Drone Insurance Coverage Issues

2018 Midwest Actuarial Forum

Gerald Deneen, Vice President, Swiss Re, March 9, 2018

Table of Contents / Agenda

1. Current Uses of Drones
2. Model aircraft regulation versus non-hobby or non-recreational use regulation
3. Non-hobby and non-recreational use drone law & regulation
4. FAA rules qualifying an aircraft to be subject §107 rules
5. FAA rules qualifying a remote pilot in command to be subject §107 rules

Table of Contents / Agenda

6. FAA rules qualifying operational use of a drone to be subject §107 rules
7. Non-FAA drone related laws: privacy and trespass
8. Drone Insurance Problem
9. Drones emerging risk opportunity: the nature of risk (main loss drivers from drone use)
10. Emerging risks: insurance “enabler” role for drones

Table of Contents / Agenda

Table of Contents / Agenda

15. ISO drone hull coverage and cargo endorsements (see ISO circular AM-CL-2016-001)
16. Should insurers provide drone insurance including coverage for the hull, trespass, nuisance and invasion of privacy?
17. Q & A

Current Uses of Drones

Future potential uses are seemingly infinite . . .

- Oil and Gas Exploration
- Inspecting Oil Pipelines
- Archaeological Surveying
- Agricultural Spraying
- Crop Monitoring
- Delivering Goods
- Law Enforcement
- Missing Person Search
- Track Wildlife
- Media, news

Drone Uses

- Wildfire Mapping
- Fire Detection
- Firefighting
- Mitigate/Monitor Disasters
- Monitor weather
- Ins. Claims Investigation
- Insurance Underwriting
- Aerial Imaging
- Patrolling Borders

..and not all of them good

- Transporting and dropping a bomb or an explosive to cause an act of terrorism
- Stalking
- Delivering illegal substances
- Intentionally crashing into a moving object like an automobile or bus that causes multiple fatalities
- Spraying poisonous gas or liquids to cause an act of terrorism

Drone Uses

- Voyeurism
- Intentionally crashing into a manned aircraft
- Intentionally hitting a human
- Intentionally disrupting a sporting event or concert
- Intentionally crashing to cause property damage
- Intentionally or unintentionally invading someone's privacy
- Creating a nuisance

Future drone laws

- Lawmakers who want to make it easier for businesses to harness the efficiency gains and profits from drone use which in turn would cause overall benefits to society

Versus

- Lawmakers who want to outlaw all commercial (and maybe even personal) drone use for privacy concerns and concerns about terrorism, vandalism or human safety because of the nefarious use of a drone

Model aircraft regulation versus non-hobby or non-recreational use regulation

Laws for model aircraft

- In Section 336(a) of the FAA Modernization and Reform Act of 2012 (FMRA), https://www.gpo.gov/fdsys/pkg/PLAW-112publ95/html/PLAW-112publ95.htm Congress instructed the FAA that it may not issue regulations that affect the operation of model aircraft

(a) In General.--Notwithstanding any other provision of law relating to the incorporation of unmanned aircraft systems into Federal Aviation Administration plans and policies, including this subtitle, the Administrator of the Federal Aviation Administration may not promulgate any rule or regulation regarding a model aircraft, or an aircraft being developed as a model aircraft, if--

(1) the aircraft is flown strictly for hobby or recreational use;

(3) the aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;

Laws for model aircraft

(5) when flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport) with prior notice of the operation (model aircraft operators flying from a permanent location within 5 miles of an airport should establish a mutually-agreed upon operating procedure with the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport))

- This legal restriction should be of HIGH importance to a personal lines insurer. Discussed in a later slide

(c) Model Aircraft Defined.--In this section, the term “model aircraft" means an unmanned aircraft that is--

(1) capable of sustained flight in the atmosphere;

(2) flown within visual line of sight of the person operating the aircraft; and

(3) flown for hobby or recreational purposes.

Laws for model aircraft

- Crux of issue is what constitutes hobby or recreational use.
  - many people, especially farmers who used their drone to monitor their own crops, believed because no one paid them to use his or her drones FAA drone regulations didn't apply to them.
  - §336 does not define hobby or recreational use. Ultimately, it will probably be up to a court of law. FAA on its website uses dictionary definitions as guidance for model aircraft users https://www.faa.gov/uas/faqs/ :
    - Recreational or hobby UAS use is flying for enjoyment and not for work, business purposes, or for compensation or hire. UAS use for hobby is a "pursuit outside one's regular occupation engaged in especially for relaxation." UAS use for recreation is "refreshment of strength and spirits after work; a means of refreshment or diversion."

Non-hobby and non-recreational use drone law & regulation

Everything is new!

- Modern drones are new, operators are new, the law is new, insurance coverage is new
- Most countries' aviation laws didn't originally contemplate public use of drones
- Law is catching up to technology
- US regulation of drones were in a state of flux
  - US drone regulations had some some legal issues that were open or unclear because courts ruled FAA did not follow proper rule-making process when FAA created their first drone regulations

- **Change**: FAA published Federal Register / Vol. 81, No. 124 / Tuesday, June 28, 2016 / Rules and Regulations became effective August 29, 2016 https://www.gpo.gov/fdsys/pkg/FR-2016-06-28/pdf/2016-15079.pdf 81 FR 42064

Federal Register / Vol. 81, No. 124 / June 28, 2016

- Federal Register / Vol. 81, No. 124 / Tuesday, June 28, 2016 / Rules and Regulations effective August 29, 2016 https://www.gpo.gov/fdsys/pkg/FR-2016-06-28/pdf/2016-15079.pdf

  - the rules in this document were added as a new part 107 (§107) to Title 14 Code of Federal Regulations (14 CFR) to allow for routine civil operation of small UAS in the NAS and to provide safety rules for those operations:
    - http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/amt_handbook/media/FAA-8083-30_Ch12.pdf
    - http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title14/14tab_02.tpl
  - § 107.61 will allow current holders of an exemption issued under section 333 of Public Law 112–95 (a/k/a FAA Modernization and Reform Act of 2012) to continue operating under the terms of their exemption rather than under part 107.

