



AERIAL APPLICATION ASSOCIATION OF AUSTRALIA LTD.

ABN 13 002 501 886 • ACN 002 501 886



3 June 2020

AAAA Submission CASR Part 138 MOS Consultation

AAAA Overall Response to the Part 138 MOS

AAAA completely rejects the Part 138 MOS **and** the existing regulations as unfit for purpose.

The proposed MOS is particularly rejected as unworkable, costly, and a severe regulatory overreach that is clearly additional significant regulation by stealth. It is overly complex and seeks to micro-manage businesses and risk management processes while ignoring existing risk controls and obviously simpler approaches.

The MOS and the regulations maintain a cool detachment from safety and instead focus on byzantine approaches to limiting the ability of aviation companies to manage themselves, their staff and their risks.

It is not clear what 'problems' CASA seeks to remedy with this detailed, complex and highly prescriptive approach that creates a number of new requirements that are not directly relevant to the safe operation of the aircraft or the conduct of the operation.

The current relatively simple system has not resulted in any upswing of accidents that would warrant such a draconian regulatory response.

This is a clear case of regulatory overreach, prescription versus outcome and a lack of understanding of the operation and the context.

AAAA consistently raised these issues as a member of the TWG and previously the working group under the SCC - but was ignored – as were many other consultative group members' concerns regarding overreach, length and complexity.

The Part – both regulations and MOS - should immediately assigned to the rubbish bin and urgently retasked to a reconstituted Technical Working Group under the ASAP.

The new TWG should be reformulated to ensure the two key peak bodies concerned – AAAA and the AHIA – have strong representation through experienced members as well as their respective CEOs.

It is critical to have experienced business owners at the table as well as experienced pilots as they bring with them management expertise and a better understanding of likely economic and risk management consequences of proposed regulations.

It is not appropriate to have years of experience and management expertise from industry ignored by CASA who are unable to bring any significant experience or knowledge to the table and have continually refused to permit an open discussion of either underpinning risks, safety data or simpler approaches to regulation and risk controls.

This is especially egregious when industry input is provided with goodwill, free of charge and with a keen focus on safety outcomes based on a deep understanding of operational and organisation risks and controls.

The simple fact that Sector Risk Profiles and safety statistics were not allowed to be discussed as part of TWG processes underscores how serious is Part 138's detachment from reality.

The current CASA team that have been oversighting the development of the failed Part and MOS should be removed from further consideration of the Part due to their defensive stance on all issues, and should be replaced by genuine subject matter experts who have actually worked in the sector.

The new TWG should be tasked with:

1. Dismantling/abolishing the MOS and the need for the MOS and including any essential changes into a reform/amendment of the regulations
2. Undertaking a first principles review of relevant sector safety data to identify current and potential risks and more satisfactory approaches to their management. The basis of such a review is detailed in this submission under the heading 'Reengineering Part 138'.
3. The key aims of this critical review will be:
 - a) Identifying which aerial work operations do not require further regulation through Part 138, but which instead can have adequate risk controls through existing other Parts, especially Part 61 (Pilot Licencing) and Part 91 (General Operating Rules).
 - b) Identifying a better structure for Part 138 operations that establishes a clear head of power for the particular operations specifications of the Part 138 operating certificates and in operations manuals

- c) Better defining of new and very welcome flexibility regarding 'aerial work passengers' or more accurately, 'informed participants' who are not 'essential crew' and are not 'task specialists'. This is particularly important to support aerial firefighting and support tasks on and around a fireground.
 - d) Better use of a general risk management concept for Part 138 operators that will allow innovation and flexibility while providing suitable guidance for compliance and minimum safety requirements through the development (by the TWG) of Acceptable Means of Compliance – which will be one CASA accepted way of demonstrating compliance but may not be the *only* way.
4. Redrafting the regulations of Part 138 to be outcome focussed and identifying where additional advisory material (such as an Acceptable Means of Compliance) is required to provide certainty for compliance for operators and pilots and consistency of interpretation by CASA field staff.

Detailed comments in response to the CASA Part 138 online 'consultation/survey' are also included in this submission.

Many AAAA members were so concerned with the likely negative impact of Part 138 on their businesses – for no safety gain – that they also made submissions to the CASA consultation process also rejecting the MOS and the Part.

Consultation Failure

The proposed CASA Part MOS – continually rejected by industry and many on the TWG – represents all that is wrong with CASA - still.

The dominance of CASA officer's opinions against the weight of industry expertise and experience represents a continuation of the culture of the 'Big R regulator' that the ASSR and the Government's response sought to stamp out.

In an extraordinary outcome of the ASAP / TWG process (that has worked well in most other cases) CASA senior management has now ignored the advice of its own consultation processes. This hints at 'sham' consulting in this case – and the waste of thousands of hours of industry input and a complete lack of regulatory development oversight by CASA 'managers'.

The DAS and the CASA Board should be extremely concerned with this development which has clearly served to white-ant the successful ASAP / TWG model and instead delivered an unworkable, expensive and deeply flawed set of regulations and MOS that now demand their direct attention and intervention.

This outcome is very similar to the trajectory and extremely damaging effects of the development and implementation of the Part 61 and 141 processes – a regulatory train-wreck that directly damaged industry and is again under reform in the hope of speedy remediation. A review of the number of amendments and exemptions required to even make Part 61 function reveals this observation to be fair.

The process recommended above – abolition of the MOS, reworking of the regulations, marrying safety to outcome based regulations and reconstituting the TWG and the CASA staff responsible – is an appropriate strategy to get the Part 138 debacle back on track.

Anything less will clearly demonstrate that CASA remains the same unresponsive, culturally challenged, process driven rather than safety-outcome focussed regulator that the ASRR identified.

