Serial Number **1941/257.**

THE AIR NAVIGATION REGULATIONS 1933, AMENDMENT NO. 10.

C. L. N. NEWALL, Governor-General.

ORDER IN COUNCIL.

At the Government House at Wellington, this 22nd day of December, 1941.

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL.

PURSUANT to the Air Navigation Act, 1931, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, doth hereby make the following regulations.

REGULATIONS.

1. These regulations may be cited as the Air Navigation Regulations 1933, Amendment No. 10.

2. These regulations shall be read together with and form part of the Air Navigation Regulations 1933* (hereinafter called the principal regulations).

3. These regulations shall come into force on the day following notification in the *Gazette* of the making hereof.†

4. Clause (1) of Regulation 5 of the principal regulations is amended by revoking the words " to aircraft flown for the purpose of experiment or test only within three miles of a licensed aerodrome or a New Zealand Air Force aerodrome, or " in proviso (*a*) to the said clause (1).

5. Schedule IV to the principal regulations, as heretofore amended, is revoked, and the following substituted:—

SCHEDULE IV.—RULES AS TO LIGHTS AND SIGNALS AND RULES FOR AIR TRAFFIC.

SECTION I.—INTERPRETATION.

FOR the purposes of this Schedule:—

(*a*) An aircraft shall be deemed to be " on the surface of the water " when any part of the aircraft is in contact with the water:

(*b*) An aircraft, being in the air or on the surface of the water shall be deemed to be " under way " when it is not moored to the ground or to any fixed object on the land or in the water:

* *Gazette*, 1st June, 1933, Vol. II, page 1473.
Amendment No. 1: *Gazette*, 11th October, 1934, Vol. III, page 3217.
Amendment No. 2: *Gazette*, 18th April, 1935, Vol. I, page 1131.
Amendment No. 3: *Gazette*, 12th December, 1935, Vol. III, page 3777.
Amendment No. 4: *Gazette*, 30th July, 1936, Vol. II, page 1492.
Amendment No. 5: Statutory Regulations 1936–7, Serial number 1936/34, page 11
Amendment No. 6: Statutory Regulations 1938, Serial number 1938/9, page 20.
Amendment No. 7: Statutory Regulations 1939, Serial number 1939/53, page 238.
Amendment No. 8: Statutory Regulations 1940, Serial number 1940/199, page 67
Amendment No. 9: Statutory Regulations 1940, Serial number 1940/274, page 9

† See end note.

(*c*) An aircraft under way in the air or on the surface of the water shall be deemed to be " making way " when it has a velocity relative to the air or water respectively :

(*d*) An aircraft shall be deemed not to be " under control " when it is unable to execute a manœuvre required in respect of it by the rules laid down in the Schedule or by the Regulations for Preventing Collisions at Sea :

(*e*) The expression " landing area " means that part of an aerodrome which is reserved for departures and landings of aircraft :

(*f*) The expression " visible ", when used in relation to lights, means visible on a dark night with a clear atmosphere :

(*g*) The expression " plane of symmetry ", in relation to an aircraft, means the plane of symmetry passing through the longitudinal axis of the aircraft :

(*h*) The angular limits for lights laid down in the rules contained in Section I of this Schedule shall be determined when the aircraft is in its normal attitude for flying on a rectilinear horizontal course.

SECTION II.—RULES AS TO LIGHTS AND VISUAL SIGNALS TO BE DISPLAYED AND SOUND SIGNALS TO BE MADE BY AIRCRAFT.

General.

1. (1) The rules as to lights to be displayed by aircraft contained in this Section of this Schedule shall be complied with by aircraft in all weathers during the period from sunset to sunrise or, in the case of aircraft being on or over the territory of a State by the law of which any other period is substituted for the period aforesaid, during the period so substituted.

(2) Throughout the period during which the said rules are to be complied with no other lights shall be displayed which may be mistaken for the lights required to be displayed by these rules.

(3) The lights required to be displayed by the said rules shall not be dazzling.

2. (1) In the event of the failure of any light which is required by this Section of this Schedule to be displayed by aircraft in flight, the aircraft concerned shall, if the light cannot immediately be repaired or replaced, land as soon as it can do so without danger.

(2) Where owing to the difficulty of producing lamps to meet the requirements of this Section of this Schedule as regards sector lights, an overlap of those lights is unavoidable, the overlap shall be kept as small as possible ; there shall be no sector in which no light is visible.

3. Nothing in this Section of this Schedule shall interfere—

(*a*) With the operation of any special rules made by any State with respect to additional signal or station lights for military aircraft, aircraft exclusively employed in State service, or aircraft in group formation ; or

(*b*) With the exhibition of recognition signals adopted by owners of aircraft which have been authorized by their respective Governments and duly published.

Lights and Visual Signals to be displayed by Aircraft.

4. *Flying-machines.*—(1) Every flying-machine in the air or on the landing area of a land aerodrome shall display the following lights, that is to say :—

(*a*) On the right side, a green light, fixed so as to show an unbroken light, visible at a distance of at least five miles, throughout a dihedral angle of 110° formed by two vertical planes, of which one is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the right :

(*b*) On the left side, a red light, fixed so as to show an unbroken light, visible at a distance of at least five miles, throughout a dihedral angle of 110° formed by two vertical planes, of which one is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the left :

(*c*) At the rear, a white light, fixed so as to show astern an unbroken light, visible at a distance of at least three miles, throughout a dihedral angle of 140° formed by two vertical planes and bisected by the plane of symmetry of the aircraft.

(2) In cases where, in order to comply with the foregoing provisions of this paragraph, a single light has to be replaced by several lights, the field of visibility of each of those lights shall be so limited that only one of them can be seen at a time.