Drones are not exclusively a federal affair

- US Supreme Court – *US v. Causby* - 1946
  - airspace above US land is in the **public domain**
  - flights over private land regulated by FAA
  - **flights over private land not a "taking" by the feds**
- US federal government
  - **primary governmental regulator** of national airspace
    - all government, military and civilian purposes
  - **Federal Aviation Administration** (FAA) – 1926

- From page 42115 of Federal Register / Vol. 81, No. 124 : The FAA emphasizes that people involved in a small UAS operation are **responsible for complying with all applicable laws and not just the FAA's regulations.**
  - in April, the U.S. Senate produced a bipartisan amendment that stripped federal preemption language from their long-term FAA reauthorization bill, but did not receive a vote due to procedural reasons.
    - could be the reason the FAA did not state that state and local governments can't pass laws that concern drone operations in order to prevent a patchwork of unwieldly rules for drone operators to follow

Can the FAA effectively enforce their own rules?

From LAW ENFORCEMENT GUIDANCE FOR SUSPECTED UNAUTHORIZED UAS OPERATIONS http://www.faa.gov/uas/resources/law_enforcement/media/FAA_UAS-PO_LEA_Guidance.pdf

- The FAA has a number of enforcement tools available including warning notices, letters of correction, and civil penalties.

- FAA aviation safety inspectors are the agency's principal field elements responsible for following up on unauthorized and/or unsafe UAS activities

Can the FAA effectively enforce their own rules?

From LAW ENFORCEMENT GUIDANCE FOR SUSPECTED UNAUTHORIZED UAS OPERATIONS
http://www.faa.gov/uas/resources/law_enforcement/media/FAA_UAS-PO_LEA_Guidance.pdf

- While the FAA retains the responsibility for enforcing Federal Aviation Regulations, the FAA recognizes that State and local Law Enforcement Agencies (LEA) are often in the best position to deter, detect, immediately investigate, and, as appropriate, pursue enforcement actions to stop unauthorized or unsafe UAS operations. This **implies** that the FAA acknowledges that there are not enough FAA safety inspectors to effectively enforce their UAS regulations .
  - FAA acknowledges that Administrative proceedings often involve very technical issues; therefore, FAA expects that their own safety inspectors will need to re-interview most witnesses. FAA is mindful that in many jurisdictions, state law may prohibit the transmission of witness statements to third parties, including the FAA.
    - what is the incentive for a local LEA's employee to do the FAA's work?
- How effective the FAA will be in enforcing its drone regulations remains to be seen!

Insurers should respond to new FAA drone rules

- FAA Regulations address three Unmanned Aerial System (UAS) elements: aircraft, operator (pilot or airman) and use (operational restrictions)
- Insurers need to decide if they want to cover, via the drone policy's insuring agreement or policy exclusions:
  - a drone that does not meet the unmanned aircraft physical parameters such as weight, speed, lighting, etc., described in the new rule
  - a drone operated by a person (pilot) without the proper FAA licensing credentials; and/or
  - the use or operation of a drone that is not in compliance with FAA Regulations,

FAA rules qualifying an aircraft to be subject §107 rules

FAA small unmanned aerial vehicle (UAV) qualifications

- Aircraft parameters in Federal Register Vol. 81 No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion with an exception if the named insured has obtained a Certificate of Waiver from the FAA from this FAA requirement)
  - applies to small unmanned aircraft that follows Public Law 112–95 (FMRA), section 331(6) https://www.gpo.gov/fdsys/pkg/PLAW-112publ95/pdf/PLAW-112publ95.pdf that defines a small unmanned aircraft as "an unmanned aircraft weighing not more than 55 pounds" and under part 107, the combined weight of the small unmanned aircraft and any objects towed or loaded (either externally or internally) must be less than 55 pounds.
    - these restrictions would mean a typical retail delivery drone (other than food) would not be subject to this rule, but would be subject to the same FAA rules that apply to manned aircraft
  - A small unmanned aircraft operating under §107.51 will have a maximum speed of 100 mph. Insurers will have to decide if they want to insure UAVs ≤ 55 lbs that can go faster than 100 mph
  - Small unmanned aircraft operating under §107.29 will be required to have anti-collision lights visible for at least 3 miles when operating during civil twilight. Civil twilight is defined as a period of time that, with the exception of Alaska, generally takes place 30 minutes before official sunrise and 30 minutes after official sunset.

FAA small unmanned aerial vehicle (UAV) qualifications

- FAA UAS registration and marking requirements (insurers need to decide if they should incorporate them into a drone policy exclusion)

  – FAA registration and marking requirements for all small unmanned aircraft, including unmanned aircraft that are subject to part 107, can be found at Title 14 - Aeronautics and Space of the Code of Federal Regulations (CFR) PART 48—REGISTRATION AND MARKING REQUIREMENTS FOR SMALL UNMANNED AIRCRAFT

https://www.gpo.gov/fdsys/pkg/CFR-2017-title14-vol1/xml/CFR-2017-title14-vol1-part48.xml

  – part 107 of 14 CFR does not contain airworthiness certification requirements

  – the requirement for geo-fencing, transponder and flight termination system technologies were discussed at length by the FAA but it was decided the issues these technologies could address could also be addressed by operational requirements or restrictions,

FAA rules qualifying a remote pilot in command to be subject § 107 rules

FAA small unmanned aerial system (UAS) pilot qualifications

- Operator requirements in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - All airmen operating under part 107 will be required to obtain a remote pilot certificate. Those obtaining it will be called “remote pilot in command”.
  - §107.12 and §107.19 requires the remote pilot in command of the small unmanned aircraft obtain an FAA-issued remote pilot certificate with a small UAS rating.

