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Dear Jason,

AusALPA SUBMISSION ON CASA PART 139 NPRM 1426AS
PROPOSED UPDATED RULES FOR AERODROMES

The Australian Airline Pilots' Association (AusALPA) represents more than 5,000 professional pilots within Australia on safety and technical matters. We are the Member Association for Australia and a key member of the International Federation of Airline Pilot Associations (IFALPA) which represents over 100,000 pilots in 100 countries. Our membership places a very strong expectation of rational, risk and evidence-based safety behaviour on our government agencies and processes and we regard our participation in the work of the Australia's safety-related agencies as essential to ensuring that our policy makers get the best of independent safety and technical advice.

AusALPA supports the need to amend the Part 139 and its associated Manual of Standards specifically to align with ICAO Annex 14, except where there is a valid reason (e.g. terrain constraints) not to do so.

The Association has been member of the PIR139 Working Group, along with various major industry stakeholders. We consider the review to have been comprehensive and that the review process has provided broad consultation within the industry.

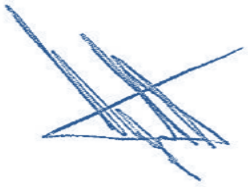
The NPRM, however, has several areas in which ICAO SARPS (including those not yet in force) have been proposed for adoption, whilst those proposed by the Association have not been included. There appears to be some bias in favour of the aerodrome operators rather than implementing the general philosophy of Annex 14 compliance unless there is a valid reason not to do so.

This submission (see Attachment 1) includes areas in which the Association believes the NPRM to be deficient in following this general principle as well as suggesting amendments to both these and other standards. It should be noted that these issues were presented to the WG by the Association's representatives, during the WG's deliberations.

The Association does not believe that the use of the term “preferred” is sufficient to ensure compliance. A requirement should either be a standard or a recommendation. A preference (“preferred”) is neither despite the attempt at the legal nicety contained in the MOS 139.

AusALPA is cognitive of a realistic timeline and acknowledges that the earliest date for implementation is now mid to late 2018.

Yours sincerely,



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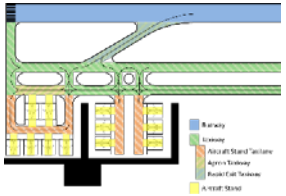
Attachment: 1. AusALPA Comments Matrix on CASA NPRM 1426AS - *Proposed updated rules for aerodromes*

MOS 139 Reference	AusALPA Comments
PART 2 APPLICATION OF STANDARDS	
2.01 Definitions - *Replacement*	CASA needs to ensure that the distinction between "replacement" and "maintenance" activities are understood clearly by all its employees and that the regulations are applied consistently. There have been inconsistencies in the understanding of what is a "maintenance" activity (e.g. Sydney 16L approaching lighting poles replacement).
2.01 Definitions - *Upgrade*	AusALPA strongly supports this definition.
2.05 Non-application of the standards	AusALPA supports the concept that approvals will be issued rather than exemptions, provided those approvals are based on reasonable conditions and are not merely a means of avoiding meeting the required standard.
PART 3 DEFINITIONS ETC.	
3.01 Definitions etc. - *aeronautical study*	The criteria, which will be set out in the ICAO PANS-ADR for an aeronautical study, should be mandated. CASA has advised that the PANS-ADR will be considered as guidance material only. This seems inconsistent with the regulatory status of other PANS in Australia, such as the PANS-ATM and PANS-OPS.
3.01 Definitions etc. - *instrument runway*	The definitions of instrument and non-instrument runways are in line with ICAO and are based on the DH, but there are discrepancies between the definitions in Annex 6, Annex 10, Annex 11 and Annex 14. These discrepancies need to be clarified as they have a significant operational effect on whether a runway is considered as an instrument or non-instrument runway.
3.01 Definitions etc - ***taxilane*** means a portion of an apron designated as a taxiway and for use only to provide access to, and egress from, aircraft parking positions.	The MOS definition is not sufficient. The following are the ICAO definitions (Definitions 1.1) under taxiway: "a) *Aircraft stand taxilane. A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.* *b) Apron taxiway. A portion of a taxiway system located on an apron and intended to provide a through taxi-route across the apron."* The status of a taxilane on an apron is different from a taxiway on the movement area and this should be clearly defined to obviate movement control problems. MOS Part 139 would be much clearer and efficient if all of the related taxiway definitions were set out in the one place and in the same format as Annex 14, including the full name "aircraft stand taxilane" since its point of distinction is that it is a "no through road" that only connects a taxiway to an aircraft parking position.

