

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON PUBLIC SAFETY,
JOINTLY WITH COMMITTEE ON TRANSPORTATION

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B E F O R E:

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YDANIS A. RODRIGUEZ
Co-Chairperson

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Public Advocate Letitia James

A P P E A R A N C E S (CONTINUED)

Henry Jackson
Deputy Commissioner
NYC Office of Emergency Management

Timothy Herlocker
Director
Emergency Operations Center
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Laura Kavanagh
Assistant Commissioner
Emergency Operations Center
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Thomas Bosco
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Jon Ollwerther
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David Donovan
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New York State Broadcasters Association

Angela Miele
Motion Picture Association of America

Flo Brown
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Benjamin Esner
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Jaami Ali
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DJI Technology, Inc.

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A P P E A R A N C E S (CONTINUED)

Anthony Pansini
President
Staten Island Radio Control Modelers

Richard Hanson
Director
Government Regulatory Affairs
Academy of Model Aeronautics

1 COMMITTEE ON PUBLIC SAFETY, JOINTLY WITH
2 COMMITTEE ON TRANSPORTATION

6

2 [gavel]

3 CHAIRPERSON GIBSON: Good morning ladies
4 and gentlemen, welcome to City Hall. I am Council
5 Member Vanessa Gibson of the 16th District in the
6 Bronx and I am proud to chair the City Council
7 Committee on Public Safety. I welcome each and every
8 one of you today to our joint hearing of the
9 Committees on Public Safety and Transportation.

10 I wanna thank my Co-Chair, Council Member
11 Ydanis Rodriguez; Chair of the Committee on
12 Transportation, for joining us in chairing this very
13 important hearing; he will be joining us very
14 shortly. Today's hearing is on unmanned aerial
15 vehicles or UAVs.

16 I would also like to thank the members of
17 both the Public Safety Committee and Transportation
18 Committee who are here.

19 Today, this morning we are hearing four
20 pieces of legislation related to the regulation of
21 UAVs. I wanna thank prime sponsors for proposing
22 these bills in which we are hearing.

23 UAVs or drones are unpiloted aircraft
24 that may be operated remotely; they can range in size
25 from a simple model aircraft to the size of a full-

3 scale aircraft. The FAA has said that as many as one
4 million drones could be sold during this year's
5 holiday season. Companies such as Amazon and Wal-
6 Mart are currently researching and developing systems
7 that would allow merchants to deliver packages by
8 UAVs. In addition to delivery systems, CBS has
9 reported that the new UAV industry could create
10 almost 100,000 new jobs by 2025.

11 While there may be many benefits to this
12 technology, their increased presence in the skies has
13 created new risks. Just a couple of months ago, in
14 September, an operator of a UAV flying over the U.S.
15 Open lost control and crashed into the stands. In
16 addition, there has been an alarming increase in
17 sightings near both LaGuardia and JFK airports. The
18 FAA reports that UAV sightings by pilots have more
19 than doubled between 2014 and 2015.

20 Given their small size and freedom of
21 movement, UAVs equipped with microphones or cameras
22 could encroach on people's privacy rights. These
23 concerns show the need for appropriate regulations
24 that both encourage technological innovation while at
25 the same time balancing public safety. The FAA has
passed some regulations to safely integrate UAVs in

3 national airspace but is expected to issue final
4 regulations in mid 2016. While the FAA is preparing
5 its regulations, other states and local legislators
6 across the country are engaging in the same
7 conversation that we will have today; how to regulate
8 the use of UAVs in our airspace.

9 The first bill which we will hear today,
10 Intro. 0589-A, sponsored by Council Member Garodnick,
11 would regulate the aviation of UAVs by city agencies
12 and for commercial purposes.

13 Council Member Vallone has sponsored
14 Intro. 0601-A, which will regulate the use of UAVs in
15 city airspace.

16 The third bill, sponsored by our Public
17 Advocate James, Intro. 0614, would require UAVs to be
18 insured and registered with the New York City
19 Department of Transportation.

20 And Reso. No. 0057-A, sponsored by
21 Council Member King, relates to the protection of
22 unwarranted surveillance.

23 In today's hearing I am hoping to learn
24 more from the administration on their current use or
25 contemplated use of UAVs, their experience with
policing the unlawful use of drones and in addition,

3 we will also hear from industry representatives,
4 advocates and manufacturers about their use of drones
5 as it relates to today's bills.

6 I thank you all for being here and
7 certainly want to recognize the staff that prepared
8 today's joint hearing. I wanna thank the Counsel,
9 Committee on Public Safety, Deepa Ambekar;
10 Legislative Analyst Beth Golub; Policy Analyst Laurie
11 Wen, and our Financial Analyst, Ellen Eng.

12 The Committee on Transportation, our
13 Counsel, Kelly Taylor, Policy Analyst Gafar Zaaloff,
14 our Policy Analyst, Jonathan Masserano and our Policy
15 Analyst Russell Murphy.

16 In addition, our Legislative Drafting
17 Unit, who worked very hard to get these bills
18 drafted, our Counsel, Wesley Jones.

19 I also want to acknowledge the presence
20 of my colleagues who are here -- Council Member Paul
21 Vallone, Council Member Dan Garodnick, Council Member
22 Antonio Reynoso, Council Member Andy King, Council
23 Member Donovan Richards, as well as our Public
24 Advocate Letitia James.

25 And now, as we begin the hearing, I will
ask Council... we've also been joined by Council Member

3 James Vacca, and now we will have opening remarks
4 from all our prime sponsors and I will begin with
5 Proposed Intro. 0589-A, sponsored by Council Member
6 Dan Garodnick.

7 COUNCIL MEMBER GARODNICK: Thank you very
8 much, Madame Chair and also to Chair Rodriguez for
9 holding this hearing on the use of unmanned aerial
10 vehicles or UAVs or drones.

11 My bill, Intro. 0589-A, will create laws
12 that govern the use of governmental and commercial
13 UAVs.

14 UAVs are now a very real fixture in our
15 skies, as they have become cheaper to purchase and
16 easier to operate. The FAA and industry experts
17 expect one million UAVs to be sold this holiday
18 season; that is on top of the thousands or tens of
19 thousands that exist today.

20 UAVs can serve many purposes. Hobbyists
21 wanna fly them for fun, government bodies have
22 expressed interest in utilizing them to inspect
23 construction sites, potholes and to use in emergency
24 situations. Some have been created in order to
25 provide life-sustaining resources to emergency
responders. The commercial sector is banging on the

3 federal government's door to allow UAVs for all types
4 of uses, such as pizza delivery and movie-making.

5 While there are many fun, innovative and
6 thoughtful purposes for UAV use, there also remain
7 significant safety and privacy concerns. In the past
8 year there have been more than three dozen drone
9 sightings just in the airspace near JFK. This is an
10 enormous danger to our safety both in the skies and
11 on the ground; the damage can be far worse if these
12 devices were equipped with any type of a weapon.

13 In addition to the safety concerns, we
14 need to develop smart policies to protect ourselves.
15 It goes without saying that we should develop
16 specific data retention and deletion policies to
17 avoid government abuse. Drones are no longer science
18 fiction but very real tools of our society; it is
19 therefore our responsibility to ensure that we create
20 a safe and sensible method of using these tools. The
21 FAA is working on new rules, but we don't know when
22 they will issue their rules and therefore can't wait
23 for them; we need to make sure that there is a
24 process in place that differentiates between the
25 cornfield of Iowa, for example, and the city blocks
of New York. Intro. 0589-A picks up where the FAA

3 leaves off. We will grant agencies the limited
4 ability to use drones so long as they adhere to
5 uniform and specific rules, such as uniform markings,
6 speed, GPS tracking and licensing. Commercial
7 entities will need to obtain a permit and adhere to
8 very New York City-specific standards. This bill
9 originally was structured as a ban or essentially as
10 a ban and based on the feedback that we have heard,
11 some thoughtful feedback, we have changed the bill to
12 ensure that we do not unnecessarily impact hobbyists
13 or prohibit limited commercial uses. We also see
14 legitimate governmental uses for drones under a very
15 specific set of circumstances. We are balancing
16 those opportunities with real protections to our
17 safety and privacy.

18 We look forward to discussing with the
19 DOT and the NYPD their ability to implement and
20 enforce the laws and as always we look forward to
21 hearing from the public. So Chair Gibson, thank you
22 so much, to the authors of the other two bills on
23 today's agenda, the Public Advocate Tish James and to
24 Council Member Vallone; it's always a pleasure
25 working with you on these bills and everything else.
Thank you, Madame Chair.

3 CHAIRPERSON GIBSON: Thank you, Council
4 Member Garodnick. Next we will have prime sponsor of
5 Intro. 0601-A, Council Member Paul Vallone.

6 COUNCIL MEMBER VALLONE: Thank you,
7 Madame Chair. Good morning Madame Advocate. Thank
8 you very much for holding this hearing on Intro.
9 0601, which would locally regulate the private use of
10 unmanned aerial vehicles, UAVs or drones, in New York
11 City.

12 The technology now for drones has rapidly
13 advanced in the last few years, allowing UAVs to be
14 widely available and increasingly affordable for the
15 average person; this has resulted in the rampant
16 proliferation of drones in the city's airspace. This
17 unchecked growth has spurred significant security and
18 privacy concerns, as well as resulting in many close
19 call incidents with commercial and city air traffic.

20 I'd first like to start by thanking
21 Wesley Jones for drafting the bill, Jonathan Szott,
22 Lionel Morales, Ahmed Nazaar and once again, for my
23 staff. And thank you to Chairs Vanessa Gibson and
24 Ydanis Rodriguez for bringing the bill today.

25 Intro. 0601 will create violations and
misdemeanors with fines for UAVs that are flown in

3 prohibited areas, as well as those flown with the
4 intent to cause harm or damage or destroy property.

5 This bill will strive to maintain a balance with the
6 recreational use of UAVs by requiring the
7 Commissioner of the Department of Parks and
8 Recreation to designate areas within city parks where
9 they can be legally flown.

10 Finally, there will also be restrictions
11 of times, locations and altitudes which UAVs may be
12 operated and prohibit the use of UAVs for conducting
13 surveillance or that are equipped with weapons or
14 dangerous instruments. This bill will not affect the
15 operation of UAVs by city agencies.

16 Today's hearing on Intro. 0280 is the
17 crucial next step for what we hope to be eventual
18 passage of this legislation that will finally address
19 the rampant unregulated use of unmanned aerial
20 vehicles in the City of New York. We need to reclaim
21 our safety and reign in the wild west of drones here
22 in our city. My bill finally gives the City the
23 teeth to effectively regulation drones in our skies
24 without waiting for the FAA to update federal
25 regulations or for the tragedy to happen next. Our
public safety now more than ever is a prime focus

3 that this bill finally gives the NYPD the tools they
4 need to protect our skies and that's what this day is
5 all about; that's why we've been brought to this
6 point; that's why there's been so much talk and
7 talking about amendments and agreements, because if
8 it wasn't for our council's bills today we wouldn't
9 be talking about finally clearing up our skies and if
10 we had to wait for the FAA, you'd still be waiting
11 for my dad to be back as speaker again, 'cause that's
12 pretty much as long as it's been. So I thank you
13 both, chairs for bringing the bills and I look
14 forward to discussion. Thank you very much.

14 CHAIRPERSON GIBSON: Thank you, Council
15 Member Vallone. Next we will have prime sponsor of
16 Intro. 0614, Public Advocate Letitia James.

17 PUBLIC ADVOCATE JAMES: Thank you. I
18 wanna thank Chair Gibson and Rodriguez for holding
19 today's important hearing. I'd also like to thank
20 the lead sponsors of the other bills being heard
21 today, Council Members Garodnick and Vallone.

22 Whether we are ready or not, drones are a
23 part of our world. We've seen UAVs employed for a
24 host of uses, some positive, others negative and many
25 in ways that we've never imagined possible. Some

3 possible examples of UAV use include helping to save
4 migrants fleeing from war-torn countries or assisting
5 farmers with observation of crops. The Motion
6 Picture Association of America is a proponent of UAVs
7 for filmmaking and many hobbyists, as I've seen in
8 several local parks in this city, enjoy the use of
9 drones as a recreational toy. At the same time, UAVs
10 have been reported interfering with civilian aircraft
11 and jeopardizing passenger safety or breaching the
12 White House security and crash landing on the White
13 House property.

14 One does not need to strain their
15 imagination to consider the incredible threat to
16 personal privacy posed by drones that carry cameras
17 which can so easily record the actions of unwitting
18 subjects in public or even private locations.

19 Several recent incidents where drones
20 were found attempting to enter prison property to
21 smuggle contraband raises concerns about how easily
22 drones can be used for worrisome ends [sic]. And of
23 course, as New Yorkers and in the wake of the tragic
24 events in Paris, Brussels, Mali, Kenya; Somalia, we
25 recognize that drones could present a new and very
frightening terrorism threat to major population

3 centers like our beloved New York City. And apart
4 from the extremes, UAVs present a new reality to
5 which many Americans and New Yorkers are simply not
6 accustomed. The example of Amazon using UAVs to
7 deliver goods to our homes is both incredible and I
8 must admit, somewhat unsettling in how it will impact
9 our day to day lives.

10 Not surprisingly, public opinion is
11 divided on UAVs, including on my block. The public
12 opinion indicates that 42% of respondents to a recent
13 Reuters poll stated that they opposed private
14 ownership of drones while 30% supported it, and a
15 strong majority of respondents, however, some 73%
16 indicated that they believe that drones should be
17 regulated. It is with this strong support for
18 regulation in mind that today's hearing takes place.
19 There is no doubt that the emergence of UAVs presents
20 lawmakers and policymakers with a new and unique
21 challenge, but there is a strong sense that
22 government should do something to ensure that drones
23 are used responsibly and that their threat to privacy
24 and public safety is curtailed to the greatest extent
25 possible. I'm so happy; as an attorney I know that a

3 significant number of legal associations are now
4 looking at the issue of privacy rights.

5 But the bill that I am sponsoring,
6 Intro. 0614, would require UAVs to be registered with
7 DOT and to be covered by liability insurance and to
8 have identifying information affixed to them and this
9 bill would create exceptions for toys aircraft and
10 UAVs that are considered air carriers under federal
11 law.

12 On that note, we would hope that the FAA,
13 they've indicated that they will also require some
14 sort of registration requirement for UAVs, although
15 it has not acted up to this point.

16 Again, I look forward to this informative
17 hearing and again I thank Council Member Gibson and
18 Council Member Rodriguez in his absence. Thank you.

19 CHAIRPERSON GIBSON: Thank you very much,
20 Public Advocate James. And next we will have the
21 sponsor of Resolution 0057, Council Member King.

22 COUNCIL MEMBER KING: Good morning and
23 thank you Council Member and Chair Gibson and Council
24 Member Rodriguez, Chair Rodriguez for today's
25 hearing, as well to my colleagues who are sponsoring
the other pieces of legislation, thank you; I'm glad

3 to be part of a team that's thinking in such a way to
4 recognize that UAVs can and will propose some danger
5 to society.

6 This morning I'm pleased to be here to
7 discuss this very important issue; in today's day and
8 age it is very common that we all are all plugged in,
9 tuned in and zoned out. However, it is important to
10 remember that as individual members of society there
11 is still an expectation of privacy, there are still
12 certain expectations of private and offline living
13 that we should all continue to strive for. The
14 recent uptake in the use of drones has brought with
15 it certain national security benefits; however, the
16 recreational use of these drones by civilians is a
17 growing concern. Due to the constitutional threats
18 that it can pose, we at the Council strive to balance
19 security interests and civil liberty protections and
20 we will demonstrate this commitment today by hearing
21 these bills on the use of drones. It is my sincere
22 hope that after today's hearing we will have gained
23 much deeper insight into the risks posed by
24 recreational use of drones and that we will adopt
25 Resolution 0057-A, urging our colleagues at the state
level to pass legislation that will help us protect

3 ourselves from improper use of this potentially
4 dangerous technology by persons who are untrained in
5 their use and are using them for potentially harmful
6 purposes.

7 Again I wanna thank Madame Chair and
8 Mr. Chair and all of us who have come today to figure
9 out what next steps should be. Thank you.

10 CHAIRPERSON GIBSON: Thank you very much,
11 Council Member King. Thank you to all of our
12 sponsors of the bills on today's agenda. We've also
13 been joined by Majority Leader Jimmy Van Bramer and
14 now we will get to our first panel, of which they're
15 already here. Our Deputy Commissioner of New York
16 City Emergency Management, Henry Jackson; Port
17 Authority of New York and New Jersey, Thomas Bosco;
18 FDNY, William Seelig; Laura Kavanagh, also of the
19 FDNY, and Tim Herlocker from the FDNY as well.

20 And those of you who are submitting
21 testimony, we're going to do the oath, so I just ask
22 that you raise your right hand.

23 COMMITTEE COUNSEL: Do you affirm to tell
24 the truth, the whole truth and nothing but the truth
25 in your testimony before this committee and to
respond honestly to council member questions?

