	Aerodynamic and ground reaction modeling to support training in crosswinds and gusting crosswinds up to the aircraft's maximum demonstrated crosswind component. Realistic gusting crosswind profiles must be available to the instructors that have been tuned in intensity and variation to require pilot intervention to avoid runway departure during takeoff or landing roll. An SOC is required describing source data used to construct gusting crosswind profiles.			**X**	**X**	the gust models do not exceed the capabilities of the aerodynamic and ground models.
2.e.	If the aircraft being simulated is one of the aircraft listed in § 121.358, Low-altitude windshear system equipment requirements, the simulator must employ windshear models that provide training for recognition of windshear phenomena and the execution of recovery procedures. Models must be available to the instructor/evaluator for the following critical phases of flight: (1) Prior to takeoff rotation; (2) At liftoff; (3) During initial climb; and (4) On final approach, below 500 ft AGL. The QTG must reference the FAA Windshear Training Aid or present alternate airplane related data, including the implementation method(s) used. If the alternate method is selected, wind models from the Royal Aerospace Establishment (RAE), the Joint Airport Weather Studies (JAWS) Project and other recognized sources may be implemented, but must be supported and properly referenced in the QTG. Only those simulators meeting these requirements may be used to satisfy the training requirements of part 121 pertaining to a certificate holder's approved low-altitude windshear flight training program as described in § 121.409. The addition of realistic levels of turbulence associated with each required windshear profile must be available and selectable to the instructor.			**X**	**X**	If desired, Level A and B simulators may qualify for windshear training by meeting these standards; see Attachment 5 of this appendix. Windshear models may consist of independent variable winds in multiple simultaneous components. The FAA Windshear Training Aid presents one acceptable means of compliance with simulator wind model requirements. The simulator should employ a method to ensure the required survivable and non-survivable windshear scenarios are repeatable in the training environment.