



# OVERWATCH

A DIVISION OF AVALON RISK MANAGEMENT

## Developing UAS Insurance and Risk Management Strategies

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# Agenda

- Role of Insurance in the Risk Management Process
- Analyzing and Controlling UAS Risk
- Financing UAS Risk
- Insurance Program Structure
- Your Input is Important



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# 5 Steps to the Risk Management Process

- 1 – Risk Identification
- 2 - Risk Analysis
- 3 – Risk Control
- 4 – Risk Finance
- 5 – Risk Administration



**Risk Analysis  
and Control  
are key !**

# UAS Risk Analysis

- **Is Unmanned flight safe?**
  - **How can a UAS Detect and Avoid and safely operate in the commercial airspace?**
  - What are the proper pilot/operator/observer qualifications?
    - Training
    - Licensing
    - Hours of experience
- Is Privacy an issue?
- ***Is the Perceived Risk higher than Reality?***



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## **U.S. SUPPORTS SOME DOMESTIC DRONE USE**

### ***But public registers concern about own privacy***

With 30,000 drone aircraft expected to patrol the nation's skies within a decade, the ***Monmouth University Poll*** finds the American public supports many applications of this technology. Routine policing, though, is not among them.

A majority of Americans have heard either a great deal (27%) or some (29%) news about the use of unmanned surveillance drones by the U.S. Military. Another 22% have heard only a little and 22% have heard nothing at all. The Department of Homeland Security has also been developing drones to patrol the nation's borders and the Federal Aviation Administration (FAA) has been revising rules to widen the use of drones for other domestic purposes.

# What is the Public Perception of a UAS?

**Safe and Manageable**



**Scary and Threatening**



**Perhaps the biggest risk to commercial UAS operations is negative public opinion and lack of real information**

# UAS Risk Control

- Manufacturer system design and production, testing and **modifications (payloads)**
- Formal Civilian Undergraduate Training Programs
  - Kansas State University, Salina, KS and others offering UAS Aviation course
  - PIC Situational Awareness and Management of Human Factors
  - Military/Defense Training Programs (entering civilian aviation after service)
- Improving UAS flight safety
  - Ground station controls (Human Factors and Situational Awareness)
  - UAS Sensor Systems and Programming (sense and avoid)
  - Air space management procedures (Regulatory Policy)



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# Financing UAS Risk – Role of Insurance

- Availability of commercial insurance is key to the overall risk management process – Perception and Product
- If something is uninsurable, like the peril of war, then it is typically viewed as “High Risk”
- Lack of UAS insurance products creates a “High Risk” perception that UAS operations are “Too Risky”
- Need to create insurance products to answer the demands of the users, regulatory bodies and the general public (liability)





# UAS Insurance Structure

- Property
  - Hull, Spare Parts all property related to use
  - Coverage while in flight
  - Coverage while on the ground
    - Storage
    - Transit
    - Loading and Unloading
    - Wind, Hail, Fire, Lightning, Explosion, Flood, Earthquake
    - Theft
  - Property of Others (Payloads) in your Care or Custody

# UAS Insurance Structure

- Liability
  - Bodily Injury
  - Property Damage
  - Privacy/Personal Injury/Cyber Liability
  - Pollution Cleanup and Removal
  - Intellectual Products, Trademarks, Patents
  - Product Liability
  - Directors and Officers



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# UAS Insurance Policy

- **Commercial UAS Professional Aviation Insurance Policy**
  - One Policy with all coverages added per the insured's needs
  - Integrating most of the aviation coverage already available
  - Adding coverage for UAS specific risks
  - Reinsured in the London Market and primarily insured in the country of operation (Canada or USA or other countries)
  - Deductible levels variable but generally set above the expected operational losses
  - Coverage for Prototypes during R&D would be limited



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# Creating and Modifying the Policy

- Formulate coverage and adapt it over time
- Follow the changing regulations and guidelines (FAA)
- Remain closely involved with groups like Unmanned Systems Canada in order to understand the changing risk profiles – possibly create “group insurance solutions”
- Work with manufactures to offer insurance with the sold products creating a baseline of coverage for the industry



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# Your Input is Crucial

- Your input is very important – you understand the risks and are creating the necessary solutions that make UAS flight operations safer and ultimately easier to insure
- We appreciate any open source information that you would like to share with us or your specific requirements for a insurance coverage
- This helps us to develop the right kind of policies and products for you and the entire industry



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