


## Basic Helicopter Risk Management and Safety

Presenter:  
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## Basic Helicopter Risk Management and Safety

- » Hull and Liability
- » General Liability
- » Underwriting Challenges
- » Coverage Concerns
- » Claims Handling
- » Safety/Risk Management Issues



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## The Basics

- Hull Insurance
  - What's covered
  - Agreed Value
  - Attached Parts
  - Deductibles



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### The Basics

- Liability
  - Bodily Injury
  - Property Damage
  - Passenger liability
  - Supplemental Coverage



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### The Basics

- Coverage's
  - The Agreed Value
  - Installation Expenses
  - Airworthiness Certificate
  - Emergency Landing Expenses
  - Additional liability Requirements
    - Depending on Use
      - Cargo Legal
      - Slung Use
      - Medical Interiors
      - ENG Equipment



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### The Underwriter

- Underwriting Tools
  - Risk Selection
  - Pricing Tool (Technical Rating)
  - Loss Study (Burn Rate)
  - Company Guidelines
  - Industry Involvement (Knowledge)



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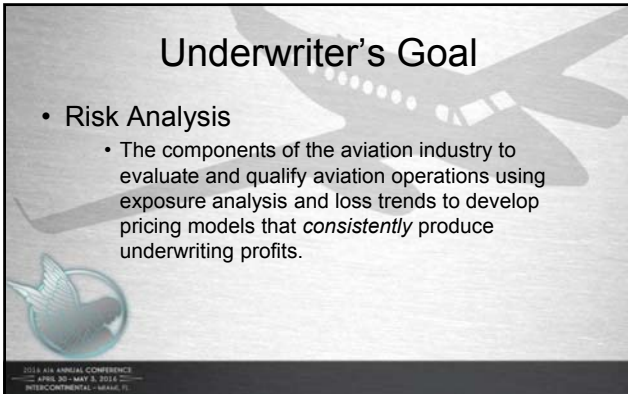
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## Underwriter's Goal

- Risk Analysis
  - The components of the aviation industry to evaluate and qualify aviation operations using exposure analysis and loss trends to develop pricing models that *consistently* produce underwriting profits.



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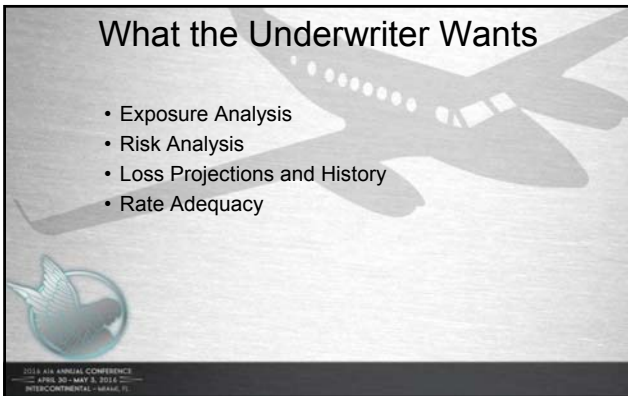
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## What the Underwriter Wants

- Exposure Analysis
- Risk Analysis
- Loss Projections and History
- Rate Adequacy



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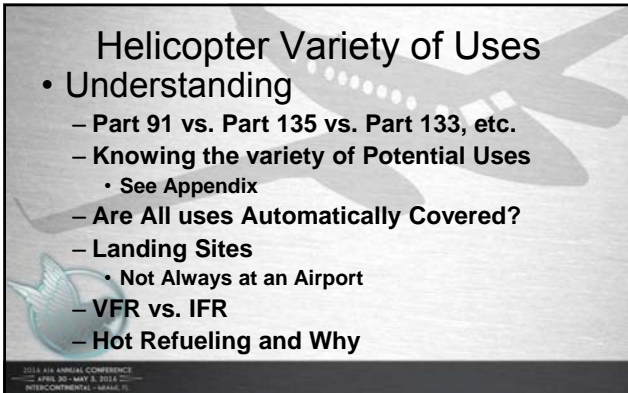
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## Helicopter Variety of Uses

- Understanding
  - Part 91 vs. Part 135 vs. Part 133, etc.
  - Knowing the variety of Potential Uses
    - See Appendix
  - Are All uses Automatically Covered?
  - Landing Sites
    - Not Always at an Airport
  - VFR vs. IFR
  - Hot Refueling and Why



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## Many Uses of Helicopters

- Corporate
- Passenger Charter
- Lifting/Slung
- Logging
- Filming
- Banner towing
- Off-Shore Support
- Traffic Patrol
- Fish Spotting
- Farming, Ranching, Hunting
- Electronic News Gathering
- Heli-skiing
- Firefighting
- Topography/Mapping
- Agricultural
- Wire Stringing
- Powerline Patrol
- Pipeline Patrol
- EMS
- Police Patrol
- Mosquito Abatement
- Sales Demo
- Pole Setting
- Construction
- Tree Cutting
- Seeding/Pollinating (R-22's)
- Sightseeing
- Frost Control
- Search and Rescue
- Private Use
- What we haven't thought of

