

NORDIC OPTICAL TELESCOPE

Strategy Meeting, Nov. 8-10, 2006

Title of Research Group/Project:

Instrument Center for Danish Astrophysics (IDA)

Science field:

Affiliation:

Danish astrophysics

Contact person:

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Outline of Research Plan for CNO and NOT:

IDA's mission in this context is to support competitive astrophysics research conducted at Danish research institutions. IDA is interested in optimizing science return and quality from Danish involvement in large international facilities, including the NOT/CNO.

There is no research plan as such, but IDA gives priority to projects within the focus areas defined by the Danish 'Astronomisk Udvalg': cosmology and galaxy formation, star and planet formation, and extreme astrophysics.

IDA sees the NOT/CNO play an important role for preparing/supplementing observations with large ground-based facilities (e.g., VLT, ALMA) and space observatories (e.g., HST, JWST).

In making decisions about the future of NOT/CNO IDA recommends

- a bottom-up vs. a top-down process where all interested scientific astrophysics groups and individuals with credible and realistic ideas and plans are heard.
- that scientific strength and potential must be the guiding (if not overruling) principle, even if this would imply diminished access for large fractions of the community.
- that scientific impact of projects and instruments be gauged from a bibliographic analysis of publications based on NOT over the past decade.

As inspiration for the future operations of the NOT, IDA points to possible parallels with the experience in transforming the operations of the Danish 1.5m telescope at La Silla. Previously, of order 5–10 nights per project were granted to visiting observers. IDA brought groups of scientists sharing scientific interests and subsequently encouraged large observing programs, typically of one-month durations. For the Danish 1.5m, this process resulted in a few large consortia and fewer PIs and CoPIs. Remarkably, despite diminished support and maintenance of the telescope, this boosted the scientific output and allowed for a more efficient use of guest observers. It must be stressed that such a process does not happen automatically and would have to be initiated and encouraged by NOT if a similar strategy were to be adopted at the NOT/CNO.

Estimated observing time needed 2007-2011:

Optimum CNO telescope(s) for your research:

Instrumentation needed or desirable:

Scheduling, observatory services needed:

Any special constraints: