

# Helicopter Flight Deck Ergonomics

## Background

Helicopter flight crew fatigue has a number of causal factors which are common to all flight crews, however, the helicopter flight deck presents particular challenges. These include high levels of noise, vibration, and ergonomic compromises as a result of the unique challenges of rotary operations.

IFALPA [15POS01 Fatigue Management](#) addresses IFALPA's position on Fatigue Management and the factors related to Fatigue Risk Management Systems (FRMS).

Poor ergonomics and physical discomfort have a negative effect on human performance and are a significant contributory factor in fatigue accumulation. IFALPA recognises the importance of managing fatigue in ensuring positive safety outcomes and human performance. Through improvements in flight deck design, it may be possible to remove many of these effects.

ICAO Annex 8, Part IVB requires that the cockpit environment "shall allow the operation of the controls... without unreasonable concentration or fatigue." Part IVB further references ICAO Doc 9683 which emphasises the importance of "...controlling noise, vibration, temperature extremes and other stressful conditions."

## Position

IFALPA supports helicopter flight deck design for crash worthiness. However, ergonomics and specifically fatigue mitigating features must receive equal consideration. The two issues need not be mutually exclusive.

Manufacturers should consider, as a matter of priority, mitigation against noise, vibration, and fatiguing cockpit operations, so as to minimise the fatiguing effects of inadequate ergonomic design.

An accompanying briefing leaflet [18HELBL01](#) provides the perspective of the helicopter pilot community on good flight deck design.