



**United States Helicopter Safety Team**

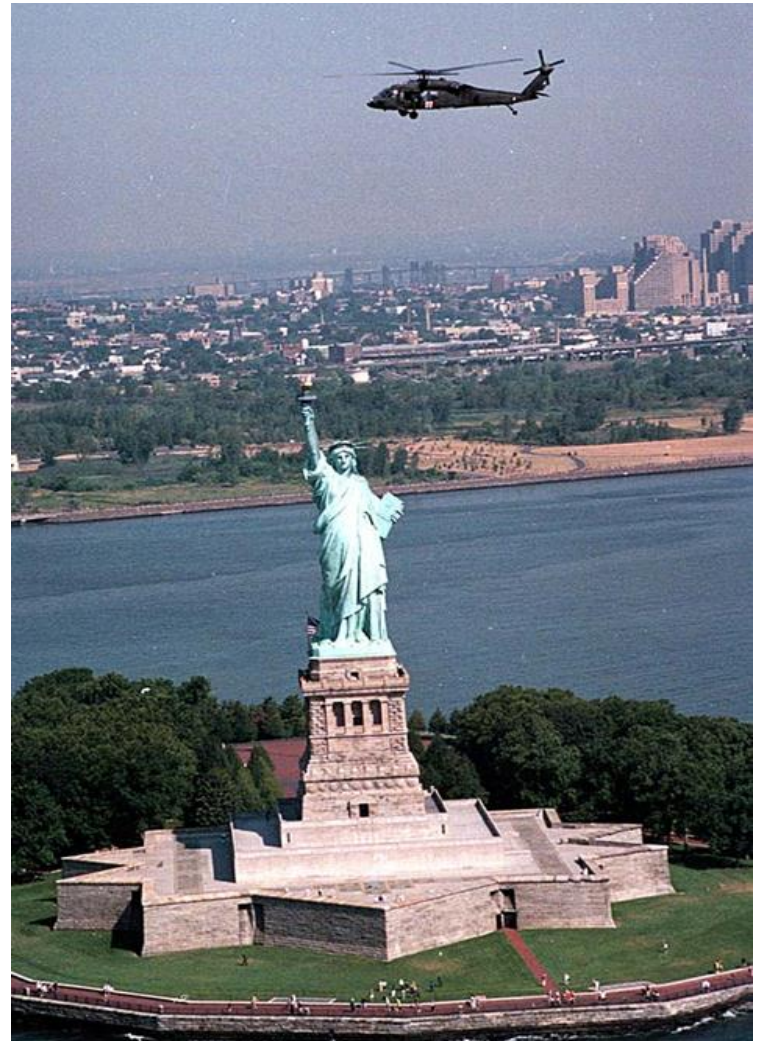
**Our Vision: A Civil Helicopter Community with Zero Accidents**



