MMEL IG Meeting 78 Agenda
April 28-29, 2010
Chicago, IL

Time	Agenda Item Number	DAY 1 Wednesday, April 28, 2010	Lead
0830-0845	78-01	**Introduction / Administrative Remarks**	Tom Atzert
0845-0900	78-02	**MMEL IG / FOEB Calendar**	Tom Atzert
0900-0915	78-03 78-04	**2009 Final Policy Letters** **MMEL Policy Letter Status Summary**	John Melotte
0915-0930	78-05	**Agenda Item 75-07: FOPB Process Discussion**	Steve Kane
0930-0940	78-06	**Agenda Item 66-07: ATA – MMEL / MEL Value to Industry Survey**	Tom Atzert Mark Lopez
0940-0945	78-07	**PL-1, Wide-body Door / Slide Inoperative - CLOSED** **PL-24, Lavatory Fire Protection - CLOSED** **PL-39, Altitude Alerting System - CLOSED** **PL-40 - New ETOPS Rule - CLOSED** **PL-79, Passenger Seat Cushion Removal - CLOSED** **PL-86, Compliance with MMEL Revs - CLOSED** **PL-96, Galley/Cabin Waste Receptacles - CLOSED** **PL-99, All Cargo Slide Relief - CLOSED** **PL-124, Damaged Window/Windshield – CLOSED** **PL-125 (was VV), Passenger Items - CLOSED**	Tom Atzert
0945-1000	78-08	**Agenda Item 66-15: PL-100, Cargo Restraints Components**	NWA
1000-1030		**BREAK**	
1030-1045	78-09	**Agenda Item 64-10a: PL-98, Navigation Databases**	NDB WG / ALPA
1045-1115	78-10	**Agenda Item 78-10: Nitrogen Gas Generation / Fuel Inerting – Repair Category Discussion**	AFS-260 Mark Lopez
1115-1130	78-11	**Agenda Item 75-18: PL-25, Policy Concerning MMEL Definitions**	Bob Taylor Tim Kane
1130-1145	78-12	**Agenda Item 75-19: PL-104, Overhead Storage Bin(s) / Cabin and Galley Storage Compartments / Closets**	Bryan Watson David L. Robinson
1145-1200	78-13	**Agenda Item 75-20: PL-87, MMEL for Flight Data Recorder (FDR)**	Tom Atzert Steve Kane
1200-1315		**LUNCH**	

MMEL IG Meeting 78 Agenda
April 28-29, 2010
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Time	Agenda Item Number	DAY 1 (Cont'd) Wednesday, April 28, 2010	Lead
1315-1330	78-14	**Agenda Item 75-21: PL-123, Passenger Notice System (Lighted Information Signs)**	Darrel Sheets
1330-1400	78-15	**Agenda Item 78-15: PL-31, MMEL Format Specifications – (Spec #12; Identification of FARs)**	Paul Nordstrom Darrel Sheets Pete Neff
1400-1415	78-16	**Agenda Item 75-24: PL-31, MMEL Format Specification – 'Next-Gen' MMEL Specs**	Walt Hutchings
1415-1430	78-17	**Agenda Item 2003-04: Conversion of FAA MMEL Documents To XML (MMEL Transformation)**	Bob Davis Mark Lopez
1430-1445	78-18	**Agenda Item 70-18: Policy Letter Rewrite: New Format, FAA Branding and incorporate new GC Header**	Mark Lopez Tom Atzert
1445-1500	78-19	**Agenda Item 75-25: Clarify Use of "-" in "Number Installed" Column in Operator MELs**	Tom Atzert David Burk
1500-1530		**BREAK**	
1530-1545	78-20	**Agenda Item 77-25: PL-119, Two-Section MMELs**	JP Dargis
1545-1550	78-21	**Agenda Item 78-21: MMEL Preamble Discussion**	Steve Kane Tom Atzert
1550-1615	78-22	**Agenda Item 78-22: PL-116 & NEF Universal List Discussion**	Steve Kane Tom Atzert Jim Foster
1615-1630	78-23	**New Agenda Item: Airbus EASA MMEL Section 3 Discussion**	Tim Kane Tom Atzert Airbus Rep

