

IBAC TECHNICAL REPORT SUMMARY

Subject: A-NPA - OPS 33 – JAR-OPS 0,2 &4

Meeting: JAA OST Hoofddorp, The Netherlands March 4, 2004.

IBAC File: JAA/EASA

Representatives:

- | IBAC | IBAC Member Associations |
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Reported by: Ray Rohr

Summary:

IBAC was invited to attend the Operations Sectorial Team (OST) meeting at Hoofddorp, The Netherlands to assist in presenting the AWGAS position report on A-NPA - OPS 33 – JAR-OPS 0,2 &4. The report took the form of the A-NPA Comment Response Document and an Aide Memoire that summarized it and the results of the January 20 & 21, 2004 AWGAS/OST Preliminary meeting . The Aide Memoir is attached as Appendix A and the [Comment Response Document that can be viewed here](#).

Mr. Bernedetto Marasa, Head, Safety Regulation, ENAC (Italian Civil Aviation Authority) also presented a paper which was very similar to that which ENAC had presented to the January 20 & 21, 2004 meeting. A copy of that paper is attached as Appendix B. Jim Lyons, AWGAS Chair, noted that the issues raised in the ENAC paper had been considered by the AWGAS on previous occasions and were also considered in the A-NPA Comment Response Document. He also noted that some of the solutions contained in the current ENAC paper could perhaps be incorporated into JAR-OPS 0, 2 & 4 without compromising the integrity of the regulations, but that other would require a significant shift in the regulatory philosophy.

After full discussion the OST agreed to accept the A-NPA Comment Response Document and the action plan contained in the Aide Memoire. It was further agreed that the ENAC proposals would be taken into consideration to the extent that they could be incorporated within the current regulatory framework and underlying philosophy of the draft JAR-OPS 0, 2 & 4.

It was further agreed that the AWGAS should complete work on JAR-OPS 0, 2 & 4 so as to present a completed NPA to the September 13 – 15, 2004 OST meeting.

Implications for Business Aviation:

This decision should result in an NPA for JAR-OPS 0, 2 & 4 being published early in 2005. The philosophy and content of the regulations will favorably reflect the position taken by IBAC and its member associations in their July 18, 2003 submission to the JAA on the A-NPA.

Decision Required

Through the final stage of regulatory development IBAC will continue to support the position contained in their July 18, 2003 submission to the JAA on A-NPA OPS-33.

Structure of Meeting

- Establishment of Concept
 - Problem Domain
 - Business Aviation
 - The partition of the population (corporate within business)
 - What do they fly and what do they do
 - Aerial Work
 - Existing regulations
 - The process of finding a solution
 - The basis for proposed solution (problem → model → solution)
 - The proposed solution
- Exposing the solution to comment
 - Comment response process (problem → model → solution → consultation → comments)
 - Analysis of comments
 - Main issues of agreement
 - Main issues of disagreement (and the basis for disagreement)
 - The changes of position resulting from discussion in comment/response (and reasons for change)
 - Reassessment of solution (problem → model → solution → consultation → comments → revised solution)
 - Issues that have been discussed and have been resolved
 - Issues that have been discussed and need to be resolved
- Future Progress of Proposed Regulation.

Establishment of Concept

Understanding the Problem Domain

- We had to understand the domain in which the problem resided
- We had to understand divisions and the constituent parts of the domain
- We had to establish the existing key elements of each constituent part
- We had to establish the commonality of the elements in States
- We had to understand the main differences between States
- We had to examine existing regulation of the problem domain
- We had to establish and examine existing International Standards for each functional area

Business Aviation

- What was the basis for the establishing the boundary for this activity (from other similar activities i.e. recreational activities)
- Are there established discriminants (are there intuitive handles)
- Is the population presently clearly segregated from similar activities
- Is any part of the population presently regulated in any State
- What is the basis for this regulation (if it is regulated)

The partition of the population (corporate within business)

- Is the population presently partitioned and why
- Does the business population need to be partitioned into subsets
- Is there any natural boundary that can be used for partition
- Is there a need for different Standards
- Is there a difference in the way the activities are organised

What do they do and what do they fly (corporate, business)

- What is the reason and the basis for the equipment used
- Is there any regulatory guidance (to prevent or permit certain equipment)
- What is the basis for the State of Registry issues
- What proportion have a non-European State of Registry
- Does this affect the way we regard/regulate the activity

Aerial Work

- Is there a clear and common understanding of what this activity is
- What was the basis for the establishing the boundary for this activity (from other similar activities i.e. recreational activities)

- Are there established discriminants (are there intuitive handles)
- Is the population presently clearly segregated from similar activities
- Is any part of the population presently regulated in any State
- What is the basis for this regulation (if it is regulated)

The partition of the population (commercial and private)

- Is there a clear definition of commercial activity
- Is there a clear distinction between commercial and private aerial work
- Is there a need for a distinction
- Could this debate be affected by the concentration on training as an Aerial Work activity
- If training is removed from the problem domain, does it simplify the problem

What do they fly and what do they do

- Is there a similar modus operandi in Europe
- Is there a State of Registry issue
- Do the operators conduct only Aerial Work or is it part of their overall activity (CAT, Corporate, CAT etc)
- Do States conduct all of their own Aerial Work or is it outsourced
- When outsourced, is it to other European States
- Does this need to be acknowledged in any solution
- Is there any activity in which harmonisation (between JAA States) is not suited
- Are passengers carried (before, during or after the activity)
- What is the basis for carriage of passengers

