

VERSION 2 AUG 14, 2023

OPEN ACCESS



DOI:

dx.doi.org/10.17504/protocol s.io.rm7vzbb12vx1/v2

Protocol Citation: Swapna Raghunath 2023. Detection of Equatorial Plasma Bubbles. protocols.io

https://dx.doi.org/10.17504/p rotocols.io.rm7vzbb12vx1/v2 Version created by Swapna Raghunath

License: This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working We use this protocol and it's working

Operation of Equatorial Plasma Bubbles V.2

Swapna Raghunath¹

¹G.Narayanamma Institute of Technology and Science (for women), Hyderabad

Swapna Raghunath: Professor in the DEpartment of Electronics and Communications Engineering



Swapna Raghunath

G.Narayanamma Institute of Technology and Science

ABSTRACT

Slant Total Electron Content values from Global Navigation Satellite System are used to detect the Equatorial Plasma Bubbles in the Ionosphere.

ATTACHMENTS

MATLAB Code for detecting Equatorial Plasma Bubbles.docx



Last Modified: Aug 14, 2023	
PROTOCOL integer ID: 86419	
1	Download GPS data from SOPAC website in RINEX format
2	Data is converted from RINEX to .cmn format using GPS TEC software
3	Calculate ROT and ROTI
4	Difference between Evening ROTI and Day time ROTI is calculated
5	If the difference exceeds 0.05, then Equatorial Plasma Bubble is Detected

Created: Aug 13, 2023