Impact on FOCAS observations in ULTIMATE era

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Assumptions

- Cs auto guider (AG), Cs atmospheric dispersion corrector (ADC), and Cs calibration sources will be removed for ULTIMATE project.
- By 2029 spring. Around the end of 2027 (?).
- FOCAS observations are heavily depend on AG, ADC, and cal sources.
- FOCAS will not be available within 2-3 years.

The studies of impact

- Check whether the observation will be capable with PFS, or not.

- Picked up the accepted FOCAS proposals from S24A to S25B.

- Ranked them three categories (OK, probably OK, Impossible)

Results

	OK	Probaly OK	Impossible	Total #
S24A	9	3	5	17
S24B	5	4	4	13
S25A	5	2	3	10
S25B	4	1	5	10

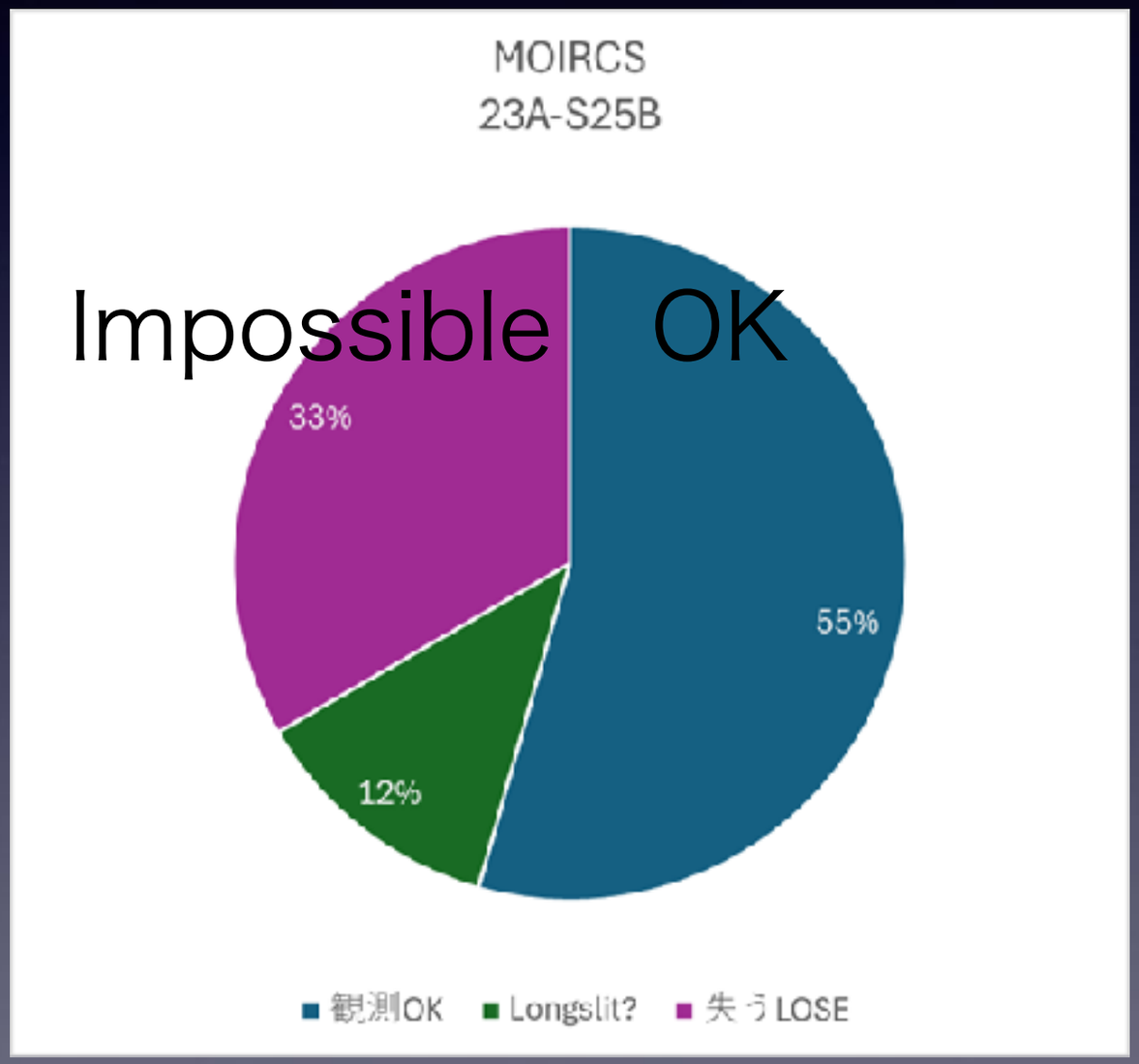
A half are OK.　　1/3 are Impossible.

Results (2)

- A few IFU and polarimetry programs per semester are impossible.
- Some proposals targeting transients need flexible, and coordinated multi-color imaging and spectroscopy. Difficult with PFS and HSC.
- We will lose capability of spatial resolved optical spectroscopy in a few to 30 arc seconds scale due to the limitation of PFS (min. Sep=30”).

Brief comments about MOIRCS

- MOIRCS imaging does not use AG and ADC. We can continue to use MOIRCS imaging capabilities.
- But, MOIRCS multi-object spectroscopy will be unavailable due to no AG.



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Accepted proposals	# of FOCAS	# of total
S24A	17	56
S24B	13	55
S25A	10	54
S25B	10	58