    - the process for obtaining this certificate includes the same TSA review procedures that are currently used under 49 U.S.C. 46111 in order to screen out airman-certificate applicants who pose a security risk.
    - certificate will include the small unmanned aircraft owner name and FAA-issued registration number
    - certificate needs to be readily available and storage on a smartphone is acceptable.

FAA small UAS pilot qualifications

- Operator requirements in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.15 requires remote plot in command to make a pre-flight inspection to ensure UAS can be safely operated.
  - §107.12 will permit an uncertificated person to manipulate the flight controls of a small UAS as long as he or she is directly supervised by a remote pilot in command and the remote pilot in command has the ability to immediately take direct control of the small unmanned aircraft. Finally, in case of an in-flight emergency, §107.21 permits the remote pilot in command to deviate from any rule of part 107 to the extent necessary to meet that emergency.

  - §107.25 prohibits operation of a UAS from a moving aircraft or vehicle unless the UAS is flown over a sparsely populated area and is not transporting another person's property for compensation or hire.

FAA small UAS pilot qualifications

- Operator requirements in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.31 and §107.33 allow for a visual observer, but the visual observer (if one is used), and the person manipulating the flight control of the small UAS must be able to see the unmanned aircraft throughout the entire flight, i.e., the range of the flight cannot be extended because of a visual observer
  - §107.61 states that the minimum age to be eligible for a remote pilot certificate with a small UAS rating is 16 years old
  - §107.61 states that airman certificate holders must be able to read, speak, and understand the English language
  - part 107 will not require an airman medical certificate, but will prohibit a person from manipulating the flight controls of a small UAS or acting as a remote pilot in command or visual observer if he or she knows or has reason to know that he or she has a physical or mental condition that would interfere with the safe operation of a small UAS.
  - part 107 does not require applicants for a remote pilot certificate with a small UAS rating to demonstrate flight proficiency or aeronautical experience.

FAA small UAS pilot qualifications

- Operator requirements in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.61 requires certified remote plots in command to pass an initial knowledge test over material described in §107.73;
    - §107.69 requires remote pilot certificate holders to pass a recurrent knowledge test every two years to ensure that they have retained the knowledge necessary to safely operate in the national airspace.

  - §107.61 exempts part 61 pilot certificate holders (manned pilots) from the requirement to complete an initial knowledge test as long as they satisfy the flight review requirements of their part 61 pilot certificate and complete an online training course within the preceding 24 months.

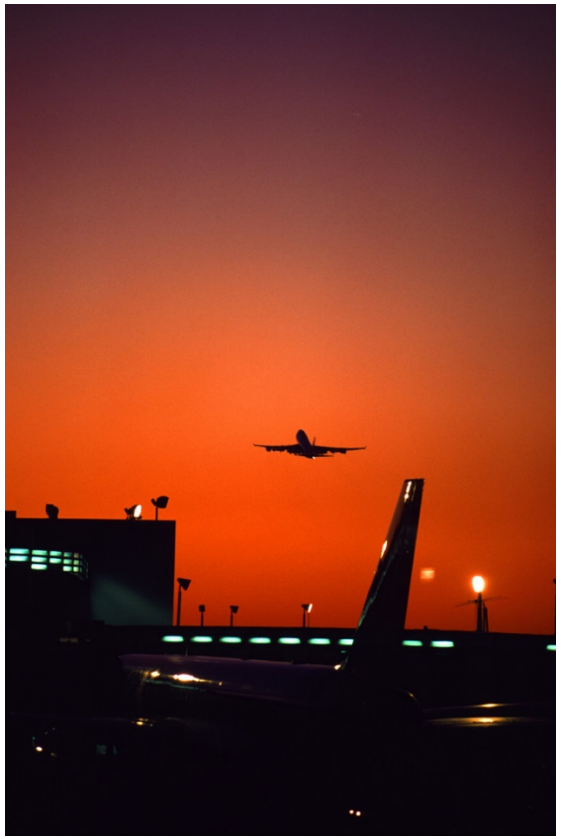
FAA rules qualifying operational use of a drone to be subject § 107 rules

FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion with an exception if the named insured has obtained a Certificate of Waiver as described in §§107.200 and107.205)
  - §107.41 does not permit flight operations in Class B, C, or D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport unless the remote pilot in command has prior authorization from the air traffic control (ATC) facility having jurisdiction over that airspace.
    - This legal restriction should be of HIGH importance to a commercial lines insurer.
  - §107.39 prohibits a small unmanned aircraft from flying over a person not directly participating in the flight operation.
    - if commercial operation over people is desired, then the remote pilot will have to obtain a waiver by demonstrating that the operation will not decrease safety.
      - aircraft may be evaluated during the waiver process to ensure it has appropriate safety systems and risk mitigations in place for flight over people.