Existing regulations

General Aviation

- Is there an International Standard (ICAO, ECAC) for General Aviation
- What is the basis for existing regulations (where they exist)
- Do existing regulations map closely to each other
- Is there a clear and defining regulation that can be used as a model (International or in Europe)
- Does a regulation need to be defined/distilled

Business/Corporate Aviation

- Is there an International Standard (ICAO, ECAC) for Business/Corporate Aviation
- What is the basis for existing regulations (where they exist)

- Is there a clear and defining regulation that can be used as a model (International or in Europe)
- Does a regulation need to be defined

Aerial Work

- Is there an International Standard (ICAO, ECAC) for Aerial Work
- What is the basis for existing regulations (where they exist)
- Is there a clear and defining regulation that can be used as a model (International or in Europe)
- Does a regulation need to be defined

Common elements

- Are there common elements that can be described in one document
- Are these common elements part of existing regulations
- Is there a need for a base regulation (such as a Part 91)

The process of finding a solution

The basis for proposed solution (problem → model → solution)

- See the presentation and explanatory text

The proposed solution

- See the presentation and explanatory text

Exposing the solution to comment

Comment response process (problem → model → solution → consultation → comments)

- The processes of JAR-11 are being followed
- An RIA will be produced as soon as there is agreement that the proposed regulation should proceed

Analysis of comments

- Comment and responses are described in the C/R document
- All comments have been considered and, where possible, addressed
- See also the summary text at Appendix B

Questions posed; did we answer our own questions?

- Who or what is being protected?
- Can we describe the activities that we wish to regulate?

- Can we categorise such activities?
- What is the appropriate level of regulation required to achieve the objective?
- What is the best form of regulation required to achieve the objective?
- Are objective (goal setting) rather than prescriptive regulations more appropriate for regulating these activities?
- Can we define the operator in activities other than CAT?
- How do we regulate the organisation of the operator?
- Do we need to specify professional staff for certain activities?
- Is it only commercial aerial work that we wish to regulate?
- Is it possible to layer the regulation?
- Is it possible to target the layers accurately?
- Is it possible to build extensibility into the model?

Main issues of agreement

- The underlying model was accepted before this phase of development was undertaken – it was a given for the purpose of drafting the regulation
- Industry soundly agree with the concept as published
- There is majority agreement for a very high proportion of JAR-OPS 0, 2 & 4
- The majority understand that business aviation should be in compliance with Annex 6 Part II
 - This view was consistent with the expectation that, for aircraft that were already operating internationally, the operating standards would be in line with Annex 6 Part II
 - This view was consistent with the view that the State of Operation could be separated from the State of Registry and that the State of Operation could set operational standards
 - This view was also consistent with the view that it would be difficult to require a standard above Annex 6 Part II for aircraft where the State of Registry was not in Europe
- If Corporate Aviation continues to be permitted to operate non-EU registered aircraft, Annex 6 Part II has to be the basis for the regulation
- The majority also saw the need to separate out the ICAO Part II requirement from the basic General Aviation operational requirements
 - This view was consistent with retaining the present level of operating standards for General Aviation as observed in existing national regulations
 - This view was consistent with a single set of general operating rules

Main issues of disagreement (and the basis for disagreement)

- A minority disagrees with the basic model and consider that there should be two texts – JAR-OPS 2 for Corporate Aviation and JAR-OPS 4 for Aerial Work (not in line with the approved model)
- A minority considers that the regulation could not (should not) be applied to foreign registered aircraft
 - This position was consistent with the view that it was for the JAA to establish an equipment standard at the level required
- A minority consider that the basis for (the main body of) JAR-OPS 0 should be Annex 6 Part II (with some Part I requirements)
 - If JAR-OPS 0 was Annex 6 Part II compliant, it is accepted that exceptions and alleviations would have to be produced for a number of activities and a large number of activities would have to be removed from the applicability – it would no longer be a Part describing general operating rules
- A minority consider that the basis for JAR-OPS 2 should be a modified Annex 6 Part I
- Some parties do not agree with the principle of objective regulations – preferring the prescriptive route; however, if objective requirements are contained in the solution, methods of compliance would be preferred.

The changes of position resulting from discussion in comment/response (and reasons for change)

- Sweden initially objected to the proposal on the basis of disruption of JAR-OPS 1 & 3 and because of existing AOC regulations in their Aviation Regulations; however it can now support the proposal if there is no disruption in the short term and if there is an EU solution in the medium term.
- France initially objected to the proposal on the basis of complexity (it would have been difficult for operators to understand the regulation); if the implementation of the proposed regulation can be simplified, with the production of guidance on aggregation of rules, it could support the regulation.

Reassessment of solution (problem → model → solution → consultation → comments → revised solution)

During the process of addressing the comments there has been an attempt to define the issues which would require modification of the model and proposed parts in order to satisfy the commenters:

Issues that have been discussed and can be resolved

- JAR-OPS 0 needs to be amended to point to the PIC
- Applicability needs to be simplified to directly address the relevant population
- Business Aviation should only apply JAR-OPS 0 but Corporate Aviation JAR-OPS 2 (organisation and management)
- Clarification on the qualification for the entity of operator (which becomes the discriminant for JAR-OPS 2). This would be concerned only with issues of organisation and management.

