration (FAA) itself realizes that it is not the proper agency forum to lead on privacy. Moreover, the production of reasonable “best practices” is exactly the right way to proceed at this time. It is a workable mechanism to safeguard privacy while, if done right, flexible enough for an innovative, highly diverse industry that is still taking shape and where the safety regulator, the FAA, is still working to finalize its rules. These same considerations also make it important to articulate best practices at a high level, both to make them useful and to avoid unintended consequences, including impediments to innovation, safety and First Amendment rights. Finally, it is imperative that the NTIA not exceed its mission beyond the Presidential Memorandum into issues that are outside the scope of a privacy review.

We encourage the NTIA to complete this process both expeditiously as well as thoroughly, while keeping in mind the following four considerations. First, our current privacy legal framework is, due to its technology neutral nature, adequate to protect citizens from privacy issues related to small UAVs. Second, the commercial and recreational uses of small UAVs are distinct, as noted by Congress and the FAA. They should also be treated as distinct by the NTIA, with standards that would not unduly burden individual recreational users. Third, best practices must be sufficiently flexible, reasonable, and high-level in order to serve this industry, which is still taking shape. Fourth, any assessment of technology regarding aviation, including airspace, should remain within the FAA’s jurisdiction.

Finally, this process should never lose sight of the innovative, expanding, diverse and transformative benefits of small UASs.<sup>5</sup> The Presidential Memorandum states that these technologies “may play a transformative role in fields as diverse as urban infrastructure management, farming, public safety, coastal security, military training, search and rescue, and disaster response.”<sup>6</sup> The “technology continues to improve rapidly, and increasingly UAS are able to perform a variety of missions with greater operational flexibility and at a lower cost than comparable manned aircraft.”<sup>7</sup> The positive economic impact “...could be substantial and likely will grow....”<sup>8</sup>

Participants in this developing industry produce benefits such as obtaining information for journalists and cinematography; making timely deliveries, including to remote areas, and in a

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<sup>6</sup> Presidential Memorandum at Introduction.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*; see also Testimony of John B. Morris, Associate Administrator, NTIA, before the Subcommittee on Aviation Operations, Safety, and Security, Committee on Commerce, Science, and Transportation, United States Senate, Hearing entitled “Unmanned Aircraft Systems: Key Considerations Regarding Safety, Innovation, Economic Impact, and Privacy” (Mar. 24, 2015) (“Morris Testimony”), [http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord\\_id=edf8ac57-d9a5-4bf8-9938-2017a3e89fd0&ContentType\\_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group\\_id=b2afa036-c20d-49ae-9211-b5ef8d7ea62d&MonthDisplay=3&YearDisplay=2015](http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord_id=edf8ac57-d9a5-4bf8-9938-2017a3e89fd0&ContentType_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group_id=b2afa036-c20d-49ae-9211-b5ef8d7ea62d&MonthDisplay=3&YearDisplay=2015) (follow Witness Panel 1 – Mr. John B. Morris, Jr.).

manner that reduces surface road congestion and reduces wear-and-tear on our nation's infrastructure, of a host of goods that may add enjoyment, or could save and improve lives, including medicine and life-saving supplies.<sup>9</sup> UAVs can be used to provide valuable communications tools,<sup>10</sup> produce new, accurate and up-to-date maps of many kinds, assist with farming, and help manage fish and wildlife.<sup>11</sup> They can be used to spot and sometimes even fix a multitude of infrastructure problems, affecting bridges, pipelines, wind turbines, mines, cell towers, roads, etc.<sup>12</sup> They may be able to rapidly, systematically and effectively plant trees over large areas, and produce critical environmental information.<sup>13</sup> UAVs can quickly and safely locate injured persons or others needing help, track fires, and survey disaster damage, as well as speed insurance assessments of damage to foster more rapid recovery.<sup>14</sup> Separate from the commercial sector, as noted by Congress and the FAA, are the UAV recreational users and hobbyists who enjoy this technology. For some of these recreational users, the benefits also include that this technology is educational and can provide an important gateway to other aeronautic interests, opportunities and innovations.<sup>15</sup> This only scratches the surface of what those with very different profiles, aspirations and responsibilities can achieve through this industry to the benefit of U.S. businesses and consumers.

We will now address the four areas raised by NTIA: General, Privacy, Transparency and Accountability.

## I. **General**

NTIA should complete this process expeditiously so as to provide guidance to the industry as it develops. In order to do this, the NTIA should structure its multi-stakeholder process with clear timetables, goals, recognition that unanimity is not required to reach consensus, and an understanding that not every issue must be addressed in detail at this early stage, given the limited industry experience thus far, the great diversity of industry participants,

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<sup>9</sup> See, e.g., *Mayo Clinic Surgeons Investigate Use of Drones for Medicine*, MEDGADGET, (Mar. 16, 2015 2:29 PM), <http://www.megagadget.com/2015/03/mayo-clinic-surgeons-investigate-use-of>

<sup>10</sup> See Morris Testimony.

<sup>11</sup> See e.g., *Drones could affect US food supply from herding cattle to counting fish and scouting farms*, FOX BUSINESS, (Jan. 26, 2015), <http://www.foxbusiness.com/markets/2015/01/26/drones-could-affect-us-food-supply-from-herding-cattle-to-counting-fish-and/>....

<sup>12</sup> See, e.g., *T-Mobile Trains Own Pilot to Inspect Cell Towers*, UAS VISION, (Apr. 1, 2015), <http://uasvision.com/2015/04/01/t-mobile-trains-own-pilot-to-inspect-cell-towers/>

<sup>13</sup> See e.g., *1 Billion Trees at a Time- by Quadcopter*, UAS VISION (Apr. 9, 2015) <http://www.uasvision.com/2015/04/09/1-billion-trees-at-a-time-by-quadcopter/>; Edward Ortiz, *Drones are latest tool in conservation science*, THE SACRAMENTO BEE, (Mar. 7, 2015 8:32 PM) <http://www.sacbee.com/news/local/environment/article12964940.html>.

<sup>14</sup> See e.g., <http://www.smalluavcoalition.org/> (Benefits); see also Jimmy Hoover, *AIG Scores Green Light From FAA To Use Drones*, LAW360 (Apr. 8, 2015 6:11 PM), <http://www.law360.com/privacy/articles/641020/aig-scores-green-light-from-faa-to-use-drones->.

<sup>15</sup> See Unmanned Aircraft Systems: Key Considerations Regarding Safety, Innovation, Economic Impact, and Privacy, John Villasenor, Testimony Before the Senate Committee on Commerce, Science, and Transportation Subcommittee on Aviation Operations, Safety, and Security (Mar. 24, 2015) at 2 (“Villasenor Testimony”) [http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord\\_id=edf8ac57-d9a5-4bf8-9938-2017a3e89fd0&ContentType\\_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group\\_id=b2afa036-c20d-49ae-9211-b5ef8d7ea62d&MonthDisplay=3&YearDisplay=2015](http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord_id=edf8ac57-d9a5-4bf8-9938-2017a3e89fd0&ContentType_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group_id=b2afa036-c20d-49ae-9211-b5ef8d7ea62d&MonthDisplay=3&YearDisplay=2015) (follow Witness Panel 1 – Prof. John Villasenor) .

regulatory uncertainty, and the rapid pace of innovation and technological change. Moreover, the Small UAV Coalition believes that the issues of privacy, transparency and accountability tend to overlap substantially. Therefore, it would not be preferable to address these topics through three separate working groups. Separate groups could create a variety of difficulties and coordination issues due to the overlap as well as efficiency and resource issues.

NTIA also inquires about whether the approach should be different based on the size of the UAS platform. That distinction is not helpful for these issues. Most privacy laws focus on a set of rights and the various intrusions against them and remain technology and platform neutral. The NTIA should follow this approach. For example, distinctions could instead be based on the type of data collected and the ways in which it will be used rather than on the underlying technology.

While the terms and limitations that should accompany governmental use of UAVs are very different in important ways than for either commercial or recreational use, the Presidential Memorandum can nevertheless be a reference point in developing best practices, particularly for the commercial sector. Another important starting point should be America's existing privacy protection legal framework. As noted below, there is a large body of relevant law that addresses this area and is well-equipped to provide guidance.

## II. **Privacy**

As noted above, while it would not be practical, desirable or wise to propose highly detailed privacy practices at this stage, it would be a valuable contribution to the industry and public to develop a reasonable and flexible set of high-level best practices that individual companies and other industry participants can adapt to their situations and that can be updated with experience.

In accomplishing this objective, it is important to be sensitive to the fact that there are significant unknowns in light of the major pending small UAS rulemaking at the FAA. The final rules could affect design, data retention, the role of cameras for guidance and other matters that, in turn, could potentially impact privacy, transparency and accountability. Any attempt in developing best practices to get too granular or stray into what are potentially FAA issues could make the results unhelpful, inapposite or worse.

