RA 2345 - Aircrew Fatigue Management

**Rationale**
► Fatigue poses a well-documented risk to aviation and can significantly reduce aircrew performance. This Regulation places limits on aircrew maximum flying times, cockpit alert and compulsory rest periods in order to reduce this risk to a level that is As Low As Reasonably Practicable and Tolerable.◄

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**Management of Aircrew Fatigue**
2345(1) Aviation Duty Holders ► (ADH) ◄ and Accountable Managers (Military Flying) (AM(MF)) shall define the maximum allowable flying hours and measures to provide for compulsory rest periods for Aircrew.

**Acceptable Means of Compliance 2345(1)**
1. ► ADH and AM(MF) should define in orders the ‘crew duty day’ that is allowable for Aircrew in any 24 hour period. They should also take into account the aspects required to perform special operations and missions, and as a minimum should consider:
   a. Maximum flying times.
   b. Cockpit alert time.
   c. Standby duties.
   d. Compulsory rest periods.◄
2. Periods of activity should alternate with compulsory rest periods. Over a period of one up to 12 months the maximum accumulated flying hours should not exceed the hours stipulated in the table below:¹

   **Table 1. Maximum Accumulated Flying Hours.**

<table>
<thead>
<tr>
<th>Flying Hours</th>
<th>Type of Air System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single Pilot</td>
</tr>
<tr>
<td>Per month</td>
<td>90</td>
</tr>
<tr>
<td>Per Quarter</td>
<td>240</td>
</tr>
<tr>
<td>Per Annum</td>
<td>850</td>
</tr>
</tbody>
</table>

3. Supervisors should monitor and enforce the fatigue management limits and measures stated in orders.
4. The procedures for granting extensions or exceptions to these limitations should also be defined in ► ADH ◄ and AM(MF) orders.

**Guidance Material 2345(1)**
5. The following factors are applicable in defining Aircrew maximum flying times and compulsory rest periods:
   a. The need for climatic or environmental acclimatization.
   b. The type and distance of accommodation used by Aircrew from the operating base.

¹ Table as per STANAG 3527 – Aircrew Fatigue Management.
c. Disturbance and actual rest taken during the stand-down period.
d. The time that Aircrew arrived on duty.
e. Flying related ground activities (instructions, briefings, mission planning, simulator training etc).
f. Type of Air System (in relation to performance, noise and vibration, workload and effort of the individual Aircrew).
g. Cumulative and/or split duty periods.
h. Extremes of temperature during ground operations.
i. The time taken to complete the task, delays incurred and expected (latest) landing time.
j. Transmeridian flight.
k. Personal and social situation of individual Aircrew.

6. Supervisors at all levels may impose more stringent aircrew fatigue management limits in the interests of flight safety.

7. Aircrew 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.

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Use of Temazepam in the Management of Work and Rest in Aircrew

2345(2) ADH shall have a clear policy in place for the use of Temazepam in the management of work and rest schedules.

Use of Temazepam in the Management of Work and Rest in Aircrew

8. ADH should define rules for the planned use of Temazepam in consultation with Aviation Medical Subject Matter Experts. The use of Temazepam should only be considered as an adjunct and should not be considered a substitute for effective scheduling and rest patterns.

9. The use of Temazepam should only be used by Aircrew in the management of work and rest in operations or operational training. Accordingly, the use of Temazepam should not be considered by Defence Contractor Flying Organisations.

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10. Military Aviation Medical Examiners (MAME) or authorized Medical Practitioners as defined in relevant ADH orders may prescribe Temazepam for use by Aircrew in the management of work and rest in operational scenarios. The drug is effective in inducing sleep and leaves no residual conditions or complications when used judiciously. Its short duration of activity prevents significant accumulation in the body, and extensive testing has failed to detect any harmful effects on individuals’ performance 6 hours after ingestion.

11. Although the use of Temazepam is intended to enhance the effectiveness of personnel in intensive and sustained operations, the management of such a policy must be practised in peace. Consequently, the use of Temazepam for Aircrew during exercises may be authorized. However, the use of Temazepam is an adjunct to an effective management plan for work and rest schedules, it is not a substitute.

12. When prescribing Temazepam, MAME or authorized Medical Practitioners as defined in relevant ADH orders must be aware that:
a. It must be taken no less than 6 hours before the start of duty – that is, before the sortie planning and briefing phases; only in extreme cases ►may◄ it be taken less than 6 hours before flying.

b. It must not be taken in conjunction with alcohol or any centrally acting drugs, such as antihistamines. Over-the-counter drugs must be borne in mind.

c. The normal dose for Temazepam of 20 mg must not be exceeded and 10 mg may be adequate for many Aircrew.

d. To avoid the rare possibility of an adverse reaction, Aircrew prescribed Temazepam for the first time must be given a trial dose of up to 20 mg no less than 3 days prior to flying.

e. Temazepam must not be taken for more than 5 consecutive days in line with NHS guidance. Additionally, Temazepam must not be taken for more than 20 days in a 60 day period in line with USAF guidelines.

13. Provided that the above criteria are met, and following consultation between medical staffs and the squadron, MAMEs or authorized Medical Practitioners as defined in relevant ►ADH◄ orders may prescribe and issue Temazepam in the doses stated above. It may be prescribed to named individuals for up to 3 days to cover the exercise period or as required to cover a route flight. The drug may then be taken by individual Aircrew under the supervision of the local commander.