3 HENRY JACKSON: I do.

4 CHAIRPERSON GIBSON: Thank you very much,
5 and you may begin.

6 HENRY JACKSON: Good morning, Chair
7 Gibson and members of the Committee on Public Safety
8 and Transportation.

9 I'm Henry Jackson, Deputy Commissioner
10 for Technology and Strategic Resources at New York
11 City Emergency Management. I'm joined here by
12 Timothy Herlocker, the Director of the Fire
13 Department Emergency Operations Center and my other
14 colleagues in City Government. We're here to talk
15 about the potential use of unmanned aerial vehicles,
16 UAVs, to enhance City agency operations.

17 As you know, UAVs are often referred to
18 as drones and while this usage is widely recognized
19 by the public, the Federal Aviation Administration
20 uses the term unmanned aerial vehicles or unmanned
21 aerial systems, because the key characteristic of
22 these types of aircraft is the ability to fly them
23 without an onboard pilot. For the purposes of this
24 hearing we'll be using the term UAV.

25 The FAA is empowered by Congress to
regulate the airspace throughout all 50 states and

3 localities. The FAA is currently finalizing
4 comprehensive regulations regarding the use of UAVs
5 by private entities. We await the finalization of
6 these rules and look forward to working with the FAA,
7 other municipalities and the City Council regarding
8 the safe and innovative use of UAVs.

9 On our local front, several city agencies
10 have started to research and discuss how the use of
11 UAVs may improve their operations. You will hear
12 next from the Fire Department about their
13 explorations into using this new potential tool to
14 gain situational awareness at serious fires. Many
15 other agencies have similar needs for situational
16 awareness and the Fire Department's efforts will
17 likely inform solutions at other city agencies.

18 I will now provide a synopsis of activity
19 from several other agencies.

20 New York City Emergency Management has
21 been investigating and researching the use of UAVs
22 for disaster response and recovery. There are
23 generally two types of UAVs that would suit our
24 purpose, those that are manually radio controlled,
25 therefore allowing flexibility in determining the
best use and angles of say a collapsed building and

3 those that can be programmed to follow a specific
4 grid pattern in an automated fashion. New York City
5 Emergency Management is particularly interested in
6 the second type.

7 After a large-scale event, such as a
8 coastal storm, UAVs programmed to fly over an area of
9 damage, like the Rockaways, could be up in the air as
10 soon as the skies clear. This can occur much earlier
11 than fixed wing planes of any size can typically get
12 up into the air, the timeliness of which can be
13 hampered by logistically concerns related to moving
14 the proper specialized air assets into a metropolitan
15 area and also the need for FAA approval of
16 specialized flight plans. UAVs could operate well
17 before local airports are reopened and air traffic
18 has been reinstated post event in a metropolitan
19 area. These considerations and the low-flying nature
20 of UAVs in general contribute to minimizing any
21 potential air traffic conflicts.

22 FAA approval for the flight plans of
23 programmed drones could potentially be arranged pre
24 event, based on hurricane evacuation zone areas.
25 UAVs flying back and forth in a prescribed
26 rectangular pattern would use aerial photography to

3 record damage from a storm; these photographs are
4 georeferenced and tagged to the actual location on
5 the earth and georeferenced photos can be correlated
6 with all preexisting parcel data, allowing analysts
7 to determine which properties have been damaged,
8 along with ancillary data about the property,
9 including ownership, type of building, number of
10 housing units, etc. The City already has these
11 before pictures for all areas also georeferenced and
12 associated with lots, so a rough damage estimation
13 can be quickly made. This of course would only be
14 the initial reconnaissance regarding damage
15 assessment; subsequently, inspectors on the ground
16 will be able to provide more detailed assessments,
17 but that ground level assessment cannot be started
18 until roads and streets are accessible and other
19 safety considerations for the inspection teams are
20 taken into account. The reconnaissance provide by
21 UAVs will certainly help determine the priority of
22 areas to be visited by inspection teams and some
23 programmed drones flying in a prescribed grid pattern
24 hold the promise of providing the earliest reliable
25 assessments of damage that may result in a
catastrophic weather event.

3 The City Parks Department has also spent
4 time researching the use of UAVs for aerial tree risk
5 assessments in line with their agency operations.

6 The surveys would detect structural defects and
7 health conditions in the tree canopies that are not
8 visible from the ground. Typical trees are
9 approximately 120' high at most. Presently,
10 monitoring and inspection team is conducted by a team
11 of climbers and pruners in an aerial lift truck.

12 UAVs, as an added benefit, would release equipment
13 and human capital to perform more standard
14 operational tasks. The Parks Department is
15 considering the use of UAVs for scientific data
16 collection of natural resource areas, such as
17 detailed elevation information and vegetation
18 classification, health and condition. The Parks
19 Department has explored procurement and vendor
20 service options and is ready to advance the use of
21 UAVs for multiple purposes.

22 The New York City Department of
23 Transportation is exploring the use of UAVs for use
24 in initial cursory bridge inspections after a bridge
25 sustains damage, real-time information on events
impeding traffic in areas where traffic cameras are

3 not readily located and aerial photography
4 assessments of their transportation planning and
5 management projects.

6 The Department of Buildings is exploring
7 the use of UAVs to assist DOB with façade inspections
8 and along with several other agencies will receive a
9 demonstration from a private company in the near
10 future.

11 To conclude, the potential use of UAVs by
12 city agencies is still being researched; this
13 emerging technology may present significant
14 opportunity in reducing costs, increasing
15 efficiencies, reducing danger or injury and offering
16 enhanced response capabilities during disasters and
17 emergencies.

18 Thank you for the opportunity to testify
19 and I believe Timothy Herlocker has got [sic]...

[crosstalk]

20 CHAIRPERSON GIBSON: Thank you very much.

21 HENRY JACKSON: You're welcome.

22 TIMOTHY HERLOCKER: Good morning Chair
23 Gibson and members of the Committees for Public
24 Safety and Transportation.

3 I'm Tim Herlocker; I'm the Director of
4 the Emergency Operations Center for the Fire
5 Department. I'm joined by Assistant Commissioner
6 Laura Kavanagh and our Chief of Special Operations,
7 William Seelig.

8 So I wanna take the time to come here and
9 talk about our potential use for UAVs or unmanned
10 aerial vehicles. Over the past few decades the
11 mission of the FDNY has become more complex,
12 attributable to the rapid new construction of
13 buildings which have increased in size and
14 complexity, a more complex harbor operation and an
15 ever-evolving risk environment.

16 After 9/11, the FDNY realized it needed
17 to enhance its situational awareness for its incident
18 commanders and senior executives who are making
19 critical life safety decisions and complex
20 operations. We followed the recommendations of the
21 McKinsey & Company report prepared after 9/11, which
22 suggested acquiring live video feeds from the NYPD
23 and news media helicopters. Currently, when a
24 helicopter operates at an incident the video is
25 shared with senior executives in the Fire Department
Operations Center so they can the area of impact,

3 deploy additional resources and monitor new
4 developments; that can then be relayed to incident
5 commanders on the scene. However, helicopter
6 operations are inconsistent; they're weather-
7 dependant, their time in the air is limited and they
8 cannot hover directly over a fire incident; they're
9 also costly to purchase and to operate, and those
10 owned by the news agencies have limited coverage
11 times. For these reasons, the FDNY continued to
12 explore other options for gathering on-scene video.

13 We formed the Command Tactical Unit (CTU)
14 in 2007 with the mission of providing live video to
15 incident commanders and the FDOC on a 24-hour basis
16 in all weather conditions and at a lower threshold of
17 fire alarm that is used for helicopter coverage. Its
18 mission is to provide the view of the sides of a
19 building the incident commander would not otherwise
20 see, with the priority given to the roof and the rear
21 of the target building. When possible, CTU personnel
22 get an aerial view of the incident by videoing from a
23 roof of an adjacent building. The video CTU provides
24 has been critical not only in large-scale
25 emergencies, but also at structural fires, and in the
course of a structural fire numerous members of the

3 FDNY may be on the roof as they seek to vent the
4 building. Prior to the CTU being established, the
5 incident commander would often be unable to see these
6 members as they were operating. The additional
7 viewpoints and information provided are critical to
8 the operational capacity and safety of the incident
9 commander and of the members on the scene.

10 However, as with helicopters, the footage
11 gathered by the CTU is inconsistent. CTU is
12 dependant on the layout of the local area for getting
13 relevant data or video. Many incidents are located
14 in areas where there is not a taller building nearby
15 and not every adjacent building could be easily
16 accessible or even safe to enter. As a result, the
17 CTU has continued to explore technical solutions that
18 will allow the FDNY to acquire more accurate and
19 consistent information at the scene of fires,
20 collapses and other emergencies.

21 The FDNY began looking at the use of
22 small UAVs that can consistent provide aerial views
23 of incidents, but FAA restrictions on the use of UAVs
24 in Class B airspace, the airspace that covers most of
25 New York City, made its use impractical. The FDNY
went back and presented the FAA with a concept of

3 operations that would employ the use of complex
4 tethered UAVs that could meet FDNY requirements and
5 be safely implemented by the department. The FAA
6 supported the plan and has provided assistance in
7 moving forward with it. Complex tethering, where
8 power and data goes through the tether is a new
9 technology, with most vendors still developing
10 prototypes. The FDNY is currently testing with a
11 vendor that has a production platform and if we are
12 able to move forward with this vendor, the FDNY will
13 seek to deploy this technology 24/7 at second alarm
14 and greater fires or other emergency incidents.

15 A tethered UAV is essentially a pole
16 camera capable of going up and down, but without the
17 ability for lateral movement. The UAV and its tether
18 becomes the pole, elevating a camera up to 200' and
19 allowing us to consistently obtain a view of the roof
20 and the rear of a building.

21 The FDNY is excited about the operational
22 possibilities these tools can provide and we believe
23 that they will enhance safety of our members and the
24 public and will allow us to more effectively tackle
25 the dangers presented at fires, collapses and other
incidents, and we look forward to taking your

3 questions. Thanks, thanks for your interest..

4 [crosstalk]

5 CHAIRPERSON GIBSON: Thank you... Thank you
6 very much. Do we have the Port Authority?

7 [background comment] Thank you. [background
8 comment]

9 THOMAS BOSCO: Good morning. I'm Thomas
10 Bosco; I am the Director of the Aviation Department
11 for the Port Authority of New York and New Jersey.
12 In this role I'm responsible for the operation,
13 maintenance and development of the Port Authority's
14 airport system, which includes JFK, LaGuardia,
15 Newark, Teterboro and Stewart Airports.

16 At the Port Authority of New York and New
17 Jersey, our core mission is to meet the critical
18 transportation infrastructure needs of the New
19 York/New Jersey bi-state region. A critical element
20 of that mission is our airport system, which last
21 year accommodated more than 117 million passengers, 2
22 million tons of cargo on 1.2 million flights; this
23 activity is extremely important to the regional
24 economy, supporting 570,000 jobs and generating
25 nearly \$80 billion in annual economic activity.

3 I wanna thank the New York City Council,
4 Chairman Rodriguez and members of the Council's
5 Transportation Committee for the opportunity to
6 address a serious issue confronting our airports; the
7 burgeoning use of unmanned aerial vehicles, commonly
8 referred to as drones. We fully appreciate and
9 recognize that drones have a lot to offer, their
10 innovation has already proven a tremendous asset to a
11 host of business interests; the application of this
12 technology is as limitless as the imagination, from
13 enhanced product delivery to filming, surveying,
14 military reconnaissance, law enforcement surveillance
15 and much more.

16 The promise of UAV technology aside, as
17 airport operator, our primary mission is to ensure
18 the safety of our patrons, employees and that of the
19 air traveling public. Recently the proliferation of
20 UAVs in the national airspace has produced numerous
21 incidents of drones operating near airports without
22 Federal Aviation Administration air traffic control
23 clearance and in dangerous proximity to aircraft.
24 Clearly, preventive and countermeasures are needed to
25 mitigate this threat.

3 Unfortunately, registration alone will
4 not and cannot prevent an unauthorized entry into
5 protected airspace by a drone. We have real concerns
6 about drone operators unfamiliar with the rules and
7 regulations that govern our airspace and more
8 ominously, about those operators who could use UAVs
9 with nefarious intent. Until government and industry
10 can develop software or other measures to protect
11 airspace around our airports from intrusion by
12 drones, I believe that our facilities are vulnerable.

13 Now to counter the threat of unauthorized
14 UAVs operating near Port Authority airports and after
15 consulting with the Port Authority's chief security
16 officer who oversees the Port Authority Police
17 Department, a month ago I issued the following policy
18 directive to our field personnel. In the event that
19 a field supervisor observes an unmanned aerial
20 vehicle, commonly known as a drone, operating in
21 proximity to the airport, the supervisor shall
22 maintain visual contact with the drone and
23 immediately contact the air traffic control tower to
24 determine whether the UAV is operating under air
25 traffic control clearance. Should the UAV have ATC
clearance, no further action is necessary. If

3 however the UAV is not under air traffic control,
4 then the supervisor must contact the Port Authority
5 police immediately and continue to monitor the
6 drone's flight path. Now at any time, even upon
7 first observation, the supervisor judges the UAV to
8 pose an imminent threat to the safety of aircraft
9 operations and that of the air traveling public, the
10 supervisor shall take immediate action to eliminate
11 that threat, including the discharge of an authorized
12 firearm. The drone may indeed constitute an imminent
13 threat if it is observed operating within airspace
14 actively in use by aircraft arriving and departing or
15 on a flight path that would intercept or infringe
16 upon such airspace or in proximity to taxiing
17 aircraft. In any case, the supervisor shall exercise
18 professional judgment and discretion, including due
19 consideration to the presence of personnel and
20 equipment nearby before taking action.

21 Recognizing that supervisors at Port
22 Authority airports already receive FAA-approved
23 training to identify, evaluate and remove hazards of
24 flight operations posed by wildlife, including birds,
25 supervisors have been directed to treat UAVs posing
an imminent threat to aircraft in a similar manner as

3 they would large birds, taking lethal action as
4 warranted in order to safeguard human life. It's
5 important to note that FAA alone controls the flow of
6 aircraft in the national airspace and recognizing
7 this important role we must rely on the federal
8 government to do its part. Fortunately, FAA is
9 taking steps to address the problem, having recently
10 formed a government industry task force to provide
11 FAA administrative workers [sic] with recommendations
12 on regulating UAVs to help ensure safety without
13 crippling the innovative applications of this
14 emerging technology. What's more, the Port Authority
15 is currently cooperating with both FAA and the FBI to
16 establish a test system at JFK to detect, track and
17 potentially employ countermeasures against
18 unauthorized UAVs operating in protected airspace.

19 In the meantime, the Port Authority will
20 continue to take all necessary action within our
21 capability to protect the air-traveling public from
22 the threat posed by unauthorized drone operation.

23 I appreciate the Council and the
24 Transportation Committee for bringing greater
25 attention and focus to this issue; we share your

3 concern and pledge to work with you and continuing to
4 promote aviation safety. Thank you.

5 CHAIRPERSON GIBSON: Thank you very much;
6 I appreciate it, Emergency Management, FDNY and Port
7 Authority. Thank you for your testimony today and
8 I'm gonna get right into questions because we only
9 have the chamber until 1:00, so our time has started
10 ticking.

11 I wanna recognize that we've been joined
12 by Council Members Robert Cornegy, Margaret Chin,
13 Carlos Menchaca, Jumaane Williams, Minority Leader
14 Steve Matteo and Brad Lander. Thank you all for
15 being here.

16 So my very first question and a lot of
17 my... well, not a lot; I just have two or three
18 questions... are going to focus really on public safety
19 as it relates to the NYPD and I noticed in your
20 testimony, Mr. Jackson, I believe, Commissioner
21 Jackson, you talked about some of the agencies that
22 are currently exploring the use of UAVs, you
23 mentioned Parks, you mentioned Buildings, you mention
24 Transportation, as well as Emergency Management. So
25 I just wanted to expand a little bit because you said

3 that the NYPD does not own and has no future plans to
4 use UAVs at all?

5 HENRY JACKSON: I believe it said current
6 plans. Had... had... does not currently own and has not
7 previously done any research, but they are now, you
8 know, taking a look at it like everybody else is.

9 CHAIRPERSON GIBSON: Okay, so the NYPD is
10 taking a look at the use of UAVs, potentially in
11 public safety for the city?

12 HENRY JACKSON: Yes.

13 CHAIRPERSON GIBSON: Correct? Okay. I
14 just wanted to ask, in addition; as far as the use of
15 drones, and with any agency; obviously we have one of
16 the bills that's going to focus on agency and
17 commercial use; do you know right now, in preliminary
18 conversations, what safeguards are being discussed
19 around privacy issues?

20 HENRY JACKSON: No, I do not.

21 CHAIRPERSON GIBSON: Does anyone know, FD
22 or?

23 TIMOTHY HERLOCKER: The FDNY is... we're
24 discussing how we will institute privacy policies
25 associated with the use of the UAV and you know,
though collection of PII is not really an issued with

3 us, it's something that we're gonna have to document
4 and work our way through.

5 CHAIRPERSON GIBSON: Okay. So is there
6 currently some working group or a task force that we
7 have right now to kind of look at all of these issues
8 or is it done on an agency basis?

9 HENRY JACKSON: Right now it's sort of
10 done on an agency basis; the people who are doing it,
11 we know each other and I've attended a demo at the
12 Fire Department, so we're familiar with the work that
13 each is doing and you know, as I say, we're treading
14 softly and lightly into this area and taking our
15 time.