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#### IV. Accountability

The Coalition favors development of reasonable high-level best practices relating to transparency and, in turn, accountability, that are flexible so as to recognize that in the commercial sector there are very different business models and applications, which potentially intersect sensitive personally identifiable information in different ways, and that recreational users and hobbyists are in a vastly different position.

The Presidential Memorandum, subject to all of the qualifications mentioned earlier and the fundamental point that government accountability is much different, could be used as a possible reference point for commercial UAS. For example, a possible best practice is to identify, adopt and disclose policies and procedures relating to privacy. Depending on the company, its applications and its available resources, this could include a variety of information.

Disclosures that commercial companies choose to make may foster accountability in addition to transparency. These companies seek to comply with law. To the extent that companies make relevant disclosures on their web site, those disclosures should be accurate. Further assuring accountability, under existing law in some circumstances, the Federal Trade Commission would be able to bring an action under Section 5 of the FTC Act against a company for unfair or deceptive acts or practices in connection with disclosures that are misrepresentations.

Education is one of the strongest ways to provide accountability. Manufacturers, distributors and consumers have a common interest in promoting knowledge of, sensitivity to, and compliance with, privacy laws and best practices. For commercial users, one potential opportunity is to enable FAA-designated aeronautical knowledge test centers to help serve that function. The FAA proposes that these test centers have authority to administer the aeronautical knowledge tests for each person seeking an unmanned aircraft operator certificate. These centers can also be a location to obtain updated materials as experience and technology develop. For recreational users, the Academy of Model Aeronautics (“AMA”), local model aircraft clubs, and similar groups can be part of the educational program.

Industry will also continue its own efforts to provide education about privacy as well as safety and other concerns. For example, the Small UAV coalition, together with the Association for Unmanned Vehicle Systems International (AUVSI) and the AMA, in partnership with the FAA, formed the “Know Before You Fly Campaign,” to educate prospective users about safe and responsible operation of UAVs. This campaign incorporates some privacy and best practices information and teams up with manufacturers and distributors to inform consumers and businesses about what they need to know before taking to the skies. The campaign includes a website, educational, video and point-of-sale materials and a digital and social media campaign to ensure that prospective operators have the information and guidance on what they need to know before they fly. Among other things, advice is included to check and follow all local laws before flying over private property and not to conduct surveillance or photograph persons in areas where there is an expectation of privacy without the individual’s permission.

V. **Conclusion**

The Small UAV Coalition is pleased to participate in the multi-stakeholder process on privacy that NTIA will lead. We share the view that privacy considerations are important for this industry, as for others, and we encourage responsible use of UAVs.

The Small UAV Coalition urges the NTIA to proceed in a timely manner toward producing reasonable, flexible, and high-level best practices that can be used and adapted by a variety of industry participants who are in very different positions and make different uses of UAVs. These best practices also can be adjusted over time as the industry takes shape, experience grows and technology advances. We also urge the NTIA to remain cognizant that any assessment of technology regarding aviation, including airspace and restricted areas, should remain within the FAA's jurisdiction.

Sincerely,

/S/ Gregory S. Walden

Michael E. Drobac  
Jennifer L. Richter  
David S. Turetsky  
Gregory S. Walden  
Akin Gump Strauss Hauer & Feld LLP  
1333 New Hampshire Avenue, N.W.  
Washington D.C. 20036-1564  
202-887-4000  
*For* The Small UAV Coalition

**From:** John Verdi  
**To:** ["Turetsky, David"](#)  
**Subject:** RE: UAS RFC 2015 Small UAV Coalition  
**Date:** Monday, April 20, 2015 3:49:00 PM

---

Thanks!

-John

---

**From:** Turetsky, David [mailto:[dturetsky@akingump.com](mailto:dturetsky@akingump.com)]  
**Sent:** Monday, April 20, 2015 3:32 PM  
**To:** John Verdi  
**Subject:** UAS RFC 2015 Small UAV Coalition

Here is a copy that has an s/ for signature. It is a pdf that has not been scanned (unlike the filed version). And it is in color!

**David S. Turetsky**

**AKIN GUMP STRAUSS HAUER & FELD** LLP

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Fax: +1 202.887.4288 | [dturetsky@akingump.com](mailto:dturetsky@akingump.com) | [akingump.com](http://akingump.com) | [Bio](#)

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From: [Ellman Lisa](#)  
To: [Ben Marcus](#); [John Vestl](#)  
Subject: Fwd: Leading Industry Experts to Present at Drone World Expo  
Date: Thursday, May 14, 2015 5:07:26 PM

Hey guys,

Let me know if you have any interest in being on my privacy panel at this event - I will be moderating.

Thanks! Talk soon.

Lisa

Lisa M. Ellman | Washington, DC | Counsel  
McKenna Long & Aldridge LLP  
1900 K Street NW | Washington, DC 20006 <x-apple-data-detectors://0/0>  
Tel: 202.496.7184 <tel:202.496.7184> | [lellman@mkckennalong.com](mailto:lellman@mkckennalong.com) <mailto:lellman@mkckennalong.com>

Ben forwarded message:

From: Drone World Expo <[amy@riemercommunications.com](mailto:amy@riemercommunications.com)>  
Date: May 14, 2015 at 1:02:20 PM EDT  
To: [lellman@mkckennalong.com](mailto:lellman@mkckennalong.com) <<mailto:lellman@mkckennalong.com>>  
Subject: Leading Industry Experts to Present at Drone World Expo  
Reply-To: <[amy@riemercommunications.com](mailto:amy@riemercommunications.com)>

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LEADING INDUSTRY EXPERTS TO PRESENT DYNAMIC EDUCATIONAL SESSIONS AND CASE STUDIES AT 2015 DRONE WORLD EXPO

Speakers Include Representatives from CNN, Fox Sports Media Group, NASA, The Nature Conservancy and More

SAN JOSE, CA, May 14, 2015 - Dozens of educational sessions and case studies will be offered at this November's Drone World Expo and will be led by thought leaders, industry experts and end-users who will present real-world solutions. The education program, which is being offered at no charge to qualified end-users <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)>, will bring thousands of professionals to the San Jose Convention Center in San Jose, California from Tuesday, November 17 through Wednesday, November 18, 2015. The event is sponsored by DJI, DroneDeploy and Precision Integrated.

Conference sessions that have already been planned include playing by the Rules in the US and Abroad - Regulators and End Users Share Their Experiences; Drones for Good - Environmental and Humanitarian Efforts Made Possible by UAS; UAS Insurance - an Interactive Workshop; Safely Enabling Low-Altitude UAS Operations; How Drones are Transforming Big Data and the Internet of Things (IoT); Looking for Funding? Do's and Don'ts from the Investment Community; Drone Delivery - Possibilities Beyond the Line of Sight; and The DWE Town Meeting where attendees' most pressing questions will be answered.

In addition, a series of real-world case studies will provide attendees with the opportunity to learn about success stories and how to avoid mistakes and pitfalls by hearing from those who have already encountered them.

"We have been working closely with our world renowned Advisory Board <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)> to develop an outstanding conference program for our attendees," said Joel Davis, CEO, JD Events, producers of the event. "The program will include several case studies given by end-users focusing on the use of drones in agriculture, real estate, video and film, oil and gas, construction, conservation, utilities and other industries."

More information on speakers and topics can be found at [www.droneworldexpo.com](http://www.droneworldexpo.com) <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)>.