MMEL IG Meeting 78 Agenda
April 28-29, 2010
Chicago, IL

Time	Agenda Item Number	DAY 2 Thursday, April 29, 2010	Lead
0730-0735	78-24	**Agenda Item 39-01: FAA / EASA MMEL Harmonization**	FAA
0735-0745	78-25	**Agenda Item 71-29: ASAWG Update**	Dennis Landry
0745-0800	78-26	**Agenda Item 71-15: PL-58, Boom Microphone**	David Burk
0800-0805	78-27	**Agenda Item 60-14: PL-85, Lavatory Door Ashtrays**	Mark Lopez Bob Wagner
0810-0820	78-28	**Agenda Item 67-17: PL-VV (PL-125), Policy for Equipment Required for Passenger Carrying Operations**	Paul Nordstrom
0820-0825	78-29	**Agenda Item 78-29: PL-9, PA / Interphone**	Bob Taylor
0825-0830	78-30	**Agenda Item 78-30: FSIMS 8900.1 Rewrite Project: Volume 4, Chapter 4 (MEL)**	Steve Kane
0830-0845	78-31	**New Agenda Item: Discrete Warning / Caution / Advisory & Other Types of Status Lights**	Tom Atzert
0845-0900	78-32	**New Agenda Item: TCAS: Required to be Operative in Certain Foreign Airspace?**	Tom Atzert
0900-0930		**BREAK**	
0930-0945	78-33	**New Agenda Item: Night Vision Goggles**	Steve Kane
0945-1000	78-34	**New Agenda Item: Capstone Equipment (was PL-115)**	Steve Kane
1000-1030	78-35	**New Business** **1. PL-15, Policy Regarding Continued Operations with Inoperative or Missing Equipment: No mention of 14 CFR 121.628** **2. PL-29: CVR**	Tom Atzert Paul Nordstrom
IG 78 ADJOURN			

MMEL IG Meeting 78 Agenda
April 28-29, 2010
Chicago, IL

AGENDA ITEM DETAILS

Prior to MMEL IG 51, agendas contained all of the minutes on each open agenda item, starting from the inception of that item. This made the agenda package very large and not "user friendly". The agendas now contain what happened only at the last meeting to include action items. However, to make it easy to refresh your memory on what happened at previous meetings, you can refer to "Attachment 00" which contains a history of each open item from the previous minutes on.

We attempt to include draft policy letters with this agenda. However, we do not always have a draft. In addition, sometimes the drafts change between the time we send out the agenda and the time of the meeting.

All attendees are requested to check the FAA KSN web: (http://ksn.faa.gov/km/avr/AFS/afs200/afs200/mmel/default.aspx) or opspecs.com web site a day or two before the meeting to ensure they have the latest drafts of any policy letters to be discussed.

Also, attendees may wish to check the new ATA Member Portal website for the same info: (http://memberportal.airlines.org/Login/Pages/Login.aspx?ReturnUrl=%2fPages%2fdefault.aspx)

Any lead that has not posted the latest draft is requested to bring it electronically and also 50 hard copies.

NOTE: We will no longer divide the agenda into "old" and "new" agenda items. New agenda items may be introduced on the first or second day of the meeting, as the Chairman deems to be appropriate. The idea is to make sure we cover the most important items during the first day.

MMEL IG Meeting 78 Agenda
April 28-29, 2010
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78-01. Introduction / Administrative Remarks

IG-78:

78-02. MMEL IG / FOEB Calendar - **See Agenda 78-02**

Standing Action: Members are to review the calendar and advise the IG Recording Secretary of any changes or updates.

IG-78:

78-03. 2009 Final Policy Letters - See Agenda 78-03

IG-78:

78-04. MMEL Policy Letter Status Summary - See Agenda 78-04

Standing Action: Members are to review the PL Status Matrix and advise John Melotte of any changes – john.melotte@delta.com, or 404-714-6753

IG-78:

78-05. Agenda Item 75-07: FOPB Process Discussion

Objective: Discuss history of FOPB (Flight Operations Policy Board) and the process moving forward.

Item Lead: Tom Atzert

Discussion: MMEL IG participation in the FOPB process is vital to its success.

IG 75 NOTE: Bob Davis is looking at re-establishing the FOPB, an FAA working group to interact with the IG to help with the review and approval processes for our IG documents.

Bryan Watson from the FAA will be on the agenda for the next IG Meeting (76) in Wichita, KS to discuss progress with FOPB.

Tom Atzert will seek assistance from Mark Lopez, Paul Nordstrom and Walt Hutchings to revising the MMEL Agenda Proposal and Coordination Process document to align it with current MMEL document authoring protocol.

IG 76 NOTE: Bob Davis reported that an FAA order needs to be changed prior to re-establishment of the FOPB. He also mentioned a Document Control Board within Flight Standards that would be new (ref FAA Order 8900.3, dated 10/2109: **SUBJ:** Flight Standards Service Document Control Board).

