



The Analysis of the seasonal variations of equatorial plasma bubble, occurrence observed from Oukaimeden Observatory, Morocco

Lagheryeb Amine (1), Benkhaldoun Zouhair (1), Makela Jonathan (2), Kaab Mohamed (1), Bounhir Aziza (1), Hardin Brian (2), Fisher Dan (2), and Duly Tmuthy (2)

(1) High Energy Physics and Astrophysics Laboratory, Oukaimeden Observatory, Cadi Ayyad University, Marrakech, Morocco.(a.lagheryeb@gmail.com), (2) Department of Electrical and Computer Engineering , University of Illinois at Urbana-Champaign, Illinois 61801, USA, Urbana, IL, United States (jmakela@illinois.edu).

Abstract Body:

The Analysis of the seasonal variations of equatorial plasma bubble, occurrence using the 630.0 nm airglow images collected by the PICASSO imager deployed at the Oukaimeden observatory in Morocco. Data have been taken since November 2013 to december 2015. We show the monthly average of appearance of EPBs. A maximum probability for bubble development is seen in the data in January and between late February and early March. We also observe that there are a maximum period of appearance where the plasma is observed (3-5 nights successivies) and we will discuss its connection with the solar activity in storm time. Future analysis will compare the probability of bubble occurrence in our site with the data raised in other observation sites.