3.01 Definitions etc. - *LVP*	This just explains the acronym and it is not a definition There needs to be a definition of LVO and possibly AWO. LVP are the procedures implemented to perform LVOs. This is not clear. The definition contained in CAAP 257-EX-01(1) should be used: "Low visibility procedures" — Procedures applied at an aerodrome for protecting aircraft operations during low visibility operations". "Low visibility operation (LVO)" — An operation involving: • a low visibility take-off (LVTO) • an approach using minima less than the CAT I minima published in the AIP for the runway in use"
PART 5 AERODROME INFORMATION FOR THE AIP AND THE AERODROME MANUAL	
Division 1 Information **5.05 Visual aids** **Approach and runway lighting systems** (c) the type of visual approach slope indicator system;	There needs to be a distinction between the use of the generic term VASIS, which covers all visual approach slope systems (e.g. VASIs, PAPIs etc) and VASI, which refers to a specific visual approach slope indicator system. There is inconsistency in the usage throughout the MOS
5.09 Aerodrome operational procedures **Low-visibility procedures**	This supports AusALPA's contention that reference should be to LVPs (LVO) and not AWOs as used in Part 23. See previous comments.
Division 2 Standards for information	AusALPA considers that the Wildlife information is insufficient.
PART 6 AERODROME PLANNING, DESIGN AND MAINTENANCE — PHYSICAL CHARACTERISTICS OF MOVEMENT FACILITIES	
Division 1 Runways **6.01 Location of runway threshold** ***(3)*** *Subject to subsection (2),* ***a runway threshold may be displaced f****rom the extremity of a runway if:*	AusALPA believes that a note should be added to indicate that thresholds should not be displaced to accommodate obstacles, such as developments, without consideration of aircraft operational factors, such as GP angle and/or LDA. Large GP angles (above 3.5 degrees) should only be flown by aircraft that have been certified for steep approaches and where the operator has received approval. Furthermore, displaced thresholds can result in reduced LDAs, which can affect the safety and efficiency of the operation even if the GP remains at 3 degrees

6.02 Runway width **Table 6.02(1) Minimum runway width** **(**2) A runway nominated for use by aircraft with at least 4 wing-mounted engines (that is at least, 2 engines on each wing) **must:** (a) have a **minimum width of 45 m; and** (b) have load-bearing shoulders in accordance with subsections 6.10 (4) and (5).	Whilst acknowledging that this is in line with the revised SARPs, AusALPA (and IFALPA) maintain that the runway width for Code F aircraft should be 60m with shoulder of 7.5m giving a total width of 75m. AusALPA supports the standard that the minimum runway width for a 4C aircraft (e.g. B737, A320) must be 45m. Narrow runway operations should only be conducted in accordance with an AFM Supplement or similar document; and any major runway upgrade should require the aerodrome operator to widen the runway to meet the runway width standard.
6.03 Runway turn pad **Table 6.03(1) Minimum clearance between outer main gear wheels and edge of turning area on runway**	Whilst acknowledging that this is in line with the revised SARPs, AusALPA (and IFALPA) do not consider that the clearances are sufficient and may lead to the outer gear leaving the pavement area, during a turn.
6.08 Runway surface (2) Tests that satisfy subparagraph (1) (b) (i) must be carried out in accordance with ICAO Airport Services Manual, Part 2, Pavement Surface Conditions, triggered as follows: (d) **so that not more than 10 years elapses between any 2 tests.**	Considering the deteriorating quality and life of asphalt runway (as explained at the AAA Pavement Forum,) this time limit may be too long. Whilst noting that the surface texture inspections are conducted more regularly and, therefore, any degradation should be found prior to these tests, AusALPA suggests that CASA contact a pavement specialist to determine whether the time limit is realistic, prior to publishing the Final rule making document.
6.10 Runway shoulders (4) **A code F runway that has a nominated OMGWS of not less than 9 m and up** to but not including 15m must: (a) be at least 45 m wide ;and (b) have at least 7.5 m ***runway shoulders*** on each side; and (c) have at least 7.5 m ***additional shoulders*** on each outer side of the 7.5 m ***runway shoulders***; **but only if the engines of an aeroplane for which the runway is nominated would otherwise overhang the runway shoulders in the absence of the additional shoulders.** **Note This configuration is normally required for Code F aeroplanes with 4 or more engines.**	There is an element of semantics here in differentiating between twins and four engine (quads) aeroplanes. FOD is only one consideration and ARFF is another factor that should be considered. ARFF provisions should be considered irrespective of the number of engines as the shoulders enable ARFF access to the aeroplane in an emergency.