Following is a preliminary list to date of industry leaders who have joined the Drone World Expo speaker roster:

- \* Gregory Agvent, Sen or Director, News Operations, CNN
- \* Robert Blair, Farmer, Agriculture UAV Expert, Empire Unmanned
- \* Mark Burns, Owner, Burnz Eye View
- \* Brad Cheney, Director, Technical Operations, FOX Sports Media Group
- \* John "JC" Coffey, Director, Cherokee Nation Unmanned Systems supporting NOAA UAS Program Office
- \* Dallas Cormier, Electric Distribution Engineering PMII, San Diego Gas & Electric
- \* Michael Drobak, Executive Director, Small UAV Coalition
- \* Lisa Ellman, Counsel, McKenna Long & Aldridge, LLP
- \* Jonathan Evans, CEO, Skyward
- \* Brad Hayden, President & CEO, Robot cSkies
- \* Jesse Kaiman, Head of Business Development & Regulatory Affairs, Airware
- \* Parimal "PK" Kopardekar, Manager, Safe Autonomous System Operations (SASO) Project, NASA
- \* Edy S. Longosari, Managing Director, Accenture Technology Labs
- \* Matt Merrifield, CEO, The Nature Conservancy of California
- \* Max Motschwiller, Partner, Mer tech Capital
- \* Dr. Gregory McNeal, Associate Professor of Law & Public Policy (JD/PhD), Pepperdine University, Forbes Contributor
- \* Brandon Packman, Lumbermens Insurance and Risk Solutions
- \* John Palatiello, Executive Director, MAPPs
- \* Chris Proudlove, SVP, Manager Northeast Regional Office & Complex Risks, Global Aerospace Inc.
- \* Andreas Raptopoulos, CEO, Mattered
- \* Eileen Shibley, CEO, Monarch Inc.
- \* Colin Snow, CEO and Founder, Drone Analyst
- \* Chidambaram Somu, Virtual Construct on Manager, DPR Construction
- \* Stephanie Spear, Commercial Regulatory Policy Representative, National Association of REALTORS®
- \* Douglas Trudeau, REALTOR®
- \* Paul Veisz, Geographic Information Officer, California State Parks
- \* Gretchen West, Vice President, Business Development & Regulatory Affairs, DroneDeploy

"I am excited to be a part of the Drone World Expo conference as I believe it will become a gold standard among events in this industry," said Eileen Shibley, CEO of Monarch Inc. "Our client, the California State Parks System, will be presenting a case study that will provide fellow end-users with exclusive access to information that can be applied to their businesses. We look forward to gathering, networking and sharing best practices at DWE."

The entire conference program is free of charge for qualified end-users.\* The cost for those who do not qualify as end-users is \$495 before September 30, \$695 until November 16, and \$995 at the show. Attendees will also have the opportunity to register for the MAPPs Geospatial Track at DWE for just \$95.

Expo passes, which will give attendees access to hundreds of products on display, Tech Talks in the exhibit hall, flying demonstrations, and unique networking opportunities are free of charge for all industry professionals.

Those who wish to attend may register at [www.droneworldexpo.com](http://www.droneworldexpo.com) <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)>.

Drone World Expo, the defining event for the commercial applications of UAS technology, will take place November 17-18, 2015 at the San Jose Convention Center. For more information, visit [www.droneworldexpo.com](http://www.droneworldexpo.com) <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)>. The event is produced by JD Events, dedicated to the creation of targeted and innovative industry-leading events that deliver results. The company brings together highly qualified buying audiences, education-rich content and high-level networking opportunities - all geared toward increasing business transactions in the markets it serves. Visit [www.jdevents.com](http://www.jdevents.com) <[http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO\\_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7\\_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR\\_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu\\_BxQjwMEYWD2deNCqzJUtHdacudw=>](http://r20.rs6.net/tn.jsp?F=001a2szsvPFSgnfUJUFzdM3h19nKhCgmITstsuRLDhMnqzBANuj3ieRJRgLnDnQu7X1G9DJO_3e8CX78bnBhJq3NaglyXT67Sbix-RKRYvIZOUk8gNm2tRgywC5MLOfKqzHTeXSmzKuefKp6lPFE7_Haw879WIG99u4-xhsfXaNRJQzQtwrQ=8c=167p5SE4MxFFE2LR-xDCY18F2jck7gmnkb-ohYR_6sO7TKetuQ=8ch=1NkXv2F-N1kVxRmOCU-aCu_BxQjwMEYWD2deNCqzJUtHdacudw=>)> for more information.

###

\*Complimentary full conference passes are available to qualified end-users. End-users are defined as those with technology purchasing authority or purchasing influence who are currently employed by a commercial company that utilizes or has the potential to implement UAS technology for business purposes, but does not sell UAS technology products, services, integration or consulting. Company websites are required and will be used in the qualification process. Please contact us at 203-371-6322 or [info@jdevents.com](mailto:info@jdevents.com) <<mailto:info@jdevents.com>> with any questions.

For Further Information, contact:  
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Forward this email<http://ui.constantcont.ct.com/s\_//wvf.jsp?ll=8fuifdab&m=1102918734011&ea=leIman%40mckennalong.com&a=1121028893253>

[http://mg.constantcontact.com/letters/images/SafeUnsubscribe\_Footer\_Logo\_New.png]<http://visitor.constantcontact.com/do?z=un&m=001c1Qhg\_KDf6OKKhSE12g%3D%3D&ch=4ee74770-9aac-11e4-8525-d4ae529a863c&ca=32670406-e020-4d58-a2ee-b14ca45c8d0a>

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[http://mg.constantcontact.com/letters/images/CC\_Footer\_Logo\_New.png]<http://www.constantcontact.com/index.jsp?cc=PT\_MRB>

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**From:** [Drobac, Michael](#)  
**To:** [John Verdi](#)  
**Subject:** Greetings friend  
**Date:** Monday, June 01, 2015 2:40:16 PM

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Would you have time to meet with the General Counsel of 3DR (3D Robotics) this Friday? She is a leading voice in the Coalition and will be extremely helpful to the process that is about to begin...

Many thanks and hope all is well.

**Michael E. Drobac**

**AKIN GUMP STRAUSS HAUER & FELD LLP**

1333 New Hampshire Avenue, N.W. | Washington, DC 20036-1564 | USA | Direct: +1 202.887.4043 | Internal: 24043  
Fax: +1 202.887.4288 | [mdrobac@akingump.com](mailto:mdrobac@akingump.com) | [akingump.com](http://akingump.com) | [Bio](#)

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**From:** John Verdi  
**To:** ["Drobac, Michael"](#)  
**Subject:** RE: Greetings friend  
**Date:** Monday, June 01, 2015 3:35:00 PM

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Sure! More than happy to. I'm booked from 10:30am-12:30pm, but otherwise available. Café du Parc seems to work well, weather permitting.

-John

---

**From:** Drobac, Michael [mailto:[mdrobac@akingump.com](mailto:mdrobac@akingump.com)]  
**Sent:** Monday, June 01, 2015 2:40 PM  
**To:** John Verdi  
**Subject:** Greetings friend

Would you have time to meet with the General Counsel of 3DR (3D Robotics) this Friday? She is a leading voice in the Coalition and will be extremely helpful to the process that is about to begin...

Many thanks and hope all is well.

**Michael E. Drobac**

**AKIN GUMP STRAUSS HAUER & FELD LLP**

1333 New Hampshire Avenue, N.W. | Washington, DC 20036-1564 | USA | Direct: +1 202.887.4043 | Internal: 24043  
Fax: +1 202.887.4288 | [mdrobac@akingump.com](mailto:mdrobac@akingump.com) | [akingump.com](http://akingump.com) | [Bio](#)

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**From:** [Drobac, Michael](#)  
**To:** [John Verdi](#)  
**Subject:** RE: Greetings friend  
**Date:** Monday, June 01, 2015 3:36:49 PM

---

You are the best. 2pm work for you?

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Monday, June 01, 2015 3:36 PM  
**To:** Drobac, Michael  
**Subject:** RE: Greetings friend

Sure! More than happy to. I'm booked from 10:30am-12:30pm, but otherwise available. Café du Parc seems to work well, weather permitting.

-John

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**From:** John Verdi  
**To:** "[Drobac, Michael](#)"  
**Subject:** RE: Greetings friend  
**Date:** Monday, June 01, 2015 3:40:00 PM

---

Perfect. See you there!

-John

---

**From:** Drobac, Michael [<mailto:mdrobac@akingump.com>]  
**Sent:** Monday, June 01, 2015 3:37 PM  
**To:** John Verdi  
**Subject:** RE: Greetings friend

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**To:** [John Verdi](#)  
**Subject:** RE: Greetings friend  
**Date:** Monday, June 01, 2015 3:49:48 PM

---

Café Du Parc it is. Thanks again John. GC is Nancy Egan.

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Monday, June 01, 2015 3:41 PM  
**To:** Drobac, Michael  
**Subject:** RE: Greetings friend

Perfect. See you there!

-John

---

**From:** Drobac, Michael [<mailto:mdrobac@akingump.com>]  
**Sent:** Monday, June 01, 2015 3:37 PM  
**To:** John Verdi  
**Subject:** RE: Greetings friend

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**From:** John Verdi  
**To:** ["Drobac, Michael"](#)  
**Subject:** RE: Greetings friend  
**Date:** Monday, June 01, 2015 4:18:00 PM

---

Excellent. Looking forward to it!