(3) In the case of a flying-machine with a maximum span of less than 65 ft. the lights required by this paragraph to be displayed may be combined in one or more lamps placed centrally, provided that the requirements of this paragraph as to colour and visibility are complied with.

5. Every flying-machine under way on the surface of the water shall display lights in accordance with the following provisions of this paragraph :—

(*a*) If it is under control and is not being towed, it shall display the lights specified in paragraph 4 of this Schedule, and, in addition, forward, a white light, fixed so as to show forward an unbroken light, visible at a distance of at least three miles, throughout a dihedral angle of 220° formed by two vertical planes and bisected by the plane of symmetry of the aircraft :

(*b*) If it is being towed, it shall display the lights specified in paragraph 4 of this Schedule :

(*c*) If it is not under control, it shall display two red lights placed where they can best be seen, one vertically over the other, not less than 3 ft. apart, and both being visible, so far as practicable, all round the horizon, at a distance of at least two miles, and it shall also display—

(i) If making way, the lights specified in paragraph 4 of this Schedule ; or

(ii) If not making way, the light specified in subparagraph (1) (*c*) of paragraph 4 of this Schedule :

(*d*) If it is towing another flying-machine or a glider, it shall display the lights specified in paragraph 4 of this Schedule, and it shall also display, forward, two white lights placed where they can best be seen, one vertically over the other, not less than 6 ft. apart, and both being visible at a distance of at least three miles, throughout a dihedral angle of 220° formed by two vertical planes and bisected by the plane of symmetry of the aircraft.

6. Every flying-machine at anchor or moored on the surface of the water shall display lights in accordance with the following provisions of this paragraph :—

(*a*) In every case it shall display forward centrally where it can best be seen a white light visible all round the horizon at a distance of at least one mile :

(*b*) In a case where the length of the flying-machine is 150 ft. or upwards it shall display, in addition to any other light required by this paragraph to be displayed, a white light at or near its stern at a lower height than the forward light specified in subparagraph (*a*) of this paragraph, and visible all round the horizon at a distance of at least one mile :

(*c*) In a case where the maximum lateral dimension of the flying-machine is 150 ft. or upwards it shall display, in addition to any other light required by this paragraph to be displayed, a white light on each side placed in such a manner as to demarcate the maximum lateral dimension of the flying-machine, and visible, so far as practicable, all round the horizon at a distance of at least one mile.

7. *Gliders and Free Balloons.*—(1) In all cases in which flying-machines are required by this Section of this Schedule to display lights, a glider shall display a red light visible, so far as practicable, in all directions.

(2) A free balloon shall display a red light placed not less that 15 ft. or more than 30 ft. below the basket, and visible, so far as practicable, in all directions at a distance of at least two and a half miles.

8. *Captive Balloons and Kites.*—(1) In the case of a captive balloon or kite, lights shall be displayed in accordance with the following provisions of this subparagraph :—

(*a*) The balloon or kite, when flown at an altitude exceeding 200 ft. above the ground or at any altitude if it is less than three miles from an aerodrome or from a recognized air route, shall display a group of two lights consisting of a white light placed 12 ft. vertically above a red light, both these lights being visible, so far as practicable, in all directions at a distance of at least two and a half miles, and the white light being placed not less than 15 ft. or more than 30 ft. below the basket, or, if there is no basket, below the lowest part of the balloon or kite :

(*b*) In addition, from the mooring cable of the balloon or kite there shall be displayed, at intervals of 1,000 ft. measured from the said group of two lights, similar groups of two lights, white and red, and, if the lowest group of lights is obscured by clouds, an additional group shall be displayed below the cloud base :

(*c*) In addition, the position of the object to which the balloon or kite is moored on the ground shall be marked by a group of three flashing lights arranged in a horizontal plane at the apexes of a triangle approximately equilateral, and each side of which measures at least 80 ft. ; the side of this triangle, perpendicular to the horizontal projection of the cable, shall be delimited by two red lights ; the third light shall be a green light placed opposite the direction of the cable.

(2) By day the mooring cable of a captive balloon shall have attached to it at intervals of not more than 600 ft. measured from the basket, or, if there is no basket, from the lowest part of the balloon, tubular streamers of not less than 16 in. in diameter and 6 ft. in length, and marked with alternate bands of white and red 20 in. in width.

(3) By day the mooring cable of a kite shall be marked, either—

(*a*) In the manner required by the last preceding subparagraph in the case of a captive balloon ; or

(*b*) By streamers of stout paper attached to the cable at intervals of 300 ft. measured from the lowest part of the kite, being streamers not less than 32 in. in length or 1 ft. in width in their widest part, and marked with alternate bands of white and red 4 in. wide.

(4) By way of exception to the provisions of this paragraph, captive balloons and kites used for meteorological observations which, owing to their insufficient static lift, cannot display the lights and signals required by this paragraph to be displayed may be flown, but only over areas which are notified as danger areas by notices to airmen. In every such case the position of the object to which the captive balloon or kite is moored on the ground shall be marked as required by subparagraph (1) (*c*) of this paragraph.

9. *Airships.*—(1) Except as provided in the next following paragraph, an airship when under way shall display the following lights :—

(*a*) Forward, a white light, fixed so as to show forward an unbroken light, visible at a distance of at least five miles, throughout a dihedral angle of 220° formed by two vertical planes and bisected by the plane of symmetry of the aircraft :

(*b*) On the right side, a green light fixed so as to show an unbroken light, visible at a distance of at least five miles, throughout a dihedral angle of 110° formed by two vertical planes, of which one is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the right :

(*c*) On the left side, a red light fixed so as to show an unbroken light, visible at a distance of at least five miles, throughout a dihedral angle of 110° formed by two vertical planes, of which one is parallel to the plane of symmetry of the aircraft and directed dead ahead, and the other is directed to the left :

(*d*) At the rear, a white light fixed so as to show astern an unbroken light, visible at a distance of at least three miles, throughout a dihedral angle of 140° formed by two vertical planes and bisected by the plane of symmetry of the aircraft.

