



# WORLD METEOROLOGICAL ORGANIZATION

Request for assistance under the WMO Voluntary Co-operation Programme (VCP)\*

Port Sudan PRA

1. **WMO Member:** Sudan
2. **National agency responsible for initiating the request:** Sudan Meteorological Authority
3. **Title of project:** Hydrogen Generator
4. **Purpose and description of project (project plans: activities, actions, steps or phases; and assumptions used in the project plan)**

The purpose of the project is to provide the hydrogen for the upper air station, currently only Khartoum station is working (GUAN station), in this year two other upper station will operate namely: Port Sudan (at the Red Sea) and Elfasher at far west Sudan

5. **Overall goal(s) (Explanation of how the project is related to the WMO Long-term Plan and outline of any relevant national development plan including procurement plans from other sources, and existing facilities and expertise)**

Enhanced capabilities of Members to access, develop, implement and use integrated and interoperable upper air observation for weather, climate and hydrological observations as well as related environmental observations, based on world standards set by WMO.

6. **Expected outcomes (Global, regional or national benefits to be expected from the project)**

Expected outcomes: Addresses improvements in three systems – WIGOS, WIS and a strengthened Global Climate Observing system, which will facilitate improvements in the quality of climate data from the entire climate system to meet the needs of international, regional and national users of climate data and derived products.

7. **Nature and scope of national contribution to project, in particular as far as continuous operation of the equipment provided is concerned**

The infrastructure of the Hydrogen Generator – continuous operation and maintenance Hydrogen Generator

8. **Estimated duration to complete project, including training, if any**  
Three weeks for installation and training

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\* Should the reply to a question exceed the amount of space provided please continue on a separate sheet

Received WMO REGISTRY (1)		- 8 JUL. 2013	
17255-13 PRA/PRA			
SG	DSG		
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Approved	Filed		

9. *Nature and scope of VCP support and project budget proposal (with detailed description and the estimated cost of each item)*

**Estimated Cost = 300.000 USD**

10. *If this request is related to the supply of specific equipment, components, software, etc., indicate the specific items required and supplier(s) that are known to be able to satisfy the requirement*

Model -	M-28-600-T
AC Input -	220 volt, single phase, 60hertz, 33 amperes
Generating Capacity-	28 Cubic Feet Per Hour –Hydrogen 14 Cubic Feet Per Hour – Oxygen 600 Standard Cubic Feet.
Storage Pressure -	100 Psig
Hydrogen Purity -	99.7%
Water Consumption-	6.0 gallons Per day per 130 cubic feet (1 balloon)
Power Consumption-	24 Kwh per day per 130 cubic feet (1 balloon)
Rectifier -	Air-cooled silicon type max rated output 250 amp DC at 16.4 volts.
Shipping Cubage -	Estimated 342 cubic feet

11. *Project partnerships, if any (e.g., if this project is to be combined with other funding, such as UNDP or national funds, please indicate the amount of other funds approved or requested)*

National Fund of about 6 Million Euros for rehabilitation of Sudan Meteorological Authority

12. *Reason why other sources of assistance cannot be expected*

With the current economic and financial problems it is unlikely necessary funding for the Hydrogen Generator will be supported by the Government.

13. *Contact details of designated focal point who is responsible for the implementation and report of the project*

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Title: Director-General  
Address: Sudan Meteorological Authority

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Signed:



Title: The Permanent Representative  
of: Sudan with WMO  
Authorized to sign on behalf of  
the Government

Place: Khartoum

Date: 29/6/2013