# U.S. Helicopter Safety Team

**Reduce Fatal Accidents**

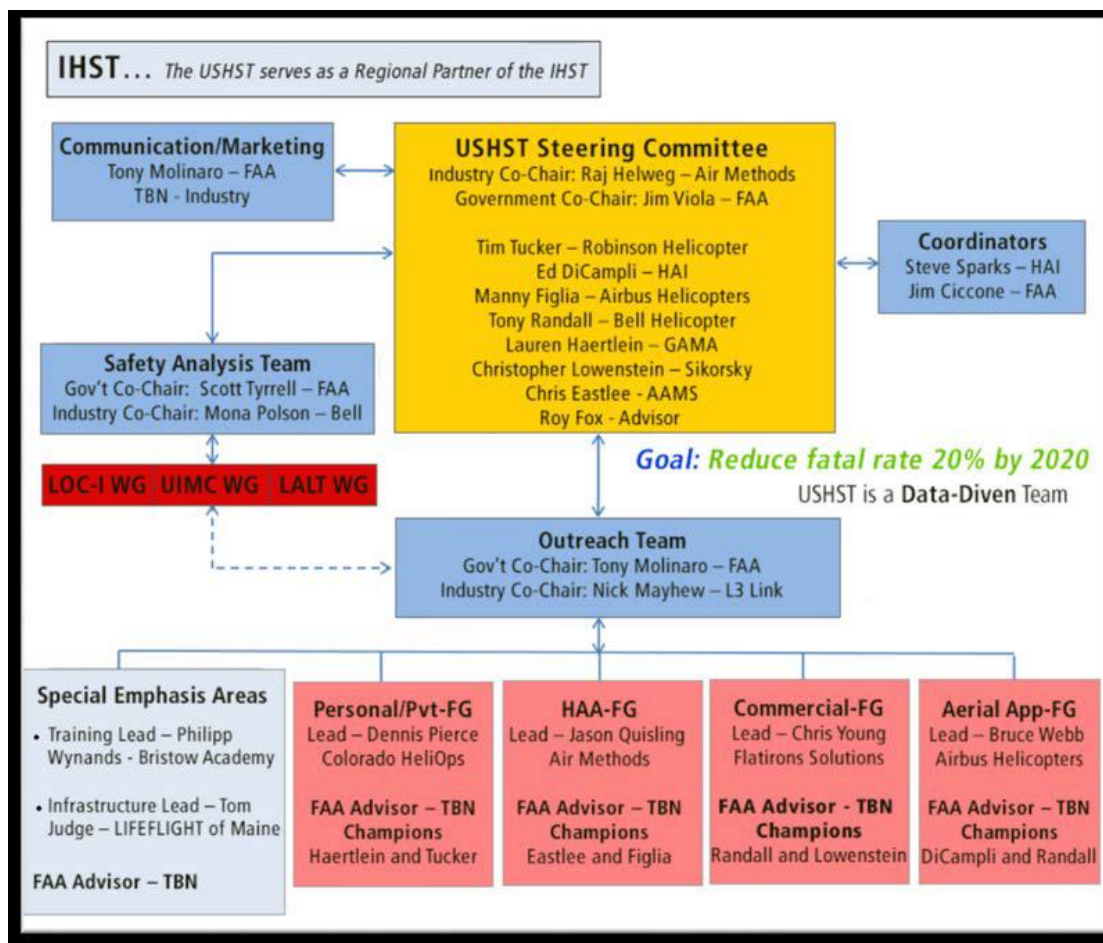
**20% by 2020**



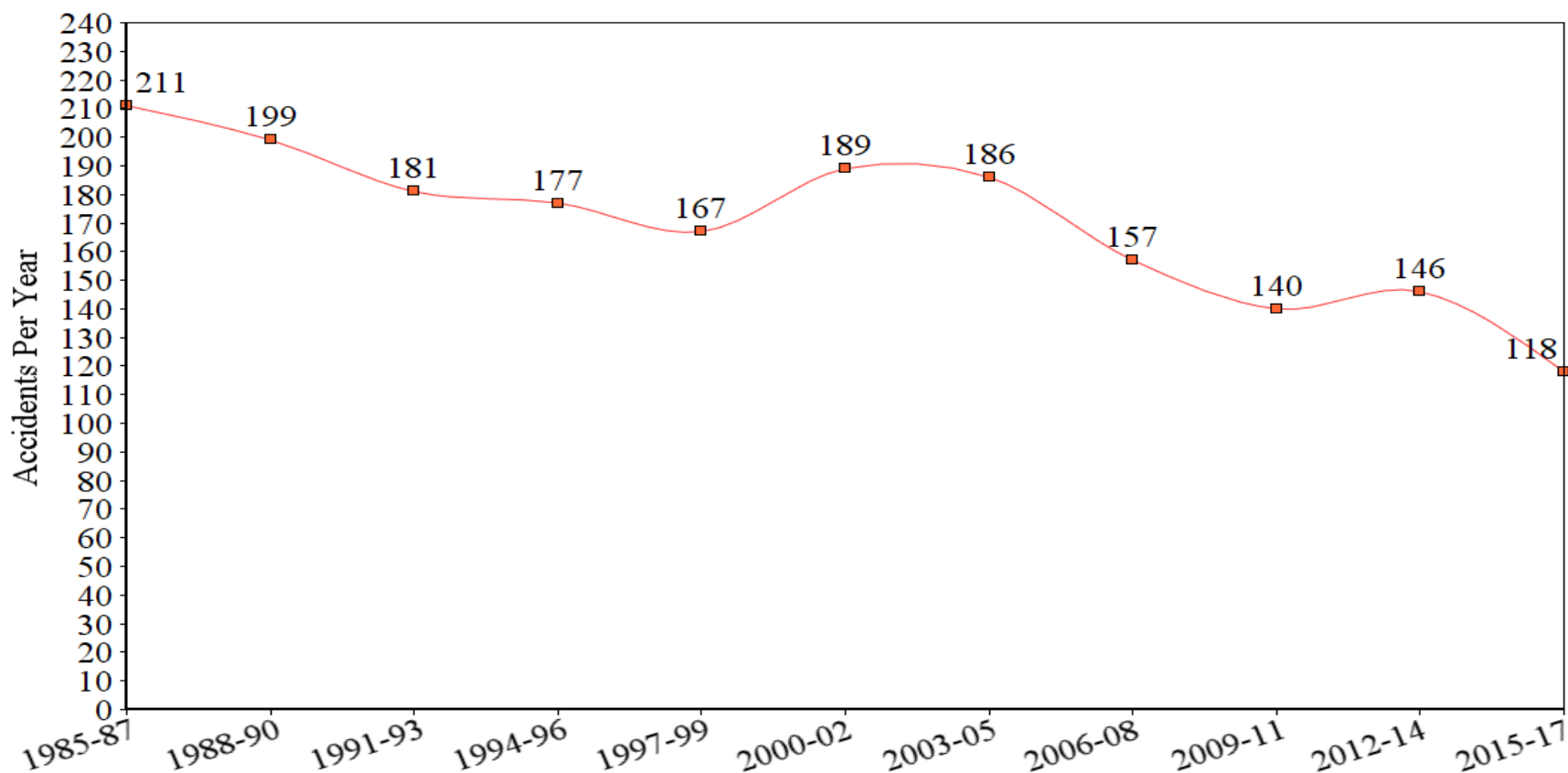
# USHST

- Industry/government cooperative effort since 2013.
- Includes FAA, manufacturers, operators, associations, training schools, etc.
- Goal of lowering fatal accident rate 20% by 2020.
- Team is proposing and initiating 22 data-driven safety enhancements aimed at reducing fatal accidents.

