



**ECA**

European Cockpit Association

# Drugs & Alcohol Testing

Identifying real risk  
And *effectively* reducing that risk

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# What do pilots really think...?

**Pilots are passengers too**

What's more, we have families who are passengers

**Our duty**, taken very seriously,  
**is to protect passengers**  
and we would sincerely appreciate EASA's  
help to do this *effectively*



# So what are our aims?

1. To find out where the risk is, and reduce it
2. To catch & prevent as many 'pilots with problematic substance use' as possible from flying planes
3. Ideally to 'fix' them so they are no longer a risk and can fly again



# What is the risk?

*“Who here thinks stopping drunk or high pilots from getting on a plane would have prevented the Germanwings tragedy?”*

EASA concept paper references one source for accident risk from D&A problems:

- *“Medical Cause Fatal Commercial Air Transport Accidents: Analysis of UK CAA Worldwide Accident Database 1980-2011 (Abstract). SJ Mitchell, M Lillywhite Aviat Space Env Med: 2013; 84(4), p. 346”*



# Quantifying the risk - accidents

- Paper says: **worldwide, in 32 years** (1980-2011) number of fatal accidents **with psychiatric** (incl D&A) **factors**

20

- EASA states **60%** of these **were D&A** – that's...

12

- Paper says **29%** of accidents were in **'Europe'** (including the **CIS...**) – so regs would affect...

<4

- But, 45% of the data is accidents involving <14 people – main source docs show 40% are **not passenger Commercial Air Transport**, so:

~2

- Assumes: our future D&A rules would have worked in these cases
- D&A events were in Europe, & not the CIS (where we know some were)

0?



# Quantifying that risk - accidents

Other sources say:

- ATSB Australia – over 30yr period **NO** passenger air transport accident/incidents
- FAA ‘D&A in civil pilot fatalities report’ – **NO** cases in Part 121 scheduled air carrier (airlines)

So in aggregate...

- Other 2 developed Western aviation regimes do not show a risk
- A worldwide, ‘all aviation’ study shows the *possibility* of ~2 fatal accidents in 30 years in ‘Europe’, only if we include Russia & the CIS as ‘Europe’



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**Conclusion** →

**Accident risk is very, very low, if it there at all**



# Quantifying the risk - violations

Rates of positive testing in breach of D&A limits:

FAA random Alcohol test results, 2011

- Industry 'all safety staff' positive rate → 0.097%
- **Pilot** positive rate → **0.044%**

FAA random Drugs test results, 2011

- Industry 'all safety staff' positive rate → 0.462%
- **Pilot** positive rate → **0.095%**

**Conclusion**  **pilots have very, very low rates of violation, less than half of other safety staff**

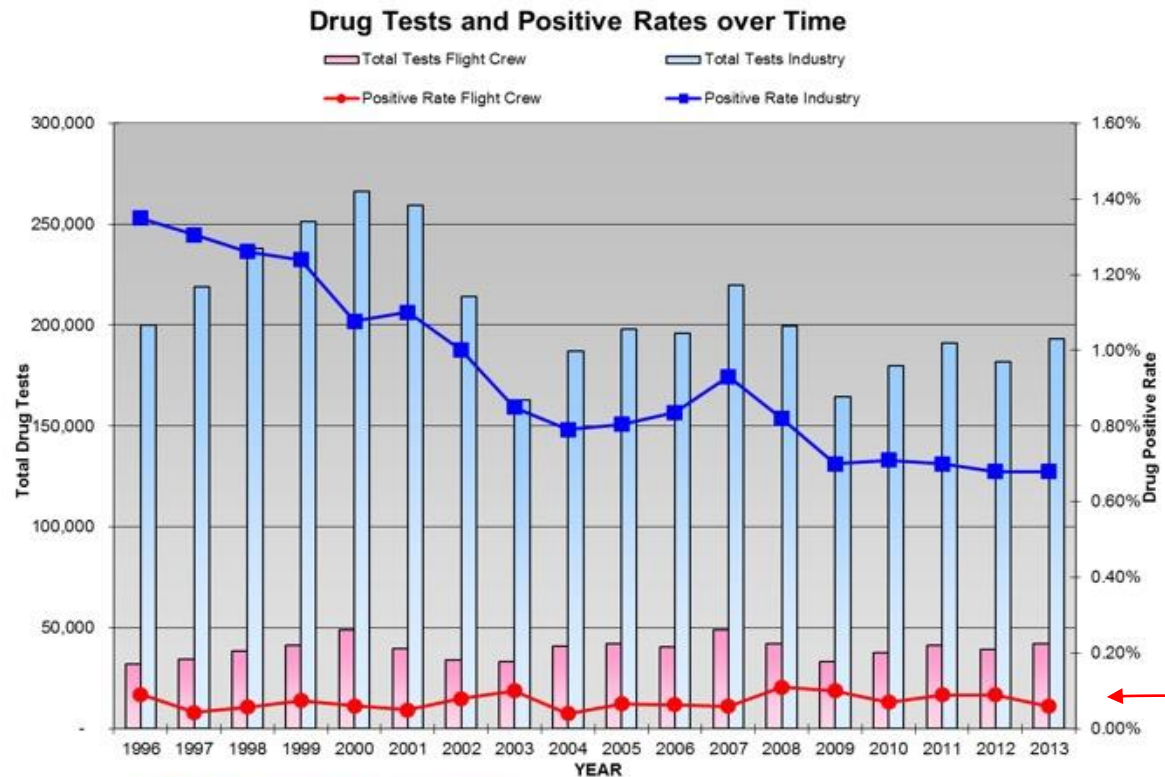




# Yes, but what about deterrence?

Maybe the violation rate is so low, because of deterrence effect of tests?