To demonstrate the consistent position of industry versus the CASA approach to Part 138, AAAA's submission to CASA on Part 138 from 2016 identifies most of the issues that have led to the failure of the current Part 138 regulations and the proposed MOS to be unfit for purpose. ***A copy of this full 2016 submission is at Appendix 1.***

AAAA also recommends to CASA its submission to the Senate Regional and Rural Affairs and Transport Committee inquiry into general aviation and CASA – which contains a number of significant recommendations that also address the systems shortcomings that have let to Part 138 being strongly rejected by the companies and people who have to work under it. See:

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/GeneralAviation/Submissions

Reengineering Part 138

A key failing of the current Part 138 regulations and draft MOS is regulatory overreach due to the lack of an open risk assessment of aerial work operations and the lack of recognition of existing risk controls through a range of other Parts, pilot competence and the requirements of an OC (key personnel, oversight, risk management etc).

The following assessments are based on two different taxonomies:

- Table 1 - from the current CASA approach to regulation through CASA Form 1214B which is allegedly based on CAR 206.
- Table 2 - from the proposed Part 138 structure

It is worth noting that there is no clear head of power for the 40+ subcategories identified in CASA Form 1214B as CAR 206 only lists 8 aerial work categories. CASA Form 1214B also makes no allowance for 'aerial application' operations under Part 137 and many of the subcategories can only be described as a 'flight of fancy' by someone who has never undertaken the operation concerned – or talked to anyone who has.

The risk-based outcome from either assessment results in a lot less regulation of already controlled risks, with the Part 138 regulatory approach applied only to those

operations where the risks are not controlled adequately by other Parts or other CASA requirements.

This approach provides CASA with a powerful tool to greatly simplify its approach to the rewriting of Part 138 regulations and to abolish the MOS completely.

It will also enable CASA to more clearly describe the different aerial work operations and how they are to be regulated – something the current Part 138 fails to do, instead, relying on detail in Operations Manuals to inform the too-broad categorisation of the four Part 138 operational approvals that will appear on an operating certificate.

This approach is in accordance with the vision of the ASRR, the Minister’s Statement of Expectations, the CASA Board Regulatory Philosophy, the relevant DAS Directive and the new requirements of the Civil Aviation Act.

It represents the application of a classification of operations approach to aerial work operation and the matching of regulatory responses to clearly assessed risks – something the TWG and earlier working groups where continually refused permission to undertake.

By drawing a line under the currently failed consultative mechanism, where the TWG was ignored along with the ASAP, CASA has the opportunity to deliver a new, simplified rule-set that will meet with the support of industry and the objectives of the Civil Aviation Act, the Minister’s Statement of Expectations and the Board’s Regulatory Philosophy.

The alternative appears to be immediate production of exemptions and amendments of the new Part to make it work, the likelihood of a loss of control by CASA of its field staff interpretations of the new regulation, considerable pain, cost and widespread confusion within industry, and eventually, a long remedial program of reconsideration of Part 138 – as was seen with the instructive, destructive introduction of Part 61 and 141.

Table 1: Assessment of aerial work operations risks from CASA Form 1214B

Activity – CASA Form 1214B	Sub Activity Form 1214B	Risk requires Regulation?	OC Approval Required?	Risk control	Key Reg
Aerial Advertising	On aircraft	No	No	N/A	Pt 91
	Banner Towing	Yes	Yes	Regs / AMC	Pt 138
	Skywriting	Maybe – needs input from experts	Maybe – needs input from experts	Regs / AMC	Pt 138

	Light display	Yes if towed No if on aircraft	Yes if towed No if on aircraft	Include under banner towing – Regs /AMC	Pt 138
Aerial photography	Still and motion	Only low level	No	Pilot has low level rating	Pt 61
	Low level filming	Only low level	No	Pilot has low level rating	Pt 61
	Media operations	Only low level	No	Pilot has low level rating	Pt 61 – may be a need to use Part 138 as exemption against Part 91
Aerial Spotting	Fire	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Marine/Fish	No	No	No low level unless pilot has low level rating	Pt 91/ Pt 61/ Flights over water
	Flood	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Flora	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Fauna	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
Aerial survey	Geochemical / sampling	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Geo/magno/spectro/seismic	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Environmental studies	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61

	Pipeline inspection	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
	Property survey	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61
Aerial Agricultural Operations	Seeding	Yes	Yes	Move to part 137 – Aerial Application	Pt 137
	Chemical or fertiliser spreading	Yes	Yes	Move to part 137 – Aerial Application	Pt 137
	Spraying	Yes	Yes	Move to part 137 – Aerial Application	Pt 137
	Pest (eg mosquito eradication)	Yes	Yes	Move to part 137 – Aerial Application	Pt 137
Dropping	Water and fire retardant	Yes	Yes	Permissible either under Part 137 – Aerial Application / Part 138	Pt 137/ Part 138
	Incendiaries – bushfire control	Yes	Yes	Permissible either under Part 137 – Aerial Application / Part 138	Pt 137/ Part 138
	Food and fodder relief	Yes	Yes	Permissible either under Part 137 – Aerial Application / Part 138	Pt 137/ Part 138
	Messages	No	No	Automatic approval for Part 137 OC / Part 138 – low level only if pilot has LL Rating	Pt 137 / Pt 61/ Pt 91
	Lifesaving equipment or personnel	Yes	Yes	Regs	Pt 137/ Part 138

