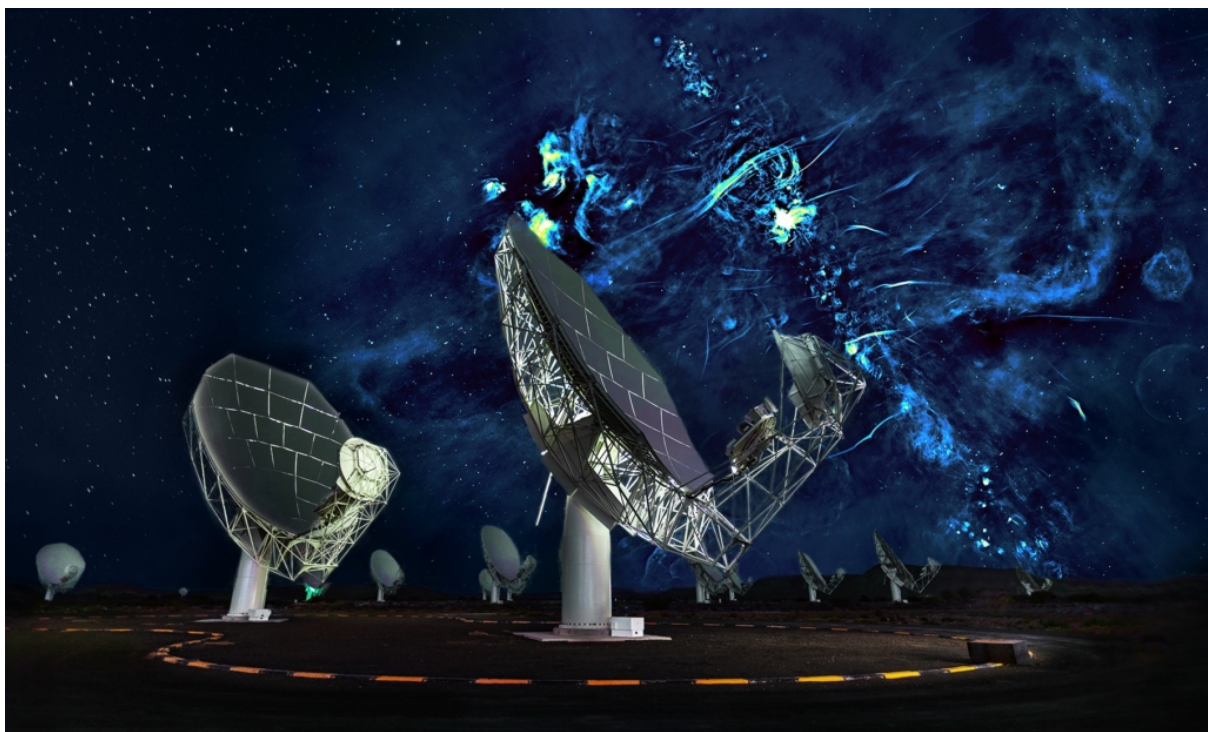# MeerKat Operator Manual

SARAO

Telescope Operators

Preface

This manual is designed to help new users (i.e Students,Visitors,) of the
MeerKat Radio Telescope[] to link and to undestand basic operational pro-
cedures[], and scientific procedures[] that are being used to carry out scien-
tific observations. The complexity of the instrument requires many software
interfaces for instrument setup, scheduling, monitorig and maintenace man-
agement.

Most of the operational terminologies and commands can only be understood
by people in the operations and commissioning divisions of SARAO, thus the
document bridges that gap. The sientific community is more interested in
underlying scientific methods, validation and qualification procedures that
are the ultimate goal of all the operational activities.

Naming Convenctions

The following typographical rules and standards [**?**] [1] have been adopted for this manual:

- Units

- Names of servers and computers

- Names of software packages

- Names of software programs

- Command line/terminal command e.g

- Windows command

- Filename, e.g

- Program option

- Acchronyms

- Placeholder for changeable parameters

- Optional parameter,

- List of possible commands or parameters

List of acronyms

ABL	Allocated Baseline
Ac	Critical Availability
ADR	Architecture Design Review
AGN	Active Galactic Nuclei
Ai	Inherent Availability
AOR	Annual Operating Requirement
AR	Acceptance Review
BOM	Bill Of Material
CA	Criticality Analysis
CDR	Critical Design Review
DDR	Detail Design Review
D-Level	Deport Level
DLM	Depot Level Maintenance
FAT	Factory Acceptance Tests
FMEA	Failure Modes and Effects Analysis
FMECA	Failure Modes, Effects and Criticality Analysis
FPGA	Field Programmable Gate Array
FRACAS	Failure Reporting and Corrective Action System
GHz	Giga Hertz
GUI	Graphical User Interface
HartRAO	Hartbeeshoek Radio Astronomy Observatory
Hrs	Hours
I-Level	Intermediate Level
ILM	Intermediate Level Maintenance
ILOR	Intended Learning Outcomes Report
ILS	Integrated Logistic Support
ISO	International Standards Organisation
KAT-7	Karoo Array Telescope, 7 array
Kg	Kilogram
Km	Kilometer
L3/4/5	Level 3/Level 4/Level 5
LEMP	Logistic Engineering Management Plan
LRU	Line Replaceable Unit
LSA	Logistic Support Analysis
MBL	Manufacturing Baseline
MSCDR	Media Selection & Curriculum Development Report
MSP	Maintenance & Support Plan

4

List of Figures

Contents

Chapter 1

Introduction

Chapter 2

User Requirements

Chapter 3

Functional Requirements

Chapter 4

System Settings Procedures

Chapter 5

Chapter Three Title

Chapter 6

Conclusion

Appendix A

Appendix Title

Bibliography

[1] Albert Einstein. International union of pure and applied physics. symbols, units, nomenclature and fundamental constants in physics. 322(10):891–921, 1905.