6.10 Runway shoulders (5) Shoulders required by paragraph (4) must be provided in the following configuration: (b) 7.5 m width of additional shoulder on each outer side of the 7.5 m shoulders mentioned in paragraph (a), that are capable of: (i) resisting engine blast erosion; and (ii) supporting emergency and service vehicles. *Note* Thus, the total width of the runway and the shoulders must be not less than 75 m.	This condition only applies to quads, for example it applies to the A380, but will not apply to the B777X, which will have a large wing span, when the wings are unfolded. (See comment above regarding ARFF.)
6.16 Runway strip width **Table 6.16 (4) Runway strip width, including the fly-over area - non-precision approach runways** **Table 6.16 (6) Runway strip width, including the fly-over area - precision approach runways** **ARC 1 or 2=140m; ARC 3 or 4=280m**	AusALPA notes that the runway strip width has been reduced to 280m/140m in accordance with ICAO and based on the analysis of data by MITRE. Since there is now "good data" to support these dimensions, there should be no further reduction approved/exempted, unless the aerodrome has physical constraints (terrain tec.) in which case mitigating measures must be implemented (e.g. higher DH/MDAs).
6.25 Runway end safety area (RESA) **Table 6.25 (4) The minimum length of an RESA** **Runway Code 1 or 2 Standard =60m** **Preferred=120m** **Runway Code 3 or 4 Standard =90m** **Preferred=280m**	AusALPA (IFALPA) policy based on the analysis of accident data (by the ATSB and other organisations) supports the need for a 240m (300m) RESA for ARC 3 and 4 Runways. This why the FAA has mandated and funded 1000 feet RSA or an EMAS., where a RSA cannot be established. CASA /ICAO appear to be happy to use data that supports a reduction (e.g. separation standards; runway and taxiway widths; runway strip widths etc), but not as in this case, where the data clearly supports the requirement for either a 240m RESA or an arresting bed system. CASA should adopt the UKCAA approach that requires a 240mRESA to be provided if upgrading is carried out on the runway.
Division 2 Taxiways 	Note: Aircraft Stand Taxilane is clearly illustrated in this diagram. See AusALPA's previous comment on re definition of taxiway and taxilane.

