

Understanding PANACEA's countermeasures: What Countermeasures did we choose and why?

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PANACEA
FITNESS TO DRIVE

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Countermeasures – overview

	Operational	Tactical	Strategic
Time frame from impairment that countermeasure is deployed	Short-term – occurring during the shift when impairment is detected	Mid-term – soon after but not during the shift impairment is detected	Long-term - requiring ongoing engagement for prolonged period after the shift impairment is detected

- Driver:
 - Bus driver/shuttle safety operator; [Refuse truck driver], Coach driver, PTW delivery service rider, taxi driver
- Operator:
 - Fleet operator, health and safety manager, driver trainer
- Enforcer:
 - Police, police trainer, [regulator]



Countermeasure Development

- Review of Behaviour change theories
- Assessing the need for professional drivers/operators (specific focus on PANACEA use cases)
- Targeted review of the state of the art for countermeasures addressing identified need
 - Scheduling and work distribution in bus/AV drivers
 - Licit drugs prior to shift in taxi/courier
 - Rest optimisation in short haul trucks
 - Raising awareness of sleepiness/advice in short haul trucks
- Feasibility assessment
 - Use case application
 - Impairment detection systems
 - Capability of PANACEA countermeasure system



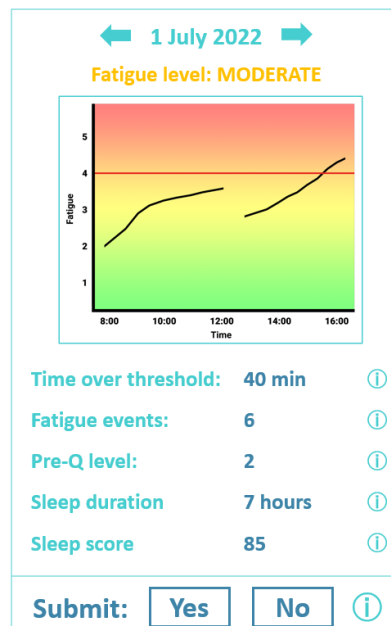
Driver Countermeasures

Fatigue Report

Tactical

Provide driver with insight on their daily fatigue levels

Example graphic



Fatigue Questionnaire

Strategic

Help driver to assess and contextualise their fatigue and raise concerns with operator

Example graphics

How problematic did you find fatigue this week?

Not at all A little Somewhat Quite A lot

😊 😊 😐 😞 😞

Close Next

What would you like to change the most?

Have more breaks
Make it shorter
Change shift type
Other

Back Next

Stress Management

Operational

To inform the driver about critical stress levels and help them reduce stress

Example graphics

You seem stressed, *DriverName*. This could present a safety risk.

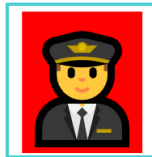
Take a break
No thanks

Let's relax for a bit

Open Balloon Game
I'll relax on my own



Operator Countermeasures



DriverName

Status (live)	Fatigue Level 5	Stress	Licit drugs OK
Last checked:	14:00		8:00

Safety profile	Fatigue	Stress	Licit drugs
	Open Fatigue report [■] Open Fatigue questionnaire [■]		Open latest results [Methadone]
Countermeasure	Highly recommended		Not necessary
	Instructions	Enter report	Instructions Enter report
	[placeholder for past reports]		Conducted on: 2.4.22 [Report]

Licit drug debriefing

Operational/Strategic
Inform operator of driver positive test

Support operator in conducting debriefing / managing drug use

Fatigue Alert

Operational

Inform operator about driver's current fatigue state and notify them if reach a critical level

Fatigue Debriefing

Strategic

Provide information to help coach drivers in sleep and fatigue



Enforcement Countermeasures



Trial focus:

Alcohol detection (breath testing) – compare police screening device with PANACEA device

Licit drug (benzodiazepines/methadone) detection (saliva testing) – compare police device with PANACEA



Countermeasure focus:

Operational – description of trials

Tactical – training for police in use of PANACEA alcohol/drug

Strategic – updated policy and regulation recommendations



Thank you!



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