# Infrastracture for space weather services in Uganda

**"**Space Weather and Upper Atmospheric data analysis training workshop for East African Community"

By Moses Ojara (PhD) +256774390880/256702493588



Background

**Weather monitoring equipment at UNMA** 

- a) Manual Weather Monitoring equipment
- b) Automatic weather Monitoring equipment
- c) Distribution of Weather Monitoring Station Network
- d) Weather Rader Installation
- e) Upper Air station (Radiosondes)
- f) Plan for UNMA (Improving Station Network)

#### **1.0 Background**

#### **Uganda National Meteorological Authority (UNMA)**

- $\succ$  Formed by the act of Parliament of 2012
- ➤ Came in action in August 2015

#### Mandate

Uganda National Meteorological Authority (UNMA) is mandated to promote, monitor weather and climate as well as provide weather predictions and advisories to Government and other stakeholders for use in sustainable development.

#### Mission

To contribute to overall national development through provision of quality customer focused cost effective and timely information for weather and climate services to all users.

#### Vision

To be a centre of excellence on Weather and Climate services for sustainable development of Uganda

Infrastracture for space weather services in Uganda

#### (a) Manual Weather Stations





12 Synoptic Stations 11 Agrometeorological Stations 09 Hydro-meteorological Stations =Others station =45 Major Stations = 200 Rainfall stations



#### **AUTOMATIC WEATHER STATION(AWS)**



#### **2 METERS AND 10 METERS**



#### **THREE(3) WEATHER RADARS INSTALLED AT LIRA, RWAMPARA, AND ENTEBBE**



### **Upper Air observations**

- □ There is one Upper Air stations at Entebbe International Airport (EIA)
- Monitoring vertical atmospheric profile for meteorological purposes.
- □ The station is equipped with a latest model of a Hydrogen generator as well as a DigiCora model MW41
- □ To relay and display of the captured upper air data in real-time
- Radiosondes are battery-powered telemetry instrument packages that are carried into the atmosphere typically by a weather balloon; they measure altitude, pressure, temperature, relative buried ity wind (both speed and

#### Radiosondes



Under National Development Plan III

## Target to increase automation to 60-80% of the National Coverage.

Operationalized 5 regional meteorological offices

**THANK YOU**