

Non-Compliance The COMMON Factor

Jo Gillespie

McKechnie Aviation



Who is Jo Gillespie?

There should be a bio in the conference
papers...

The COMMON
Factor?



The COMMON Factor...

Statistical Release

29 June 2017



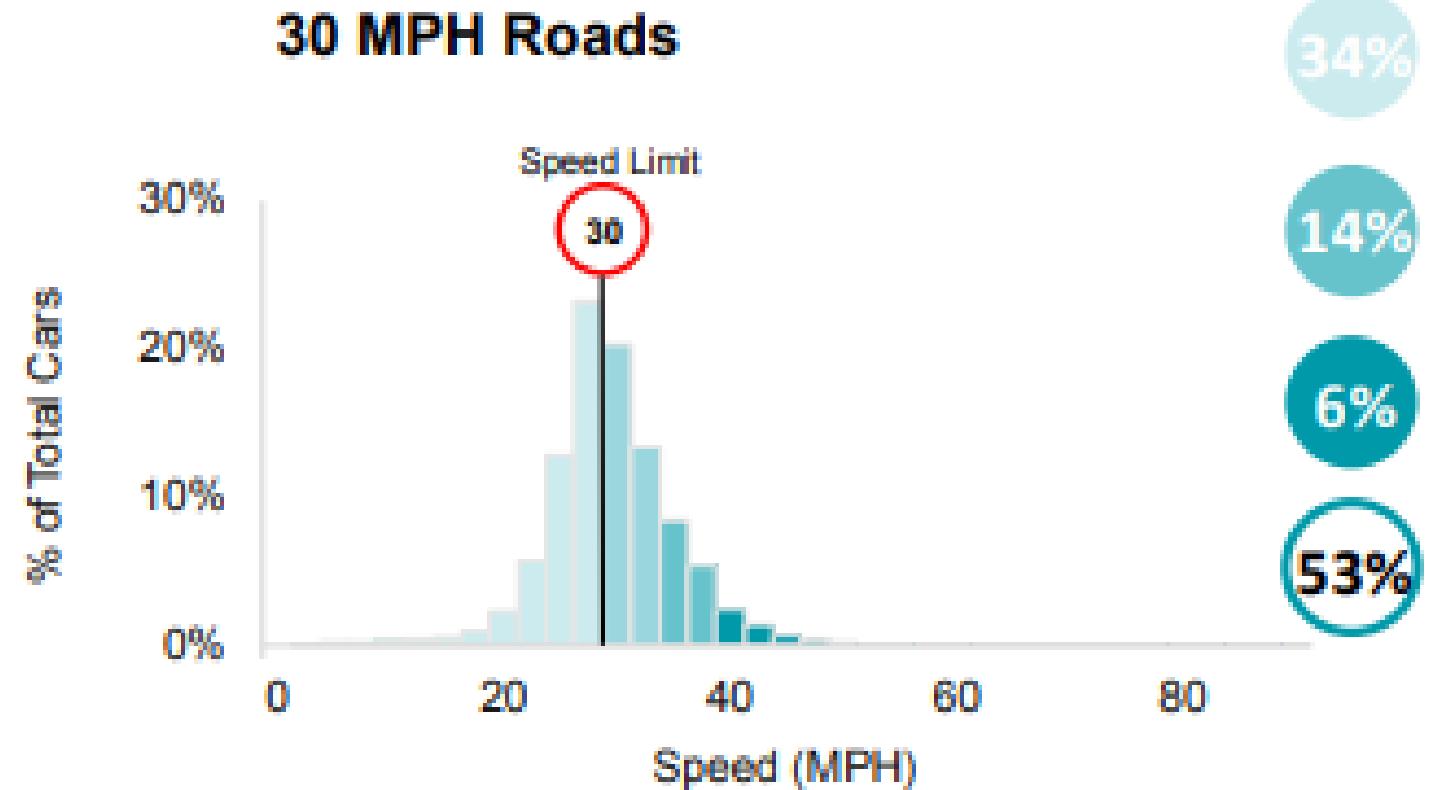
Department
for Transport

Speed Compliance Statistics, Great Britain: 2016