(2) In a case where, in order to comply with the foregoing provisions of this paragraph, a single light has to be replaced by several lights, the field of visibility of each of those lights shall be so limited that only one can be seen at a time.

10. (1) An airship which is under way and which is not under control or which has voluntarily stopped its engines, or which is being towed, shall display the following lights :—

(*a*) The forward and rear lights specified in subparagraphs (1) (*a*) and (1) (*d*) of the last foregoing paragraph :

(*b*) In addition, below the airship, two red lights placed vertically one below the other 12 ft. apart, the upper light being 25 ft. below the control car, and both being visible, so far as practicable, in all directions at a distance of not less than two and a half miles :

(*c*) In addition, if making way but not otherwise, the side light specified in subparagraphs (1) (*b*) and (1) (*c*) of the last foregoing paragraph.

(2) By day, an airship in the circumstances mentioned in subparagraph (1) of this paragraph shall display a group of two black balls or shapes, each at least 2 ft. in diameter, placed vertically one below the other 12 ft. apart, the upper one being 25 ft. below the control car, and both being visible, so far as practicable, in all directions.

Where necessary, in order to comply with the foregoing provisions of this subparagraph, the said group of two black balls or shapes may be duplicated.

11. (1) An airship when moored to a mooring mast shall display at or near the rear a white light visible, so far as practicable, in all directions at a distance of at least three miles.

(2) An airship, when moored to the ground or the surface of the water by a cable, shall display, forward, the white light specified in subparagraph (1) (*a*) of paragraph 9 of this Schedule, and at the rear the white light specified in subparagraph (1) (*d*) of that paragraph, and, in addition, the airship and its mooring cable shall be lighted or marked in accordance with such of the provisions of paragraph 8 of this Schedule as are applicable in the case of a captive balloon.

(3) An airship while picking up its moorings, although it shall be considered as being under way and not being under control, shall display only the lights required by paragraph 9 of this Schedule to be displayed until it is finally made fast.

12. *Sound Signals.*—In fog, mist, falling snow, or heavy rainstorm, whether by day or night, an aircraft on the water shall make the following sound signals :—

(*a*) If not anchored or moored, a sound, at intervals of not more than two minutes, consisting of two blasts of about five seconds' duration, with an interval of about one second between them :

(*b*) If at anchor or moored, the rapid ringing of an efficient bell or gong for about five seconds, at intervals of not more than one minute.

Section III.—Rules as to Ground Markings and Signalling.

General.

13. The meanings given to the various markings, lights, and signals in this Section of this Schedule are reserved to them exclusively.

Ground Markings, Lights, and Signals, on and in the Vicinity of Aerodromes open to Public Use.

14. At every land aerodrome open to public use the following requirements shall be complied with :—

(1) The boundaries of the landing area shall, by means of suitable markings, be rendered clearly visible both to aircraft in the air and to aircraft manœuvring on the landing area :

(2) In addition, a marking in the form of a circle may be placed on the landing area :

(3) All obstructions existing on the landing area shall be clearly marked :

(4) In case part of the landing area should become unfit for use, such part shall be delimited by clearly visible markings or flags, and may, in addition, be indicated by one or more clearly visible crosses.

15. At every aerodrome open to public use the following requirements shall be complied with :—

(1) The direction of the wind at the landing area shall be clearly indicated by a landing T, wind-sleeve, smoke-producing wind-indicator, or other recognized method.

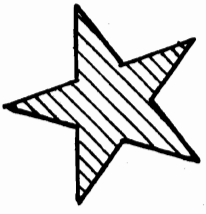
(2) If there is a landing T—

(*a*) It shall be used to indicate the compulsory direction for landing and taking off, even should such direction not correspond to the direction of the wind ;

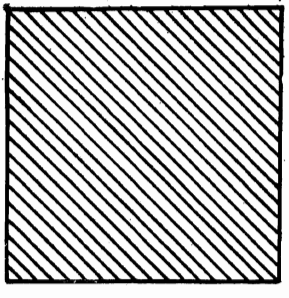
(*b*) Normally it shall be placed so that the shaft of the T lies along the direction of the wind with the crossarm set at that end of the shaft from which the wind is blowing ;

(*c*) If there is either no wind or a slight irregular wind, the T shall be fixed in the direction in which landing or departure is to be made, and the fact that it is fixed shall be indicated by the presence of a ball mounted on a mast in the signal area and clearly visible both to aircraft in flight and to aircraft manœuvring on the landing area :

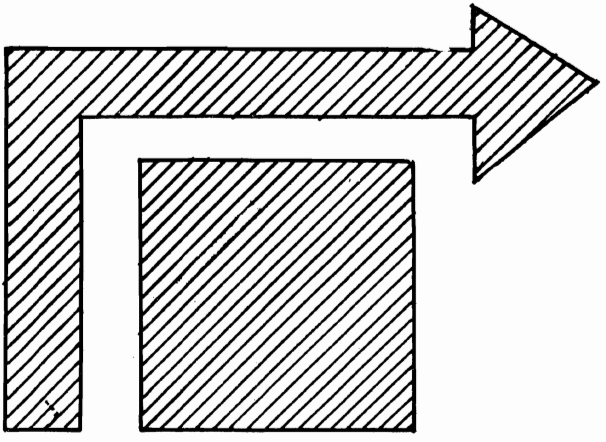
(3) When, by way of exception, the landing area at any aerodrome is regarded as divided into two approximately equal zones—one for departures, and the other for landings—as provided for in paragraph 45 of this Schedule, this exceptional arrangement shall be indicated by a full star of five points, as illustrated below, of such a size that lines joining the successive points of the star would form a regular pentagon which could be inscribed in a circle the diameter of which is not less than 50 ft.