	Seeds / fertiliser – forestry purposes	Yes	Yes	Permissible either under Part 137 – Aerial Application / Part 138	Pt 137/ Part 138
	Oil or chemical spill dispersal	Yes	Yes	Permissible either under Part 137 – Aerial Application / Part 138	Pt 137/ Part 138
Powerline	Stringing	Yes	Yes	Regs+AMC	Part 138
	Cleaning	Yes	Yes	Regs+AMC	Part 138
	Inspection	No	No	No low level unless pilot has low level rating	Pt 91 Pt 61 Refer also to AS3891 Part 2
Rapelling	Personnel	Yes	Yes	Regs +AMC	Pt 138
Other	Aerial stock mustering	Yes	Yes – remove ‘private ops’	Regs +AMC	Pt 138
	Aerial Stock mustering training	Yes	Yes	Regs +AMC/ Note current work to simplify this and other specialised training	Pt 61
	Ambulance functions	Yes	Yes	Now under passenger rules?	Pt 121?
	Feral and diseased animal control	Yes	No	Reg+AMC	Pt 138
	Frost protection	No	No	Pilot has low level rating	Pt 61
	Search and rescue	Search only – no. Yes – if rescue is included	Search only – no. Yes – if rescue is included	Regs	Pt 61 Pt 138
	Sling load operations	Yes	Yes	Regs+AMC	Pt 138
	Surveillance	No	No	No low level unless pilot	Pt 61

				has low level rating	
	Target towing	Yes	Yes	Regs	Pt 61
	Trade operations	No	No	Nil	Pt 91
	Winching/Hoist	Yes	Yes	Regs	Pt 61

Table 2: Assessment of aerial work operations risks from Part 138 and relevant sub-sectors

Part 138 Categories	Part 138 Sub categories	Better Outcome
External load operation	Winch and rappel	Reg – no MOS
	Sling	Reg – no MOS
	Towing	Reg – no MOS
	Powerline Stringing	Reg – no MOS
	Powerline maintenance using an external platform	Reg – no MOS
Dispensing operation	Fire retardants (including water)	Reg – no MOS Cross ref to Part 137
	Incendiary devices	Reg – no MOS Cross ref to Part 137
	Food relief	Reg – no MOS Cross ref to Part 137
	Fodder relief	Reg – no MOS Cross ref to Part 137
	Lifesaving equipment	Reg – no MOS
	Oil or chemical dispersants	Reg – no MOS Cross ref to Part 137
Task specialist operation – many need overarching low level permission for the op only	Stock mustering	Reg
	Animal culling	AMC– Pt 91/61
	Frost protection	NO– Pt 91/61
	Search and rescue	NO– Pt 91/61
	Surveying	NO– Pt 91/61
	Photography	NO– Pt 91/61
	Spotting	NO– Pt 91/61
	Surveillance	NO – Pt 91/61
	Marine pilot transfer	NO – Pt 61
	Transporting emergency services personnel	NO – put in below
Transporting restricted persons	Reg	
Emergency services	Duplication of existing categories above when considering firefighting	Reg – limited to establishing head of power.

	operations eg dispensing / external load etc	
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Direct Answers to the CASA online ‘Survey’ for Part 138 MOS consultation

Q1 Aerial Work Passengers

No – it does not meet the aim

Comment:

The ability to carry 'passengers' essential to the aerial work mission is a very positive step forward and has strong support.

However, the draft MOS does not provide a suitable, clear definition of aerial work passenger.

The definition is unclear and leaves the issue open to interpretation, especially by CASA staff which may perpetuate the problems arising from different regions' interpretation of the same regulation.

The key test is 'does the definition permit movement of fire agency personnel around a fireground'? The draft provided is not as clear as it should be.

The lack of the actual definition of 'aerial work passenger' in the MOS definitions is ridiculous. The hand-off/reference back to the CASA dictionary creates work for any user and detracts from clarity. It should be included in Part 138 regulations. It is not a simple task to find the CASA Dictionary (search FRIL CASR 1998 Volume 5) and of course the current version does not include the definition as it is not yet made. How is it possible to comment on something that cannot be found?

In particular, due to the importance of this definition and its utility for aerial work operations, the definition should be subject to an independent review along with the rest of the MOS with a view of abolishing the MOS, recasting the regulation, and including this critical definition into the regulations and not the MOS.

Q2 – Aircraft requirements for certain airwork operations

No – it does not meet the aim

Comment:

see comments to next question regarding helicopter Performance requirements - put the Performance Classes 'Code' into an AMC and require a risk assessment.

There is already ample control of the risks through pilot licencing, aircraft operating manuals, having an operating certificate/key personnel/training etc etc.

This should be guidance in a risk management framework – not highly prescriptive regulation.

Q3 – Rotary Performance Requirements

No – it does not meet the aim

Comment:

A key failure of the CASA approach to mandating performance classes for certain operations is the refusal to accept that this addresses only one part of a possible failure scenario.

While a Performance Class compliant helicopter may have two engines, it will still only have one gearbox and one tailrotor which remain potential failure points. This is a fundamental failure of CASA logic in considering overall safety outcomes and risk.

The overly complex and prescriptive approach to the use of mandated Performance Classes should be abandoned completely and covered through a requirement for higher risk operations to conduct an appropriate risk management process to cover these issues among others.

Explanation of performance classes and the associated concepts could then be included in an acceptable means of compliance with a higher-level regulation (rewritten) that would require a risk assessment for certain higher risk operations.

The methodology for conducting an appropriate risk management assessment of an operation is already included in the MOS and this approach should be used in an AMC rather than prescription.

This approach is more likely to future proof the regulations, reinforce the importance of risk management to aviation safety and allow for innovation.

Q4 – Aeroplane Performance requirements

No – it does not meet the aim

Comment:

If the rules are the same as Part 91, then perhaps simply include a note at an appropriate point instead of replicating - with the inherent danger of the two rulesets drifting apart over time due to amendments.

It is important to ensure that the problems previously encountered with CAO 20.7.1b are not recreated – specifically the engine out performance requirements that

applied to single engine turbine aircraft in previous iterations of the order that required exemption and then amendment.

Q5 – Additional Operations Requiring Check and Training

No – it does not meet the aim

Comment:

The framework provided by the regulations in Part 138 is simply not fit for purpose.

For example, the specific need to mention frost operations in this section is indicative of the problems caused by trying to force such a diverse range of operations into a framework of 3 or 4 categories. Not only will this create downstream problems in terms of managing operational approvals, or what may or may not appear on Part 138 certificates, or the need for very specific 'exemptions' within the reg /MOS as in this case of Part 61 experience - it has not been subject to a consideration of whether CASA actually adds anything useful to safety for all of the operations being regulated in Part 138.