- Reduction of the concentration on the person in management and more emphasis on the responsibilities of the position – thus removing the consideration of acceptance
- Safety Management Systems should replace quality systems and encompass the above points
- The production of a common terminology for technical manuals and in-flight paperwork is required
- Where ICAO wording has been used for equipment standards, it might need redrafting into European regulatory language
- There is a need for the production of guidance on a number of important concepts
 - A paper for Corporate Aviation specifying the aggregated requirement for JAR-OPS 0, International Appendix and JAR-OPS 2 (it is not certain in what form this will be)
 - The basis for the issue, continuation and removal of Registration for Corporate Aviation
 - The basis for the issue, continuation and removal of Certification for Aerial Work
 - The system of construction, content and method of publication of codes of practice for Corporate Aviation
 - The system of construction, content and method of publication of codes of practice for Aerial Work activities
 - The content and methods of compliance for Safety Management Systems

Issues that have been discussed and need to be resolved

- The maintenance system for foreign registered aircraft and the interface between the proposed Parts and ECAR-M has to be resolved.
- Industry would seek to reopen the debate on Subpart J and attempt to produce a text that meets the need for proportionality
- Industry would like objective text to specify a fatigue management system (probably in JAR-OPS 2 & 4 – Subpart Q)
- There is a need to discuss and agree the basis for the equipment standard – in particular whether there is a case for going beyond Annex 6 Part II
- The interface between ER/ECAR-M and the proposed JARs
- The exact requirement for Subpart E – All weather operations
- The system for the approval of specified activities (AWOPS, RVSM, RNP, MEL etc.)
- The extension to the OpSpec to include operations other than CAT
- A simplification of the administrative process of Registration to a clear and unambiguous text
- The security policy for International Business Aviation
- Consideration of craft in the microlight and ultralight category and considered for Aerial Work tasks

- Consideration of whether the Rules of the Air could be contained in JAR-OPS 0 (Subparts G and H)

Individual/group actions resulting from Comment/Response

- 1 Quality systems/SMS a recommendation for the regulations to be included in JAR-OPS 2 & 4 and associated ACJ material. [Presentation for JAA Hoofddorp 20-21 January 2004] **(RR+SMS task group)**
- 2 Differentiate between corporate and minor business populations: business JAR-OPS 0 / where there is a need for an organization JAR-OPS 2. **(DS, JL, DB, JP)**
- 3 Subpart J chaired GAMTA + 2 or 3 from weight and balance working group **(KB) Geoff will coordinate with old Sub-committee.**
- 4 Presentation of Codes of Practice [for JAA Hoofddorp 20-21 January 2004] **(CS + RR)**
- 5 In JAR-OPS 0 'Commander' to be replaced by 'Pilot-in-command'. Work also at 'Operator' in same context. **(JL + DB)**
- 6 Review Swedish accident data to apply lessons to JAR-OPS 0 & 2 to ensure that the Swedish experience is captured in the regulation (why did they opt for an AOC?). **(RB)**
- 7 Personnel → process (Subpart C) [Consider JAR-OPS 1 operators also undertaking corporate flights or aerial work.] The concentration might be on the description of the process rather than a concentration on the 'person'. **(JP)**
- 8 Propose an objective rule for JAR-OPS 2 & 4 for a Fatigue Risk Management System **(IBAC)**
- 9 MEL and equipment requirements → discussion with appropriate committees **(JL)** recommendations to OST. Joint w/g **(IBAC/EQSC +1)**
- 10 Subpart E to reflect industry's comments **(JL to discuss with AWOC)** – this might mean an elimination of existing text and reliance upon the need to comply with existing State minima. Requirement for training for AWOPS would be retained as the basis for approval. [Include these 2 actions carried forward from Naples meeting: *0.440 appears to combine the requirements for Low Visibility Take-Off (LVTO) with those for Category II and III approaches - formulate query for the AWOPS Committee. 0.465 VFR Operating Minima – should this be in Subpart E or would it be better in Subpart D?*]
- 11 Resolve terminology and requirement for carriage of technical and journey logs – to ensure that we are all working with a common set of definitions. **(JB)**
- 12 Review 2.180 & 2.185 to consider simplifying into a single text **(DB + JL)**

- 13 Clarify status and recognition of CoPs (in explanatory material) – produce a full concept document that describes and illustrates the principles and the different approaches in JAR-OPS 2 and JAR-OPS 4. **(JL + DB)**
- 14 JIPs - produce guidance to States on how to apply the principles of Registration **(JL+JP+1)**
- 15 Track security policy in EU and ICAO to establish requirement for JAR-OPS 2 **(IBAC)**
- 16 Investigate the request by ACG for incorporation of regulations for the use of microlights/ultralights in aerial work.
- 17 Produce a recommendation about the inclusion/exclusion of Rules of the Air in JAR-OPS 0. **(JL + DB)**
- 18 Produce an analysis **(See Annex B)** summarizing the majority and minority views contained in the comments process and of this plenary committee. **(JL)**
- 19 Subpart F - reference to Rules of the Air. **(JL)**
- 20 Check new third party insurance certificate requirement and advise. **(MR)**
- 21 In addition, the following points were noted for further action:
 - Ops Specs admin and guidance material needed.
 - Learn from Denmark corporate registration example.

Future Progress of Proposed Regulation

The following text is a summary of the comments and views expressed during the production of the comment/response document on the questions posed in the explanatory text and. A more complete oversight of the comments and responses to the individual Parts and Subparts can be seen in the C/R document.

On the structure of the Regulation

The commenters were sharply divided on the structure (the basic model) with the majority in support (most enthusiastically) and a minority totally opposed. The opposition was, in the main, tied to alternative methods of regulation existing in some States.