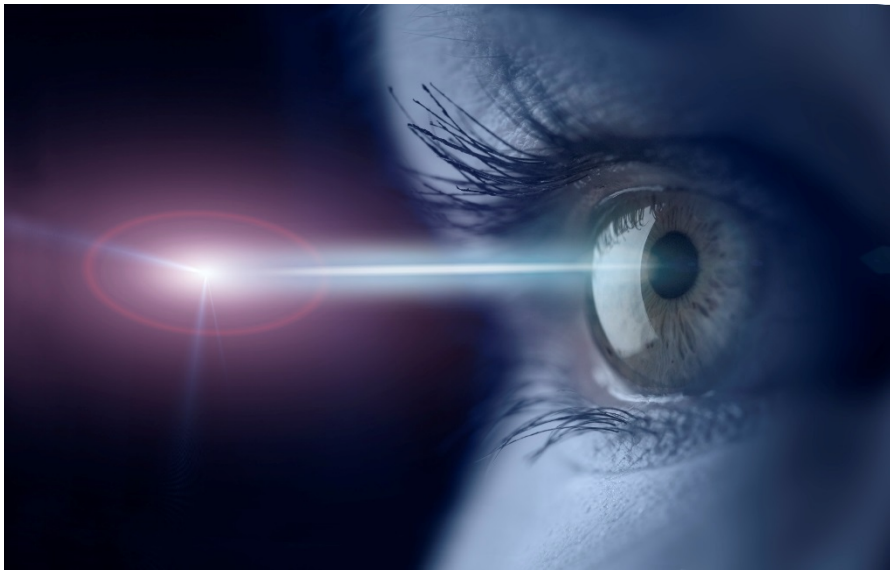
FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion with an exception if the named insured has obtained a Certificate of Waiver as described in §§107.200 and107.205)
  - §107.51 prohibits the operating altitude to be greater than 400 feet above ground level unless the small UAV:
    - is flown within a 400-foot radius of a structure; and
    - does not fly higher than 400 feet above the structure's immediate uppermost limit.



FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion with an exception if the named insured has obtained a Certificate of Waiver as described in §§107.200 and107.205)
  - §107.51 prohibits flying a small UAV if the person standing at the control station cannot see at a diagonal distance of at least 3 miles into the sky in order to detect other aircraft.



  - in urban or suburban environments a diagonal seeing distance of 3 miles might not be doable because of the visual obstructions at ground level such as tall trees or buildings

FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.51 prohibits flying a small UAV:
    - less than 500 feet from a cloud
    - less than 2,000 feet horizontally from a cloud

    These "cloud clearance" rules are consistent with the visual-flight-rules visibility requirements under 14 CFR 91.155

http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=14:2.0.1.3.10.2.5.33 and 91.115.

- There was a lot of public comment on these cloud clearance requirements after issuance the NPRM. FAA decided this regulation was necessary in order to reduce the possibility of having a manned aircraft exit the clouds on an unalterable collision course with the significantly slower small unmanned aircraft and especially because small UAVs are much more difficult to see. Also, small UAV's do not have collision avoidance mechanisms so they need more distance from clouds than manned aircraft.

FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.43 prohibits operation of a small UAV in a manner that interferes with operations and traffic patterns at any airport, heliport, or seaplane base;
    - Because there are over 5,000 public use airports, the FAA expects that a number of small UAS operations will take place near an airport even if it is inadvertent because of adverse weather conditions such as strong winds. The FAA feels it is important that a remote pilot in command understand radio communication procedures near a Class G (uncontrolled) airport in complying with this requirement if that pilot chooses to use a radio to aid in his or her situational awareness of manned aircraft operating nearby. FAA believes this requirement will force would be pilot in command applicants to be more careful around airports

FAA small UAS use restrictions

- UAS operational restrictions in Federal Register Vol. 81, No. 124 (insurers need to decide if they should incorporate them into a drone policy exclusion)
  - §107.47 prohibits operation of a small UAV when there are prohibitions made by the FAA to fly in designated restricted areas because it is designated as a disaster area, Air Force One is flying in that area, etc. FAA sends these notices to airmen and the provision that require compliance are in §§ 91.137 through 91.145

http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title14/14cfr91_main_02.tpl and 99.7 http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=14:2.0.1.3.14.1.9.4 of 14 CFR

Non-FAA drone related laws: privacy and trespass

Drone related statutes, regulations and local ordinances

- From page 42115 of Federal Register / Vol. 81, No. 124 :
  - the FAA emphasizes that people involved in a **small UAS operation are responsible for complying with all applicable laws and not just the FAA's regulations.**
  - many states have passed laws about privacy rights as respects drone use
    - some laws require the drone operator to obtain written permission from the property owner in order to fly over the landowner's property

- Most observers would agree that Congress gave the FAA control over the national airspace (NAS) through legislation. Supreme Court cases discussed earlier have acknowledged the FAA's authority over the NAS.
  - in the case of drones, even though the FAA would appear to have the authority to pre-empt state and local laws, the FAA has chosen not to do so.

Drone related statutes, regulations and local ordinances

- According to the National Conference of State Legislatures http://www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx :
  - 32 states have enacted laws addressing UAS issues and an additional five states have adopted resolutions
  - in 2016, At least 38 states have considered legislation related to UAS in the 2016 legislative session. Fifteen states–Alaska, Arizona, Idaho, Illinois, Indiana, Kansas, Louisiana, Oklahoma, Oregon, Rhode Island, Tennessee, Utah, Vermont, Virginia and Wisconsin–have passed 28 pieces of legislation.
  - in 2015, 45 states considered 168 bills related to drones. Twenty states–Arkansas, California, Florida, Hawaii, Illinois, Louisiana, Maine, Maryland, Michigan, Mississippi, Nevada, New Hampshire, North Carolina, North Dakota, Oregon, Tennessee, Texas, Utah, Virginia and West Virginia–passed 26 pieces of legislation.
  - NCSL has a report issued on June 21, 2016: "Taking Off: State Unmanned Aircraft Systems (Drones) Policies http://www.ncsl.org/Portals/1/Documents/transportation/TAKING_OFF-STATE_%20UNMANNED_%20AIRCRAFT_SYSTEMS_%20POLICIES_%20%28004%29.pdf

Drone privacy laws

- Two main privacy concerns laws address (first one)
  - Law enforcement use of a drone and the information the government collects during a drone surveillance
    - what legal rights do citizens possess against the government's use of a drone in those situations?

