

Electrical Wiring in Relation to the MMEL

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MMEL/MEL Wiring concerns

(JAA presentation to ATSRAC – January 2004)

- Should dispatch with a known wiring fault be deemed to be outside the normal MEL dispatch allowance?
- Should the MMEL/MEL requirements be modified to clarify this point?
- Should physical failures of wiring be considered in the dispatch instructions in support of MMEL/MEL?

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MMEL

- **Authorities approved master list appropriate to a particular aircraft model**
- **Allows airplane operations with temporarily inoperative items of equipment / function while maintaining level of safety based on:**
 - ✓ **Inherent redundancy of the system**
 - ✓ **Specified operational/maintenance procedures**
 - ✓ **In accordance with ICA**

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MMEL (cont'd)

- No requirement to consider the mode of failure (systems rather than component focus)
- Dispatch permitted as a result of OEM's analysis of items associated with the inoperative function to ensure level of safety

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MMEL Dispatch Procedures Document

- Operational and Maintenance procedures necessary to support MMEL items
- Procedures identified to Authorities during MMEL approval process
- Procedures referenced in the MMEL (and published) as guidance for operators

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MMEL Dispatch Procedures Document (cont'd)

- All components of the inoperative system considered including interconnection between equipments (system and component focus)
- Guidance provided for deactivation and securing of inoperative systems prior dispatch
- Procedures specified to prevent possible high current damage e.g.
 - ✓ Pull down and secure circuit breaker
 - ✓ Disconnect and secure electrical connector

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Conclusion

- **Should dispatch with a known wiring fault be deemed to be outside the normal MEL dispatch allowance?**
 - ✓ **Wiring covered in MMEL and dispatch procedures documents**
 - ✓ **Wiring treated as a component of a system**
 - ✓ **Dispatch with inoperative systems permitted by MMEL analysis**
 - ✓ **OEMs believe that wiring is already covered**

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Conclusion (cont'd)

- **Should the MMEL/MEL requirements be modified to clarify this point?**
 - ✓ **All components including wiring considered during analysis procedures**
 - ✓ **OEMs believe that wiring is already covered**

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Conclusion

- **Should physical failures of wiring be considered in the dispatch instructions in support of MMEL/MEL?**
 - ✓ **Dispatch procedures should include procedures to depower the system wiring**
 - ✓ **Dispatch with know wiring fault on powered system should be avoided**
 - ✓ **OEM's review of MMEL and dispatch procedures documents confirmed inoperative systems are depowered before dispatch**

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**JAA MMEL/MEL working group meeting
scheduled 11-14 May, 2004 to consider
wiring in MMEL**