IG-78:

78-06. Agenda Item 66-07: ATA MMEL / MEL Value to Industry Survey

Objective: To determine overall $$ value of MMEL / MEL to industry. Once the value is determined, provide the numbers to upper management via ATA EMMC. The financial contribution the MMEL IG makes to industry is significant and this needs to be communicated properly to upper management.

Item Lead: Tom Atzert

Discussion: Task ATA to provide updated numbers on the value of MELs to our industry.
ATA (Mark Lopez) will work with UA (Tom Atzert) to develop survey that will be used to collect the data needed to determine the value.

IG-74 NOTE: Draft of survey completed, with UAL numbers "crunched." Validation and revision to survey underway. Final version of survey will hopefully be presented by ATA at IG 75 in D.C.

IG 75 NOTE: Mark Lopez said that he should have the final version of the value survey soon. Mark gave a demo of a spreadsheet that will be part of the survey. The spreadsheet auto-calculates the value of an operators MEL as data is input.

Mark reiterated that the 'value' calculated by the spreadsheet is cost avoidance, expressed in dollars. The value is the amount operators would have to spend to fly their existing schedule if the MEL did not exist. Cost avoidance figures relate to additional parts, tooling, manpower and downtime that would be needed to repair systems and equipment, rather than deferring per the MEL.

IG 76 NOTE: Tom Atzert presented a copy of the survey and stated that it is ready to go live, be populated and fed back to the ATA. Mark Lopez will send the survey out to operators.

IG-78:

78-07. CLOSED Agenda Items:

PL-1, Wide-body Door / Slide Inoperative – R4 dated 02/27/2010

PL-24, Lavatory Fire Protection – R4 dated 11/02/2009

PL-39, Altitude Alerting System – R5 dated 01/28/2010

PL-40 - New ETOPS Rule – R2 dated 12/03/2009

PL-79, Passenger Seat Cushion Removal – R7 dated 12/01/2009

PL-86, Compliance with MMEL Revs – R5 dated 01/29/2010

PL-96, Galley/Cabin Waste Receptacles – R2 dated 01/29/2010

PL-99, All Cargo Slide Relief – R2 dated 02/26/2010

PL-124, Damaged Window/Windshield – R0 dated 01/20/2009 (posted 04/02/2010 with minor change)

PL-125 (was VV), Passenger Items – R0 to be posted final

78-08. Agenda Item 66-15: PL-100 Cargo Restraints / W&B - See Agenda 78-08

Objective: Discuss the Repair Category requirement for dispatch with cargo restraint components inoperative.

Item Lead: NWA

Discussion: Florida West International, B767 cargo operator out of Miami, FL, has questioned the need for a repair category for inoperative cargo restraint components. Their argument is that, like the CDL (which has no repair limits), operation with inoperative cargo restraint components is an FAA approved configuration with the necessary weight limitations assigned. Since the configuration is FAA approved, there should be no need to assign a repair category. Florida West has encountered problems with restraint component vendors, causing costly flight interruptions due to the MEL repair requirements. They argue that safety is not compromised when dispatched in the FAA approved configuration. The decision to dispatch with inoperative cargo restraint components is economic in nature. Reduced cargo capacity with inoperative restraint components causes operators to complete repairs as soon as replacement/repaired parts are available.

Comments from opspecs.com:

Mario Gonzalez – Florida West 7/9/2007 This is an update to my previous comment. I also concur with Jim Perella of UPS on removing the C repair category from both items

Carlos Duran – Lan Airlines 5/17/2007 Excellent initiative, the new wording will remove the possibilities of interpretation between the MEL and the W&B/Loading manuals

Jim Perella – UPS 5/7/2007 Need to remove the "C" repair category from both sets of relief in the Policy Letter example.

Mike Krueger – FedEx 6/26/2007 I concur with Jim Perella - UPS Airlines - concerning the repair category

Mario Gonzalez – Florida West 5/12/2007 We support this change as it will help the cargo industry and does not compromise safety in any way.

IG 68 NOTE: Revised proposal sent to AFS-260 to post for review and comment on Opspecs.com.

ITEM CONTINUED NEXT PAGE

Date: 03/24/2008 Comment #PL080320-01.07

By: Patrick Hammer; Freight Runners Express; Chief Pilot printer friendly comment

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We support the change to a category "A" item, but do not believe there is a need to have the "C" repair interval listed as the "A" statement would cover this as well.