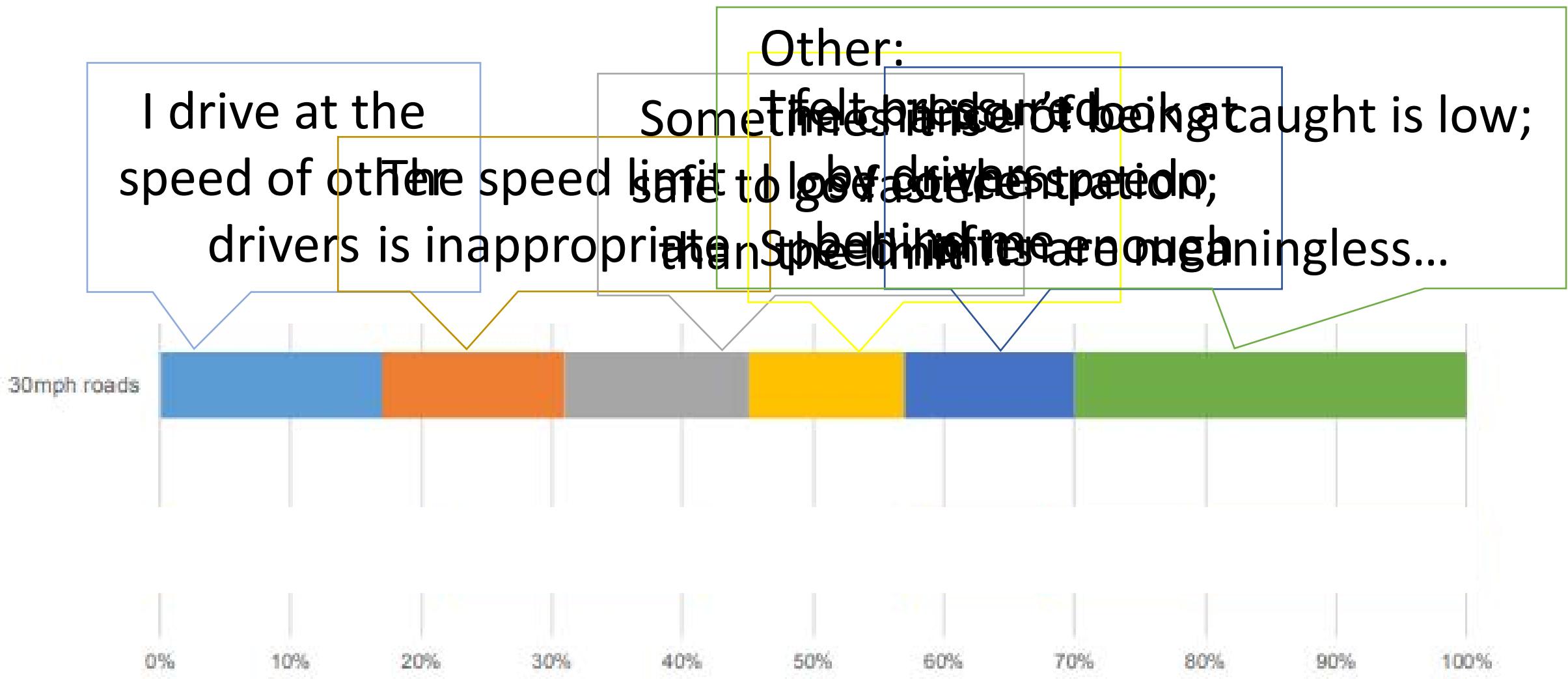
On 30mph roads, 53% of cars exceeded the speed limit, with 6% exceeding 40mph.

On 20mph roads with free-flow conditions (i.e. excluding roads with traffic calming measures - which may not be typical of most 20 mph roads), 81% of cars exceeded the speed limit, with 15% exceeding 30mph.

