Summary

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	Article	Context	Article	Context	
1.	Nill	Nill	Definition	Aerodrome License. A License issued by the Chairman, under applicable regulations for the operation of an aerodrome open to public use other than used for international operations.	As per the requirements of CA ACT- 17.
2.	Nill	Nill	Definition	<i>Licensed aerodrome.</i> An aerodrome whose operator has been granted an aerodrome licensed.	As per the requirements of CA ACT- 17.
3.	1.4.2	Recommendation.— States should certify aerodromes open to public use in accordance with these specifications as well as other relevant ICAO specifications through an appropriate regulatory framework.	1.4.2	Aerodromes open to public use other than used for international operations shall be licensed through specifications of this ANO as well as Specifications of other relevant ANOs	As per the requirements of CA ACT- 17.
4.	Nill	Nill	1.4.5	Refusal & Exemptions –	As per the
			1.4.5.1	The Chairman may refuse to grant an aerodrome certificate/licence giving the applicant a written notice of the refusal, and the reasons for it.	of CA ACT- 17.
			1.4.5.2	The Chairman, taking into account all relevant considerations relating to the interest of safety, may exempt, in writing, an aerodrome operator from compliance with specified provisions of this ANO subject to: a) aerodrome operator complies with the conditions/procedure s specified by the Chairman in the aerodrome certificate/licence as being necessary in the interest of safety; b) such conditions and procedures as determined, after carrying out	

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				aeronautical studies, only if permitted by the provisions of this ANO, relating to the provisions as are necessary to ensure a level of safety equivalent to that established by those provisions	
5.	1.5.1	Recommendation.— A master plan containing detailed plans for the development of aerodrome infrastructure should be established for aerodromes deemed relevant by States.	1.5.1	A master plan containing detailed plans for the development of aerodrome infrastructure shall be established by the concerned aerodrome operator.	Exists as standard in ANO (AD) A.1 As Art 1.6.1
6.	1.5.2	Recommendation.— The master plan should: a) contain a schedule of priorities including a phased implementation plan; and b) be reviewed periodically to take into account current and future aerodrome traffic.	1.5.2	 The master plan shall: a) contain a schedule of priorities including a phased implementation plan; and b) be reviewed periodically to take into account current and future aerodrome traffic. 	Exists as standard in ANO (AD) A.1 as Art 1.6.2
7.	1.5.3	Recommendation.— Aerodrome stakeholders, particularly aircraft operators, should be consulted in order to facilitate the master planning process using a consultative and collaborative approach.	1.5.3	Aerodrome stakeholders, particularly aircraft operators, shall be consulted in order to facilitate the master planning process using a consultative and collaborative approach.	ICAO new Art.
8.	1.5.5	Recommendation.— The design of aerodromes should take into account land-use and environmental control measures.	1.5.5	The design of aerodromes shall take into account land-use and environmental control measures.	ICAO new Art.
9.	2.1.2	Recommendation.— Aerodrome mapping data should be made available to the aeronautical information services for aerodromes deemed relevant by States where safety and/or performance- basedoperations suggest possible benefits.	2.1.2	Aerodrome mapping data shall be made available to the aeronautical information services where safety and/or performance-based operations suggest possible benefits.	Exists as standard in ANO (AD) A.1

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10.	2.4.2	Recommendation.— The aerodrome reference temperature should be the monthly mean of the daily maximum temperatures for the hottest month of the year (the hottest month being that which has the highest monthly mean temperature).This temperature should be averaged over a period of years.	2.4.2	The aerodrome reference temperature shall be the monthly mean of the daily maximum temperatures for the hottest month of the year (the hottest month being that which has the highest monthly mean temperature). This temperature shall be averaged over a period of years.	Exists as standard in ANO (AD) A.1
11.	2.6.7	Recommendation.— Criteria should be established to regulate the use of a pavement by an aircraft with anACN higher than the PCN reported for that pavement in accordance with 2.6.2 and 2.6.3.	2.6.7	Criteria shall be established by the aerodrome operator to regulate the use of a pavement by an aircraft with an ACR higher than the PCR reported for that pavement in accordance with 2.6.2 and 2.6.3.	Exists as standard in ANO (AD) A.1
12.	2.7.2	Recommendation.— A pre- flight check location should be located on an apron	2.7.2	A pre-flight check location shall normally be located on an apron.	Exists as standard in ANO (AD) A.1
13.	2.9.8	Recommendation.— Friction measurements made on runway surface conditions with contaminants other than compacted snow and ice should not be reported.	2.9.8	Friction measurements made on runway surface conditions with contaminants other than compacted snow and ice shall not be reported.	Exists as standard in ANO (AD) A.1
14.	2.10.1	Recommendation. The telephone/telex number(s) of the office of the aerodrome coordinator of operationsfor the removal of an aircraft disabled on or adjacent to the movement area should be made available, on request, to aircraftoperators.		The telephone/telex number(s) of the office of the aerodrome coordinator of operations for the removal of an aircraft disabled on or adjacent to the movement area shall normally be made available, on request, to aircraft operators.	Exists as standard in ANO (AD) A.1
15.	2.10.2	Recommendation. Information concerning the capability to remove an aircraft disabled on or adjacent tothe movement area should be made available.		Information concerning the capability to remove an aircraft disabled on or adjacent to the movement area shall be made available.	Exists as standard in ANO (AD) A.1

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16.	2.11.2	Recommendation.— The level of protection normally available at an aerodrome should be expressed in termsof the category of the rescue and firefighting services as described in 9.2 and in accordance with the types and amounts of extinguishing agents normally available at the aerodrome.	2.11.2	The level of protection normally available at an aerodrome shall be expressed in terms of the category of the rescue and firefighting services as described in 9.2 and in accordance with the types and amounts of extinguishing agents normally available at the aerodrome.	Exists as standard in ANO (AD) A.1
17.	2.11.4	Recommendation.— A change should be expressed in terms of the new category of the rescue and firefightingservice available at the aerodrome.	2.11.4	A change shall be expressed in terms of the new category of the rescue and firefighting service available at the aerodrome.	Exists as standard in ANO (AD) A.1
18.	3.1.1	Recommendation.— The number and orientation of runways at an aerodrome should be such that the usabilityfactor of the aerodrome is not less than 95 per cent for the aeroplanes that the aerodrome is intended to serve.	3.1.1	The number and orientation of runways at an aerodrome shall be such that the usability factor of the aerodrome is not less than 95 per cent for the aeroplanes that the aerodrome is intended to serve.	Exists as standard in ANO (AD) A.1
19.	3.1.2	Recommendation.— The siting and orientation of runways at an aerodrome should, where possible, be suchthat the arrival and departure tracks minimize interference with areas approved for residential use and other noise-sensitive areas close to the aerodrome in order to avoid future noise problems.	3.1.2	The siting and orientation of runways at an aerodrome shall, where possible, be such that the arrival and departure tracks minimize interference with areas approved for residential use and other noise- sensitive areas close to the aerodrome in order to avoid future noise problems.	Exists as standard in ANO (AD) A.1
20.	3.1.3	Recommendation.—In the application of 3.1.1 it should be assumed that landing or take-off of aeroplanes is, innormal circumstances, precluded when the crosswind component exceeds:	3.1.3	In the application of 3.1.1 it shall be assumed that landing or take-off of aeroplanes is, in normal circumstances, precluded when the crosswind component exceeds: 	Exists as standard in ANO (AD) A.1

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21.	3.1.4	Recommendation.—The selection of data to be used for the calculation of the usability factor should be based onreliable wind distribution statistics that extend over as long a period as possible, preferably of not less than five years. The observations used should be made at least eight times daily and spaced at equal intervals of time.	3.1.4	Theselectionofdatatobe usedforthecalculation ofthe usabilityfactorshall bebased on reliablewinddistributions tatisticsthatextendover aslongaperiodaspossible, preferablyofnotlessthanfi veyears.The observations usedshould be made at least eight times daily and spaced at equal intervalsof time.	Exists as standard in ANO (AD) A.1
22.	3.1.5	Recommendation.— A threshold should normally be located at the extremity of a runway unless operational considerations justify the choice of another location.	3.1.5	A threshold shall normally be located at the extremity of a runway unless operational considerations justify the choice of another location.	Exists as standard in ANO (AD) A.1
23.	3.1.6	Recommendation.— When it is necessary to displace a threshold, either permanently or temporarily, from itsnormal location, account should be taken of the various factors which may have a bearing on the location of the threshold. Where this displacement is due to an unserviceable runway condition, a cleared and graded area of at least 60 m in lengthshould be available between the unserviceable area and the displaced threshold. Additional distance should also be providedto meet the requirements of the runway end safety area as appropriate.	3.1.6	When it is necessary to displace a threshold, either permanently or temporarily, from its normal location, account should be taken of the various factors which may have a bearing on the location of the threshold. Where this displacement is due to an unserviceable runway condition, a cleared and graded area of at least 60 m in length shall be available between the unserviceable area and the displaced threshold. Additional distance shall also be provided to meet the requirements of the runway end safety area as appropriate.	Exists as standard in ANO (AD) A.1

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24.	3.1.7	Recommendation.— Except as provided in 3.1.9, the actual runway length to be provided for a primary runway shouldbe adequate to meet the operational requirements of the aeroplanes for which the runway is intended and should be not lessthan the longest length determined by applying the corrections for local conditions to the operations and performance characteristics of the relevant aeroplanes.	3.1.7	Except as provided in 3.1.9, the actual runway length to be provided for a primary runway shall be adequate to meet the operational requirements of the aeroplanes for which the runway is intended and shall be not less than the longest length determined by applying the corrections for local conditions to the operations and performance characteristics of the relevant aeroplanes.	Exists as standard in ANO (AD) A.1
25.	3.1.8	Recommendation.— The length of a secondary runway should be determined similarly to primary runways except thatit needs only to be adequate for those aeroplanes which require to use that secondary runway in addition to the other runwayor runways in order to obtain a usability factor of at least 95 per cent.	3.1.8	The length of a secondary runway shall be determined, where practicable similarly to primary runways except that it needs only to be adequate for those aeroplanes which require to use that secondary runway in addition to the other runway or runways in order to obtain a usability factor of at least 95 per cent.	Exists as standard in ANO (AD) A.1
26.	3.1.10	Recommendation.— The width of a runway should be not less than the appropriate dimension specified in thefollowing tabulation: (See the table in article 3.1.10)	3.1.10	The width of a runway shall be not less than the appropriate dimension specified in the following tabulation: (No change made in the table)	Exists as standard in ANO (AD) A.1
27.	3.1.11	Recommendation.— Where parallel non-instrument runways are intended for simultaneous use, the minimumdistance between their centre lines should be: 	3.1.11	Where parallel non- instrument runways are intended for simultaneous use, the minimum distance between their centre lines shall be:	Exists as standard in ANO (AD) A.1
28.	3.1.12	Recommendation.— Where parallel instrument runways are intended for simultaneous use subject to conditions specified in the PANS-ATM (Doc 4444) and the PANS-OPS (Doc 8168), Volume I, the minimum distance between their centre lines should be:	3.1.12	Where parallel instrument runways are intended for simultaneous use subject to conditions specified in the PANS-ATM (Doc 4444) and the PANS-OPS (Doc 8168), Volume I, the minimum distance between their centre lines shall be:	Exists as standard in ANO (AD) A.1

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29.	3.1.13	Recommendation.—The slope computed by dividing the difference between the maximum and minimum elevationalong the runway centre line by the runway length should not exceed: 	3.1.13	The slope computed by dividing the difference between the maximum and minimum elevation along the runway centre line by the runway length shall not exceed:	Exists as standard in ANO (AD) A.1
30.	3.1.14	Recommendation.— Along no portion of a runway should the longitudinal slope exceed:	3.1.14	Along no portion of a runway shall the longitudinal slope exceed: 	Exists as standard in ANO (AD) A.1
31.	3.1.15	Recommendation.— Where slope changes cannot be avoided, a slope change between two consecutive slopes should not exceed:	3.1.15	Where slope changes cannot be avoided, a slope change between two consecutive slopes shall not exceed:	Exists as standard in ANO (AD) A.1
32.	3.1.16	Recommendation.— The transition from one slope to another should be accomplished by a curved surfacewith a rate of change not exceeding:	3.1.16	The transition from one slope to another shall be accomplished by a curved surface with a rate of change not exceeding:	Exists as standard in ANO (AD) A.1
33.	3.1.17	Recommendation.— Where slope changes cannot be avoided, they should be such that there will be an unobstructedline of sight from:	3.1.17	Where slope changes cannot be avoided, they shall be such that there will be an unobstructed line of sight from:	Exists as standard in ANO (AD) A.1
34.	3.1.18	Recommendation.— Undulations or appreciable changes in slopes located close together along a runway should beavoided. The distance between the points of intersection of two successive curves should not be less than:	3.1.18	Undulations or appreciable changes in slopes located close together along a runway shall be avoided. The distance between the points of intersection of two successive curves shall not be less than:	Exists as standard in ANO (AD) A.1
35.	3.1.19	Recommendation.— To promote the most rapid drainage of water, the runway surface should, if practicable, becambered except where a single crossfall from high to low in the direction of the wind most frequently associated with rainwould ensure rapid drainage. The transverse slope should ideally be:	3.1.19	To promote the most rapid drainage of water, the runway surface shall, if practicable, be cambered except where a single crossfall from high to low in the direction of the wind most frequently associated with rain would ensure rapid drainage. The transverse slope shall ideally be:	Exists as standard in ANO (AD) A.1
36.	3.1.21	Recommendation.— A runway should be capable of withstanding the traffic of aeroplanes the runway is intended to serve.	3.1.21	A runway shall be capable of withstanding the traffic of aeroplanes the runway is intended to serve.	Exists as standard in ANO (AD) A.1

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37.	3.1.24	Recommendation.— The surface of a paved runway should be evaluated when constructed or resurfaced to determine that the surface friction characteristics achieve the design objectives.	3.1.24	The surface of a paved runway shall be evaluated when constructed orresurfaced to determine that the surface friction characteristics achieve the design objectives.	Exists as standard in ANO (AD) A.1 also PQ 8.255
38.	3.1.25	Recommendation.— Measurements of the surface friction characteristics of a new or resurfaced pavedrunway should be made with a continuous frictionmeasuring device using self-wetting features.	3.1.25	Measurements of the surface friction characteristics of a new or resurfaced paved runway shall be made with a continuousfriction measuringdevice using self-wetting features.	Exists as standard in ANO (AD) A.1 also PQ 8.255 & For safe aircraft operation.
39.	3.1.26	Recommendation.— The average surface texture depth of a new surface should be not less than 1.0 mm.	3.1.26	The average surface texture depth of a new surface shall be not less than 1.0 mm.	Exists as standard in ANO (AD) A.1
40.	3.1.27	Recommendation.— When the surface is grooved or scored, the grooves or scorings should be either perpendicular to the runway centre line or parallel to non-perpendiculartransverse joints, where applicable.	3.1.27	When the surface is grooved or scored, the grooves or scorings shall be either perpendicular to the runway centre line or parallel to non- perpendicular transverse joints, where applicable.	Exists as standard in ANO (AD) A.1
41.	3.2.1	Recommendation.— Runway shoulders should be provided for a runway where the code letter is D, E or F.	3.2.1	Runway shoulders shall be provided for a runway where the code letter is D, E or F.	Exists as standard in ANO (AD) A.1
42.	3.2.2	Recommendation.—For aeroplanes with OMGWS from 9 m up to but not including 15 m, the runway shouldersshould extend symmetrically on each side of the runway so that the overall width of the runway and its shoulders is not less than:	3.2.2	For aeroplanes with OMGWS from 9 m up to but not including 15 m, the runway shoulders shall extend symmetrically on each side of the runway so that the overall width of the runway and its shoulders is not less than:	Ref for Shoulder width determination has been changed by ICAO & For safe aircraft operation

