

# ALMA Science

Knowledgebase > Archive & Data Retrieval > [What are the current QA2 requirements?](#)

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## What are the current QA2 requirements?

Sarah Bagley - 2024-03-19 - Archive & Data Retrieval

### 1) Angular Resolution (AR) requirement

Starting from Cycle 7, there has been a change in the angular resolution requirement compared to Cycle 6. In Cycle 7, the criterion for angular resolution is determined by the measured beam area rather than the linear size of the two axes, which was the criterion in Cycle 6.

For Cycle 7 and onwards, the measured beam area must be within the areas of circles with diameters corresponding to the minimum and maximum angular resolutions (minAR and maxAR).

It's important to note that this comparison equates to the geometric mean of the beam axes ( $\sqrt{a*b}$ , where 'a' and 'b' are the observed major and minor axes, respectively) falling within the angular resolution range specified by the minAR and maxAR values.

The minAR and maxAR values are computed by the ALMA OT, for each of the SBs, based on the angular resolution range for the science goal provided by the PI.

### 2) Sensitivity Requirement

The RMS acceptance criteria for a QA2 pass include meeting the PI's sensitivity requirement along with a QA2 tolerance that varies based on the observational band of the MOUS:

(Table in flux units per beam)

Bands 1/3/4/5/6	10%
Bands 7/8	15%
Bands 9/10	20%

Tags

qa2