(4) (*a*) When in conformity with paragraph 37 of this Schedule the Minister temporarily suspends wholly or partially in respect of any aerodrome in New Zealand which is open to public use the application of the special rules for air traffic contained in Section V of this Schedule there shall, to indicate such suspension, be placed horizontally a red square panel, each side of which measures at least 10 ft., as illustrated below :—

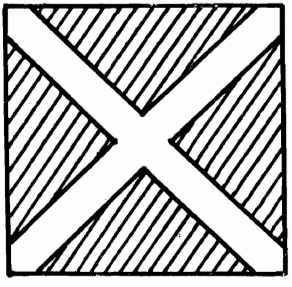


(*b*) If during such suspension as aforesaid it is provided among other things that in the case of a flying-machine (i) flying outside a landing area at a distance of less than 2,000 yards from the nearest point of such area or (ii) making a circuit or partial circuit immediately after taking off or prior to landing, as referred to in paragraph 39 (*b*) and paragraph 43 respectively of this Schedule, the landing area is to be kept on the right of the flying-machine and the circuit or partial circuit is to be right-handed, the red square panel specified in subparagraph (*a*) of this subparagraph shall along two of its sides be bordered by a red rectangular panel at least 3 ft. in width, separated from the central panel by at least 3 ft., and at the extremity of one of the rectangular panels there shall be placed a red equilateral triangle, each side of which measures 10 ft., to indicate that the landing area is to be kept on the right and that circuits or partial circuits are to be right-handed, as illustrated on the following page.

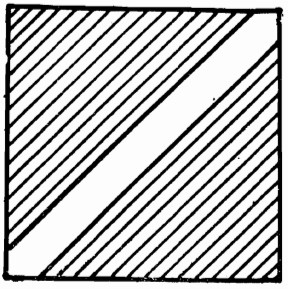


If, however, the only object of such suspension as aforesaid is that in such a case the landing area shall be kept on the right and that circuits or partial circuits shall be right-handed, the red square panel shall not be displayed.

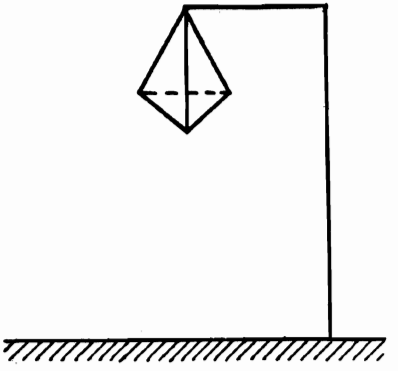
5. (*a*) When special circumstances necessitate a prohibition to land liable to be prolonged there shall be placed horizontally a red square panel each side of which measures at least 10 ft. and the diagonals of which shall be marked by yellow strips at least 20 in. in width arranged in the form of an X, as illustrated below :—



(*b*) When owing to the bad state of the landing area or for any other reason the observance of precautions in landing is required, there may be placed horizontally a red square panel each side of which measures at least 10 ft. and one of the diagonals of which shall be marked by a yellow strip at least 20 in. in width, as illustrated below :—



(*c*) When a landing by means of a radioelectric guide is taking place that fact may be indicated by hoisting on a mast a yellow triangular equilateral pyramid, each side of which measures at least 6 ft., as illustrated below :—



(6) The signals referred to in the above subparagraphs of this paragraph shall, whenever possible, be displayed in a special part of the aerodrome selected as a signal area ; by way of exception, the wind indicators and the landing T referred to in subparagraphs (1) and (2) of this paragraph may be located elsewhere in the aerodrome.

(7) During periods of poor visibility the lights existing for night lighting shall be operated by day, whenever possible and in so far as necessary.

16. (1) At every aerodrome open to public use and used for night flying the following requirements shall be complied with during the working-hours of the night service :—

(*a*) *As to Dangerous Lights.*—No lights shall be exhibited at or in the neighbourhood of an aerodrome which may endanger the safety of aircraft, whether by reason of glare, or by causing confusion with or preventing clear visual reception of the lights or signals required by this Schedule to be displayed :

(*b*) *As to Aerodrome Beacon.*—The position of the aerodrome may be indicated by a luminous beacon.

(2) At every land aerodrome open to public use and used for night flying the following requirements shall be complied with during the working-hours of the night service :—

(*a*) *As to Lighting of Obstructions.*—Fixed red lights shall be displayed :—

(i) On all obstructions within the landing area which constitute a danger to aircraft in motion on the landing area ;

(ii) As far as possible, on all obstructions within 1,000 yards of the boundary of the landing area and constituting a danger to aircraft approaching or leaving the aerodrome in the normal manner. In case it should be impossible to exhibit fixed red lights on such obstructions the horizontal projection and the centre of the obstructions shall, as far as possible, be clearly indicated by synchronized red flashing or occulting lights, placed on a level with or near to the ground :

(*b*) *As to Lighting of Landing T and of Wind-indicators.*—The landing T, if used, and at least one of the wind-indicators, shall be illuminated with fixed lighting, preferably white :

(*c*) *As to Lighting of Signals.*—The signals displayed in the signal area and also the signals referred to in subparagraphs (3), (4), and (5) of paragraph 15 of this Schedule, when used and wherever displayed, shall be suitably illuminated :

(*d*) *As to Lighting of Landing Area :*—

(i) The landing area or the part thereof on which landings should be made shall be illuminated, if possible, by a floodlight or floodlight system during landing manœuvres ;

(ii) In default of such method of illumination as aforesaid, one of the two following alternative methods of illumination shall be used :—