16 CHAIRPERSON GIBSON: So is there any
17 possibility moving forward that there will be, and I
18 assume there will be, some level of integration and
19 coordination, because every agency you described in
20 the testimony is obviously looking at the aerial view
21 in the event of a natural disaster, fire, etc., so is
22 there going to be any coordination between agencies
23 having multiple conversations separately?

24 HENRY JACKSON: I certainly anticipate
25 that we will be coordinating our activities, given

3 that, as you rightly point out, some of our needs are
4 similar.

5 CHAIRPERSON GIBSON: Okay, I think it was
6 last summer; there was an NYPD helicopter that
7 collided with a drone that was on a PD night mission;
8 are you familiar with that incident that took place?

9 HENRY JACKSON: I am not.

10 CHAIRPERSON GIBSON: Okay. 'Cause I
11 wanted to know, just in terms of the current usage of
12 drones, what we are doing like in instances where,
13 you know we're colliding with drones -- the U.S. Open
14 there was an individual that used it and it fell onto
15 the arena, like things of that nature; what are we
16 doing to prevent this from happening right now as
17 we're having all of these conversations? Could you
18 introduce yourself and hold on for one second; we
19 have to do the oath?

20 JIMMY COAN: Good afternoon Chair Gibson
21 and other council members. I'm Deputy Inspector
22 Jimmy Coan, the Commanding Officer of the NYPD
23 Aviation Unit; I'd like to answer... first, thank you
24 for having me here today to be involved in this. I'd
25 like to answer you question with regards to a
collision. There was a near miss where a helicopter

3 had to take evasive actions to avoid an aerial
4 collision with a drone over the skies of New York
5 City, but there was no collision.

6 CHAIRPERSON GIBSON: So it was a near
7 miss?

8 JIMMY COAN: It was a near miss. And
9 also, with regards to your question about privacy,
10 insofar as the NYPD is concerned, we do not have a
11 drone, we have not tested drones, but we are always
12 open to any methods or equipment that may be out
13 there to enhance our capabilities, and when we looked
14 at this and did a little research, we would just be
15 looking at extending our current capabilities and
16 then following all laws -- state, local, federal --
17 that are currently on the books that we currently
18 follow. So our methods would not change at all and
19 we would just use that for rescue operations.

20 [background comments]

21 CHAIRPERSON GIBSON: So in reference to
22 the near miss you just described, did you identify
23 the owner of the drone?

24 JIMMY COAN: I believe the incident that
25 you're talking about occurred over northern

3 Manhattan, up by the George Washington Bridge. Yes,
4 the... [interpose]

5 CHAIRPERSON GIBSON: Close to the Bronx.

6 JIMMY COAN: in the Bronx. I'm not sure
7 exactly which one we're talking about; it's very
8 difficult to identify the owners; we have on several
9 occasions and by basically visually tracking the
10 device back to the operator, and these people pay big
11 money for these things, they don't wanna lose them;
12 eventually they have to retrieve them. We keep them
13 under surveillance, coordinate with the ground units
14 to come in and then conduct an investigation on the
15 ground and if arrested is warranted, there will be
16 one made, of course.

17 CHAIRPERSON GIBSON: Okay. There was an
18 earlier hearing that this Committee, Public Safety
19 held last May in which our Deputy Commissioner of
20 Intelligence, John Miller, had talked about a
21 potential use of drones tied into ShotSpotter, which
22 is our gun detection system, and saying that it could
23 potentially be useful in helping officers identify
24 shooters as they're leaving the scene. ShotSpotter
25 would identify, you know the actual gunshot, but a
potential usage of drone could identify the shooter

3 leaving the scene. Do you have any response or
4 anything on that?

5 JIMMY COAN: Okay, I was not privy to
6 that, but again I will say that we are always looking
7 for new equipment, new tactics, techniques and
8 procedures to enhance our current capabilities to
9 improve public safety here in New York.

10 CHAIRPERSON GIBSON: Okay. [background
11 comments] I wanted to ask, and my colleagues who are
12 the prime sponsors of the bills will probably delve
13 into it a little bit more, but could each of you just
14 talk about whether you support or have general
15 concerns about the legislation proposed; Emergency
16 Management, FD, as well as Port Authority?

17 HENRY JACKSON: I think we wanna give the
18 FAA a little more time to come out with their rules;
19 as you point out, there are a lot of complex issues
20 here, and they're considering all sorts of different
21 options for registration and licensing and flying
22 them, so we wanna wait for the FAA to issue their
23 regulations so that we can comply with those.

24 TIMOTHY HERLOCKER: For the FDNY, I think
25 it's important that you realize that this is a useful
tool to us and as you prepare your legislation, to

3 keep us in mind and the use model that we're
4 presenting.

5 THOMAS BOSCO: And with respect to the
6 Port Authority of New York and New Jersey, we neither
7 support nor oppose any of this legislation; we're
8 simply interested in the safety of the air-traveling
9 public and aircraft operations at our airports.

10 CHAIRPERSON GIBSON: Okay.. [interpose]

11 JIMMY COAN: And with respect from the
12 NYPD, we are always looking to work with the Council
13 to find new and emerging technology that's available
14 out there to improve our current capabilities.

15 [background comments]

16 CHAIRPERSON GIBSON: So my question for
17 Port Authority; do you know how many incidents have
18 your witnessed or are aware of with UAVs?

19 THOMAS BOSCO: I don't have exact
20 numbers, but I've seen numbers bordering around 100
21 over the past 6 months nationwide and somewhere in
22 the neighborhood of 2 dozen involving Port Authority
23 airports.

24 CHAIRPERSON GIBSON: And absent of having
25 FAA regulations that we will know will come out, what
is the response, how does the Port Authority address

3 that so that, you know the public safety is
4 maintained?

5 THOMAS BOSCO: Well fortunately we do
6 have eyes in the sky constantly, air traffic control
7 personnel in the towers, our police officers and our
8 field personnel on the airports are the eyes and ears
9 and the first line of protection for us. Again, as
10 stated in my testimony, when we do visually make
11 contact with a UAV, the first call is to air traffic
12 control to ascertain whether it has air traffic
13 control clearance, if it does not; the supervisor is
14 to continue to maintain contact with that drone,
15 immediately call the Port Authority police and if at
16 any time that drone poses an immediate threat to
17 aircraft operations and the lives of the air-
18 traveling public, then my field personnel are
19 authorized to take action which includes the
20 discharge of authorized firearms to bring that drone
21 down.

22 CHAIRPERSON GIBSON: Has that happened to
23 date?

24 THOMAS BOSCO: No, fortunately, no.

25 CHAIRPERSON GIBSON: Okay. And in your
identification of that drone, the actual individual;

3 what would happen to that person in terms of legal
4 action, law enforcement involvement of that
5 individual that's operating the drone?

6 THOMAS BOSCO: Present we would have no
7 way of identifying the owner of that drone and we
8 would leave that up to law enforcement to track that.

9 CHAIRPERSON GIBSON: Okay. And the same
10 question for NYPD. Just in terms of some of the
11 incidents we've had recently, what types of charges
12 are we looking at, like what types of action have
13 been taken against the individuals to date?

14 JIMMY COAN: Alright, the department has...
15 we have the Administrative Code, we have the criminal
16 law; now we have not tracked the Administrative Code
17 relative to drones; however, public safety incidents
18 range from improper use of drones in neighborhoods to
19 operators navigating devices in and around our city's
20 airports and major sporting events; we've had one at
21 the U.S. Tennis Open, which was spoken about earlier,
22 other drones have come close to our aircraft. So
23 what we use is the Administrative Code for
24 unauthorized avigation, the criminal law, reckless
25 endangerment and we have charge obstruction of
government administration if it causes the police

3 helicopter to have to alter its path, and then there
4 is FAA enforcement, which is civil in nature.

5 CHAIRPERSON GIBSON: What about anything
6 criminal?

7 JIMMY COAN: That would be under the
8 reckless endangerment... [crosstalk]

9 CHAIRPERSON GIBSON: Okay, TPO [sic]?

10 JIMMY COAN: which is a... we charge the
11 felony reckless endangerment.

12 CHAIRPERSON GIBSON: Okay, great. Thank
13 you. Now, because of the time, I wanna get to my
14 colleagues that have questions, so I'm gonna move on
15 and I'll interject and ask several questions. First
16 we're going to hear from one of the prime sponsors,
17 Council Member Dan Garodnick.

18 COUNCIL MEMBER GARODNICK: Thank you very
19 much, Madame Chair. And to the panel, we appreciate
20 your presence here; I was a little surprised that you
21 didn't state a specific view on the details of the
22 bills that are before you; this is really our
23 opportunity to have this conversation, so we expect
24 that when we have a hearing like this that the
25 administration will come with some detailed views on
the mechanics of the bills; we don't have that here,

3 so we're denying the public the ability to have this
4 conversation and to go through it at a hearing. So
5 I'm gonna do my best to try to ask a few questions
6 about the bills and get a sense as to where the
7 administration might stand.

8 But on the FAA issue, it sounds like the
9 official position here is; we wanna wait for the FAA.
10 So I will ask, you know how confident are you -- and
11 this is really for OEM or maybe even for the Police
12 Department -- that New York City's specific needs
13 will be addressed by the FAA in this context of
14 rulemaking as it relates to drones?

15 HENRY JACKSON: We can only be hopeful
16 that they will recognize the needs of other
17 localities and the benefits that these devices could
18 provide us, and certainly, you know, the Fire
19 Department has had conversations with the FAA in
20 terms of their use case and the FAA has come to see
21 demos there, so they seem interested in trying to
22 work with us regarding this.

23 COUNCIL MEMBER GARODNICK: Okay, so it's
24 a hope. I mean of course the Fire Department example
25 is essentially, put a camera on a pole that doesn't
go anywhere; I mean I don't even understand how the

3 FAA could possibly object to the Fire Department, you
4 know using a camera much like it using already on the
5 top of a building next door; it seems to me that this
6 is the easy stuff; the tough stuff is whether we
7 should allow governmental agencies, as you're
8 expressing governmental agencies want to do, to use
9 drones for their purposes; whether there should be
10 any commercial uses for drones in New York City; what
11 limits should we place on such uses. These are all
12 questions that we have here in New York City that,
13 you know, we don't know if the FAA; we may hope, but
14 we don't know if they're actually gonna deal with
15 them. Do you have any belief that anything that we
16 have proposed here is necessarily in conflict with
17 anything that the FAA might possibly come out with in
18 their rules?

19 HENRY JACKSON: Again, you know there's
20 lots of talk about what they're gonna do in terms of,
21 you know, requiring people to have a pilot's license
22 to fly them or register them, so there's just a lot
23 of noise that hasn't been written down, and I know
24 that they've been doing exhaustive studies on this
25 and as I say, working with some of the localities to
get some of these use cases right. So you know, we

3 certainly think that they will allow us to do these
4 things and that's why we're speaking with them.

5 COUNCIL MEMBER GARODNICK: So let us take
6 the hypothetical situation, which is the reality now;
7 the FAA has not acted and the FAA does not act or
8 that the FAA act but leaves a carve-out for a local
9 municipality like ours to make its own rules because
10 we're a city of an extraordinary number of people
11 with a high level of density and particular needs;
12 let's take that example for a second. In that
13 scenario, what rules do you believe should be in
14 place for governmental entities to use drones that
15 you have expressed in your testimony those agencies
16 want to use drones?

17 HENRY JACKSON: I mean I couldn't say
18 what the FAA is going to come up with; we..
19 [interpose]

20 COUNCIL MEMBER GARODNICK: No, no, no,
21 this is a scenario in which we're saying the FAA has
22 not acted. I'm asking you a scenario in which the
23 FAA has not acted or they allow us to be like New
24 York, to make its own rules. My question for you is;
25 what does OEM think is an appropriate set of rules

3 governing government agencies for the purpose of
4 drone use?

5 HENRY JACKSON: Again, absent a process,
6 you know, the FAA controls the airways and we're, you
7 know, as I say, waiting for them to come up with some
8 rules; if they made no decisions, we've been waiting
9 very, you know patiently and doing our research; we
10 may continue to do that so that we're not in
11 violation of something in the future, but if there's
12 a vacuum and absolutely no action, we might start to
13 talk about what kinds of things we could do.

14 COUNCIL MEMBER GARODNICK: Okay. So it's
15 very clear to me that the administration has no
16 opinion on this subject at this moment and is going
17 to, as its priority, wait for federal action which
18 may or may not take place and if at some point it
19 becomes so clear that the FAA is not gonna act in a
20 way that is in the interests of New York City or act
21 at all, then and only then will we have this
22 conversation; is that a fair assessment?

23 HENRY JACKSON: It seems prudent to do
24 that, given all the variability in this area.

25 COUNCIL MEMBER GARODNICK: Okay. Well I
actually very strongly disagree with that and I think

3 that it is possible that the FAA will act; I think it
4 is possible that the FAA may allow for local
5 municipalities to come up with their supplemental
6 rules; I think it is possible for us to put forth a
7 set of rules for ourselves for what our local
8 government would do with drones; even the OEM today
9 comes in and says there are a lot of good
10 governmental uses for drones. Okay, I agree, which
11 is why my bill prescribes for certain governmental
12 uses of drones under certain circumstances. So I'd
13 like to talk to you about those for the moment,
14 because that sounds like it's the only issue in which
15 we are prepared to have this conversation today; the
16 issue of governmental use of drones and the current
17 hope and expectation of governmental uses.

18 So under this bill we would require that
19 there would be a limit to the speeds of governmental
20 drones. Do you have any reason to object to that?

21 HENRY JACKSON: I am not aware of the use
22 case that would require speed above what... [crosstalk]

23 COUNCIL MEMBER GARODNICK: Okay. So
24 just... just so we all understand; when you say you are
25 not aware of the use case, just tell us what you
mean... [interpose]

3 HENRY JACKSON: By a city agency that
4 would need a drone to go faster than what you
5 recommend... [interpose]

6 COUNCIL MEMBER GARODNICK: Okay. Do you
7 see any reason why we should not have GPS tracking in
8 connection with governmental drones?

9 HENRY JACKSON: I think that's an option
10 on some drones; some have them, some don't; depends
11 on which ones you get.

12 COUNCIL MEMBER GARODNICK: Yes, but my
13 question is; should we as New York City require GPS
14 on our own drones, to the extent they're being used,
15 for the various purposes that you described in your
16 testimony?

17 HENRY JACKSON: I wouldn't wanna opine on
18 that, just 'cause I don't know what does to the cost
19 or any other sort of associated issues with that.

20 COUNCIL MEMBER GARODNICK: How about
21 licensing by the user of the drone on behalf of the
22 government of the City of New York?

23 HENRY JACKSON: I think that's something
24 the FAA's looking at as well.
25

3 COUNCIL MEMBER GARODNICK: And what do
4 you think about for New York City; should New York
5 City require that?

6 HENRY JACKSON: Again, we wanna see what
7 the FAA does so we're not making people register
8 twice.

9 COUNCIL MEMBER GARODNICK: I will spare
10 my colleagues what I expect to be the answer to all
11 of these questions is that you wanna wait for the
12 FAA, but what I'd like to hear from you is that you
13 don't see anything in this bill specifically that you
14 have an objection to, other than the fact that
15 perhaps it is moving too fast; is that fair?

16 HENRY JACKSON: We certainly would, you
17 know be careful about legislation that prohibits any
18 city agencies from advancing their use case.

19 COUNCIL MEMBER GARODNICK: That prohibits
20 city agencies... [interpose]

21 HENRY JACKSON: Right. Yeah.

22 COUNCIL MEMBER GARODNICK: So OEM would
23 like to allow any city agency to use drones without
24 restriction?

25 HENRY JACKSON: No, no, no; we're saying,
you know that if there is a use case, 'cause I

3 thought your legislation pointed only to the Police
4 Department...

5 COUNCIL MEMBER GARODNICK: No.

6 HENRY JACKSON: Oh, sorry.

7 COUNCIL MEMBER GARODNICK: Okay, so
8 again, I would encourage you to take a look at the
9 bill; it's 0589-A, and it prescribes -- just so that
10 those who are interested and watching can understand
11 -- that it requires the Department of Transportation
12 to develop rules and regulations for agency drone
13 use, not just for the Police Department, but it would
14 require there be a fair amount of specificity,
15 operator information, data collection plans, make,
16 model, serial number, a route duration; post all of
17 this information online, particularly for the non
18 Police Department activity, so that the public knows
19 that there is a public drone in use at a particular
20 date and a particular time. So take a look at it and
21 we'd like to ask you to respond to it, because this
22 is important and I don't know if the City Council
23 shares the view of the administration that we should
24 wait and watch and hope that the federal government
25 acts here.

3 The last question that I will ask and
4 then I will defer back to the chair and my colleagues
5 is the question about the safety issues of drones.
6 The Port Authority said very, very clearly that they
7 are concerned, very concerned about drone use and the
8 affect that it has on the airports. OEM we also
9 count on to think about these questions on a more
10 routine basis; not everything is right next to the
11 airport, although much of New York City is in Class B
12 airspace. What are you concerned about, OEM, from
13 your perspective about unregulated drone use in New
14 York City, beyond just the obvious impact of it
15 flying into an airplane or a helicopter?

