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| Sommario/riassunto | A study was conducted to determine if primary flight displays (PFDs) depicting terrain could be used with a level of safety equivalent to electronic attitude-direction indicators (EADIs) without terrain. Five groups of 8 pilots each flew scenarios in a flight simulator using one of three PFDs (EADI, full-color terrain, uniformly brown terrain) with or without guidance cues. Performances of recoveries from unknown attitudes using the EADI were measured first as a baseline, followed by trials with one of the experimental formats. Performance measures included initial response time, total recovery time, and both initial and secondary control reversals. Traditional "difference" analyses found no significant performance differences between groups. Analyses using confidence intervals to assess equivalence of distributions showed that |

group performances were practically equivalent. Pilot preferences were examined and are reported. It was concluded that the specific terrain representations examined provided for performance at least equal to if not better than the conventional EADI. This comparative technique is recommended for situations in which one wishes to demonstrate that a proposed device or system is no worse than or roughly equivalent to something already in use.