Maunakea Metrics

Jessica Dempsey
Exec

Data metrics

Operational metrics

Engineering metrics
Data metrics

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Engineering metrics

Voltages, temperatures, pressures (i.e. please tell us if you break or are about to die)
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Engineering metrics

Faults, weather, scheduling, calibration (what do your night logs report?)

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Engineering metrics

Data quality assessment, reduction, products, archive use

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What you need to show your Board to make them give you money

Data quality assessment, reduction, products, archive use

Faults, weather, scheduling, calibration (what do your night logs report?)

Voltages, temperatures, pressures (ie. please tell us if you break or are about to die)
Executive metrics

- Over-subscription
- User satisfaction
- Completion and efficiency
- Publications
Executive metrics

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Yes, of course!
Executive metrics

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Sure

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Sure

Yes, of course!

Sometimes...

Huh, what?
Data metrics

- Pipeline
- Archive
- Data acquisition
- Quality Assurance
What fraction of papers?
Data metrics

- Quality Assurance
- Archive
- Pipeline
- Data acquisition

Observer vs automation

What fraction of papers?
Data metrics

- Observation vs automation
- What fraction of papers?
- Strongly dependent on flex/classic

- Pipeline
- Archive
- Quality Assurance
- Data acquisition
Data metrics

- Quality Assurance
- Archive
- Pipeline

What fraction of papers?

Observer vs automation

Strongly dependent on flex/classic

High rates make real-time analysis challenging
Operations metrics

Weather

Faults

Scheduling

Calibration and QA
Operations metrics

Only half the observatories use a database fault system.
Operations metrics

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Everyone uses everyone else’s weather measurements.
Operations metrics

Only half the observatories use a database fault system.

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Flex or queue?
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Everyone uses everyone else’s weather measurements.

Flex or queue?

Remote or summit?
Remote operations - all observatories either are in full/partial remote operations or planning on it

Nearly even split between flex (queue) observing and classical scheduling
Faults and efficiency

About half of MK telescopes report using a database (searchable) fault reporting system.

Value return is not just in keeping fault rates low (<3%) but for training, historical tracking, redundancy.

Highest time losses reported are in instrument downtime, dome/shutter failures... and software.
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2TB of data taken each night
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