Frost protection is a good example that should not be regulated in any detail at all by Part 138, but simply rely on the low level training of the pilot, and perhaps an AMC to assist with an acceptable risk assessment of the mission.

Unfortunately, industry has never been given the opportunity to consider data supported risk assessments of the appropriate level of regulation for different aerial work operations. CASA should re-engage with industry aerial work peak bodies for an open assessment of what aerial work operations need what type of regulation, if any.

The requirements for annual proficiency checks created under Part 61 for aerial application operations in both fixed wing and rotary wing should be referenced in this part but not duplicated – and importantly, the automatic ability of the Chief Pilot (or their suitable qualified nominee) should be enabled to conduct the checks for both rotary and fixed wing in Part 138 as it is in Part 137 and accompanying exemptions.

It is critical that any new system be simpler to attain and maintain than a full Part 141 training approval – and that the flexibility of the current CAR 217 approvals be maintained or improved.

Q6 – Flight crew train/check – with a train check system

No – it does not meet the aim

Comment:

There is a significant danger in duplicating the requirements in Part 61, for example through its requirement for annual proficiency checks, in this section.

The Chapter dealing with this is highly prescriptive, especially when compared with already functioning Proficiency Check requirements covered in Part 61 and even Part 137.240.

The minutely detailed approach to this issue again serves to undercut the existing risk management controls already in place through having a certificate, an operations manual, risk assessment, key personnel, Part 61 etc etc

CASA should forgo its prescriptive approach in either the regulations or the MOS and move to a combination of outcome based regulations, no MOS for Part 138, and potentially more Acceptable Means of Compliance materials that will encourage innovation and safety improvements rather than the current approach of locking in CASA's concept of required practice.

Q7 – Flight crew train/check – without a train check system

No – it does not meet the aim

Comment:

These comments are similar to the comments for the previous question - There is a significant danger in duplicating the requirements in Part 61, for example through its requirement for annual proficiency checks, in this section.

The Chapter dealing with this is highly prescriptive, especially when compared with already functioning Proficiency Check requirements covered in Part 61 and even Part 137.240.

The minutely detailed approach to this issue again serves to undercut the existing risk management controls already in place through having a certificate, an operations manual, risk assessment, key personnel, Part 61 etc etc

CASA should forgo its prescriptive approach in either the regulations or the MOS and move to a combination of outcome based regulations, no MOS for this Part 138, and potentially more Acceptable Means of Compliance materials that will encourage innovation and safety improvements rather than the current approach of locking in CASA's concept of required practice.

Q8 – Aircrew Member training

No – it does not meet the aim

Comment:

While it is accepted that aircrew training and checking for other than pilots must be captured somewhere to ensure there is an appropriate head of power for this function to occur, Ch 26 of the MOS has the same highly prescriptive approach that has already been rejected for other elements of training and checking.

As with earlier sections, the Chapter dealing with this is highly prescriptive.

The minutely detailed approach to this issue again serves to undercut the existing risk management controls already in place through having a certificate, an operations manual, risk assessment, key personnel, Part 61 etc etc

CASA should forgo its prescriptive approach in either the regulations or the MOS and move to a combination of outcome based regulations, no MOS for this Part 138, and potentially more Acceptable Means of Compliance materials that will encourage innovation and safety improvements rather than the current approach of locking in CASA's concept of required practice.

Q9 – Task Specialist Training and Checking

No – it does not meet the aim

Comment:

Same as previous comment - While it is accepted that task specialist training and checking must be captured somewhere to ensure there is an appropriate head of power for this function to occur, Ch 27 of the MOS has the same highly prescriptive approach that has already been rejected for other elements of training and checking.

As with earlier sections, the Chapter dealing with this is highly prescriptive.

The minutely detailed approach to this issue again serves to undercut the existing risk management controls already in place through having a certificate, an operations manual, risk assessment, key personnel, Part 61 etc etc

CASA should forgo its prescriptive approach in either the regulations or the MOS and move to a combination of outcome based regulations, no MOS for this Part 138, and potentially more Acceptable Means of Compliance materials that will encourage innovation and safety improvements rather than the current approach of locking in CASA's concept of required practice.

Q10 – Risk assessments

No – it does not meet the aim

Comment:

Risk assessment is such a fundamental part of every aerial work mission that it should be included in the regulations proper - but in an outcome-based regulation that allows appropriate flexibility and innovation.

The approach of the MOS does not meet these key requirements and instead takes a very prescriptive approach while ignoring the other risk mitigators in place such as pilot competence and training, operator certification, key personnel and supervision etc.

This element is of such importance that CASA should withdraw the MOS, re-engage with peak industry bodies and develop a regulatory approach that is outcome-based.

If necessary, additional information on conducting a risk assessment - potentially even for different operations - could then be included as an AMC - with the MOS being abolished.

Q11 – Additional Rules for External Loads Requirements

No – it does not meet the aim

Comment:

The lack of an appropriate framework for the description and management of aerial work operations in the regulations is brought home in this section which is even entitled 'Additional Rules'. Surely if they are additional rules they should be directly incorporated into the regulations - not in an ancillary document such as a MOS.

By classifying all aerial work into basically four categories (rather than an improved version of the current 40+ subcategories - eg see CASA Form 1214B), the Reg Part and the MOS is handicapped from the beginning in terms of clarity and ease of use. This is a key element that makes the MOS too complex, too long and too hard to use to be 'fit for purpose' - the MOS is clearly not fit for purpose and should be withdrawn.

The approach in Chapter 15 of the MOS is again, highly prescriptive and introduces a significant new and over-complicated system of classifying external loads into categories A-E - each with different highly prescriptive requirements.