16 HENRY JACKSON: Well listen, just as
17 everybody else here, we have lots of concerns about
18 these devices in the wrong hands; we certainly care
19 about safety and protecting the public and you know,
20 we want the FAA to come out with these so that we can
21 move forward and start implementing some of these
22 initiatives.

23 COUNCIL MEMBER GARODNICK: Okay. I'll
24 leave it there, except to say that from a legal
25 perspective, and I will end with this, we do not need
to wait for the FAA for us to act here in New York

3 City and in my view we should not wait for the FAA to
4 act, so we hope that we will aid you in getting some
5 more clarity on this and we can do it locally, and I
6 think that we're left without great clarity on the
7 details of what the administration views on make,
8 model, serial -- number of questions -- GPS
9 technology for even governmental drones; not even the
10 fact that we haven't even talked about commercial
11 drones; we're essentially... you know, we don't have
12 great feedback today, but we'll continue this
13 conversation and we'll move forward. Thank you,
14 Madame Chair.

15 CHAIRPERSON GIBSON: Thank you very much,
16 Council Member Garodnick. I'm very proud to have my
17 fellow co-chair here, the Chair of the Committee on
18 Transportation, thank you Council Member Ydanis
19 Rodriguez.

20 CO-CHAIRPERSON RODRIGUEZ: Thank you,
21 Chairman Gibson. First of all, I'm sorry that I am
22 late, but we were doing a ribbon cutting of Plaza De
23 Las Americas in Washington Heights with the DOT
24 commissioner.

25 Look, I think that no doubt that drones
are part of our life and our question and concern is;

3 how can we guarantee that drones are used safely,
4 appropriately and in a way that respects the rights
5 of our residents. Drones have been, you know and
6 will continue being very important for many sectors,
7 for the film industry, for construction, for media
8 and for many residents who choose to enjoy the use of
9 drones. The question is; how can we live, you know
10 in a society that we guarantee or that we do the best
11 we can to be sure that we have a level of control.
12 And for me, you know we trust the administration, we
13 trust that those agencies responsible to oversee the
14 proliferation of drones are working 24/7, because on
15 one hand, they are part of a new life of many sectors
16 in our society; on the other hand, they also come
17 with risk, and for me, that... you know, one of my
18 concerns is that, like especially knowing that we
19 have individuals in different part of the world
20 always thinking about how to use technology not
21 necessarily for the good use. Like one of my
22 concerns is how much do you look at the danger that
23 we face in a society with a proliferation of drones.
24 How do you keep track on how many drones we have
25 today and everything is local. We've gotta be
thinking about what the nation, but at the end of the

3 day New York City continues being, you know the
4 center of this nation and we are always like a target
5 of being attacked. So looking from the safety
6 perspective, like do you have any concern about the
7 proliferation of drones and how many drones do we
8 have? You can have any information or if you have
9 any information; that's one of my first questions;
10 how many do we have in New York City?

11 HENRY JACKSON: I do not know the answer
12 to that, how many drones there are.

13 CO-CHAIRPERSON RODRIGUEZ: Who is using
14 their brain, creating a task force to be sure that at
15 some point we have a level of control knowing how
16 many drones we have? Is there any unit; is there any
17 of the agencies that is working with that target,
18 with that goal?

19 HENRY JACKSON: I not believe so.

20 CO-CHAIRPERSON RODRIGUEZ: And do you see
21 drones as a potential to be used in a terrorist
22 attack?

23 HENRY JACKSON: I think, as has been said
24 here earlier, yes, that's a possibility.

25 CO-CHAIRPERSON RODRIGUEZ: So again, for
me this is about those concerns. One, I understand

3 drones are important, is part of our life; they are
4 important for many New Yorkers, especially for those
5 sectors -- film, construction, media -- and is it
6 right also that people should have, you know if they
7 are able to get the license and know that they are
8 using it in a controlled way in area they should have
9 it, but our concern is about the safety of a city and
10 how do we keep track on how many drones we have and
11 how do we minimize that any drones end in the hand of
12 those criminal individuals that can use it for a
13 terrorist attack? [sic] Thank you.

14 CHAIRPERSON GIBSON: Thank you very much,
15 Chair Rodriguez. And next we'll have one of the
16 prime sponsors, Council Member Paul Vallone.

17 COUNCIL MEMBER VALLONE: Thank you,
18 Madame Chair. Kind of trying to bring us back in on
19 where we are today and how we got here and how we're
20 not really accomplishing anything. I can't tell you
21 the amount of phone calls and emails that I've gotten
22 on this topic for, against or just at least curious.
23 Since we really haven't had any dialogue on this, I
24 think if we didn't bring these bills forward we
25 wouldn't be today, but I really don't wanna walk away
from here today saying I don't know much else from

3 the administration or anyone else's side, when we
4 have some really good beginning pieces of legislation
5 here. Now if we were to take the testimony that
6 we're just gonna wait for the FAA, it's not an answer
7 that we can give as the Council back to our
8 constituents, to our communities and our families;
9 there's just too many incidents and there are some
10 clear exemptions and you'll never see a bill from
11 Councilman Vallone ever hindering the NYPD or the
12 FDNY or OEM in keeping our city safe. So as the
13 technology grows and the agencies need to take those
14 steps, we're all for that and that's why we need to
15 have these dialogues to make sure these bills don't
16 touch that, but I know in ours we're talking about
17 the unregulated personal use of recreational UAVs,
18 and that's pretty much where the concern has led
19 today because that's where the term "the wild wild
20 west" has been coming from. So for those listening
21 out there, what this bill is saying, what 0601 is
22 bringing forth, and if we just do it real quickly
23 we'll be able to get to the point. Under this bill,
24 under 0601, no person can fly a UAV under these
25 conditions: with the intent to cause bodily harm or
damage or destroy property, equipped with a weapon or

3 dangerous instrument, regardless of perceived intent.

4 Those two basic concepts is something that I would
5 have hoped that we would have been able to agree with
6 today and say there are pieces of these bills that we
7 need to take the steps as New York City, the leading
8 city of the world of what's going on in today's
9 countries in the world, that we can take at least
10 those steps and agree that if someone is caught that
11 we give the tools to the NYPD and to our district
12 attorneys for fines, regulations and at least on
13 misdemeanors on our side and I would hope Albany
14 would follow up with felonies. So I think Tom, you
15 were the only one to actually talk about what
16 someone's doing about anything and I think what I
17 took away from the Port Authority's testimony is they
18 could basically shoot it out of the sky, but we can't
19 do that; sometimes it would be nice in New York City
20 to say hey listen, we're just gonna take out what's
21 in the sky, but we can't do that. So is there
22 anything that we can put forward on the intentional
23 use of an unauthorized, non-agency drone that we
24 could agree today on this bill that we could start to
25 regulate, from anyone?

3 HENRY JACKSON: I mean, you know we
4 certainly agree with that, you know that...

5 COUNCIL MEMBER VALLONE: See that's a
6 good first step.

7 HENRY JACKSON: Thank you.

8 COUNCIL MEMBER VALLONE: that's the first
9 time you've said that before.

10 HENRY JACKSON: But you know, to
11 legislate before the FAA comes out, because I know
12 they're concerned about the exact same thing...

13 [crosstalk]

14 COUNCIL MEMBER VALLONE: But you can see
15 our frustration on that; I mean...

16 HENRY JACKSON: No, I understand that.

17 COUNCIL MEMBER VALLONE: how can we wait;
18 I can't... [crosstalk]

19 HENRY JACKSON: I know, but... and we've
20 been in the same position, we've wanted to move on
21 some of these things, but we've had to be patient
22 because it is a complicated area and there are lots of
23 players and actors and technologies that are involved
24 in it, so that's why we're taking this cautious
25 stance, 'cause we wanna get it right.

3 COUNCIL MEMBER VALLONE: Well no one
4 disagrees that if the FAA does get their act together,
5 they will supersede and trump us, but if there are
6 areas that are left for localities to provision for
7 themselves, then these bills certainly aren't a waste
8 of time; we can get them in place now; we don't have
9 to wait for whenever the day they do act and we can
10 finally give... and listen, what we're talking about
11 here is fines of \$250 up to \$5,000 and we're talking
12 about a misdemeanor and we're not looking for little
13 Johnny who's flying in their back yard, we're looking
14 for someone... you know, the next time the Mets are in
15 the World Series, and hopefully next year playing the
16 Yankees, I wanna make sure that Citi Field and Yankee
17 Stadium are protected; I wanna make sure that my
18 schools and my students don't have drones flying over;
19 I don't wanna prohibit the news agencies, but today,
20 every day I see another selfie, another person; what's
21 gonna... every one of these drones that are being sold
22 for the holiday season has surveillance equipment on
23 it and that's gonna be the next step and that's gonna
24 be a constitutional issue beyond this City Council,
25 but there's gonna be some serious issues when somebody
starts using drones, flying in people's houses and

3 businesses and taking things and selling them to the
4 5:00 news and saying, oh we used it for news. No you
5 didn't, it was personal use sold for profit. So we
6 don't wanna hinder our news agencies, but the bills
7 that I have are not that, they're personal use. So is
8 there anything on the FDNY or the NYPD... right now you
9 were saying reckless endangerment; is that basically
10 your only criminal tool that you have right now?

11 JIMMY COAN: Right now the penal law,
12 reckless endangerment, and as I stated earlier, if it
13 impedes the course of the helicopter and the pilots
14 have to take evasive maneuvers or change the operation
15 that they were doing, we would additionally charge
16 obstruction of governmental administration. But right
17 now those are the tools that we have. Now we
18 appreciate any additional tools or tactics, techniques
19 or procedures that the Council can give us and we look
20 forward to working with the Council and developing
21 that in the future.

22 COUNCIL MEMBER VALLONE: See but I think
23 that's exactly the dialogue I was looking for today
24 and I think Council Member Garodnick pointed that very
25 clearly, as did the chairs; that those are the types
of steps we wanted to flush out today, as to what

3 would be acceptable, what would the NYPD see as the
4 next step for a fineable offense for someone to be
5 arrested for a misdemeanor or a possible Albany action
6 to create a felony. Those are the steps that we're
7 looking to see. Do you see now something that you do
8 not have in your arsenal when someone is flying in
9 restricted airspace, whether it's the Statue of
10 Liberty, the Freedom Towers, Citi Field, hospital;
11 someplace within five miles. And the other part of
12 this bill, which is important for... it's five miles of
13 an airport, which basically knocks out New York City,
14 'cause we've got LaGuardia and we've got good old JFK.
15 So this bill will affect every area of New York City
16 and that's why we have to... just can't punt and wait
17 for the FAA, we have to talk about it, otherwise if
18 this bill passes and it has the council member
19 support, unmanned UAVs will be banned in New York
20 City, and we just can't sit back and say, FAA, we're
21 waiting. No, we need to talk about it now and make
22 sure that the good folks that are here telling us the
23 exemptions that we need to have we put them in the
24 bills.

25 So tell me about the misdemeanor and how
would someone, if I flew my drone and now it went over

3 an NYPD, the 109 in my precinct and it was taking
4 unauthorized surveillance of police vehicles coming in
5 and out of the pound, what would happen?

6 JIMMY COAN: What we would try and do is
7 track that UAV, that drone, that unmanned aerial
8 system and what we have typically done is, we launch a
9 helicopter out, the pilots will acquire it visually;
10 it only has a finite batter life; it has to return to
11 the operator; the operator spent whatever he spent,
12 \$1,000-2,000; he wants to get his device back at the
13 end of his expedition; we're aware of that, so we
14 visually acquire it, we maintain a visual track on it
15 and we follow it back to when the operator retrieves
16 it. In the meantime we're coordinating with ground
17 units to move into that area so that when we identify
18 the person retrieving the device we can stop them and
19 then if an arrest is warranted, certainly we will
20 arrest them.

21 COUNCIL MEMBER VALLONE: But that takes
22 helicopter surveillance? You said that you were gonna
23 launch a helicopter to...

24 JIMMY COAN: That's what members of my
25 unit have done in the past. If we're able to do that
26 surveillance with personnel that are on the ground,

3 that they see here's a device, there's a guy with a
4 controller in his hand and he's flying the device back
5 over and picking it up; then of course we don't have
6 to launch a helicopter, but oftentimes these people
7 are several blocks away and it's just not feasible to
8 get enough personnel quickly into that area; the
9 helicopter from up above will have a visual
10 representation of the entire neighborhood and they can
11 see it move several blocks over to where the operator
12 is, and that's a tactic that we have employed in the
13 past, so we've had some success with it.

14 COUNCIL MEMBER VALLONE: Alright, so if
15 you're able to track that operator, what happens next;
16 what are they charged with; what are they given; what
17 fines are they open to; what criminal prosecution;
18 what have you?

19 JIMMY COAN: We charge under the penal
20 law, the reckless endangerment felony; if the
21 aircraft had to take evasive maneuver, now it's
22 obstruction of government administration and we
23 charge the Administrative Code the summons,
24 unauthorized avigation and we notify the FAA and then
25 the FAA will take civil sanctions against the person;
they can impose fines for a litany of...

3 COUNCIL MEMBER VALLONE: See I think
4 that's where we can piggyback; I think that's where
5 we can expand the fine-giving possibilities and the
6 criminal misdemeanor side on New York City at what we
7 can to define the areas that the public knows that if
8 they violate these areas you're subject to these
9 fines and these possible crimes, and I think that's
10 where the uncertainty is today and that's what this
11 hearing is about, as to where are these safe places,
12 if any, and what will happen to me if I purchase a
13 drone. Now a lot of these things that Council Member
14 Garodnick and Chairs and the Public Advocate and I
15 are all talking about is not going after the person
16 that's enjoying a moment with their son or their
17 daughter; it's those... we are in New York City and
18 there are bad guys out there and we wanna be able to
19 make sure that we can do everything we do, outside of
20 the Port Authority being able to shoot them down,
21 that we can in New York City and I think that's the
22 dialogue. So if there's... and I thank you for
23 agreeing that the NYPD could use some extra tools;
24 that's what we wanna do, we wanna be able to give the
25 NYPD, the FDNY, our first responders, OEM, anyone
that has the ability to enforce, to make sure that

3 people know New York City skies are not open; that
4 there are regulations and if you break those
5 regulations there will be fines and they will be
6 criminal and that's what we're gonna do today. So
7 thank you very much, Madame Chair.

8 CHAIRPERSON GIBSON: Thank you very much,
9 Council Member Vallone. And next we will have
10 Council Member Andy King.

11 COUNCIL MEMBER KING: Thank you, Madame
12 Chair. Good morning again; I thank you all for your
13 communication and your testimony today; I heard some
14 things and I liked some things I heard from the Port
15 Authority about, you know if there were unmanned
16 drones that they need to act swiftly to protect a
17 community or two, well I like to hear that. [sic]

18 But I wanna ask all of you; anyone can
19 just chime in and answer the question any time; out
20 of the four pieces of legislation that have been
21 presented today, you're all familiar with all four of
22 them; correct? Is there any one of them that you can
23 say I support or I don't support?

24 TIMOTHY HERLOCKER: From the FDNY
25 perspective, our concern is that we have a use model
that we're putting forward; we don't want legislation

3 that's going to restrict us from doing that; we have
4 a legitimate life safety purpose behind this. Our
5 concern and our reason to be here today is to alert
6 you to the fact that we see this as a useful
7 technology and we want you to factor us into your
8 legislation and not prohibit our use and I think
9 sometimes it's a matter of the FDNY getting forward
10 and just reminding you that hey, this is a tool that
11 we're looking at aggressively and I think we have a
12 reasoned and valuable approach toward using it.

13 COUNCIL MEMBER KING: Okay. NYPD,
14 anybody else wanna chime in? [sic]

15 JIMMY COAN: From the NYPD perspective,
16 we are cognizant of the needs of the public, but for
17 us, we would just be looking at this as if we did go
18 in this direction, which currently we don't have a
19 drone and we're not in the process of getting a
20 drone, but if we did look at this as a tool in the
21 future, it would just be another tool in our arsenal
22 of tools that we use to provide public safety and
23 rescue operations; we would not want any further
24 restrictions, just another tool from the Council to
25 do our job in public safety for the people of New
York City.

3 COUNCIL MEMBER KING: 'Kay. Anyone else
4 wanna chime in? So with that being said, what piece
5 of legislation or regulation would you construct or
6 help us construct, because as we start in this new
7 age of technology and, you know these drones, how do
8 we have some regulation that we protect the privacy
9 of the every day New Yorker, because that's one of
10 the major concerns; the resolution that I've
11 submitted and talked about, making sure that the
12 unsavory character doesn't get a hold of a drone and
13 all of a sudden is spying on you when you're trying
14 to take a shower or just have a private moment with
15 your family, you know, how do we prevent all of that,
16 because we know with every good piece of technology
17 there's that bad entity out there who's gonna figure
18 how to use it for evil; how do we prevent that?

19 HENRY JACKSON: I mean there are privacy
20 laws that exist right now that prohibit people from,
21 you know, unduly surveilling someone, so we would
22 rely on those until, again, the FAA acts and is more
23 determined about it.

