



Whistlers and plasmasphere

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Whistlers, plasmasphere and plasmopause - or plasmasphere boundary layer - played important roles in the life's work of Don Carpenter. Whistler - recorded on the ground - was the first phenomenon used to infer equatorial electron density of the plasmasphere since the beginning of the discovery of the plasmasphere. Knee whistlers led to the discovery of the boundary layer of the plasmasphere, the plasmopause. Later this principle was extended to the more complex concept of plasmasphere boundary layer by Don Carpenter and Joseph Lemaire. Whistlers were considered as a cheap and effective tool to monitor the plasmasphere since the late '50s, but it took a long time to fulfill this expectation.

In this paper, we will present how this tool evolved to the present status, to the global Automatic Whistler Detector and Analyzer Network (AWDANet). The whistlers can contribute not only to the real time dynamics of the plasmasphere, but to a deeper insight into the plasmopause/plasmasphere boundary layer.