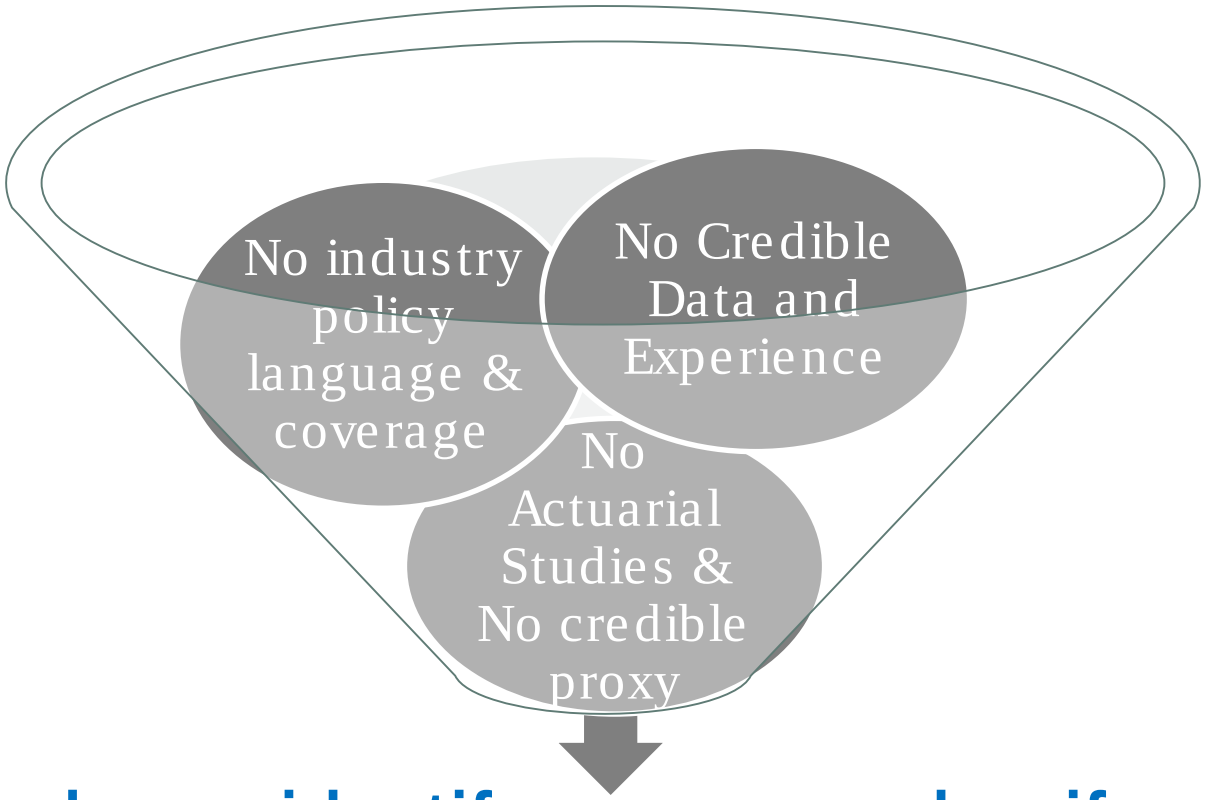
Drone privacy laws

- Two main privacy concerns laws address (second one)
  - A private company or a personal drone owner flying over another person's property with a drone
    - when does trespass begin?
    - at what altitude does the landowner have no legal rights to airspace above his land
      - laws supporting 400 feet, 500 feet and 1,000 feet
      - this is the area of drone use that is most uncertain

  - expect both legislation and judicial actions to settle these issues over the coming years
  - requiring the written permission of a landowner to fly over his or her property will make the commercial use of a drone impractical for many applications

Drone Insurance Problem

Drone emerging risk challenges..both qualitative and quantative for insurers



How do you identify, measure, classify, and price the drone risk with credibility? Too unique and no historical data

Drones emerging risk opportunity: the nature of risk (main loss drivers from drone use)

Drones emerging risk opportunity: the nature of risk (main loss drivers from drone use)

- **Loss drivers arising out of drones**
  - loss of positive control or a collision causes:
    - third party bodily injury and/or property damage
    - damage to hull
  - activity that violates aviation law causes:
    - accident with private or commercial aircraft
      - should these losses be excluded or covered by insurers?
  - trespass
  - invasion of privacy
  - nuisance

Emerging risks: insurance “enabler” role for drones

Emerging risks: insurance "enabler" role for drones

Insurance as "Enabler"

Supports the development of and response to social, technical and economic evolution by managing and financing the associated risks

Three Stages of Insurance Coverage

1	Early study period	▪ Efforts to understand exposure ▪ Risks may unknowingly be covered
2	Apprehensive phase	▪ Initial risk knowledge leads to concerns ▪ Insurers look to reduce/contain coverage
3	Mature phase	▪ Increased risk knowledge = enhanced understanding, leading to… ▪ Risk management, customized coverage & other approaches, at reasonable prices