The COMMON Factor



Reasons given for breaking the limit



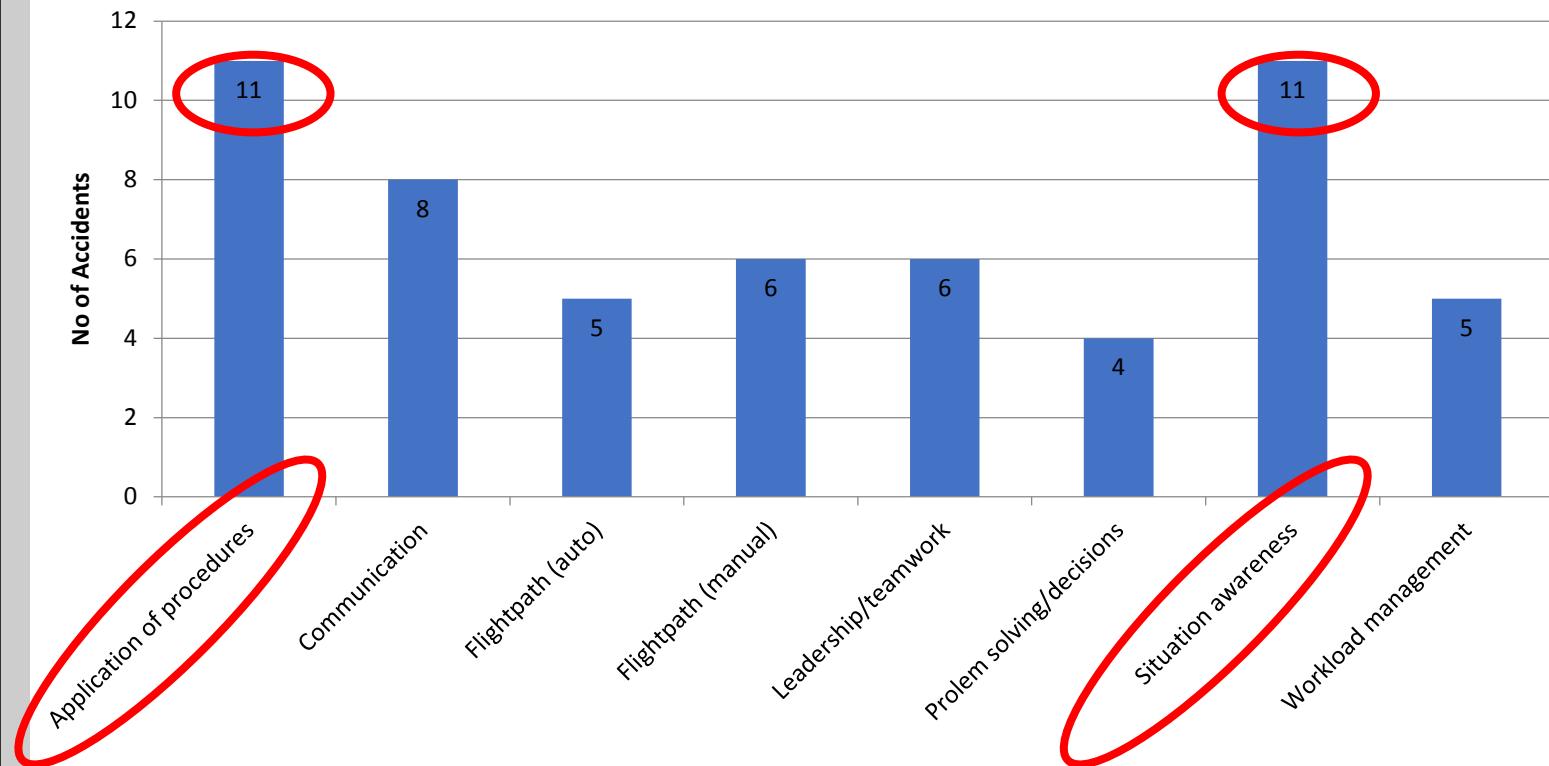
ICAO Pilot Core Competencies

	Competency	Competency Description	Behavioral indicator	
1	Application of Procedures	Identifies and applies procedures in accordance with published operating instructions and applicable regulations, using the appropriate knowledge.	Identifies the source of operating instructions Follows SOP's unless a higher degree of safety dictates an appropriate deviation Identifies and follows all operating instructions in a timely manner Correctly operates aircraft systems and associated equipment Complies with applicable regulations. Applies relevant procedural knowledge	Application of Procedures Communication Flightpath – Automation Flightpath – Manual Leadership & Teamwork Problem Solving & Decision Making Situational Awareness
2	Communication	Demonstrates effective oral, non-verbal and written communications, in normal and non-normal situations.	Ensures the recipient is ready and able to receive the information Selects appropriately what, when, how and with whom to communicate Conveys messages clearly, accurately and concisely Confirms that the recipient correctly understands important information Listens actively and demonstrates understanding when receiving information Asks relevant and effective questions Adheres to standard radiotelephone phraseology and procedures Accurately reads and interprets required company and flight documentation Accurately reads, interprets, constructs and responds to datalink messages in English Completes accurate reports as required by operating procedures Correctly interprets non-verbal communication Uses eye contact, body movement and gestures that are consistent with and support verbal messages	Leadership & Teamwork Problem Solving & Decision Making Situational Awareness