# USHST Structure



### U.S. Total Helicopter Accidents Per Year - 3-Year Time Periods







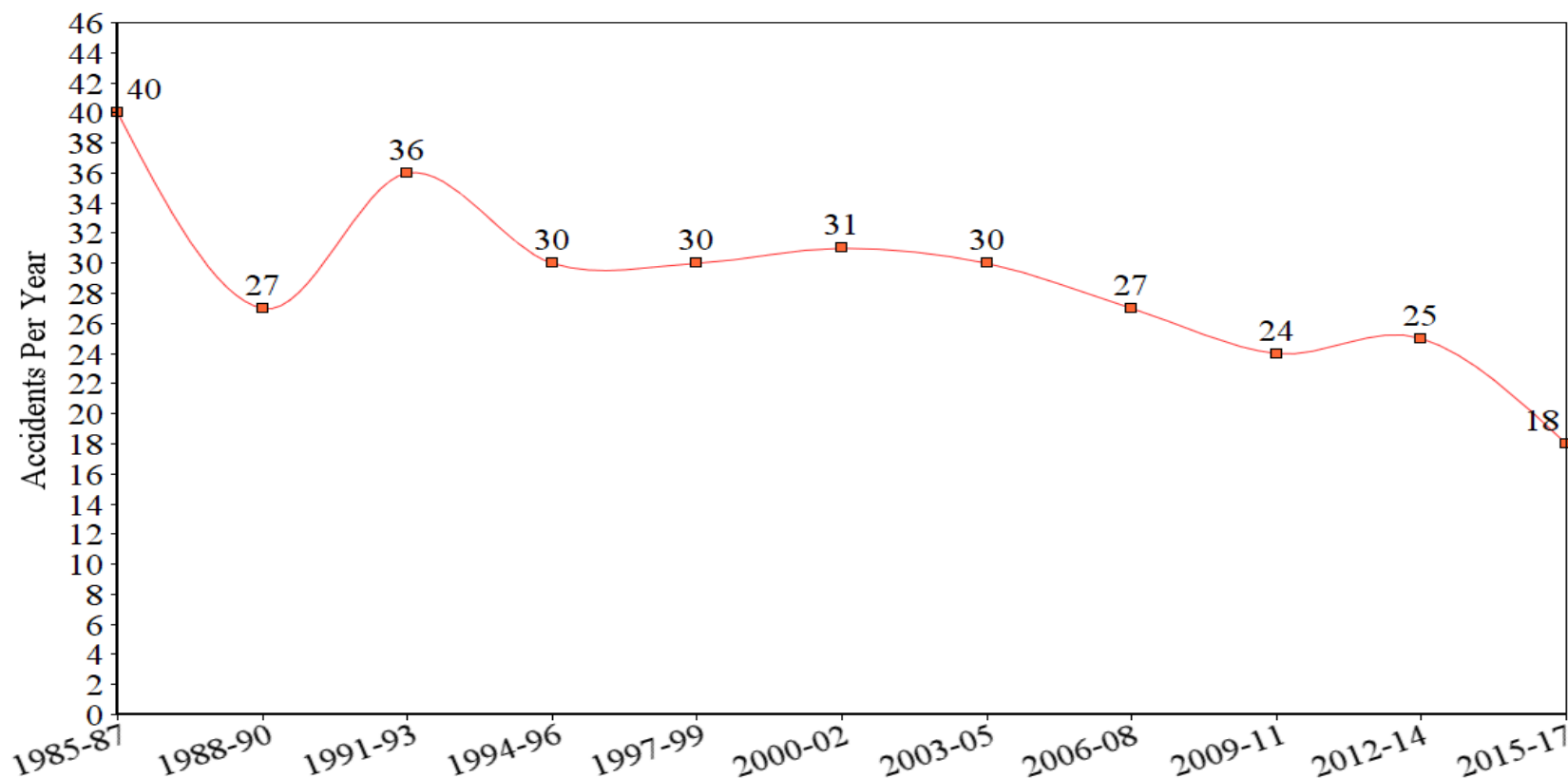
# USHST

## United States Helicopter Safety Team

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### U.S. FATAL Helicopter Accidents Per Year - 3-Year Time Periods

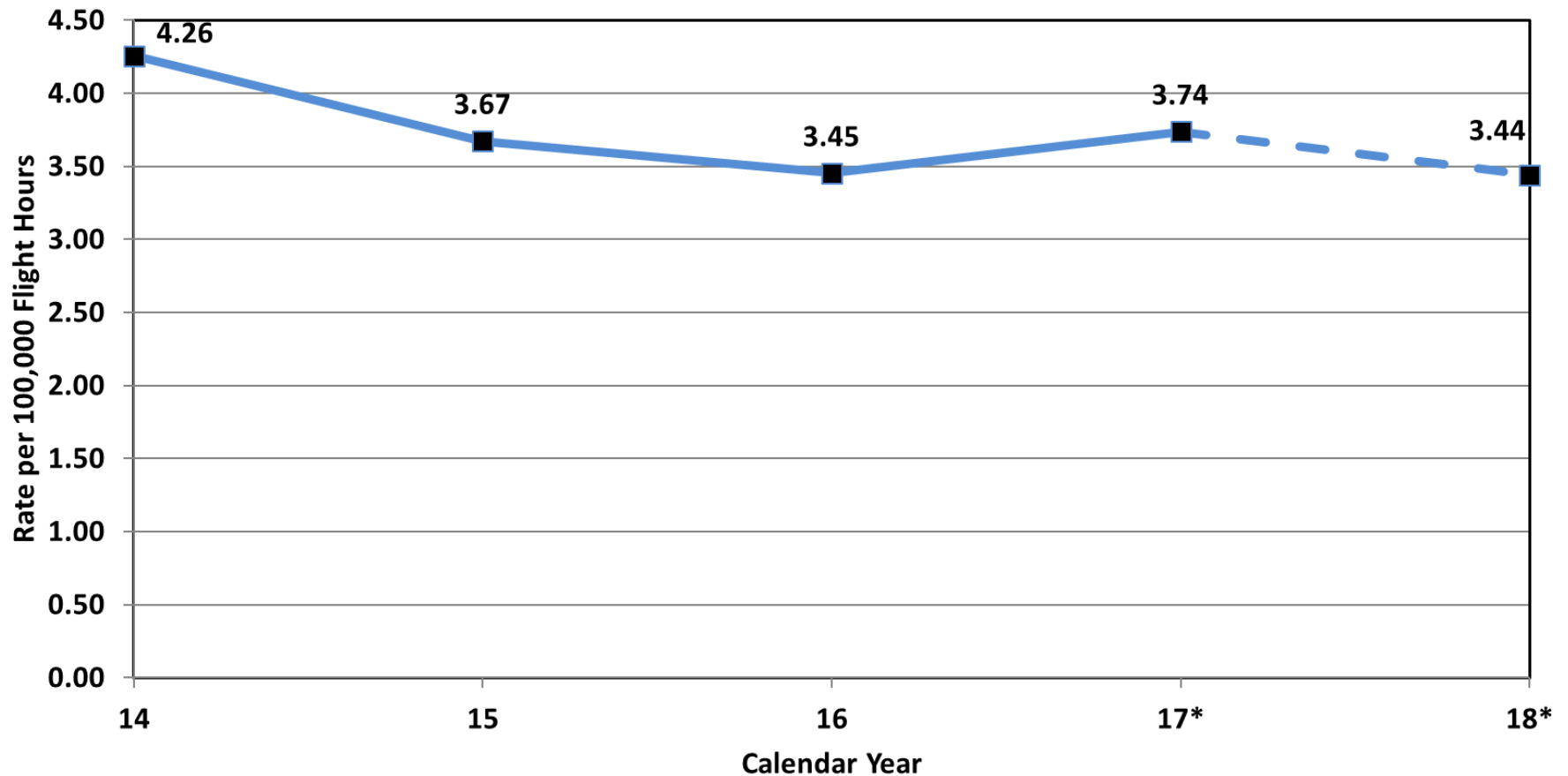




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## U.S. Helicopter Accident Rate

