



NTSB National Transportation Safety Board

**Some Issues
of Interest
to the
NTSB**

Presentation to: NATCA
Communicating for Safety 2011
Name: Christopher A. Hart
Date: March 22, 2011

Outline

- NTSB Basics
- Some Issues of Interest To NATCA
- Some Future Concerns

NTSB Basics

- Independent agency, investigate transportation accidents, all modes
- Determine probable cause(s) – but not blame or liability – and make recommendations to prevent recurrences
- Single focus is safety
- Primary product: Safety recommendations
 - Cannot impose requirements, but recommendation acceptance rate > 80%

Some Issues of Interest

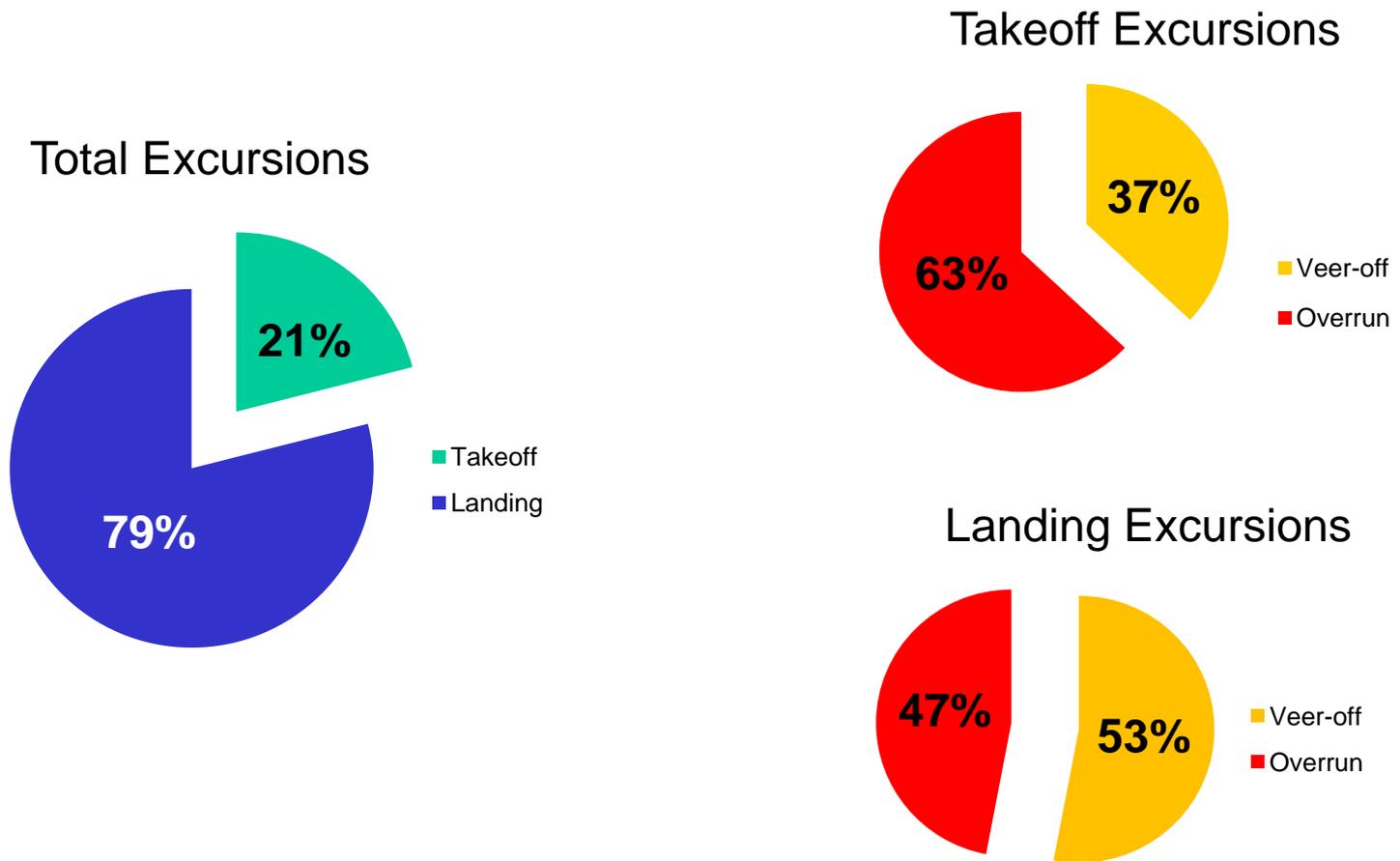
- Runway Safety
 - Fatigue
- Professionalism

Runway Safety: Excursions, Too?

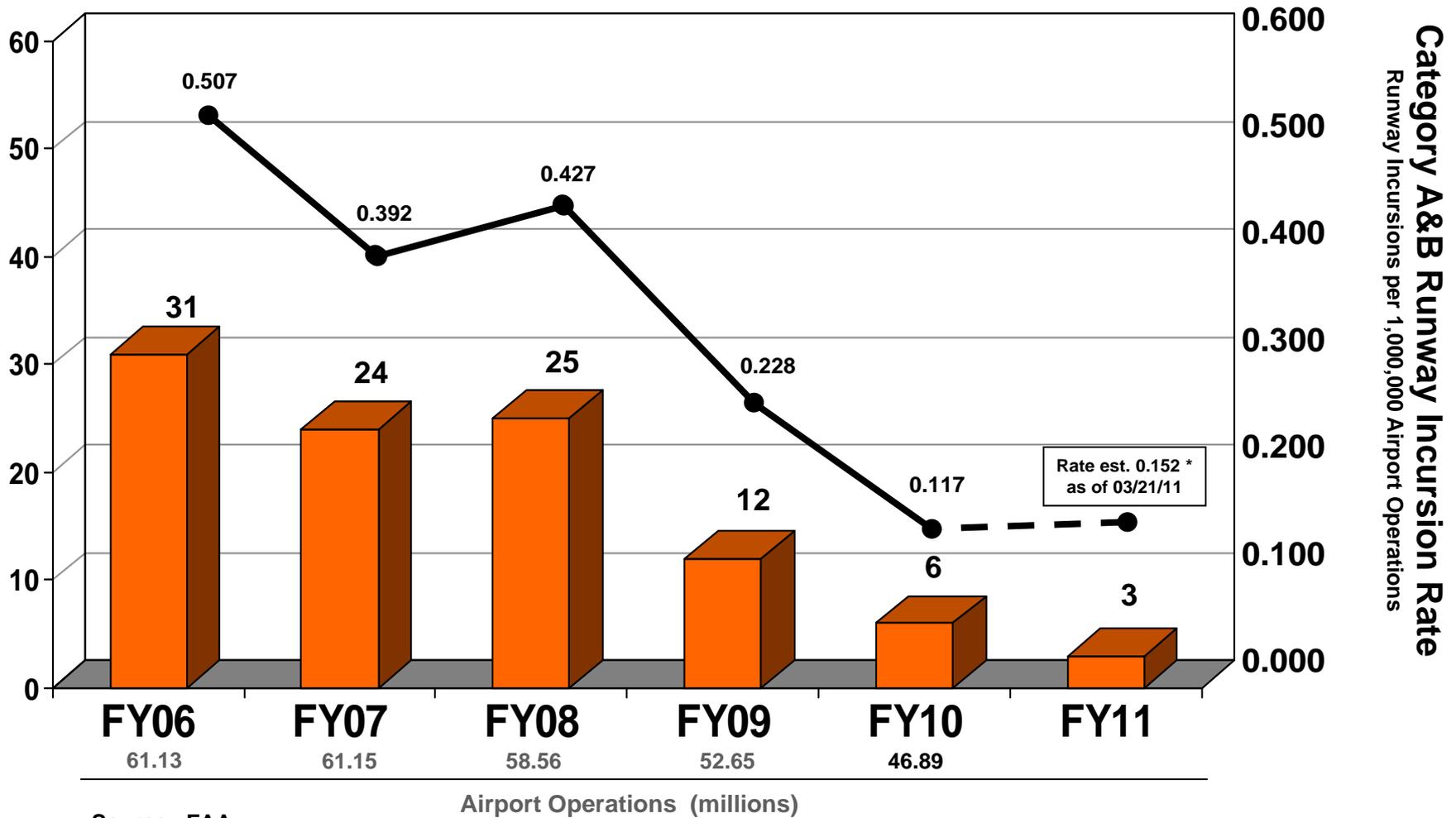
For commercial aircraft, 1995-2008:

- 431 of 1429 (30%) of accidents involving major or substantial damage were runway related
- Within those 431, excursions outnumbered incursions by a factor of more than 40 (417 excursions, 10 incursions, and 4 runway confusions)
 - 41 of those 431 (10%) were fatal
- 34 of those 41 fatal accidents (83%) were excursions

Runway Excursions by Type



Category A&B Runway Incursions



Source: FAA

* Rates are based on Estimated Tower Operations

NTSB Recommendations

- Immediate Collision/Incursion Warning in the Cockpit
(Open, Unacceptable; MWL)
- Specific Clearance for Each Runway Crossing
(Closed, Acceptable)
 - Cockpit Moving Map Displays to Alert re Wrong Runway
(Open, Unacceptable, MWL)
 - Landing Distance Assessment With Adequate Safety Margin
(Interim: Closed, Unacceptable, MWL)
(Standardized: Open, Acceptable, MWL)

Fatigue

- Problem in all modes, 24/7
- Science not well developed
 - Difficult to measure
- Can't control off-duty activities
- Effect of crossing time zones?

Fatigue Factors

- Sleep
- Diet/Weight
- Exercise
- Alcohol/Tobacco
- Age
- Other?

Sleep Disorders

- Sleep apnea
 - Central sleep apnea
 - Obstructive sleep apnea
- Insomnia
- Narcolepsy
- Restless legs syndrome
- Nocturnal leg cramps
- Other

Current Status

- NTSB recommended fatigue awareness and countermeasures program for controllers
- NATCA and FAA are working together to develop guidelines
 - (Training: Closed, Acceptable, MWL)
 - (Overall Program: Open, Acceptable, MWL)
- Other transportation modes are struggling mightily to address the problem

Professionalism

- Minneapolis, Teterboro, JFK
 - Systemic problem?
 - Adverse trend?

Trend re Commercial Pilots?

- Loss of military pipeline of pilots
 - Let's try FL 410 (2004)
- Takeoff without runway lights (2006)
 - Minneapolis over-flight (2009)
 - Stick shaker: PULL! (2009)

Improved Understanding?

Help pilots and controllers better understand each other's environment and issues

- Charlotte, early 1990's
- GAIN success stories
- Familiarization rides
- Pilots visiting ATC facilities
- Very positive feedback when I flew AOV staff

Another Remedy

- Collection, analysis, and sharing of data/information
- Information as fuel for improvement
 - Success stories:
 - FOQA, ASAP
 - TCAS, TAWS
- Applaud implementation of ATSEP

Some Future Concerns

- Pilot professionalism
- Criminalization of accidents

Criminalization

- Systems getting more complex
 - Good people trying to do the right thing
- Inadvertent human error: *PUNISH!*
- Possibility of criminal prosecution:
 - Hinders mishap investigation
 - Chills flow of information for improvement

Thank You!!!



Questions?