A number of parties went further than the proposal and suggested that JAR-OPS 0 should be applied to all General Aviation (this was a judgement on the content of JAR-OPS 0 – which was specifically written at this level of application).

Finland; were party to all of the work and agreed unconditionally with the structure.

CAA-N; agreed unconditionally and also indicated that it had the potential for simplifying all Operational JARs.

LFV; initially disagreed with the model as it might interfere with the present working of JAR-OPS 1 & 3; however after discussion they found that they could agree provided that, in the short term, it would not interfere with other JARs and, in the medium term, it became the model for Operational JARs under EU-OPS.

ACG; supported the model provided, as with LFV, it applied to all of General Aviation.

IAOPA; welcomed the regulation as a basis for the regulation of General Aviation in Europe.

Denmark; conditionally agreed with the structure but wanted to see the International Appendix incorporated into JAR-OPS 0.

France; (prior to the discussion with their GA community) wished to have the structure reduced to two JARs – one for Aerial Work and the other for Corporate Aviation. Considered that a regulation for General Aviation still needed to be discussed under the auspices of the EU. However, after it was shown that a guidance document, providing an aggregation of the whole text for Corporate aviation, could be easily produced, the opposition was diluted.

ENAC; disagreed with the structure indicating that it was too complicated; JAR-OPS 0 was (without the international appendix) below the Standard of ICAO; JAR-OPS 2 was below the Standard for passengers carried under JAR-OPS 1; indicated that, in any case, the Standard for International General Aviation was too low for passenger carriage.

LBA; indicated that there was need for further discussion of the structure within the OST.

On the Presentation of the Rules

All commenters except one accepted that the rules subset (numbers and titles) taken from JAR-OPS 1 (whether used or not) should be present. The UK went further and indicated that Subparts that were not used should also be present - commented 'intentionally blank'.

The Equipment Sub-Committee commented that the number and title of rules not used, should not be present.

On the Volume of the Regulation

There was little direct comment on this question.

Industry; commented that the regulation would benefit from the removal of some whole passages. If this were achieved, the remainder does not constitute an overwhelming amount.

On the Explanatory Material

Comment on the explanatory material, when made, was complimentary; indicating for those who had considered it separately, it expressed well the case for the proposal.

Industry; indicated that the explanatory material needed to be permanently captured (as it is in the FAA NPRM process) so that the intent and derivation of the rules will still be understood in the future.

On the Applicability

There were few who did not understand the applicability although there was general criticism that it was a complicated and laboured text. Suggestions were positive and indicated that, if the constituent parts of the proposed regulation were clearly targeted, the applicability could be simplified.

In particular, industry suggested that if the applicability of JAR-OPS 0 was specific to Business Aviation (which included Corporate Aviation) and the applicability of JAR-OPS 2 was confined to Corporate Aviation there could be an elimination of the requirement for the minor operator. (This required that the applicability discriminants for JAR-OPS 2 more clearly describe the conditions that defined the operator – the entity that was responsible for the organisation and management of the safety of operations)

A minority wished to make JAR-OPS 0 applicable to all of General Aviation – one also specifically including ultra-lights.

Industry; considered that the present Applicability was a source of confusion. In part this was due to the inability of the working group to arrive at an accepted definition of Corporate Aviation. The solution lies in more clearly defining the regulated community thus removing the need for devices such as ‘minor operations’.

To resolve this problem it would be better to make JAR-OPS 0 applicable to Business Aviation and only requiring Corporate Aviation to apply JAR-OPS 2.

GAMA; did not support the regulation of operations using US registered aircraft.

IAOPA; had a similar approach that would remove the need for their members conducting business aviation (but not Corporate) not to have to apply JAR-OPS 2.

CAA-N; commented that as operators might be conducting all activities, there was a need for A & GM material to describe adequately the certification and organisational requirements. They also wished to review the carriage of cargo in helicopters to apply JAR-OPS 2 and not JAR-OPS 3.

ENAC; wished to restrict applicability to aircraft on the Register of a JAA member State or subject to a transfer under 83 bis (subject to a written agreement between Authorities); they also felt that any regulation of Corporate Aviation which applied to aircraft other than those registered in a JAA member State would need to be endorsed by the EU.

ACG; strongly recommended that applicability of JAR-OPS 0 be extended to all of General Aviation. The regulation of ultra-lights should also be brought into the regulation.

On Harmonisation

The comment on this issue was confined to not upsetting the balance of Corporate Aviation (as defined and understood by industry world-wide)

Industry; felt that the whole issue of applicability and definitions had to be well described to avoid the loss of harmonisation between the JAA and FAA.

On Maintenance Requirements

In view of the work ECAR-M, Subpart M of the three parts had been reserved and passages referring to maintenance had been generalised to require compliance with ‘applicable rule’.

Several commenters remarked that the interface between these proposed JARs and ECAR-M had to be clarified. It was accepted that the interface might be complicated as it was not clearly understood whether ECAR-M was intended to apply to foreign registered aircraft operating in Europe.

ICAO appeared to indicate that the State of Registry was responsible for maintenance release “the (aircraft) shall not be operated unless it is maintained and released to service under a system acceptable to the State of Registry”.

The Removal of Complexity

The comments on this matter were confined to the removal of certain passages of text that were considered to be superfluous or not proportional. Additionally, a number of commenters indicated that the need for a Corporate operator to have to comply with three Parts (and the International Appendix) could be arduous.