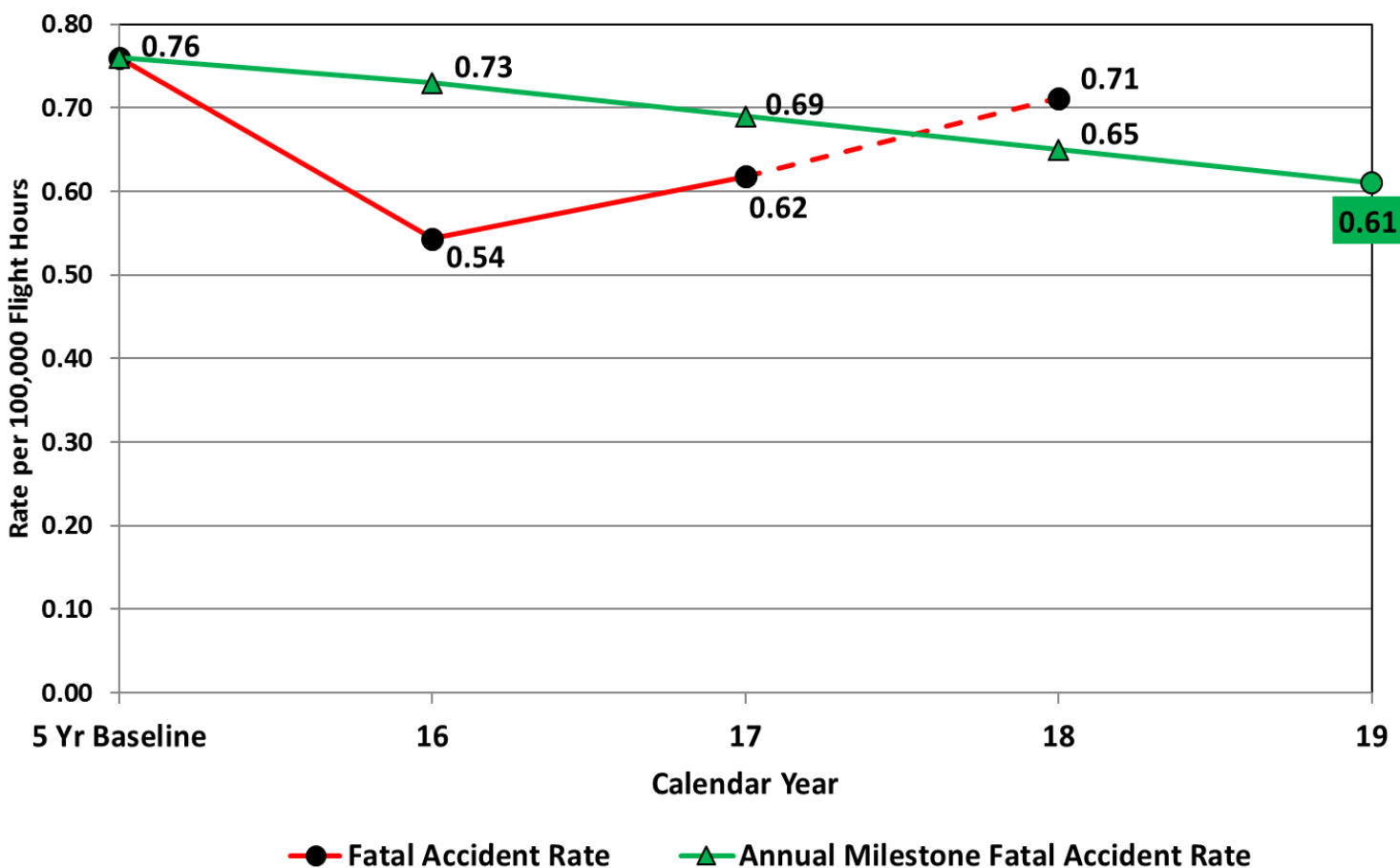




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## U.S. Helicopter Fatal Accident Rate



