Saint Lucia Bureau of Standards

SIM Time and Frequency Workshop

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SLBS

About Saint Lucia

- Mountainous island with area of 616 km^2
- Population 167000 (in 2010)
- Main economic activities are tourism, telecommunications services, agriculture, agro-processing, construction, beverage production and manufacturing
- Independent country in the British Commonwealth
- Official language English but French Kweyol is also spoken by the majority

The Pitons/World Heritage Site

HISTORY

- 1911: Weights & Measures Ordinance gives Police Force responsibility for weights & measures
- 1970s: Price Control Dept (now Consumer Affairs) commences weights & measures activities
- 1994: SLBS begins joint verification with Consumer Affairs Dept. Four employees.
- 2000: Metrology Act No. 17/ 2000 repeals Ordinance
- 2001: Metrology Regulations No. 113/2001. Eleven employees.
- 2004: Relocated to new building. Area of 929 m^2
- 2015: Staff of 31 persons, 5 in Metrology Dept

SLBS Capabilities

- Mass (weight): verification/calibration of weights, laboratory, counter/platform & hopper scales, weighbridges
- Volume: verification of fuel dispensers & flow meters, test measures
- Force: verification of compression machines
- Time & Frequency: SIM GPS System
- Pressure: verification of sphygmomanometers

T & F Challenges for SLBS

- Temperature stability of laboratory
- Need to demonstrate relevance and impact of time & frequency capability
- Limited financial resources

Progress

- SIM Time & Frequency Measurement System donated in May 2010 through SIM Time & Frequency Working Group
- SIM T&F Measurement System installed in May 2010 and now a SIM Time Scale (SIMT) disciplined system in 2012 with no need for manual steering
- Network Time Protocol (NTP) Server donated in 2013
- Active participation in SIM T&F Network and TFWG
- Personnel trained in time and frequency metrology

Way Forward

- Disseminate time by linking SLBS SIM system with NTP server. But presently SLBS NTP server is not linked to the SIM time and frequency standard. (pulse output of the standard is not compatible with the NTP server)
- SLBS intends to acquire a time & frequency processor PCI card to attempt to synchronise the two but the card is expensive. There are reservations about buying it as we are not sure that it will actually work with our Linux-based NTP server.
- Provide time and frequency traceability to industry


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