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Drugs & Alcohol Testing

Identifying real risk
And *effectively* reducing that risk

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Usborne touchy-feely books

That's not my plane...

its **Pilot's** **thoughts** are too squashy.

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*

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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

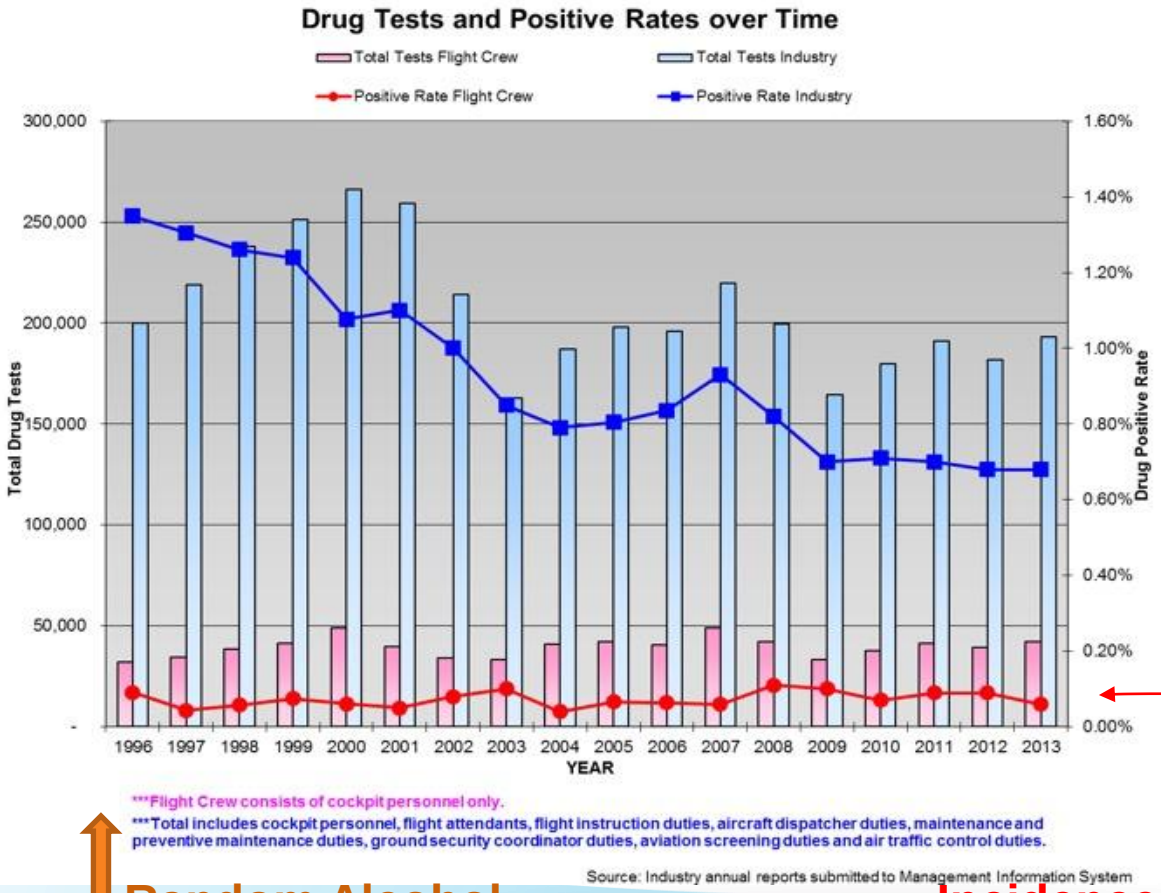
- Industry 'all safety staff' positive rate → 0.462%
- **Pilot** positive rate → **0.095%**

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

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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:

*"Th[illegible] recommends to mandate drugs and alcohol testing as part [illegible] a random pr[illegible]ramme of testing by the operator and **at least in the follo[illegible]** 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.
CREATORS SYNDICATE
I THINK YOU'VE BEEN DRINKING.
WHY'S THAT?
BECAUSE THIS IS HOME DEPOT.

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

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

1. That means a PSP:

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

3.

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

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