

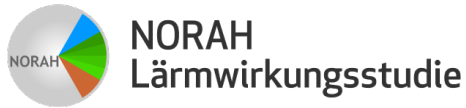
# The sleep experience from the point of view of the participants



In addition to the sleep measurements, the NORAH team asked all of the participants how they would assess their sleep themselves – after all, the sleep experience and disturbances by aviation noise are to a large degree a question of personal perception.

## 2011: frequent overflights cause tiredness

The morning after each night of measurements, the NORAH team asked all participants how sleepy and tired they felt. They used several scales for the answers, which are standard in scientific sleep studies. The researchers had expected that the residents subject to a higher noise exposure would also make a more negative subjective assessment of their sleep. And, in fact, for the investigation year 2011, when regular night flights were still taking place the respondents felt subjectively more tired after a night with a lot of overflights.



## 2012 and 2013: tiredness increases despite less frequent waking

*In 2013 the participants felt more tired and sleepy in the morning than in the previous years.*

The scientists were more surprised by the answers of the participants in the second and third year of the study. Because although the sleep measurement showed that the number of overflights and wake-up reactions had decreased, the participants felt increasingly tired and sleepy in the mornings. The introduction of the curfew on scheduled flights between 11 pm and 5 am had thus not caused the people to make a more positive subjective evaluation of their sleep. This result can also be expressed in figures: at the same number of overflights, the negative perception of sleep rose from 2011 to 2013 by five to eleven percent. In total, the subjective sleepiness and tiredness evaluations in all three investigation years were in the middle range of the tiredness scale used. The result was also the same for persons who took part in all three years. The NORAH team thus assumes that uninvestigated and probably non-acoustic factors led to this result.

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## Do you have any questions?

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