First Method.—There shall be laid out on the ground a line of lights, spaced 50 yards apart, consisting of a central section of six white lights, to indicate that landings should be made on the adjacent portion of the landing area and on either side of the said line, and at least two green lights at one end of the said line and at least two red lights at the other end of the said line, to indicate that landings should be made from the direction of the said green lights towards the said red lights ;

Second Method.—There shall be laid out on the ground lights in the form of a T, the shaft of which shall be composed of at least four lights in a line at least 250 yards in length. The light at the foot of the T shall indicate the place where a flying-machine or glider should first make contact with the ground, and the cross-arm of the T shall indicate the place where it should finish its run. Landings may be made on either side of the shaft of the T, but always parallel thereto, provided that, in the event of the area situate on either side of the shaft of the T becoming obstructed, the light indicating the cross-arm of the T on that side shall be removed and landing shall be effected on the opposite side of the shaft of the T.

If either of the two alternative methods of illumination referred to above is used, the landing T shall not be displayed :

(*e*) *As to approach Lighting.*—The most favourable sectors of approach to the landing area may be indicated by green lights :

(*f*) *As to Boundary Lighting.*—The boundary of the landing area shall be marked by fixed aviation-yellow lights, normally laid out 100 yards apart :

Provided that—

(i) When there are obstructions on the boundary of the landing area, the lights serving to mark such obstructions may take the place of boundary lights ;

(ii) When local conditions render unavoidable the use of gas boundary lights, such lights may be given an intermittent character ;

(iii) When the boundary of the landing area cannot be marked, only the extremities of such landing area between which aircraft may move without danger shall be indicated by fixed aviation-yellow lights.

(3) At every water aerodrome open to public use and used for night flying the requirements specified in subparagraph (2) of this paragraph shall be complied with except in cases where compliance therewith is obviously impossible.

Distress, Urgency, and Safety Signals.

17. (1) (*a*) None of the signals referred to in this paragraph may be transmitted except with the authority of the commander or person responsible for the aircraft from which such signals are transmitted.

(*b*) When such signals are sent by radiotelegraphy or radiotelephony the group or spoken expression shall be sent three times and followed by the group DE and the call sign, also sent three times, of the aircraft which sends it.

(2) *As to Distress Signals.*—When an aircraft is threatened by grave and imminent danger and requires immediate assistance, the following signals shall be used or displayed, either together or separately, before the sending of a message :—

(*a*) In radiotelegraphy the signal SOS (· · · — — — · · ·) :

(*b*) In radiotelephony the spoken expression " MAYDAY " (corresponding to the French pronunciation of the expression " m'aider ") :

(*c*) In visual signalling—

(i) The signal SOS (· · · — — — · · ·) made with signalling apparatus ;

(ii) A succession of red pyrotechnical lights fired at short intervals ;

(iii) The two flag signal corresponding to the letters " NC " of the International Code of Signals;

(iv) The distant signal, consisting of a square flag having, either above or below it, a ball, or anything resembling a ball;

(*d*) In sound signalling—

(i) The signal SOS (· · · — — — · · ·) made with any sound apparatus;

(ii) A continuous sounding made with any sound apparatus.

(3) *As to Urgency Signals* :—

(*a*) When an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance, the following signals shall be used or displayed, either together or separately, before the sending of a message :—

(i) In radiotelegraphy the group PAN (· — — · · — — ·) sent with the three letters well separated so that the signals AN may not be transformed into one signal P;

(ii) In radiotelephony the spoken expression PAN, which should be pronounced like the French word " PANNE ";

(iii) In visual signalling :—

By Day : a succession of white pyrotechnical lights;

By Night : a succession of white pyrotechnical lights or a succession of short and intermittent flashes with the navigation lights :

(*b*) When the signal PAN is sent by an aircraft without any message following it shall signify that the aircraft has been compelled to land, and is unable to transmit its intended message owing to the rapidity of the landing, but does not require immediate assistance :

(*c*) When an aircraft has a very urgent message to transmit concerning the safety of the aircraft or of any person on board or within range of assistance or the safety of another aircraft, or of any ship or vehicle, the following signals (which as a general rule will be addressed to a specific authority) shall be used or displayed, either together or separately, before the sending of the message :—

(i) In radiotelegraphy the group XXX (— · · — — · · — — · · —), with the letters of each group and the successive groups clearly separated from each other;

(ii) In visual signalling either a succession of green pyrotechnical lights or a succession of green flashes made with signalling apparatus.

(4) *As to Safety Signals.*—When an aircraft is about to transmit a message concerning the safety of navigation or giving important meteorological warnings the following signals shall be used, either together or separately, before the sending of a message :—

(*a*) In radiotelegraphy the group TTT (— — —) with the letters of each group and the successive groups clearly separated from each other :

(*b*) In radiotelephony the French word " SECURITE ", corresponding to the English pronunciation of the syllables SAY-CURE-E-TAY :

(*c*) In visual signalling the international visual signalling procedure as laid down in the International Code of Signals.

Other Signals to or from Aircraft.

18. At aerodromes open to public use :—

(1) By day and by night, when there is an officer controlling traffic, he shall, except as permitted by subparagraph (2) of this paragraph, use the following signals (which may be preceded by the last three letters of the registration group of the aircraft to which the signal is addressed sent in the International Morse code by using a luminous beam of the same colour as the signal which is to follow) :—

(*a*) To authorize movement on the landing area other than taking-off, he shall direct at the aircraft an intermittent white luminous beam;

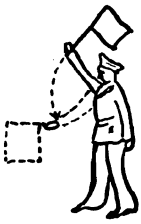
(*b*) To authorize taking off, he shall direct at the aircraft a continuous white luminous beam;

(*c*) To prohibit taking off or any movement on the landing area, he shall direct at the aircraft an intermittent red luminous beam.