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	Article	Context	Article	Context	
43.	3.2.3	Recommendation.— The surface of the shoulder that abuts the runway should be flush with the surface of the runway and its transverse slope should not exceed 2.5 per cent.	3.2.3	The surface of the shoulder that abuts the runway shall be flush with the surface of the runway and its transverse slope shall not exceed 2.5 per cent.	Ref for Shoulder width determination has been changed by ICAO & For safe aircraft operation
44.	3.2.4	Recommendation.— The portion of a runway shoulder between the runway edge and a distance of 30 m fromthe runway centre line should be prepared or constructed so as to be capable, in the event of an aeroplane running off therunway, of supporting the aeroplane without inducing structural damage to the aeroplane and of supporting ground vehicleswhich may operate on the shoulder.	3.2.4	The portion of a runway shoulder between the runway edge and a distance of 30 m from the runway centre line shall be prepared or constructed so as to be capable, in the event of an aeroplane running off the runway, of supporting the aeroplane without inducing structural damage to the aeroplane and of supporting ground vehicles which may operate on the shoulder.	DO
45.	3.2.5	Recommendation.— A runway shoulder should be prepared or constructed so as to resist erosion and the ingestion of the surface material by aeroplane engines.	3.2.5	A runway shoulder shall be prepared or constructed so as to resist erosion and the ingestion of the surface material by aeroplane engines.	Exists as standard in ANO (AD) A.1
46.	3.2.6	Recommendation.— Runway shoulders for code letter F aeroplanes should be paved to a minimum overallwidth of runway and shoulder of not less than 60 m.	3.2.26	Runway shoulders for code letter F aeroplanes shall be paved to a minimum overall width of runway and shoulder of not less than 60 m.	Exists as standard in ANO (AD) A.1
47.	3.3.2	Recommendation.— Where the end of a runway is not served by a taxiway or a taxiway turnaround and wherethe code letter is A, B or C, a runway turn pad should be provided to facilitate a 180-degree turn of aeroplanes.	3.3.2	Where the end of a runway is not served by a taxiway or a taxiway turnaround and where the code letter is A, B or C, a runway turn pad shall be provided where practicable to facilitate a 180-degree turn of aeroplanes.	Exists as standard in ANO (AD) A.1

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48.	3.3.7	Recommendation.— The longitudinal and transverse slopes on a runway turn pad should be sufficient toprevent the accumulation of water on the surface and facilitate rapid drainage of surface water. The slopes should be thesame as those on the adjacent runway pavement surface.	3.3.7	The longitudinal and transverse slopes on a runway turn pad shall be sufficient to prevent the accumulation of water on the surface and facilitate rapid drainage of surface water. The slopes shall be the same as those on the adjacent runway pavement surface.	Exists as standard in ANO (AD) A.1
49.	3.3.8	Recommendation.— The strength of a runway turn pad should be at least equal to that of the adjoining runwaywhich it serves, due consideration being given to the fact that the turn pad will be subjected to slow- moving traffic makinghard turns and consequent higher stresses on the pavement.	3.3.8	The strength of a runway turn pad shall be at least equal to that of the adjoining runway which it serves, due consideration being given to the fact that the turn pad will be subjected to slow-moving traffic making hard turns and consequent higher stresses on the pavement.	For safe aircraft operation
50.	3.3.10	Recommendation.— The surface of a runway turn pad should be so constructed or resurfaced as to providesurface friction characteristics at least equal to that of the adjoining runway.	3.3.10	The surface of a runway turn pad shall be so constructed or resurfaced as to provide surface friction characteristics at least equal to that of the adjoining runway.	For safe aircraft operation
51.	3.3.11	Recommendation.— The runway turn pads should be provided with shoulders of such width as is necessary toprevent surface erosion by the jet blast of the most demanding aeroplane for which the turn pad is intended, and any possible foreign object damage to the aeroplane engines.	3.3.11	The runway turn pads shall be provided with shoulders of such width as is necessary to prevent surface erosion by the jet blast of the most demanding aeroplane for which the turn pad is intended, and any possible foreign object damage to the aeroplane engines.	Exists as standard in ANO (AD) A.1
52.	3.3.12	Recommendation.— The strength of runway turn pad shoulders should be capable of withstanding theoccasional passage of the aeroplane it is designed to serve without inducing structural damage to the aeroplane and to the supporting ground vehicles that may operate on the shoulder.	3.3.12	The strength of runway turn pad shoulders shall be capable of withstanding the occasional passage of the aeroplane it is designed to serve without inducing structural damage to the aeroplane and to the supporting ground vehicles that may operate on the shoulder.	Exists as standard in ANO (AD) A.1

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53.	3.4.4	Recommendation.— A strip including a non-precision approach runway should extend laterally to a distance of at least:	3.4.4	<u>Astripincludingan</u> on- precisionapproachrun wayshall, whereverpracticableext endlaterallytoadistanc e of at least:	To make the requirement more specific.
				— 140 mwherethecode numberis 3 serving aeroplane having OMGWS equal to 9m up to but not including 15m orwhere the code number is 4;	
				— 105 mwherethecode numberis 3 serving aeroplane having OMGWS equal to 6m up to but not including 9m; and	
				— 70 m wherethecode numberis 1or 2;	
54.	3.4.5	Recommendation.— A strip including a non-instrument runway should extend on each side of the centre line ofthe runway and its extended centre line throughout the length of the strip, to a distance of at least:	3.4.5	A strip including a non- instrument runway shall extend on each side of the centre line of the runway and its extended centre line throughout the length of the strip, to a distance of at least:	Exists as standard in ANO (AD) A.1
55.	3.4.6	Recommendation.— An object situated on a runway strip which may endanger aeroplanes should be regardedas an obstacle and should, as far as practicable, be removed.	3.4.6	An object situated on a runway strip which may endanger aeroplanes shall be regarded as an obstacle and shall, as far as practicable, be removed.	Exists as standard in ANO (AD) A.1, PQ 8.273
56.	3.4.8	Recommendation.— That portion of a strip of an instrument runway its extended centre line should provide a graded area	3.4.8	That portion of a strip of an instrument runway its extended centre line shall provide a graded area	Exists as standard in ANO (AD) A.1
57.	3.4.9	Recommendation.— That portion of a strip of a non- instrument runway its extended centre line should provide a graded area	3.4.9	That portion of a strip of a non-instrument runway its extended centre line shall provide a graded area	Exists as standard in ANO (AD) A.1

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58.	3.4.11	Recommendation.— That portion of a strip to at least 30 m before the start of a runway should be prepared against blast erosion in order to protect a landing aeroplane from the danger of an exposed edge.	3.4.11	That portion of a strip to at least 30 m before the start of a runway shall, whenever practicable be prepared against blast erosion in order to protect a landing aeroplane from the danger of an exposed edge.	Exists as standard in ANO (AD) A.1
59.	3.4.12	Where the areas in 3.4.11 have paved surfaces, they should be able to withstand theoccasional passage of the critical aeroplane for runway pavement design.	3.4.12	Where the areas in 3.4.11 have paved surfaces, they shall be able to withstand the occasional passage of the critical aeroplane for runway pavement design.	For safe operation of aircraft.
60.	3.4.13	Recommendation.— A longitudinal slope along that portion of a strip to be graded should not exceed: 	3.4.13	A longitudinal slope along that portion of a strip to be graded where practicable shall not exceed:	Exists as standard in ANO (AD) A.1
61.	3.4.14	Recommendation.— Slope changes on that portion of a strip to be graded should be as gradual as practicable andabrupt changes or sudden reversals of slopes avoided.	3.4.14	Slope changes on that portion of a strip to be graded shall be as gradual as practicable and abrupt changes or sudden reversals of slopes avoided.	Exists as standard in ANO (AD) A.1
62.	3.4.15	Recommendation.— Transverse slopes on that portion of a strip to except that to facilitate drainage or stopway edge should benegative as 	3.4.15	Transverse slopes on that portion of a strip to except that to facilitate drainage or stopway edge shall benegative as 	Exists as standard in ANO (AD) A.1
63.	3.4.16	Recommendation.— The transverse slopes of any portion of a strip beyond that to be graded should notexceed an upward slope of 5 per cent as measured in the direction away from the runway.	3.4.16	The transverse slopes of any portion of a strip beyond that to be graded shall notexceed an upward slope of 5 per cent as measured in the direction away from the runway.	Exists as standard in ANO (AD) A.1
64.	3.4.17	Recommendation.— That portion of a strip of its extended centre line should be so prepared or constructed as to	3.4.17	That portion of a strip of its extended centre line shall be so prepared or constructed as to	For safe operation of aircraft
65.	3.5.2	Recommendation.— A runway end safety area should be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non-instrument one.	3.5.2	A runway end safety area shall as per as practicable be provided at each end of a runway strip where the code number is 1 or 2 and the runway is a non- instrument one.	For safe operation of aircraft, PQ 8.163, 8.163

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66.	3.5.7	Recommendation.— An object situated on a runway end safety area which may endanger aeroplanes should be regarded as an obstacle and should, as far as practicable, be removed.	3.5.7	An object situated on a runway end safety area which may endanger aeroplanesshall beregarded as an obstacle and shall, as far as practicable, be removed.	Exists as standard in ANO (AD) A.1
67.	3.5.8	Recommendation.— A runway end safety area should provide a cleared and graded area	3.5.8	A runway end safety area shall provide a cleared and graded area	For safe operation of aircraft
68.	3.5.9	Recommendation.— The slopes of a runway end safety area should be such that no part of the runway end safety areapenetrates the approach or take-off climb surface.	3.5.9	The slopes of a runway end safety area shall be such that no part of the runway end safety areapenetrates the approach or take-off climb surface.	Exists as standard in ANO (AD) A.1
69.	3.5.10	Recommendation.— The longitudinal slopes of a runway end safety area should not exceed a downward slope of 5 percent. Longitudinal slope changes should be as gradual as practicable and abrupt changes or sudden reversals of slopesavoided.	3.5.10	The longitudinal slopes of a runway end safety area shall not exceed a downward slope of 5 percent. Longitudinal slope changes shall be as gradual as practicable and abrupt changes or sudden reversals of slopesavoided.	Exists as standard in ANO (AD) A.1
70.	3.5.11	Recommendation.— The transverse slopes of a runway end safety area should not exceed an upward or downwardslope of 5 per cent. Transitions between differing slopes should be as gradual as practicable.	3.5.11	The transverse slopes of a runway end safety area shall not exceed an upward or downwardslope of 5 per cent. Transitions between differing slopes shall be as gradual as practicable.	Exists as standard in ANO (AD) A.1
71.	3.5.12	Recommendation.— A runway end safety area should be so prepared	3.5.12	A runway end safety area shall be so prepared	Exists as standard in ANO (AD) A.1
72.	3.6.1	Recommendation.— The origin of a clearway should be at the end of the take-off run available.	3.6.1	The origin of a clearway shall normally be at the end of the take-off run available.	Exists as standard in ANO (AD) A.1
73.	3.6.2	Recommendation.— The length of a clearway should not exceed half the length of the take-off run available.	3.6.2	The length of a clearway shall not exceed half the length of the take-off run available.	Exists as standard in ANO (AD) A.1
74.	3.6.3	Recommendation.— A clearway should extend laterally on each side of the extended centre line of the runway,to a distance of at least:	3.6.3	A clearway shall extend laterally on each side of the extended centre line of the runway, to a distance of at least:	Exists as standard in ANO (AD) A.1

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75.	3.6.4	Recommendation.— The ground in a clearway should not project above a plane having an upward slope of 1.25 per cent, the lower limit of this plane being a horizontal line which:	3.6.4	The ground in a clearway shall not project above a plane having an upward slope of 1.25 per cent, the lower limit of this plane being a horizontal line which:	Exists as standard in ANO (AD) A.1
76.	3.6.5	Recommendation.— Abrupt upward changes in slope should be avoided when the slope	3.6.5	Abrupt upward changes in slope shall be avoided when the slope	Exists as standard in ANO (AD) A.1 & for safe operation
77.	3.6.6	Recommendation.— An object situated on a clearway which may endanger aeroplanes in the air should be regarded as an obstacle and should be removed.	3.6.6	An object situated on a clearway which may endanger aeroplanes in the air shall be regarded as an obstacle and shall be removed.	Exists as standard in ANO (AD) A.1
78.	3.7.2	Recommendation.— Slopes and changes in slope on a stopway, and the transition from a runway to a stopway, should comply with the specifications of 3.1.13 to 3.1.19 for the runway with which the stopway is associated except that:	3.7.2	Slopes and changes in slope on a stopway, and the transition from a runway to a stopway, shall comply with the specifications of 3.1.13 to 3.1.19 for the runway with which the stopway is associated except that:	Exists as standard in ANO (AD) A.1
79.	3.7.3	Recommendation.— A stopway should be prepared or constructed so as to be capable	3.7.3	A stopwayshall be prepared or constructed so as to be capable	Exists as standard in ANO (AD) A.1
80.	3.8.3	Recommendation.— A radio altimeter operating area should extend laterally, on each side of the extended 	3.8.3	A radio altimeter operating area <i>when</i> <i>established</i> shall extend 	Exists as standard in ANO (AD) A.1
81.	3.8.4	Recommendation.— On a radio altimeter operating area, slope changes should be avoided or kept to aminimum. Where slope changes cannot be avoided, the slope changes should be as gradual as practicable and abruptchanges or sudden reversals of slopes avoided. The rate of change between two consecutive slopes should not exceed 2 percent per 30 m.	3.8.4	3.8.4 Recommendation.— On a radio altimeter operating area, slope changes shall be avoided <i>where practicable</i> or kept to a minimum. Where slope changes cannot be avoided, the slope changes shall be as gradual as practicable and abrupt changes or sudden reversals of slopes avoided. The rate of change between two consecutive slopes shall not exceed 2 per cent per 30 m.	Exists as standard in ANO (AD) A.1

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82.	3.9.1	Recommendation.— Taxiways should be provided to permit the safe and expeditious surface movement ofaircraft.	3.9.1	Taxiways shall be provided to permit the safe and expeditious surface movement ofaircraft.	Exists as standard in ANO (AD) A.1
83.	3.9.2	Recommendation.— Sufficient entrance and exit taxiways for a runway should be provided to	3.9.2	Sufficient entrance and exit taxiways for a runway shall be provided to	Exists as standard in ANO (AD) A.1
84.	3.9.4	Recommendation.— A straight portion of a taxiway should have a width of not less than that given by the following tabulation:	3.9.4	A straight portion of a taxiway shall have a width of not less than that given by the following tabulation:	Exists as standard in ANO (AD) A.1
85.	3.9.6	Recommendation.— To facilitate the movement of aeroplanes, fillets should be provided at junctions and intersections of taxiways with runways, aprons and other taxiways. The design of the fillets should ensure that the	3.9.6	To facilitate the movement of aeroplanes, fillets shall be provided at junctions and intersections of taxiways with runways, aprons and other taxiways. The design of the fillets shall ensure that the	Exists as standard in ANO (AD) A.1
86.	3.9.7	Recommendation.— The separation distance should not be less than the appropriate dimension	3.9.7	The separation distanceshall not normally be less than the appropriate dimension	Exists as standard in ANO (AD) A.1
87.	3.9.8	Recommendation.— The longitudinal slope of a taxiway should not exceed: 	3.9.8	The longitudinal slope of a taxiway shall not exceed:	Exists as standard in ANO (AD) A.1
88.	3.9.9	Recommendation.—Where slope changes on a taxiway cannot be avoided, the transition from one slope to anotherslope should be accomplished by a curved surface with a rate of change not exceeding:	3.9.9	Where slope changes on a taxiway cannot be avoided, the transition from one slope to anotherslope shall be accomplished by a curved surface with a rate of change not exceeding: 	Exists as standard in ANO (AD) A.1
89.	3.9.10	Recommendation.— Where a change in slope on a taxiway cannot be avoided, the change should be such that, from any point:	3.9.10	Where a change in slope on a taxiway cannot be avoided, the change shall be such that, from any point:	Exists as standard in ANO (AD) A.1
90.	3.9.11	Recommendation.— The transverse slopes of a taxiway should be sufficient to prevent the accumulation of water on thesurface of the taxiway but should not exceed:	3.9.11	The transverse slopes of a taxiway shall be sufficient to prevent the accumulation of water on thesurface of the taxiway but shall not exceed:	Exists as standard in ANO (AD) A.1

