HUMAN PERFORMANCE

#хочубутипілотом

PILOT ERROR OR HUMAN FAILING

is the main cause of aircraft accidents, 73% of all accidents

CAUSES OF PILOT INDUCED ACCIDENTS

Loss of directional control
Poor judgement
Airspeed not maintained
Poor pre-flight planning and pre-flight decision making
Not maintaining ground clearance

PHASES OF FLIGHT MOST PRONE TO ACCIDENTS

Intermediate and Final Approach
Landing
Take-off
Descent

PIC responsibility

PIC is the final authority responsible for safe conduct of the flight

CARBON MONOXIDE POISONING

Harmful to tissues and organs

SYMPTOMS OF CO POISONING

Headache
Dizziness
Nausea
Impaired Vision
Weakness
Impaired Judjement
Personality Change
Impaired Memory
Flushed cheeks and cherry-red lips
Convulsions

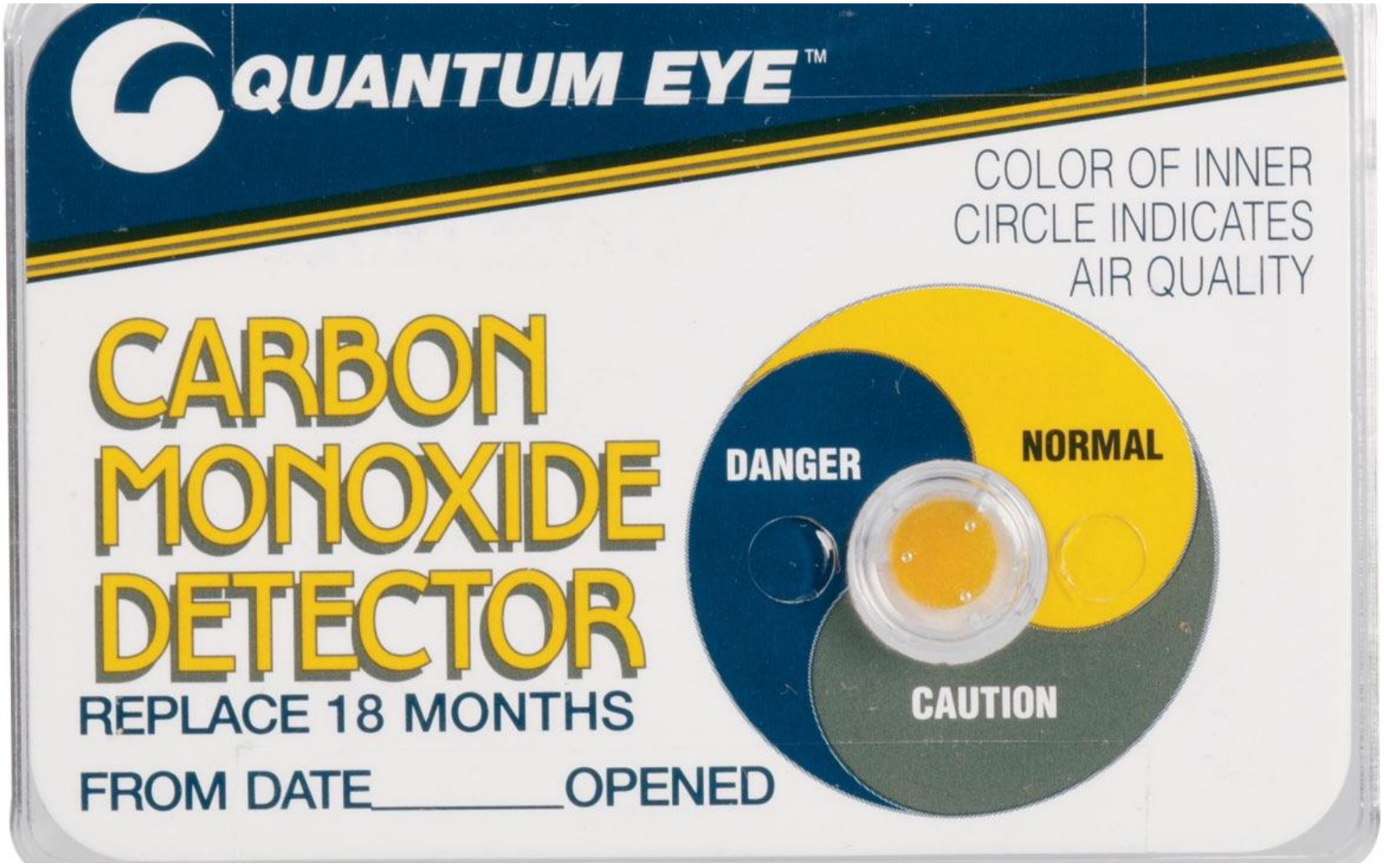
ACTION TO BE TAKEN IN CASE OF CO POISONING

