APPENDIX M TO PART 141—COMBINED PRIVATE PILOT CERTIFICATION AND INSTRUMENT RATING COURSE

1. *Applicability.* This appendix prescribes the minimum curriculum for a combined private pilot certification and instrument rating course required under this part, for the following ratings:

(a) Airplane.

(1) Airplane single-engine.

(2) Airplane multiengine.

(b) Rotorcraft helicopter.

(c) Powered-lift.

2. *Eligibility for enrollment.* A person must hold a sport pilot, recreational, or student pilot certificate prior to enrolling in the flight portion of a combined private pilot certification and instrument rating course.

3. *Aeronautical knowledge training.*

(a) Each approved course must include at least 65 hours of ground training on the aeronautical knowledge areas listed in paragraph (b) of this section that are appropriate to the aircraft category and class rating of the course:

(b) Ground training must include the following aeronautical knowledge areas:

(1) Applicable Federal Aviation Regulations for private pilot privileges, limitations, flight operations, and instrument flight rules (IFR) flight operations.

(2) Accident reporting requirements of the National Transportation Safety Board.

(3) Applicable subjects of the ''Aeronautical Information Manual'' and the appropriate FAA advisory circulars.

(4) Aeronautical charts for visual flight rules (VFR) navigation using pilotage, dead reckoning, and navigation systems.

(5) Radio communication procedures.

(6) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts.

(7) Safe and efficient operation of aircraft under instrument flight rules and conditions.

(8) Collision avoidance and recognition and avoidance of wake turbulence.

(9) Effects of density altitude on takeoff and climb performance.

(10) Weight and balance computations.

(11) Principles of aerodynamics, powerplants, and aircraft systems.

(12) If the course of training is for an airplane category, stall awareness, spin entry, spins, and spin recovery techniques.

(13) Air traffic control system and procedures for instrument flight operations.

(14) IFR navigation and approaches by use of navigation systems.

(15) Use of IFR en route and instrument approach procedure charts.

(16) Aeronautical decision making and judgment.

(17) Preflight action that includes—

(i) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements.

(ii) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

(iii) Procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions.

4. *Flight training.*

(a) Each approved course must include at least 70 hours of training, as described in section 4 and section 5 of this appendix, on the approved areas of operation listed in paragraph (d) of section 4 of this appendix that are appropriate to the aircraft category and class rating of the course:

(b) Each approved course must include at least the following flight training:

(1) *For an airplane single engine course:* 70 hours of flight training from an authorized instructor on the approved areas of operation in paragraph (d)(1) of this section that includes at least—

(i) Except as provided in §61.111 of this chapter, 3 hours of cross-country flight training in a single engine airplane.

(ii) 3 hours of night flight training in a single-engine airplane that includes—

(A) One cross-country flight of more than 100 nautical miles total distance.

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 35 hours of instrument flight training in a single-engine airplane that includes at least one cross-country flight that is performed under IFR and—

(A) Is a distance of at least 250 nautical miles along airways or air traffic control-directed (ATC-directed) routing with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports.

(B) Involves an instrument approach at each airport.

(C) Involves three different kinds of approaches with the use of navigation systems.

(iv) 3 hours of flight training in a single-engine airplane in preparation for the practical test within 60 days preceding the date of the test.

(2) *For an airplane multiengine course:* 70 hours of training from an authorized instructor on the approved areas of operation in paragraph (d)(2) of this section that includes at least—

(i) Except as provided in §61.111 of this chapter, 3 hours of cross-country flight training in a multiengine airplane.

(ii) 3 hours of night flight training in a multiengine airplane that includes—

(A) One cross-country flight of more than 100 nautical miles total distance.