The requirement for two divisions to Chapter 15 simply underscores the problems of regulatory overreach not based on real world data, complexity as a result of the fevered classification of external loads, and prescription based language further complicated by a devilishly complex drafting style that is anything but 'plain legal English'.

A far superior approach would be outcome-based rules in the regulations themselves, based on sound risk assessment and management. If CASA feels the need to write an encyclopedia on external load operations based on its limited experience, it should be put into an Acceptable Means of Compliance so as to encourage innovation and improved safety.

Q12 – Requirements...for firearms

No – it does not meet the aim

Comment:

This Division 3 of Chapter 17 represents one of the most blatant and ridiculous over-regulations of an activity within the Part.

It is not clear what 'problem' CASA seeks to remedy with this detailed, complex and highly prescriptive approach that creates a number of new training requirements that are not directly relevant to the safe operation of the aircraft or the conduct of the operation.

The current relatively simple system has not resulted in any upswing of accidents that would warrant such a draconian regulatory response.

This is a clear case of regulatory overreach, prescription versus outcome and a lack of understanding of the operation and the context.

The section should be removed and recast through simple, outcome based requirements and if necessary the publishing of an AMC.

Q13 – Limited Aerial Work Operators

No – it does not meet the aim

Comment:

Depending on the operation, there is no need for this provision if CASA were to have taken a 'first principles' approach to assessing, with industry, which aerial work operations should be captured by Part 138 on the basis of risk management and which should not.

By ignoring other risk management controls in place including pilot training and licencing - there are operations picked up in Part 138 that could be safely excluded - including a lot if not all of photography, survey and spotting operations - instead relying on Part 91 and Part 61 (eg a low level rating issued under Part 61).

In addition, there should be no difference in the safety standards required regardless of whether an operation is private or commercial in nature. Also, AAAA has long opposed the CASA practice of encouraging private operations where a pilot is employed to conduct the operation. The only private operation in AAAA's view is when an operation is undertaken over the aircraft pilot's own land.

Of particular interest would be an assessment of the safety performance of private operations against commercial operations, taking into consideration issues such as differing exposures through greater hours flown etc.

It is important to maintain standards of safety regardless of whether an operation is commercial or private and it is difficult for CASA to play any role in this if they have no database of certificate holders who are undertaking the operations.

Consequently, 'private' aerial work operations should be abolished and all aerial work operations placed on the same safety standing – albeit with the proviso that some aerial work operations currently under Part 138 as named above, could be removed from the part completely.

Q14 – Regulation amendments

No – it does not meet the aim

Comment:

Given the lack of support of the MOS from the Technical Working Group, the wide range of problems identified in this submission and the potential to have a much better regulatory part with no MOS, these relatively minor (but still important) amendments should not go ahead until the full consultation process is considered.

The MOS should be withdrawn and a full review of the regs and the content of the MOS should be undertaken by industry peak bodies and CASA to develop a significant amendment package for the regulations.

Q15 – General Comments

Comment:

The Part 138 suite and especially the MOS represents all that is wrong with CASA and the regulatory reform program.

The MOS is characterised by complexity, length, poor language, regulatory overreach and prescription that is likely to detract from aviation safety rather than build it.

This has been achieved over a decade of sham consulting with industry and is now being rushed through to an imagined deadline at the risk of causing long-term harm to industry through massively increased costs for no safety gain.

Both the regs and the MOS should immediately be withdrawn. A joint CASA/industry peak body task force should be urgently constituted to review both the regulations and the MOS from first principles based on safety data and risk management principles and reintegrate any relevant sections from the MOS into the regulations proper with the aim of abolishing the MOS.

The regulatory approach should be firmly based on outcome based regulations, with suitable advisory material supplied through Acceptable Means of Compliance or similar.

In particular, a superior framework for the classification and management of aerial work functions must be developed and the current non-sensical four category approach overhauled. This consideration should also identify, from a risk assessment basis, aerial work operations that do not need to be captured in the regulatory suite because of the relatively simple nature of the work and existing risk controls in place through Part 91 and Part 61.

Further Information

If you would like further information on any of the issues raised in this submission, please contact the CEO of AAAA, Mr Phil Hurst, at the AAAA office.

Yours faithfully

A handwritten signature in black ink that reads "P. Hurst". The signature is written in a cursive, slightly stylized font.

Phil Hurst

CEO - AAAA

Appendix 1 – AAAA Submission to CASA On Part 138 - 2016

AERIAL APPLICATION ASSOCIATION OF AUSTRALIA LTD.

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29 February 2016

[AAAA Submission CASR Part 138 - NPRM 15190S](#)

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Summary

AAAA believes that significant additional work is required by CASA before the Part 138 proposed regulations will be fit for purpose and will not significantly damage the industry.

AAAA believes there is clearly a need for an independent review of the proposed Part 138, with special focus on the application of the Forsyth Report recommendations regarding regulatory development and the DAS Directive 01/2015.

AAAA fully supports the need for a Part 138 and also strongly supports the need for Part 138 to work together with Part 137 to provide a clear pathway for aerial work operations. However, while the classification of operations approach in Part 138 is represented as a significant simplification, when the detailed definitions are considered, it is actually a more prescriptive approach than under current regulations.

While this is not an insurmountable issue and to some degree is inevitable in attempting to match operational rules to significantly different operations, the problem is largely compounded by the prescriptive rather than outcome-based approach in proposed regulations. This appears to be strongly indicative of CASA's 'old' approach to regulating industry and is now inappropriate.

There is a considerable 'missed opportunity' in the proposed draft in that it does not deliver a broad simplification of aerial work operations.

The proposed rules also suffer from a lack of detail regarding supporting administrative approaches, including the relationship between the classification of operations, the details of the Part 138 proposed certificate and accompanying operational specification, and the requirements for an operations manual.

AAAA is particularly concerned with the proposed consequential amendments to Part 137 which have not been consulted with AAAA, and the introduction of performance requirements for rotorcraft that are prescriptive, will have massive cost impacts for industry and do not appear to have been adequately considered in the regulatory development process.