-John

---

**From:** Drobac, Michael [<mailto:mdrobac@akingump.com>]  
**Sent:** Monday, June 01, 2015 3:50 PM  
**To:** John Verdi  
**Subject:** RE: Greetings friend

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**From:** [Jim Wasilewski](#)  
**To:** [John Morris](#); [John Verdi](#); [Cyril J. Dadd](#); [Linda I. Kinney](#); [Evelyn Remaley](#); [Heather Phillips](#); [Juliana Gruenwald](#)  
**Subject:** (Article) FAA Reauthorization May Provide Speedier Flight Path for Drone Rules  
**Date:** Wednesday, June 03, 2015 9:06:16 AM

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<http://morningconsult.com/2015/06/faa-reauthorization-may-provide-speedier-flight-path-for-drone-rules/>

# FAA Reauthorization May Provide Speedier Flight Path for Drone Rules

EITAN AROM | [JUNE 2, 2015](#)

The skies may soon get a little busier.

A congressional push to reauthorize the Federal Aviation Administration could lay the foundation for the widespread use of commercial drones.

A measure ([S. 1314](#)) introduced last month by Sen. Cory Booker (D-N.J.) that would allow businesses to operate drones within the line of site of a human operator may find its way into a broader FAA reauthorization package, according to Sen. John Hoeven (R-N.D.), the lone cosponsor of Booker's bill. Currently, companies must ask the FAA for permission to use drones on a case-by-case basis.

"That's just the likely vehicle we would use," Hoeven said of the reauthorization legislation in an interview Monday. "Clearly it's germane, so I think we'd have a good shot of getting it. But I wouldn't just take part of it, I'd include the full legislation."

Hoeven's deputy communications director, Kami Capener, said in an email that Hoeven would seek to offer the legislation as an amendment either during consideration by the Senate Commerce, Science and Transportation Committee or on the Senate floor. So far, Booker's bill is the only one in Congress that would expedite rules for commercial drones.

Drones are shaping up to be part of a larger conversation about the national airspace as Congress moves forward with efforts to reauthorize the FAA for the first time since 2012.

The House Transportation and Infrastructure Committee will mark up an FAA reauthorization bill in the coming weeks, according to Jason Galanes, deputy chief of staff for Rep. Frank LoBiondo (R-N.J.), chairman of the Aviation Subcommittee.

While FAA legislation has yet to be introduced in the House, Galanes said that the bill would include a section dedicated to drones, and that LoBiondo hopes the House will consider the overall measure before the August recess. He declined to comment further on the forthcoming contents of the bill.

Congress is under pressure to act before the FAA's authority expires on Sept. 30.

Lauren Hammond, a spokeswoman for the Senate Commerce, Science and Transportation Committee, said the panel had not yet scheduled a markup for FAA reauthorization legislation. No senator has introduced a reauthorization measure.

The FAA is in the midst of crafting rules that would allow for the widespread use of commercial drones. In the meantime, businesses [must obtain specific permits](#) to use

drones. The rulemaking process may not be finished until February 2017 – two years after the proposed regulations were released – according to FAA spokesperson Les Dorr.

The agency has been criticized by some industry leaders who say regulators have been slow to integrate drones, also called unmanned aerial systems, into the national airspace despite receiving a mandate from Congress to do so in the 2012 reauthorization measure.

Paul Misener, Amazon’s vice president for global public policy, told the Senate’s Aviation, Operations, Safety and Security Subcommittee in March that “the FAA is not adequately addressing compelling UAS applications.”

Booker’s bill would bypass the FAA while the agency develops regulations, implementing portions of February’s draft rules, such as the provision that drones must remain within the line of sight of a human operator.

In a statement last month, Booker stressed the need to expedite the rulemaking process.

“Right now, the U.S. is falling behind other countries because we lack rules for the safe operation of commercial UAS technology,” he said.

Booker’s office did not respond to a request for comment for this story.

The Association for Unmanned Vehicle Systems International, an organization that advocates for the drone industry and counts companies like Google and Amazon among its members, said it supports the Booker bill.

**From:** [Hogan Lovells](#)  
**To:** [John Verdi](#)  
**Subject:** Hogan Lovells UAS Client Alert - UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice  
**Date:** Wednesday, June 10, 2015 11:49:43 AM

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### Unmanned Aircraft Systems (UAS) Alert

June 9, 2015

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### UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice

Lisa Ellman, a widely recognized lawyer and thought leader in the UAS industry, has joined Hogan Lovells as a partner in the Government Regulatory practice. Based in the firm's Washington, D.C. office, Ellman will co-lead the firm's UAS Group with Aviation partner E. Tazewell Ellett. Ellman brings extensive experience in this emerging industry, and she will advise and assist clients in their interactions with government at the highest federal and state levels on UAS, and other policy issues faced at the intersection of law and business.

Prior to joining Hogan Lovells, Ellman served several years in the Obama administration. As an appointee in the Justice Department's Office of Legal Policy, Ellman developed and implemented high-priority policy initiatives leading the Justice Department's Working Group on Domestic Use of UAS, and represented the department in the interagency process. Previously, she led the department's work on campaign finance policy in the wake of the Supreme Court's *Citizens United* decision.

Ellman has also held senior positions within three White House agencies: the Office of Science and Technology Policy, the Office of Management and Budget / Office of Information and Regulatory Affairs and the Office of Presidential Personnel. As Chief Counselor for the Open Government Partnership for the Executive Office of the President, she represented the U.S. internationally, leading the Obama administration's domestic effort to make government more efficient, effective, transparent, and collaborative.

Ellman earned her B.A. in history from the University of Michigan and her J.D. and M.P.P. from the University of Chicago Law School and Harris School of Public Policy.



### Contact

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#### Agnes Dover

Partner, Washington, D.C.  
[agnes.dover@hoganlovells.com](mailto:agnes.dover@hoganlovells.com)  
+1 202 637 5975

#### Lisa Ellman

Partner, Washington, D.C.  
[lisa.ellman@hoganlovells.com](mailto:lisa.ellman@hoganlovells.com)  
+1 202 637 6934

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[Watch Lisa Ellman's recent TEDx talk on Drones.](#)

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**From:** [Joelle Tessler](#)  
**To:** [John Verdi](#)  
**Subject:** FW: Hogan Lovells UAS Client Alert - UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice  
**Date:** Wednesday, June 10, 2015 12:09:19 PM

---

I'm sure you know this already.

---

**From:** Hogan Lovells [mailto:HoganLovells@ehoganlovells.com]  
**Sent:** Wednesday, June 10, 2015 11:50 AM  
**To:** Joelle Tessler  
**Subject:** Hogan Lovells UAS Client Alert - UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice

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**To:** [Joelle Tessler](#)  
**Subject:** RE: Hogan Lovells UAS Client Alert - UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice  
**Date:** Wednesday, June 10, 2015 12:10:00 PM

---

Thanks! It is a good fit for Lisa.

-John

---

**From:** Joelle Tessler  
**Sent:** Wednesday, June 10, 2015 12:09 PM  
**To:** John Verdi  
**Subject:** FW: Hogan Lovells UAS Client Alert - UAS Thought Leader Lisa Ellman Joins Hogan Lovells Government Regulatory Practice

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**From:** [Cyril J. Dadd](#)  
**To:** [John Verdi](#)  
**Subject:** FW: Google works to shape D.C. drone debate behind the scenes  
**Date:** Thursday, July 02, 2015 10:38:11 AM

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## Google works to shape D.C. drone debate behind the scenes

By Tony Romm

7/2/15 5:00 AM EDT

Google hasn't been the most vocal advocate in Washington when it comes to commercial drones. But the company is quietly seeking to clear a regulatory path for its unmanned aerial vehicles to take flight.

The company held a private, unannounced drone conference at its headquarters in Mountain View, Calif., last week, during which Google founder Sergey Brin joined a briefing of roughly 80 people from Washington and Silicon Valley, according to multiple sources familiar with the event. The attendees included four Federal Aviation Administration "staff level managers," the agency confirmed, without providing names.

Also represented were top drone makers like 3D Robotics, Parrot and Airware, the sources said, as well as industry lobbying groups like the Small UAV Coalition, which represents companies like Google and Amazon.

Asked about the session, Google only confirmed it had occurred but provided no details. "Last week we brought together members of the Small UAV Coalition with other stakeholders in the airspace to discuss and further refine technical concepts that will support safe UAV integration at low altitudes," a spokeswoman said.

As the tech industry embraces the potential of commercial drones to monitor traffic and weather, expand Internet access and deliver packages, Google has taken a less public role than rivals like Amazon in pushing the technology with regulators. But as its conference last week demonstrates, Google, which unveiled its Project Wing last August, has still sought to shape the debate — primarily behind the scenes.

An invite and agenda obtained by POLITICO indicated Google discussed the "implications of existing [air] traffic, safety and regulatory concerns," and the ways in which technology might be used to clear "regulatory hurdles." There was a considerable focus on safety, according to participants, as Google and other drone makers emphasized that technology — not laws and federal rules — might help drones dodge collisions and other mishaps in U.S. airspace.