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## Helicopter Deductibles

- Industry Standard (*Or use to be*)
- What "In Motion" Really Is
  - Caution Ground Run-ups (In-flight or not)

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## Helicopter Claims Handling

- **The Implication of Deductibles**
  - What's attached or installed????
- **Partial Loss**
  - What May be Involved
  - Time Life Components
  - Deductible
  - Insured Value
- **High Profile Accidents**
  - Type of Passenger (*Program base vs. Hospital*)
  - Types of Uses – ENG/EMS etc.

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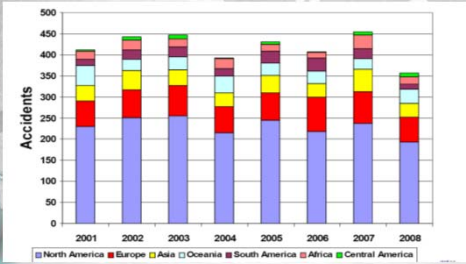
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## Helicopter Accident Trending



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## Helicopter Accident Trending



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## Helicopter Safety Risk Management



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## U.S. Helicopter Trends

- **Number of civil helicopter accidents** 2014 2013 2012 2011 2010
- Total number of civil helicopter accidents 36 44 67 58 57
- Total number of fatal helicopter accidents 5 6 5 4 10
- Total number of fatalities 7 10 9 4 23
- Total number of serious injuries 10 5 15 16 11
- Total number of minor injuries 26 15 27 19 9
- **Accident rate per 100,000 flying hours** : 2014 2013 2012 2011 2010
- Accident 2.02 2.53 4.23 3.77 3.81
- Fatal accident rate 0.28 0.35 0.32 0.26 0.67
- Fatal injuries rate 0.39 0.58 0.57 0.26 1.54
- Serious injuries rate 0.56 0.29 0.95 1.04 0.73
- Minor injuries rate 1.46 0.86 1.70 1.23 0.60

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## Helicopter Insurance Claims

<u>U.S. CIVIL TURBINE ENGINE ACCIDENTS</u>						All
	2004	2005	2006	2007	2008	
Accidents	89	89	77	82	61	
Fatal Accidents	21	19	12	<b>14</b>	<b>19</b>	
Fatalities	51	33	21	<b>27</b>	<b>59</b>	

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## Helicopter Accident Trend

<u>U.S. Civil Turbine Engine Accident Rates</u>						Allianz
(per 100k hours flown)						
	2004	2005	2006	2007	2008	
Accident Rate	4.41	3.65	3.05	3.14	2.27	
Fatal Accident Rate	1.04	.78	.48	<b>.54</b>	<b>.71</b>	
Fatalities Rate	2.52	1.35	.83	<b>1.03</b>	<b>2.19</b>	

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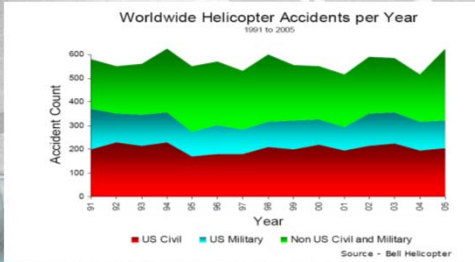
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## Helicopter Accident/Claim Trend



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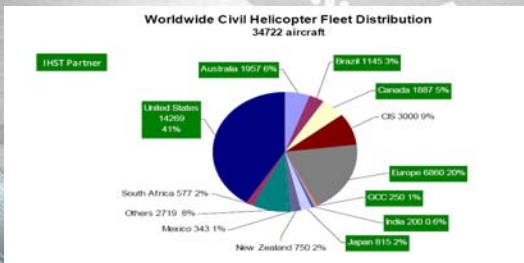
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## Helicopter Distribution



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## Underwriting Loss Data Review

### Data Acquisition:

Data fidelity is key to any effective loss trend analysis. In addition to accurate loss data, any known or expected change in exposure must be a part of any study so as to avoid gaps between actual loss and expected loss costs. The favored method for gathering both loss experience and exposure change data is from a broker provided underwriting submissions. As policy year loss data matures annual submissions capture any loss development.

- Companies do not share the Loss Data.