3	Aircraft Flight Path Management, automation	Controls the aircraft flight path through automation, including appropriate use of flight management system(s) and guidance	Controls the aircraft using automation with accuracy and smoothness as appropriate to the situation Detects deviations from the desired aircraft trajectory and takes appropriate action Contains the aircraft within the normal flight envelope Manages the flight path to achieve optimum operational performance Maintains the desired flight path during flight using automation whilst managing other tasks and distractions Selects appropriate level and mode of automation in a timely manner considering phase of flight and workload Effectively monitors automation, including engagement and automatic mode	Workload Management (Knowledge – EASA)

The COMMON Factor

Study: 11 CFIT Accidents 2005 - 2014

Deficient Pilot Competencies



The COMMON Factor

Competency: Application of Procedures

Description: Identifies and applies procedures in accordance with published operating instructions and applicable regulations...

Behavioural Indicators:

- Identifies source of operating instructions;
- Follows SOP unless safety dictates otherwise;
- Follows SOP in a timely manner;
- Correctly operates systems and equipment;
- Complies with applicable regulations;
- Applies relevant procedural knowledge.

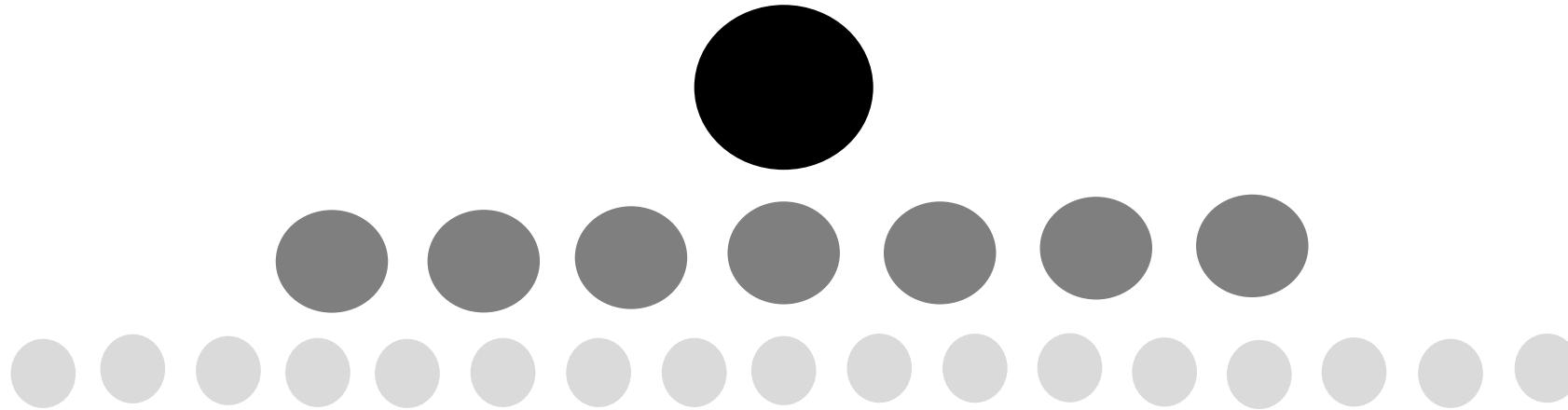
Is it just CFIT?

Western-built large commercial jets 2007-2016

Accident Category	Fatal Accidents	Fatalities
CFIT	13	654

[Source: Boeing Statistical Summary 1959-2016]

And if non-compliance is a factor in fatal accidents...



