

Acceptable Means of Compliance and Guidance Material to MAR-OPS X.122

**Flight and duty time limitations (FDTL)
and minimum periods of rest.**

Military Aviation Authority – NLD

AMC/GM to MAR-OPS X.122 – issue 1.0

DOCUMENT CONTROL

Edition Number	Edition Date	Status	Reason for change (detailed)
1.0	July 28th, 2016	Final	Initial Issue

MAR-OPS X.122 Flight and duty time limitations (FDTL) and minimum periods of rest.

Rationale

Fatigue is a significant factor in human performance. Therefore, it is important to take into account maximum flying times, standby duty times and compulsory rest periods in order to manage fatigue.

Requirement MAR-OPS X.122

The Operator shall include in the Operations Manual an arrangement for flight and duty time limitations and minimum periods of rest for all operations personnel, to include a reporting system with respect to violation of these arrangements. These arrangements shall be compliant with Dutch Working Hour Act (ATW) and the subsidiary Working Hours Decree (ATB) and General Military Officials Regulations (AMAR).

Acceptable Means of Compliance to MAR-OPS X.122:

Management of FDTL and minimum periods of rest

(a) The Operator should define in the Operations Manual the "crew duty day" which should consider, as a minimum:

- (1) The maximum flying times;
- (2) The standby duties; and
- (3) The compulsory rest periods;

for crewmembers allowable in any 24 hrs period, taking into account the aspects required to perform special operations and missions.

(b) Periods of activity should alternate with compulsory rest periods. Over a period of one up to twelve months the maximum accumulated flying hours should not exceed the hours stipulated in the table below¹:

Flying Hours	Type of Aircraft		
	Single Pilot	Multi Pilot (unpressurized)	Multi Pilot (pressurized)
Per month	90	125	150
Per quarter	240	330	400
Per annum	850	1200	1400

(c) Supervisors should monitor and enforce the fatigue management limits and measures stated in the Operations Manual.

(d) The procedures for granting extensions or exceptions to these limitations should also be defined in the Operations Manual.

¹ Table as per STANAG 3527 – Aircrew Fatigue Management

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Management of FDTL and minimum periods of rest.

(a) The following factors are applicable in defining maximum flying times and compulsory rest periods for crewmembers:

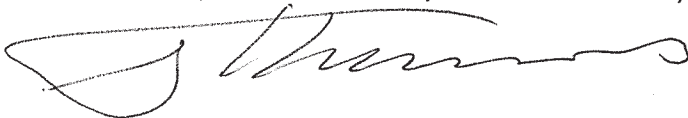
- (1) The need for climatic or environmental acclimatization;
- (2) The type and distance of accommodation used by crewmembers from the operating base;
- (3) The disturbance and actual rest taken during the stand-down period;
- (4) The time that crewmembers arrive on duty;
- (5) The flying related ground activities (instructions, briefings, mission planning, simulator training, etc.);
- (6) The type of aircraft (in relation to aircraft performance, noise, vibration, etc.)
- (7) Workload and effort of the individual crewmembers (use of autopilot or not, use of night vision goggles, low level flying, threat environment, etc.);
- (8) The cumulative and/or split duty periods;
- (9) The extremes of temperature during ground operations;
- (10) The time taken to complete the task, delays incurred and expected (latest) landing time;
- (11) Transmeridian flight;
- (12) Personal and social situation of individual crewmember.

(b) Supervisors at all levels may impose more stringent FDTL management in the interests of flight safety.

(c) Crewmembers must accept their share of responsibility in the avoidance of fatigue. Therefore, prior to their next planned duty cycle, individuals must make full use of opportunities to rest and avoid activity detrimental to the next crew duty period; this is to include non-military flying hours (private flying).

Hoofddorp, July 28th, 2016

The Deputy Director Military Aviation Authority,



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