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91.	3.9.12	Recommendation.— The strength of a taxiway should be at least equal to	3.9.12	The strength of a taxiway shall be at least equal to	Exists as standard in ANO (AD) A.1
92.	3.9.13	Recommendation.— The surface of a taxiway should not have irregularities that cause damage to aeroplanestructures.	3.9.13	The surface of a taxiway shall not have irregularities that cause damage to aeroplanestructures.	Exists as standard in ANO (AD) A.1
93.	3.9.14	Recommendation.— The surface of a paved taxiway should be so constructed or resurfaced as to providesuitable surface friction characteristics.	3.9.14	The surface of a paved taxiway shall be so constructed or resurfaced as to providesuitable surface friction characteristics.	Exists as standard in ANO (AD) A.1
94.	3.9.15	Recommendation.— A rapid exit taxiway should be designed with a radius of turn-off curve of at least:	3.9.15	A rapid exit taxiway shall be designed with a radius of turn-off curve of at least:	Exists as standard in ANO (AD) A.1
95.	3.9.16	Recommendation.— The radius of the fillet on taxiway should besufficient to provide a widened	3.9.16	The radius of the fillet on taxiway shall be sufficient to provide a widened	Exists as standard in ANO (AD) A.1
96.	3.9.17	Recommendation.— A rapid exit taxiway should include a straight	3.9.17	A rapid exit taxiway shall include a straight	Exists as standard in ANO (AD) A.1
97.	3.9.18	Recommendation.— The intersection angle of a rapid exit taxiway with the runway should not be greater than 45° nor less than 25° and preferably should be 30° .	3.9.18	The intersection angle of a rapid exit taxiway with the runway shall not be greater than 45° nor less than 25° and preferably shall be 30° .	Exists as standard in ANO (AD) A.1
98.	3.9.20	Recommendation.— Access should be provided to allow rescue and firefighting vehicles	3.9.20	Access shall be provided to allow rescue and firefighting vehicles	Exists as standard in ANO (AD) A.1
99.	3.9.21	Recommendation.Abridgeshouldbeconstructed on a	3.9.21	A bridge shall be constructed on a	Exists as standard in ANO (AD) A.1
100.	3.10.1	Recommendation.— Straight portions of a taxiway where the code letter is C, D, E or F should be provided with shoulders	3.10.1	Straight portions of a taxiway where the code letter is C, D, E or F shall be provided with shallers	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
101.	3.10.2	Recommendation.— When a taxiway is intended to be used by turbine- enginedaeroplanes, the surface of thetaxiway shoulder should be so prepared as to resist erosion and the ingestion of the surface material by aeroplane engines.	3.10.2	When a taxiway is intended to be used by turbine- enginedaeroplanes, the surface of thetaxiway shallershall be so prepared as to resist erosion and the ingestion of the surface material by aeroplane engines.	Exists as standard in ANO (AD) A.1
102.	3.11.2	Recommendation.— A taxiway strip should extend symmetrically on	3.11.2	A taxiway strip shall extend symmetrically on 	Exists as standard in ANO (AD) A.1
103.	3.11.3	Recommendation.— The taxiway strip should provide an area clear of objects which may endanger taxiingaeroplanes.	3.11.3	The taxiway strip shall provide an area clear of objects which may endanger taxiing aeroplanes.	Exists as standard in ANO (AD) A.1
104.	3.11.4	Recommendation.— The centre portion of a taxiway strip should provide a graded area	3.11.4	The centre portion of a taxiway strip shall provide a graded area	Exists as standard in ANO (AD) A.1
105.	3.11.5	Recommendation.— The surface of the strip should be flush at the edge of the taxiway or shoulder, if provided,and the graded portion should not have an upward transverse slope exceeding:	3.11.5	The surface of the strip shall be flush at the edge of the taxiway or shaller, if provided, and the graded portion shall not have an upward transverse slope exceeding:	Exists as standard in ANO (AD) A.1
106.	3.11.6	Recommendation.— The transverse slopes shouldnot exceed an upward or downward	3.11.6	The transverse slopes shallnot exceed an upward or downward	Exists as standard in ANO (AD) A.1
107.	3.12.4	Recommendation.— An intermediate holding position should be established on a taxiway 	3.12.4	An intermediate holding position shall be established on a taxiway 	Exists as standard in ANO (AD) A.1
108.	3.12.8	Recommendation.— If a holding bay, runway- holding position Table 3-2should be further increased 5 m	3.12.8	If a holding bay, runway- holding position Table 3-2shall be further increased 5 m	Exists as standard in ANO (AD) A.1
109.	3.13.1	Recommendation.— Aprons should be provided where necessary	3.13.1	Aprons shall be provided where necessary	Exists as standard in ANO (AD) A.1
110.	3.13.2	Recommendation.— The total apron area should be adequate to permit expeditious handling of the aerodrometraffic at its maximum anticipated density.	3.13.2	When provided the total apron area shall be adequate to permit expeditious handling of the aerodrome traffic at its maximum anticipated density.	Exists as standard in ANO (AD) A.1

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111.	3.13.3	Recommendation.— Each part of an apron should be capable of withstanding	3.13.3	Each part of an apron shall be capable of withstanding	Exists as standard in ANO (AD) A.1
112.	3.13.4	Recommendation.— Slopes on an apron, including those on an aircraft stand taxilane, should be sufficient toprevent accumulation of water on the surface of the apron but should be kept as level as drainage requirements permit.	3.13.4	Slopes on an apron, including those on an aircraft stand taxilane, shall be sufficient to prevent accumulation of water on the surface of the apron but shall be kept as level as drainage requirements permit.	Exists as standard in ANO (AD) A.1
113.	3.13.5	Recommendation.— On an aircraft stand the maximum slope should not exceed 1 per cent.	3.13.5	On an aircraft stand the maximum slope shall not exceed 1 per cent.	Exists as standard in ANO (AD) A.1
114.	3.13.6	Recommendation.— An aircraft stand should provide the following minimum	3.13.6	An aircraft stand shall provide the following minimum	Exists as standard in ANO (AD) A.1
115.	3.14.2	Recommendation.— The isolated aircraft parking position should be located at	3.14.2	The isolated aircraft parking position shall be located at	Exists as standard in ANO (AD) A.1
116.	4.2.4	Recommendation.— New objects or extensions of existing objects should not be permitted above the conicalsurface or inner horizontal surface except when, in the opinion of the appropriate authority, the object would be shielded byan existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safetyor significantly affect the regularity of operations of aeroplanes.	4.2.4	New objects or extensions of existing objects shall normally not be permitted above the conical surface or inner horizontal surface except when, in the opinion of the Chairman, the object would be shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	Exists as standard in ANO (AD) A.1

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117.	4.2.5	Recommendation.— Existing objects above any of the surfaces required by 4.2.1 should as far as practicable beremoved except when, in the opinion of the appropriate authority, the object is shielded by an existing immovable object, orafter aeronautical study it is determined that the object would not adversely affect the safety or significantly affect theregularity of operations of aeroplanes.	4.2.5	Existing objects above any of the surfaces required by 4.2.1 shall as far as practicable be removed except when, in the opinion of the Chairman, the object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	Exists as standard in ANO (AD) A.1
118.	4.2.6	Recommendation.— In considering proposed construction, account should be taken of the possible futuredevelopment of an instrument runway and consequent requirement for more stringent obstacle limitation surfaces.	4.2.6	In considering proposed construction, account shall be taken of the possible future development of an instrument runway and consequent requirement for more stringent obstacle limitation surfaces.	Exists as standard in ANO (AD) A.1
119.	4.2.11	Recommendation.— New objects or extensions of existing objects should not be permitted above the approachsurface beyond 3000 m from the inner edge, the conical surface or inner horizontal surface except when, in the opinion of the appropriate authority, the object would be shielded by an existing immovable object, or after aeronautical study it isdetermined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	4.2.11	New objects or extensions of existing objects shall normally not be permitted above the approach surface beyond 3 000 m from the inner edge, the conical surface or inner horizontal surface except when, in the opinion of the Chairman, the object would be shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	Exists as standard in ANO (AD) A.1

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120.	4.2.12	Recommendation.— Existing objects above any of the surfaces required by 4.2.7 should as far as practicablebe removed except when, in the opinion of the appropriate authority, the object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect theregularity of operations of aeroplanes.	4.2.12	Existing objects above any of the surfaces required by 4.2.7 shall as far as practicable be removed except when, in the opinion of the Chairman, the object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	Exists as standard in ANO (AD) A.1
121.	4.2.14	Recommendation.— The following obstacle limitation surfaces should be established for a precision approachrunway category I:	4.2.14	The following obstacle limitation surfaces shall be established for a precision approach runway category I:	Exists as standard in ANO (AD) A.1
122.	4.2.20	Recommendation.— New objects or extensions of existing objects should not be permitted above the conicalsurface and the inner horizontal surface except when, in the opinion of the appropriate authority, an object would beshielded by an existing immovable object, or after aeronautical study it is determined that the object would not adverselyaffect the safety or significantly affect the regularity of operations of aeroplanes.	4.2.20	New objects or extensions of existing objects shall normally not be permitted above the conical surface and the inner horizontal surface except when, in the opinion of the Chairman, an object would be shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	Exists as standard in ANO (AD) A.1
123.	4.2.21	Recommendation.— Existing objects above an approach surface, a transitional surface, the conical surfaceand inner horizontal surface should as far as practicable be removed except when, in the opinion of the appropriate authority, an object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety	4.2.21	Existing objects above an approach surface, a transitional surface, the conical surface and inner horizontal surface shall as far as practicable be removed except when, in the opinion of the Chairman, an object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of	Exists as standard in ANO (AD) A.1

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		or significantly affect the regularity of operations of aeroplanes.		aeroplanes.	
124.	4.2.24	Recommendation.— The operational characteristics of aeroplanes for which the runway is intended should beexamined to see if it is desirable to reduce the slope specified in Table 4-2 when critical operating conditions are to becatered to. If the specified slope is reduced, corresponding adjustment in the length of the take-off climb surface should bemade so as to provide protection to a height of 300 m.	4.2.24	The operational characteristics of aeroplanes for which the runway is intended shall be examined to see if it is desirable to reduce the slope specified in Table 4-2 when critical operating conditions are to be catered to. If the specified slope is reduced, corresponding adjustment in the length of the take-off climb surface shall be made so as to provide protection to a height of 300 m.	For safe operation of aircraft
125.	4.2.26	Recommendation.— If no object reaches the 2 per cent (1:50) take-off climb surface, new objects should belimited to preserve the existing obstacle free surface or a surface down to a slope of 1.6 per cent (1:62.5).	4.2.26	If no object reaches the 2 per cent (1:50) take-off climb surface, new objects shall be limited to preserve the existing obstacle free surface or a surface down to a slope of 1.6 per cent (1:62.5).	Exists as standard in ANO (AD) A.1
126.	4.2.27	Recommendation.— Existing objects that extend above a take-off climb surface should as far as practicable beremoved except when, in the opinion of the appropriate authority, an object is shielded by an existing immovable object, orafter aeronautical study it is determined that the object would not adversely affect the safety or significantly affect theregularity of operations of aeroplanes.	4.2.27	Existing objects that extend above a take-off climb surface shall as far as practicable be removed except when, in the opinion of the Chairman, an object is shielded by an existing immovable object, or after aeronautical study it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.	For safe operation of aircraft

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127.	4.3.1	Recommendation.— Arrangements should be made to enable the appropriate authority to be consultedconcerning proposed construction beyond the limits of the obstacle limitation surfaces that extend above a height establishedby that authority, in order to permit an aeronautical study of the effect of such construction on the operation of aeroplanes.	4.3.1	Chairman shall be consulted concerning proposed construction beyond the limits of the obstacle limitation surfaces that extend above a height specified in Art. 4.3.2, in order to carry out an aeronautical study of the effect of such construction on the operation of aeroplanes.	For safe operation of aircraft. PQ 8.283.
128.	4.3.2	Recommendation.— In areas beyond the limits of the obstacle limitation surfaces, at least those objects whichextend to a height of 150 m or more above ground elevation should be regarded as obstacles, unless a special aeronauticalstudy indicates that they do not constitute a hazard to aeroplanes.	4.3.2	In areas beyond the limits of the obstacle limitation surfaces, at least those objects which extend to a height of 150 m or more above ground elevation shall be regarded as obstacles, unless a special aeronautical study indicates that they do not constitute a hazard to aeroplanes.	Exists as standard in ANO (AD) A.1, PQ 8.283.
129.	4.4.1	Recommendation.— Objects which do not project through the approach surface but which would nevertheless adversely affect the optimum siting or performance of visual or non-visual aids should, as far as practicable, be removed.	4.4.1	Objects which do not project through the approach surface but which would nevertheless adversely affect the optimum siting or performance of visual or non-visual aids shall, as far as practicable, be removed.	Exists as standard in ANO (AD) A.1
130.	4.4.2	Recommendation.— Anything which may, in the opinion of the appropriate authority after aeronautical study,endanger aeroplanes on the movement area or in the air within the limits of the inner horizontal and conical surfaces shouldbe regarded as an obstacle and should be removed in so far as practicable.	4.4.2	Anything which may, in the opinion of the Aerodrome Operator after aeronautical study as conducted by the aerodrome operator & approved Member Flight Standard Division, which may endanger aeroplanes on the movement area or in the air within the limits of the inner horizontal and conical surfaces shall be regarded as an obstacle and shall be removed in so far as practicable.	Exists as standard in ANO (AD) A.1
131.	5.1.1.3	Recommendation.— The wind direction indicator should be in the form of a	5.1.1.3	The wind direction indicator shall be in the form of a truncated cone	Exists as standard in ANO (AD)