...we can be pretty sure it's a factor in incidents and near-misses!

Non-compliance can be completely unintentional:

Lack of knowledge:

- Inadequate training;
- Memory lapse;
- Lack of practice.

Error:

- Misapplication;
- Deviation;
- Stress/distraction/fatigue.

Inadvertent Non-compliance

Or it can be deliberate:

Optimising:

- Saving time or effort;
- Saving resources;
- A ‘better’ way.

Work-around:

- SOP doesn’t work;
- Get the job done.

Intentional Non-compliance

Or it can be deliberate:

Cultural:

- ‘Normalisation of deviance’;
- Emulating superiors;
- Inadequate oversight.

Intentional Non-compliance

Or it can be deliberate:

Recklessness:



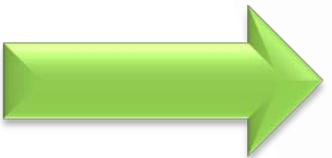
Intentional Non-compliance

Why is compliance so important? (Apart from the fatal accidents...)



Accident Prevention

Routine acts
of accident
prevention



Accident Prevention



In pursuit of compliance...

The Objectives:

A culture in which everyone does the right thing even when no-one is looking;

And

Procedural compliance is universally recognised as an essential element of professionalism.

Management must be unequivocal in their expectations with regard to compliance:

A clear expression of what is acceptable



And what is not acceptable



Repeated at every opportunity



Management behaviour must reflect those expectations

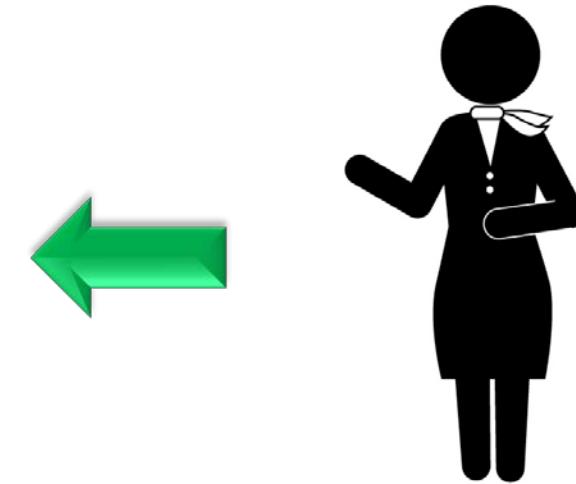
Managers;

Instructors;

Senior staff;

Anyone in a position of authority or leadership

Operational staff must be encouraged to participate in development of procedures



And report if they don't work

Systems must be alert to the symptoms of non-compliance

Flight data monitoring;

Reporting programmes

Audits

Injuries & damage

over a rectangular area of 800 m long and 90 m wide, oriented 94 degrees, and some debris was found within the airport.



Awareness of the part non-compliance has played in fatal accidents can help build a culture of compliance

Location of crash site

Initial observations show that the aircraft struck the ground with high energy and high longitudinal velocity.

In summary:

- ✓ Non-compliance is endemic in human behaviour;
- ✓ Need to start from that assumption;
- ✓ In commercial aviation it has contributed to many fatal accidents;
- ✓ Compliance alone can prevent most undesirable conditions;
- ✓ Organisations can act to encourage compliance;
 - ✓ Define what is acceptable and unacceptable;
 - ✓ Demonstrate compliance in leadership;
 - ✓ Front-line contribution to procedures;
 - ✓ Be alert to the symptoms and act swiftly;
 - ✓ Spread awareness;
 - ✓ Demand professionalism.

In summary:

- ✓ Non-compliance is endemic in human behaviour;
- ✓ Need to start from that assumption;
- ✓ In commercial aviation it has contributed to many fatal accidents;
- ✓ Compliance alone can prevent most undesirable conditions;
- ✓ Organisations can act to encourage compliance;
 - ✓ Define what is acceptable and unacceptable;
 - ✓ Demonstrate compliance in leadership;
 - ✓ Front-line contribution to procedures;
 - ✓ Be alert to the symptoms and act swiftly;
 - ✓ Spread awareness;
 - ✓ Demand professionalism.

Non-Compliance The COMMON Factor

Jo Gillespie

McKechnie Aviation