With the proposed Part 138, CASA appears to be repeating many of the errors identified in the Forsyth Report.

Key Issues

Lack of application of DAS Directive 01/2015

AAAA is deeply concerned with the lack of application of DAS Directive 01/2015 - especially for rotary performance requirements.

The lack of a clearly articulated, written safety case, based on real accident and incident data as a starting point, is problematical for the general approach of Part 138 and especially the new proposal to include helicopter performance accountability and requirements.

AAAA is strongly of the view that the current Part 138 should be reviewed independently to ensure the application of DAS Directive 01/2015 to the rule set.

If such a review cannot identify clear safety cases or substantiate the cost of such a significant change such as the introduction of helicopter performance requirements, then those sections should be abolished.

What are we aiming for?

What is the objective of the new Part 138? Having been a part of the various CASA working groups involved in looking at aerial work issues for over a decade, AAAA is concerned that the proposed rule-set does not have a clear purpose or goal and mostly represents a repackaging of existing requirements and the addition of new ones.

While AAAA has a clear understanding of the broad purpose of Part 138 in terms of its need to capture a range of operations not captured elsewhere, AAAA is not convinced that the detail of Part 138 provides a simpler or generally better approach to the regulation of aerial work operations.

One of the key objectives of a new Part 138 must surely be to provide a classification framework that eliminates the current CASA practice of 'splitting hairs' over very similar types of operations - and thereby creating complexity and cost.

AAAA is aware of a range of current interpretations - many from field offices - where unnecessary complexity is being created for no safety purposes. For example, CASA is currently requiring or has required the following operational specifications / approvals despite the obvious similarity of operations:

- Aerial application vs agricultural operations
- Aerial application vs oilspill
- Aerial application vs mosquito spraying not over agricultural land
- Aerial application vs firebombing vs firefighting (Part 61)
- Survey - geosurvey vs animal survey vs powerline survey

The inherent nature of aerial work operations is that each operation is likely to be different in some ways, but substantially similar in key respects.

Unfortunately, the proposed approach seeks to provide a veneer of simplification to 3 categories, only to require an additional 22 sub-classifications in the detail of the regulation, compounded by a prescriptive regulatory approach.

A Missed Opportunity

Rather than attempting to pin-down every single different type of aerial work operation through an exhaustive listing, AAAA believes that CASA has missed a significant opportunity to simplify regulation by identifying the key systems required for safety (eg qualified personnel and risk management) and then providing guidance

material such as through an Acceptable Means of Compliance - at least for the simpler types of operations.

Many earlier discussions of various CASA Part 138 and Part 133 working groups identified the possibility of true simplification of the regulation of many aerial work operations (such as simple sling loads and survey) by the reliance on the licencing and competency provisions of Part 61 and the provision of an Acceptable Means of Compliance from CASA that would describe one way - but not the only way - that the operations could be conducted.

This approach was attractive to industry because it removed the need for each company to create their own approach to simple tasks, and thereby removed the need to include such simple operations in the Operations Manual and to have it approved by CASA at considerable cost and time delay.

Such a standardised and simplified approach had the potential to address a lot of the issues now incorporated into Part 138, but appears to have been unilaterally abandoned by CASA.

For example, sling load, many survey operations, and a number of task specialist operations could be simplified by CASA placing a greater reliance on the qualifications it has issued to the crew (eg ratings and endorsements) and by publishing supporting AMCs that could easily be referenced in operations manuals.

In particular, AAAA is concerned at the loss of the intent of earlier discussions to make aerial work operations regulation simpler and more cost-effective.

Prescription versus Outcome Based Regulations

A comparison between the current Part 137 drafting style and that of the proposed Part 138 regulations makes it clear that CASA is not seeking to apply the less prescriptive style of regulations identified in the Forsyth Report and accepted by the Government as policy.

Part 138 seeks to impose a range of very prescriptive requirements onto operations. Again, this sits at odds with the Forsyth recommended approach to three tiers of regulation and an outcome based approach to rule-making.

A fundamental challenge for CASA remains and has been highlighted by the published work of the CASA Board and the DAS - CASA needs to stop being the 'big R' regulator and start working with industry towards simpler, more cost-effective regulations firmly based on real safety management.

At its simplest, this means CASA should reconsider regulations that seek to regulate activities that are already covered by other CASA regulations - including licencing and competency provisions - many of which are aerial work activities.

In detail, it means that the current Part 138 proposed regulations are too prescriptive and should be redrafted to be more outcome focussed.

Given the various Ministerial, Board and DAS statements regarding a new approach to regulatory development, Part 138 is clearly a part worthy of review in the light of those intentions.

Classifying Operations

While the decision to move all aerial application to Part 137 for both fixed wing and rotary is sensible, the ongoing potential for confusion regarding determinations of classification of operations under Part 138 - especially by CASA field staff or the CASA Permissions Centre - has not been resolved satisfactorily.

It appears the sub categories in the Part 138 definitions are even more prescriptive than those under CAR 206, and may even create competing claims between Part 137 and Part 138 (see Table 1 below and Alternative Pathways section below).

Table for CAR 206 / Part 138 categories / Part 138 definitions sub-categories

CAR 206 Aerial work	Part 138 Categories	Part 138 Sub categories
Aerial survey Aerial spotting Agricultural operations Aerial photography Advertising Balloon flying training Ambulance functions Carriage for the purposes of trade of certain goods any other purpose that is substantially similar to any of those specified in subparagraphs (i) to (vii) (inclusive);	External load operation	Winch and rappel
		Sling
		Towing
		Powerline Stringing
		Powerline maintenance using an external platform
	Dispensing operation	Fire retardants (including water)
		Incendiary devices
		Food relief
		Fodder relief
		Lifesaving equipment
		Oil or chemical dispersants
	Task specialist operation	Stock mustering
		Animal culling
		Frost protection
		Search and rescue
		Surveying
		Photography
		Spotting
		Surveillance
Marine pilot transfer		
Transporting emergency services personnel		
Transporting restricted persons		

	Emergency services	Any of the above for an emergency agency - but cannot find reference to establish this in the draft regs
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One of the key problems the new regulatory system was meant to address was the difficulty of classifying operations based on risk management and in a cost-appropriate manner.