6.36 Taxiway Width **Table 6.36 (2) Minimum width for straight section of taxiway**	AusALPA supports the objections made by IFALPA to ICAO concerning these taxiway width reductions at ICAO, which it believes reduce the safety standards.
6.37 Taxiway Edge Clearance **Table 6.37 (1) Minimum clearance between outer main gear wheels of aircraft and edge of taxiway**	AusALPA supports the objections made by IFALPA to ICAO concerning these reductions at ICAO, which it believes reduce the safety standards.
6.44 Width of taxiway shoulders **(1) The total width of the taxiway and the shoulders must not be less than the following (the minimum taxiway shoulder width):** **(a) for a code F taxiway — 44 m;** **(b) for a code E taxiway — 38 m;** **(c) for a code D taxiway — 34 m;** **(d) for a code C taxiway — 25 m.**	AusALPA supports the objections made by IFALPA to ICAO concerning these reductions at ICAO, which it believes reduce the safety standards.
6.51 Taxiways on bridges **(1) A bridge that is for a taxiway, or the part of a bridge that is to carry a taxiway (taxiway bridge) must be designed and constructed to bear the weight and frequency of the aircraft traffic for which the taxiway has the appropriate ARC nomination.** **(2) The minimum width of a taxiway bridge must not be less than the total width of the taxiway and the graded areas specified in section 6.48.** **(3) Despite subsection (2), the minimum width of the taxiway bridge may be reduced to not less than the width of the associated taxiway specified in section 6.36 if lateral restraints at each edge of the taxiway bridge prevent an aircraft from leaving the taxiway bridge.**	AusALPA is concerned that these restraints may not be sufficient to prevent an “aircraft leaving the bridge” and could interfere with ARFF access.
6.52 Taxiway minimum separation distances **Figure 6.52 (1) Certain separation distances (illustrates matters)**	AusALPA supports the objections made by IFALPA to ICAO concerning these reductions at ICAO, which it believes reduce the safety standards.

6.61 Apron road **A marked vehicle roadway on an apron must not bring a vehicle closer than 3 m horizontally to any part of an aircraft on an aircraft parking position.**	AusALPA supports this standard as it provides a better safety margin.
PART 7 OBSTACLE RESTRICTION AND LIMITATION	
Division 1 General	See previous comment (Part 3 Definitions 3.01) on PANS-ADR being adopted as "guidance material". AusALPA believes strongly that PANS-ADR should be adopted by Australia as a requirement not as guidance only; and for the Aerodrome Study criteria (when published) to be mandatory.
PART 8 VISUAL AIDS PROVIDED BY AERODROME MARKINGS, MARKERS, SIGNALS, SIGNS; WIND DIRECTION INDICATORS ETC.	
8.38 Enhanced taxi guidelines *Note* If it is necessary to denote the proximity of a runway holding position, the use of enhanced taxiway guidelines is recommended.	AusALPA supports IFALPA's policy that "Enhanced Taxi Guidelines" should be mandated, at least for international and major airports as they provide an additional mitigating measure for the prevention of runway incursions.
PART 9 VISUAL AIDS PROVIDED BY AERODROME LIGHTING	
Division 1 Lighting requirements **9.01 Minimum lighting system requirements** (1) If an aerodrome is available for night operations, lighting systems must be provided for: **(b) at least 1 wind direction indicator**	AusALPA/IFALPA Policy is that a wind direction indicator should be provided for each instrument runway, as this can be the only accurate real-time wind information available to the pilot(s).