For the moment, the FAA bans commercial drone use — and companies like Amazon, along with farmers, insurance companies and movie studios, are required to seek agency permission before they operate their craft. That's frustrated drone makers, which contend the U.S. government's reluctance to open its skies has shifted drone innovation, research and testing overseas. Google, for one, is testing Project Wing in Australia, largely because of restrictions

in the United States.

On Capitol Hill, lawmakers have pressed the FAA repeatedly to speed up its work. The agency is expected to miss a September deadline to finish its drone rules, but Deputy Administrator Michael Whitaker told a House committee last month the FAA expects to complete guidelines “within a year.”

In Washington, Google has devoted lobbying dollars to the issue. The company spent \$5.4 million on D.C. influence operations during the first three months of 2015, with unmanned aerial vehicles among its top priorities. Like Amazon, Google is a member of the Small UAV Coalition and has a board position with the Association for Unmanned Vehicle Systems International.

Google also dispatched Dave Vos, who leads the Project Wing team, to speak to about 90 congressional aides at a Memorial Day weekend dinner in San Francisco, part of a Silicon Valley “educational” trip organized by the Information Technology Industry Foundation.

**From:** [John Verdi](#)  
**To:** [Cyril J. Dadd](#)  
**Subject:** RE: Google works to shape D.C. drone debate behind the scenes  
**Date:** Thursday, July 02, 2015 10:40:00 AM

---

Thanks! Hadn't seen this. Super helpful.

-John

---

**From:** Cyril J. Dadd  
**Sent:** Thursday, July 02, 2015 10:38 AM  
**To:** John Verdi  
**Subject:** FW: Google works to shape D.C. drone debate behind the scenes

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7/2/15 5:00 AM EDT

Google hasn't been the most vocal advocate in Washington when it comes to commercial drones. But the company is quietly seeking to clear a regulatory path for its unmanned aerial vehicles to take flight.

The company held a private, unannounced drone conference at its headquarters in Mountain View, Calif., last week, during which Google founder Sergey Brin joined a briefing of roughly 80 people from Washington and Silicon Valley, according to multiple sources familiar with the event. The attendees included four Federal Aviation Administration "staff level managers," the agency confirmed, without providing names.

Also represented were top drone makers like 3D Robotics, Parrot and Airware, the sources said, as well as industry lobbying groups like the Small UAV Coalition, which represents companies like Google and Amazon.

Asked about the session, Google only confirmed it had occurred but provided no details. "Last week we brought together members of the Small UAV Coalition with other stakeholders in the airspace to discuss and further refine technical concepts that will support safe UAV integration at low altitudes," a spokeswoman said.

As the tech industry embraces the potential of commercial drones to monitor traffic and weather, expand Internet access and deliver packages, Google has taken a less public role than rivals like Amazon in pushing the technology with regulators. But as its conference last week demonstrates, Google, which unveiled its Project Wing last August, has still sought to shape the debate — primarily behind the scenes.

An invite and agenda obtained by POLITICO indicated Google discussed the "implications of existing [air] traffic, safety and regulatory concerns," and the ways in which technology might be used to clear "regulatory hurdles." There was a considerable focus on safety,

according to participants, as Google and other drone makers emphasized that technology — not laws and federal rules — might help drones dodge collisions and other mishaps in U.S. airspace.

For the moment, the FAA bans commercial drone use — and companies like Amazon, along with farmers, insurance companies and movie studios, are required to seek agency permission before they operate their craft. That's frustrated drone makers, which contend the U.S. government's reluctance to open its skies has shifted drone innovation, research and testing overseas. Google, for one, is testing Project Wing in Australia, largely because of restrictions in the United States.

On Capitol Hill, lawmakers have pressed the FAA repeatedly to speed up its work. The agency is expected to miss a September deadline to finish its drone rules, but Deputy Administrator Michael Whitaker told a House committee last month the FAA expects to complete guidelines “within a year.”

In Washington, Google has devoted lobbying dollars to the issue. The company spent \$5.4 million on D.C. influence operations during the first three months of 2015, with unmanned aerial vehicles among its top priorities. Like Amazon, Google is a member of the Small UAV Coalition and has a board position with the Association for Unmanned Vehicle Systems International.

Google also dispatched Dave Vos, who leads the Project Wing team, to speak to about 90 congressional aides at a Memorial Day weekend dinner in San Francisco, part of a Silicon Valley “educational” trip organized by the Information Technology Industry Foundation.

**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#)  
**Subject:** yay! panel together  
**Date:** Tuesday, July 07, 2015 4:11:55 PM

---

<http://www.newamerica.org/international-security/drones-and-aerial-observation/>

Looking forward to it 😊

How are you, how's life?

Can you switch my NTIA stakeholder process email list address to this one, btw?

Thanks – talk soon!

Lisa Ellman

**Lisa Ellman\***

Partner

---

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**From:** John Verdi  
**To:** "[Ellman, Lisa](#)"  
**Subject:** RE: yay! panel together  
**Date:** Tuesday, July 07, 2015 4:13:00 PM

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**To:** John Verdi  
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**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#)  
**Subject:** RE: yay! panel together  
**Date:** Tuesday, July 07, 2015 4:36:07 PM

---

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<http://utm.arc.nasa.gov/utm2015.shtml>

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**From:** John Verdi [mailto:JVerdi@ntia.doc.gov]  
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**Subject:** RE: yay! panel together

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**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#)  
**Cc:** [Joelle Coretti](#)  
**Subject:** FW: Drone World Expo panel?  
**Date:** Tuesday, July 07, 2015 5:54:01 PM

---

John, we'd chatted about this briefly before and you'd indicated it's difficult to get approval for travel, but maybe now the stakeholder sessions are up and running they'll let you 😊 Any interest in being on this UAS privacy panel at Drone World Expo with me? We also invited Mike O'Shea and some folks from law enforcement and Ben Marcus. Just let me know what you think.

Info is here and I've cc'd Joelle Coretti from Drone World Expo if you have any follow-up questions.

Dates: November 17-18, 2015

Location: San Jose Convention Center, San Jose, CA

Time of session: Still TBD, likely 1 hour in length

Website: [www.droneworldexpo.comsomeone](http://www.droneworldexpo.comsomeone)

Recent conference press release: [http://droneworldexpo.com/tji\\_detail.asp?ID=412](http://droneworldexpo.com/tji_detail.asp?ID=412)

Talk soon!

Lisa

**Lisa Ellman\***

Partner

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**From:** [Joelle Coretti](#)  
**To:** [Ellman, Lisa](#); [John Verdi](#)  
**Subject:** RE: Drone World Expo panel?  
**Date:** Wednesday, July 08, 2015 9:56:14 AM

---

Lisa, thank you for the introduction. John, we'd be thrilled if you could participate on Lisa's panel. Please let me know if you have any questions at all about the event.

Best,  
Joelle

Joelle Coretti  
VP, Marketing, Conference, Strategic Partnerships  
Drone World Expo  
[www.DroneWorldExpo.com](http://www.DroneWorldExpo.com)  
203-416-1923

Drone World Expo is produced by:  
JD Events, 55 Walls Drive, Suite 204, Fairfield, CT 06824

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**From:** John Verdi  
**To:** "[Ellman, Lisa](#)"  
**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 9:57:00 AM

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-John

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**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#)  
**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 10:02:02 AM

---

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**Sent:** Wednesday, July 08, 2015 9:57 AM  
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Partner

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**From:** John Verdi  
**To:** "[Ellman, Lisa](#)"  
**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 10:04:00 AM

---

Super helpful, thanks!

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Wednesday, July 08, 2015 10:02 AM  
**To:** John Verdi  
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**From:** [Ellman, Lisa](#)  
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**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 10:06:13 AM

---

Anytime☺

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, July 08, 2015 10:05 AM  
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**Subject:** RE: yay! panel together

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**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#)  
**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 10:06:44 AM

---

Quick q for you, too. Do you have time to chat quickly?

---

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---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, July 08, 2015 9:57 AM  
**To:** Ellman, Lisa  
**Subject:** RE: yay! panel together

Ouch! I have NASA on my calendar for July 28<sup>th</sup>, but you're right – it is a multiday event. Thanks for the heads up!

Seriously considering bumping the meeting to the next week – Aug. 3. Do that throw up any red flags for you re: big UAS conflicts?

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Tuesday, July 07, 2015 4:36 PM  
**To:** John Verdi  
**Subject:** RE: yay! panel together

Ok! Great. Though the first meeting is same day as NASA big UTM event so lots may be out there. I'll be speaking out there so will miss it, sadly!

<http://utm.arc.nasa.gov/utm2015.shtml>

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Tuesday, July 07, 2015 4:14 PM  
**To:** Ellman, Lisa  
**Subject:** RE: yay! panel together

Yay! Likewise.

