



Koninklijke Luchtmacht

# Modafinil in F-16 operations during ATF-ME

*A pilot study*

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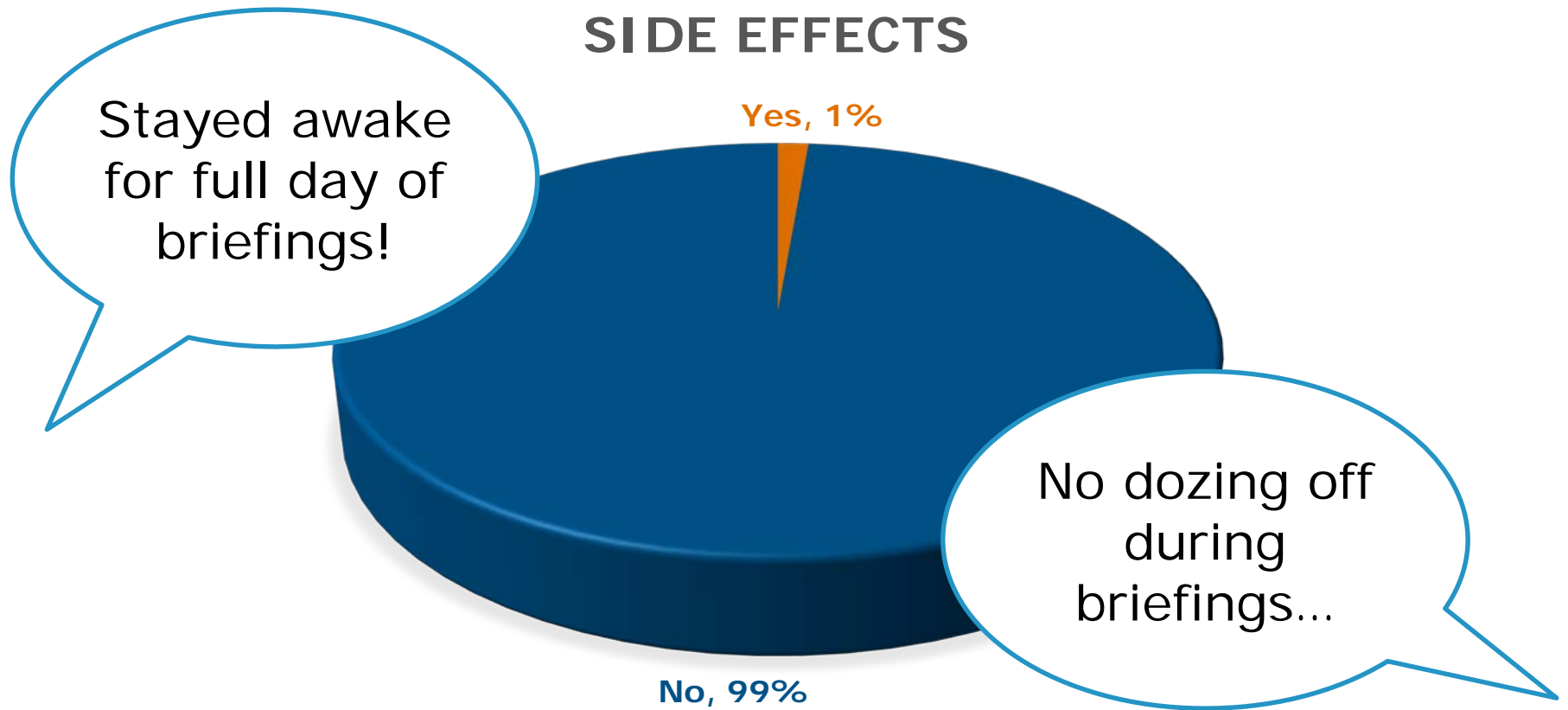
## Pilot study

- Ground-trial first
- Then freely usage in-flight
- Each time Modafinil is taken, evaluation afterwards