Patrick Hammer
Chief Pilot
Freight Runners Express
1901 East Layton Avenue, Milwaukee, WI 53207
(414)-688-1556 cell, (414) 744-5525 office, 1-800-776-5525 toll-free, (414) 744-4850 fax
www.freightrunners.com

Date: 03/24/2008 Comment #PL080320-01.08

By: Mario Gonzalez; Florida West International Airways, Inc.; Director of QC and Engineering printer friendly comment

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Florida West has been working with the MMEL group to change the repair category on this Policy Letter and after reviewing it agrees with the changes made.

Regards,
Mario Gonzalez
Director of QC and Engineering
Florida West International Airways, Inc.
PO Box 025752
Miami, FL 33102
Office: 786-265-2173

IG 72 NOTE: IG recommended R2 D6 go final. Copy submitted to AFS-260.

IG 73 NOTE: Revision 2, Draft 6 was to have gone final per last meeting. George Ceffalo will find out what the hold up is and try to go final as soon as possible.

ITEM CONTINUED NEXT PAGE

IG 74 NOTE: George Ceffalo stated that AFS-300 Maintenance has some problems with repair time of Next Heavy Maintenance Visit. Tom Atzert and Bob Davis recommend a Category "D". Jim Perella recommends keeping it a Category "C" for now and keep pushing for Category "A" – Next Heavy Maintenance Visit. If there is a problem with the wording then many currently published Policy Letters could be in jeopardy. Kevin Peters of FedEx stated that this would be an economic issue for carriers, not a safety of flight issue. It was suggested that this be left on the Agenda until next meeting in DCA where we can get AFS-300 to attend.

IG 75 NOTE: AFS-300 needs a definition of Heavy Maintenance Visit. Reference was made to FAR 121-343 or 8900.1 CHG 0 Vol 6 Chap 11, Section 14 6-2489 (a heavy maintenance check is defined as a "C" check or segment thereof, a "D" check or segment thereof, or other scheduled maintenance visits where structural inspections are accomplished).

Bob Davis will continue to work with AFS-300 to get approval.

IG 76 NOTE: The definition for HMV was discussed. Steve Kane will go to Tom Helman at AFS-300 to discuss. Jim Perella will organize a conference call to discuss. The issue is not use of the term HMV, but the repair interval itself (going all the way to HMV until repairs are made). Jim and Tom Atzert pointed out that the HMV limit will not impact safety in that the alternate loading configuration is per an FAA approved manual. The decision to go all the way to HMV before repairs are made is an economic decision that does not affect safety. Economics will drive operators to complete repairs as soon as practical.

IG-78:

78-09. Agenda Item 64-10a: PL-98, Navigation Databases

Objective: Modify current PL MMEL provisos by removal of proviso b).

Item Lead: ALPA

Discussion: A current navigation database for an FMS/INS aircraft provides the capability for an aircraft to fly point to point (waypoint to waypoint) without being dependent on ground-based Navaids as a back-up navigation source (assuming no operational restrictions on the route being flown, e.g., DME/DME or GPS update). If the database is not current, but a procedure is established for verifying the accuracy of the waypoints being used, as is required per current Proviso "a)" that outlines the requirement of verifying the waypoints (Navigation Fixes), the aircraft will navigate with the exact same accuracy as an aircraft with a current database.

Current Proviso "b)" seems to imply that ground based Navigation Facilities are required to be used for the enroute portion of flight. The use of such facilities is not necessary if all Navigation Fixes are verified to be valid for enroute operations using available aeronautical charts (as is already directed by proviso a). I believe that proviso "b)", as written, should be deleted. If a ground based Navigation Facility is "required" for any particular operation, then current practices require that its status be checked through the Notam system (standard operational procedure). Under this strict interpretation that ground navigation facilities are to be used, aircraft would be restricted to filing standard domestic Airways and not able to operate on oceanic, polar or RNAV routes, or any other operator defined custom routes?

As a minimum, the intent of proviso "b" needs to be clarified, and the wording of the proviso revised.

IG 64 NOTE: A working group will be formed to discuss this issue. Members of this working group are ALPA, NWA, Comair, Gulfstream, Cessna, FedEx. One of the topics to be discussed is whether this should be a MEL Item.

IG 65 NOTE: Revision to PL 98 under consideration.

IG 68 NOTE: Revised proposal sent to AFS-260 to post for review and comment on Opspecs.com.

IG 69 NOTE: The Nav Database working group held a teleconference on April 3. It was decided during the telecom to hold a face-to-face working group meeting after IG 70 adjourns. The goal of the meeting will be to decide on a set of provisos that will ensure an equivalent level of safety is maintained for dispatch with the database out of currency, as well as agreeing on the Repair Interval.