Industry; felt that a number of passages of text was still too closely aligned with JAR-OPS 1 and would be shown to be burdensome - examples are: Subpart E – low visibility operating minima calculation, which could merely be a requirement to apply the accepted standard; night vision imaging systems, which could be removed and placed in guidance elsewhere; and Mass and Balance, which could be simplified.

Safety Oversight

Although not extensively commented, safety oversight was at the basis of many of the comments received on matters such as Registration, equipment standards and regulatory oversight.

For Corporate Aviation, industry generally felt that, providing the regulation was well founded and codes of practice were well defined, the regulator could continue with a light touch policy. A minority of regulators felt that this was unacceptable and the responsibility for safety resided with the regulator: this was a constant theme in the post NPA discussions – does the responsibility for safety reside with the operator or the regulator?

This clearly indicated the divide between the objective and prescriptive positions. The majority clearly understood that with the limited resources available to NAAs, a policy of inspection, assessment, certification, and approval was not an option. (This was also clearly spelled out in the instructions given to the working party and was the basis for the policy of Registration.)

Industry; felt that recognition of operations in accordance with existing Standards such as IS-BAO would ease the problem of the regulatory oversight for NAAs.

ENAC; considered that this was a key element that was missing from the proposal.

Participation of Specialist Committees

As the AWGAS was a committee constituted specifically for this task, it had produced the proposed regulation without the direct assistance of committees that were formed to consider regulations for commercial air transport. This was pointed out by the equipment sub-committee and the LBA.

LBA; questioned whether the technical committees of the OST should be tasked to revise the rules.

Registration of Corporate Operators

The comments on Registration with one exception (**GAMA**; who considered that it placed an undue administrative burden on industry) split the commenters into two groups: those who agreed and those who thought that Certification would be more appropriate.

Note: In order to clarify the issue of Registration, it might be necessary to split the subject into two elements: the process of Registration; and the safety oversight of an operator who had been Registered.

A number of parties indicated that it was not clear what Registration was meant to achieve or how it would be implemented. During the comment/response process, it was accepted that Registration would be acceptable to the majority but would need to be further described and explained.

ENAC and LFV; both supported Certification on the basis that it was already required in those States.

Of those who commented on this issue, the remainder were in support.

Process of Corporate Registration

This question was dealt with in more detail than that of Registration *per se*. Most of the comments contained a description of what the process might/should entail. As described above, for those States that did not have a history of Registration, a detailed explanation might be required.

A minority commented that Registration would not meet their standard required for safety oversight – those who commented along those lines already had a State system of certification for Corporate Aviation (one at least achieving this by fiscal methods).

DGAC; correctly postulated that Registration was a simple administrative procedure under which the operator agreed to comply with the regulation and code-of-practice. The Authority would of course retain the right to audit or inspect to establish that the operation was being carried out as declared. (DGAC also considered that Registration needed to be covered under the ER of EASA.)

LFV; noted that the process of Registration might be in conflict with existing Swedish Aviation Act.

Industry; supported a simple administrative procedure.

UK; also agreed with a simple administrative procedure and also felt that a further simplification of the rule might be achieved.

ACG; felt that a compliance process was needed.

ENAC; commented that Registration does not take into account the responsibility of the Authority and the need for a JAA Safety Oversight Program.

Certification of Aerial Work

As this was not universally commented, it is considered that certification for Aerial Work was generally accepted.

Note: The issue raised by LFV that an AOC would be preferred to an AWC was considered as matter of semantics – the intent of the working party was to clearly distinguish between the processes for CAT and those for AW. Unless this was clear, the same level of certification and oversight would have been assumed.)

DGAC; commented that aerial work might be regulated with a light touch similar to Registration.

LFV; commented that an AOC would be preferable to an AWC.

Codes of Practice

It was obvious from the comments received that, in States where codes of practice are an accepted method of compliance with regulations, the concept was acceptable.

Opposition to the concept (where it manifested itself) was a mixture of not accepting that Registration and codes of practice could meet the requirement for safety oversight, or not quite understanding how it could be applied.

Because there were two distinct applications of codes of practice: one in the form of an acceptable Operations Manual such as the IBAC manual; and the other a code of practice that would be the basis for a functional Aerial Work procedure written into an operators Operations Manual, it was clear that further guidance material was necessary.

Discussions of this subject during the comment/response process concentrated on the provision of guidance on: the production (who and how); acceptance (who and how); ownership (who); and amendment and publication (who and how). It was accepted that for Corporate Aviation at least one code of practice (IBAC with its publication, periodic audit and amendment service) could meet these requirements.

LFV; did not support codes of practice but preferred published ACJ.

DGAC; commented that there were three main methods of publication: the reference is made mandatory – as with SAE Standards; they are published and an AMC to the rule; or the Code is published and the operator encouraged to use it. Clarification should indicate which of these methods was being promoted. Option 3 was preferred in the beginning to broadcast existing codes.

Industry; called attention to the IS-BAO code of practice and suggested that this model might be accepted as compliant with JAR-OPS 2 – if this was accepted, the State might be able to scale down the regulatory oversight.

ACG; commented that the system was acceptable but involvement of the Authority in the production was required. SOPs might be derived from codes of practice (this is more likely in JAR-OPS 4 than JAR-OPS 2).

Addressing of the Regulation

During the production of the proposal, there had been a debate on whether the rules of JAR-OPS 0 should be addressed at the commander or operator etc. Later in the process, it was accepted that the addressing protocol used by ICAO was more appropriate for General Aviation as there

was no understanding of commander or operator (except for maintenance and other areas where owner/holder might be used).