No.



**Random Alcohol testing introduced here**

**Incidence rate flat throughout**



# Conclusions on risk

- Accident risk from problematic substance abuse in Europe is vanishingly low
- Level of D&A influence when working is very very low in pilots (higher w/ others)

But...

*“Are there pilots out there with problematic substance abuse issues that are part of mental health concerns?”*

**Absolutely.** Random testing doesn't catch them, and we need something that **does**.



# TF Proposal *must* be aimed at real risk

## Task Force recommendation:

“The Task Force recommends to mandate drugs and alcohol testing as part of a random programme of testing by the operator and **at least in the follow-up** after an initial **Class 1** medical assessment or when employed by an airline, **post-incident/accident**, with **due cause**, and as part of **follow-up** after a positive test result”

Why?

## Concept paper and draft ATCO model:

- Needs mandated D&A policy explicitly proportionate to real risk, w/ safeguards for overwhelming majority of staff
- Draft AMC/GM needs to be for **all safety personnel**
- Must mandate Peer Support Programmes, supported by testing for: **post-incident/accident**; with **due cause**; if part of **PSP follow-up**

# What Package *can* catch problems?

## Drug and Alcohol testing

- ~~Random testing~~
- Testing with **reasonable suspicion** ✓
- **Post incident**/accident testing ✓
- Though real problems on the 'drugs' side ✗

## Peer Support Programs ✓

- Can cover Drugs, Alcohol...
- And underlying, or separate, mental health issues



# Peer Support outcomes

1. Captures drug use, alcohol abuse, and mental health problems with one system
2. All pilots are monitored every day they come to work (or indeed at home)
3. Capture rates are (for the main US system, HIMS) 60 times better than random testing (av 120/yr vs av 5/yr)
4. Has successful long term treatment rates of 90%, returning pilots to productive work



# D&A testing *perceived* aims

## Random testing

- Deterrence
- To catch problem pilots before they try and fly

## Reasonable suspicion testing

- If deterrence fails
- To catch and stop problem pilots after they try and fly

## Post accident/incident testing

- To punish people we didn't catch and stop
- To help identify causal factors of incidents/accidents



# D&A testing *actual* outcomes

## Random testing

- **No deterrence** for habitual problem individuals – rarely catches them
- Problem cases choose where and when to use so as to **avoid capture**
- May help **drive problems underground** – would undermine PSP

## Reasonable suspicion testing

- **Sometimes works** – useful last chance to catch out the unexpected
- When wrong (90%+ cases): very stressful, causes delays, scares pax

## Post accident/incident testing

- **Punishes people**, who are then expected to help investigation
- **Little** chance of **rehabilitation** unless accepted and put in PSP
- Helps **identify causal factors** of incidents/accidents



# How (not) to do D&A testing

## Random testing (where done) – better PSP as priority

1. MUST be **secondary to PSP** – spend money first on PSP to catch more
2. Conduct **before report**; refer positive results to PSP; **no flight obligation**
3. If needed, must be on **all safety personnel** (more so than pilots)
4. Conducted ideally under law enforcement authority, carried out to **forensic standard**, with B-sample, MUST be independent from employer
5. BUT, feeds into company SMS and **costs paid for by airline**.

## Random Drug testing – **flawed, ineffective, need PSP**

- Significant **false positive** rate (legal meds & food can replicate signature)
- **NO** internationally **agreed** thresholds, risk levels or **banned substances**
- No uniformly accepted **testing methods**, some w. serious consequences





# How *to* do D&A testing

## Reasonable suspicion testing – universal, standardised

1. **MUST** be conducted **by law enforcement**, to allow for proper judgement of reasonable suspicion
2. Conducted any time, so need **respect, privacy & confidentiality** for test
3. Needs **B-sample** to be analysed at different lab, & referral to PSP if +ve
4. Needed for **all safety personnel**
5. >90% of tests negative, need to **consider stress on pilot**, default provision for them not to operate, consideration of delay and effect on pax

## Post accident/incident testing – to learn and prevent

1. Standards as above, but due **extra level of consequence**, really must guard against false positives and highest forensic standards with B-sample
2. Still, **refer cases into PSP**



I'M CUTTING INTO THIS  
SECURITY LINE...



I'M THE PILOT,  
YOU KNOW.



I THINK  
YOU'VE BEEN  
DRINKING.

WHY'S  
THAT?



BECAUSE  
THIS IS  
HOME  
DEPOT.



CREATORS SYNDICATE  
© 1 2 3 4 5

SKILLN

# So, how to protect passengers?

## 1. Mandated Peer Support Programs

- They **work**, catching 60 times more problematic substance abuse
- Way **cheaper** than testing
- Can catch drugs, alcohol, and mental health, **all in one**

## 2. Reasonable suspicion testing

- **Last** line of **defence**, needed, but w/ safeguards for innocent majority
- Already universal, but stronger harmonised standards helpful
- Must be by **law enforcement**, w/ 2ndary sample & forensic standard

## 3. Post accident/incident testing

- Needed to help **understand** causes and **prevent** future incidents
- Common **standards** would help this, incl for law enforcement testers



# Help us protect passengers & crew



## 1. That means a PSP:

- Catches 60 times more cases
- 'Fixes' 90% of them

2.

Reasonable  
suspicion  
testing

- Last defence, feed PSP
- Needs standardising
- Respect & privacy;  
>90% are innocent

Post  
incident/  
accident  
testing

- Essential to learn  
lessons
- Law enforcement only

3.

- Random alcohol testing
  - Pointless & costly
  - Need previously outlined specs
- Random drug testing
  - Not practicable or reasonable



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