Source: R. Blaunstein – Unfamiliar Exposure , Insurance Networking News, 2006

Early study period: risks may be unknowingly covered

Early study period: risks may be unknowingly covered

- **Personal lines policies**
  - Many have an exception to the aircraft exclusion.
    - For example, ISO's HO 00 03 05 11 excludes "aircraft liability" and defines aircraft as any contrivance used or designed for flight except model or hobby aircraft not used or designed to carry people or cargo
      - Cargo is undefined. Merriam-Webster on-line dictionary defines cargo as: "the goods or merchandise conveyed in a ship, airplane, or vehicle".
        - Does a drone designed to only carry a camera qualify as "designed to carry cargo"?
          - Only a court can decide
      - Model or hobby aircraft is undefined. Recommendation is to define the term in the policy using language from §336 of Public Law 112-95
  - Review property section(s) of policy language for coverage of hull (applies to commercial policies as well). May want to exclude or sub-limit or have a separate high deductible.
  - Many proprietary personal umbrella policies list invasion of privacy as a covered personal injury offense. With drones, this exposure increases exponentially. May want to remove or modify.

Drones & liability insurance coverage under standard ISO language

Insurance coverage under ISO policies

- ISO's Commercial General Liability Coverage Form, Commercial Umbrella Liability Coverage Form, Farmowners Liability Coverage Form, Personal Umbrella Liability Coverage Form, Businessowners Coverage Form, and Farmowners Umbrella Liability Coverage Form all provide coverage for "personal and advertising injury" or "personal injury".

  – only certain specified offenses are covered

    a. False arrest, detention or imprisonment;

    b. Malicious prosecution;

    c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;

    d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;

Insurance coverage under ISO policies

e. Oral or written publication, in any manner, of material that violates a person's right of privacy;

f. The use of another's advertising idea in your "advertisement"; or

g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".

- What potential personal injury offenses are covered from the use of a drone?
  - not very "all-encompassing" coverage for an owner of a drone
  - does a person who purchases a drone insurance policy reasonably expect insurance coverage if he or she is sued for invasion of privacy or trespass?

Insurance coverage under ISO policies

- What potential personal injury offenses or lawsuits are not covered from the use of a drone?
  - invasion of privacy or trespass if the insured is not acting in his or her capacity as a landlord
    - probably the biggest exposure for drone operators to a suit and it isn't covered
  - nuisance
  - stalking and harassment
  - wiretap laws

Insurance coverage under ISO policies

- Fines by the FAA for flying a drone against FAA regulations
  - probably no coverage because FAA fines are not damages for bodily injury, property damage or personal and advertising injury
    - insurers typically don't cover governmental fines
      - could be contrary to public policy

- Bodily injury or property damage coverage likely not covered because of aircraft exclusion

ISO drone liability endorsements effective June 1, 2015 (see ISO circular LI-GL-2014-179)

ISO drone liability endorsements effective June 1, 2015

- CG 21 09 and CU 21 71
  - excludes all Unmanned Aircraft without exception. Keeps manned aircraft exclusion intact.
  - exclusion applies to both Coverage A and B
    - exception for the use of another's advertising idea in your "advertisement" or infringing upon another's copyright, trade dress or slogan in your "advertisement".
- If CG 21 09 is attached and Exclusion – Employees And Volunteer Workers As Insureds or Exclusion – Volunteer Workers are also attached, ISO created new endorsements to accommodate CG 21 09.
- ISO created endorsements that only apply an unmanned aircraft exclusion so that it applies only Coverage A and another one so that it only applies to Coverage B.

ISO drone liability endorsements effective June 1, 2015

- CG 24 50 – Limited Coverage For Designated Unmanned Aircraft
  - similar to CG 21 09, but provides exceptions to the exclusions for designated unmanned aircraft, but only with respect to operations or projects designated in the Schedule of the endorsement.
    - allows for entry of an optional Unmanned Aircraft Liability Aggregate Limit in the Schedule.
- Comparable ISO Commercial Umbrella endorsements were also created
- CU 21 24 – Exclusion – Non-Owned Aircraft
  - if CU 21 71 is attached, this endorsement eliminates the exception to the exclusion for aircraft that is: Chartered by, loaned to, or hired by you with a paid crew; and not owned by any insured.
- ISO endorsements have no exclusions if the drone, drone operator or drone use do not comply with FAA regulation Part § 107 of CFR 14
- ISO endorsements do not provide coverage for trespass, nuisance and invasion of privacy

Insurance coverage issues under drone liability policies

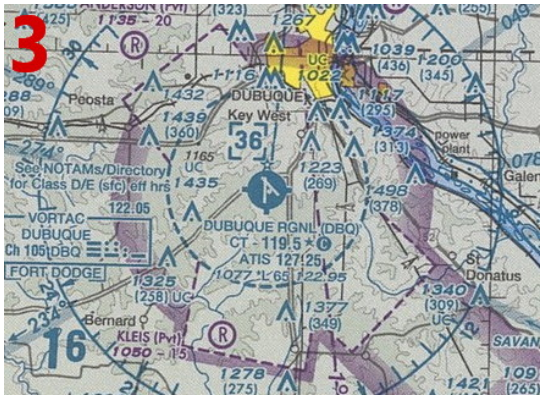
Drone liability insurance coverage issues

- **Should insurers cover or exclude a drone when it is or is operated illegally under Part 107 (§107) to Title 14 Code of Federal Regulations (14 CFR) https://www.gpo.gov/fdsys/pkg/FR-2016-06-28/pdf/2016-15079.pdf . Should insurers cover or exclude:**
  - a drone that does not meet the unmanned aircraft physical parameters such as weight (55 lbs including payload §107.3), speed (<100 mph §107.51), lighting, etc., described in the new FAA rule