Goal by  
end of CY  
2019:  
20%  
reduction  
from 5  
year  
baseline



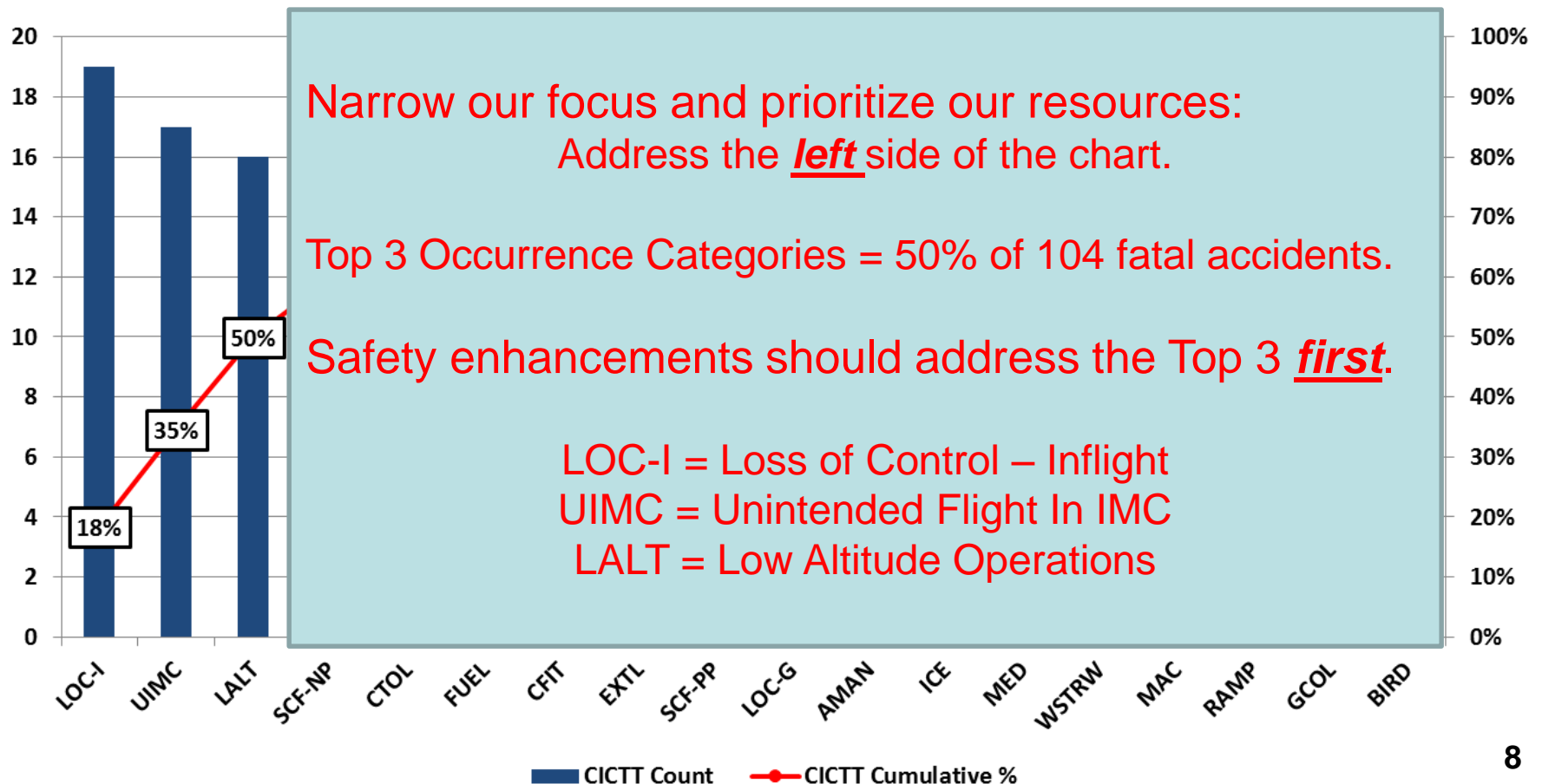
# USHST

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### Fatal Accidents by Priority Occurrence Category (104 fatal accidents)







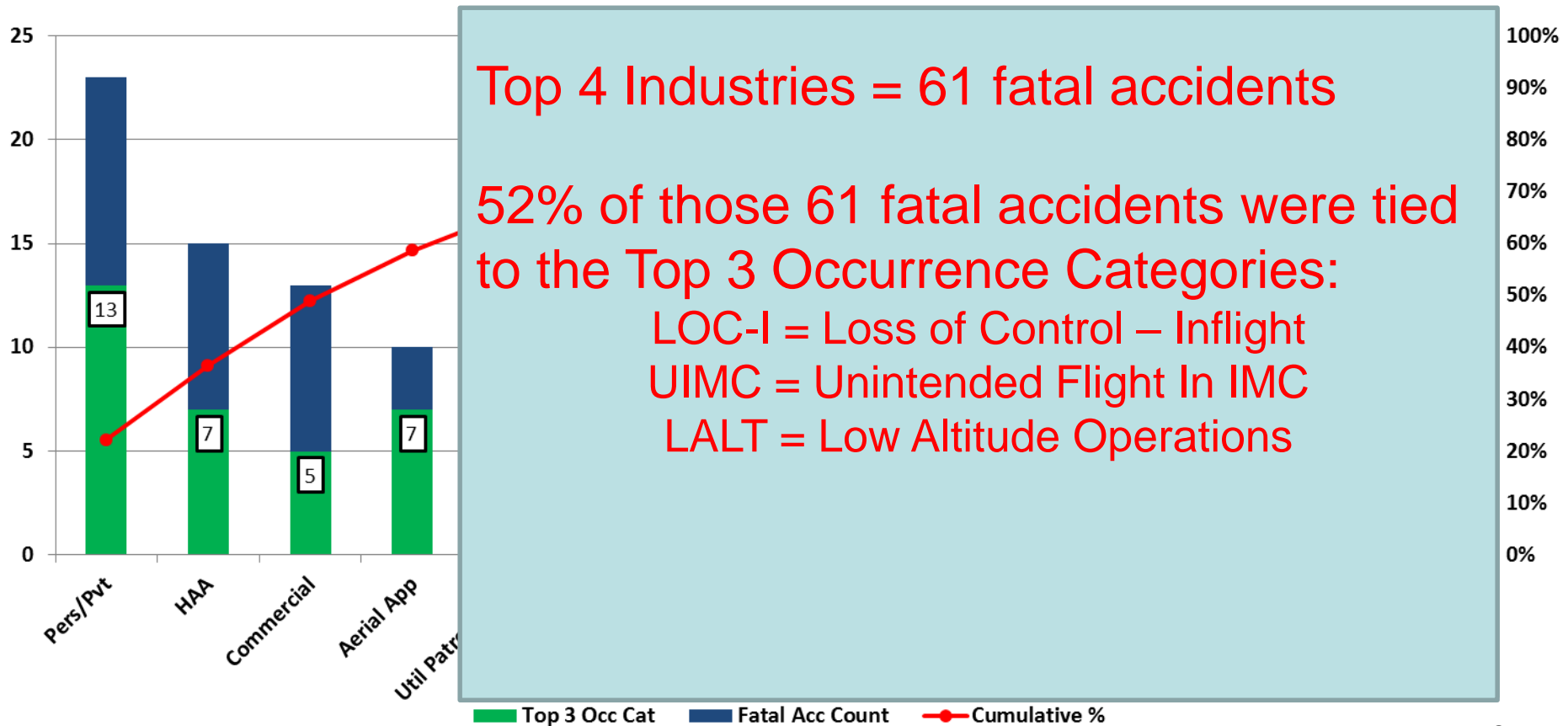
# USHST

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### Fatal Accidents by Industry (104 fatal accidents)



## Safety Enhancements Visibility and Loss of Control initiatives

- Detection and Management of Risk Level Changes During Flight (22A)
- Progressive Approach to Training Autorotations (37)
- Training for Recognition & Recovery of Spatial Disorientation (127)



## Safety Enhancements Risk Management initiatives

- Helicopter Final Walk Around & Security of External Cargo (28)
- UAS in High Risk Environments (90)
- Pre-Flight Risk Assessment for Student Flights (125)
- Hazards of Over the Counter Medication (130)





## Safety Enhancements Enhanced Training initiatives

- Simulator Modeling for Outside-the Envelope Flight Conditions (81)
- Threat and Error Management Training (115)
- Make & Model Transition Training (116)
- Standardization of Autorotation & Emergency Handling Training (122)
- Simulation/Education to Develop Safe Decision Making (123)



## Safety Enhancements Technology initiatives

- Stability Augmentation System/Autopilot (70)
- Technology to Prevent Loss of Engine Power (75)
- Helicopter Flight Data Monitoring (82)
- Enhanced Helicopter Vision Systems (91)
- Develop Digital Co-Pilot (100)





