the person holds a pilot license issued by a member State to the International Civil Aviation Organization.

(f) Meet the aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought before applying for the practical test:

(g) Satisfactorily accomplish the knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part that apply to the aircraft category

and class rating sought;

- (h) Satisfactorily accomplish the practical test on the applicable approved areas of operation listed in §61.157(d) of this part that apply to the aircraft category and class rating sought; and
- (i) Comply with the sections of this part that apply to the aircraft category and class rating sought.

§ 61.155 Aeronautical knowledge.

(a) *General*. The knowledge test for an airline transport pilot certificate is based on the aeronautical knowledge areas listed in paragraph (c) of this section.

- (b) Aircraft type rating. A person who is applying for an additional aircraft type rating to be added to their airline transport certificate is not required to accomplish a knowledge test if that person's airline transport pilot certificate lists the aircraft category and class rating that is appropriate to the type rating sought.
- (c) Aeronautical knowledge areas. (1) The applicable Federal Aviation

Regulations of this chapter that relate to airline transport pilot privileges, limitations, and flight operations appropriate to the aircraft category and

class rating sought;

(2) Meteorology including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper air-data;

(3) The general system of weather and NOTAM collection, dissemination,

interpretation, and use;

(4) Interpretation of weather charts, maps, forecasts, sequences, abbreviations, symbols, and use;

(5) The National Weather Service function as it pertains to operation in the National Airspace System;

(6) Windshear and microburst awareness, identification, and avoidance;

(7) Principles of air navigation under instrument meteorological conditions in the National Airspace System;

(8) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;

(9) Aircraft loading, weight and balance, use of charts, graphs, tables,

formulas, and computations, and the effects on aircraft performance that apply to the aircraft category and class rating sought;

(10) Aircraft aerodynamics relating to the aircraft's flight characteristics, performance, and normal and abnormal flight regimes and characteristics that apply to the aircraft category and class rating sought;

(11) Flight crewmember physiological

factors;

(12) Aeronautical decision making and judgment; and

(13) Flight deck resource management to include crew communications and coordination.

§61.157 Flight proficiency.

(a) General.

(1) The practical test for an airline transport pilot certificate is given for:

(i) An airplane category and singleengine class rating with an airplane type rating if a type rating is required;

(ii) An airplane category and multiengine class rating with an airplane type rating if a type rating is required;

(iii) A rotorcraft category and helicopter class rating with a type rating if a type rating is required;

(iv) A powered-lift category rating with a type rating, if a type rating is required; and

(v) An aircraft type rating.

- (2) A person who is applying for an airline transport pilot practical test must meet—
- (i) The eligibility requirements of § 61.153 of this part; and
- (ii) The aeronautical knowledge and aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought.
- (b) Aircraft type rating. Except as provided in paragraph (c) of this section, a person who is applying for an aircraft type rating to be added to an airline transport pilot or an aircraft type rating associated with an airline transport pilot certificate:
- (1) Must receive and log ground training from an authorized ground or flight instructor and flight training from an authorized flight instructor on the approved areas of operation in this section that apply to the aircraft type rating sought; and
- (2) Must receive a logbook endorsement from the instructor who conducted the training, certifying the applicant completed the training on the appropriate approved areas of operation listed in paragraph (e) of this section that apply to the aircraft type rating sought.
- (c) A person who is applying for an aircraft type rating to be added to an

airline transport pilot certificate or an aircraft type rating concurrently with an airline transport pilot certificate, and who is an employee of a part 119 certificate holder operating under part 121 or part 135, may present a training record that shows satisfactory completion of that certificate holder's approved pilot-in-command training program for the aircraft type rating sought, instead of complying with the requirements of paragraph (b) of this section.

- (d) A person who successfully completes an airline transport pilot practical test, the type rating(s), if appropriate, on the superseded pilot certificate shall be brought forward to the airline transport pilot certificate level provided the practical test was accomplished in that category and class of aircraft. If the type rating(s) for that category and class of aircraft on the superseded pilot certificate is limited to VFR, that limitation shall be carried forward to the person's airline transport pilot certificate level.
 - (e) Areas of operation.
- (1) The areas of operation for an airplane category-single engine class rating with a type rating, if a type rating is required, are as follows:

(i) Preflight preparation;

(ii) Preflight procedures;

- (iii) Takeoff and departure phase;
- (iv) Inflight maneuvers;
- (v) Instrument procedures;
- (vi) Landings and approaches to landings;
- (vii) Normal and abnormal procedures;
 - (viii) Emergency procedures; and
 - (ix) Postflight procedures.
- (2) The areas of operation for an airplane category-multiengine class rating with a type rating, if a type rating is required, are as follows:
 - (i) Preflight preparation;
 - (ii) Preflight procedures;
 - (iii) Takeoff and departure phase;
 - (iv) Inflight maneuvers;
 - (v) Instrument procedures;
- (vi) Landings and approaches to landings;
- (vii) Normal and abnormal procedures;
 - (viii) Emergency procedures; and
 - (ix) Postflight procedures.
- (3) The areas of operation for a powered-lift category rating with a type rating, if a type rating is required, are as follows:
 - (i) Preflight preparation;
 - (ii) Preflight procedures;
 - (iii) Takeoff and departure phase;
- (iv) Inflight maneuvers;
- (v) Instrument procedures;
- (vi) Landings and approaches to landings;