  - a drone operated by a person (remote pilot in command) without the proper FAA licensing credentials §§107.12 & 107.19

Drone liability insurance coverage issues

- **Should insurers cover or exclude the use or operation of a drone that is not in compliance with FAA Regulations:**
  - flying at night or twilight 14 CFR §107.29
  - visual line of sight 14 CFR §§107.31 & 107.33
  - failure to obtain prior authorization from the applicable airport's air traffic control tower or center (ATC) when flown in Class B, Class C, or Class D airspace or within the lateral boundaries of the surface area of Class E airspace 14 CFR §107.39



  - not be flown over human beings unless (a) the human being is directly participating in the operation of the small unmanned aircraft 14 CFR §107.41
  - when flown within 5 miles of an airport for hobby or recreational use, the drone operator provides the ATC with prior notice of drone operation and receives permission to fly the drone (§336 of Public Law 112-95)

Drone liability insurance coverage issues

- **Should insurers cover or exclude the following torts that arise out of the use or operation of a drone:**
  - Trespass
  - Nuisance
  - Invasion of privacy

- **If not (apprehensive phase), how do you prevent your agent from an E&O claim?**
  - Insured's expect this coverage when buying a drone policy!

ISO drone hull coverage and cargo endorsements (see ISO circular AM-CL-2016-001)

ISO drone hull and cargo endorsements

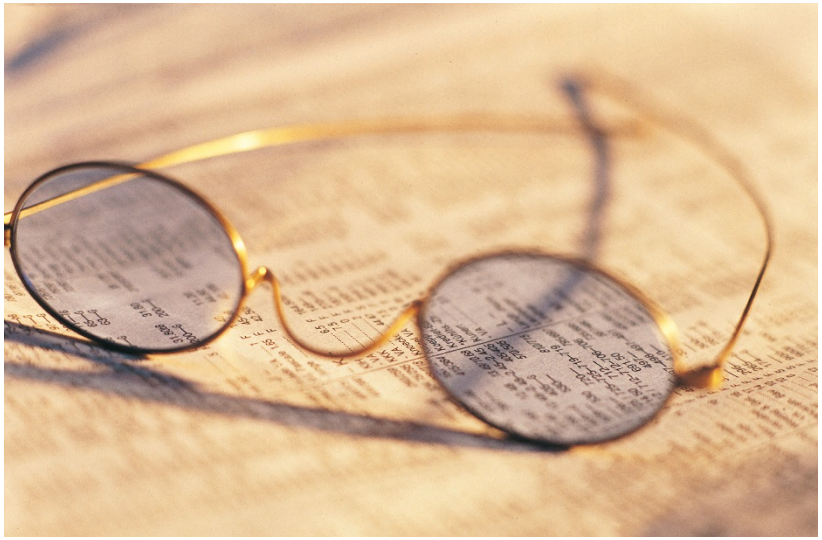
- **Unmanned Aircraft Property And Cargo Coverage Form IH 00 61 and IH 9929** are new forms that can be used to create a stand-alone policy addressing certain unmanned aircraft and cargo carried by such aircraft
  - Coverage can be limited to only specified operations
  - Coverage on the unmanned aircraft includes equipment essential for its operation or for executing the described unmanned aircraft operations, as well as data generated as part of the unmanned aircraft operations and the electronic media on which such data is processed, recorded or stored
  - Includes a coverage extension for earned freight charges, and additional coverage provisions relating to additionally acquired unmanned aircraft, debris removal, and pollutant cleanup and removal.
  - Options to cover owned cargo and cargo of others

ISO drone hull and cargo endorsements

- **Limited Coverage For Unmanned Aircraft (Scheduled And/Or Blanket Coverage) (CP 04 14, AG 04 54, OP 04 54)** are new endorsements under ISO's Commercial Property program and Output Policy programs. Highlights are similar as to what was described for IH 00 81 and IH 99 29 (as applicable to the policy to which these endorsements are attached) with the following additions:

  - If the policy covers the insured's business personal property, then coverage under the endorsement is extended to include such business personal property while airborne as part of the described unmanned aircraft operations

ISO drone hull and cargo endorsements

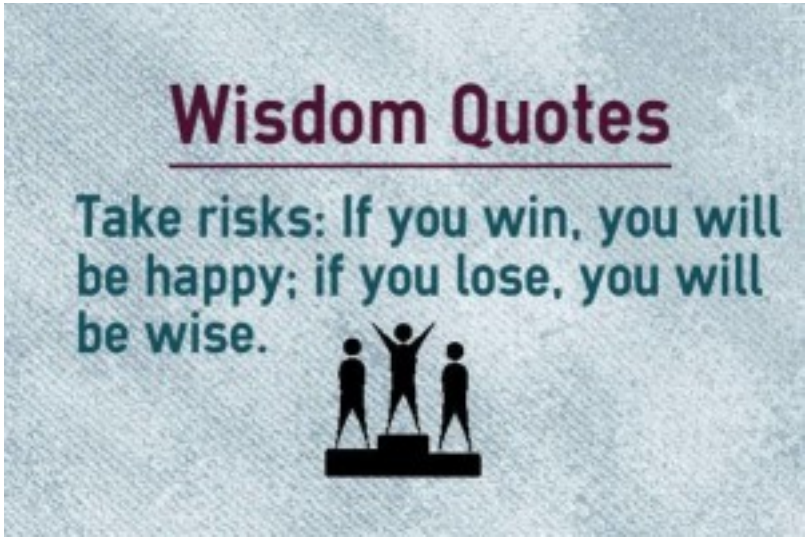


- Option to provide Business Interruption coverage
- Coverage does not apply to loss or damage to unmanned aircraft or related covered property when such loss or damage occurs while an unmanned aircraft is being used to convey merchandise or goods for delivery to others.
- Coverage does not apply to unmanned aircraft or related covered property when rented, leased or loaned to others
- The Commercial Property endorsement is designed to be used only with ISO's Causes of Loss - Special Form.