24 TIMOTHY HERLOCKER: From the FDNY
25 perspective, we realize that with the use of drones
comes a responsibility to protect personally

3 identifiable information; it's an obligation that
4 we're going to have, but it's something that we're
5 going to have to address collectively between the
6 various agencies; I mean, our use model may be
7 different from the other agencies. But sir, you're
8 correct; privacy is an issue that we're going to have
9 to address as we move forward with these things and I
10 think somebody else mentioned that it's best that we
11 address it collectively.

12 COUNCIL MEMBER KING: Okay. Before I
13 wrap up, I read a book about 25 years ago called "The
14 New World Order" where they talk about the plan for
15 the future and how they were gonna change the world
16 and I'm watching some of this stuff come to fruition
17 right now; some of it's a little scary, but I would
18 like to know, 'cause even though NYPD does not have a
19 drone that you're sharing with us today and you're
20 not using drones, we know that government is using
21 drones for whatever surveillances that they think
22 they need to use it for; law enforcement, whether
23 it's the U.S. Navy; whatever it is, so I'm asking
24 you, in this day as we're transforming and we're
25 moving forward and you're waiting for rules from
Washington to come down before you really wanna take

3 a position, if you ever get to that stage, 'cause I
4 foresee you probably will get there and we at the
5 Council are gonna figure out how do we make some
6 sense of it; that we all are protected, because I
7 don't wanna be violated and I don't want... you know,
8 you don't want your privacy out there as well; how
9 would you be able to prevent your own system, and I'
10 go to FDNY as well as NYPD; as you look into have
11 your drones that do vertical, just to take pictures
12 of fires, how do we make sure that some unscrupulous
13 person that's inside your system doesn't violate your
14 system?

14 TIMOTHY HERLOCKER: Well again, sir, we
15 have to create privacy policy that protects the
16 public and is transparent to them, but the use model
17 that we envision, I mean to be frank, doesn't really...
18 it doesn't pose a big risk to the public. Keep in
19 mind that, you know we're in the business of
20 streaming live video of a building on fire to protect
21 our own members as they operate on the roof and
22 inside the building; we're pretty focused on the
23 emergency, so we're really not in the business of
24 collecting PII along the side of it. Secondly, you
25 know, the fire event is such a loud, violent, open,

3 you know, operation that, you know, the idea that we
4 might be collecting something, certainly something
5 covertly, it just... it doesn't apply to it. So I
6 guess what I'm saying is; we think as far as
7 violating someone's privacy we're fairly risk-free;
8 doesn't mean that we aren't absolved of creating
9 policy to make sure that we're protecting it and
10 we're working towards that.

11 COUNCIL MEMBER KING: Can I hear from
12 NYPD or Port Authority?

13 TIMOTHY HERLOCKER: I'm with the FDNY,
14 sir.

15 COUNCIL MEMBER KING: Yeah, I'm saying,
16 can I hear from... thank you; can I hear from either
17 one of you also on that?

18 JIMMY COAN: 'Kay, I didn't read that
19 book and I wish I had time to read books, and
20 certainly nobody wants to be looking at me in the
21 shower. [laugh] But we don't have a drone; we're
22 not looking at a drone program, but from what I have
23 read and what I know as the commander of the Aviation
24 Unit; that would be or could be a fruitful piece of
25 equipment in air sea rescue and searching for a
missing person in a park and we could cover a lot

3 more ground rapidly and maybe find that missing
4 person and reunite them with their family. It would
5 just be an extension of the capabilities that we
6 already have; it just would enhance it and give us
7 increased capability, which we currently use today.
8 So I don't see how that rescue application would
9 create any privacy issues, and we'd be cognizant of
10 that, certainly and we would have to put management
11 layers in place and procedures to be followed and
12 proper supervision to ensure that proper procedures
13 are followed so that an individual would not misuse
14 that in any way, just like we do with what we
15 currently employ.

16 COUNCIL MEMBER KING: Okay. Well I'll
17 wrap up, and I wanna thank you all again today and as
18 we move forward in this, I'm looking forward to us
19 all working together and make sure... because there has
20 to be some regulation; you know, I'm pretty sure Home
21 Depot and Target never thought about someone raiding
22 their whole system and getting people's stuff out
23 there, hackers are out there every day trying to
24 figure out how to get into stuff and flip the world
25 upside down, so we can't be naïve; if we put drones
up there because it might be good on one end that

3 someone's not out there trying to figure out how to
4 throw society underneath the bus at the same time, so
5 thank you again, Mr. Chair, Madame Chair; thank you
6 again.

7 CHAIRPERSON GIBSON: Thank you very much,
8 Council Member King. I just wanna acknowledge we
9 were joined by Council Member Rafael Espinal; we have
10 Daneek Miller, Vincent Gentile and Steve Levin, thank
11 you colleagues for being here.

12 Just one quick question; we have one more
13 question from a council member before we go to the
14 next panel. In the incident that happened at the
15 U.S. Open and the individual that was identified as
16 using the drone, what happened to the actual drone;
17 are they confiscated in these types of cases where
18 there is a crash or an almost crash; what happens
19 with the actual drone?

20 JIMMY COAN: Typically it'll be seized as
21 arrest evidence and will go to the property clerk for
22 storage until there's a prosecution.

23 CHAIRPERSON GIBSON: Okay. And so
24 depending on the outcome of that, it may be kept for
25 evidence or either returned to that individual;
right?

3 JIMMY COAN: That's correct.

4 CHAIRPERSON GIBSON: Okay. Thank you.

5 And we also have joined with us Council Member Rory
6 Lancman and next for a question we have Council
7 Member Jimmy Vacca.

8 COUNCIL MEMBER VACCA: Just briefly. I
9 wanted to ask; do you maintain at this point that we
10 are preempted by federal law from taking any action?
11 We keep hearing wait for the FAA; is this something
12 you'd like us to do or are we prohibited from... in
13 your view; are we prohibited from acting?

14 HENRY JACKSON: I don't know; I'm not a
15 lawyer, it just seems to make sense to let them sort
16 of lay out what their vision is and then, you know,
17 accommodate it.

18 COUNCIL MEMBER VACCA: What is their
19 timetable for action; is there a date by which they
20 will act or must act; is there a timetable that they
21 have that we should be aware of?

22 HENRY JACKSON: I understand that it's
23 imminent that they're gonna release some information,
24 but then there's a period where it gets reviewed by
25 the public, so implementation may be off, but I think
that we'll start to see rules hopefully soon.

3 COUNCIL MEMBER VACCA: Well my
4 understanding also is that there is a task force that
5 will be releasing a report, but then there will be a
6 review process by the FAA, there will be public
7 input; there will be a process in place for some
8 time, so that is what concerns me, is that we are
9 here at a hearing on legislative bills and we don't
10 have a position from the administration on these
11 bills and I don't see, if we're not preempted, what
12 would be the reason for New York City not taking
13 action if it was in the best interest of the people
14 that we represent. In fact, we've been in the
15 vanguard of taking action legislatively over the
16 course of many years and much of the legislation
17 we've passed here has served as a model for other
18 cities and states, so it concerns me because, you
19 know basically this has turned out to be an
20 informative hearing and I appreciate the information;
21 much of the information I could've gotten from the
22 internet. We are here as a legislative body; our
23 function is to do oversight or legislation; we came,
24 the agenda was clear, there is proposed legislation
25 and I don't think that the proposed legislation has
been addressed, except for the answer that we should

3 all wait for the federal government to take action
4 whenever they take action. Especially in this day
5 and age, with all that's going on and how New York
6 City sits here sometimes as a target for many, I
7 would think that certain use of drones would want to
8 be addressed by the City of New York, and I'm
9 disappointed in the lack of response today,
10 basically.

11 HENRY JACKSON: Well, as we have said, I
12 mean we're here to talk about agency use to enhance
13 our operations and that's what we've done and we
14 haven't been doing anything; I mean we've been doing
15 the research that we can, working with the FAA,
16 working with partners to be ready when those
17 regulations are provided.

18 COUNCIL MEMBER VACCA: Well again, I
19 express my... my concern... Let me use one last word; is
20 this legislation, your opinion, premature? Do you
21 consider this premature or do you think that the
22 legislation is not warranted; is not appropriate?
23 What terminology do you use? I know you don't have
24 an official position, but why is there not an
25 official position?

3 HENRY JACKSON: [background comments]

4 road... what the rules of the road are before we start
5 heading down that road and the FAA owns that airspace
6 and what they do is gonna be impactful.

7 COUNCIL MEMBER VACCA: But under the... I
8 hate to be a little historic in this; under the rules
9 of federalism, which founded this country, under the
10 rules of federalism we as a city or a state can take
11 action as long as we have the jurisdiction and power
12 to do so; we cannot do that if we're precluded by the
13 federal government. So if we take action and the
14 federal government takes a different action, which
15 perhaps imposes more stringent regulations; our
16 actions are sustained, as long as we're not legally
17 precluded. We are allowed to take action in this
18 case, it appears to me and it seems like there's a
19 reticence or there is just an inability to
20 communicate with this body today and that preparation
21 should have been done; we expected a position, and a
22 position could've been that there are good parts of
23 the bill and not so good parts of the bill and we are
24 willing to work with you, or we feel this bill is
25 totally unacceptable; that's a position I would've
understood, whether I agreed or disagreed; I just

3 think today's position leaves it to whoever,
4 wherever, whenever and that's not acceptable to me.
5 Thank you.

6 CHAIRPERSON GIBSON: Thank you very much,
7 Council Member Vacca. And as we go to the next
8 panel, certainly this council is working with you and
9 looking forward to not only... [background comments]
10 Council Member Lancman.

11 COUNCIL MEMBER LANCMAN: Thank you,
12 Madame Chairwoman. Sorry I've come to this hearing
13 late. I just wanna understand a couple of things
14 maybe a little bit better. The gentleman from the..
15 the Port Authority's representative in this panel.
16 Yeah. So I was just reviewing the testimony and it's
17 Port Authority policy that if a Port Authority police
18 officer or law enforcement official sees a drone or a
19 UAV that is operating that could potentially be
20 hazardous is authorized to shoot it down, to
21 discharge a firearm to shoot that drone down?

22 THOMAS BOSCO: Yes. First of all, let me
23 tell you that it's the field supervisors; not the
24 police. Our field supervisors are already qualified
25 and trained, FAA approved to detect, identify and
fire on wildlife, such as large birds if they pose a

3 threat to aircraft arrivals and departures, and so
4 the guidance to the field supervisors is to treat a
5 drone as if it were a large bird.

6 COUNCIL MEMBER LANCMAN: What's the
7 protocol, 'cause you know, what goes up will come
8 down and I wasn't aware that the Port Authority had a
9 policy of firing weapons at birds up in the air.
10 What are the guidelines; I mean what if the
11 trajectory of the round is... if the person firing
12 misses, and I apologize if this was covered already,
13 is over a populated area; this is raising concerns to
14 me that... [interpose]

15 THOMAS BOSCO: Let me try to alleviate
16 those concerns, sir.

17 COUNCIL MEMBER LANCMAN: Thank you.

18 THOMAS BOSCO: First of all, the weapons
19 that the wildlife supervisors use are shotguns that
20 use ammunition that have an effective range of 40
21 yards. These individuals are trained, again under an
22 FAA approved training course curriculum to identify
23 the threat, if it indeed is a threat, and to fire on
24 that target, be it a large bird or a drone, but they
25 first have to consider what's in the range of their

3 weapon, whether that be people or equipment and they
4 make the necessary decision then and there.

5 COUNCIL MEMBER LANCMAN: Alright, well I
6 just hope that those guidelines and those protocols
7 are very tightly drafted and the people called upon
8 to exercise that authority are appropriately trained
9 and you know give consideration to the fact that
10 again, what goes up will come down.

11 THOMAS BOSCO: We've been doing it for
12 decades.

13 COUNCIL MEMBER LANCMAN: Thank you. And
14 my last question, just to the representatives from
15 the City, as I understand it, there are no drones
16 that are currently being deployed by the City and if
17 at some point though there... is it a determination
18 that's gonna be made agency by agency or is there
19 some agency within city government that has the final
20 say so as to whether Parks or Buildings or FDNY can
21 use drones and under what standards?

22 HENRY JACKSON: So yeah, currently no
23 agencies are deploying drones other than what the
24 Fire Department talked about with a test case, with
25 their use case, and the Mayor's Office would likely

3 weigh in on deployment of drones by agencies in
4 priority fashion.

5 COUNCIL MEMBER LANCMAN: Okay, thank you.

6 CHAIRPERSON GIBSON: Thank you very much,
7 Council Member Lancman and I think what he was asking
8 is similar to what I was saying; one of the bills,
9 Council Member Garodnick's bill, that would allow for
10 city agency use would also incorporate a plan of
11 action, so if DOT, DOB, EM is going to use drones,
12 what is the actual plan, and you know, what we're
13 trying to understand is, if an individual agency
14 wants to use drones, would there be a coordinated
15 approach that would be uniform so who ultimately has
16 the final say if that drone is going to be used; is
17 it the commissioner of the agency or would this be
18 some other level?

19 HENRY JACKSON: We haven't set that
20 process up yet, so I don't know, but likely the
21 commissioner and the Mayor's Office.

22 CHAIRPERSON GIBSON: Okay. So we are
23 looking forward to working with; certainly we have to
24 have a lot of conversations, but you know the bottom
25 line is, there have been too many... anything greater
than zero is more than enough for me of incidents

3 where there have been drones used across our city and
4 so the legislation we've put forth is certainly a
5 beginning step to work with all of you, work with the
6 administration on how we can make sure that there are
7 systems put in place -- regulation, insurance,
8 liability, public safety safeguards, capacity,
9 storage facility; I mean all of these are very, very
10 important for all of us to undertake. So we thank
11 you for being here and certainly look forward to
12 working with you and working with this
13 administration. Thank you very much for being here.
14 [background comments]

15 And before I call the next panel, I just
16 want to acknowledge that we've been joined by Council
17 Member Julissa Ferreras-Copeland and Council member
18 Ritchie Torres.

19 Our next panel for this hearing is John
20 Ollwerther from Aerobo; David Donovan from the New
21 York State Broadcasters Association; Angela Miele
22 from the Motion Picture Association of America; Flo
23 Brown from the New York Production Alliance (NYPA),
24 and Benjamin Esner from the New York University
25 Tandon School of Engineering.

[pause]

3 Jon Ollwerther is here; right...?

4 [crosstalk]

5 JON OLLWERTHER: Yes.

6 CHAIRPERSON GIBSON: And David Donovan?

7 Okay. Angela, okay. Flo? [background comment]

8 Okay and Benjamin. [background comment] Got it.

9 Okay. And we have, as I said, a limited time; our

10 hearing will commence at one, so if each of you could

11 just either summarize your remarks, but there will be

12 a three limit time. So thank you so much for being

13 here and we'll begin with Jon. Thank you so much.

14 JON OLLWERTHER: Chairpersons Gibson and

15 Rodriguez and members of the Committee on Public

16 Safety and Transportation, thank you for having me

17 here today; it's my honor to speak before you.

18 My name is Jon Ollwerther; I'm a New York

19 City resident and CMO of Aerobo. Aerobo is a drone

20 services company based in the burgeoning tech hub of

21 Industry City in Brooklyn. Our staff designs, builds

22 and operates drones for business clients such as

23 movie studios, commercial producers and TV news

24 networks. Aerobo is an NYC company through and

25 through; co-founders Brian Streem and Jeff Brink

graduated from NYU Tisch School of the Arts and began

3 their career working in the film industry in NYC,
4 were funded by NYC investors in tech, finance and
5 entertainment and were staffed by NYC residents who
6 went to NYC schools and are making their careers in
7 NYC and their families in NYC.

8 Three years ago, when the word drone held
9 little meaning for most of the American population,
10 co-founders Brian Stroom and Jeff Brink began their
11 American dream. Recent film school grads, Stroom and
12 Brink honed in on the opportunity and promise that
13 unmanned aerial technology held for the filmmaking
14 world. They'd both seen a YouTube video of someone
15 flying a tiny camera on a small quad copter; surely,
16 they thought, if someone could fly a tiny camera on a
17 small drone, then they could fly a cinema camera on a
18 big drone. The co-founders recognized that drones
19 could enable a cinematographer to move a camera
20 through three-dimensional space in new and beautiful
21 ways with precise control. Furthermore, they saw
22 that the technology would empower filmmakers to
23 achieve their artistic vision while preserving human
24 life. Manned aerial vehicles, chiefly helicopters,
25 represent the leading cause of death in film and TV
production.

3 The budding entrepreneurs pulled their
4 savings, formed our company and began searching for a
5 drone to carry large Hollywood cameras. Their search
6 took them worldwide, but after testing many systems
7 they were left empty handed. Left with no off-the-
8 shelf option, they did what any entrepreneur would
9 do; they set out to create a drone to fly large
10 cameras; they drew from academic and aerospace
11 circles and assembled and hired a team of engineers.
12 Today we employ sales professionals, we employ
13 aeronautical engineers and we employ experienced
14 drone pilots; we work all over the world, from the 50
15 states to Dubai, to Chernobyl, to the jungles of East
16 Asia, but we're proud to New York City our home.