Comments clearly indicated that the rule in JAR-OPS 0 would have to be addressed at the Pilot-in-Command (PIC) except where owner/holder or operator was clearly called for.

CAA; commented that the targeting of the regulation was correct but that the use of Commander needed to be clearer – if used – to avoid a conflict with JAR-OPS 1 & 3.

EQSC, ACG and CAA; commented that the rule should be more clearly addressed and PIC was preferred.

Industry; clearly indicated that in JAR-OPS 0, Commander and Operator be changed to PIC except where Operator is clearly identified.

JIPs

In the comments and during the comment/response process, it was continually stated that there was a need for Joint Implementation Procedures. There were a number of reasons for this need: standardisation of the regulation itself; standardisation of the implementation; and clarification about the interface between the regulated activities and CAT.

Industry members also stated that it was important that a consistent standard be applied as a Corporate Operator could have operating bases in more than one State.

Note: Further reflection on this subject led to the belief that it would be too complex to have more than one Registration – a primary European operating base should be specified and operations to other States would then be conducted under the auspices of ICAO, exercising freedom of Air Navigation under Annex 6 Part II.

Another area which would have to be addressed was approvals: in line with the accepted practice and ICAO procedures, approval for activities such as RVSM and AWOPS were shared between the State of Registry (in the aircraft sense) and the State of the Operator. In CAT is it unusual for these States not to be identical.

It was clear to the working party that where no transfer of responsibility under 83 bis had taken place, operational approvals would be the responsibility of the State of Registry (as provided under ICAO). If an operational approval was not forthcoming from the State of Registry, then a transfer of responsibility under 83 bis, or a transfer of Registry might be required to achieve the approval.

It was also clear to the working party that where a single operating entity utilised aircraft having different States of Registry, the embodiment of operational procedures that arose from operational approval (RVSM, AWOPS etc) should have a common implementation in the Operations Manual. The same might also be true of maintenance procedures.

CAA and IVW highlighted that, in order to achieve standardisation, JIPs would be required both for Registration and for other matters.

ACG; also wanted JIPs to give guidance on the oversight process.

ENAC; also commented that there was a need to provide acceptable methods of compliance with Registration.

Definition of Corporate

There were a number of comments on the definition of Corporate. In the absence of a single agreed definition - during the process of comment response - it was observed that it might be best to craft the applicability without the use of a definition by hard wiring the discriminant(s) for JAR-OPS 2 into the applicability clause. If this is done it would avoid any dispute over any definition and would permit the subject population of JAR-OPS 2 to be defined by function and not by name.

Note: it was generally agreed that there must be continuing work to achieve a single and international agreed definition.

It was also felt that, to avoid complications with the provision of services between groups in the same organisation (and cross charging for the carriage of staff), the relationship up, down and across had to be part of the applicability.

LVF; did not feel that the present definition dealt adequately with the relationships of Corporate.

IVW; preferred the definition produced by AWGAS.

ACG; considered that there had to be a definition agreed with industry.

Definition of Operating Base

With the exception of GAMA, the use of Operating Base was felt to be an extremely useful discriminant. However, in order to ensure that the regulation was not applied to foreign aircraft exercising freedom of Air Navigation under the terms of the Chicago Convention and where no operational control was being exercised in Europe – i.e. there is no European Operating Base, further guidance was required.

This would not affect the definition or intent of the proposed regulation in the use of Operating Base, but would merely reduce the number of grey areas.

GAMA; contended that the definition of Operating Base was too broad (probably a misunderstanding as they considered that a site where flight planning was carried out would have been included).

ACG; supported the definition.

Subpart J

In the A-NPA there was a request for comments on the level of requirements for Subpart J – Mass and Balance. These comments were forthcoming and were divided into two groups: those who thought that the proposed Subpart was acceptable as it was (mainly regulators) and those from industry (including at least one regulator) who considered that the subject should be re-opened.

CAA; considered that the proposed text was appropriate.

Industry; commented that the text, while appropriate for CAT was not well suited for Corporate operations and did not meet the requirement for proportionality. Some of this was due to the lack of text for standard masses and standard procedures. They stated that an objective requirement together with operations manual procedures would suffice.

ACG; commented that the text could be simplified.

GAMTA; volunteered to chair a group to reconsider Subpart J.

QA v SMS

This requirement was commented extensively by industry who showed a preference for Safety Management Systems. Further discussions between industry and Authorities might result in objective rules and appropriate guidance for SMS.

Industry and CAA; commented that ideally, this requirement could be replaced by an objective requirement for a Safety Management System.

ACG: commented that quality systems require substantial guidance.

Applicability for Aerial Work (flight training)

ACG and CAA-N; both commented that flying training is not entirely regulated in JAR-FCL and might benefit from being within the scope of JAR-OPS 0 and 4 using a dual approach; CAA-N commented further that the non-type-related aspects of flying training are not presently regulated and would benefit from operating to the Standards required by JAR-OPS 0 - thus there could be common European standards for the operational aspect of flight training (if common operating rules were accepted).

1. Background

Since the OST workshop in the summer 2002, ENAC has keep raising many serious issues about the philosophy behind JAR-OPS 0, 2 and 4 as well the resulting text. The issues seems to be the unexpected consequence of the very creative approach to the regulation followed by AWGAS.

Those issues have been turned by ENAC into comments during the consultation of A-NPA- OPS 33, but the outcome of this process was unsatisfactory under the ENAC perspective. The major part of the comments have been rejected on a "by-majority" basis rather than using a rationale and complete motivation.