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## Accident/Claims Management

1. We have a worldwide challenge/opportunity
2. Accident rate (frequency) on the decline but remains unacceptable, especially in certain Heli segments
3. Increases in exposure (severity) have grown dramatically in recent years (values and seating)
4. Forecast is for continued Exposure Growth
5. Over-Capacity and lack of market leadership stunting a much needed market realignment, or a new normal?
6. Predicting hull frequency of loss relatively easy but severity of hull loss much more challenging
7. Predicting who will have the large liability loss remains difficult

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## Helicopter Safety Management Insurance Challenge

- *The insurance industry, which is based on economic decisions and is a business required to be profitable, should not be considered as the governance or regulator of any safety program or initiative. (LM)*
- Safety Programs will be used to the benefit of the Insurance Company.
  - To be competitive or to be Proactive

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## Helicopter Safety Risk Management Implementation Strategies

- HAI, industry organizations, and safety teams such as PALMATT are providing educational sessions at conventions, regional seminars, and industry meetings.
- Events are educating the community as well as the operator and are often segment specific.
  - decision makers*
  - insurance underwriters & brokers*
  - government agencies*
  - general public*

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# Helicopter Risk Management

**Simulation**  
How is it used?



Simulating:

- Type of Operation
- Offshore
- EMS
- Law Enforcement
- Tour
- ENG
- Fire
- Corporate
- Utility
- Etc.

**Scenario Based Training**

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# Training

**Simulation**  
Human Factors



- Crew Operations
- Single Pilot
- Non-flying Crew
  - Medical crew
  - Observer
  - Tactical flight officer
- Resource Management – CRM, AMRM etc.

**Helicopter Operations**

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# Technology

**Simulation**

- Training the new technology



- GPS
- TAWS
- NVG
- ADS-B

**Technology / Human Factors**

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## Helicopter Simulators

- Level D Sims
- Level 6 & 7 Flight Training Devices (FTDs)
- Professional Training Companies
  - FSI, Metro, CAE
- Helicopter Manufacturers
- In-House Operator Training Centers
- Computer Based FTD Sims

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## Industry Supporters

### Simulation

Who recommends simulation?

- IHST
- NTSB
- Regulatory Agencies
- Accident Investigation
- Insurance Companies
- Industry Associations
- Airplane Operators

**It works!**

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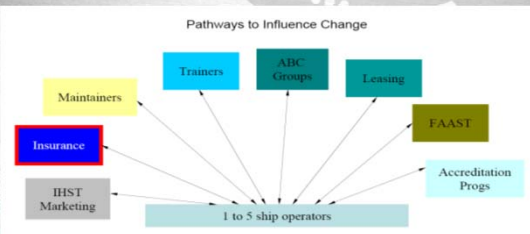
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## Helicopter Safety Awareness

Pathways to Influence Change



We need to find high leverage means to influence the small ops community

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### The Brokers Involvement

- Provide the underwriting perspectives on insuring helicopters
- Discuss ways the insurance industry can support the IHST's/HAI's goals. Become involved!
- SMS support and understanding
- Support Training
- Understand the systems and equipment (FDM, mission related equipment)
- Engage the customer on how operators and the insurance industry can work together to achieve the IHST's/HAI's safety goals

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### The Broker's Objectives

- *Sell Insurance*
- Identify New Clients
- Renew existing clients
- Service the client's insurance issues
- Negotiate terms and coverages
- *Sell insurance*  
- *Is Safety a consideration???*

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### Broker/Underwriter Relationship

- Provide requested underwriting information to the insurance company
- Communicate required/requested information to and from the client
- Negotiate the terms and conditions on behalf of the client
- Broker represents the client on all insurance or claim issues

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## Insurance Market Conditions

- Aggressive sales strategy
  - We can do an SMS for you!
  - Broker quoting
  - Gizmo Discounting
- Soft market lacks underwriting standards
- Not all underwriters on the same page
- Markets in and out of Aviation Insurance
  - Changes in capacity
  - Changes in underwriter standards

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## Underwriting Results

- Individual Companies have their own guidelines based on their underwriting performance.
- The volume of business in any given category. (Rotorwing premium vs. losses)
- Using Risk Management or Safety Programs as part of the underwriting process. (SM4) (IHST) (Safety Bucks) (ORM) (Audits)

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## IHST & HAI Influence

- Continuance of the safety Initiatives
- Informational Packets
- Web Site Information
- Educational Seminars
- Sharing Results
- PalMatt ☺
  - PalMatt Aviation Safety and Risk Management Symposium

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## IHST & Aviation Insurance

- Recommended that Insurance underwriters request brokers to identify operators that participation in IHST Initiatives. (Cultural)
- IHST through various resources continue to educate and inform underwriters and brokers the initiatives and results.
- Recommend “Helicopter Insurance Brokers” to inform and educate operators of the IHST Initiatives and results.
- The insurance industry is not going to change the safety culture. **It is the safety culture that will change the insurance industry.**

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## Risk Management Teamwork

- It's all about team work, understanding each others role, responsibilities, objectives, and how to “encourage” the industry of the benefits.
- It's all about the operators. It's cultural, operators should want to do the training and install the devices without the Insurance Industry telling them to do so!
- We are the Safety Preachers, get the message out there to the Operators.

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## Questions?

Thank You.....

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