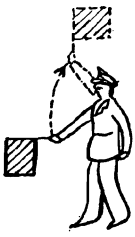
(2) By day, when there is on the landing area an officer controlling traffic, he may use the following signals—

(*a*) To authorize movement on the landing area other than taking-off, he shall wave a small white flag in the direction to be followed, as shown in the diagram below—

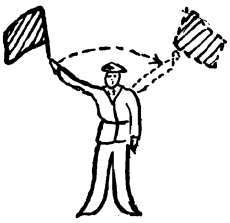
(*b*) To authorize taking-off, he shall lower a small white flag in the direction of taking-off, as shown in the diagram below—



(*c*) To prohibit taking-off or movement towards the taking-off point, he shall raise a small red flag, as shown in the diagram below—



(*d*) To prohibit landing, he shall wave a small red flag vertically above his head, as shown in the diagram below—



(3) (*a*) An aircraft wishing to land at night, without being compelled to do so, on an aerodrome having a ground control, shall, before landing, ask permission by a signal made either by radiotelegraphy or radiotelephony or by a visual signal made by means of a lamp or projector but not by means of the navigation lights;

(*b*) The visual signal, sent by International Morse code, shall be composed of the last three letters of the registration group of the aircraft and shall be repeated for as long as may be necessary;

(*c*) The reply shall be given from the ground to the aircraft either by by radiotelegraphy or radiotelephony or by visual signal, provided that, when permission has been asked by visual signal, the reply shall always be given by visual signal;

(*d*) When the reply is given by visual signal, such signal shall consist of a repetition of the three-letter sign specified in subparagraph (*b*) of this subparagraph, sent by means of the signalling lights of the aerodrome and made either by a group of lights arranged on a horizontal plane at the apexes of an equilateral triangle, each side of which measures not less than 3 ft. or more than 10 ft., or by a luminous beam directed at the aircraft;

(*e*) In giving the visual signal in reply, the colour green shall be used to give permission to land and the colour red shall be used to prohibit landing.

19. (1) At every aerodrome the firing of a red pyrotechnical light or the display of a red flare from the ground, whether by day or by night, and notwithstanding any previous permission, shall be taken as an instruction to aircraft in flight that they are not to land for the moment, and to aircraft manœuvring on the landing area that they are to cease to move.

(2) At aerodromes provided with the triangular device specified in paragraph 18 (3) (*d*) of this Schedule the emission by means of such device of intermittent red lights shall, whether by day or by night, and notwithstanding any previous permission, be taken as an instruction to aircraft in flight that they are not to land for the moment.

20. To require an aircraft to land, the following signals shall be used:—

(*a*) By day, a series of projectiles discharged at intervals of ten seconds, each showing on bursting black smoke:

(*b*) By night, a series of projectiles discharged at intervals of ten seconds, each showing on bursting white lights or stars.

In addition, when necessary to prevent the landing of aircraft other than the aircraft required to land, an intermittent white luminous beam shall be directed at the aircraft whose landing is required.

21. To warn an aircraft that it is in the vicinity of a prohibited area, and should change its course, the following signals shall be used:—

(*a*) By day, a series of projectiles discharged at intervals of ten seconds, each showing on bursting orange smoke:

(*b*) By night, a series of projectiles discharged at intervals of ten seconds, each showing on bursting orange lights or stars:

Provided that, when the authority requiring the change of course referred to in this paragraph is able to establish radio-electric communication with the aircraft, such requirement may be indicated by that method of communication.

Section IV.—General Rules for Air Traffic.

22. Subject to the provisions of paragraphs 29 and 35 (*a*) and (*c*) of this Schedule, flying-machines shall always give way to gliders and to balloons, fixed or free, and to airships, and airships shall always give way to gliders and to balloons, whether fixed or free.

23. An airship which is under way and which is not under control or which has voluntarily stopped its engines shall, for the purposes of the provisions of this section of this Schedule, be classed as a free balloon.

24. (1) When circumstances permit, an aircraft can ascertain risk of collision with another aircraft by carefully watching the successive compass bearings and angles of elevation of the other aircraft, and it shall consider that risk of collision with the other aircraft exists if neither the bearing nor the angle of elevation changes appreciably, and if the distance between the two aircraft diminishes.

(2) The term "risk of collision" includes all risk of accident due to undue proximity of other aircraft.

25. Every aircraft which is required by the rules contained in paragraphs 22, 23, and 24 of this Schedule to give way to another aircraft to avoid collision shall keep at a safe distance, having regard to the circumstances of the case.

26. While observing the provisions relative to risk of collision contained in paragraphs 24 and 25 of this Schedule, a mechanically-driven aircraft must always manœuvre according to the rules contained in paragraphs 27, 28, 29, 30, and 31 of this Schedule as soon as it is apparent that, if it pursued its course, it would not pass clear of another aircraft.

27. When two mechanically-driven aircraft are meeting end on or nearly end on, each shall, without prejudice to the application of the provisions of paragraph 22 of this Schedule, alter its course to the right.

28. Subject to the application of the provisions of paragraphs 22 and 35 (*c*) of this Schedule, when two mechanically-driven aircraft are on courses which cross, the aircraft which has the other on its own right side shall keep out of the way of the other.

29. An aircraft overtaking another aircraft shall keep out of the way of the overtaken aircraft by altering its own course to the right, and must not pass by diving.

Every aircraft coming up with another aircraft from any direction more than 110 degrees from ahead of the latter—that is to say, in such a position with reference to the aircraft which it is overtaking that at night it would be unable to see either of that aircraft's side lights—shall be deemed to be an overtaking aircraft, and no subsequent alteration of the bearing between the two aircraft shall make the overtaking aircraft a crossing aircraft within the meaning of these rules, or relieve it of the duty of keeping clear of the overtaken aircraft until it is finally past and clear.