9.01 Minimum lighting system requirements **(3) A visual approach slope indicator system (VASIS), in accordance with section 9.44, must be provided to serve the approach to a runway if:**	AusALPA has submitted a discussion paper which states IFALPA/AusALPA Policy that a Visual Aid Approach Slope Indicator System (VASIS) should be provided for all runways. In addition, AusALPA's interpretation of the conditions stated in ICAO Annex 14 Chapter 5.3.5.1 when there is a requirement for a VASIS is not just confined to turbojet air transport operations, but should include the other conditions. *The ICAO Annex 14 states in 5.3.5.1:* *"A visual approach slope indicator system shall be provided to serve the approach to a runway whether or not the runway is served by other visual approach aids or by non-visual aids, where one or more of the following conditions exist: "where one or more of the following conditions exist:* *a) the runway is used by turbojet or other aeroplanes with similar approach guidance requirements;* *b) the pilot of any type of aeroplane may have difficulty in judging the approach due to:* *1) inadequate visual guidance such as is experienced during an approach over water or featureless terrain by day or in the absence of sufficient extraneous lights in the approach area by night; or* *2) misleading information such as is produced by deceptive surrounding terrain or runway slopes;* *c) the presence of objects in the approach area may involve serious hazard if an aeroplane descends below the normal approach path, particularly if there are no non-visual or other visual aids to give warning of such objects;* *d) physical conditions at either end of the runway present a serious hazard in the event of an aeroplane undershooting or overrunning the runway; and* *e) terrain or prevalent meteorological conditions are such that the aeroplane may be subjected to unusual turbulence during approach."*
9.01 Minimum lighting system requirements **(5) An approach lighting system is not required, or may be truncated, if CASA agrees in writing with an aerodrome operator that it is physically impossible to comply with Divisions 6, 7 and 8 of this Part.** **Note** However, note that the omission or truncation of an approach lighting system could result in an increase to the landing minima which could affect either or both of the efficiency or regularity of operations.	This sub-section should contain a reference to the SALS standards e.g. Note 2 "Requirements/Standards for truncated approach light systems, if approved, are contained in Part 9 Division 6 Simple approach lighting".

9.01 Minimum lighting system requirements (6) Movement area guidance signs (MAGS) intended for use at night must be illuminated in accordance with the standards set out in section 8.85.	AusALPA believes that LVO (or the daytime visibility criteria) should be included in the standards. Where necessary, the "legal drafting rules" require to be repeated to avoid ambiguity.
9.05 Switch-over time for secondary power supply	AusALPA understands this is an attempt not to prescribe the primary or secondary power sources, merely the characteristics. If this is the intention, then sub paras (2) and (3) should become guidance material and only the switch-over times (1) need to be stated as a standard.
Division 2 Commissioning **9.17 Commissioning of lighting systems** **(1) Before an aerodrome lighting system is first used, including after an upgrade or a replacement, the system must be:**	The language and definitions need to be carefully considered to make sure there is no misunderstanding or misinterpretation when these conditions apply e.g. Sydney Airport was required to carry out a flight check after the 16L posts were replaced which was a maintenance activity.
9.18 Commissioning of lighting systems — additional requirements **(1) For subsection 9.17 (1), commissioning must include flight checks by a qualified flight checker of the following:**	It is not clear whether the qualified flight checker must be operating/flying the aircraft or can be an observer.
Division 4 Obstacle lighting **9.36 Availability of obstacle lights** **(2) For a hazardous obstacle located within the OLS area of the aerodrome, the following requirements apply:**	The NOTAM does not always lead to closure. The trigger for closure is when CASA determines in writing that the particular light is critical. The process probably works reasonably, but AusALPA believes it should be a predetermined outcome, notwithstanding the complexity of the multiple failure scenario. That is what the SMS should examine predictively.
Division 5 Aerodrome lighting systems **9.38 Illuminated wind direction indicator**	AusALPA (and IFALPA) policy requires a lighted IWDI for all runways used at night. This is can be the only real-time (accurate) wind information available to the pilot(s).
Division 6 Simple approach lighting	AusALPA anticipates that the requirements of this Division will be applied to the Sydney Airport Runway 34R case using 330m approach light system for an instrument runway. Under this new SALS standard, the aerodrome should be given an approval with any limitations, such as an increase in landing minima, (for inclusion in the Aerodrome Operating Manual) rather than an exemption. (This would be consistent with FAA/EASA rules.)