Turn off cabin heating
Open cabin ventilators
Consider using Oxygen if available
Land as soon as possible

IMPORTANT

If a pilot has inhaled exhaust gases over a prolonged period during flight he will no be fit to fly again for several days

AT ALL TIMES WHEN THE CABIN HEATING IS USED IT SHOULD BE DONE SO IN CONJUNCTION WITH THE USE OF FRESH AIR



CO DETECTORS

HYPOXIA

Hypoxia is the name given to the physical condition in which there is insufficient Oxygen to meet the body's needs. Of greatest significance to pilots is "Hypoxic hypoxia", which is a lack of Oxygen due altitude.

The occupants of an aircraft flying at over 10000 ft will suffer from hypoxia if they do not breathe supplementary Oxygen or if the supplementary Oxygen supply is faulty. The onset of hypoxia will be more rapid, and its effects more severe, the higher the altitude.

SYMPTOMS OF HYPOXIA

euphoria
impaired judgement
headache
tingling in hands and feet
hyperventilation
muscular impairment
sensory loss
tunnel vision
impairment of consciousness
cyanosis

IMMEDIATE ACTION TO BE TAKEN IN CASE OF HYPOXIA

Oxygen should be administered immediately to those affected. Then the pilot must descend as quickly as possible to below 10,000 ft, making proper allowances for minimum safe altitude.

HYPERVENTILATION

Hyperventilation may be simply defined as over breathing. More technically, hyperventilation is lung ventilation in excess of the ventilation of the body's needs, or breathing in excess of the ventilation required to remove carbon dioxide from the body.

The onset of hyperventilation denotes an overriding of the normal automatic control of breathing by the brain. As you have learnt, it is the amount of CO2 in the blood which governs breathing. The reduction in CO2 which is induced by hyperventilation disturbs the breathing control mechanism.

CAUSES OF HYPERVENTILATION

Anxiety
Motion sickness
Shock
Vibration
Heat
High g-forces
Pressure breathing

SYMPTOMS OF HYPERVENTILATION

Obvious rapid breathing
Dizziness and feeling of unreality
Tingling
Visual disturbances
Anxiety
Loss of muscular coordination
Increased heart rate
Spasms
Loss of consciousness

TREATMENT OF HYPERVENTILATION

Get the sufferer to breath into a paper bag
Calm the sufferer down
Give him/her a simple task

DECOMPRESSION SICKNESS

Under atmospheric conditions, at the Earth's surface, Nitrogen is dissolved in the blood and plays no part in the normal bodily processes. But if, due to a rapid reduction in ambient pressure, the nitrogen in blood should come out of solution as small bubbles, severe physiological problems may occur.

Nitrogen coming out of the blood may be likened to bubble formation in fizzy drinks when the top of the bottle is opened and the pressure allowed to drop. If this occurs in the human body and Nitrogen bubbles are formed in the blood, the process leads directly to decompression sickness.

SYMPTOMS OF DECOMPRESSION SICKNESS

Rheumatic pains in the joints
Creeps
Choking
Impairment of mental functions, chronic paralysis or even permanent mental disturbance

TREATMENT OF THE DECOMPRESSION SICKNESS

Descend to a level where the symptoms are relieved
Land as soon as possible
Sufferer should get 100% oxygen supply ASAP
Seek medical assistance on the ground

SCUBA DIVING

Air breathed under pressure whilst diving increases the amount of Nitrogen in the body. On subsequent ascent to the water's surface, Nitrogen may come out of solution, giving rise to decompression sickness.

IMPORTANT

A pilot must not fly at all within 12 hours of diving and breathing compressed air.

A pilot must avoid flying for 24 hours if a depth of 30 feet has been exceeded.

Failure to adhere to these rules in the onset of decompression sickness at altitudes as low as 6000 ft.

KNOWLEDGE MAKES CONFIDENCE

#хочубутипілотом

Розклад дня

08:30 - Реєстрація учасників. 317 аудиторія першого учбового корпусу КЛА НАУ.

09:00 - Офіційне відкриття конкурсу. 317 аудиторія першого учбового корпусу.

09:45 - І етап конкурсу.

11:00 - ІІ етап конкурсу.

12:00 - кава брейк.

13:00 - оголошення результатів І та ІІ етапів конкурсу.

13:30 - ІІІ етап конкурсу. 106 аудиторія.

Паралельно з проведенням ІІІ етапу в 317 аудиторії безкоштовна кава/печиво/wi-fi та перегляд відео від МАУ, KLM, PilotesEye та інших.

16:00 - Спілкування з представниками авіапідприємств.

17:00 - офіційне нагородження переможців.