

Appendix WOCL to DGCA Cockpit/Enroute inspection checklist

(To be additionally carried out when the inspection is carried out during the WOCL period)

Definition

3.17 **Window of Circadian Low (WOCL)** is best estimated by the hours between 0200 and 0600 for individuals adapted to a usual day-wake/ night sleep schedule. This estimate of the window is calculated from scientific data on the circadian low of performance, alertness, subject report (i.e., peak fatigue), and body temperature. For flight duty periods that cross 3 or fewer time zones, the window of circadian low is estimated to be 0200 to 0600 home-base/ domicile time. For flight duty periods beyond 3 or more time zones, the window of circadian low is estimated to be 0200 to 0600 home-base/ domicile time for the first 48 hours only. After a crew member remains more than 48 hours away from home-base/ domicile time, the window of circadian low is estimated to be 0200 to 0600 referred to local time at the point of departure .

OBJECTIVE

To monitor the neurobehavioral performance and vigilance in the flight deck in the period of circadian low and measure/monitor the operators countermeasures if any.

WARNING SIGNS OF FATIGUE

When flight crewmembers are fatigued several warning signals alert of dangerous situation. These may be observed by the inspector and include:

	PHYSICAL SYMPTOMS CUES	COMMENTS
1	<i>Persistent yawning</i>	
2	<i>Wandering or poorly organized thoughts</i>	
3	<i>Spotty near term memory</i>	
4	<i>Missed or erroneous performance of routine procedures</i>	
5	<i>Head bobs involuntarily</i>	
6	<i>Degradation of control accuracy</i>	
7	<i>Rushed briefings</i>	
8	<i>Eye rubbing</i>	
9	<i>Micro sleep</i>	

	MENTAL SYMPTOMS CUES	COMMENTS
1	<i>Lapses in attention</i>	
2	<i>Difficulty remembering what one is doing</i>	
3	<i>Failure to communicate important information</i>	
4	<i>Failure to anticipate events or actions</i>	
5	<i>Accidentally doing the wrong thing</i>	
6	<i>Accidentally not doing the right thing</i>	
7	<i>Non-recognition of dangerous situation</i>	
8	<i>Missing of alarm/ alerting signals</i>	
9	<i>Choosing risky options</i>	
10	<i>Neglect normal checks and procedures</i>	
11	<i>Not aware of impaired task performance</i>	
12	<i>Rapid irritation - bad team work</i>	
	EMOTIONAL SYMPTOMS CUES	COMMENTS
1	<i>Mental symptoms Difficulty concentrating on tasks</i>	
2	<i>More quiet or withdrawn than normal</i>	
3	<i>Lacking in energy</i>	
4	<i>Lacking in motivation to do the task well</i>	
5	<i>Irritable or grumpy behavior with colleagues</i>	
	COUNTERMEASURES KNOWLEDGE	COMMENTS
1	<i>Are the crews aware of the above hazards of flying in WOCL and discuss this in briefs</i>	
2	<i>Does the operator have a countermeasure policy to address this fatigue issue</i>	
3	<i>Does the operator have a FRMS (Fatigue risk management system) in place</i>	