17 UAV operators in the United States are
18 currently subject to a myriad of rules requirements
19 and protocols pursuant to FAA regs; operators are
20 required to secure certificates of authorization and
21 plans of activity with local FAA offices and file
22 notices to airmen. A commercial UAV operator must
23 also employ an FAA-licensed manned aviation pilot to
24 fly their vehicles.

25 Aerobo has regular requests from
filmmakers, TV producers and commercial agencies

3 looking to operate drones for projects in New York
4 City, but due to FAA regulations we simply cannot
5 serve [bell] their requests.

6 In conclusion, all United States
7 navigable airspace, including New York City is
8 subject to FAA regulations; furthermore, most of New
9 York City is essentially a no-fly zone for commercial
10 operators because of FAA regulations already in
11 place.

12 Chairpersons Gibson and Rodriguez and
13 members of the Committee, this concludes my
14 statement; I look forward to answering any questions.

15 CHAIRPERSON GIBSON: Thank you very much;
16 almost perfect, right on time. Thank you. David
17 Donovan. Okay. Thank you.

18 DAVID DONOVAN: Thank you, Chairperson
19 Gibson and Chairman Rodriguez; I'm honored to be here
20 today. My name is David Donovan; I'm President of
21 the New York State Broadcasters Association,
22 representing more than 400 television and radio
23 stations across the state and also including just
24 about every radio and television station in New York
25 City.

3 I wanna have a conversation, because this
4 a delicate balance; broadcasters every day fly news
5 helicopters; we are concerned with the safety aspects
6 that are raised in your bill, because we don't want
7 our own folks to be placed in danger. At the same
8 time I would ask you as we have this dialogue that we
9 also consider two other aspects that I think are
10 important here. First is the important first
11 amendment implications about gathering news and the
12 public's right to know. The second thing is, is that
13 drones, or UAVs, in the context of commercial use,
14 live broadcasters, have the ability to help public
15 safety officials, particularly in the context of
16 emergencies. And if I could, let me just go through
17 some very quick examples and provide you with I think
18 some suggestions for the legislation that you have
19 before us.

20 UAVs are another tool and can have
21 significant benefits to the public, whether it's
22 providing a different perspective on the five
23 boroughs or your communities, whether it's actually
24 being able to provide information over fires or
25 hazardous spills or areas which current on-the-street
reporters cannot gain access to; whether it's a

3 terrorist attack or an event covering multiple areas
4 throughout the city. In many respects, UAVs may be
5 safer than fixed-wing or helicopter aircraft in order
6 to provide information about that area. But we're
7 also first and foremost, and what I mean by first and
8 foremost is that during emergencies local
9 broadcasters help connect public safety officials to
10 the community and give the community the ability to
11 hear the public safety officials; it's been
12 recognized by Craig Fugate of FEMA; it's been
13 recognized in a number of other areas, and the
14 ability to use a UAV for journalistic purposes during
15 news emergencies I think would be very helpful and
16 also used responsibly; again, I do understand the
17 concerns here.

18 If you go through the proposed
19 legislation, there are just some things we need to
20 consider. We can get into a discussion with the FAA;
21 I know the FAA, in fact today, just released some of
22 their registration procedures for further discussion,
23 but if I look at the proposed legislation, there are
24 a couple of things that concern me. One is that for
25 commercial purposes it bans the ability to use [bell]
for surveillance purposes, and if you look at the

3 definition of surveillance, it could become very
4 restrictive on the ability to cover news events, and
5 I'd like to have a further discussion with you on
6 that. Bottom line; what I would like to suggest is
7 because we are licensed by the federal government to
8 serve our communities, that as we're crafting
9 legislation we recognize that and perhaps create
10 exemptions for any entity or their network that is
11 licensed by the federal government, by the Federal
12 Communications Commission. Thank you very much and I
13 do enjoy and look forward to a discussion.

14 CHAIRPERSON GIBSON: Thank you very much.
15 Thank you. Angela.

16 ANGELA MIELE: Thank you, Committee
17 Chairs. My name is Angela Miele; I'm with the Motion
18 Picture Association of America.

19 This is an exciting time for motion
20 picture and television industry; new technology is
21 helping moviemakers and broadcasters push creative
22 boundaries and create the kinds of scenes and shots
23 we could've only imagined a few years ago. I'm here
24 to urge amendments to all three pending intros to
25 provide for precise commercial use exceptions for
those companies authorized by the FAA to legally

3 operate UAVs. Specific exceptions have been made in
4 both the cities of Los Angeles and Chicago when they
5 recently looked at this issue; we'd be happy to
6 provide that to the members.

7 The FAA imposes very strict safety
8 guidelines for these UAV operators; it's especially
9 true with respect to motion picture and the
10 television industry, which you just heard about. The
11 FAA requirements include 20 pages of safety and
12 technical restrictions imposed by the FAA when UAVs
13 are filming. What I just wanna go through, because I
14 heard this was asked for before; we've identified
15 some of the concerns with the specific legislative
16 measures.

17 With respect to 0589-A, the operators are
18 required to have a separate license from the City of
19 New York; we just think that's duplicative because
20 the FAA requires us and if we're required to do that
21 for filming and the FAA, it could delay, depending on
22 who's doing that approval process.

23 Also requires operators to get a permit
24 from DOT and the FAA has already this approved plan;
25 all these separate permit requirements could be
problematic. I know the issue of speed was raised

3 before; the speed talks about 25 miles an hour; the
4 FAA speed is 50 knots, about 57 miles an hour; not
5 that we would use that all the time, but we want that
6 for creative purposes, so we'd like to have that
7 flexibility.

8 Intro 0601-A limits UAVs to those areas
9 specifically designated by commissioner of Parks and
10 Recreation; again, we want that creative opportunity
11 to go elsewhere. Also, it sets forth additional
12 limits on flights that may be inconsistent with FAA,
13 like whether... well whether they'd want that
14 opportunity, but nighttime; there could be some
15 changes made coming in the new regulations.

16 Intro 0614 requires registration; we
17 already have that registration requirement, and some
18 of the tags that are required by that, if you start
19 having different jurisdictions require tags, you have
20 a camera; where are those tags gonna be, and those
21 are all registered through the FAA and they're
22 required by them as well; so they'll know where they
23 are, they have to do the flight plans; it is very
24 detailed that they're required to have. So I look
25 forward to working with you on these amendments to
ensure that all these FAA-authorized UAV operators

3 are allowed to use for filming and news-gathering.

4 Thank you and I appreciate the opportunity to be here
5 and be happy to answer any questions.

6 [bell]

7 CHAIRPERSON GIBSON: Thank you very much.

8 Thank you. Flo Brown.

9 FLO BROWN: Yes.

10 ANGELA MIELE: Oh, here.

11 FLO BROWN: Okay. So I'm Flo Brown and
12 I'm here on behalf of the New York Production
13 Alliance, and association with the producers, unions,
14 guilds, payroll companies, stages and vendors in the
15 New York State film, television and commercial
16 industries. Our 64 members, from multimillion
17 companies and union and labor and independent film,
18 commercial producers represent hundreds of thousands
19 of New Yorkers and NYPA's diverse membership shares a
20 common goal to secure the continued health of film,
21 television production in our state and specifically
22 to New York City.

23 Today I'm here to discuss this whole
24 legislation to prohibit the use of unmanned aerial
25 vehicles in the City of New York. NYPA supports the
MPAA's contention that the current FAA guidelines

3 regarding the UAVs are sufficient in ensuring the
4 proper use of this technology on film production
5 sets. NYPA and the MPAA share the City Council's
6 concerns over the proposed use of this new
7 technology; however, we want to ensure its use under
8 the exemptions currently existing in the FAA
9 guidelines for filmmakers working in New York City.

10 The current FAA guidelines for UAVs
11 already have strict limits on their use in New York
12 City; nonetheless, the guidelines also allow for
13 exemptions for the use of this technology on film
14 sets under carefully controlled settings. The
15 exemptions have allowed a balance between security;
16 something that we all desire, and the ability to use
17 this technology on our projects. It is worth noting
18 that although the UAV is a new technology that
19 already vendors and technicians making use of it on
20 our film sets do so under the strictest safety
21 precautions. Flight paths are carefully
22 choreographed to ensure the safety of production
23 personnel and anyone in the surrounding area. UAV
24 operators have spotters who help track the UAVs while
25 they are in use to be sure they are on a prearranged

3 fight path to alert the operators of any unforeseen
4 obstructions or person.

5 NYPA's members, for the most part, we
6 live and work in New York City; we have a vested
7 interest in the safety of our streets and we do not
8 wanna see the misuse of this technology or for those
9 who intend to harm people or simply be careless. Our
10 members who produce film and television shows have a
11 long history of utilizing all manner of technologies
12 [bell] to creatively capture images. For decades we
13 have utilized airplanes and helicopters in filming in
14 New York; we mount cameras on giant cranes and fast-
15 moving automobiles. Any of us working in the city
16 have taken the greatest care to ensure the safety of
17 crew and general public in all of these shooting
18 styles; we employ the same level of care in the use
19 of UAVs. Through the combination of our own
20 oversight and the current FAA guidelines, we can
21 assure the City Council that the safest use of UAVs
22 will be on film sets in New York City. We would
23 demand nothing less from ourselves and it is also
24 worth noting that we are perhaps the only industry in
25 the city which has an active police presence on our
productions; this is something we benefit from, but

3 it is also an indication [background comment] of our
4 long tradition of working hand in hand with the City
5 to make our places secure. [background comment]

6 Thank you all for taking the time to
7 review all of our proposals and I look forward to
8 continued conversations regarding the guidelines and
9 the exemption and the use of UAVs on film and
10 television productions. Thank you.

11 CHAIRPERSON GIBSON: Thank you very much.

12 FLO BROWN: Uhm-hm.

13 CHAIRPERSON GIBSON: Benjamin, you close
14 us out.

15 BENJAMIN ESNER: Thank you. Good
16 afternoon, Chairpersons; other members of the
17 committee. My name is Ben Esner; I'm the Director of
18 the Center for K12, Science, Technology, Engineering
19 and Math (STEM) Education at the NYU Tandon School of
20 Engineering, known affectionately around the city as
21 Poly.

22 We wanna bring the education and research
23 purposes of UAVs and drones to your attention;
24 without research, none of the applications in public
25 safety, in film and television and other kinds of
activities that have been acknowledged as important

3 and useful, applications of this technology would
4 exist.

5 At the School of Engineering our
6 students, faculty and researchers use UAVs for
7 research and educational purposes and importantly, we
8 also incorporate this technology in our extensive K12
9 STEM learning programs for middle and high school
10 students and teachers. Over more than a decade of
11 this work we've trained hundreds of teachers in
12 engineering and computer science and research methods
13 and worked directly with thousands of New York City
14 public school students, supported by the National
15 Science Foundation, philanthropic foundations and
16 corporations.

17 Our engineering students and researches
18 often experiment with UAVs in innovative and exciting
19 ways, enhancing their educational experiences,
20 developing future technology and furthering
21 scientific inquiry. The hands-on training students
22 receive from fabricating, assembling and programming
23 UAVs, including the research that can be conducted
24 when flying one, is invaluable to their understanding
25 of a constantly evolving engineering field.

3 This technology sits along with other
4 interactive devices at a fascinating intersection of
5 disciplines that encompass mechanical engineering,
6 electrical engineering and computer science. The
7 application of these technologies from smart cities'
8 ideas for controlling traffic and inspecting civil
9 infrastructure to monitoring and testing for
10 pollutants and contaminants need to be explored and
11 developed by responsible students and researchers.

12 In our education program it is precisely
13 this intersection of disciplines and these kinds of
14 applications that most deeply engage young people and
15 their teachers in STEM learning. The ability to
16 design, build, test and iterate is at the core of
17 activity-based teaching and learning and at the core
18 of engineering research. We urge you to consider
19 these factors as they pertain to the pending
20 legislation.

21 Some interesting ways our students have
22 used UAVs is through environmental monitoring
23 experiments; a mechanical engineering lab at our
24 university is currently developing a high school
25 curriculum based on UAV technology, using the real
tools of scientists and engineers, micro controllers,

3 motors, actuators; sensors, while illuminating and
4 applying fundamental concepts in physics,
5 aerodynamics and wireless communication, not only
6 [bell] the programming required to control a UAV,
7 whether it's for sensor and based data acquisition
8 and analysis or for its very control delve deeply
9 into computer and computational science, which we
10 know is a big emphasis now in the city's public
11 schools.

12 The rest of the written testimony is
13 provided for you; we have some specific concerns
14 regarding registration, make and issues surrounding
15 that because of devices that may be built in
16 classrooms or in our lab and similarly regarding
17 height restrictions and time of day. So thank you
18 very much for your attention; I appreciate it.

19 CHAIRPERSON GIBSON: Thank you very much
20 to each of you who are here; thank you for your
21 testimony and for providing your input; your
22 concerns. I wanna acknowledge we've been joined by
23 Council Member David Greenfield and Council Member
24 Chaim Deutsch; thank you colleagues for being here.

25 So I just have three questions that I'm
gonna throw out at the panel, because of all of you

3 talk about your frequent usage of drones. So I
4 wanted to know how many do you use, do you own, the
5 sizes of the drones and also, are you required or do
6 you notify local law enforcement when you're using
7 them; is there a system; do you have an agreement in
8 place; how does that work with your usage of drones?

9 JON OLLWERTHER: So why don't I field
10 that one. We own upwards of a dozen drones; they
11 range in size from the tiniest micro drone weighing
12 less than 2 kilograms up to the FAA limit of 55
13 pounds. These are always flown in compliance with
14 FAA Section 333 Exemption Requirements; we are
15 required to file flight plans, plans of activity,
16 certificates of authorization and NOTAMS, Notices to
17 Airmen, for every flight we conduct and that's
18 required to be filed 24 hours in advance.

19 To date, when we're flying somewhere that
20 is outside of the norm or in a more populated area,
21 we do touch base with local PD and often we have
22 interactions on-set or on the scene of a story where
23 local PD will come around, stop by in their car;
24 we'll take the drone down, show it to them; let them
25 touch it and they say hey, that's pretty cool; we

3 wish we could have these. [laughter] So that's the
4 extent of the interaction for the most part.

5 CHAIRPERSON GIBSON: So when you submit
6 the plan to the FAA 24 hours in advance, do you have
7 to get approval or it's just a notification?

8 JON OLLWERTHER: It's both. So a NOTAM,
9 or Notice to Airmen is a bulletin and a COA, or
10 certificate of authorization, is a request...
11 [interpose] [background comment] and a plan of
12 activity is both a request and a notice.

13 CHAIRPERSON GIBSON: And are you required
14 to have insurance for the drones; what happens if one
15 of them is potentially in any accident or anything of
16 that nature?

17 JON OLLWERTHER: We carry general
18 liability insurance for all of our drones. Yeah.

19 ANGELA MIELE: And I believe you have to
20 have permission of the property owner.

21 JON OLLWERTHER: That's correct, yeah.

22 CHAIRPERSON GIBSON: Okay.

23 FLO BROWN: And then I wear multiple
24 hats; I also am from one of the payroll service
25 providers and we require very specific insurance for
the workers' compensation as well for the pilots or

3 anyone who would be conducting this type of activity
4 as well.

5 CHAIRPERSON GIBSON: Okay. So you said
6 that when you notify the FAA you also notify the
7 local police department as well...

8 JON OLLWERTHER: We try to do that
9 informally, whether it's reaching out by telephone or
10 stopping an officer on the street and saying hey,
11 here's what's going on and here's what we're up to.
12 Of note and record though, we've conducted only two
13 commercial flights in New York City; the first was in
14 Brooklyn in August and that was the first legal
15 commercial drone flight since FAA Section 333 came
16 out, and the second was actually in the 2nd Avenue
17 subway tunnel at 72nd Street, so that was 150'
18 underground and not of concern to the FAA.

19 CHAIRPERSON GIBSON: Okay. Anyone else?
20 Thank you. Okay, let me get to my colleagues,
21 Council Member Andy King, followed by Council Member
22 Paul Vallone.

23 COUNCIL MEMBER KING: Just wanna be real
24 brief, but thank you, thank you, thank you, thank you
25 for the work that you're doing in the music... uh music
industry; in... excuse me, in the movie industry. My

3 question is; I'd like to know, on the proposed
4 regulations that were proposed today; do any of those
5 pieces of legislation hinder your bottom line
6 financially; how does it have an impact on the monies
7 that you might receive if we regulate the usage of
8 drones?

9 [background comments]

10 DAVID DONOVAN: I'll kinda address at
11 least part of that, sir and then I'll let the folks
12 from the movie production industry, although our
13 interests overlap in many respects. One of the
14 concerns I have as drafted is that both bills
15 prohibit commercial entities, which are New York
16 broadcasters or city broadcasters, from monitoring or
17 close observation of an individual, group of
18 individuals without the knowledge and consent of such
19 individual or group of individuals. In effect what
20 that does; it significantly limits our ability to
21 provide news on a daily basis, but certainly during
22 emergencies; let me just sort of walk you through
23 that.