## Safety Enhancements Pilot Competency initiatives

- Utilities and Construction Practice Guide (13)
- Safety Culture and Professionalism (19A)
- Develop Airman Certification System for Rotorcraft (30)
- Competency-Based Trng & Assessments for Initial Pilot Training (117)
- Understanding of Basic Helicopter Aerodynamics (124)



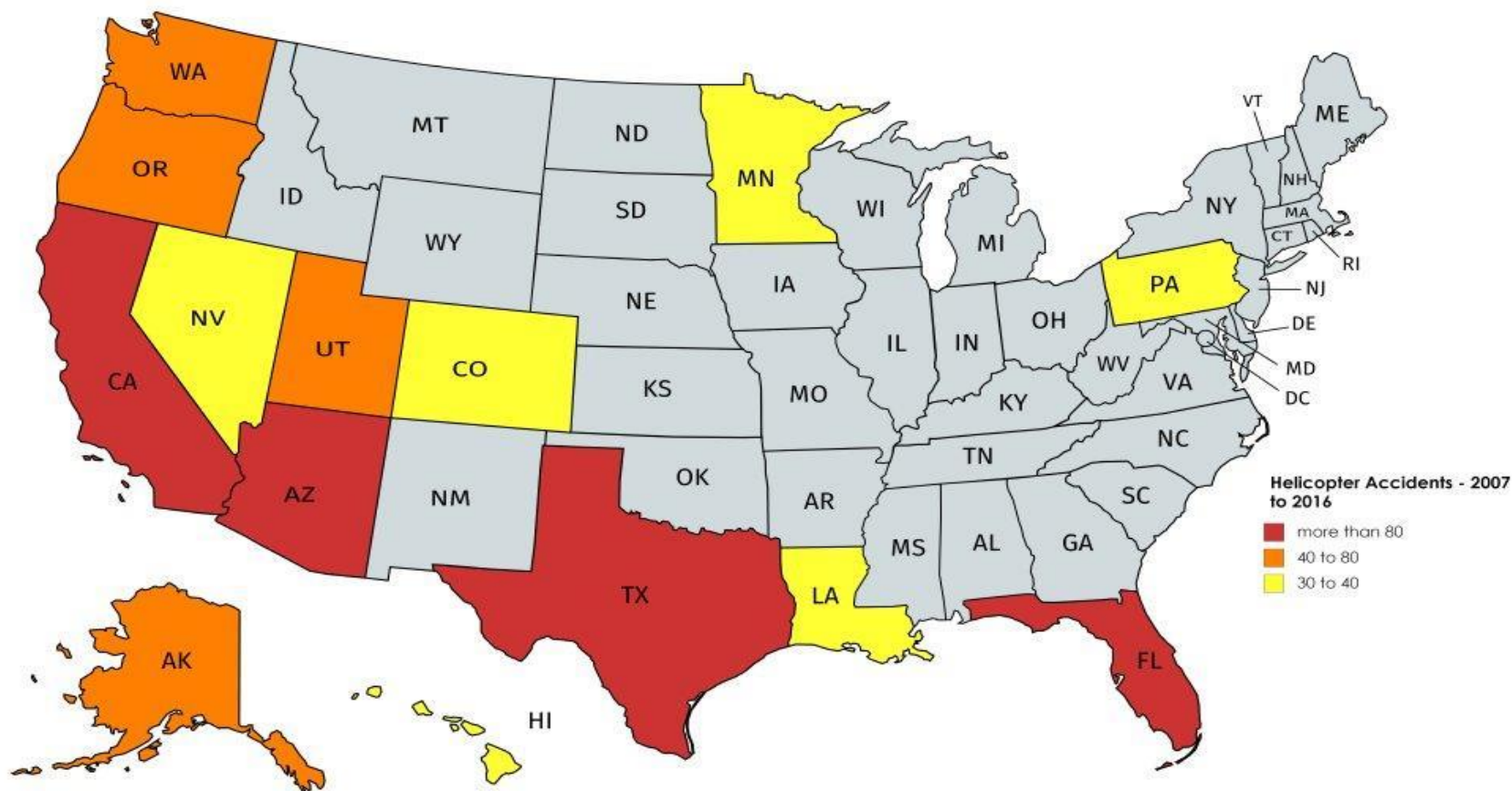


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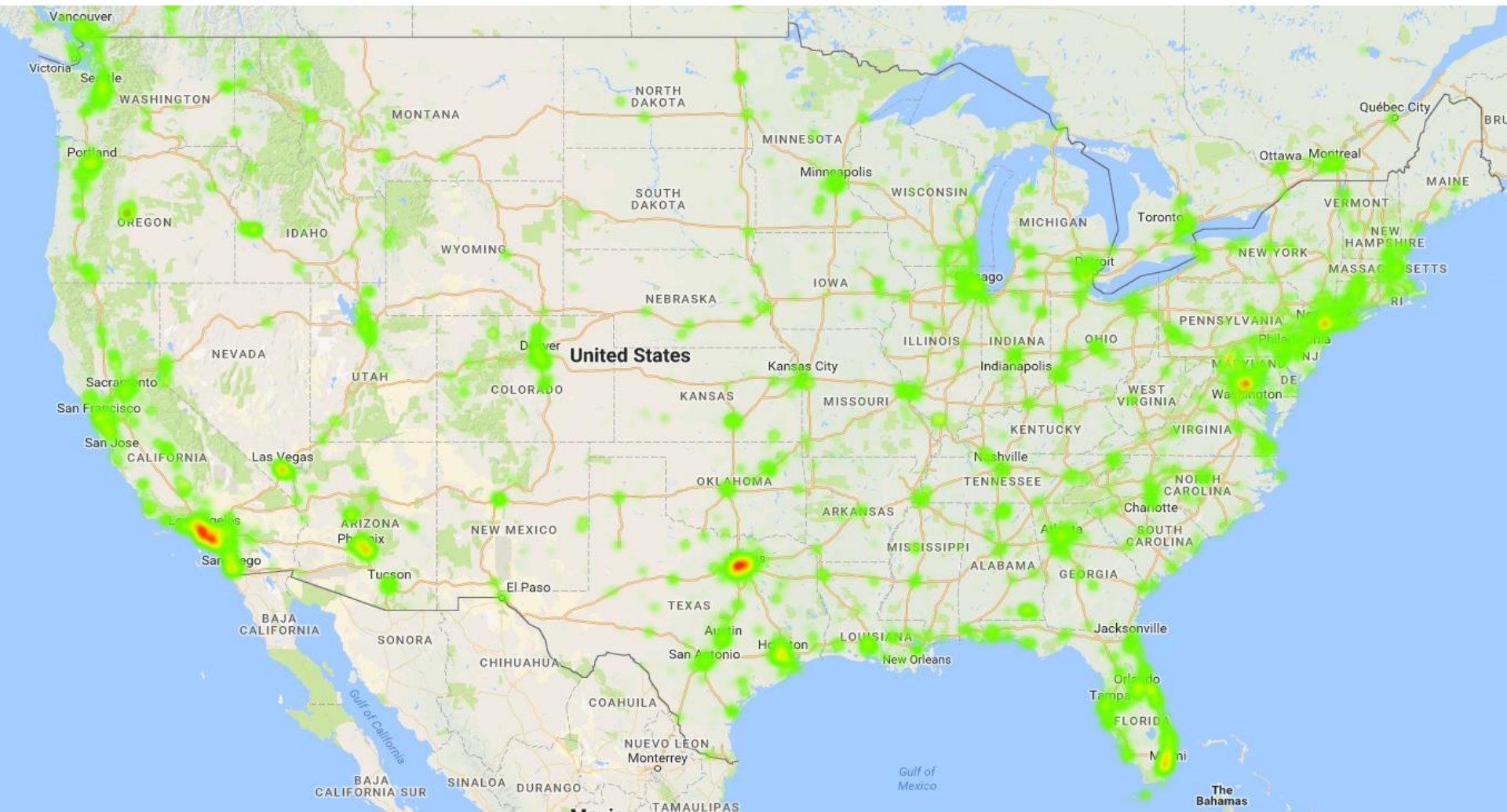