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	Arucie	truncated cone made of fabricand should have a length of not less than 3.6 m and a diameter, at the larger end, of not less than 0.9 m. It should beconstructed so that it gives a clear indication of the direction of the surface wind and a general indication of the wind speed. The colour or colours should be so selected as to make the wind direction indicator clearly visible and understandable froma height of at least 300 m, having regard to background. Where practicable, a single colour, preferably white or orange, should be used. Where a combination of two colours is required to give adequate conspicuity against changing backgrounds, they should preferably be orange and white, red and white, or black and white, and should be arranged in five alternatebands, the first and last bands being the darker colour.	Arucie	made of fabric and shall have a length of not less than 3.6 m and a diameter, at the larger end, of not less than 0.9 m. It shall be constructed so that it gives a clear indication of the direction of the surface wind and a general indication of the wind speed. The colour or colours shall be so selected as to make the wind direction indicator clearly visible and understandable from a height of at least 300 m, having regard to background. Where practicable, a single colour, preferably white or orange, shall be used. Where a combination of two colours is required to give adequate conspicuity against changing backgrounds, they shallpreferably be orange and white, red and white, or black and white, and shall be arranged in five alternate bands, the first and last bands being the darker colour.	A.1
132.	5.1.1.4	Recommendation.— The location of at least one wind direction indicator should be marked by a circularband 15 m in diameter and 1.2 m wide. The band should be centred about the wind direction indicator support and should bein a colour chosen to give adequate conspicuity, preferably white.	5.1.1.4	Recommendation.— Provision shall be made for illuminating at least one wind indicator at an aerodromeintended for use at night.	Exists as standard in ANO (AD) A.1
133.	5.1.2.2	Recommendation.— Asignalling lamp should be capable of When selecting the green light, use should be made of the restricted boundary of green as specified in Appendix 1. 2.1.2.	5.1.2.2	Recommendation.— A signalling lamp shall be capable of When selecting the green light, use shall be made of the restricted boundary of green as specified in Appendix 1. 2.1.2.	Exists as standard in ANO (AD) A.1

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134.	5.1.3.3	Recommendation.— The beam spread should be not less than 1° nor greater than 3° , with negligible light beyond 3° . When the signalling lamp is intended for use in the daytime the intensity of the coloured light should be not less than 6 000 cd.	5.1.3.3	The beam spread shall be not less than 1° nor greater than 3° , with negligible light beyond 3° . When the signaling lamp is intended for use in the daytime the intensity of the coloured light shall be not less than 6000 cd.	Exists as standard in ANO (AD) A.1
135.	5.1.4.1	Recommendation.— The signal area should be located so as to be visible for all angles of azimuth above an angle of 10° above the horizontal when viewed from a height of 300 m.	5.1.4.1	When provided the signal area shall be located so as to be visible for all angles of azimuth above an angle of 10° above the horizontal when viewed from a height of 300 m.	Exists as standard in ANO (AD) A.1
136.	5.1.4.3	Recommendation.— The colour of the signal area should be chosen to contrast with the colours of the signal panels used, and it should be surrounded by a white border not less than 0.3 m wide.	5.1.4.3	When provided the colour of the signal area shall be chosen to contrast with the colours of the signal panels used, and it shall be surrounded by a white border not less than 0.3 m wide.	Exists as standard in ANO (AD) A.1
137.	5.2.1.2	Recommendation.— The order of importance of runways for the display of runway markings should be as follows:	5.2.1.2	The order of importance of runways for the display of runway markings shall be as follows:	Exists as standard in ANO (AD) A.1
138.	5.2.1.7	Recommendation.— At aerodromes where operations take place at night, pavement markings should be madewith reflective materials designed to enhance the visibility of the markings.	5.2.1.7	At aerodromes where operations take place at night, pavement markings shall be made with reflective materials designed to enhance the visibility of the markings.	Exists as standard in ANO (AD) A.1
139.	5.2.1.8	Recommendation.— An unpaved taxiway should be provided, so far as practicable, with the markingsprescribed for paved taxiways.	5.2.1.8	An unpaved taxiway shall be provided so far as practicable, with the markings prescribed for paved taxiways.	Exists as standard in ANO (AD) A.1
140.	5.2.2.2	Recommendation.— A runway designation marking should be provided, so far as practicable, at thethresholds of an unpaved runway.	5.2.2.2	A runway designation marking shall be provided, so far as practicable, at the thresholds of an unpaved runway.	Exists as standard in ANO (AD) A.1

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141.	5.2.4.2	Recommendation.— A threshold marking should be provided at the threshold of a paved non- instrumentrunway where the code number is 3 or 4 and the runway is intended for use by other than international commercial air transport.	5.2.4.2	A threshold marking shall be provided at the threshold of a paved non- instrument runway where the code number is 3 or 4 and the runway is intended for use by other than international commercial air transport.	Exists as standard in ANO (AD) A.1
142.	5.2.4.3	Recommendation.— A threshold marking should be provided, so far as practicable, at the thresholds of an unpaved runway.	5.2.4.3	A threshold marking shall be provided, so far as practicable, at the thresholds of an unpaved runway.	Exists as standard in ANO (AD) A.1
143.	5.2.4.7	Recommendation.— Where a threshold is displaced from the extremity of a runway or where the extremity ofa runway is not square with the runway centre line, a transverse stripe as shown in Figure 5- 4 (B) should be added to thethreshold marking.	5.2.4.7	Where a threshold is displaced from the extremity of a runway or where the extremity of a runway is not square with the runway centre line, a transverse stripe as shown in Figure 5-4 (B) shall be added to the threshold marking.	Exists as standard in ANO (AD) A.1
144.	5.2.5.2	Recommendation.— An aiming point marking should be provided at each approach end of:	5.2.5.2	An aiming point marking shall be provided at each approach end of:	Exists as standard in ANO (AD) A.1
145.	5.2.6.2	Recommendation.— A touchdown zone marking should be provided in the touchdown zone of a paved nonprecisionapproach or non-instrument runway where the code number is 3 or 4 and additional conspicuity of the touchdownzone is desirable.	5.2.6.2	A touchdown zone marking shall be provided so far practicable in the touchdown zone of a paved non- precision approach or non- instrument runway where the code number is 3 or 4 and additional conspicuity of the touchdown zone is desirable.	Exists as standard in ANO (AD) A.1
146.	5.2.6.5	Recommendation.— On a non-precision approach runway where the code number is 2, an additional pair oftouchdown zone marking stripes should be provided 150 m beyond the beginning of the aiming point marking.	5.2.6.5	On a non-precision approach runway where the code number is 2, an additional pair of touchdown zone marking stripes shall be provided 150 m beyond the beginning of the aiming point marking.	Exists as standard in ANO (AD) A.1

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147.	5.2.7.2	Recommendation.— A runway side stripe marking should be provided on a precision approach runway irrespective of the contrast between the runway edges and the shoulders or the surrounding terrain.	5.2.7.2	A runway side stripe marking shall be provided on a precision approach runway irrespective of the contrast between the runway edges and the shallers or the surrounding terrain.	Exists as standard in ANO (AD) A.1
148.	5.2.7.3	Recommendation.— A runway side stripe marking should consist of two stripes, one placed along each edgeof the runway with the outer edge of each stripe approximately on the edge of the runway, except that, where the runway isgreater than 60 m in width, the stripes should be located 30 m from the runway centre line.	5.2.7.3	A runway side stripe marking shall consist of two stripes, one placed along each edge of the runway with the outer edge of each stripe approximately on the edge of the runway, except that, where the runway is greater than 60 m in width, the stripes shall be located 30 m from the runway centre line.	Exists as standard in ANO (AD) A.1
149.	5.2.7.4	Recommendation.— Where a runway turn pad is provided, the runway side stripe marking should becontinued between the runway and the runway turn pad.	5.2.7.4	Where a runway turn pad is provided, the runway side stripe marking shall be continued between the runway and the runway turn pad.	Exists as standard in ANO (AD) A.1
150.	5.2.7.5	Recommendation.— A runway side stripe should have an overall width of at least 0.9 m on runways 30 m ormore in width and at least 0.45 m on narrower runways.	5.2.7.5	A runway side stripe shall have an overall width of at least 0.9 m on runways 30 m or more in width and at least 0.45 m on narrower runways.	Exists as standard in ANO (AD) A.1
151.	5.2.8.2	Recommendation.— Taxiway centre line marking should be provided on a paved taxiway, de- icing/anti-icingfacility and apron where the code number is 1 or 2 in such a way as to provide continuous guidance between the runwaycentre line and aircraft stands.	5.2.8.2	Taxiway centre line marking shall be provided on a paved taxiway, de- icing/anti-icing facility and apron where the code number is 1 or 2 in such a way as to provide continuous guidance between the runway centre line and aircraft stands.	Exists as standard in ANO (AD) A.1
152.	5.2.8.4	Recommendation.— Where it is necessary to denote the proximity of a runway- holding position, enhanced taxiway centre line marking should be provided.	5.2.8.4	Where it is necessary to denote the proximity of a runway-holding position, enhanced taxiway centre line marking shall be provided.	Exists as standard in ANO (AD) A.1

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153.	5.2.8.6	Recommendation.— On a straight section of a taxiway the taxiway centre line marking should be locatedalong the taxiway centre line. On a taxiway curve the marking should continue from the straight portion of the taxiway at aconstant distance from the outside edge of the curve.	5.2.8.6	On a straight section of a taxiway the taxiway centre line marking shall be located along the taxiway centre line. On a taxiway curve the marking shall continue from the straight portion of the taxiway at a constant distance from the outside edge of the curve.	Exists as standard in ANO (AD) A.1
154.	5.2.8.7	Recommendation.— At an intersection of a taxiway should be curved into the runway centre line The taxiway centre line marking should be extended	5.2.8.7	At an intersection of a taxiwayshall be curved into the runway centre line The taxiway centre line marking shall be extended 	Exists as standard in ANO (AD) A.1
155.	5.2.8.8	Recommendation.— Where taxiway centre line marking is provided on a runway in accordance with 5.2.8.3,the marking should be located on the centre line of the designated taxiway.	5.2.8.8	Where taxiway centre line marking is provided on a runway in accordance with 5.2.8.3, the marking shall be located on the centre line of the designated taxiway.	Exists as standard in ANO (AD) A.1
156.	5.2.9.2	Recommendation.— The runway turn pad marking should be curved The radius of the curve should be compatibleTheintersecti on angle should not be greater than 30 degrees.	5.2.9.2	The runway turn pad marking shall be curved The radius of the curve shall be compatibleTheinterse ction angle shall not be greater than 30 degrees.	Exists as standard in ANO (AD) A.1
157.	5.2.9.3	Recommendation.— The runway turn pad marking should be extended parallel to the runway centre linemarking for a distance of at least 60 m beyond the point of tangency where the code number is 3 or 4, and for a distance of atleast 30 m where the code number is 1 or 2.	5.2.9.3	The runway turn pad marking shall normally be extended parallel to the runway centre line marking for a distance of at least 60 m beyond the point of tangency where the code number is 3 or 4, and for a distance of at least 30 m where the code number is 1 or 2.	Exists as standard in ANO (AD) A.1

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158.	5.2.9.4	Recommendation.— A runway turn pad marking should guide the aeroplane in such a way as to allow astraight portion of taxiing before the point where a 180-degree turn is to be made. The straight portion of the runway turnpad marking should be parallel to the outer edge of the runway turn pad.	5.2.9.4	A runway turn pad marking shall guide the aeroplane in such a way as to allow a straight portion of taxiing before the point where a 180- degree turn is to be made. The straight portion of the runway turn pad marking shall be parallel to the outer edge of the runway turn pad.	Exists as standard in ANO (AD) A.1
159.	5.2.9.5	Recommendation.— The design of the curve allowing the aeroplane to negotiate a 180-degree turn should be based on a nose wheel steering angle not exceeding 45 degrees.	5.2.9.5	The design of the curve allowing the aeroplane to negotiate a 180-degree turn shall be based on a nose wheel steering angle not exceeding 45 degrees.	Exists as standard in ANO (AD) A.1
160.	5.2.9.6	Recommendation.— The design of the turn pad marking should be such that, when the cockpit of theaeroplane remains over the runway turn pad marking, the clearance distance between any wheel of the aeroplane landinggear and the edge of the runway turn pad should be not less than those specified in 3.3.6.	5.2.9.6	The design of the turn pad marking shall be such that, when the cockpit of the aeroplane remains over the runway turn pad marking, the clearance distance between any wheel of the aeroplane landing gear and the edge of the runway turn pad shall be not less than those specified in 3.3.6.	Exists as standard in ANO (AD) A.1
161.	5.2.10.7	Recommendation.— Where increased conspicuity of the runway-holding position is required, the dimensionsof runway-holding position marking should be as shown in Figure 5-8, pattern A2 or pattern B2, as appropriate.	5.2.10.7	Where increased conspicuity of the runway- holding position is required, the dimensions of runway-holding position marking shall be as shown in Figure 5-8, pattern A2 or pattern B2, as appropriate.	For safe& smooth operation of aircraft
162.	5.2.10.8	Recommendation.— Where a pattern B runway-holding position marking should be marked The letters shouldbe not should be placed not	5.2.10.8	Where a pattern B runway-holding position marking shall be marked The letters shall be not shall be placed not	For safe & smooth operation of aircraft

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163.	5.2.11.1	Recommendation.— An intermediate holding position marking should be displayed along an intermediateholding position.	5.2.11.1	An intermediate holding position marking shall be displayed along an intermediate holding position.	Exists as standard in ANO (AD) A.1
164.	5.2.13.1	Recommendation.— Aircraft stand markings should be provided for designated parking positions on a paved apron and on a de- icing/anti-icing facility.	5.2.13.1	Aircraft stand markings shall be provided for designated parking positions on a paved apron and on a de- icing/anti-icing facility.	Exists as standard in ANO (AD) A.1
165.	5.2.13.2	Recommendation.— Aircraft stand markings on a paved apron and on a de- icing/anti-icing facility shouldbe located so as to provide the clearances specified in 3.13.6 and in 3.15.9, respectively, when the nose wheel follows thestand marking.	5.2.13.2	Aircraft stand markings on a paved apron and on a de-icing/anti-icing facility shall be located so as to provide the clearances specified in 3.13.6 and in 3.15.9, respectively, when the nose wheel follows the stand marking.	Exists as standard in ANO (AD) A.1
166.	5.2.13.3	Recommendation.— Aircraft stand markings should include such elements as stand identification, lead-inline, turn bar, turning line, alignment bar, stop line and lead-out line, as are required by the parking configuration and tocomplement other parking aids.	5.2.13.3	Aircraft stand markings shall include such elements as stand identification, lead-in line, turn bar, turning line, alignment bar, stop line and lead-out line, as are required by the parking configuration and to complement other parking aids.	Exists as standard in ANO (AD) A.1
167.	5.2.13.4	Recommendation.— An aircraft stand identification (letter and/or number) should be included in the lead-in line a short distance after the beginning of the lead-in line. The height of the identification should be adequate to be readablefrom the cockpit of aircraft using the stand.	5.2.13.4	An aircraft stand identification (letter and/or number) shall be included in the lead-in line a short distance after the beginning of the lead- in line. The height of the identification shall be adequate to be readable from the cockpit of aircraft using the stand.	Exists as standard in ANO (AD) A.1