As by day the overtaking aircraft cannot always know with certainty whether it is forward or abaft the direction mentioned above from the other aircraft it should, if in doubt, assume that it is an overtaking aircraft and keep out of the way.

30. Every aircraft which is obliged by the rules contained in this Schedule to keep out of the way of another aircraft shall, if the circumstances of the case admit, avoid passing over or under the other or crossing ahead of it.

31. Where by any of the rules contained in this Schedule one of two aircraft is to keep out of the way, the other shall keep its course and speed. When, however, in consequence of thick weather or any other cause, the aircraft having the right of way finds itself so close that collision cannot be avoided by the action of the giving-way aircraft alone, it shall take such action as will best aid to avert collision.

32. Every aircraft in a cloud, fog, mist, or other conditions of bad visibility shall proceed with caution, having careful regard to existing circumstances.

Every aircraft when flying beneath clouds shall always do so, so far as it is safe and practicable, at such a distance below the clouds as will enable it readily to see and be seen.

33. In order to obviate the increased risk of collision which exists on air-traffic routes the following rules shall be observed by flying-machines, gliders, and airships when flying on or in the vicinity of such routes :—

(*a*) An aircraft when flying by compass along the straight line (rhumb line) joining two points on an air-traffic route in common use shall keep such line at least 1,000 yards on its left :

(*b*) An aircraft following either an officially recognized air-traffic route or a route frequented by aircraft and indicated on the ground by a line of landmarks such as a road, railway, river, canal, or coast-line, &c., shall keep such route at least 300 yards on its left :

(*c*) An aircraft shall not fly keeping on its right any of the lines or routes referred to in this paragraph except at a distance therefrom sufficient to avoid aircraft following such lines or routes in accordance with the rules contained in this paragraph :

(*d*) An aircraft crossing one of the lines or routes referred to in this paragraph shall cross it at right angles as rapidly as possible :

(*e*) In the case of prearranged flights in group formation the aircraft of the leader of the group shall lead the flight in such a manner that every aircraft in the group can comply with the rules contained in this paragraph.

34. To facilitate compliance with the rules for air traffic contained in this Schedule the pilot of a flying-machine shall, save in exceptional circumstances, be placed either in the plane of symmetry of the flying-machine or on the left-hand side of such plane.

SECTION V.—SPECIAL RULES FOR AIR TRAFFIC ON AND IN THE VICINITY OF ALL AERODROMES.

35. On and in the vicinity of all aerodromes :—

(*a*) Aircraft about to land on the aerodrome shall be given free way :

(*b*) Aircraft about to take off shall not attempt to do so until there is no risk of collision with another aircraft :

(*c*) In the case of one flying-machine or glider and another flying-machine or glider both approaching the aerodrome for the purpose of landing, the flying-machine or glider flying at the greater height shall be responsible for avoiding the flying-machine or glider flying at the lower height, but the latter flying-machine or glider shall, if the contingency arises, comply with the provisions of paragraph 29 of this Schedule.

SECTION VI.—SPECIAL RULES FOR AIR TRAFFIC ON AND IN THE VICINITY OF AERODROMES OPEN TO PUBLIC USE.

General.

36. (1) The rules contained in this section of this Schedule shall be applied on and in the vicinity of aerodromes open to public use for flying-machines.

(2) Gliders on and in the vicinity of aerodromes open to public use shall comply with the rules contained in this section of this Schedule so far as possible.

37. The Minister may temporarily suspend the application of all or any of the rules contained in this section of this Schedule in respect of any aerodrome in New Zealand which is open to public use. Where any such suspension is for the time being in force with respect to any aerodrome there shall be displayed at that aerodrome the appropriate signals provided for in paragraph 15 (4) of this Schedule.

38. At land aerodromes a neutral zone, situated along the perimeter of the landing area and at the approaches to the hangars, may be set apart for flying-machines manœuvring on the ground.

FLIGHT OVER OR IN THE VICINITY OF THE LANDING AREA.

39. Subject to the provisions of any special regulations in force with respect to any particular aerodrome :—

(*a*) A flying-machine shall not fly over the landing area of an aerodrome at a lower height than 2,000 ft., except when departing therefrom or landing thereat :

(*b*) Every flying-machine flying outside a landing area at a distance of less than 2,000 yards from the nearest point of such area shall, unless it is flying at a greater height than 2,000 ft., keep the landing area on its left.

40. Flying-machines shall not engage in aerial acrobatics in the vicinity of aerodromes at a distance of less than 4,000 yards from the nearest point of the perimeter of the aerodrome, unless they are flying at a greater height than 6,000 ft.

41. When a flying-machine is about to land by means of a radio-electric guide, other flying-machines, in order to avoid collision, shall comply with any local regulations in force which may be applicable or, in default of such regulations, shall fly as low as possible below the clouds.

42. No fixed balloon, kite, or moored airship shall be elevated in the vicinity of any aerodrome without permission duly given under the law of the country in which the aerodrome is situated. As regards aerodromes situated in New Zealand, such permission may be given by the Minister.

RULES TO BE OBSERVED FOR DEPARTURES AND LANDINGS.

43. If a flying-machine starting from or about to land on an aerodrome makes a circuit or partial circuit, the turning shall be made clear of the landing area and shall be left-handed (anti-clockwise), so that during such circuit the

landing area shall always be on its left, unless either of the signals provided for in paragraph 15 (4) (*b*) of this Schedule is displayed, when the turning shall be right-handed.