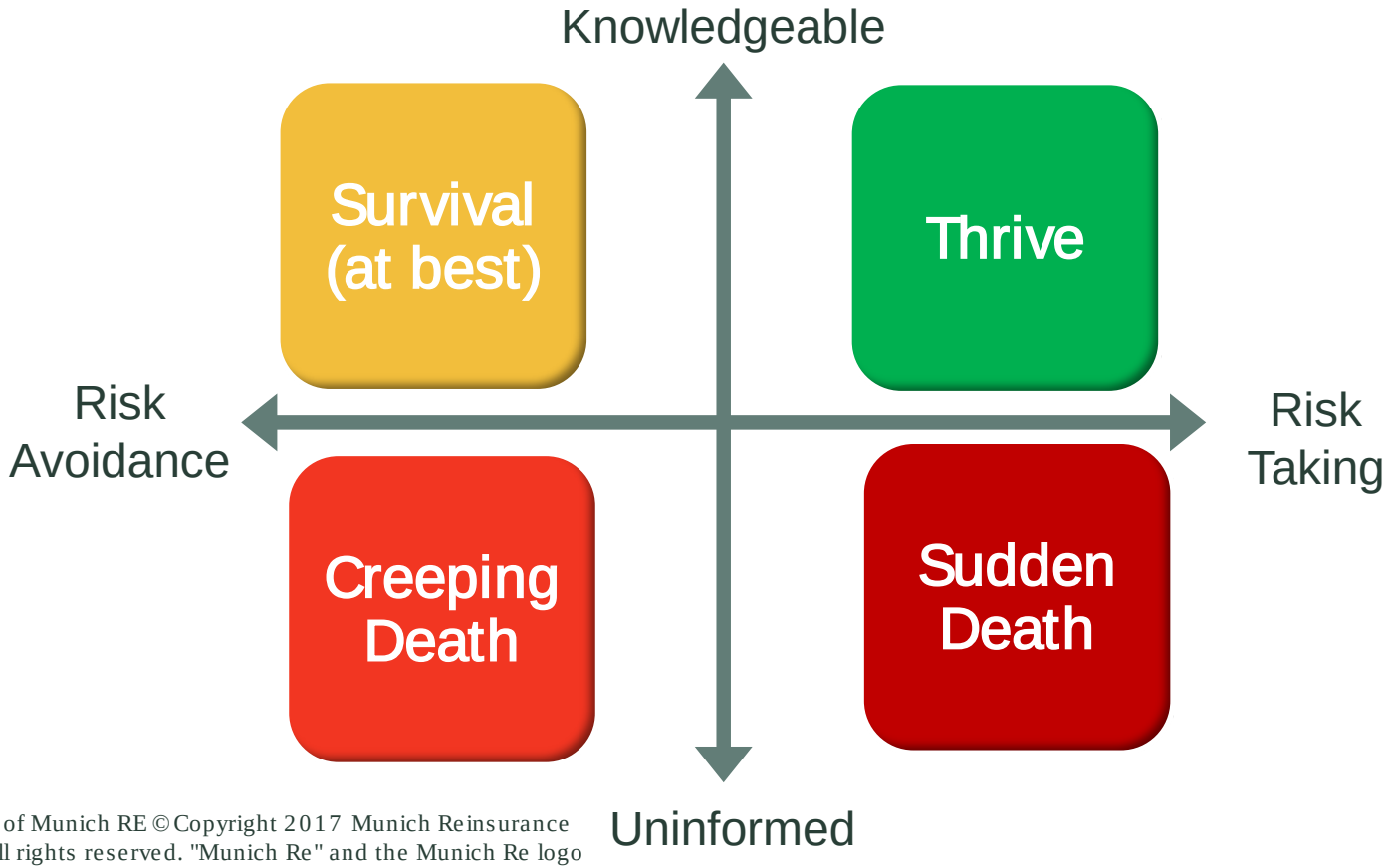
Should insurers provide drone insurance including coverage for the hull, trespass, nuisance and invasion of privacy?

Should insurers provide drone insurance including coverage for the hull, for trespass, nuisance and invasion of privacy?

- Alternatives
  - Don't insure and avoid potential losses, but
    - Competitors that provide these coverages gain data and knowledge that could enable them to write these coverages very profitably in the future
      - Conditioned that these "early insurers" survive any actual financial losses that they incurred when they wrote these coverages when they lacked the information and data to write these coverages profitably
  - Can writing these coverages now be viewed as an investment whose payoff may be years in the future?
    - If so, is it a good or bad investment?



Should insurers provide drone insurance including coverage for the hull, for trespass, nuisance and invasion of privacy?



Q&A

Legal notice

The information and opinions contained in the presentation are provided as at the date of the presentation and are subject to change without notice. Although the information used was taken from reliable sources, Swiss Re does not accept any responsibility for the accuracy or comprehensiveness of the details given. All liability for the accuracy and completeness thereof or for any damage or loss resulting from the use of the information contained in this presentation is expressly excluded. Under no circumstances shall Swiss Re or its Group companies be liable for any financial or consequential loss relating to this presentation.