## Results ground-trial

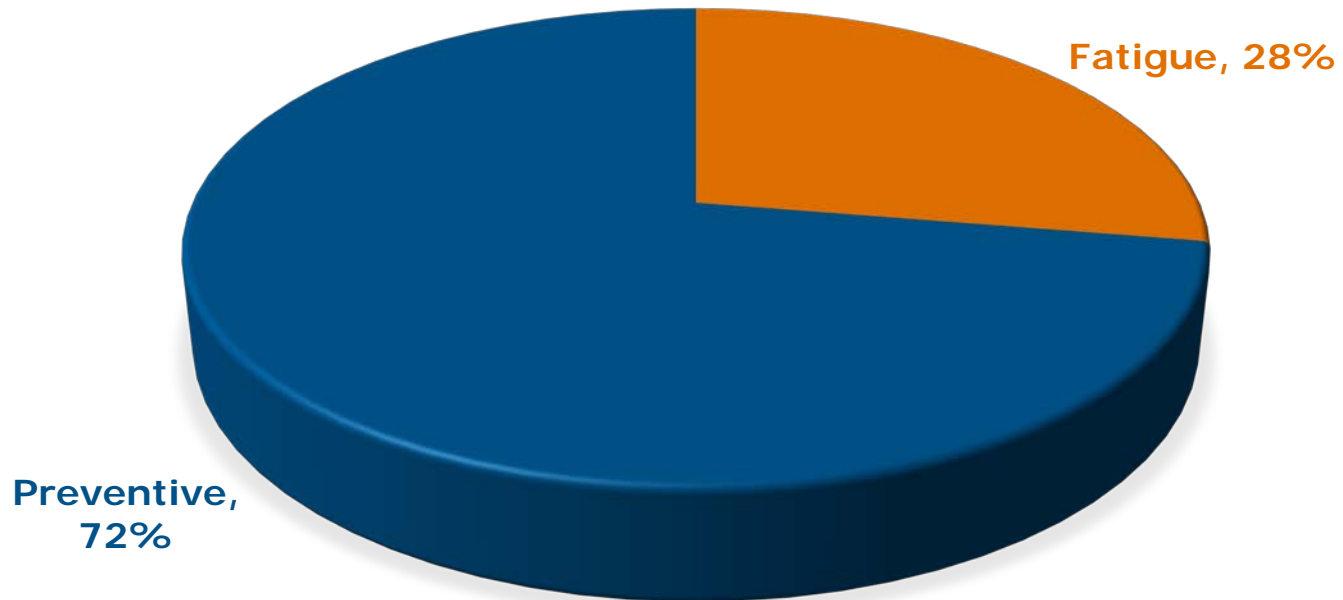
### SIDE EFFECTS





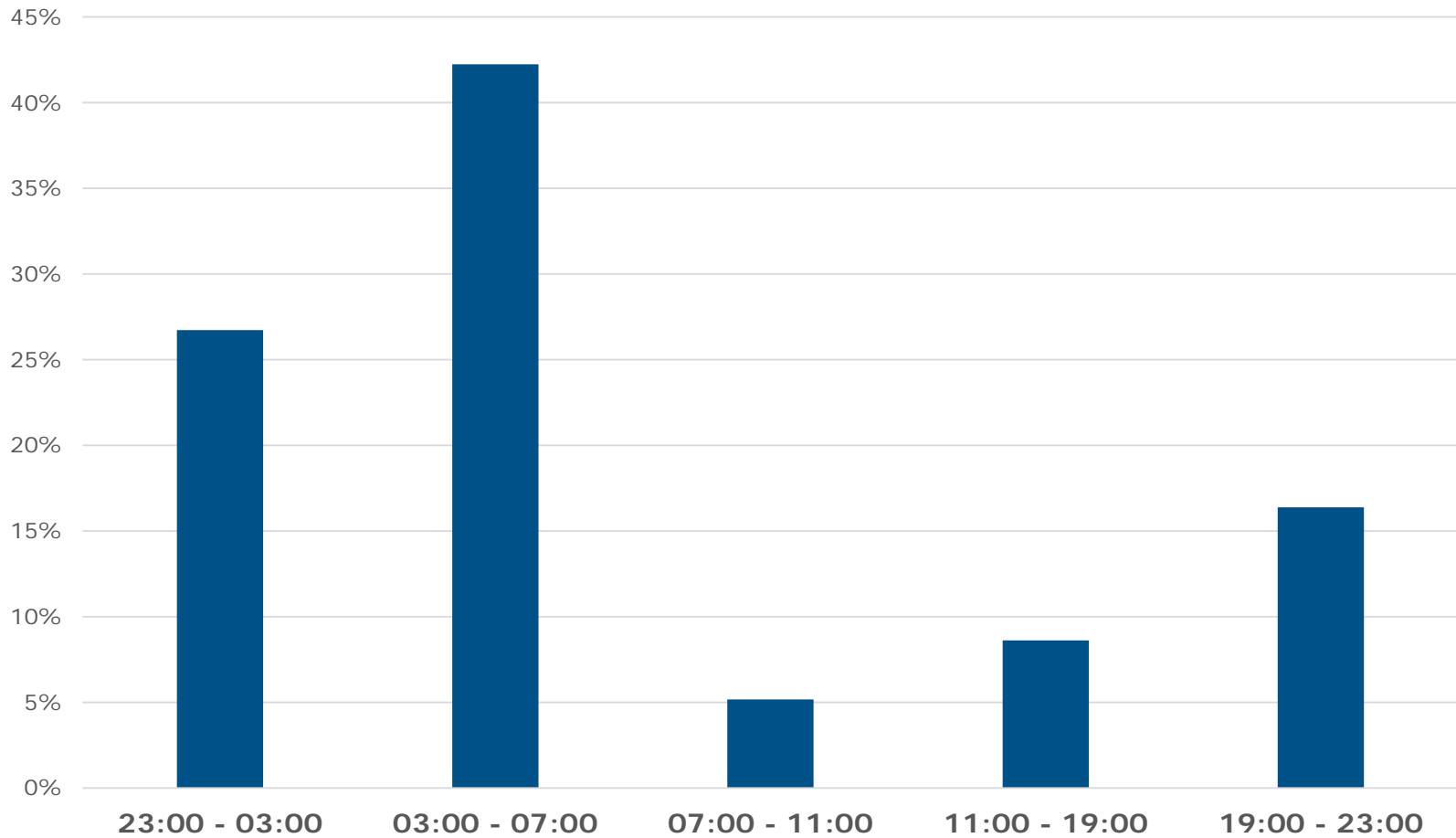
## Results in-flight

### REASON FOR TAKING MODAFINIL



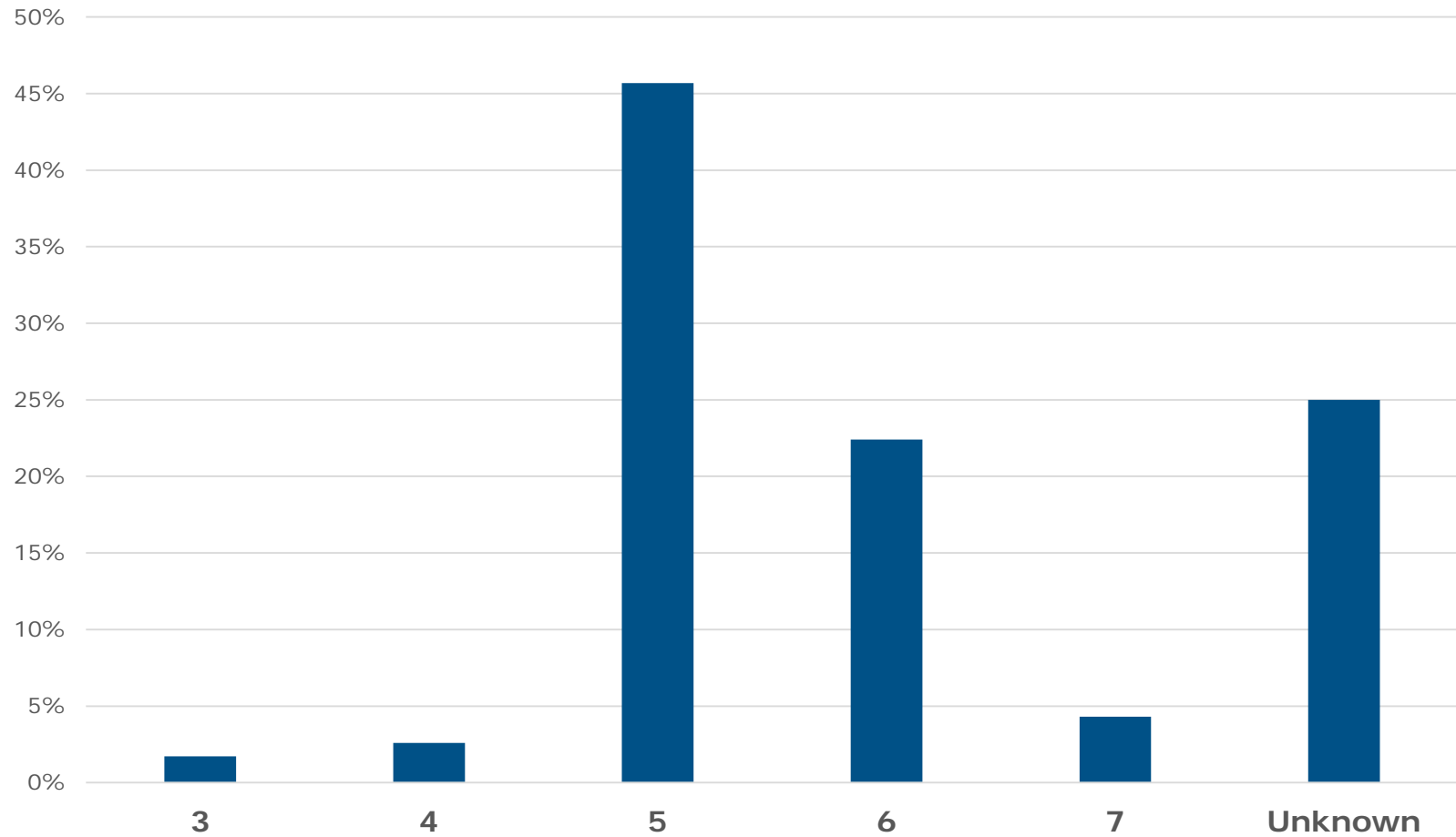


## T/O TIME





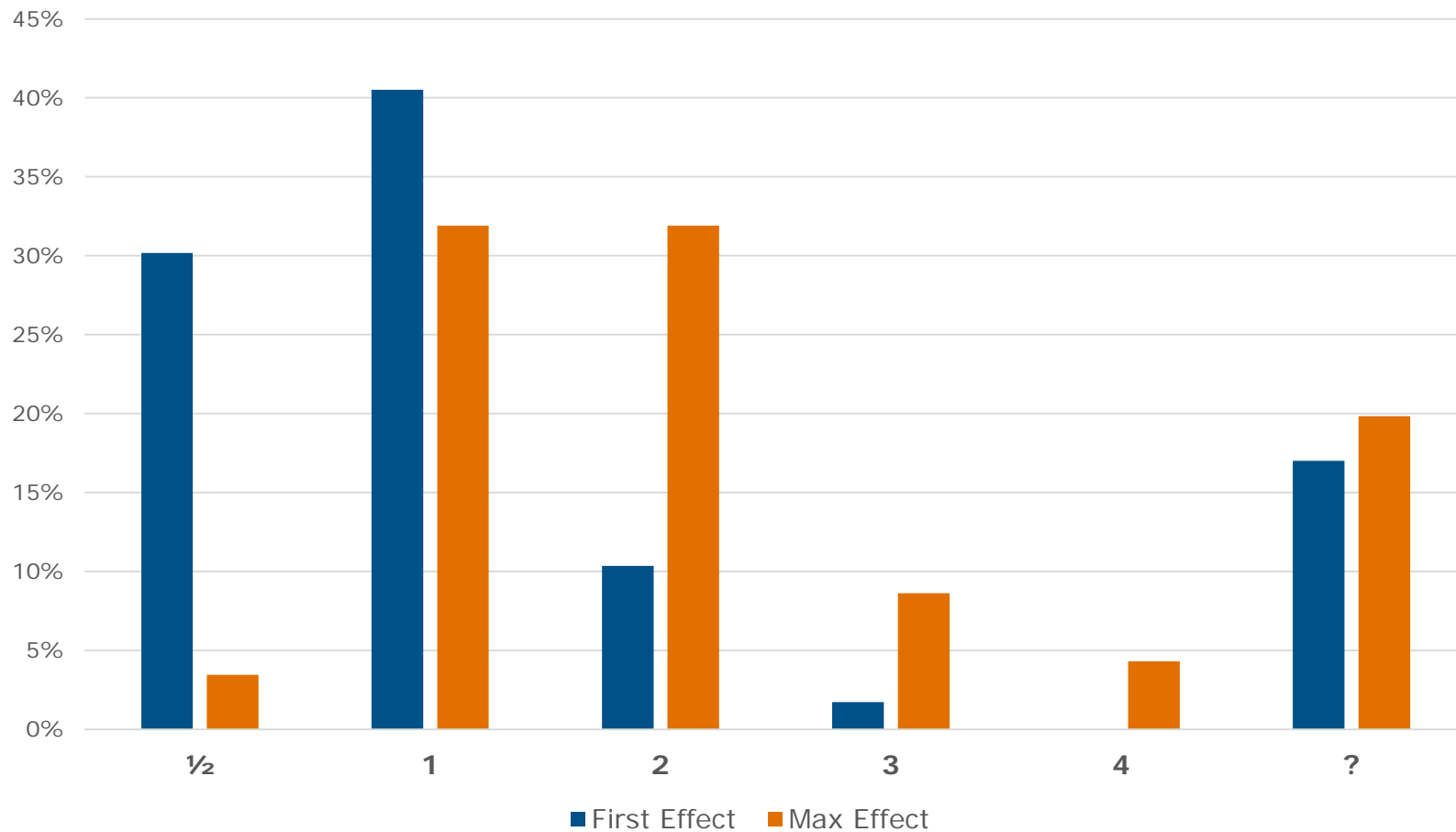
## FLIGHT TIME







# ONSET





## Conclusion Pilot study

- Good effect on concentration and vigilance
- (Almost) no side-effects
- Maximum effect between 1 and 2 hours
- Still questions remain



## Future research

- Double-blind, cross-over, randomized controlled trial
  - Modafinil vs caffeine vs placebo
- Staying awake for 24 hours (3 times)
  - Nightly vigilance tests
  - 4 blood samples (modafinil and caffeine)
- 30-36 subjects (Aircraft crew members)
- Starting in April 2019



## Questions?

