

Knowledgebase > How to prepare your observations (Phase 2) > Service Mode > With longer OBs I can reduce the overheads, why should I stick to the 1h OB maximum length rule?

## With longer OBs I can reduce the overheads, why should I stick to the 1h OB maximum length rule?

Paola Popesso - 2022-04-20 - Comments (0) - Service Mode

## With longer OBs I can reduce the overheads, why should I stick to the 1h OB maximum length rule?

Experience has shown that longer OBs make Service Mode observing less efficient. The reason is: the longer an OB, the more likely the external conditions worsen beyond the limit specified by the user in the Constrain set. Since OBs executed outside constraints must be rescheduled and re-executed, longer OBs imply not only a higher fraction of OBs to be re-executed, but also a larger amount of time wasted in the execution of OBs failed because of the degradation of external conditions.

Thus, although the overheads might increase due to a repeated acquisition, breaking down a sequence of long OBs into OBs shorter than one hour often improves overall operations efficiency by allowing the execution of OBs best matching the external conditions and scientific ranking. Therefore, to maintain the flexibility needed to adapt to changing observing conditions and to maximise operations efficiency, ESO requires that all Service Mode OBs be treated as independent observations with independent acquisitions. If the constraints change during the first hour of observation your OB will be repeated without any penalty or cost to your run.

Still, some programs may have scientific reasons that require OBs longer than one hour to be scheduled. In such case, a <u>waiver request</u> justifying the need for a longer execution time must be submitted to ESO. When sufficiently justified, these requests are accepted under the condition that the OB will be considered as executed within constraints even if the conditions degrade after the first hour of execution.

Tags	
length rule	
long OB	
longer OB	
OB length	
waiver	