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168.	5.2.13.5	Recommendation.— Where two sets of aircraft stand markings are superimposed on each other in order topermit more flexible use of the apron and it is difficult to identify which stand marking should be followed, or safety would beimpaired if the wrong marking was followed, then identification of the aircraft for which each set of markings is intendedshould be added to the stand identification.	5.2.13.5	Where two sets of aircraft stand markings are superimposed on each other in order to permit more flexible use of the apron and it is difficult to identify which stand marking shall be followed, or safety would be impaired if the wrong marking was followed, then identification of the aircraft for which each set of markings is intended shall be added to the stand identification.	Exists as standard in ANO (AD) A.1
169.	5.2.13.6	Recommendation.— Lead- in, turning and lead-out lines should normally be continuous in length and have awidth of not less than 15 cm. Where one or more sets of stand markings are superimposed on a stand marking, the linesshould be continuous for the most demanding aircraft and broken for other aircraft.	5.2.13.6	Lead-in, turning and lead- out lines shall normally be continuous in length and have a width of not less than 15 cm. Where one or more sets of stand markings are superimposed on a stand marking, the lines shall be continuous for the most demanding aircraft and broken for other aircraft.	Exists as standard in ANO (AD) A.1
170.	5.2.13.7	Recommendation.— The curved portions of lead-in, turning and lead-out lines should have radiiappropriate to the most demanding aircraft type for which the markings are intended.	5.2.13.7	The curved portions of lead-in, turning and lead- out lines shall normally have radii appropriate to the most demanding aircraft type for which the markings are intended.	Exists as standard in ANO (AD) A.1
171.	5.2.13.8	Recommendation.— Where it is intended that an aircraft proceed in one direction only, arrows pointing inthe direction to be followed should be added as part of the lead-in and lead-out lines.	5.2.13.8	Where it is intended that an aircraft proceed in one direction only, arrows pointing in the direction to be followed shall be added as part of the lead- in and lead-out lines.	Exists as standard in ANO (AD) A.1
172.	5.2.13.9	Recommendation.— A turn bar should be located	5.2.13.9	When provided a turn bar shall be located	Exists as standard in ANO (AD) A.1
173.	5.2.13.1 0	Recommendation.— If more than one turn bar and/or stop line is required, they should be coded.	5.2.13.10	If more than one turn bar and/or stop line is required, they shall be coded.	Exists as standard in ANO (AD) A.1
174.	5.2.13.1 1	Recommendation.— An alignment bar should be placed Itshould have	5.2.13.11	An alignment bar shall be placed It shall have	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
175.	5.2.13.1 2	Recommendation.— A stop line should be located It should have	5.2.13.12	When provided a stop line shall be located It shall have	Exists as standard in ANO (AD) A.1
176.	5.2.14.1	Recommendation.— Apron safety lines should be provided on a paved apron as required by the parkingconfigurations and ground facilities.	5.2.14.1	Apron safety lines shall be provided on a paved apron as required by the parking configurations and ground facilities.	Exists as standard in ANO (AD) A.1
177.	5.2.14.3	Recommendation.— Apron safety lines should include such elements as wing tip clearance lines and serviceroad boundary lines as required by the parking configurations and ground facilities.	5.2.14.3	Apron safety lines shall include such elements as wing tip clearance lines and service road boundary lines as required by the parking configurations and ground facilities.	Exists as standard in ANO (AD) A.1
178.	5.2.14.4	Recommendation.— An apron safety line should be continuous in length and at least 10 cm in width.	5.2.14.4	An apron safety line shall be continuous in length and at least 10 cm in width.	Exists as standard in ANO (AD) A.1
179.	5.2.16.2	Recommendation.— Where operationally required, such as on taxiways exceeding 60 m in width, or to assistin the prevention of a runway incursion, a mandatory instruction sign should be supplemented by a mandatory instructionmarking.		Where operationally required, such as on taxiways exceeding 60 m in width, or to assist in the prevention of a runway incursion, a mandatory instruction sign shall be supplemented by a mandatory instruction marking.	Exists as standard in ANO (AD) A.1
180.	5.2.16.5	Recommendation.— Except where operationally required, a mandatory instruction marking should not be located on a runway.		Except where operationally required, a mandatory instruction marking shall not be located on a runway.	Exists as standard in ANO (AD) A.1
181.	5.2.16.9	Recommendation.— The character height should be 4 m for inscriptions where the code letter is C, D, E orF, and 2 m where the code letter is A or B. The inscriptions should be in the form and proportions shown in Appendix 3.	5.2.16.9	The character height shall be 4 m for inscriptions where the code letter is C, D, E or F, and 2 m where the code letter is A or B. The inscriptions shall be in the form and proportions shown in Appendix 3.	Exists as standard in ANO (AD) A.1
182.	5.2.16.1 0	Recommendation.— The background should be rectangular and extend a minimum of 0.5 m laterally andvertically beyond the extremities of the inscription.	5.2.16.10	The background shall be rectangular and extend a minimum of 0.5 m laterally and vertically beyond the extremities of the inscription.	Exists as standard in ANO (AD) A.1

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183.	5.2.17.2	Recommendation.— Where operationally required an information sign should be supplemented by aninformation marking.	5.2.17.2	Where operationally required an information sign shall be supplemented by an information marking.	For safe operation.
184.	5.2.17.3	Recommendation.— An information(location/directi on) marking should be displayed	5.2.17.3	An information (location/ direction) marking shall be displayed	Exists as standard in ANO (AD) A.1
185.	5.2.17.4	Recommendation.— An information (location) marking should be displayed on the pavement surface atregular intervals along taxiways of great length.	5.2.17.4	An information (location) marking shall be displayed on the pavement surface at regular intervals along taxiways of great length.	Exists as standard in ANO (AD) A.1
186.	5.2.17.5	Recommendation.— The information marking should be displayed across the surface of the taxiway orapron where necessary and positioned so as to be legible from the cockpit of an approaching aircraft.	5.2.17.5	The information marking shall be displayed across the surface of the taxiway or apron where necessary and positioned so as to be legible from the cockpit of an approaching aircraft.	Exists as standard in ANO (AD) A.1
187.	5.2.17.8	Recommendation.— The character height should be 4 m. The inscriptions should be in the form andproportions shown in Appendix 3.	5.2.17.8	The character height shall be 4 m. The inscriptions shall be in the form and proportions shown inAppendix 3.	Exists as standard in ANO (AD) A.1
188.	5.3.1.2	Recommendation.— To protect the safety of aircraft against the hazardous effects of laser emitters, the following protected zones should be established around aerodromes:	5.3.1.2	To protect the safety of aircraft against the hazardous effects of laser emitters, the following protected zones shall as far as practicable be established around aerodromes:	Exists as standard in ANO (AD) A.1
189.	5.3.1.3	Recommendation.— A non- aeronautical ground light should be extinguished, In particular, attention should be	5.3.1.3	A non-aeronautical ground light shall be extinguished, In particular, attention shall be	Exists as standard in ANO (AD) A.1
190.	5.3.1.8	Recommendation.— The temperature produced by conduction or radiation at the interface between aninstalled inset light and an aircraft tire should not exceed 160°C during a 10- minute period of exposure.	5.3.1.8	The temperature produced by conduction or radiation at the interface between an installed inset light and an aircraft tire shall normally not exceed 160°C during a 10-minute period of exposure.	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
191.	5.3.2.1	Recommendation.— At an aerodrome provided with runway lighting and without a secondary power supply,sufficient emergency lights should be conveniently available for installation on at least the primary runway in the event offailure of the normal lighting system.	5.3.2.1	At an aerodrome provided with runway lighting and without a secondary power supply, sufficient emergency lights shall be conveniently available for installation on at least the primary runway in the event of failure of the normal lighting system.	Exists as standard in ANO (AD) A.1
192.	5.5.2.2	recommendation.— When installed on a runway the emergency lights should, as a minimum, conform to the configuration required for a non-instrument runway.	3.3.2.2	when instance on a runway the emergency lights shall, as a minimum, conform to the configuration required for a non-instrument runway.	standard in ANO (AD) A.1
193.	5.3.2.3	Recommendation.— The colour of the emergency lights should conform to the colour requirements forrunway lighting, except that, where the provision of coloured lights at the threshold and the runway end is not practicable,all lights may be variable white or as close to variable white as practicable.	5.3.2.3	The colour of the emergency lights shall conform to the colour requirements for runway lighting, except that, where the provision of coloured lights at the threshold and the runway end is not practicable, all lights may be variable white or as close to variable white as practicable.	Exists as standard in ANO (AD) A.1
194.	5.3.3.5	Recommendation.— The location of the beacon should be such that the beacon is not shielded by objects insignificant directions and does not dazzle a pilot approaching to land.	5.3.3.5	The location of the beacon shall be such that the beacon is not shielded by objects in significant directions and does not dazzle a pilot approaching to land.	Exists as standard in ANO (AD) A.1
195.	5.3.3.10	Recommendation.— The location of the beacon should be such that the beacon is not shielded by objects in significant directions and does not dazzle a pilot approaching to land.	5.3.3.10	The location of the beacon shall be such that the beacon is not shielded by objects in significant directions and does not dazzle a pilot approaching to land.	Exists as standard in ANO (AD) A.1
196.	5.3.3.14	Recommendation.— The speed of transmission should be between six and eight words per minute, thecorresponding range of duration of the Morse dots being from 0.15 to 0.2 seconds per dot.	5.3.3.14	The speed of transmission shall be between six and eight words per minute, the corresponding range of duration of the Morse dots being from 0.15 to 0.2 seconds per dot.	Exists as standard in ANO (AD) A.1

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197.	5.3.4.5	Recommendation.— If it is not should be extended to 300 m should be extended as far as should then consist of	5.3.4.5	If it is not shall be extended to 300 m shall be extended as far as shall then consist of 	Exists as standard in ANO (AD) A.1
198.	5.3.4.8	Recommendation.— Where provided lights should show at all angles lights should be adequate	5.3.4.8	Where provided lights shall show at all angles lights shall be adequate	Exists as standard in ANO (AD) A.1
199.	5.3.4.9	Recommendation.— Where provided lights should show at allangles lights should be designed	5.3.4.9	Where provided lights shall show at all angles lights shall be designed	Exists as standard in ANO (AD) A.1
200.	5.3.4.34	Recommendation.— If the centre line should be supplemented	5.3.4.34	If the centre line shall be supplemented	Exists as standard in ANO (AD) A.1
201.	5.3.5.4	Recommendation.— As of 1 January 2020, the use of T- VASIS and AT-VASIS as standard visual approach slope indicator systems should be discontinued.	5.3.5.4	As of 1 January 2020, the use of T-VASIS and AT- VASIS as standard visual approach slope indicator systems are discontinued.	New, indicate State decision.
202.	5.3.5.6	Recommendation.— Where a runway threshold should be provided	5.3.5.6	Where a runway threshold shall be provided	Partially Exists as standard in ANO (AD) A.1
203.	5.3.5.7			Intentionally Kept Blank	As of 1 January 2020, the use of T- VASIS and AT-VASIS as standard visual approach slope indicator systems should be discontinued.
204.	5.3.5.8			Intentionally Kept Blank	Do
205.	5.3.5.9			Do	Do
206.	5.3.5.10			Do	Do
207.	5.3.5.11			Do	Do
208.	5.3.5.12			Do	Do
209.	5.3.5.13			Do	Do
210.	5.5.5.14			Do	Do
211.	53516				Do
212.	53517			Do	Do
213.	5.3.5.18			Do	Do

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215.	5.3.5.19			Do	Do
216.	5.3.5.20			Do	Do
217.	5.3.5.21			Do	Do
218.	5.3.5.22			Do	Do
219.	5.3.5.23			Do	Do
220.	5.3.6				Kept Inentionally vacant
221.	5.3.7.2	Recommendation.— A runway lead-in lighting system should consist of groups of lights positioned so as todefine the desired approach path and so that one group may be sighted from the preceding group. The interval betweenadjacent groups should not exceed approximately 1600 m.	5.3.7.2	A runway lead-in lighting system shall consist of groups of lights positioned so as to define the desired approach path and so that one group may be sighted from the preceding group. The interval between adjacent groups shall not exceed approximately 1600 m.	Exists as standard in ANO (AD) A.1
222.	5.3.7.3	Recommendation.— A runway lead-in lighting system should extend from a point as determined by theappropriate authority, up to a point where the approach lighting system, if provided, or the runway or the runway lightingsystem is in view.	5.3.7.3	A runway lead-in lighting system shall extend from a point as determined by the Aerodrome Operator, up to a point where the approach lighting system, if provided, or the runway or the runway lighting system is in view.	Exists as standard in ANO (AD) A.1
223.	5.3.7.4	Recommendation.— Each group of should consist of	5.3.7.4	Each group ofshall consist of	Exists as standard in ANO (AD) A.1
224.	5.3.7.5	Recommendation.— The flashing lights and the steady burning lights should be white.	5.3.7.5	The flashing lights and the steady burning lights shall be preferably white	Exists as standard in ANO (AD) A.1
225.	5.3.7.6	Recommendation.— Where practicable, the flashing lights in each group should flash in sequence towards the runway.	5.3.7.6	Where practicable, the flashing lights in each group shall flash in sequence towards the runway.	Exists as standard in ANO (AD) A.1
226.	5.3.8.3	Recommendation.— Runway threshold identification lights should be flashing white lights with a flashfrequency between 60 and 120 per minute.	5.3.8.3	Runway threshold identification lights shall be flashing white lights with a flash frequency between 60 and 120 per minute.	Exists as standard in ANO (AD) A.1
227.	5.3.9.5	Recommendation.—Where the width should be determined	5.3.9.5	Where the width shall be determined	Exists as standard in ANO (AD) A.1

