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## Real time aspects of French permanent GPS network and a new method of establishing ionospheric error prediction grid.

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IGN (Institut Géographique National) has established the French Permanent GPS Network (RGP) in order to serve different organizations and users. The real time applications of the RGP is one of the main objectives of IGN. The different possibilities of the real time applications including Virtual Reference Station (VRS) and Precise Point Positioning (PPP) methods are investigated in this study. For absolute positioning with codes, the validity of several ionospheric models are studied, by testing their efficacity on correcting the real GPS data. Also a new method of forming ionospheric grid, for TEC prediction, is presented. This model is based on the results of Least Squares Spectral Analysis (LSSA) of ionospheric data series of four years. The predicted grids will be published via internet for single frequency GPS applications, specially for absolute positioning.