for the FAA-sponsored Juneau Wind Project, BobĊBarron of the Research Applications Program hopes to give travelers aĊsmoother, safer ride.ĊBob and his colleagues are developing a prototype warning system thatĊissues up-to-the-minute alerts about wind shear and turbulence to airĊtraffic controllers, airline dispatchers, and pilots. The goal is to warnĊpilots in time to prevent injuries to passengers and crew. RAP designedĊa similar system thats operating at Hong Kongs Chek Lap KokĊIts great that NCAR can use its scientific and technicalĊexpertise to contribute to society on this day-to-day operational level,ĊRAPs Bob Barron and Deirdre Garvey.ĊThe RAP team used anemometers and wind profilers to set up the JuneauĊwarning system. The devices use vector mathematics to create a comprehensiveĊpicture of surrounding winds and to determine the danger these winds poseĊto airplanes and passengers.ĊA wind profiler is an upward-looking radar that can measure turbulence,Ċwind speed, and wind direction. It gives researchers a profile of horizontalĊwinds and turbulence at 60-meter (200-foot) increments up to about 2.5Ċkilometers (1.5 miles). An anemometer also measures