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228.	5.3.10.5	Recommendation.—The lights prescribed in 5.3.10.4 a) and b) should be either: 	5.3.10.5	The lights prescribed in 5.3.10.4 a) and b) shall be either:	Exists as standard in ANO (AD) A.1
229.	5.3.11.3	Runway end lighting should consist of at least six lights	5.3.11.3	Runway end lighting shall consist of at least six lights	Exists as standard in ANO (AD) A.1
230.	5.3.12.2	Recommendation.— Runway centre line lights should be provided on a precision approach runwaycategory I, particularly when the runway is used by aircraft with high landing speeds or where the width between the runwayedge lights is greater than 50 m.	5.3.12.2	Runway centre line lights may be provided on a precision approach runway category I, particularly when the runway is used by aircraft with high landing speeds or where the width between the runway edge lights is greater than 50 m.	Exists as standard in ANO (AD) A.1
231.	5.3.12.4	Recommendation.— Runway centre line lights should be provided on a runway	5.3.12.4	Runway centre line lights may be provided on a runway	Exists as standard in ANO (AD) A.1
232.	5.3.13.4	Recommendation.— A barrette should be not less than 3 m nor more than 4.5 m in length.	5.3.13.4	A barrette shall be not less than 3 m nor more than 4.5 m in length.	Exists as standard in ANO (AD) A.1
233.	5.3.14.3	Recommendation.— Where provided on a runway without TDZ markings, simple touchdown zone lights should be installed in such a position that provides the equivalent TDZ information.	5.3.14.3	Where provided on a runway without TDZ markings, simple touchdown zone lights shall be installed in such a position that provides the equivalent TDZ information.	New. For equivalent level of safety.
234.	5.3.15.1	Recommendation.— Rapid exit taxiway indicator lights should be provided on a runway intended for use in runway visual range conditions less than a value of 350 m and/or where the traffic density is heavy.	5.3.15.1	Rapid exit taxiway indicator lights shall be provided on a runway intended for use in runway visual range conditions less than a value of 350 m and/or where the traffic density is heavy.	Exists as standard in ANO (AD) A.1
235.	5.3.15.7	Recommendation.— Rapid exit taxiway indicator lights should be supplied with power on a separate circuitto other runway lighting so that they may be used when other lighting is switched off.	5.3.15.7	Rapid exit taxiway indicator lights when provided shall be supplied with power on a separate circuit to other runway lighting so that they may be used when other lighting is switched off.	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
236.	5.3.17.2	Recommendation.— Taxiway centre line lights should be provided	5.3.17.2	Taxiway centre line lights shall be provided	Exists as standard in ANO (AD) A.1
237.	5.3.17.3	Recommendation.— Taxiway centre line lights should be provided	5.3.17.3	Taxiway centre line lights shall be provided	Exists as standard in ANO (AD) A.1
238.	5.3.17.5	Recommendation.— Taxiway centre line lights should be provided	5.3.17.5	Taxiway centre line lights shall be provided	Exists as standard in ANO (AD) A.1
239.	5.3.17.1 1	Recommendation.— Where taxiway centre line lights should be in	5.3.17.11	Where taxiway centre line lights shall be in	New. For equivalent level of safety
240.	5.3.17.1 2	Recommendation.— Taxiway centre line lights should normally be	5.3.17.12	Taxiway centre line lights shall normally be	Exists as standard in ANO (AD) A.1
241.	5.3.17.1 3	Recommendation.— Taxiway centre line lights should be spaced	5.3.17.13	Taxiway centre line lights shall be spaced	Exists as standard in ANO (AD) A.1
242.	5.3.17.1 4	Recommendation.— Taxiway centre line lights on a taxiway curve should continue lights should be spaced	5.3.17.14	Taxiway centre line lights on a taxiway curve shall continue lights shall be spaced	Exists as standard in ANO (AD) A.1
243.	5.3.17.1 5	Recommendation.— On a taxiway should not exceed spacing should extend	5.3.17.15	On a taxiway shall not exceed spacing shall extend	Exists as standard in ANO (AD) A.1
244.	5.3.17.1 6	Recommendation.— Taxiway centre line line should always be at least 60 cm	5.3.17.16	Taxiway centre line line shall always be at least 60 cm	Exists as standard in ANO (AD) A.1
245.	5.3.17.1 7	Recommendation.— The lights should be spaced	5.3.17.17	The lights shall be spaced	Exists as standard in ANO (AD) A.1
246.	5.3.17.1 8	Recommendation.— Taxiway centre line lights Should commence first light should be atleast 	5.3.17.18	Taxiway centre line lights Shall commence first light shall be at least 	New. For equivalent level of safety
247.	5.3.17.1 9	Recommendation.— The lights should be spaced at longitudinal intervals of not more than 7.5 m.	5.3.17.19	The lights shall normally be spaced at longitudinal intervals of not more than 7.5 m.	Exists as standard in ANO (AD) A.1
248.	5.3.17.2 0	Recommendation.— Taxiway centre line lights should be spaced	5.3.17.20	Taxiway centre line lights shall be spaced	New. For safe operation
249.	5.3.18.3	Recommendation.— Taxiway edge lights should be spaced curve should be spaced	5.3.18.3	Taxiway edge lights shall be spaced curve shall be spaced	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
250.	5.3.18.5	Recommendation.— Taxiway edge lights on a runway turn pad should be spaced at uniform longitudinalintervals of not more than 30 m.	5.3.18.5	Taxiway edge lights on a runway turn pad shall be spaced at uniform longitudinal intervals of not more than 30 m.	Exists as standard in ANO (AD) A.1
251.	5.3.18.6	Recommendation.— The lights should be located	5.3.18.6	The lights shall be located	Exists as standard in ANO (AD) A.1
252.	5.3.19.2	Recommendation.— Runway turn pad lights should be provided on a runway turn pad intended for use atnight.	5.3.19.2	Runway turn pad lights shall be provided on a runway turn pad intended for use at night.	Exists as standard in ANO (AD) A.1
253.	5.3.19.3	Recommendation.— Runway turn pad lights should normally be	5.3.19.3	Runway turn pad lights shall normally be	Exists as standard in ANO (AD) A.1
254.	5.3.19.4	Recommendation.— Runway turn pad lights should be spaced	5.3.19.4	Runway turn pad lights shall bespaced	Exists as standard in ANO (AD) A.1
255.	5.3.19.5	Recommendation.— Runway turn pad lights should notexceed	5.3.19.5	Runway turn pad lights shall notexceed	Exists as standard in ANO (AD) A.1
256.	5.3.20.3	Recommendation.— A stop bar should be provided at an intermediate holding position when it is desired to supplement markings with lights and to provide traffic control by visual means.	5.3.20.3	When it is desired to supplement markings with lights and to provide traffic control by visual means a stop bar shall be provided at an intermediate holding position	Exists as standard in ANO (AD) A.1
257.	5.3.20.6	Recommendation.— A pair of elevated lights should be added to each end of the stop bar where the inpavementstop bar lights might be obscured from a pilot's view, for example, by snow or rain, or where a pilot may berequired to stop the aircraft in a position so close to the lights that they are blocked from view by the structure of the aircraft.	5.3.20.6	Where the in- pavement stop bar lights might be obscured from a pilot's view, for example, by snow or rain, or where a pilot may be required to stop the aircraft in a position so close to the lights that they are blocked from view by the structure of the aircraft a pair of elevated lights shall be added to each end of the stop bar.	New. For equivalent level of safety
258.	5.3.20.1 0	Recommendation.— Where stop bars lights should be in accordance	5.3.20.10	Where stop bars lights shall be in accordance	Exists as standard in ANO (AD) A.1

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259.	5.3.20.1 1	Where a wide beam should be in accordance	5.3.20.11	Where a wide beam shall be in accordance	Exists as standard in ANO (AD) A.1
260.	5.3.21.2	Recommendation.— Intermediate holding position lights should be provided	5.3.21.2	Intermediate holding position lights shall be provided	New. For equivalent level of safety
261.	5.3.22				Not applicable for Bangladesh
262.	5.3.23.2	Recommendation.— As part of runway incursion should be provided	5.3.23.2	As part of runway incursion shall be provided	Exists as standard in ANO (AD) A.1
263.	5.3.23.3	Recommendation.— Configuration B runway guard lights should not be collocated with a stop bar.	5.3.23.3	Configuration B runway guard lights shall not be collocated with a stop bar.	Exists as standard in ANO (AD) A.1
264.	5.3.23.8	Recommendation.— Where there is fixture should be located above each lamp.	5.3.23.8	Where there is fixture shall be located above each lamp.	Exists as standard in ANO (AD) A.1
265.	5.3.23.1 1	Recommendation.— The intensity in yellow light and beam spreads of lights of Configuration A should bein accordance with the specifications in Appendix 2, Figure A2-24.	5.3.23.11	The intensity in yellow light and beam spreads of lights of Configuration A shall be in accordance with the specifications in Appendix 2, Figure A2- 24.	Exists as standard in ANO (AD) A.1
266.	5.3.23.1 2	Recommendation.— Where runway guard lights should be in accordance with	5.3.23.12	Where runway guard lights shall be in accordance with	Exists as standard in ANO (AD) A.1
267.	5.3.23.1 3	Recommendation.— Where runway guard lights should be in accordance	5.3.23.13	Where runway guard lights shall be in accordance	Exists as standard in ANO (AD) A.1
268.	5.3.23.1 4	Recommendation.— The intensity should bein accordance	5.3.23.14	The intensity shall be in accordance	Exists as standard in ANO (AD) A.1
269.	5.3.23.1 5	Recommendation.— Where runway guard lights should be in accordance	5.3.23.15	Where runway guard lights shall be in accordance	Exists as standard in ANO (AD) A.1
270.	5.3.23.1 6	Recommendation.— Where runway guard lights should be in accordance	5.3.23.16	Where runway guard lights shall be in accordance	Exists as standard in ANO (AD) A.1
271.	5.3.24.1	Recommendation.— Apron floodlighting should be provided	5.3.24.1	Apron floodlighting shall be provided	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
272.	5.3.24.2	Recommendation.— Apron floodlights should be located aiming of floodlights should be such that	5.3.24.2	Apron floodlights shall be located aiming of floodlights shall be such that	Exists as standard in ANO (AD) A.1
273.	5.3.24.4	Recommendation.— The average illuminance should be at least the following: 	5.3.24.4	The average illuminance shall be at least the following:	Exists as standard in ANO (AD) A.1
274.	5.3.25.7	Recommendation.— The system should be usable by	5.3.25.7	The system shall be usable by	PQ 8.245 & New. For equivalent level of safety
275.	5.3.25.1 0	Recommendation.— The azimuth guidance unit should be aligned	5.3.25.10	The azimuth guidance unit shall be aligned	Exists as standard in ANO (AD) A.1
276.	5.3.25.1 5	Recommendation.— The stopping position indicator should be usable by	5.3.25.15	The stopping position indicator shall be usable by	Exists as standard in ANO (AD) A.1
277.	5.3.26.1	Recommendation.— An A- VDGS should be provided	5.3.26.1	An A-VDGS may be provided	Exists as standard in ANO (AD) A.1
278.	5.3.26.9	Recommendation.— The information on should be provided with	5.3.26.9	The information on shall be provided with 	Exists as standard in ANO (AD) A.1
279.	5.3.26.1 3	Recommendation.— Where provided, should be provided in metre	5.3.26.13	Where provided, shall be provided in metre	Exists as standard in ANO (AD) A.1
280.	5.3.26.1 6	Recommendation.— The word "stop" in red characters should be	5.3.26.16	The word "stop" in red characters shall be	Exists as standard in ANO (AD) A.1
281.	5.3.27.1	Recommendation.— Aircraft stand manoeuvring guidance lights should be provided	5.3.27.1	Aircraft stand manoeuvring guidance lights shall be provided 	Exists as standard in ANO (AD) A.1
282.	5.3.27.4	Recommendation.— The lights used should be spaced	5.3.27.4	The lights used shall be spaced	Exists as standard in ANO (AD) A.1
283.	5.3.27.6	Recommendation.— The intensity of the lights should be	5.3.27.6	The intensity of the lights shall be	Exists as standard in ANO (AD) A.1
284.	5.3.27.7	Recommendation.— The lighting circuit should be designed	5.3.27.7	The lighting circuit shall be designed	Exists as standard in ANO (AD) A.1
285.	5.3.28.2	Recommendation.— A road-holding position light should be provided	5.3.28.2	A road-holding position light shall normally be provided	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
286.	5.3.29.2	Recommendation.— A no- entry bar should be located	5.3.29.2	A no-entry bar shall be located	New. For equivalent level of safety
287.	5.3.29.3	Recommendation.— A no- entry bar should be collocated with a no-entry sign and/or a no-entry marking.	5.3.29.3	A no-entry bar shall be collocated with a no-entry sign and/or a no-entry marking.	New. For equivalent level of safety
288.	5.3.29.4	Recommendation.— A no- entry bar should consist	5.3.29.4	A no-entry bar shall consist	New. For equivalent level of safety
289.	5.3.29.5	Recommendation.— A pair of elevated lights should be	5.3.29.5	A pair of elevated lights shall be	New. For equivalent level of safety
290.	5.3.29.7	Recommendation.— Where no-entry bars should be in accordance	5.3.29.7	Where no-entry bars shall be in accordance	New. For equivalent level of safety
291.	5.3.29.8	Recommendation.— Where a wide beam fixture should be in accordance	5.3.29.8	Where a wide beam fixture shall be in accordance	New. For equivalent level of safety
292.	5.4.1.2	Recommendation.— A variable message sign should be provided where:	5.4.1.2	A variable message sign shall be provided where:	Exists as standard in ANO (AD) A.1
293.	5.4.1.11	Recommendation.— The time interval should be as short as practicable and should not exceed 5 seconds.	5.4.1.11	The time interval shall be as short as practicable and shall not exceed 5 seconds.	Exists as standard in ANO (AD) A.1
294.	5.4.2.6	Recommendation.— A runway designation should be supplemented	5.4.2.6	A runway designation shall be supplemented 	Exists as standard in ANO (AD) A.1
295.	5.4.2.13	Recommendation.— Where, owing to environmental should be supplemented by 	5.4.2.13	Where, owing to environmental shall be supplemented by	Exists as standard in ANO (AD) A.1
296.	5.4.3.5	Recommendation.— An intersection take-off sign should be provided	5.4.3.5	An intersection take-off sign shall be provided	Exists as standard in ANO (AD) A.1
297.	5.4.3.6	Recommendation.— Where necessary, a destination sign should be provided	5.4.3.6	Where necessary, a destination sign shall be provided	Exists as standard in ANO (AD) A.1
298.	5.4.3.9	Recommendation.— A location sign should be provided at an intermediate holding position.	5.4.3.9	A location sign shall be provided at an intermediate holding position.	Exists as standard in ANO (AD) A.1
299.	5.4.3.12	Recommendation.— Where necessary, a location sign should be provided	5.4.3.12	Where necessary, a location sign shall be provided	Exists as standard in ANO (AD) A.1
300.	5.4.3.13	Recommendation.— Where a taxiway ends visual aid should be used.	5.4.3.13	Where a taxiway ends visual aid shall be used.	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
301.	5.4.3.22	Recommendation.— A destination sign should not normally be collocated with a location or direction sign.	5.4.3.22	A destination sign shall not normally be collocated with a location or direction sign.	Exists as standard in ANO (AD) A.1
302.	5.4.3.24	Recommendation.— A direction sign, should be located	5.4.3.24	A direction sign, shall be located	Exists as standard in ANO (AD) A.1
303.	5.4.3.33	Recommendation.— Where it is necessary sign should consist of the taxiway designation and a number.	5.4.3.33	Where it is necessary sign shall consist of the taxiway designation and a number.	Exists as standard in ANO (AD) A.1
304.	5.4.3.36	Recommendation.— When designating taxiways, should beavoided wherever possible.	5.4.3.36	When designating taxiways, shall be avoided wherever possible.	Exists as standard in ANO (AD) A.1
305.	5.4.3.39	Recommendation.— Apron stand designators should not be the same as taxiway designators.	5.4.3.39	Apron stand designators shall not be the same as taxiway designators.	New. For safety operation
306.	5.4.4.4	Recommendation.— The inscriptions on a VOR checkpoint sign should be in accordance	5.4.4.4	The inscriptions on a VOR checkpoint sign shall be in accordance	Exists as standard in ANO (AD) A.1
307.	5.4.5.1	Recommendation.— An aerodrome identification sign should be	5.4.5.1	An aerodrome identification sign shall be	Exists as standard in ANO (AD) A.1
308.	5.4.5.2	Recommendation.— The aerodrome identification sign should be	5.4.5.2	The aerodrome identification sign shall be	Exists as standard in ANO (AD) A.1
309.	5.4.5.4	Recommendation.— The colour should give adequate conspicuity when viewed againstits background.	5.4.5.4	The colour shall give adequate conspicuity when viewed against its background.	Exists as standard in ANO (AD) A.1
310.	5.4.5.5	Recommendation.— The characters should have a height of not less than 3 m.	5.4.5.5	The characters shall have a height of not less than 3 m.	Exists as standard in ANO (AD) A.1
311.	5.4.6.1	Recommendation.— An aircraft stand identification marking should be supplemented	5.4.6.1	An aircraft stand identification marking shall be supplemented 	Exists as standard in ANO (AD) A.1
312.	5.4.6.2	Recommendation.— An aircraft stand identification sign should be located	5.4.6.2	An aircraft stand identification sign shall be located	Exists as standard in ANO (AD) A.1

