1. These Regulations may be cited as the Civil Aviation (Instruments and Equipments) (Amendment) Regulations, 2012 and shall be read as one with the Civil Aviation (Instruments and Equipments) Regulations..., hereinafter referred to as the “principal Regulations”.

2. The principal Regulations are amended by inserting the following new regulations immediately after regulation 6—

6A. (1) All helicopters when operating in accordance with VFR by day shall be equipped with—

(a) a magnetic compass;

(b) an accurate timepiece indicating the time in hours, minutes and seconds;

(c) a sensitive pressure altimeter;

(d) an airspeed indicator; and

(e) such additional instruments or equipment as may be prescribed by the appropriate authority.

(2) All helicopters when operating in accordance with VFR at night shall be equipped with—

(a) the equipment specified in sub-regulation 6(1);
(b) an attitude indicator (artificial horizon) for each required pilot and one additional attitude indicator;
(c) a slip indicator;
(d) a heading indicator (directional gyroscope);
(e) a rate of climb and descent indicator;
(f) such additional instruments or equipment as may be specified by the appropriate authority;
(g) the lights required for aircraft in flight or operating on the movement area of a heliport;
(h) two landing lights;
(i) illumination for all instruments and equipment that are essential for the safe operation of the helicopter that are used by the flight crew;
(j) lights in all passenger compartments;
(k) a flashlight for each crew member station; and
(l) for flights operated under VFR and IFR - by day and night.

3. Regulation 18 of the principal Regulations is amended by adding the following new sub-regulations—

(2) An airborne collision avoidance system shall operate in accordance with the relevant provisions of Annex 10, Volume IV

4. Regulation 19 of the principal Regulations is amended by adding the following new sub-regulation immediately after sub-regulation (6)—

(7) The Mode S transponder should be provided with the airborne/on-the-ground status if the aeroplane is equipped with an automatic means of detecting such status.
5. The principal Regulations are amended by inserting the following new regulation immediately after regulation 30—

30A. Where aeroplanes are equipped with HUD and/or EVS, the use of such systems to gain operational benefit shall be approved by the State of the Operator.

7. Regulation 36 of the principal Regulations is amended in sub-regulation (2) by adding the following new paragraph immediately after paragraph (d) —

(e) Operational checks and evaluations of recordings from the flight recorder systems shall be conducted to ensure the continued serviceability of the recorders.

8. Regulation 39 of the principal Regulations is amended—

(a) in paragraph (a), by adding the following words immediately after the word “FDR”

“to record the parameters required to determine accurately the helicopter flight path, speed, attitude, engine power and operation”; and

(b) in paragraph (b), by adding the following words immediately after the word “FDR”;

“to record the parameters required to determine accurately the helicopter flight path, speed, attitude, engine power, operation and configuration”.

(c) by adding the following new paragraphs immediately after paragraph (c) —

(d) An operator shall ensure, to the extent possible, in the event the helicopter becomes involved in an accident or incident, the preservation of all related flight recorder records, and if necessary the associated flight recorders, and their retention in safe custody pending their disposition as determined in accordance with
these Regulations;

(e) flight recorders shall be constructed, located and installed so as to provide maximum practical protection for the recordings in order that the recorded information may be preserved, recovered and transcribed. Flight recorders shall meet the prescribed crashworthiness and fire protection specifications.

Amendment to principal Regulation.

12. The principal Regulations are amended by inserting the following new regulation immediately after regulation 42 —

Flight recorders electronic documentation

42A. The documentation requirement concerning FDR and ADRS parameters provided by operators to accident investigation authorities should be in electronic format and take account of industry specifications.

Amendment to principal Regulation.

13. The principal Regulations are amended by inserting the following new regulation immediately after regulation 43 —

Flight recorders electronic documentation

43A. The documentation requirement concerning FDR and ADRS parameters provided by operators to accident investigation authorities should be in electronic format and take account of industry specifications.

Amendment to principal Regulation.

14. The principal Regulations are amended by inserting the following new regulation immediately after regulation 48—

Aeroplanes on long-range over water flights

48A. (1) The operator of an aeroplane operated on an extended flight over water shall determine the risks to survival of the occupants of the aeroplane in the event of a ditching.

(2) The operator shall take into account the operating environment and conditions such as, but not limited to, sea state and sea and air temperatures, the distance from land suitable for making an emergency landing, and the availability of search and rescue facilities.

(3) Upon the assessment of above risks, the operator shall, in addition to the equipment required under these regulations, ensure that the
aeroplane is appropriately equipped with-

(a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such lifesaving equipment, including means of sustaining life, as is appropriate to the flight to be undertaken; and

equipment for making distress signals as prescribed under Civil Aviation (Rules of the Air Traffic Control) Regulations….

15. Regulation 52 of the principal Regulations is amended by adding the following new sub-regulation immediately after sub-regulation (2)—

(3) Any agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels, paper or waste in an aircraft for which the individual certificate of airworthiness is first issued on or after the 31st December, 2011 and any extinguishing agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after the 31st December, 2016 shall—

(a) meet the applicable minimum performance requirements of the State of Registry; and

(b) not be of a type listed in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer as it appears in the Eighth Edition of the Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer, Annex A, Group II.

16. Regulation 56(2) of the principal Regulations is amended by deleting paragraph (a) and substituting therefor the following new paragraph -

(a) one or more accessible first-aid kits;
17. Regulation 65 of the principal Regulations is amended by deleting sub-regulation (6) and replacing therefor with the following new regulation—

(6) Each life jacket and equivalent individual flotation device, when carried in accordance with Regulations, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons, except where the requirement of these Regulations are met by the provision of individual flotation devices other than life jackets.

18. Regulation 69 of the principal Regulations is amended—

(a) in sub-regulation (1)(f), by inserting the words “or helicopter” immediately after the word “aeroplane” wherever it appears; and

(b) by adding the following new sub-regulation immediately after sub-regulation (4).

(5) Cabin crew seats provided in accordance with these Regulations shall be located near floor level and other emergency exits as required by the State of Registry for emergency evacuation.

19. Regulation 76 of the principal Regulations is amended by adding the following new sub-regulation—

(2) Where the aeroplane is fitted with fuses that are accessible in flight, spare electrical fuses of appropriate ratings for replacement of those fuses.

20. The principal Regulations are amended by inserting the following new regulation immediately after regulation 76—

Emergency power supply 76A. (1) All aeroplanes of a maximum certificated take-off mass of over 5 700 kg newly introduced into service after 1 January 1975 shall be fitted with an emergency power supply, independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating
instrument (artificial horizon), clearly visible to the pilot-in-command.

(2) Subject to sub-regulation (1), the emergency power supply shall be automatically operative after the total failure of the main electrical generating system and clear indication shall be given on the instrument panel that the attitude indicator(s) is being operated by emergency power.

Regulation 76 of the principal Regulations is amended by

(a) adding immediately after paragraph (b) the following paragraph
   “(c) one anchor;”

(b) designating paragraph (c) as paragraph (d).