



The first preliminary ionospheric sounding in Malaysia

A. F. M Zain and S. Abdullah

Wireless and Radio Science Centre, Tun Hussein Onn University College of Technology,
Malaysia

This paper reports the first systematic initial recording of ionospheric soundings in Malaysia. The ionosonde used is based on the Canadian Advanced Digital Ionosonde system with four doppler receivers. The ionospheric monitoring station is located at the main campus of Tun Hussein Onn University College of Technology in Parit Raja, Batu Pahat, Malaysia (geographical latitude $1^{\circ} 51' N$ and longitude $105^{\circ} 5' E$). The first ionograms obtained in September 2004 used a single receiver as we were experiencing some hardware problems. As this is a learning process in operating an ionosonde for the first time, there were some days when recordings could not be made. For the month of September 2004, the highest critical frequency is found to be from 6.8 to 12 MHz with decreasing value in the late evening and night time at 7 MHz. The virtual heights for this frequency are 200 to 480 km. There is prominent sporadic-E from 2.2 to 9.1 MHz in the early mornings. The four-receiver system was up and running in late December 2004. Stratification of the ionosphere indicating an F3 layer was noticeably high.