

Neutron Monitor



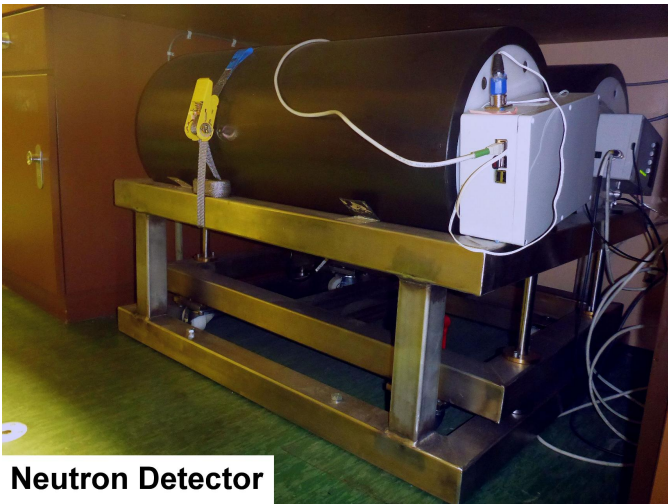
Attention:

Please note: The system works autonomously and needs minimum attention. Scientific co-use by Desy Zeuthen. Data transfer once per day.

Summary

Neutron monitors are ground-based devices to measure the variation of cosmic ray intensities. The instrument is a counter designed to detect nucleonic components of cascades initiated by primary cosmic particles in the atmosphere.

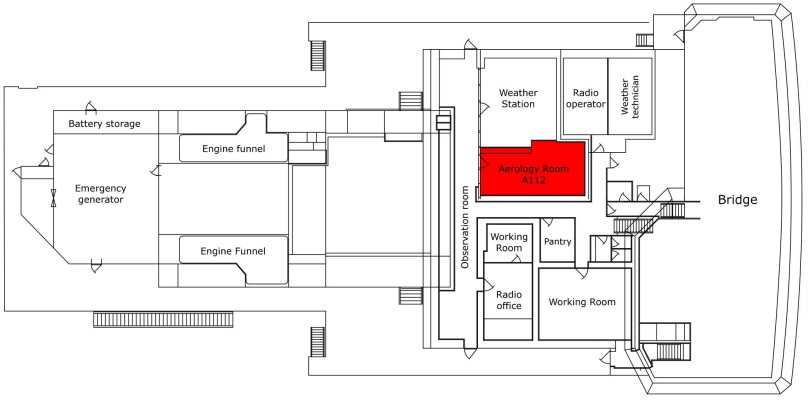
Manufacturer	Northwest University, Potchefstroom, South Africa
Model	
Serial No.	n/a
Type	small scale facility
REGISTRY-Link	REGISTRY (1433)



Neutron Detector

schematic drawing of Polarstern deck A

location of aerology room A112 (neutron & myon detectors, disdrometer electronics, water vapour analyzer, DigiCora radiosonde receiving station, wave radar system WaMoS)



Contacts

Name	Institution	Role
Bernd Heber	Christian-Albrechts-University Kiel	Principal Investigator

Components

Position

Info	no xyz-position given, device located in A112
X	0.0 (no unit given) (no description given)
Y	0.0 (no unit given) (no description given)
Z	0.0 (no unit given) (no description given)

Data logging, storage and archiving

Logged parameters

Parameter	O2ARegistry Output Type	Unit
amount of cosmic particles	amount	number

Central geographical ship's position and time standard

Rawdata storage on board

Data archiving on land

Documentation

- [NeutronMonitor_manual](#) (User Manual, 2 MB)
- [Mini Neutron Monitors at Concordia Research Station, Central Antarctica](#) (Article, 2 MB)
- [A calibration neutron monitor - Statistical accuracy and environmental sensitivity](#) (Article)
The paper describes the characteristics of a pair of calibration neutron monitors that were developed to intercalibrate the count rates of the worldwide neutron monitors against each other.
- [A calibration neutron monitor - Energy response and instrumental temperature sensitivity](#) (Article)
- [First Results of a Mobile Neutron Monitor to Intercalibrate the Worldwide Network](#) (Article)
- [Mini neutron monitor measurements at the Neumayer III station and on the German research vessel Polarstern](#) (Article, 956 kB)