Division 7 Precision Approach CAT I, II and III Lighting Systems **9.41 Precision approach CAT I lighting system** **(2)** Note 2 The design objective for a precision approach CAT I lighting system that utilises a barrette centreline should be a system length of between 720 m and 900 m	This section does not clarify that a 720m ALSFII qualifies as a full lighting system. It still refers to 900m which is required for the older Calvert system to produce the "Christmas Tree" pattern. The 720m ALSF II is acceptable to pilots as a FALS and approved as such by the FAA/EASA. The section should provide a clear distinction between the systems.
9.41 Precision approach CAT I lighting system **(5) Note Due to the location of existing fences, access roads and navigational arrays, it might not be possible to space the centreline lights at 30m in a section of the approach lighting array. Consistent spacings, as close as possible to 30m, will ensure the correct perception of the visual aid by flight crews. Aerodrome operators are recommended to consult with relevant aircraft operators when designing approach lighting arrays.**	Tolerances between the centrelines were discussed at the WG, but none of these have been incorporated into the revised MOS. AusALPA believes it would be useful to include this detail or to have it available in an AC.
Division 9 Visual Approach Slope Indicator systems **9.44 Visual Approach Slope Indicator Systems (VASIS)** (1) This Division applies to the following types of VASIS: (a) a T visual approach slope indicator system (***T-VASIS***); (b) an abbreviated T visual approach slope indicator system (***AT-VASIS***); (c) a precision approach path indicator (***PAPI***); and **(d) a double-sided PAPI.**	Although the MOS is written for Australia, it will be read by foreign operators for compliance purposes. While this is an instance in which the generic VASIS is used correctly, it is not used consistently throughout the text.

<table>
<tr>
<td>Division 10 Runway lights
9.62 Characteristics of temporarily displaced threshold lights
Note Temporary displaced threshold lights are associated only with non-instrument or non-precision instrument approach runway lighting systems. If a precision approach runway has the threshold temporarily displaced, it typically renders ILS unavailable for precision approaches, thus temporarily changing the runway to a non-precision or non-instrument runway.</td>
<td>This note needs to be amended to include GLS as this can be used with a displaced threshold.</td>
</tr>
<tr>
<td>9.64 Runway end lights
(3) For a runway starter extension, the runway end lights must be:</td>
<td>AusALPA understands that the pattern described in the MOS 139 is to ensure that there is no confusion when an aircraft crosses the lights at the end of the LDA and onto the starter extension and is based on the UKCAA design. This section, however, needs further clarification especially regarding whether a starter extension can be used on a CAT II runway, because of this additional lighting requirement. It would be extremely useful to have an illustration of the intended starter extension lighting (and marking) for the runway end.</td>
</tr>
<tr>
<td>Division 11 Taxiway lights
9.84 Spacing of taxiway centreline lights
(4) Note Spacing on curves that have been found suitable for a taxiway intended for use in visibility conditions of 350 m or greater are the following: for a curve radius mentioned in a row of column 1 of the following Table, the light spacing mentioned in the same row in column 2.
<table>
<tr><th>Curve radius</th><th>Light spacing</th></tr>
<tr><td>up to 400 m</td><td>7.5 m</td></tr>
<tr><td>401 m to 899 m</td><td>15 m</td></tr>
<tr><td>900 m or greater</td><td>30 m</td></tr>
</table>
</td>
<td>This note and table are confusing and need to be clarified.</td>
</tr>
</table>

9.101 Provision of intermediate holding position lights **(1) Intermediate holding position lights must be provided at the following locations:**	This should include LVO as one of the provisions.
9.104 Stop bars **(1) If a runway is intended to be used in RVR conditions less than 350 m, a stop bar must be provided at each runway holding position serving the runway.**	The ICAO note (see below), recommending the use of stopbars in all conditions to help prevent Runway Incursions, should be added along with a strong "preference" to use stopbars in all conditions. AusALPA and IFALPA have a policy that supports the use of stopbars in all conditions. *ICAO Annex 14* 5.3.19 Stop bars: *"Note 2.— Runway incursions may take place in all visibility or weather conditions. The provision of stop bars at runway-holding positions and their use at night and in visibility conditions greater than 550 m runway visual range can form part of effective runway incursion prevention measures."*
Division 12 Apron lights **9.111 Apron floodlighting** This Division sets standards for apron floodlighting where it is provided. *Note* ICAO establishes only one apron floodlighting standard. Australia, however, has a 3 tier system: (a) high illuminance standards for aprons intended to serve larger aeroplanes engaged in air transport operations; (b) a mid-range illuminance standard for aprons intended to serve smaller aeroplanes engaged in air transport operations or large aircraft not engaged in air transport operations; (c) a lower standard for aprons without air transport operations.	AusALPA believes that high illuminance lighting should be provided for all air transport operations for safety reasons and to be fully ICAO compliant
9.112 Provision of apron floodlighting **(1) Apron floodlighting must be provided on any of the following intended for use at night:**	LVO should be included and (1) amended to read "**Apron floodlighting must be provided on any of the following intended for use at night and/or for low-visibility operations"**

