WORLD METEOROLOGICAL ORGANIZATION

COMMISSION FOR INSTRUMENTS AND METHODS OF OBSERVATION
OPAG-UPPER-AIR

JOINT MEETING

CIMO EXPERT TEAM ON UPPER-AIR SYSTEMS INTERCOMPARISONS
First Session

AND
INTERNATIONAL ORGANIZING COMMITTEE (IOC) ON UPPER-AIR SYSTEMS INTERCOMPARISONS
First Session

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MAIN OBJECTIVE, PLACE, DATE AND DURATION OF WMO INTERCOMPARISON OF HIGH QUALITY RADIOSONDE SYSTEMS

An Invitation from Mauritius Meteorological Services to host WMO Intercomparison of High Quality Radiosondes

(Submitted by Beenay Pathack, Mauritius)

Summary and purpose of document

This document provides details of the Mauritius offer to host WMO Radiosonde Intercomparison.

Action proposed

The meeting is invited to note and comment on the information contained in the report and take actions on the issues raised in the report, as appropriate.

An Invitation from Mauritius Meteorological Services to host WMO Intercomparison of High Quality Radiosondes

1. Mr S.N. SOK APPADU, director of Meteorological Services and Permanent Representative of Mauritius with WMO, informed the WMO Secretary-general, in his letter of 18 March 2003, that Mauritius would be pleased to host WMO Radiosonde Intercomparison.

2. This exercise is being planned to be held at the Mauritius Meteorological Services Headquarters, located at Vacoas, in the central part of the Island. (A site plan will be prepared and distributed later). The land plot measures about 100 meters by 120 meters. Buildings, associated grounds, and observation plot occupy part of it. An area of about 70 meters by 70 meters is reserved for upper soundings (launching) purposes; this area is almost flat and covered with grass.

3. The balloon shed measures around 4 meters (length) by 4 meters (width) by 4 meters (height). Hydrogen is used for filling the balloons. At present, 500-gram balloons are launched every afternoon, with attached radiosonde. At ground level, after inflation, the balloon measures about 1.5 meters in diameter and has a free lift of 1.5 kg. The ascent rate is about 6 m per second.

4. The hydrogen generator (electric version -- electrolysis) can fill the actual cylinder in about 20 hours up to a pressure of 120 PSI units. This cylinder, when full can inflate two 500-gram balloons. It is understood that the planned exercise would require 2000-gram balloons to be inflated. So there is a need to explore alternate sources for the gas (hydrogen or helium).

5. There is one local company, which can supply hydrogen and/or helium for inflating the balloons. They have cylinders and fittings for 8-metre-cube volumes of the gas. The present cost estimate for the gas is around 5800 Mauritian Rupees; that is, about US$ 200 for 8 meter cubes of the gas. There could be other charges involved, such as for fittings and labor.

6. The current radiosonde system is based on the 'STAR' software, with the relevant ground equipment. It is believed there would be no problem as far as accommodation of experimental radiosonde systems and their ground equipment, rooms, cabinets, etc.

7. Local electric power supply: 240 volts, 50 cycles per second.

8. The Director (Mr. S.N. Sok Appadu) has agreed to provide relevant service and support to the planned comparison exercise.

Accommodation

9. Hotels, from low-rate to 5-starred ones, operate throughout the island; most of the more luxurious ones are along the coasts. However, there are comfortable ones within about half an hour drive from the Vacoas Meteorological Services Headquarters.

Transport

10. Arrangements will be made for:

a) Transport from the airport to the respective hotels, and from hotels to the airport.

b) Transport from hotel to the Meteorological Headquarters and back, on a daily basis, according to a schedule.

Weather

11. Summer in the region is from November to April, winter from May/June to September/October. The maximum temperature in January is around 30/32 degrees Celsius along coasts and about 23/24 degrees over central high grounds. In July the maximum is about 24/25 degrees Celsius along coasts and about 15 degrees over the central high grounds.

12. Please visit the site http://metservice.intnet.mu and go to the climatology section (last option on the left) for more details on regional and temporal (monthly) climatological statistics, including seawater temperature.