I will get your email switched over.

Expect a meeting announcement for the first stakeholder meeting later this week. Date is almost sure to be July 30. Subsequent meetings (once a month) in Sept, Oct, and Nov. After that, the group can see where it is and we can figure out a schedule moving forward.

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Tuesday, July 07, 2015 4:12 PM  
**To:** John Verdi  
**Subject:** yay! panel together

<http://www.newamerica.org/international-security/drones-and-aerial-observation/>

Looking forward to it 😊

How are you, how's life?

Can you switch my NTIA stakeholder process email list address to this one, btw?

Thanks – talk soon!

Lisa Ellman

**Lisa Ellman\***

Partner

---

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Columbia Square  
555 Thirteenth Street, NW  
Washington, DC 20004

Tel: +1 202 637 5600  
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\*Admitted only in Illinois

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**From:** John Verdi  
**To:** "[Ellman, Lisa](mailto:lisa.ellman@hoganlovells.com)"  
**Subject:** RE: yay! panel together  
**Date:** Wednesday, July 08, 2015 10:07:00 AM

---

Sure – 202.482.8238

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Wednesday, July 08, 2015 10:07 AM  
**To:** John Verdi  
**Subject:** RE: yay! panel together

Quick q for you, too. Do you have time to chat quickly?

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Wednesday, July 08, 2015 10:05 AM  
**To:** Ellman, Lisa  
**Subject:** RE: yay! panel together

Super helpful, thanks!

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Wednesday, July 08, 2015 10:02 AM  
**To:** John Verdi  
**Subject:** RE: yay! panel together

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<http://utm.arc.nasa.gov/utm2015.shtml>

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-John

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Lisa Ellman

**Lisa Ellman\***  
Partner

---

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**From:** John Verdi  
**To:** ["Joelle Coretti"; Ellman, Lisa](#)  
**Subject:** RE: Drone World Expo panel?  
**Date:** Wednesday, July 08, 2015 1:33:00 PM

---

Lisa – many thanks for the invitation!

Joelle – thanks so much for the offer. I need to run this up the chain here at NTIA. As Lisa said, travel is not super easy for me from a budget standpoint, but I always push to do more rather than less. It looks like a great event! I'll let you know whether I can swing the travel.

-John

---

**From:** Joelle Coretti [<mailto:joelle@jdevents.com>]  
**Sent:** Wednesday, July 08, 2015 9:56 AM  
**To:** Ellman, Lisa; John Verdi  
**Subject:** RE: Drone World Expo panel?

Lisa, thank you for the introduction. John, we'd be thrilled if you could participate on Lisa's panel. Please let me know if you have any questions at all about the event.

Best,  
Joelle

Joelle Coretti  
VP, Marketing, Conference, Strategic Partnerships  
Drone World Expo  
[www.DroneWorldExpo.com](http://www.DroneWorldExpo.com)  
203-416-1923

Drone World Expo is produced by:  
JD Events, 55 Walls Drive, Suite 204, Fairfield, CT 06824

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Tuesday, July 07, 2015 5:54 PM  
**To:** John Verdi  
**Cc:** Joelle Coretti  
**Subject:** FW: Drone World Expo panel?

John, we'd chatted about this briefly before and you'd indicated it's difficult to get approval for travel, but maybe now the stakeholder sessions are up and running they'll let you ☺ Any interest in being on this UAS privacy panel at Drone World Expo with me? We also invited Mike O'Shea and some folks from law enforcement and Ben Marcus. Just let me know what you think.

Info is here and I've cc'd Joelle Coretti from Drone World Expo if you have any follow-up questions.

**Dates:** November 17-18, 2015

Location: San Jose Convention Center, San Jose, CA

Time of session: Still TBD, likely 1 hour in length

Website: [www.droneworldexpo.com](http://www.droneworldexpo.com)

Recent conference press release: [http://droneworldexpo.com/tji\\_detail.asp?ID=412](http://droneworldexpo.com/tji_detail.asp?ID=412)

Talk soon!

Lisa

**Lisa Ellman\***

Partner

---

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This record is not responsive.



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Talk soon!

Lisa

**Lisa Ellman\***

Partner

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**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#)  
**Subject:** UAS multistakeholder email list  
**Date:** Monday, July 13, 2015 12:48:34 PM

---

Hi John,

Would it be possible to add me to your multistakeholder process email list?

Thanks,

Tim

**Timothy Tobin**

Partner

---

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Email: [tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)  
Blog: [www.hldataprotection.com](http://www.hldataprotection.com)  
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**From:** John Verdi  
**To:** ["Tobin, Timothy P."](mailto:Tobin, Timothy P.)  
**Subject:** RE: UAS multistakeholder email list  
**Date:** Monday, July 13, 2015 12:59:00 PM

---

Of course!

-John

---

**From:** Tobin, Timothy P. [mailto:[tim.tobin@hoganlovells.com](mailto:tim.tobin@hoganlovells.com)]  
**Sent:** Monday, July 13, 2015 12:48 PM  
**To:** John Verdi  
**Subject:** UAS multistakeholder email list

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Thanks,

Tim

**Timothy Tobin**

Partner

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**From:** [Tobin, Timothy P.](#)  
**To:** [John Verdi](#)  
**Subject:** Re: UAS multistakeholder email list  
**Date:** Monday, July 13, 2015 1:05:41 PM

---

Thanks John!

Tim Tobin

On Jul 13, 2015, at 1:00 PM, "John Verdi" <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> wrote:

Of course!

-John

---

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Partner

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**From:** John Verdi  
**To:** ["Tobin, Timothy P."](#)  
**Subject:** RE: UAS multistakeholder email list  
**Date:** Monday, July 13, 2015 1:07:00 PM

---

No problem. Hope you're well, and I look forward to kicking off this UAS project!

-John

---

**From:** Tobin, Timothy P. [<mailto:tim.tobin@hoganlovells.com>]  
**Sent:** Monday, July 13, 2015 1:06 PM  
**To:** John Verdi  
**Subject:** Re: UAS multistakeholder email list

Thanks John!

Tim Tobin

On Jul 13, 2015, at 1:00 PM, "John Verdi" <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)> wrote:

Of course!

-John

---

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**From:** [Bronfman, Jill](#)  
**To:** [John Verdi](#)  
**Cc:** [Bronfman, Jill](#)  
**Subject:** Re: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)  
**Date:** Thursday, July 16, 2015 4:27:40 PM

---

John,

Sorry to miss this as I'll be out of the U.S. for the August 3 meeting. I'm hoping the meeting will be recorded and/or transcribed.

I'll also miss the October meeting as I'll be in Amsterdam at APC2015 presenting my paper entitled, *"I'm Ready for My Close-Up, Mr. Spielberg: Creating a Working Model for Data Security and Personal Privacy in the Use Case of Unmanned Aerial Systems (UAS) in Film and Video Game Production."* I've used some of the research I did for the NTIA filing, including our panel at Hogan, Lovells, for the Amsterdam paper and presentation.

Thanks for your work on this project!

Jill

Jill Bronfman  
Program Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
200 McAllister Street  
San Francisco, California 94102

[innovation.uchastings.edu](mailto:innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

---

**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Sent:** Monday, July 13, 2015 9:11 AM  
**To:** John Verdi  
**Cc:** John Morris; Evelyn Remaley; Juliana Gruenwald; Heather Phillips  
**Subject:** Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

Stakeholders,

On August 3, 2015, NTIA will hold the first meeting of a multistakeholder process to develop best practices that enhance privacy and promote transparent and accountable operation of unmanned aircraft systems (UAS) by commercial and private users. Subsequent meetings will take place this fall. We expect this process to bring together a wide range of stakeholders, including industry, civil society and academia. The group will craft best practices for privacy, transparency, and accountability that can help guide commercial and private UAS operators.

Deputy Assistant Secretary Angela Simpson's blog post announcing the first meeting is available here: <http://www.ntia.doc.gov/blog/2015/improving-privacy-transparency-and-accountability-unmanned-aircraft-systems>

The August 3 meeting is scheduled for 1:00-5:00 p.m., ET in Washington, DC. The meeting is open to the public. NTIA will provide a webcast and conference phone bridge. The meeting schedule is below, and additional details are available here: <http://www.ntia.doc.gov/federal-register-notice/2015/notice-best-practices-multistakeholder-process-re-uas>

Meeting schedule:

- August 3, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- September 24, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- October 21, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- November 20, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006

More information about the process is available here: <http://www.ntia.doc.gov/other-publication/2015/multistakeholder-process-unmanned-aircraft-systems>

-John

----

John Verdi  
Director of Privacy Initiatives  
U.S. Department of Commerce  
National Telecommunications and Information Administration  
(202) 482-8238  
[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

To unsubscribe or add your address to this email list, please email [jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

**From:** John Verdi  
**To:** [Bronfman, Jill](mailto:Bronfman, Jill)  
**Subject:** RE: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)  
**Date:** Thursday, July 16, 2015 4:45:00 PM

---

Jill,

I'm so sorry to hear that you'll miss the first meeting and the October meeting! Best of luck with your travels and APC2015 presentation. I expect the August meeting to be interesting, but I'm pretty confident that the discussions will be preliminary. I made sure you're on the email list, and we always send a message to that list summarizing next steps for folks to work on in advance of the next meeting.

