CAA HSU Regulation of Fatigue in the Aviation Industry

Andrew Schlup
CAA Health and Safety Inspector
Objectives

- HSE Act 1992 / duties and responsibilities
- CAA HSU surveillance and compliance as a regulator
- Health and Safety at Work Reform Bill - Proposed
s3A Application of Act to aircraft (in & on aircraft)

s2 Interpretation of a hazard means:
- arrangement, circumstance, event, occurrence, phenomenon, process, situation, or substance) that is an actual or potential cause or source of harm; and
- includes FATIGUE (very prescriptive)

s7 Systematic processes to identify & manage hazards (EIM)
HSE Duties and Responsibilities

- Gain or reward / contract management / systems & processes
- s6 Duties of employer (safe work place)
- s16 Duties of persons who control places of work
- s17 Duties of self employed people (contractors/subcontractors)
- s18 Duties of Principal (contractor plans)
- s19 Duties of employees (actions or inactions = fit for work)

All practicable steps to ensure persons not harmed at work
CAA HSU surveillance & compliance as a regulator proactive approach

- HSU audits, education & support
- CAA Guidelines on Fatigue
- Fatigue Risk Management Systems / policies & procedure / Itemised in hazard register / training / documentation
- Fatigue risk indicators consideration to:
  - Medications / age / fitness / alcohol taken
  - Documentation / flight and duty / pilot awake hours
  - Additional duties / hours planning & driving to/from work
  - Job assessments / post work / work loads / weather mistakes or errors made
  - Meals & breaks / hydration
  - Fatigue monitoring / review / awake hours / stress
### Fatigue risk indicators

#### How fatigued am I?  
**NZAAA**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many days in a row have you worked without a day off?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>What percentage of your usual quality sleep time have you had over last five days?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>90%</td>
<td>80%</td>
<td>70%</td>
<td>60%</td>
</tr>
<tr>
<td>In the past five days have you been starting work before daylight by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 hour</td>
<td>2 hours</td>
<td>3 hours</td>
<td>4 hours</td>
<td>5 hours</td>
</tr>
<tr>
<td>Outside of work how much exercise have you had over last 5 days?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 hours</td>
<td>4 hours</td>
<td>3 hours</td>
<td>2 hours</td>
<td>1 hour</td>
</tr>
<tr>
<td>Evaluate how your performance is impaired by alcohol or drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No impairment</td>
<td>Slight impairment</td>
<td>Medium impairment</td>
<td>More than medium</td>
<td>Heavily impaired</td>
</tr>
<tr>
<td>Evaluate how relationship or family stressors have affected your fatigue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slight to no effect</td>
<td>Slight effect</td>
<td>Medium effect</td>
<td>Significant effect</td>
<td>Bad effect</td>
</tr>
<tr>
<td>Evaluate your physical wellbeing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well</td>
<td>Mostly well</td>
<td>Off colour</td>
<td>Feeling unwell</td>
<td>Really unwell</td>
</tr>
<tr>
<td>Evaluate your workload outside flying or loading duties. E.g. compliance documentation, other paperwork, other job whether paid or not</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nil</td>
<td>Light</td>
<td>Average</td>
<td>More than average</td>
<td>Heavy</td>
</tr>
<tr>
<td>Evaluate your fatigue level by recording the number of symptoms you are experiencing from those listed on Page 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Over 4</td>
</tr>
</tbody>
</table>

If you have answered more than two Level 3 answers or one or more Level 4 or 5 answers what actions are you taking to mitigate the risk of fatigue? Consider:

- Starting late next day
- Having the next day off
- Having two days off
- Other

Signed.................................................... Date....................................

This assessment is to be kept on the individual’s personal file for a period of not less than 12 months.

Ref: NZAAA Fatigue Risk Management Programme
Proposed changes to s3A HSE Act 1992:

- **s7** largely the original s3A of the HSE Act

- ‘In operation’ should include time from the moment a crew or flight crew member is present on board in respect of a flight, until all crew have disembarked after landing.

- The original exception under the HSE Act for s16 appears to have no equivalent: this means passengers will be covered by H&S

- ‘Is operating on’ should be ‘Is operating in respect of’
  - A flight beginning & ending at ……
  - Outside New Zealand……
Health and Safety at Work Reform Bill
Proposed

* s12 Officers duties – director, CEO, not managers or supervisors
  Governance corporate responsibility – knowledge of risks & safety
* s39 Due diligence - system integrity and leadership
* s13 PCBU - Person conducts business or undertaking
* s29 Duties of care – work influenced or directed by PCBU
* s17 Reasonable Practicability - whether cost grossly disproportionate to risk
* s.64 Duty to improve workplace practice – involve engagement
* Fitness for work obligations – Fatigue risk management
AVIATION SAFETY NEEDS YOU!
Aviation Safety is Everyone’s Responsibility

Thank You