

- 2.10 The ANIS research revealed no 'better' predictor of annoyance than 24-hour L_{eq} . However, the adoption of a 24-hour index would have been rather a substantial change from the previous 12-hour one and in any event it would not have permitted a recognition of the somewhat different considerations applying to the evaluation of noise by day and by night. Also, numerous concerns about the the 24-hour index were raised during the DOT consultation (Ref 9). Two studies of the effects of aircraft noise upon sleep (Refs 14 and 15) showed L_{eq} for the period 2300 - 0700 hrs (local) to be a relevant measure of night noise and this is logically complemented by a 16-hour day value. The great majority of all aircraft movements at UK airports occur between the hours of 0700 and 2300 and, furthermore, as a predictor of annoyance, $L_{eq}(16\text{-hr})$ was actually found to be statistically little different from $L_{eq}(24\text{-hr})$. The 8-hour night covers that part of the night during which night restrictions on aircraft operations are imposed at the London airports. Although unpublished contours of $L_{eq}(8\text{-hr})$ have been used by the DOT in special studies to evaluate the effectiveness of these restrictions, the question of more general use of night contours was considered to require further consideration. With regard to longer term averaging, there appeared to be no reason to change the NNI practice of computing noise exposures for the average summer day (between mid-June and mid-September) for day time values.