

6.21 STANDARD OPERATION PROCEDURES (SOP) FOR WEATHER RADARS OPERATION, MONITORING, MAINTENANCE AND CALIBRATION

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A standard operating procedure, or SOP, is a set of step-by-step instructions compiled by an organization to help workers carry out complex routine operations. SOPs aim to achieve efficiency, quality output and uniformity of performance, while reducing miscommunication and failure to comply regulations. The information collected in to SOP will help the present maintenance personnel in their work as well as the new maintenance personnel familiarizing themselves with operation, monitoring, maintenance and calibration procedures of radars.

This document was prepared as an example of a SOP document and is written in generic way enabling it to be used independently of the radar manufacturer or radar type. With the help of this SOP, the maintenance personnel can monitor, maintain and calibrate the weather radars and make sure that all operations and tasks are made and taken care of. These procedures are to be followed to minimize variation, reduce errors, and ensure accuracy in measurement of meteorological radar parameters.

Procedures provide a description of who does what, and when. An SOP characterizes relationships and control measures. It defines the roles and responsibilities to help workers “find themselves” in the process. Procedures clarify different decision points and provide the necessary guidance on criteria to make a decision.

The SOP is prepared based on FMI radar team experience, Timo Posio’s engineering degree thesis “Functions, maintenance and calibration of the WRM200 weather radar” and an article “MAINTENANCE KEEPS RADARS RUNNING”, BAMS 2017, Saltikoff et.al.