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	Article	Context	Article	Context	
313.	5.4.6.3	Recommendation.— An aircraft stand identification sign should consist of	5.4.6.3	An aircraft stand identification sign shall consist of	Exists as standard in ANO (AD) A.1
314.	5.5.2.1	Recommendation.— Markers should be provided when	5.5.2.1	Markers shall be provided when	Exists as standard in ANO (AD) A.1
315.	5.5.2.2	Recommendation.— Where runway lights should be incorporated shape should be placed	5.5.2.2	Where runway lights shall be incorporated shape shall be placed	Exists as standard in ANO (AD) A.1
316.	5.5.2.3	Recommendation.— The flat rectangular markers should have should beplaced with markers should have a height not exceeding50 cm.	5.5.2.3	The flat rectangular markers shall have shall be placed with markers shall have a height not exceeding 50 cm.	Exists as standard in ANO (AD) A.1
317.	5.5.3.1	Recommendation.— Stopway edge markers should be provided	5.5.3.1	Stopway edge markers shall be provided	Do
318.	5.5.4	Edge markers for snow- covered runways	5.5.4	Kept Intentionally vacant.	Not applicable in Bangladesh
319.	5.5.5.2	Recommendation.— Taxiway edge markers should be installed at least at the same locations as would thetaxiway edge lights had they been used.	5.5.5.2	Where provided Taxiway edge markers shall be installed at least at the same locations as would the taxiway edge lights had they been used.	Exists as standard in ANO (AD) A.1
320.	5.5.5.4	Recommendation.— The marked surface as viewed by the pilot should be a rectangle and should have aminimum viewing area of 150 cm2.	5.5.5.4	The marked surface as viewed by the pilot shall be a rectangle and shall have a minimum viewing area of 150 cm ² .	Do
321.	5.5.6	Taxiway centre line markers	5.5.6	Kept Intentionally vacant	Not applicable in Bangladesh
322.	5.5.7	Unpaved taxiway edge markers	5.5.7	Kept Intentionally vacant	Do
323.	5.5.8.3	Recommendation.— Boundary markers should be of a form The markers should be coloured to and white, should be used, except where such colours merge with the background.	5.5.8.3	Boundary markers shall be of a form The markers shall be coloured to and white, shall be used, except where such colours merge with the background.	Exists as standard in ANO (AD) A.1
324.	6.1.1.4	Recommendation.— A fixed obstacle should be marked	6.1.1.4	A fixed obstacle shall be marked	New. Make it standard for safe operational aircraft.
325.	6.1.1.5	Recommendation.— A fixed object should be marked and	6.1.1.5	A fixed object shall be marked and	Do

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326.	6.1.1.7	Recommendation.— A fixed obstacle should be marked and	6.1.1.7	A fixed obstacle shall be marked and	Do
327.	6.1.1.9	Recommendation.— Other objects inside should be marked	6.1.1.9	Other objects inside shall be marked	Do
328.	6.1.1.10	Recommendation.— Overhead wires, cables should bemarked	6.1.1.10	Overhead wires, cables shall be marked	Do
329.	6.1.2.1	Recommendation.— Obstacles in accordance with 4.3.2 should be	6.1.2.1	Obstacles in accordance with 4.3.2 shall be	Exists as standard in ANO (AD) A.1
330.	6.1.2.2	Recommendation.— Other objects should be marked	6.1.2.2	Other objects shall be marked	New. Make it standard for safe operational aircraft. PQ 8.223
331.	6.1.2.3	Recommendation.— Overhead wires, cables, should bemarked	6.1.2.3	Overhead wires, cables, shall be marked	Exists as standard in ANO (AD) A.1 , PQ 8.223
332.	6.2.2.2	Recommendation.— When mobile should be used.	6.2.2.2	When mobile shall be used.	Do
333.	6.2.3.2	Recommendation.— An object should be coloured The pattern should consist of pattern should contrast white should be used	6.2.3.2	An object shall be coloured The pattern shall consist of pattern shall contrast white shall be used	Do
334.	6.2.3.3	Recommendation.— An object should be coloured to show alternating contrasting bands if:The bands should be perpendicular bands should contrast should be used, except extremities of the object should be of the darker colour. (See Figures 6-1 and 6-2.)	6.2.3.3	An object shall be coloured to show alternating contrasting bands if: The bands shall be perpendicular bands shall contrast shall be used, except extremities of the object shall be of the darker colour. (See Figures 6-1 and 6-2.)	Do
335.	6.2.3.4	Recommendation.— An object should be coloured Orange or red should be used, except	6.2.3.4	An object shall be coloured Orange or red shall be used, except 	Exists as standard in ANO (AD) A.1
336.	6.2.3.7	Recommendation.— Flags used to mark fixed objects should be orange conspicuous colours should be used.	6.2.3.7	Flags used to mark fixed objects shall be orange conspicuous coloursshall be used.	Do

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	Article	Context	Article	Context	
337.	6.2.3.9	Recommendation.— A marker should be Orangemarkers should be displayed alternately. The colour selected should contrast	6.2.3.9	A marker shall be Orangemarkers shall be displayed alternately. The colour selected shall contrast	Do
338.	6.2.3.11	Recommendation.— In the case of chimney should be placed	6.2.3.11	In the case of chimney shall be placed	Do
339.	6.2.3.14	Recommendation.— When the obstacle limitation should be placed on the highest point of the object.	6.2.3.14	When the obstacle limitation shall be placed on the highest point of the object.	Do
340.	6.2.3.17	Recommendation.— The installation setting angles for high-intensity obstacle lights, Type A, should be inaccordance with Table 6- 5.	6.2.3.17	The installation setting angles for high-intensity obstacle lights, Type A, shall be in accordance with Table 6-5.	Do
341.	6.2.3.18	Recommendation.— Where, in the opinion system should beprovided. This system should be composed 	6.2.3.18	Where, the use of high- intensity obstacle lights, Type A, or medium-intensity obstacle lights, Type A, 	New. Make it standard for safe operational aircraft.
342.	6.2.3.19	Recommendation.— Low- intensity obstacle lights, Type A or B, should be used	6.2.3.19	Low-intensity obstacle lights, Type A or B, shall be used	Do
343.	6.2.3.20	Recommendation.— Where the use of low-intensity lights should be used.	6.2.3.20	Where the use of low- intensity lights shall be used.	Do
344.	6.2.3.21	Recommendation.— Low- intensity obstacle lights, Type B, should be used	6.2.3.21	Low-intensity obstacle lights, Type B, shall be used	Do
345.	6.2.3.22	Recommendation.— Medium-intensity obstacle lights, Type A, B or C, should be used Types A and C, should be used alone, Type B, should be used either	6.2.3.22	Medium-intensity obstacle lights, Type A, B or C, shall be used Types A and C, shall be used alone, Type B, shall be used either	Exists as standard in ANO (AD) A.1
346.	6.2.3.23	Recommendation.— Medium-intensity obstacle lights, Type A, B or C, should be used. Medium- intensityobstacle lights, Types A and C, should be used alone, whereas medium-intensity obstacle lights, Type B, should be used either alone or in combination with low- intensity obstacle lights, Type B.	6.2.3.23	Medium-intensity obstacle lights, Type A, B or C, shall be used. Medium-intensity obstacle lights, Types A and C, shall be used alone, whereas medium- intensity obstacle lights, Type B, shall be usedeither alone or in combination with low- intensity obstacle lights, Type B.	New. Make it standard for safe operational aircraft.

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	Article	Context	Article	Context	
347.	6.2.3.28	Recommendation.— High- intensity obstacle lights, Type A, should be used	6.2.3.28	High-intensity obstacle lights, Type A, shall be used	Do
348.	6.2.3.30	Recommendation.— Where, in the opinion Type C, should be used alone Type B, should be used either alone or in combination with low- intensity obstacle lights, Type B.	6.2.3.30	Where, in the opinion Type C, shall be used alone Type B, shall be used either alone or in combination with low- intensity obstacle lights, Type B.	Do
349.	6.2.4.2	Recommendation.— The rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines shouldbe painted white, unless otherwise indicated by an aeronautical study.	6.2.4.2	The rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines shall be painted white, unless otherwise indicated by an aeronautical study.	Exists as standard in ANO (AD) A.1
350.	6.2.4.3	Recommendation.— When lighting is the wind farm should be regarded	6.2.4.3	When lighting is the wind farm shall be regarded	Exists as standard in ANO (AD) A.1
351.	6.2.4.4	Recommendation.— The obstacle lights should be installed on the nacelle	6.2.4.4	The obstacle lights shall be installed on the nacelle	Do
352.	6.2.4.5	Recommendation.— Where lighting is installation should be in accordance with 6.2.4.3 e) or as determined by an aeronautical study.	6.2.4.5	Where lighting is installation shall be in accordance with 6.2.4.3 e) or as determined by an aeronautical study.	Do
353.	6.2.5.1	Recommendation.— The wires, cables, etc., to be marked should be equipped with markers; the supporting tower should be coloured.	6.2.5.1	The wires, cables, etc., to be marked shall be equipped with markers; the supporting tower shall be coloured.	New. Make it standard for safe operational aircraft.
354.	6.2.5.2	Recommendation.Thesupporting towersshould bemarked	6.2.5.2	The supporting towers shall bemarked	Do
355.	6.2.5.4	Recommendation.— A marker displayed on an overhead wire, cable, etc., should be spherical and have a diameter of not less than 60 cm.	6.2.5.4	A marker displayed on an overhead wire, cable, etc., shall be spherical and have adiameter of not less than 60 cm.	Do
356.	6.2.5.5	Recommendation.— The spacing between two should be appropriate to	6.2.5.5	The spacing between two shall be appropriate to 	New. Make it standard for safe operational aircraft.
357.	6.2.5.6	Recommendation.— A marker should be of Orangemarkers should be displayed selected should contrast with	6.2.5.6	A marker shall be of Orangemarkers shall be displayed selected shall contrast with	Do

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	Article	Context	Article	Context	
358.	6.2.5.7	Recommendation.— When it has been Type B, should be provided ontheir supporting towers.	6.2.5.7	When it has been Type B, shall be provided ontheir supporting towers.	Do
359.	6.2.5.8	Recommendation.— High- intensity obstacle lights, Type B, should be used	6.2.5.8	High-intensity obstacle lights, Type B, shall be used	Do
360.	6.2.5.11	Recommendation.— Where, in the opinion should be provided. This system should be composed they should be installed at the same level as the high- intensity obstacle lightType B.	6.2.5.11	Where, in the opinion shall be provided. This system shall be composed they shall be installed at the same level as the high-intensity obstacle lightType B.	Do
361.	6.2.5.12	Recommendation.— The installation setting angles for high-intensity obstacle lights, Type B, should be inaccordance with Table 6-5	6.2.5.12	The installation setting angles for high-intensity obstacle lights, Type B, shall be inaccordance with Table 6-5	Do
362.	7.1.2	Recommendation.— A closed marking should be displayed	7.1.2	A closed marking shall be displayed	Exists as standard in ANO (AD) A.1
363.	7.2.2	Recommendation.— A taxi side stripe marking should be placed	7.2.2	A taxi side stripe marking shall be placed	Do
364.	7.2.3	Recommendation.— A taxi side stripe marking should consist of	7.2.3	A taxi side stripe marking shall consist of	Do
365.	7.3.1	Recommendation.— When the surface before should be marked with a chevron marking.	7.3.1	When the surface beforeshall be marked with a chevron marking.	Do
366.	7.3.2	Recommendation.— A chevron marking should point in the direction of the runway and be placed as shown in Figure 7-2.	7.3.2	A chevron marking shall point in the direction of the runway and be placed as shown in Figure 7-2.	Do
367.	7.3.3	Recommendation.— A chevron marking should be of it should preferably be yellow. It should have an overall width of at least 0.9 m.	7.3.3	A chevron marking shall be of it shall preferably be yellow. It shall have an overall width of at least 0.9 m.	Do
368.	7.4.5	Recommendation.— An unserviceability cone should be at least	7.4.5	An unserviceability cone shall be at least	Do
369.	7.4.6	Recommendation.— An unserviceability flag should be at least	7.4.6	An unserviceability flag shall be at least	Exists as standard in ANO (AD) A.1
370.	7.4.7	Recommendation.— An unserviceability marker board should be at least	7.4.7	An unserviceability marker board shall be at least	Do

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	Article	Context	Article	Context	
371.	8.1.3	Recommendation.— Electric power supply connections should be so arranged	8.1.3	Electric power supply connectionsshall be so arranged	Do
372.	8.1.4	Recommendation.— The time interval should be as short as for maximum switch-over times shouldapply.	8.1.4	The time intervalshall be as short as for maximum switch-over times shall apply.	Do
373.	8.1.8	Recommendation.— At an aerodrome Table 8-1 should be provided	8.1.8	At an aerodrome Table 8-1 shall be provided	Do
374.	8.1.9	Recommendation.— At an aerodrome of 8.1.4 should be provided, except	8.1.9	At an aerodrome of 8.1.4 shall be provided, except	Do
375.	8.1.10	Recommendation.— The following aerodrome facilities should be provided 	8.1.10	The following aerodrome facilities shall be provided	Do
376.	8.1.11	Recommendation.— Requirements for a secondary power supply should be met by either of the following:	8.1.11	Requirements for a secondary power supply shall be met by either of the following:	Do
377.	8.3.1	Recommendation.— A system of monitoring should be employed to indicate the operational status of thelighting systems.	8.3.1	A system of monitoring shall be employed to indicate the operational status of thelighting systems.	Do
378.	8.3.3	Recommendation.— Where a change in should beprovided	8.3.3	Where a change inshall beprovided	Do
379.	8.3.4	Recommendation.— For a runway meant Table 8-1 should be monitored This information should be automatically relayed to the maintenance crew.	8.3.4	For a runway meant Table 8-1 shall be monitored This information shall be automatically relayed to the maintenance crew.	Do
380.	8.3.5	Recommendation.— For a runway meant Table 8-1 should be monitored automatically This information should be automatically relayed to the air traffic services unit and displayed in a prominentposition.	8.3.5	For a runway meant Table 8-1 shall be monitored automatically This information shall be automatically relayed to the air traffic services unit and displayed in a prominentposition.	Do
381.	9.1.4	Recommendation.— The plan should provide for cooperation and coordination with the rescue coordination centre, as necessary.	9.1.4	The plan shall provide for cooperation and coordination with the rescue coordination centre, as necessary.	Do

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	Article	Context	Article	Context	
382.	9.1.5	Recommendation.— The aerodrome emergency plan document should include at least the following:	9.1.5	The aerodrome emergency plan document shall include at least the following:	Exists as standard in ANO (AD) A.1
383.	9.1.7	Recommendation.— A fixed emergency operations centre and a mobile command post should be available foruse during an emergency.	9.1.7	A fixed emergency operations centre and a mobile command post shall be available foruse during an emergency.	Do
384.	9.1.8	Recommendation.— The emergency operations centre should be a part of the aerodrome facilities and shouldbe responsible for 	9.1.8	The emergency operations centreshall be a part of the aerodrome facilities and shall be responsible for 	Do
385.	9.1.9	Recommendation.— The command post should be a facility capable of being moved rapidly to the site of an emergency, when required, and should undertake	9.1.9	The command post shall be a facility capable of being moved rapidly to the site of anemergency, when required, and shall undertake	Do
386.	9.1.10	Recommendation.— A person should be assigned to	9.1.10	A person shall be assigned to	Do
387.	9.1.11	Recommendation.— Adequate communication systems agencies should be provided	9.1.11	Adequate communication systems agencies shall be provided	Do
388.	9.1.15	Recommendation.— At those aerodromes emergency plan should include the establishment, 	9.1.15	At those aerodromes emergency plan shall include the establishment, 	Do, PQ 8.297
389.	9.1.16	Recommendation.— An assessment of the approach and departure areas within 1000 m of the runwaythreshold should be carried out to determine the options available for intervention.	9.1.16	An assessment of the approach and departure areas within 1000 m of the runway threshold shall be carried out to determine the options available for intervention.	New. Make it standard for safe operational aircraft. PQ 8.297
390.	9.2.4	Recommendation.— The level of protection provided at an aerodrome for rescue and firefighting should beequal to the aerodrome category determined using the principles in 9.2.5 and 9.2.6.	9.2.4	The level of protection provided at an aerodrome for rescue and firefighting shall beequal to the aerodrome category determined using the principles in 9.2.5 and 9.2.6.	Exists as standard in ANO (AD) A.1, PQ 8.303
391.	9.2.8	Recommendation.—Bothprincipalandcomplementaryagentsshouldnormallybeprovided at an aerodrome.	9.2.8	Principal agent shall and complementary agents shall normally be provided at an aerodrome.	Do, PQ 8.305

