

78 -- 2017-03-07 17:21:03

Session 10A Paper 5

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### **Characterization of the ionosphere in the Seychelles**

An all-sky imager and GPS receiver are located at a geographic latitude and longitude of 4.67°S and 55.51°E respectively, on the Mahe island of the Seychelles in the Indian Ocean. At a magnetic latitude of 10.50°S this low latitude site provides a view of the southern crest of equatorial ionization anomaly (EIA).

In this poster we will describe the ionospheric features visible from the Seychelles region for the years of 2015 to present. A common event in the Seychelles nighttime ionosphere is the presence of equatorial plasma depletions. A Climatology of the observed depletions in this longitude sector is presented including the daily occurrence rate of depletions, the number of depletions observed each night, and their latitudinal extent. Depletions are typically observed in the filters of 557.7, 630.0 and 777.4nm with an exception where the ionosphere may not be strong enough to see the depletions in the 777.4-nm filter.

An analysis of the southern EIA crest characteristics will be presented as well as a summary on significant events like the geomagnetic storm effects on the Seychelles ionosphere from March 17th, 2015. The data from the all-sky imager during that event shows the depletion movement stop and reverse in direction.