## Where We're Having Accidents in the USA



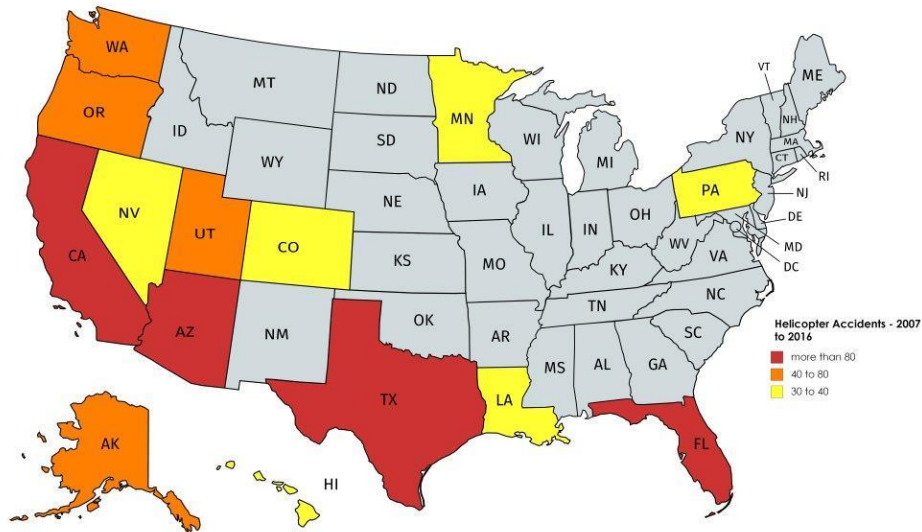


## Here's Where the Helicopters Are in the USA

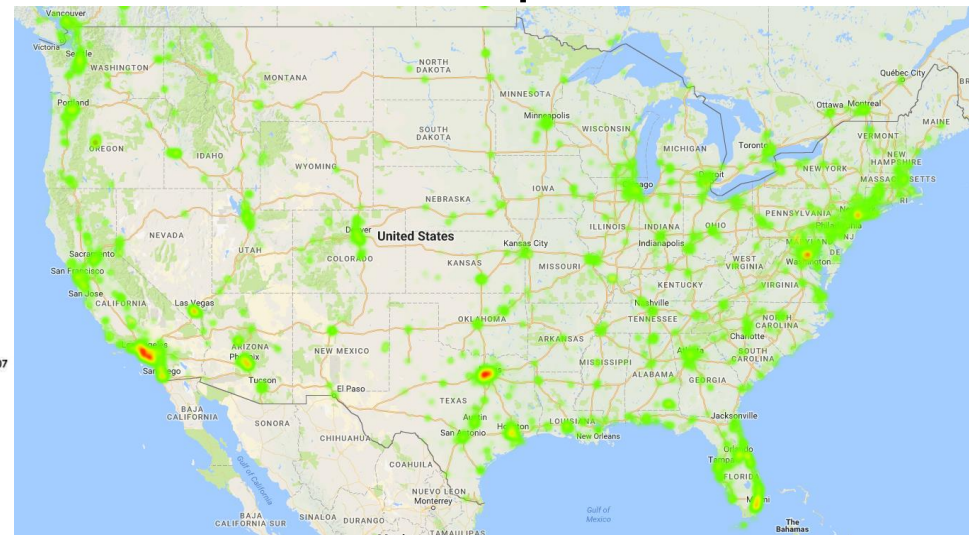


# Target Certain Areas of the Country

Where the accidents are



Where the helicopters are



- Focus on the West Coast, the Gulf states and parts of the Rockies.

- Engage in local events in Los Angeles, Portland, Seattle, Las Vegas, Phoenix, Denver, Dallas, Houston, New Orleans, Orlando.



## Industrywide Outreach Actions

- Develop workshops linked to USHST Safety Enhancements for FAA Safety Conference and for HeliExpo 2019.
- Create and distribute reports, videos and magazine articles based on progress of Safety Enhancement work.
- Re-vamp USHST web site for a stronger focus on Safety Enhancements.
- Create this “USHST 101” presentation to support our education efforts.





