In the electronically updated version of "The Mathematics of Powered Flight", students simulate the navigational relationship between cockpit avionics and FAA published instrument flight maps. Harsh cross-wind landings that can be computed geometrically are illustrated with web-based views of near-accidents. Aviation weather reports from the National Weather Service announce wind and pressure information, both of which are employed in the analysis of safe landing procedures. (Received September 22, 2009)