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	Article	Context	Article	Context	
392.	9.2.9	Recommendation.— The principal extinguishing agent should be:	9.2.9	The principal extinguishing agent shall be:	Do, PQ 8.305
393.	9.2.10	Recommendation.— The complementary extinguishing agent should be a dry chemical powder suitable forextinguishing hydrocarbon fires.	9.2.10	The complementary extinguishing agent shall primarily be a dry chemical powder suitable for extinguishing hydrocarbon fires.	Exists as standard in ANO (AD) A.1, PQ 8.305
394.	9.2.14	Recommendation.— The amount of foam concentrate provided on a vehicle should be sufficient to produce atleast two loads of foam solution.	9.2.14	The amount of foam concentrate provided on a vehicle shall be sufficient to produce atleast two loads of foam solution.	Do
395.	9.2.15	Recommendation.— Supplementary water supplies, for the expeditious replenishment of rescue and firefighting vehicles at the scene of an aircraft accident, should be provided.	9.2.15	Supplementary water supplies, for the expeditious replenishment of rescue and firefighting vehicles at the scene of an aircraft accident, shall be provided.	Do, PQ 8.305
396.	9.2.19	Recommendation.— The discharge rate of complementary agents should be no less than the values shown inTable 9-2.	9.2.19	The discharge rate of complementary agents shall be no less than the values shown inTable 9-2.	Do
397.	9.2.20	Recommendation.— Dry chemical powders should only be substituted	9.2.20	Dry chemical powders shall only be substituted	Do, PQ 8.305
398.	9.2.21	Recommendation.— A reserve supply of Table 9-2, should be maintained on the aerodrome for vehicle replenishment purposes.	9.2.21	A reserve supply of Table 9-2, shall be maintained on the aerodrome for vehicle replenishment purposes.	Do
399.	9.2.22	Recommendation.— A reserve supply should be maintained on the aerodrome for vehicle replenishment purposes. Sufficient propellant gasshould be included to utilize this reserve complementary agent.	9.2.22	A reserve supplyshall be maintained on the aerodrome for vehicle replenishment purposes.Sufficient propellant gas shall be included to utilize this reserve complementary agent.	Do
400.	9.2.23	Recommendation.— Category 1 and 2 aerodromes that have replaced up to 100 per cent of the water with complementary agent should hold a reserve supply of complementary agent of 200 per cent.	9.2.23	Category 1 and 2 aerodromes that have replaced up to 100 per cent of the water with complementary agent shall normally hold a reserve supply of complementary agent of 200 per cent.	New. Make it standard for safe operational aircraft.

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	Article	Context	Article	Context	
401.	9.2.24	Recommendation.— Where a major delay should be increased as determined by a risk assessment	9.2.24	Where a major delayis to be increased as determined by a risk assessment	Do, PQ 8.305
402.	9.2.25	Recommendation.— Rescue equipment commensurate should be provided	9.2.25	Rescue equipment commensurateis to be provided	Do, PQ 8.305
403.	9.2.28	Recommendation.— The operational objective should be to achieve	9.2.28	The operational objectiveshall be to achieve	New. Make it standard for safe operational aircraft. PQ 8.311
404.	9.2.29	Recommendation.— To meet the operational objective rescue and firefighting services should be provided.	9.2.29	To meet the operational objective rescue and firefighting services shall be provided.	Exists as standard in ANO (AD) A.1, PQ 8.311
405.	9.2.31	Recommendation.— Any vehicles, other than Table 9-2 should ensure continuous	9.2.31	Any vehicles, other than Table 9-2 shall ensure continuous	Do, PQ 8.311
406.	9.2.32	Recommendation.— A system of preventive should be employed	9.2.32	A system of preventiveshallbe employed	Do, PQ 8.311
407.	9.2.33	Recommendation.— Emergency access roads should be provided Particular attention should be given outside areas should be taken into account.	9.2.33	Emergency access roads shall normally be provided Particular attention shall be given outside areas shall be taken into account.	Do, PQ 8.313
408.	9.2.34	Recommendation.— Emergency access roads should be capable runway should be Sufficient vertical clearance should be provided	9.2.34	Emergency access roads shall be capable runway shall be Sufficient vertical clearance shall be provided	Do
409.	9.2.35	Recommendation.— When the surface of edge markers should be placed at intervals of about 10 m.	9.2.35	When the surface of edge markers shall be placed at intervals of about 10 m.	Do
410.	9.2.36	Recommendation.— All rescue and firefighting vehicles should normally be housed in a fire station. Satellitefire stations should be provided whenever the response time cannot be achieved from a single fire station.	9.2.36	All rescue and firefighting vehicles shall normally be housed in a fire station. Satellite fire stations if necessary shall be provided whenever the response time cannot be achieved from a single fire station.	PQ 8.307
411.	9.2.37	Recommendation.— The fire station should be located	9.2.37	The fire station shall be located	Do, PQ 8.307

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	Article	Context	Article	Context	
412.	9.2.38	Recommendation.— A discrete communication system should be provided	9.2.38	A discrete communication system shall be provided 	PQ 8.309
413.	9.2.39	Recommendation.— An alerting system should be provided at a fire station, any other fire station on the aerodrome and the aerodrome control tower.	9.2.39	An alerting system shall be provided at a fire station, any other fire station on the aerodrome and the aerodrome control tower.	Do
414.	9.2.40	Recommendation.— The minimum number should be in accordance with the following tabulation:	9.2.40	The minimum number shall be in accordance with the following tabulation:	PQ 8.307
415.	9.2.43	Recommendation.— During flight operations, should be designatedto Thesepersonnel should be deployed	9.2.43	During flight operations, shall be designated to These personnel shall be deployed	Exists as standard in ANO (AD) A.1, PQ 8.319
416.	9.2.44	Recommendation.— In determining the minimum number should be completed and the level of staffing documented in the Aerodrome Manual.	9.2.44	In determining the minimum numbershall be completed and the level of staffing documented in the Aerodrome Manual.	Do
417.	9.3.1	Recommendation.— A plan should be established 	9.3.1	A plan shall be established	PQ 8.151 & 321
418.	9.3.2	Recommendation.— The disabled aircraft removal plan should be based	9.3.2	The disabled aircraft removal plan shall be based	Do
419.	9.4.5	Recommendation.— States should give due consideration to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife.	9.4.5	Due consideration shall be given to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife	PQ.8.333 & 335

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	Article	Context	Article	Context	
420.	Article Nill	Nill	Article 9.4.5.1	ContextParticularsoftheprocedurestodeal withthedangerposedtoaircraftoperationsby thepresenceofbirdsormammalsintheaerodromeflightpatternormovementareaormovementareaarangementsforassessingwildlifehazards;2.2.arrangementsforimplementingwildlifevildlifecontrolprogrammes;and3.the <names< td="">andresponsiblefordealingwithwildlifehazards, andtheirtelephonenumbersduringafterworkinghours.Note:Theproceduresmentionedaboveaboveshallbeintheirtelephone</names<>	Taken from the old gazette. New PQ 8.335
421.	9.5.1	Recommendation.— When warranted by the service should be provided	9.5.1	When warranted by the service shall be provided	Exists as standard in ANO (AD) A.1 ,PQ 8.339 & 341
422.	9.5.2	Recommendation.— When the aerodrome control should be established	9.5.2	When the aerodrome control shall be established	Exists as standard in ANO (AD) A.1, PQ 8.339 & 341
423.	9.8.2	Recommendation.— The design of an SMGCS should take into account:	9.8.2	9.8.2 The design of an SMGCS depends on the following considerations:	PQ 8.209
424.	9.8.3	Recommendation.— The visual aid components should bedesigned	9.8.3	The visualaidcomponentsshallbedesigned	Do
425.	9.8.4	Recommendation.— An SMGCS should be designed to assist	9.8.4	An SMGCS shall be designed to assist	PQ 8.221 & 227
426.	9.8.5	Recommendation.— The system should be designed to assist	9.8.5	The system shall be designed to assist	PQ 8.221

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	Article	Context	Article	Context	
427.	9.8.7	Recommendation.— Surface movement radar for the manoeuvring area should be provided at an aerodrome intended for use in runway visual range conditions less than a value of 350 m.	9.8.7	Surface movement radar for the manoeuvring area shall be provided at an aerodrome intended for use in runway visual range conditions less than a value of 350 m.	PQ 8.219
428.	9.8.8	Recommendation.— Surface movement radar for the manoeuvring area should be provided	9.8.8	Surface movement radar for the manoeuvring area shall be provided	Do
429.	9.9.3	Recommendation.— Any equipment or installation required for runway strip should be regarded as an obstacle and should befrangible and mounted as low as possible.	9.9.3	Any equipment or installation required for runway strip shall be regarded as an obstacle and shall be frangible and mounted as low as possible.	For acft safety
430.	9.9.6	Recommendation.— Any equipment or should be frangible andmounted as low as possible.	9.9.6	Any equipment or shall be frangible andmounted as low as possible.	Do
431.	9.11	Recommendation.— At an aerodrome where it is deemed desirable for security reasons, a fence or other barrierprovided for the protection of international civil aviation and its facilities should be illuminated at a minimum essential level.Consideration should be given to locating lights so that the ground area on both sides of the fence or barrier, particularly ataccess points, is illuminated.	9.11	At an aerodrome where it is deemed desirable for security reasons, a fence or other barrier provided for the protection of international civil aviation and its facilities shall be illuminated at a minimum essential level. Consideration shall be given to locating lights so that the ground area on both sides of the fence or barrier, particularly at access points, is illuminated.	PQ 8.183
432.	10.1.2	Recommendation.— The design and application of the maintenance programme should observe human factors principles.	10.1.2	The design and application of the maintenance programmeshall observe human factorsprinciples.	PQ 8.252 & Consideration of human factor is taken as standard.
433.	10.2.8	Recommendation.— The runway surface should be visually assessed, as necessary, under natural or simulatedrain conditions for ponding or poor drainage and where required, corrective maintenance action taken.	10.2.8	As of 4 November 2021, the runway surface shall be visually assessed, as necessary, under natural or simulated rain conditions for ponding or poor drainage and where required, corrective maintenance action taken.	New. Make it standard for safe operational aircraft. PQ 147 & 255

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	Article	Context	Article	Context	
434.	10.2.9	Recommendation.— When a taxiway is used by turbine-enginedaeroplanes, the surface of the taxiwayshoulders should be maintained so as to be free of any loose stones or other objects that could be	10.2.9	When a taxiway is used by turbine- enginedaeroplanes, the surface of the taxiwayshallersshall be maintained so as to be free of any loose stones or other objects that could be	For safe operation of acft.
		ingested by the aeroplaneengines.		ingested by the aeroplaneengines.	
435.	10.3.2	Recommendation.— Taxiways should be kept clear of snow, slush, ice, etc., to the extent necessary to enableaircraft to be taxied to and from an operational runway.	10.3.2	Taxiways shall normally be kept clear of snow, slush, ice, etc., to the extent necessary to enableaircraft to be taxied to and from an operational runway.	Exists as standard in ANO (AD) A.1
436.	10.3.3	Recommendation.— Aprons should be kept clear of snow, slush, ice, etc., to the extent necessary to enable aircraft to manoeuvre safely or, where appropriate, to be towed or pushed.	10.3.3	Aprons shall normally be kept clear of snow, slush, ice, etc., to the extent necessary to enableaircraft to manoeuvre safely or, where appropriate, to be towed or pushed.	New. Make it standard for safe operational aircraft.PQ 8.323
437.	10.3.4	Recommendation.— Whenever the clearance of snow, slush, runway(s) in use should be set	10.3.4	Whenever the clearance of snow, slush, runway(s) in use shall be set	Do
438.	10.3.5	Recommendation.— Chemicals to remove pavements should be used Caution should be exercised in theapplication of the chemicals so as not to create a more slippery condition.	10.3.5	Chemicals to remove pavements shall be used Caution shall be exercised in theapplication of the chemicals so as not to create a more slippery condition.	Do
439.	10.4.2	Recommendation.— Overlaying should proceed from one end of the runway toward the other end so that based on runway utilization most aircraft operations will experience a down ramp.	10.4.2	Overlaying shall proceed from one end of the runway toward the other end so that based on runway utilization most aircraft operations will experience a down ramp.	Exists as standard in ANO (AD) A.1
440.	10.4.3	Recommendation.— The entire width of the runway should be overlaid during each work session.	10.4.3	The entire width of the runway shall be overlaid during each work session.	Do
441.	10.4.5	Recommendation.— The overlay should be constructed and maintained above the minimum friction level specified in 10.2.3.	10.4.5	The overlay shall be constructed and maintained above the minimum friction level specified in 10.2.3.	New. Make it standard for safe operational aircraft.

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	Article	Context	Article	Context	
442.	10.5.3	Recommendation.— The system of preventive maintenance employed for a precision approach runway category II or III should include at least the following checks: Recommendation.— In-	10.5.3	The system of preventive maintenance employed for a precision approach runway category II or III shall include at least the following checks: In-field measurement of	Exists as standard in ANO (AD) A.1
		field measurement of category II or III should be undertaken by		category II or III shall be undertaken by	
444.	10.5.5	Recommendation.— Measurement of intensity, beam category II or III should be undertaken using 	10.5.5	Measurement of intensity, beam category II or III shall be undertaken using 	Do
445.	10.5.6	Recommendation.— The frequency of measurement of category II orIII should be based on in any event, should not be less than twice a year forin- pavement lights and not less than once a year for other lights.	10.5.6	The frequency of measurement of category II orIII shall be based on in any event, shall not be less than twice a year forin- pavement lights and not less than once a year for other lights.	Do
446.	10.5.13	Recommendation.— During low visibility procedures the appropriate authority should restrict construction or maintenance activities in the proximity of aerodrome electrical systems.	10.5.13	During low visibility procedures the Airport Operator shall restrict construction or maintenance activities in the proximity of aerodrome electrical systems.	Do
447.	APP 1, 2.1.2	Recommendation.— Where dimming is not required, green signals should be within the following boundaries:		Where dimming is not required, green signals shall be within the following boundaries:	Do
448.	APP 1,2.1.3	Recommendation.— Where increased certainty of recognition green signals should be within the following boundaries:		Where increased certainty of recognition green signals shall be within the following boundaries:	Exists as standard in ANO (AD) A.1
449.	APP 1,2.2.1	Recommendation.— If there is a requirement they should bedisplayed in		If there is a requirement they shall bedisplayed in	Do
450.	APP 1,2.2.2	Recommendation.— If there is a requirementyellow light should not exceed a value of 0.40.		If there is a requirementyellow light shall not exceed a value of 0.40.	Do
451.	APP 1,2.2.3	Recommendation.— The colour variable white the lights should be so designed andoperated that:		The colour variable white the lights shall be so designed and operated that:	Do

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	Article	Context	Article	Context	
452.	APP 1,2.3.2	Recommendation.— Where observers with defective green signals should be within the following boundaries:		Where observers with defective green signals shall be within the following boundaries:	New. Make it standard for safe operational aircraft.
453.	APP 1,2.3.3	Recommendation.— In order to avoid a large boundaries of 2.3.2 should not be used.		In order to avoid a large boundaries of 2.3.2 shall not be used.	Do
454.	APP 1,3.2	Recommendation.— The chromaticity and luminance factors panels should be within the following boundaries when determined under standard conditions		The chromaticity and luminance factors panels shall be within the following boundaries when determined under standard conditions	Exists as standard in ANO (AD) A.1
455.	APP 1,3.4	Recommendation.— The chromaticity and luminance factors panels should be within the following boundaries when determined under standardconditions		The chromaticity and luminance factors panels shall be within the following boundaries when determined under standardconditions	Do