24 A couple of examples come to mind.

25 Recently there were problems with laser pointers; it
hit helicopters, now a news helicopter also got hit

3 and the news helicopter zeroed in on where that
4 problem was, and as a result of that, that person,
5 the police were able to work with that, you know,
6 find that person; clearly a hazard to navigation and
7 an issue. But as drafted, while I could do that with
8 a helicopter, that would be considered illegal
9 surveillance under the bill. An example in Boston,
10 during the bombing, Tsarnaev brothers, you were able
11 to use news helicopters to see where that person was,
12 but under the terms of this bill this would be
13 considered surveillance, we think, at least as
14 interpreted. So I think to the bottom line of your
15 question, is that unless changed or unless we work
16 certain things out, there are a number of news-
17 related activities that may be precluded from using a
18 UAV for and we would ask... and does that affect our
19 bottom line? In the end, we're in the news business,
20 and would that affect our bottom line? Yes. But
21 more importantly, it also affects the ability of the
22 public's right to know what's going on around them
23 and there are certain things that we can do with UAVs
24 that you just can't get the same perspective from an
25 on-the-street reporter. You can't get the same
perspective from a helicopter, although ironically,

3 many of the activities that I think would be
4 precluded under these bills you could do with a
5 helicopter and a telephoto lens. So I think there
6 has to be a discussion here as to how we move forward
7 with legitimate first amendment interests of
8 providing news and at the same time dealing with
9 issues of privacy. I think the bills, the language
10 of the bills may be a little bit overbroad and I
11 think we need to work on that.

12 COUNCIL MEMBER KING: Okay.

13 BENJAMIN ESNER: And I would just note,
14 on the noncommercial side, for education and
15 research, requirements around liability insurance,
16 registration of a make and a model, when you might
17 have built that device in your lab, those do add time
18 and cost; research is conducted with National Science
19 Foundation funding; other funding [bell], so while we
20 have no particular commercial interest in terms of
21 revenue and profit, it certainly does impact both
22 what we can do on the education side, at the
23 undergraduate and graduate level, as well as the K12
24 level, and in addition, what our researchers might be
25 able to do in terms of determining new applications
and new uses for the technology.

3 ANGELA MIELE: I would just... Angela Miele
4 with the Motion Picture Association. I would just
5 add; you can't quantify it now, but as I read the
6 intros as currently drafted, it could delay the
7 filming process and we know how costly that can be on
8 a daily basis, so if you're required to get certain...
9 you've already gotten the FAA approval; if you're
10 then required to get a permit, a tag, certification
11 from several different City agencies; if it's not
12 streamlined it could be problematic and cost in that
13 respect.

14 COUNCIL MEMBER KING: Okay. Well my time
15 seems to be expiring on me, so thank you, Madame
16 Chair; I'm just gonna take... I wanna say to you all,
17 'cause I wanna know; is the use of drones gonna
18 eliminate jobs, 'cause I understand people in
19 helicopters and cameras, but if we're gonna trade
20 them out for drones one day, I don't know if you...
21 [interpose]

22 ANGELA MIELE: Supplement... I think it'll
23 supplement, [background comments] yeah.

24 COUNCIL MEMBER KING: Okay. So I'm gonna
25 ask you all, in the essence of my time is done, to be
mindful of why we came up with these pieces of

3 legislation, because there is the flip side of people
4 who are not doing right and I know your job is to
5 come here to advocate for your position, but I'm
6 asking you to be real respectful on both sides to the
7 coin because, you know, we cannot keep continuing to
8 go on and being oblivious that there is a world that
9 we're living in where people are taking this
10 technology and using it not for the greater good.

11 [background comment] Alright, thank you.

12 [background comment]

13 CHAIRPERSON GIBSON: Thank you, Council
14 Member King, and next we'll have Council Member
15 Vallone, followed by Council Member Garodnick.

16 COUNCIL MEMBER VALLONE: Thank you for
17 even our brief conversations this morning, David and
18 Angela; I think that's how we can come with good
19 amendments and changes, but it doesn't take away from
20 the public safety aspect, which is the real reason of
21 why I put in our bill and why I feel that New York
22 City has a higher obligation above any other place in
23 the world, and even your panel didn't really get to
24 that. We were talking about protecting the interests
25 of who we represent and I think that's where the
amendments come in, but we need.. your first sentence

3 today was striking the balance and we didn't talk
4 about the balance, we just talked about protecting.
5 So if news agencies are exempt and commercial exempt
6 and educational purposes are exempt, there's also an
7 area for abuse of that or someone saying well I was
8 filming a private movie and I'm gonna use this...
9 there's going to be a conversation way beyond today's
10 hearing, especially on the constitutional side, but
11 in the meantime, I'll be damned if we don't do what
12 we need to do in New York City to keep us safe, and
13 all I see is what's happening in the world and every
14 paper with a news helicopter getting targeted and
15 unsafe situations by our airports; that's not me,
16 with a family and children that feels comfortable and
17 we don't wanna hinder the other areas of what you
18 represent, which is very important, so I think... yes,
19 I just wanted to say I look forward to working with
20 each of you to make these the best they can be while
21 FAA just sits there and does whatever they're gonna
22 do, but in the meantime, they haven't done anything,
23 so not doing anything is not how I was brought up;
24 gotta do something, and I think with your input on
25 this, and I think we can get to a good place, and
then we can always amend to tweak it, but we need to

3 show the eight million people of New York City that
4 we're doing something. So I thank you and I look
5 forward to our conversations.

6 ANGELA MIELE: Can I just respond?

7 COUNCIL MEMBER VALLONE: Sure.

8 ANGELA MIELE: I got an email just this
9 morning that the FAA Task Force did release their
10 report this morning; it's available, I just...

11 [interpose][background comment]

12 COUNCIL MEMBER VALLONE: See how powerful
13 we are; look at that... [laughter] I tell you, we work
14 magic here in the City Council... [crosstalk]

15 ANGELA MIELE: That... That will be
16 completed by Christmas, but I think the formal rules
17 and changes and everything they expect to be done
18 around June, so.

19 COUNCIL MEMBER VALLONE: Yes, I'm sure
20 Christmas, with the Christmas lists that are going
21 out, all the little ones; wanna make sure we have
22 something for them.

23 [laughter]

24 BENJAMIN ESNER: And I would just say,
25 from the academic perspective, of course we're very
mindful of the public safety considerations and other

3 considerations and I just wanted to acknowledge that;
4 that we're open of course to discussion and finding
5 the right way to create exemptions for research and
6 education that make everyone in the city comfortable.

7 COUNCIL MEMBER VALLONE: And I think
8 that's a perfect point, 'cause that might not have
9 been something we were thinking about; to make sure
10 that the exemption. [sic]

11 JON OLLWERTHER: And our standpoint on
12 the issue is that we should be governing the
13 behavior; not the technology. You know, if we are
14 concerned about privacy, then maybe we should tell
15 Canon and Nikon to stop making lenses; Apple to stop
16 selling phones. So we're very much in favor of
17 governing the behavior, which in many cases already
18 has... [crosstalk]

19 COUNCIL MEMBER VALLONE: It's the action;
20 you have to be held accountable for the action, how
21 you...

22 JON OLLWERTHER: Correct, that's correct.

23 COUNCIL MEMBER VALLONE: I think that's...
24 that's where the NYPD is looking for additional
25 tools, to be able to make sure that if someone goes

3 above and beyond what they're supposed to be doing,
4 there's gonna be [bell] accountability. Thank you.

5 [background comment]

6 CHAIRPERSON GIBSON: Thank you very much;
7 Council Member Dan Garodnick.

8 COUNCIL MEMBER GARODNICK: Thank you very
9 much, Madame Chair. And let me just follow up on a
10 couple of points. First of all, it's worth noting
11 that the bill that I introduced initially was a much
12 stricter bill; in fact it would have eliminated, you
13 know most commercial uses; we have recognized here
14 the importance of some limited commercial uses and
15 have added in a permissive ability to use drones for
16 commercial purposes in New York City; I will note
17 that the response from industry in the first instance
18 was, you know a ban is too excessive and now we have
19 a licensing or permitting requirement and the
20 response is that that is duplicative, so it feels
21 like we are perhaps damned if you do, damned if you
22 don't here, but I do think that we need to come up
23 with a set of rules that make sense. Once question
24 that I have for you all who are engaged with the FAA
25 on a permissive basis for various opportunities here
is; what's the enforceability of those rules where

3 the FAA grants you permission to use a drone for
4 limited commercial purposes; you get the... I forgot
5 exactly what the number was... you get the approval;
6 you go ahead and you fly your drone; let's say you
7 break all of the rules, you use it far too long or
8 differently than specified; what is the
9 enforceability of that rule; how does that get
enforced?

10 JON OLLWERTHER: So there is great recent
11 example in the case of SkyPan; SkyPan was fined \$1.9
12 million; it's pending, but the FAA has some teeth on
13 this and they've shown willingness to enforce this in
14 civil cases.

15 COUNCIL MEMBER GARODNICK: Okay, I'm
16 sorry; I didn't understand that, sir.

17 JON OLLWERTHER: Sure.

18 COUNCIL MEMBER GARODNICK: But let me...
19 and we'll look at that case. How does the NYPD know
20 whether or not you've had the approval; if they see a
21 drone flying above overhead, whether it's a news
22 gatherer or it's a motion picture or, you know, other
23 purposes; how does NYPD look up there and say, gosh,
24 you know, that is an authorized drone, pursuant to
25 FAA section whatever or not?

3 JON OLLWERTHER: All of our drones have
4 what's known as an N number or a tail number; it's
5 the same thing that you have on a plane; it's
6 actually registered by the same mechanism that an
7 airplane or a helicopter is. So that tail number is
8 like a license plate for a drone; NYPD can look that
9 up; it's public information; you can Google it, you
10 can look it up on the FAA's website and see to which
11 operator it is licensed; you can also ask us for our
12 333 exemption, our COA, you know, any of the
13 documentation that goes along with that permission to
14 fly.

15 COUNCIL MEMBER GARODNICK: And that is
16 what the FAA requires; that you put that tail number
17 on the drone?

18 JON OLLWERTHER: That's correct, yes.

19 COUNCIL MEMBER GARODNICK: So we are of
20 course exploring something similar here in New York
21 City for government agencies that wish to use drones
22 and also for commercial entities that wish to use
23 drones; we know that you [bell] all view this to be
24 duplicative, in light of the fact that you have to do
25 certain things for the FAA, but I would also just ask
for some recognition that New York City and the

3 contours of New York City are different perhaps than
4 in all of the other places in which the Motion
5 Picture Association, the broadcasters, etc. would be
6 operational. So I think it would be worth at least
7 our acknowledging that we have different facts and
8 circumstances on the ground here than we do perhaps
9 in other places.

10 JON OLLWERTHER: Of course, but one thing
11 to note is, that the FAA does take that into
12 consideration in their rule-making; they look at the
13 nation as a whole.

14 COUNCIL MEMBER GARODNICK: Thank you.

15 CHAIRPERSON GIBSON: Okay. Thank you
16 very much. Thank you all for being here. We have
17 all of your testimony and we will certainly work with
18 all of you and be in contact as we continue to
19 discuss this legislation. Thank you so much for your
20 presence today. Thank you.

21 Our next panel is Jaami Ali, Targeted
22 Individual Awareness Campaign and Rashida Richardson
23 from New York Civil Liberties Union. [pause] Thank
24 you; you may begin. Yes. Press the button; make
25 sure your mic is on; you'll see the red light.

JAAMI ALI: Hello.

3 CHAIRPERSON GIBSON: Oh, much better.

4 Thanks... [crosstalk]

5 JAAMI ALI: Okay. So my name is Jaami
6 Ali and this is what I have to say for the record.

7 So during the April 23rd, 2013 U.S.
8 Senate Judiciary Hearing on drones, Rosa Brooks of
9 the Georgetown University Law School and former
10 Pentagon adviser to rule of law and human rights,
11 stated that there were major implications as for
12 claims that the executive branch can kill anyone any
13 time, anywhere for secret reasons by undisclosed
14 officials. Now we've had terrorists plots carried
15 out, but the U.S. did not use drones which can be
16 operated with finite precision and has not been used
17 to deliver assaults to enemies of the state; still
18 thinking about Rosa Brooks. Now if we look at the
19 DOD directive 5541, we learn that the intelligence
20 agencies, like the Pentagon, executes human
21 experimentation and electronic surveillance on
22 Americans without their consent for an ongoing period
23 of time and drones are tools that facilitate those
24 aims.

25 Now Lockheed Martin, a DOD contractor,
developed nano; it's catchphrase is that

3 nanotechnology offers the promise of a new dimension
4 in innovation that we have not seen; that's the
5 phrase that most nano researchers agree with. If you
6 don't know, nano is about 10,000th a size in
7 measurement, less than the size of a strand of hair
8 and nano had the ability to reengineer DNA, shape-
9 shift material; be used as an operating system in its
10 size. To see what I mean, I encourage you to look at
11 YouTube video titled "Nanosculpting." What Lockheed
12 Martin does is exploit nanotechnologies to its
13 fullest extent; I should say, what Lockheed Martin
14 does is exploit nanotechnology capabilities to its
15 fullest extent and it develops a large percent of it
16 for DOD. Now remember, DOD performs nonconsensual
17 human experimentation on people and they survey
18 people with drones.

19 But let's go back to Rosa Brooks, the
20 Pentagon adviser talking about executive overreach;
21 it hits home. I'm one of those human experimentee
22 victims that was subjected to drones, nanotechnology
23 and directed energy technology, and so is Alexandra
24 McDonald and many other U.S. citizens who say they
25 are being assaulted by direct and energy weapons for
behavior modification and racial cleansing. Now I

3 know the city cannot override executive order or
4 overreach; [bell] however, the language in the
5 proposed legislation needs to factor in that
6 executive overreach has a domestic impact. As such,
7 language needs to be included to accommodate for that
8 overreach, especially if there is no justification
9 for that experimentation. As such, agencies need to
10 accommodate for this, and as the executive branch
11 uses drones for secret reasons, my complaints as a
12 victim of electronic harassment, remote body
13 modification for trafficking and pain issued for what
14 I believe is for racial cleansing cannot be ignored.
15 Now let me tell you, I've worked for the City of New
16 York... [crosstalk]

17 CHAIRPERSON GIBSON: Thank you.

18 JAAMI ALI: as a public servant [bell]
19 for six years and I have a master's degree, and for
20 some reason in 2013, the same time that Rosa Brooks
21 spoke about government overreach with regards to
22 drones, I was targeted. Look at this lady; she says
23 that directed energy weapons and lasers from drones
24 are deteriorating her skin; her name is Alexandra
25 McDonald; this is her neck, this is her upper neck,
drones are being used to hit her 2-year-old child,

3 her teenage child, her plants, and this is the
4 Lockheed Martin nano tubes that fly over her head,
5 [background comment]...

6 CHAIRPERSON GIBSON: Yeah.

7 JAAMI ALI: and then this is drone
8 technology that's impacting my printouts from afar,
9 reshaping my face to match what it looks like now. I
10 say that your proposed legislation doesn't even
11 scratch the surface.

12 CHAIRPERSON GIBSON: Thank you, Miss Ali.
13 Thank you very much.

14 JAAMI ALI: Thank you.

15 CHAIRPERSON GIBSON: Miss Richardson.

16 RASHIDA RICHARDSON: Hi, name's Rashida
17 Richardson and I'm a Legislative Counsel at the New
18 York Civil Liberties Union.

19 The New York Civil Liberties Union
20 respectfully submits the following testimony on
21 proposed legislation regarding unmanned aerial
22 vehicles.

23 Unmanned aerial vehicles (UAVs) are a
24 generated technology that have a broad range of
25 applications and capabilities; it is not beyond
26 dispute that certain uses of UAVs pose a significant

3 risk to public safety and that the regulation of
4 surveillance technology is needed. However, UAVs
5 also facilitate investigative expressive activities
6 that are protected under the Federal Constitution and
7 the Constitution of New York State. It is the
8 position of the NYCLU therefore that any regulation
9 of emerging surveillance technology such as UAVs must
10 balance government interest in protecting public
11 safety with the obligation of government to protect
12 civil liberties. While UAVs are not yet routinely
13 used by law enforcement or other government agencies,
14 it is not merely speculative to anticipate that
15 unregulated use of UAVs can lead to the invasion of
16 personal privacy.

17 We support proposed Resolution No. 0057-A
18 and Intro. No. 0589-A because the proposed
19 legislation seeks to protect civil rights and civil
20 liberties while recognizing government's interest in
21 utilizing UAV technology to protect public safety.
22 The proposed resolution and bill are also consistent
23 with national legislation regarding UAVs and with
24 guidance from the Department of Justice regarding
25 government use of UAVs.

3 Intro. 0614 proposes a UAV identification
4 tag registration process and insurance for all UAVs.
5 Providing accountability for UAV operators through
6 some kind of registration process may make sense,
7 however, lawmakers must ensure that the process does
8 not violate first amendment rights of New York City
9 residents.

10 Media coverage of UAV crashes demonstrate
11 that unregulated use poses a variety of public safety
12 concerns, but this media attention fails to
13 acknowledge the constitutionally protected uses of
14 UAVs that benefit the public; in fact, the
15 registration process outlined in Intro. 0614 would
16 likely have a chilling affect on constitutionally
17 protected speech. Considered that most photograph
18 and video recordings that document misconduct by
19 government officials, from unreasonable use of force
20 by police, to **[inaudible]** by educators, to government
21 corruption by politicians are not created by the
22 press, but rather members of the public; hence, this
23 constitutionally protected conduct may necessitate a
24 level of anonymity that would not be possible under
25 the proposed regulatory scheme.