At this point ENAC believes that a concept review of JAR-OPS 0, 2 and 4 is needed in front of OST, in order to find a sound solution of the afore mentioned issues.

Without this concept review ENAC feels that the publication of the present version of JAR-OPS 0, 2 and 4 may result in a series of practical situations not manageable by the Authorities, which - despite AWGAS intention- may adversely affect the level of safety.

2. Applicability of JAR-OPS 0 and 2 to foreign aircraft and operators

According to the A-NPA text, JAR-OPS 0 and 2 would be applicable to both JAA and foreign operators, being the latter those for which JAA Member States are neither State of Registry nor State of Operators. Therefore no operational approval could be issued for those operators under JAR-OPS 0,2 and their operations will be based upon approvals from their State of Registry..

In this case the JAA Registration would include operational approvals issued by third countries, and JAA Authorities will face this uncomfortable situation:

- 1) beside JAR-OPS 0 and 2 each State will have to continue to run a specific regulation for P-RNAV, RNP, ACAS II, RVSM operations of general aviation and corporate aviation;
- 2) JAA State will have no authority, and therefore no control of the JAA member state on the quality of those approvals, while retaining a general responsibility through the registration procedure;

This hardly acceptable from an Authority point of view. Moreover under the same registration process, the level of regulatory safety may be very different. Let's consider the following table:

	Identical JAA Registration - 2 safety standards	
	JAA Operator	Foreign Operator
Airworthiness Regulation	JAA	State of Registry
Type Approval	JAA State	State of Registry
Certificate of Airworthiness	JAA State	State of Registry
Maintenance Program	JAA State	State of Registry
Maintenance	JAR 145 / EASA Part 145	Any!
Flight Crew License	JAR FCL	State of Registry
Crew Training	JAR FCL	State of Registry
Flight Time Limitations	National regulation	National Regulation
Equipment	JAR-OPS 2	JAR OPS 2 (accepted selected items below Annex 6 part II)
Equipment Technical Specifications	JAA TSO/EASA TSO	State of Registry
AW Operations	JAA State	State of Registry (+ Subpart E)
RVSM Approval	JAA State	State of Registry
P-RNAV Approval	JAA State	State of Registry
Operations Manual	JAR-OPS 2 no defined standards (best industrial practice?)	JAR-OPS 2 no defined standards (best industrial practice?)
Operator management structure	Required but no specific requirement: <i>The operator must satisfy itself that the...</i> <i>Note: As far the operator is self-satisfied the requirement is fulfilled...</i>	Required no specific requirement:

Possible solutions:

- a) **Restriction of the JAR-OPS Registration to JAA-registered aircraft while requiring a formal transfer of responsibilities according to article 83bis of Chicago convention for the others;**
- b) **Publication of different Registration for: JAA operators and Foreign operators.**
- c) **Preparation of a specific regulation for foreign operators would be the best solutions, (Note: it does not exist for Commercial Air Transportation yet! ... See also following points)**

3. Mixed Fleets - Operators with aeroplanes registered in different states (see points above)

As a direct consequence of the above mentioned regulatory scheme, the managing of a mixed fleet becomes a serious issue. In exemplum, an EU operator may easily buy two different aircraft of the same type, one registered in Italy, the other in France.

Under JAR-OPS 0 and 2, the two Authorities (Italy and France) maintain over each aircraft the responsibility of approving the maintenance program (EASA part M) and to issue the operational approvals.

Therefore an operator may have for the same type of aircraft two different maintenance programs, two different set of operational procedures, etc.

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Since JAR-OPS 0 and 2 manage aircraft from any part of the world, the situation may become really complicated.

Possible solutions:

Mixed fleet should be allowed only after a formal transfer of responsibility according to Article 83bis of Chicago convention.

4. Definition of Base of Operational Control

JAR-OPS 0 and 2 is going to institute a form of Safety Oversight on Corporate Aviation operator based on the localization of a base where the operator exercises operational control.

The practical identification of such a base is really difficult, especially if it is must be used to prohibit activities (General Aviation Operations) allowed by the Chicago Convention without restriction, and therefore must be demonstrated in front of a judicial court.

Moreover, no similar principle is used in JAR-OPS 1 or 3, even in case of local operations (i.e. HEMS activities). In this way the principle of proportionality is violated.

Possible solution:

Preparation of a general policy valid for all JAA operations (CAT, GA, AW) concerning common safety oversight procedures for operational basis located in a JAA country different from the one issuing the AOC.

5. Equipment Policy

Since the beginning the equipment policy is one of the most controversial issues. JAR OPS 0, 2 and 4 adopt a reduced version of Annex 6 part 2 (Aeroplanes) and Annex 6 Part 3 Section 3 (Helicopters).

According to AWGAS this solution has been chosen for the following reasons:

- a) The ICAO text is used to accommodate the foreign registered aeroplanes.
- b) JAR-OPS 0,2 and 4 is below ICAO standards in those items where a majority of JAA member states is below the requirements, or some prominent foreign State is below the requirements (see VFR night equipment), or where a change in ICAO standard is sought by ICAO working parties, even if no State letter has been produced insofar.