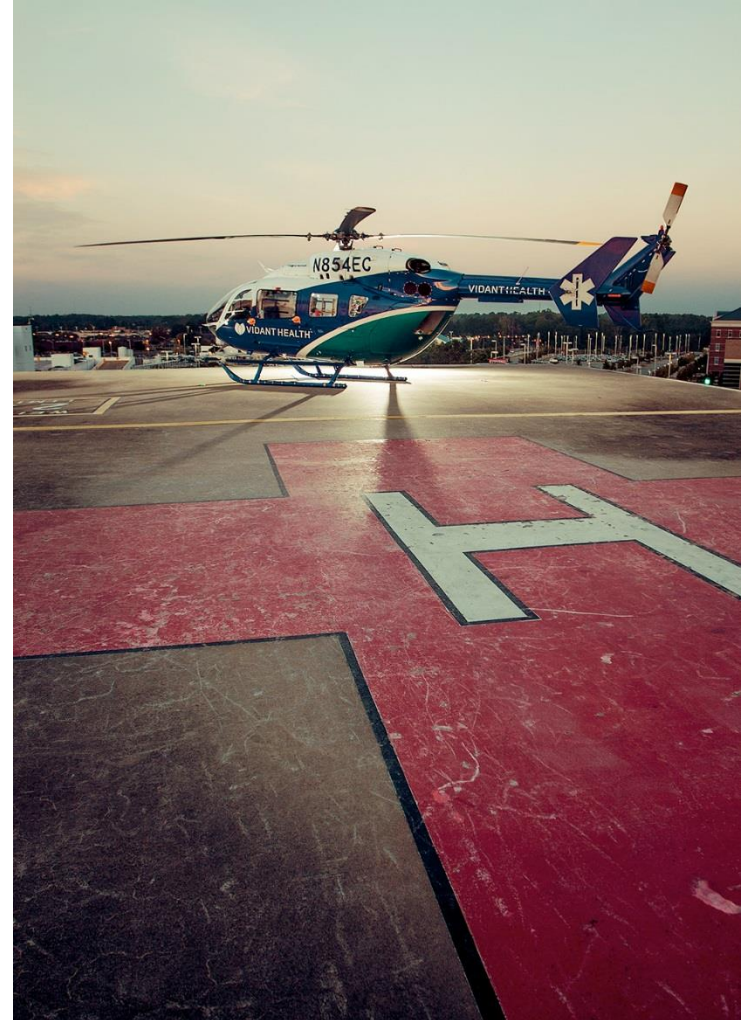
## Outreach Actions for Personal/Private Sector

- Distribute safety materials at Helicopter Safety Alliance events across the country.
- Distribute safety materials at locales where helicopter pilots may gather, such as the Rotors 'n Ribs event in Goshen, Indiana, and helicopter-focused FAASTeam seminars.
- As part of SE-19A, develop the “Go Local” workshop to be used by any team member as an interactive workshop for pilots.



## Outreach Actions for Air Ambulance Sector

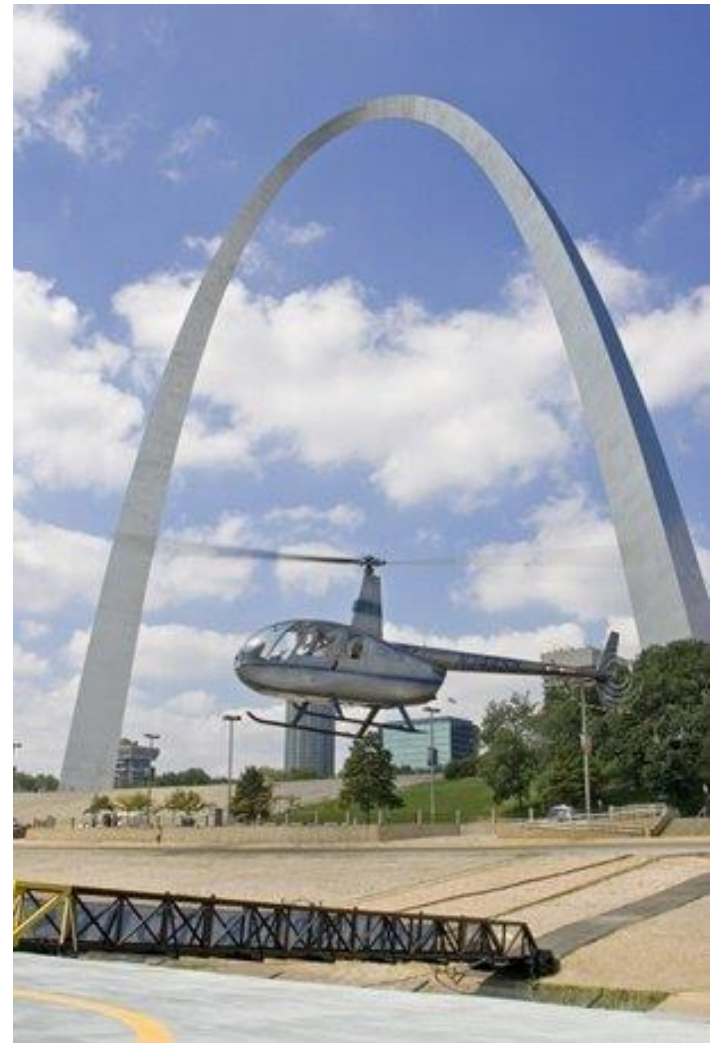
- Work with National EMS Pilots Assoc. and Assoc. of Air Medical Services to develop contact lists for distribution of safety materials.
- Attend AMTC Conference to deliver presentation on proposed Safety Enhancements.





## Outreach Actions for Commercial Ops Sector

- Engage with commercial operators at targeted FAASTeam workshop events.
- Distribute safety materials at Helicopter Safety Alliance events across the country.
- Work with HAI Tour Operators committee and Tour Operators Program of Safety to develop contact lists for distribution of safety materials.



## Outreach Actions for Aerial Application Sector

- Participate in annual convention of National Agricultural Aviation Association (NAAA) and distribute safety materials at event.
- Deliver presentation on proposed Safety Enhancements at NAAA annual conference.
- Request all state Departments of Agriculture to add the USHST web site link to their own web site home pages.



## Outreach Actions for Instruction/Training Sector

- Obtain a list of flight schools in key areas of the country and contact them for USHST “workshops.”
- Build a small-scale curriculum using key H-SE elements for a 2-3 hour workshop.
- Develop a plan to deliver these “train the trainer” sessions to these targeted schools. (face-to-face, online, via FAASTeam, via universities, etc.)







[www.USHST.org](http://www.USHST.org)

Facebook: @SafeHelicopters

Twitter: @IHST\_helicopter



# How to Join the Safety Effort

Help on a Safety Enhancement team

Distribute our thumb drives.

Place our web site link on your web site home  
page.

