

SAFETY INFORMATION 9/2022

5 April 2022



ENSURING AVIATION SAFETY DURING THE FASTING MONTH OF RAMADAN

Introduction

The month of Ramadan is observed by Muslims worldwide as a month of fasting which is the act of refraining from eating and drinking from dawn to sunset. While observing this obligatory practice, CAAM would like to raise awareness on the risks and hazards to the safety of aviation operations.

Background

Fasting brings positive physiological changes to the human body including the improvement of lipid profile such as the increase of High Density Lipoprotein, HDL (good cholesterol) and the decrease of Low Density Lipoprotein, LDL (Bad cholesterol), Total Cholesterol, TC and helps improve blood glucose level.

Aviation personnel who are fasting may experience the following symptoms:

- a) Decreased alertness;
- b) Increased fatigue;
- c) Irritability;
- d) Anxiety;
- e) Impaired memory;
- f) Decreased work performance; and
- g) Symptoms of hypoglycaemia (low blood sugar) which includes:
 - sweating
 - feeling tired
 - dizziness
 - feeling hungry
 - tingling lips
 - feeling shaky or trembling
 - a fast or pounding heartbeat (palpitations)

While fasting is mandatory for Muslims, there are conditions in which fasting may be exempted which includes:

- a) those suffering from illness;
- b) the frail and elderly;
- c) those who are travelling; and
- d) if it is felt that fasting would have an adverse effect on their health.

In accordance with Civil Aviation Directives (CAD) 1004 – Medical requirement, paragraph 2.8.1:

“Holders of licences shall not exercise the privileges of their licences and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges.”

CAD 1004, para 2.8.5 also stated:

“Aviation organisations shall have procedures in place to minimise the likelihood of such an occurrence.”

Recommendation

All operators are advised to inform aviation personnel on the effects of fasting on human performance, provision on medical fitness and establish a Standard Operating Procedure to ensure the flight safety is always preserved.

In the event where aviation personnel decide to fast while on safety-critical duty, he/she is responsible to ensure that it will not jeopardise the safety of the operation. Aviation personnel should not assume safety-critical duty if he/she experiences symptoms of hypoglycaemia.

It must be highlighted that fasting is closely associated with hypoglycaemia and may cause pilot incapacitation. The pilot incapacitation procedure and checklist will prepare the pilot to handle the situation swiftly and correctly should it occur. Those who are fasting should be made known to the rest of the crew when on duty.

For those with diabetic, fasting for long periods could be dangerous and may lead to health problem especially if using medications that increase the risk of dehydration or hypoglycaemia. Those who wish to fast while on duty should:

- a) seek advice with a medical professional before attempting to fast;
- b) check blood sugar levels often and that sufficient test strips are made available; and
- c) always carry treatment for hypoglycaemia at all times while on duty.

Conclusion

To conclude, the following should be briefed among crew members to manage the risk:

- a) crew that are fasting while on duty;
- b) those fasting must monitor personal conditions while on duty;
- c) if performance affects safety, crew members are strongly advised to break their fast;
and
- d) optimise CRM skills to increase Situational Awareness.

CAAM would like to wish all Muslims a healthy and peaceful Ramadan. May the days of fasting be meaningful and filled with blessings.



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