Thanks!

-John

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]  
**Sent:** Thursday, July 16, 2015 4:28 PM  
**To:** John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

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Thanks for your work on this project!

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[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](https://twitter.com/privacytechlaw)

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Stakeholders,

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Deputy Assistant Secretary Angela Simpson's blog post announcing the first meeting is available here: <http://www.ntia.doc.gov/blog/2015/improving-privacy-transparency-and-accountability-unmanned-aircraft-systems>

The August 3 meeting is scheduled for 1:00-5:00 p.m., ET in Washington, DC. The meeting is open to the public. NTIA will provide a webcast and conference phone bridge. The meeting schedule is below, and additional details are available here: <http://www.ntia.doc.gov/federal-register-notice/2015/notice-best-practices-multistakeholder-process-re-uas>

Meeting schedule:

- August 3, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- September 24, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- October 21, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- November 20, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006

More information about the process is available here: <http://www.ntia.doc.gov/other-publication/2015/multistakeholder-process-unmanned-aircraft-systems>

-John

----

John Verdi

Director of Privacy Initiatives

U.S. Department of Commerce  
National Telecommunications and Information Administration  
(202) 482-8238

[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

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**From:** [Krysten Jenci](#)  
**To:** [John Ward](#)  
**Subject:** FW: An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting | HL Chronicle of Data ...  
**Date:** Friday, July 17, 2015 11:32:56 AM

Go John ☺

**From:** [hdataprotect@aweber.com](mailto:hdataprotect@aweber.com) [mailto:[hdataprotect@aweber.com](mailto:hdataprotect@aweber.com)] **On Behalf Of** Hogan Lovells Chronicle of Data Protection  
**Sent:** Friday, July 17, 2015 11:32 AM  
**To:** Krysten Jenci  
**Subject:** An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting | HL Chronicle of Data ...

HL Chronicle of Data Protection



[An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting](#)

POSTED ON 2015-07-17 10:52:57-04

Summary:

Across the country, we're in the midst of "Unmanned Aircraft Systems ever" – industries from media, agriculture and energy to insurance, real estate and construction are seeking FAA approvals to fly UAS here in the United States. UAS technology has improved at a rapid pace, and offer a vast array of safety and efficiency benefits to companies for a wide variety of uses. But while the benefits from commercial uses of UAS are great, many have also been vocal with their privacy concerns. It may very well be that for industry to succeed, various stakeholders will need to engage in a national conversation surrounding these issues. [Read More>>](#)

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**From:** John Verdi  
**To:** [Krysten Jenci](mailto:Krysten.Jenci)  
**Subject:** RE: An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting | HL Chronicle of Data ...  
**Date:** Friday, July 17, 2015 11:33:00 AM



John

**From:** Krysten Jenci [mailto:Krysten.Jenci@trade.gov]  
**Sent:** Friday, July 17, 2015 11:33 AM  
**To:** John Verdi  
**Subject:** FW: An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting | HL Chronicle of Data ...

Go John

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**From:** [Wolf, Christopher](#)  
**To:** [John Verdi](#)  
**Cc:** [Ellman, Lisa](#)  
**Subject:** Fwd: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting  
**Date:** Friday, July 17, 2015 3:53:51 PM

---

Hi, John,

Hope you are well.

The below is FYI. We are spreading the word!

Best,  
Chris

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**From:** Hogan Lovells <[HoganLovells@ehoganlovells.com](mailto:HoganLovells@ehoganlovells.com)>  
**Date:** July 17, 2015 at 3:41:40 PM EDT  
**To:** Christopher Wolf <[christopher.wolf@hoganlovells.com](mailto:christopher.wolf@hoganlovells.com)>  
**Subject:** **Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting**  
**Reply-To:** <[r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com](mailto:r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com)>

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## Unmanned Aircraft Systems Alert

July 17, 2015

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**To:** ["Wolf, Christopher"](#)  
**Cc:** [Ellman, Lisa](#)  
**Subject:** RE: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting  
**Date:** Friday, July 17, 2015 4:02:00 PM

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**To:** John Verdi  
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**Reply-To:** <[r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com](mailto:r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com)>

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## Unmanned Aircraft Systems Alert

July 17, 2015

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**From:** [Ellman, Lisa](#)  
**To:** [John Verdi](#); [Wolf, Christopher](#)  
**Subject:** RE: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting  
**Date:** Friday, July 17, 2015 4:08:22 PM

---

John,

We can't wait! See you next Wednesday for our panel together...

Have a great weekend.

Best,  
Lisa

---

**From:** John Verdi [<mailto:JVerdi@ntia.doc.gov>]  
**Sent:** Friday, July 17, 2015 4:02 PM  
**To:** Wolf, Christopher  
**Cc:** Ellman, Lisa  
**Subject:** RE: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting

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**Sent:** Friday, July 17, 2015 3:54 PM  
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**Cc:** Ellman, Lisa  
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**Date:** July 17, 2015 at 3:41:40 PM EDT  
**To:** Christopher Wolf <[christopher.wolf@hoganlovells.com](mailto:christopher.wolf@hoganlovells.com)>  
**Subject:** Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy

## Debate: NTIA Announces First Stakeholder Meeting

Reply-To: <[r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com](mailto:r-ff0020addb9046fe91f91993ac43a52cffb133de@ehoganlovells.com)>

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## Unmanned Aircraft Systems Alert

July 17, 2015

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#### Jared Bomberg

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**To:** ["Ellman, Lisa"](#); [Wolf, Christopher](#)  
**Subject:** RE: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting  
**Date:** Friday, July 17, 2015 4:09:00 PM

---

Me either! Also looking forward to next Wednesday! The New America event should be super interesting.

-John

---

**From:** Ellman, Lisa [<mailto:lisa.ellman@hoganlovells.com>]  
**Sent:** Friday, July 17, 2015 4:08 PM  
**To:** John Verdi; Wolf, Christopher  
**Subject:** RE: Hogan Lovells UAS Client Alert - An Important Step Forward in the UAS Privacy Debate: NTIA Announces First Stakeholder Meeting

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Associate, Washington, D C

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+1 202 637 2872



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Columbia Square, 555 Thirteenth Street, NW, Washington, D C 20004, United States of America

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**From:** [Jim Wasilewski](#)  
**To:** [John Morris](#); [John Verdi](#); [Juliana Gruenwald](#); [Heather Phillips](#)  
**Cc:** [Dadd, Cyril J.](#)  
**Subject:** FW: You're Invited: The Internet Takes Flight  
**Date:** Wednesday, July 29, 2015 6:50:56 AM

---

fyi

---

**From:** Congressional Internet Caucus AC [mailto:ICAC@netcaucus.org]  
**Sent:** Tuesday, July 28, 2015 12:16 PM  
**To:** Jim Wasilewski  
**Subject:** You're Invited: The Internet Takes Flight

ICAC Logo



*Join us for a lunch briefing on ...*

## **The Internet Takes Flight: Commercial Drones and a Connected World**

**Date:** Monday, August 3, 2015  
**Time:** 12:00 - 1:00 p.m.  
**Location** Rayburn House Office Building, Room TBD  
**Register:** [via Eventbrite](#)  
**Follow:** [@NetCaucusAC](#) | [#InternetDrones](#)  
*This is a short, 60-minute recess flash-luncheon briefing*

Dear James,

Please join us for a special recess briefing on "**The Internet Takes Flight: Commercial Drones and a Connected World**" next Monday, August 3 at noon. Our panel of experts will focus on how the Internet is taking flight with connected commercial drones. The briefing will also cover policy issues that face the emerging commercial drone space.

Later in the day, the National Telecommunications and Information Administration (NTIA) will [start a "multistakeholder process"](#) aimed at developing privacy best practices for the commercial and private use of unmanned aircraft systems.

Event registration is below. We look forward to seeing you on Monday!