9.113 Location of apron floodlighting **2) If an apron taxiway is not provided with taxiway lighting, then it must be illuminated by the apron floodlighting mentioned in paragraph 9.114 (3)(c).**	AusALPA believes that apron floodlighting is not sufficient and taxiway lighting should be provided.
Division 13 Aircraft parking position lighting **9.119 Stopping position indicator — location** **(1) The stopping position indicator must be located in conjunction with, or sufficiently close to, the azimuth guidance unit, so that a pilot can observe both the azimuth and stop signals without turning his or her head.**	AusALPA believes that it must be clearly stated that an apron/aircraft stand upgrade will require that the VDGS/A-VDGS meets this standard.
PART 11 INFORMATION THAT MUST BE INCLUDED IN THE AERODROME MANUAL	
11.01 Aerodrome information **(2) (a) (iv) each visual approach slope indicator (if installed);**	PAPI should be included in the list or (iv) changed to generic visual approach slope indicator system. **See comments re AWO and Wildlife below.**
Part 12 INSPECTING AND REPORTING AERODROME CONDITION AND COMPLIANCE	
12.09 Inspection requirements **(3) (f) the visual approach slope indicator (if applicable);**	PAPI should be included in the list or (f) changed to the generic "visual approach slope indicator system".
12.10 Conduct of aerodrome technical inspections **(2) (b) the lighting and electrical facilities must be inspected by an electrical engineer or a licensed electrician;**	As per the discussions in the WG led by the airfield lighting expert, this standard needs to specify clearly that qualifications and experience in airfield lighting are required. The sub section should be amended to read: *"(b)* the lighting and electrical facilities must be inspected by a ***qualified person*** who has relevant aerodrome lighting knowledge and experience, and who is an electrical engineer or a licensed electrician."
PART 14 CONTROL OF AIRSIDE ACCESS INCLUDING VEHICLE CONTROL	
14.02 Airside access permits (1) For an aerodrome that, in the course of a financial year, has more than 350 000 air transport passenger movements,	This is in line with other movement triggers, but still seems a very high number.

14.04 Airside vehicle lighting requirements	Vehicle Locator units and/or transponders for A-SMCGS should be included in the requirements.
PART 15 AERODROME WORKS	
15.01 General (1) The operator of a certified aerodrome must make all necessary arrangements to ensure that aerodrome works do not create a hazard to aircraft or cause confusion to pilots. **Note Aerodrome works may be carried out without the closure of the aerodrome, provided safety precautions are adhered to.**	A Safety Risk Assessment should be included as part of this process and an integral part of the aerodrome's SMS. MOWP is another topic that should be considered by a LRST along with any associated risks.
15.02 Method of Working Plans (MOWP) **(2)** When preparing a MOWP, an aerodrome operator must consult: (a) air transport operators using the aerodrome; (b) operators of emergency services aircraft that are likely to operate at the aerodrome during the works period; (c) ATC (if applicable); and (d) the ARFF unit at the aerodrome (if any) — if the MOWP is likely to affect the unit's ability to ensure the safety of aircraft operations at the aerodrome. *Note Consultation with other fixed-base operators at the aerodrome such as flight training organisations, sport aviation organisations, aerial application operators etc. is also recommended.*	AusALPA believes that Local Runway Safety Teams (or equivalent) should be mandated. Pilots should be included as part of a LRST This note should read: ***"Consultation with the LRST (or equivalent), [where one has been established] and/or other fixed-base operators at the aerodrome such as flight training organisations, sport aviation organisations, aerial application operators etc. is also recommended."***
PART 17 WILDLIFE HAZARD MANAGEMENT	
17.01 Detection, monitoring and observation **(3) The aerodrome operator must attempt to monitor any reported wildlife aircraft strike events at, or in the vicinity of, the aerodrome.**	AusALPA believes that the requirements for the aerodrome operator are not sufficient. This standard should be amended to read "must monitor any reported wildlife aircraft strike events at the aerodrome and must attempt to monitor any reported wildlife aircraft strike events in the vicinity of the aerodrome".