In the case of some previous CASA decisions, for example, this has led to ludicrous outcomes such as the need to recertify aircraft for oilspill operations because - in some CASA officers' opinions - the type certificate statement including emergency services was not sufficient to align with CAR 206.

The cost to industry because of an 'interpretation' was significant - tens of thousands of dollars for each aircraft - for no safety outcome. The same aircraft with the same equipment and the same pilots operating under the same operations manuals were still doing the same work.

The only thing that changed was industry was poorer and the type certificate was slightly more prescriptive.

This is a salutary lesson regarding the caution that should be exercised when creating a range of very specific classifications and sub-classifications without a clear emphasis on the viability of the clauses referring to 'or other operations of a substantially similar nature' - that is also in CAR 206 but frequently ignored by CASA officers in making interpretations.

If the primary goal was to simplify and modernise the classification structure created by CAR 206 (and the contingent requirement for an AOC), then Part 138 appears to have largely failed.

Instead, AAAA is concerned Part 138 appears to replicate much of the arbitrary hair-splitting industry has experienced under CAR 206.

It is clear to AAAA that despite a grouping into 3 broad categories under Part138 - this simply obscures the real classification of operations which can be found in the definitions of Part 138, which explains that each of these broad headings are informed by a further listing reminiscent of CAR 206.

In preparing this submission, it became clear that this more detailed structure is in many ways essential to describe the permissions to be given to operators because of the very interventionist and prescriptive culture of current CASA regulatory development. This is especially the case when combined with the likely need for a certificate to list the operations the company is approved to conduct.

Therefore, this calls into question the usefulness of the overarching grouping of operations into three categories. Clearly, there needs to be a listing somewhere of what a company can do, and if the broad 3 categories have to be further sub-divided - as they are in the definitions - then what purpose do they serve?

This problem is compounded by the lack of material from CASA indicating what a Part 138 certificate may contain or the approval structure to be used.

There remains open a fundamental policy decision that the operation of Part 138 hangs on - is there to be a broadly or narrowly defined operational specification attached to a Part 138 certificate, or is the role of the Operations Manual to be critical in determining what operations can be undertaken (ie a form of reverse engineering of capability from the Ops Manual to the ops spec.).

This is a case where, with some notable exceptions - especially in the carriage of personnel relevant to the aerial work operations (eg firefighters - it is difficult to see much advantage being created by the transition to a new rule set - perhaps other than to support the ongoing trajectory of a regulatory reform program that has broadly failed to deliver efficiencies and simplification.

Certificates, Approvals and Operations Specification

A key issue is how the fairly broad 3 or 4 categories (4 if 'emergency services' is counted) proposed in Part 138 will translate into what operators have to have in their ops manuals and what the 'certificate' operational specification will actually allow.

For example, an operator may only want an approval to do baiting – but will they be required to have a manual/procedures covering all 'dispensing' – eg oilspill / incendiary dropping etc?

Alternatively, will an operator only have 'baiting' on their certificate - in which case we are back to the current system...

It appears from discussions with the CASA Project Officer that CASA is still working on finalising these critical details that should have been resolved first.

It appears commonsense to AAAA - for a range of reasons - that there should be a clear listing of what a company is approved to do on the Part 138 certificate.

Similarly, there is a strong lesson from the mistakes of the implementation of the new maintenance licencing suite in not providing a very clear indication of what a company or an individual is approved by CASA to do.

It already appears that the draft regulations anticipate there must be some form of approval - See 138.045 (4) and (5) - in which case it appears that the general clustering of operations under the three primary groupings is essentially meaningless.

There is an industry need for clarity around permissions under Part 138 to ensure:

- The company has a clear understanding of what it is approved to do
- Company personnel have a clear understanding of company operations specifications
- Clients can be given a clear understanding of company held approvals
- CASA 138 certificate approval processes are clear to ensure correct permissions can be applied for and given easily
- CASA staff can easily access what a company is approved to do

It is unacceptable that company personnel, CASA staff or clients would have to go through the Operations Manual to determine what a company is approved to do.

Alternative Pathways

AAAA has always supported the development of an 'alternative pathway' for those operators performing aerial work that have not come to that point through the aerial application or 'agricultural' (CAR 206) pathways.

AAAA has previously made a full submission to CASA on DP1507OS and written to the DAS (29 July 2015) regarding the packaging of firefighting operations and is relying on CASA to implement the new rule-set to recognise agreements reached and undertakings provided to industry at the relevant meetings on this issue.

AAAA strongly supports the use of Part 137 for firebombing activities - both fixed-wing and rotary - and the use of Part 138 for other firefighting operations.

AAAA notes, however, that additional work is still required to clarify exactly what firefighting operations need to be covered by Part 138 and how they will be classified. This is significant in that some firefighting activities could be classified under existing categories including survey.

While it appears that the proposed structure permits various operations under Part 137 or 138 - depending on which is the more relevant rule-set - it will be critical for CASA to ensure it does not create confusion for CASA staff or operators.

It will also be critical with any replacement for CAR206 that CASA does not increase the potential for CASA field staff to interpret what head of power should be used for which operation.

For this reason, CASA should develop - in cooperation with industry peak bodies - a range of education and interpretation materials based on real life examples that clarify what operational approvals and which Parts are relevant to which operations and the pathways different operators may come from. The education material must be made available to industry well before the regulation commences.

Interaction Between Part 138 and 137

There is still considerable work required to clarify the interaction between Part 137 and 138 as noted in the section above.