Both ENAC and JAA EQSG questioned this position with comments that still today have received no substantiated answer:

- a) Following strictly ICAO General Aviation standards means that JAA -the second aviation power in the world, with a strong industry- is renouncing to have its policy on equipment. FAA will continue to follow its autonomous policy (see TAWS, TCAS I and II, etc.) while JAA is condemned to stick to ICAO standards. What if European Industry produce a new kind of equipment? We'll have to wait for ICAO to introduce it? What about safety recommendations form European Investigation Agencies?
- b) In some case the same piece of equipment may be defined with different text (see GPWS, TAWS, Flight Recorder);

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- c) ICAO text is an essential requirement directed toward States, while the regulation is an Implementing Rule. The experience accumulated with JAR-OPS 1 implementation shows that the ICAO text is largely unable to define some key equipment (GPWS, TAWS and Flight Recorders);
- d) JAR OPS 0, 2 and 4 is below ICAO in many issues, in some cases with very puzzling effects: for example no portable fire extinguisher is mandate, regardless the size of the aeroplane!
- e) AWGAS does not take into account that FAR 129, which is the FAA rule for foreign operators, mandate the opposite, because it mandates the adoption of USA technical specifications for TCAS II, GPWS, TAWS and reinforced doors, rather than the general ICAO text.

Possible solution:

Introduction of a Subpart K based on the following concepts:

- a) **aircraft with a MCTOM more than 5700 kg: "same size/same number of passengers/same equipment" of JAR-OPS 1 - We are talking about big, or very big, aircraft**
- b) **smaller aircraft with more than six passengers: same number of passenger/same equipment, with controlled exceptions for most prominent items**
- c) **smaller aircraft up to six passengers: Annex 6 part II with some improvement (two altimeters, etc.)**

6. Registration concept and safe operations

JAR-OPS 2 is based on the concept of Registration, a process which seems to be something intermediate between Certification and a simple notification to the Authority. It is understood that the Registration involves some kind of safety responsibility from the Authority, because Registration is a kind of recognition rather than a simple acknowledgement.

ENAC believes that the structure of JAR-OPS 0 and 2 requirements is still very close to the traditional operating codes of requirement, which are based on the Authority review of Operations Manual before the start of operations. Nevertheless JAR-OPS 0 and 2 requirements are less detailed, and this reduced level of requirements, guidance and interpretative material, coupled the objective-base structure of many requirements, may lead to widely different levels of regulatory safety.

JAR OPS 2 does not specify the level of Safety Oversight required by the Authority, and this fact may lead to different behaviors and a different way to discharge the related responsibilities.

It is to be noted that from the registration Subpart two key issues of JAR-OPS 1 and 3 are missing:

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JAR-OPS 1/3.175(f) *An AOC will be varied, suspended or revoked if the Authority is no longer satisfied that the operator can maintain safe operations.*

JAR-OPS 1/3 1040(j) *An operator shall incorporate [in the operations manual] all amendments and revisions required by the Authority.*

Such statements are capital tools for managing safety, and are indispensable when a number of requirements are based on risk assessment/mitigation techniques, and therefore the Authority is called to judge the output of the process in absence of prescriptive requirements.

In absence of such a statement the Authority will be responsible for operations without a regulatory hook to stop them.

Possible solution

- 1) **Publication Joint Implementation procedures to define the process of Registration, defining the role and the responsibility of Authorities;**
- 2) **Insert the following phrases in JAR-OPS 2: The registration will be varied, suspended or revoked if the JAA Authority is no longer satisfied that the operator can maintain safe operations and An operator shall incorporate in the operations manual all amendments and revisions required by the Authority.**

7. Improper use of risk assessment based requirements

JAR-OPS 0, 2 and 4 make extensive use of objective requirements based on risk assessment and mitigation techniques. This approach allows a good flexibility to the system, but in the present form leads to the following drawbacks, contrary to the JAA spirit:

- 1) due to the lack of published guidance material the risk assessment process may greatly differ from operator to operator;
- 2) small entities may not be able to perform risk assessments with the needed quality standards;
- 3) the results of risk assessment may lead to different operational practice and different level of safety;
- 4) Statistical safety data are available only in aggregated form due to the small scale of operations of Corporate operators. Therefore Safety Management Systems cannot use them, due to the lack of uniform conditions. This may lead to a situation where the Authority is unable to manage -from the safety perspective- the system,.
- 5) The Authority has no regulatory means to "disapprove" a risk assessment performed improperly by an operator.

Possible Solutions:

- 1) **Publication of the guidance material procedures for acceptable risk assessment;**
- 2) **Publication of the risk assessment "on top" of prescriptive requirements;**
- 3) **Insertion in JAR-OPS 0, 2 and 4 of the faculty of the Authority to reject risk assessment;**

8. Codes of Practices (COPs)

There's no procedure for individuation of applicable codes of practice. The lack of formal procedure may become a real issue in an international arena, where each State may have its national associations of interested parties.

COPs are by their nature similar to ACJ, and must comply with JAR 11 procedures.

Possible solutions:

- 1) **Publication of guidance material for definition and formal adoption of COPs**

9. JAR-OPS 4 - lack of specific requirements

JAR-OPS 4 gives mainly organizational requirements, but does not provide any specific requirement for aerial work

No common methodology is given to assess the acceptability in terms of risk of Aerial Work practices (example: operations with person suspended outside the helicopter, single engines operations over hostile environment).

The difference in the outcome may influence the cost of intended operations to an extent that safer operators are systematically excluded by the market

No JAA Aerial work common market may be established in Europe before the publication of each specific Code of Practice

Possible solutions

- 1) **Publication of a set of COPs for the most common activities (hook operations, firefighting, aerial surveillance)**
- 2) **Publication of guidance material on acceptable risk in aerial work environment.**