17.04 Preparation of a wildlife hazard management plan **(2) (c) (iv) reporting to pilots through the AIP, NOTAM and ATC (if applicable); and…**	AusALPA believes that where an ARO (or equivalent) is present, wildlife information must be transmitted to the pilot.
PART 18 PAVEMENT MAINTENANCE	
18.02 Runway surface friction **(2) Note 1 Continuous friction measurement is recommended for all aerodromes with runways classified as Code C and above, and for runways with grooves or scoring.**	AusALPA believes that all runways must have continuous friction measurements. This note should be upgraded to a standard and not a recommendation. Furthermore, AusALPA is not convinced that for Code A and B classified runways, technical evaluations plus runway inspections and reports will suffice.
PART 19 COMMUNICATION, NAVIGATION, SURVEILLANCE (CNS) AND METEOROLOGICAL (MET) FACILITIES	
19.01 General	AusALPA understands that these provisions do not require the aerodrome operator to provide a site for CNS or MET facilities. The requirements will only apply where a site has been provided.
19.16 Meteorological facilities	AusALPA has consistently supported the BoM that the weather measurement equipment should be regarded as essential "Navigation Equipment" in the same way as a navigation aid. AusALPA, therefore, believes that a site must be provided by the aerodrome operator for weather measurement equipment and that this standard should be amended accordingly.
PART 23 ALL-WEATHER OPERATIONS (AWO)	
Part 23 Title	The correct title is LVO, because all the approaches being considered are less that the standard CAT I and are, by definition, LVO requiring LVPs. The definition contained in the CAAP 257-EX-01(1) should be used: "Low visibility operation (LVO) — An operation involving: • a low visibility take-off (LVTO) • an approach using minima less than the CAT I minima published in the AIP for the runway in use"
23.02 Development of low visibility procedures (LVP) (1) LVP must: **(a) be the subject of proper consultation with any party likely to be affected by them, including aircraft operators, ATC and aerodrome service providers; and**	Pilots (AusALPA representatives) should be included in the consultation in addition to "aircraft operators". The LRST is an ideal forum for consultation during the development of low visibility procedures and their subsequent implementation and operation.

PART 24 AERODROME EMERGENCY PLANNING AND RESPONSE	
24.01 Emergency committee (1) Subsection (2) applies for an aerodrome that, in the course of a financial year, has: (a) scheduled international air transport operations; or (b) **350 000** or more air transport passenger movements. and **24.02 Emergency response plan** (1) Subsection (2) applies for an aerodrome that, in the course of a financial year, has: (a) scheduled international air transport operations; or (b) **50 000** or more air transport passenger movements.	AusALPA understands that these are the "accepted" numbers historically and are commensurate with the size of the operation, but may still be too high.
PART 25 SAFETY MANAGEMENT SYSTEMS	
25.02 Requirement for an SMS (1) For an aerodrome that, in the course of a financial year, has: (a) **50 000** or more air transport passenger movements; or (b) **100 000** or more aircraft movements; the aerodrome operator must have a safety management system (SMS).	These were the numbers proposed to the PIR WG. Nevertheless, AusALPA has reservations as to why a SMS is not required for all aerodromes commensurate with the size of the operation and does not support the present exclusions for smaller aerodromes.