44. (1) Every flying-machine when taking off from or landing at an aerodrome shall do so upwind, except when the natural conditions of the aerodrome do not permit. If, however, there is a landing T as provided for in subparagraph (2) of paragraph 15 of this Schedule or a line of lights or lights in the form of a T as provided for in subparagraph (2) (*d*) (ii) of paragraph 16 of this Schedule, the flying-machine shall take off or land in the direction indicated by the T—*i.e.*, by following the direction of the shaft of the T towards the cross-arm of the T—or by the line of lights or lights in the form of a T, as the case may be.

(2) Landings shall be preceded by a descent in a straight line, commencing at least 300 yards outside the perimeter of the landing area, except where the natural conditions of the aerodrome or its approaches do not permit.

(3) Every flying-machine landing at an aerodrome shall leave clear on its left any flying-machine which has already landed or is already landing, or which is taking off or about to take off.

(4) Every flying-machine taking off from an aerodrome shall leave clear on its left any flying-machine which is already taking off.

(5) In observing the rules contained in this paragraph, every flying-machine, when landing or taking off, shall leave a reasonable space on its right for other flying-machines to land or take off.

(6) At an aerodrome two or more flying-machines shall not take off or land simultaneously unless such simultaneous taking off or landing is prearranged.

(7) For the purposes of this paragraph two or more flying-machines taking off or landing simultaneously by prearrangement shall be regarded as a single flying-machine.

45. (1) By way of exception, the landing area at an aerodrome may be regarded as divided into two approximately equal zones by a vertical plane orientated in the direction of departure and landing described in subparagraph (1) of paragraph 44 of this Schedule; in such a case, for an observer facing in the same direction as that in which departures and landings are to be made, the zone on the right shall be reserved for landings, and the zone on the left for departures.

(2) The aerodromes to which this paragraph applies shall be indicated by the signal provided for in subparagraph (3) of paragraph 15 of this Schedule.

(3) At aerodromes to which this paragraph applies a flying-machine when landing shall do so in conformity with the provisions of subparagraphs (1) and (2) of paragraph 44 of this Schedule, as far as possible to the left in the zone reserved for that purpose, but leaving clear on its left any other flying-machine which has already landed or which is landing.

(4) At aerodromes to which this paragraph applies a flying-machine when taking off shall do so in conformity with the provisions of subparagraph (1) of paragraph 44 of this Schedule, as far as possible to the left in the zone reserved for that purpose, but leaving clear on its left any other flying-machine which is already taking off.

46. At land aerodromes having a ground control no flying-machine having proceeded on to the landing area with the intention of taking off shall take off until it has received permission to do so by the signal specified in subparagraph (1) (*b*) or subparagraph (2) (*b*) of paragraph 18 of this Schedule.

Rules to be observed for Manœuvres on the Ground.

47. (1) At every land aerodrome a flying-machine moving on the ground in the landing area shall normally do so in the direction of landing. It may, however, in order to shorten its course, cross the landing area to reach its point of taking off or the boundary, provided that in the course of such movement turns are always made to the left, that it gives free way to every aircraft leaving or landing, and that it conforms to the general air-traffic rules contained in paragraphs 27, 28, 29, 30, and 31 of this Schedule.

(2) At every water aerodrome the rules for land aerodromes contained in subparagraph (1) of this paragraph shall apply, subject, however, to the provisions contained in paragraph 49 of this Schedule.

48. At aerodromes having a ground control, in addition to complying with the rules contained in paragraph 47 of this Schedule, a flying-machine shall not proceed on to the landing area until it has received permission to do so by the signal specified in subparagraph (1) (*a*) or subparagraph (2) (*a*) of paragraph 18 of this Schedule.

SECTION VII.—RULES RELATING TO AIRCRAFT ON THE SURFACE OF THE WATER.

49. Every aircraft manœuvring under its own power on the water shall conform to the Regulations for Preventing Collisions at Sea, and for the purposes of those regulations shall be deemed to be a steam vessel:

Provided that—

(*a*) In conforming with the said regulations it shall be borne in mind that steam-vessels in narrow channels are not able to manœuvre so as to avoid collision with aircraft; and

(*b*) The aircraft shall carry only the lights specified in Section 1 of this Schedule and not those prescribed for steam-vessels in the said regulations, and shall not use, except as specified in paragraph 12 and subparagraph (2) (*d*) of paragraph 17 of this Schedule, or be deemed to hear the sound signals specified in the said regulations.

SECTION VIII.—MISCELLANEOUS PROVISIONS.

50. The dropping of ballast other than fine sand or water from aircraft in the air is prohibited.

51. In conforming with the rules laid down in Sections III, IV, and V of this Schedule due regard shall be had to all dangers of navigation and collision and to any special circumstances which may render departure from the said rules necessary in order to avoid immediate danger.

52. Nothing in this Schedule shall exonerate any aircraft, or the owner, pilot, or crew thereof, from the consequences of any neglect in the use of lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of the air, or by the special circumstances of the case.

53. Nothing in this Schedule shall interfere with the operation of any special rule or rules duly made and published under the law of any country relative to the navigation of aircraft in the vicinity of any aerodrome or in or over any other place in that country, and it shall be obligatory on all owners, pilots, and crews of aircraft to obey any such rule or rules.

Provided that nothing herein contained shall be deemed to require compliance with any such rule or rules in so far as compliance therewith would involve the provision of supplementary equipment for lights and signals other than such lights and signals as are required by Sections I and II of this Schedule to be displayed or used.

As regards any aerodrome or other place situated in New Zealand, any such special rule or rules as aforesaid may be prescribed by the Minister.

54. When an aircraft registered in New Zealand is in the territory of any State which is not a contracting State, the provisions of this Schedule shall apply to it only in so far as they do not conflict with the laws of such State.

T. J. SHERRARD,
Acting Clerk of the Executive Council.

Issued under the authority of the Regulations Act, 1936.
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These regulations are administered in the Air Department.