3 In light of the breadth of this
4 legislation, we encourage the Council to consider
5 tailoring regulations to the manner that protects
6 first amendment and other constitutional rights.

7 Proposed Intro. 0607 seeks to criminalize
8 the use of UAVs in a number of situations and we
9 encourage the Council to reconsider these proposals
10 [bell] and the fact that there are existing criminal
11 penalties and tort laws that would protect against
12 these prohibited uses. And I'll stop now, but I also
13 have testimony or at least comments relating to
14 preemption issues that the Council had been
15 interested in.

16 CHAIRPERSON GIBSON: Yes, we have it.
17 Thank you so much. Thank you ladies for being here
18 and providing your testimony; we appreciate it and
19 certainly thank you for your presence today. Thank
20 you very much.

21 RASHIDA RICHARDSON: Thank you. Thank
22 you.

23 CHAIRPERSON GIBSON: Our next and last
24 panel for this hearing is Lawrence Brinker from NUAIR
25 Alliance; Brendan Schulman from DJI Technology, Inc.;

Julie Samuels from Engine; Anthony Pansini from AMA

3 and Staten Island Radio Control Modelers, and Richard
4 Hanson from the Academy of Model Aeronautics.

5 [pause] Are you ready? Mr. Brinker, you may begin.

6 LAWRENCE BRINKER: Thank you, Chairperson
7 Rodriguez; Chairperson Gibson and members of the
8 committee. On behalf of our over 70 public, private
9 and academic partners in NUAIR Alliance, I thank you
10 for the opportunity to be heard on this
11 transformative technology issue.

12 As background, NUAIR Alliance is a New
13 York not-for-profit corporation that manages the
14 congressionally mandated, federal aviation
15 authorized, Griffiss International Airport unmanned
16 aerial systems test site. One of only six such test
17 sites in the nation, New York happens to be one of
18 them. Six such test sites in the nation; we provide
19 the UAS Flight Safety data gathered at our UAS test
20 ranges in New York, Massachusetts and Michigan to FAA
21 and NASA; that data informs these agencies'
22 regulatory research and development efforts toward
23 fully integrating civil and commercial use of UAS
24 into the national airspace system.

25 Further, NUAIR Alliance promotes and
encourages the economic development of the UAS

3 industry sector in New York through public education
4 in many and very beneficial civil and commercial uses
5 of UAS, as well as development of public-private
6 partnerships to advance the civil and commercial
7 growth of unmanned systems. Accordingly, we
8 respectfully request the committees to consider the
9 following information before deciding on any of these
10 initiatives before the committee. One, operation of
11 all aircraft in the national airspace system is the
12 exclusive jurisdiction of the federal government.
13 State or local governments do not have authority to
14 regulate the airspace or the aircraft that fly in;
15 UAS is an aircraft, it is not a bird, with this
16 operation regulated exclusively by the Federal
17 Aviation Administration. The UAS is only a tool; how
18 a person uses that tool is already governed by all
19 applicable federal, state and local laws and
20 regulations; there is no need to make a special law
21 for UAS. Singling out UAS for disparate legal
22 treatment makes the use of the technology more
23 difficult for routinely using UAS for its many and
24 varied beneficial uses. For example, law enforcement
25 is already required to have a warrant for a
particular action; it is the proposed action by law

3 enforcement that requires the warrant, not the tool
4 the law enforcement agency is using to conduct the
5 surveillance; let's not make it more difficult for
6 law enforcement or anyone to use the UAS to all of
7 its beneficial uses it can perform by establishing
8 arbitrary special rules. If a criminal uses a hammer
9 to commit burglary, we don't ban hammers or levy
10 special qualifications for the use of the hammer; we
11 punish the lawbreaker that used the hammer in a
12 criminal manner.

13 The President of the United States on
14 February the 15th set up a stakeholder group in
15 Washington, D.C. to establish best practices that has
16 to do with civil liberties protection, civil rights
17 protection and the democratic domestic use of
18 unmanned aircraft systems. In speaking with one of
19 the committee members, they will be publishing their
20 report in January; I suggest that before you take up
21 the issue of privacy and how you're going to protect
22 or deal with the privacy issues, you wait for that
23 report, and since I only have five seconds left to
24 go, the practical reason [bell] that aviation in
25 America and around the world is governed by federal
standards is simple; the freedom to fly across state

3 and local government boundaries, not having to worry
4 about complying with a patchwork of law underneath
5 the aircraft permits that tool to be efficient,
6 effective and cost-effective and safe. The remotely
7 piloted aircraft system is an aircraft; it must be
8 treated like an aircraft and simply an addition to
9 our national airspace system; national airspace
10 governance by the FAA brought us the safest aviation
11 system in the world; the FAA will do the same thing
12 with the integration of UAS.

13 It is a myth that operation of UAS are
14 not currently regulated; FAA regulations require all
15 UAS to comply with all existing federal aviation
16 regulations or have a waiver or exemption to
17 compliance with that regulation granted by FAA.
18 Currently the FAA... [interpose]

19 CHAIRPERSON GIBSON: Can you summarize
20 the last part for me, roughly?

21 LAWRENCE BRINKER: Sure. Let me just say
22 this; the test site has been operating since the end
23 of 2013 on behalf of the FAA to assist with the
24 integration under national airspace system; I would
25 encourage you to use your New York test site to

3 inform this panel on what would be good positive
4 legislation.

5 CHAIRPERSON GIBSON: Thank you very much.
6 Thank you. Mr. Schulman.

7 BRENDAN SCHULMAN: Good afternoon, Chairs
8 Gibson, Rodriguez; members of the committees.

9 I'm Brendan Schulman, Vice President of
10 Policy and Legal Affairs at DJI, which is the world's
11 leading brand of professional and recreational UAVs.
12 Prior to taking this position in July, [background
13 comments] I spent my entire 15-year legal career
14 practicing in New York City, first at Cravath, Swaine
15 & Moore and then at Kramer Naftalis & Frankel, where
16 I founded the country's very first UAV legal practice
17 group. I'm currently serving on the FAA Registration
18 Task Force, whose report was just released today.

19 Questions about how to balance public
20 safety and privacy concerns with the enormous
21 benefits of UAVs have been the focus of my work for
22 the past 3 years. Thank you very much for this
23 opportunity.

24 The benefits of unmanned aircraft are by
25 now well known, but New York City stands to gain in
particular; with New York's rich history of

3 filmmaking and photography, UAV tools become new
4 vantage points for the world's most photogenic city.
5 New York's density is also ideal for using small UAVs
6 for surveying infrastructure and building inspection,
7 including in connection with Local Law 11 that
8 requires building façade inspection every 5 years.

9 Our company has already been asked to
10 provide UAV demonstrations to two of the city's
11 largest agencies who already see tremendous benefits
12 to their work. Also, in terms of recreational and
13 hobbyist use, New York hosted this year the first New
14 York City Drone Film Festival, sponsored by NBC,
15 which brought filmmakers from 19 countries here and
16 received over 300 million media impressions. In
17 September, at the New York Hall of Science in Queens,
18 DJI sponsored the Drone Zone Exhibit at the World
19 Maker Faire Show that was by far the most popular of
20 the entire event, and that was an event that was
21 attended by 95,000 people, including thousands of
22 school children. It was amazing really to see those
23 children's faces light up when they saw the flying
24 drones and the races that we had going on there.

25 New York is also the city that I have
been planning to make the location of DJI's east

3 coast headquarters and I've already toured dozens of
4 potential Manhattan locations in so-called Silicon
5 Alley. We plan to invest in New York City and we
6 also care about people, who like me, live or work
7 here. I am familiar with a handful of reported
8 incidents in New York in the past few months and
9 we're very concerned about public safety, but it
10 would be a tremendous loss if a few uninformed,
11 irresponsible people who have generated alarmist
12 headlines, combined with what seems to be fundamental
13 misunderstandings about the technology cause all
14 those benefits we've heard about today to be lost to
15 the city.

16 I have with me here today our Phantom 3;
17 this is arguably the most popular consumer and
18 commercial UAV in the world; this is what you're
19 proposing to regulate. It weighs less than 3 pounds,
20 about the same as the countless seagulls that fly
21 around the city, and includes dozens of safety
22 features, which are listed in my written testimony,
23 including automatic return to home in the event of a
24 signal loss or a low battery, it has a maximum
25 altitude feature, it has GPS-based geofencing, which
helps restrict operation of the drone near airports

3 and FAA flight restriction areas, including when
4 there's a Yankees or Mets game. We provide education
5 to our customers via online videos, in-person new
6 pilot experiences and a flight [bell] simulator, as
7 well as an FAA-approved know before you fly product
8 insert across all brands; there are millions of these
9 flying and I've yet to hear of a serious injury
anywhere in the world.

10 I'm very concerned with what I see in the
11 proposals; the dozens of restrictions, licenses,
12 registration, permits, pre-flight and post-flight
13 administrative requirements and criminal penalties;
14 these basically say to the world that New York City
15 is no place for UAV technology and if you remove the
16 word UAV from those proposals and ask people what is
17 this about, I think they might think it's about guns
18 or toxic chemicals or something serious like that.

19 My more specific comments about the
20 proposals are set out in my written submission and I
21 respectfully propose the formation of a working
22 group; I would be delighted to work with members of
23 the Council and your staff on a balanced approach,
24 one that accounts for the legal framework that the
25 aviation field is preempted by the federal

3 government. Together we can work on making New York
4 City not only a leader in public safety, but also in
5 this exciting new technology. Thank you; I'm happy
6 to take your questions.

7 CHAIRPERSON GIBSON: Thank you very much.
8 Thank you. Next; Miss Samuels.

9 JULIE SAMUELS: Thank you very much for
10 having me today; I will be brief in my comments.

11 I run an organization called Engine; we
12 work with the startup community here in New York and
13 across the country, connecting high-tech, high-growth
14 startups with policymakers and New York City is such
15 an incredibly exciting place right now, for those in
16 the startup community, for those in the tech
17 industry. A 2014 study done by Abney found that the
18 New York City tech industry has created 141,000 jobs
19 and is responsible for more than 12% of the city's
20 total tax revenue. From 2003 through 2013 the New
21 York City tech ecosystem employment has grown by 18%,
22 New York City's economy grew by 12%, while the
23 economy for the full country grew by just 4%.

24 Also, the creation of one high-tech job
25 is predicted to create 4.3 other jobs in the local
economy and most importantly, new firms, startups,

3 create all net new job growth in the United States;
4 we want that job growth to be happening here in New
5 York City, so we want to incentivize innovation here,
6 we want to incentivize tech growth; we want to
7 attract hobbyists, who know the most about these
8 technologies, all of which is to say we should be
9 careful as we think about regulating drones to ensure
10 that we are attracting companies to get started here,
11 because if we implement prohibitions, which should be
12 the last resort, we are sending a much larger message
13 basically saying, don't come here, don't innovate
14 here; go somewhere else, and it is important for all
15 the reasons we've heard today; drone technology can
16 be so important, smart cities and I think that we
17 want to not only incentivize those uses here, but
18 incentivize those companies to come here. The impact
19 of these rules may seem limited to a specific
20 industry, but they in fact could set a precedent far
21 beyond just that industry that would make New York
22 City decidedly unappealing to both new startups and
23 existing technology companies.

24 So with that I would encourage the
25 Council to take the time to ensure that we are not
going too far at the outset. Thank you.

3 CHAIRPERSON GIBSON: Thank you very much.

4 And Mr. Pansini.

5 ANTHONY PANSINI: Good afternoon,
6 Chairperson Gibson and Council. My name's Anthony
7 Pansini; I'm the President of the Staten Island Radio
8 Control Modelers. I've been safely flying radio-
9 controlled airplanes in New York City for over 30
10 years; my club has held a Parks permit to fly in
11 Latourette Park for around 40 years and we have a
12 great relationship with NYPD and the Parks
13 Department.

14 I understand and agree with the Council's
15 concerns that it should not be legal for UAVs to fly
16 amongst city buildings, over people, in close
17 proximity to airports or invade people's privacy.
18 Members of my club have never done any of those
19 things because we abide by the safety and privacy
20 codes of the Academy of Model Aeronautics. However,
21 in the light of the upcoming federal requirement for
22 the registration of UAVs, which is due out in
23 December, I think it would be redundant and
24 unnecessarily onerous on us to be required to also
25 register at the local level. I was told that one of
the main objects of these bills is for local law

3 enforcement to have the ability to identify the pilot
4 of a UAV flying in the city and NYPD will be able to
5 do that through the federal database. Even full-
6 scale manned aircraft are only required to register
7 at one level of government.

8 If the Council still feels the necessity
9 to require local registration, I think the AMA
10 members who fly at designated fields on New York City
11 parks land in a safe and responsible manner, as we
12 have for decades, should be exempted from the
13 registration process. As AMA members, we all have
14 our AMA numbers on our aircraft and we would agree to
15 a requirement to that effect, if the Council would
16 allow that.

17 Regarding the insurance requirement in
18 0614, a prerequisite of joining my flying club is
19 membership in the AMA; therefore, every member of my
20 flying club carries \$2.5 million of liability
21 insurance through the AMA and we have separate flying
22 site insurance through the AMA that names New York
23 City Parks Department as the insured. Because of
24 this, I feel that AMA members flying in designated
25 areas in New York City parks should be exempted from
carrying a separate additional insurance policy. My

3 club has held the permit to fly in Latourette for
4 around 40 years and every year, as part of the
5 permitting process, we supply the Parks Department
6 with a copy of the insurance policy that names them
7 as the insured.

8 And some comments I have -- In 0601-A,
9 UAVs are not mentioned until Section 1, Paragraph H,
10 on Page 4; it seems that Paragraphs B through G
11 pertain only to full-scale manned aircraft; if this
12 is correct, I am fine with them; if not, Section 2,
13 Paragraph B directs the commissioner, and I assume
14 that's the Parks commissioner, to designate certain
15 parks where UAVs may be flown, but Paragraph C of
16 Section 1 specifies places designated by DOT or Port
17 Authority for taking off and landing and it seems to
18 be a contradiction. [bell] And also, Paragraph G
19 has wording regarding reporting to police an accident
20 involving serious damage to the aircraft; does that
21 mean if my model plan flips over on the ground during
22 takeoff and breaks, I have to report that to the
23 police? It seems a little much. Thank you for your
24 time.

25 CHAIRPERSON GIBSON: Thank you very much.
And Mr. Hanson.

3 RICHARD HANSON: Thank you very much,
4 Madame Chairperson Gibson and members of the Council.

5 My name is Richard Hanson; I represent
6 the Academy of Model Aeronautics that Mr. Pansini
7 just mentioned; I am their Government Regulatory
8 Affairs Director.

9 In the interest of time, and I know we're
10 getting short to the end of the day here, I'll not
11 read my written comments; I'll provide those to you
12 for your future use, and they pretty much mirror
13 Mr. Pansini's comments in terms of support of model
14 aircraft activity within the City of New York.

15 I would like to mention, however,
16 something that may not be well-known, as far as the
17 prevalence of model aircraft in terms of their
18 existence in the airspace for well over 100 years.
19 AMA was founded back in 1936; for nearly 8 decades
20 now model aircraft enthusiasts have operated safely
21 and responsibly within our airspaces; more
22 importantly within our communities; they're not only
23 a harmonious activity, but they're also an enrichment
24 to the community and to the members of that
25 community.

3 Interestingly enough, the City of New
4 York is actually a benchmark in model aircraft
5 history; the very first model aircraft club that
6 we're aware of was founded in 1908 by Emma Lillian
7 Todd, who is the first woman of flight; she founded
8 the Junior Aero Club for boys here in the City of New
9 York to recognize young men that had an aptitude or
10 an interest in aeronautics and there has been a
11 presence in model aircraft activity in the form of
12 AMA-chartered clubs since that time, especially since
13 1936, when the AMA was founded. So we would
14 certainly ask that you take into consideration this
15 particular community, their safe history and their
16 contribution to the community.

17 CHAIRPERSON GIBSON: [background
18 comments] Thank you so much and obviously, for the
19 sake of time we will not be able to ask questions,
20 but we do have all of your testimony and certainly
21 the recommendations you have provided we will
22 certainly take into consideration and I thank you for
23 being here and thank you for brining a drone as well.
24 Could we see how it works? No, never mind; just
25 joking.

BRENDAN SCHULMAN: I'm not gonna...

3 CHAIRPERSON GIBSON: No, no, no, no. But
4 thank you all for being here; thank you to all of my
5 colleagues; thank you to my co-chair, Council Member
6 Ydanis Rodriguez for co-chairing this hearing; we
7 will have another hearing at 1:00, which will be the
8 Committee on Education here in the chambers. So
9 thank you so much to all the staff and certainly to
10 the sergeant at arms; thank you for having us today
11 and this hearing.. [background comment] I also want to
12 acknowledge that we have received testimony for the
13 record from the New York Metropolitan Retail
14 Association, as well as Consumer Technology
15 Association for the record regarding this hearing.
16 This joint hearing for the Committees on Public
17 Safety and Transportation is hereby adjourned.

18 [gavel]
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C E R T I F I C A T E

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date December 7, 2015