In particular, AAAA is concerned with the potential confusion around the following issues and seeks additional clarification from CASA:

- Part 137 should include both rotary belly tank approval and sling permissions when used on Part 137 operations including both agricultural applications and firebombing.
- Part 137 should include oilspill operations

Interaction of Part 138 and Part 61

AAAA notes and strongly supports CASA's undertaking as a consequence of discussions regarding DP1507OS to rename 'firefighting' to 'firebombing' in Parts 61, 137 and Part 138.

Over time, this will require a revisiting of the underpinning competencies of the aerial application rating and the aerial 'firefighting/bombing' endorsement to ensure they reflect the new name. In particular, there will need to be a review of the recognition of prior learning accepted for the issue of these qualifications, depending on the pathway and experience of the candidate pilot.

Consequential amendments to Part 137 not consulted

In the same way that Part 61 made a range of significant amendments to Part 137 without consultation with AAAA - resulting in significant 'unintended consequences' now requiring exemptions - it appears that Part 138 takes the same approach.

The proposed amendments to Part 137 contained within the proposed draft Part 138 regulations have not been consulted with AAAA and the Association is now concerned at the potential for further 'unintended consequences' impacting on Part 137 operations.

For example, the proposed removal of the ability of a Part 137 operator to undertake an emergency response to a fire that is not under the control of an agency (see Part 137.175 (1)) could result in a significant loss of community protection.

AAAA members are sometimes called to 'private' fires - outside the control of State fire agencies - in places such as cotton module storage yards next to cotton gins. Clearly, State fire agencies would not assume control of such fires unless they escape the cotton module yard. Without the ability to respond quickly, millions of dollars of cotton could be lost as a direct result of CASA regulations.

This is an excellent example of a lack of CASA knowledge of real-world operations leading to a poor regulatory outcome for industry. Genuine consultation and teamwork appears to continue to be a problem for CASA regardless of the new philosophy of regulation statements and DAS Directive 01/2015.

AAAA has identified potential problems with the following proposed amendments to Part 137:

- 137.013 - new definition of 'aerial application material' - consider including a better list as per old 137 - but broader.
- 137.175 - AAAA has significant concerns regarding amendment to 137.175 and the loss of the ability to conduct fire operations outside the control of emergency services - for example fires in cotton storage areas adjacent to cotton gins at the request of the owner of the gin - or in any other circumstance that the emergency agency has not taken control of the fire - as per the current 137.175
- 137.186 - performance requirements - AAAA rejects this approach and believes the current approach is better focussed on risk management - replace with either nothing or a simpler rule as per current 137.180 and 137.185 - eg use of populous area concept / 200 feet at edge of aerodrome

Aircraft Performance Requirements

AAAA remains extremely concerned with the inclusion of helicopter performance requirements in Part 138.

This will undoubtedly have the effect of massively increasing costs for no identified safety gain.

In the case of helicopters, any requirement for twin engines as a consequence of consideration of the potential for engine failure only addresses one of a number of mechanical failure risk scenarios.

Many two-engine rotary aircraft still have one gearbox, tailrotor or drivetrain that could fail, but CASA seems to have placed a strong emphasis on engine failure alone and subsequent accountability without providing a clear safety case for doing so.

CASA should reconsider this approach in consultation with peak bodies and operators - especially those currently using single engine rotorcraft for aerial work operations that under Part 138 will require them to incur significant cost to upgrade to two engine rotorcraft or abandon an operation that they may have been conducting safely for many years.

In particular, CASA should initiate an independent review of this requirement that incorporates the direct application of DAS Directive 01/2015.

MOS - General

The MOS appears to be highly prescriptive and not at all outcome focussed - leading to the troubling conclusion that Part 138 will be far more complex than existing regulations.

It seems to AAAA that much of the material in the MOS is not, in fact, standards, but a further set of regulatory requirements that significantly increase the complexity of compliance.

AAAA believes an independent review of the Part should include the MOS and attempt to identify where content should be driven by a broader head of power that is outcome focussed and included in the regulations proper, or moved to guidance material to demonstrate one way of achieving compliance - but not the only way.

MOS - Risk Assessments - 140

While the MOS appears to be generally highly prescriptive for operators, it does not appear to be particularly prescriptive in terms of what type of risk assessment is required that will trigger either acceptance of compliance by CASA or any clear criteria as to what might constitute a risk assessment that is “appropriate for the nature, size and complexity of the operation”.

AAAA raises this issue because of CASA’s track record in field staff seeking to impose a different risk management strategy onto operators, without the same level of experience or knowledge of the operational risks as the operator.

While AAAA strongly supports the use of risk management in all aerial work operations, the lack of detail or guidance for CASA staff regarding the meaning of the term ‘appropriate’ must be addressed - either in the MOS (perhaps as a note) or through widely available additional material, including in the CASA Enforcement Manual.

MOS Part 19 - Dispensing

The MOS raised more questions regarding the potential confusion between Part 137 aerial application operations and Part 138 dispensing operations.

While AAAA understands the general limitations in place for the number of crew involved in Part 137 or Part 138 operations, CASA should give further consideration to ensuring that while there is appropriate rigour in determining which pathway is available to which operation.

For example, reference in 265.6 raises the dispensing of liquids, powders or fine grains. AAAA questions under what circumstances these type of products would not be more properly captured under Part 137.

MOS - Proficiency Check - 315

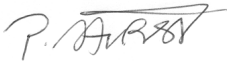
AAAA is concerned as to whether the type of operator proficiency check outlined here would meet the requirements of Part 61 operator proficiency checks.

The far more detailed requirements for operator proficiency checks under Part 137.240 are in stark contrast to the requirements in this part and AAAA believes there should be greater consistency between the two approaches - including simplifying the requirements in Part 137.240 to be as simple as the approach in the Part 138 MOS.

Further information

If you require any further information on the issues raised in this submission, please do not hesitate to contact AAAA on 02 62412100.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. Hurst', with a stylized flourish at the end.

Phil Hurst
CEO