**[REGISTER HERE](#)**

### **Speakers:**

- Paul **Misener**, VP Public Policy, Amazon ([Bio](#))
- Michael **Drobac**, Executive Director, Small UAV Coalition ([Bio](#))
- Lisa **Ellman**, Unmanned Aircraft Systems (UAS) Practice Group, Hogan Lovells ([Bio](#))

- *More speakers will be announced on a rolling basis.*

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### [Data Across Borders: Treaties, Law Enforcement, and Digital Privacy in the Aftermath of Snowden](#)



### [Taylor Swift or Congress? Who Has More Power in the Digital Music Streaming Marketplace](#)



### [Will Frivolous Defamation Suits Be the End of the Internet?](#)



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**From:** [Bronfman, Jill](#)  
**To:** [John Verdi](#)  
**Cc:** [Bronfman, Jill](#)  
**Subject:** Re: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)  
**Date:** Thursday, July 30, 2015 5:44:08 PM

---

John,

I'd also like to offer UC Hastings as a possible venue for a West Coast meeting of the stakeholders. Not that I've asked permission for this yet or anything, but I bet we could pull it off. I'm hosting the FTC here on September 9th for their "Starting with Security" launch, and we've had SEC and FEC events in recent months.

Best,

Jill

Jill Bronfman  
Director of Privacy and Technology Project  
Adjunct Professor of Law, Data Privacy  
Institute for Innovation Law  
University of California Hastings College of the Law  
200 McAllister Street  
San Francisco, California 94102

[innovation.uchastings.edu](http://innovation.uchastings.edu)  
[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)  
[@privacytechlaw](#)

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**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Date:** Thursday, July 16, 2015 at 1:45 PM  
**To:** Jill Bronfman <[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)>  
**Subject:** RE: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

Jill,

I'm so sorry to hear that you'll miss the first meeting and the October meeting! Best of luck with your travels and APC2015 presentation. I expect the August meeting to be interesting, but I'm pretty confident that the discussions will be preliminary. I made sure you're on the email list, and we always send a message to that list summarizing next steps for folks to work on in advance of the next meeting.

Thanks!

-John

---

**From:** Bronfman, Jill [<mailto:bronfmanj@uchastings.edu>]

**Sent:** Thursday, July 16, 2015 4:28 PM  
**To:** John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

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Thanks for your work on this project!

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[@privacytechlaw](https://twitter.com/privacytechlaw)

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**From:** John Verdi <[JVerdi@ntia.doc.gov](mailto:JVerdi@ntia.doc.gov)>  
**Sent:** Monday, July 13, 2015 9:11 AM  
**To:** John Verdi  
**Cc:** John Morris; Evelyn Remaley; Juliana Gruenwald; Heather Phillips  
**Subject:** Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

Stakeholders,

On August 3, 2015, NTIA will hold the first meeting of a multistakeholder process to develop best practices that enhance privacy and promote transparent and accountable operation of unmanned aircraft systems (UAS) by commercial and private users. Subsequent meetings will take place this fall. We expect this process to bring together a wide range of stakeholders, including industry, civil society and academia. The group will craft best practices for privacy, transparency, and accountability that can help guide commercial and private UAS operators.

Deputy Assistant Secretary Angela Simpson's blog post announcing the first meeting is available here: <http://www.ntia.doc.gov/blog/2015/improving-privacy-transparency-and-accountability-unmanned-aircraft-systems>

The August 3 meeting is scheduled for 1:00-5:00 p.m., ET in Washington, DC. The meeting is open to the public. NTIA will provide a webcast and conference phone bridge. The meeting schedule is below, and additional details are available here: <http://www.ntia.doc.gov/federal-register-notice/2015/notice-best-practices-multistakeholder-process-re-uas>

Meeting schedule:

- August 3, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- September 24, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- October 21, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006
- November 20, 2015, 1:00-5:00 p.m., ET, Boardroom at the American Institute of Architects, 1735 New York Avenue NW, Washington, DC 20006

More information about the process is available here: <http://www.ntia.doc.gov/other-publication/2015/multistakeholder-process-unmanned-aircraft-systems>

-John

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John Verdi

Director of Privacy Initiatives

U.S. Department of Commerce

National Telecommunications and Information Administration

(202) 482-8238

[jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

To unsubscribe or add your address to this email list, please email [jverdi@ntia.doc.gov](mailto:jverdi@ntia.doc.gov)

**From:** John Verdi  
**To:** ["Bronfman, Jill"](#)  
**Subject:** RE: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)  
**Date:** Thursday, July 30, 2015 5:45:00 PM

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Thank you! That is really kind. I've never been on campus, but it is a fantastic location. I'll run it by folks here and see what they think. Then we can discuss.

-John

---

**From:** Bronfman, Jill [mailto:[bronfmanj@uchastings.edu](mailto:bronfmanj@uchastings.edu)]  
**Sent:** Thursday, July 30, 2015 5:44 PM  
**To:** John Verdi  
**Cc:** Bronfman, Jill  
**Subject:** Re: Aug. 3 - First NTIA multistakeholder meeting regarding unmanned aircraft systems (UAS)

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**From:** [Derek Khlopin](#)  
**To:** [John Morris](#); [Evelyn Remaley](#); [Peter Tenhula](#); [John Verdi](#); [Alan B. Davidson](#); [Giff, John](#); [Dadd, Cyril J.](#)  
**Cc:** [Glenn Reynolds](#); [Simpson, Angela](#)  
**Subject:** FW: The Drones Are Coming: Internet in the Sky  
**Date:** Friday, July 31, 2015 10:07:13 AM

---

I'm sure a lot of you got this too but just FYI.

---

**From:** Congressional Internet Caucus AC [mailto:ICAC@netcaucus.org]  
**Sent:** Friday, July 31, 2015 9:57 AM  
**To:** Derek Khlopin  
**Subject:** The Drones Are Coming: Internet in the Sky

ICAC Logo



*Join us for a lunch briefing on ...*

## **The Internet Takes Flight: Commercial Drones and the Online Economy**

**Date:** Monday, August 3, 2015  
**Time:** 12:00 - 1:00 p.m.  
**Location** Rayburn House Office Building, Room 2226  
**Register:** [via Eventbrite](#)  
**Follow:** [@NetCaucusAC](#) | [#InternetDrones](#)  
*This is a short, 60-minute recess flash-luncheon briefing*

Dear Derek,

The biggest Internet companies were in the headlines this week with grand plans for launching the Internet of drones. [Amazon predicts](#) that in the next decade, the number of small drones in the sky will exceed the nearly 85,000 manned aircrafts currently in flight. This week, the company also released the details of a plan to create zones in the sky for drones to fly safely.

The Sri Lankan government is [exploring a partnership](#) with Google's Project Loon to bring Internet access to the entire nation balloons that deliver Wi-Fi signals to remote regions. Not to be outdone, [Facebook released details](#) on their enormous solar-powered drone they hope will expand the reach of the Internet across the globe.

Join us on Monday for this special recess briefing on commercial drones to learn about the limitless potential of drones and the policy issues facing this emerging industry.



**Speakers:**

- Michael **Drobac**, Executive Director, Small UAV Coalition ([Bio](#))
- Lisa **Ellman**, Unmanned Aircraft Systems (UAS) Practice Group, Hogan Lovells ([Bio](#))
- Brian **Fung**, Reporter, *The Washington Post* ([Bio](#)) moderator
- Paul **Misener**, VP Public Policy, Amazon ([Bio](#))
- *More speakers will be announced on a rolling basis.*

<https://www.eventbrite.com/e/the-internet-takes-flight-commercial-drones-and-the-online-economy-tickets-17935979999>

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**From:** [Juliana Gruenwald](#)  
**To:** [John Verdi](#)  
**Subject:** FW: The Drones Are Coming: Internet in the Sky  
**Date:** Friday, July 31, 2015 10:27:33 AM

---

Interesting. Looks like its timed to accommodate the UAS meeting...

---

**From:** Congressional Internet Caucus AC [mailto:ICAC@netcaucus.org]  
**Sent:** Friday, July 31, 2015 9:56 AM  
**To:** Juliana Gruenwald  
**Subject:** The Drones Are Coming: Internet in the Sky

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*Join us for a lunch briefing on ...*

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**Register:** [via Eventbrite](#)

**Follow:** [@NetCaucusAC](#) | [#InternetDrones](#)

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Dear Juliana,

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**From:** John Verdi  
**To:** [Derek Khlopin](#)  
**Subject:** RE: The Drones Are Coming: Internet in the Sky  
**Date:** Friday, July 31, 2015 12:00:00 PM

---

Thanks!

-John

---

**From:** Derek Khlopin  
**Sent:** Friday, July 31, 2015 10:07 AM  
**To:** John Morris; Evelyn Remaley; Peter Tenhula; John Verdi; Alan B. Davidson; Giffit, John; Dadd, Cyril J.  
**Cc:** Glenn Reynolds; Simpson, Angela  
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