ITEM CONTINUED NEXT PAGE

IG 71 NOTE: PL 98 D9 under review by FAA HQ.

Comments from opspecs.com

John Melotte – Delta – 7/9/2007 Delta definitely does not support ALPA's position on the suggested change to the NAV Database Repair Category change. Our Flight Operations folks reviewed the contents of the discussion and kept asking the same thing, "Exactly how does a change in repair category enhance operational safety?" We feel that operational safety begins in the cockpit when the flight crew cross checks the currency of the NAV databases prior to each departure. Delta currently has several procedures in place should the database be out of currency. One element that we cannot control is the timeliness of delivery of the new databases from the suppliers. Also, Jeppesen charts are updated every 14 days (if there is a change), but the FMS is only updated every 28 days. This implies that there will be times when the charts have more accurate information than the FMS. By forcing us to meet a 3 day guideline we risk grounding aircraft even though the new database may contain the exact same information as the previous one. We definitely feel that more discussion and debate on this topic is needed

Pete Moll – Midwest Airlines 7/8/2007 We are opposed to the category change from C to B. At the Memphis IG meeting, it was understood the category would stay at C, only the proviso would be tweaked

Tim Sullivan – Chantilly Air 7/5/2007 We believe changing this from a C to B repair interval could potentially cause major operational problems and not provide any measurable increase in safety

Bob Taylor – US Airways 7/2/2007 It is my understanding from the discussion in Memphis that the repair category for PL-98 would remain a C. A review of past applications of this MEL at US Airways indicates most repairs take place within 0 to 3 calendar days however, there have been on occasion times when more than 3 calendar days were necessary on the international fleets. Repair categories in excess of 3 days (i.e. category C) are necessary and not unreasonable provided an operator's MEL procedures meet the PL's requirement that they "validate route data for the intended flight from the database that is out of currency against current navigation data".

Tom Atzert – FAA/ATA MMEL IG Co-Chairman 6/29/2007 All comments received to-date will be considered by the full IG at the August meeting in Minneapolis. I had several conversations with the FAA (AFS-260 and AFS-350) about this PL and can tell you they are concerned about providing 10-day relief for nav databases. I've also spoke with an inspector from the Alaska FSDO and he has a completely different perspective: out-of-date databases should be handled via Ops Specs and not by the MMEL, and that alternate procedures and repair limits should be set by the operator in their MEL (via Administrative Control) and approved by the POI. The Alaska FSDO position is that an out-of-date database does not affect the airworthiness of the nav system and therefore is not a candidate for MMEL relief. This may be the correct position from a legal and regulatory compliance standpoint. Obviously, more discussion and debate on this topic is needed.

ITEM CONTINUED NEXT PAGE

Jon Haag – Kraft Foods 6/28/2007 It appears from the discussion that the change is not well received. From a business aviation perspective, I also don't agree with the change. We spend a great deal of time in international flight operations and trying to catch up with the aircraft and the costs involved to upload the FMS Navigation Database would be cost prohibitive. It is not uncommon to be out on a trip for more than 3 days. The current relief is more than adequate and the flight crews are very aware that they need to have or get the latest and greatest NAV charts to get from point A to point B. I have to believe that Part 91K and Part 135 operators would not agree with this change. I have sent this on to NBAA to get their opinion on this matter.

Larry Benedict – FedEx 6/28/2007 I have to agree with the other comments. The agreement that "industry" understood was the proviso change as worded in PL-98 D4, and to maintain a "C" relief. Numerous cases were cited during MMEL IG #66 in Memphis demonstrating the virtual impossibility of being able to comply with "B" relief timeline

Jim Perella – UPS 6/27/2007 UPS does not support the ALPA position on revision 1 draft 4. This draft contradicts everything that was agreed to by the Industry, FAA and ALPA at the last MMEL IG meeting in Memphis. ALPA at the meeting accepted the Industry and FAA position that no change to category relief was necessary. ALPA has ignored this and drafted the Policy Letter with "B" level category relief. The draft example is acceptable with category "C" relief restored but not with category "B" relief

Luke McGarrh – FedEx 6/26/2007 This does not reflect the discussions and elements that transpired at the MMEL IG #66 in Memphis, April 18 regarding the discussion on the Nav Data Base currency issue. We have reviewed it and take exception to the Discussion statement, first sentence that the industry was in agreement with the benefits of revising the repair interval to a B category from current C category. We were not remotely in agreement. Due to the nature of our operations, changing the repair interval to a "B" would be logistically and financially prohibitive

Larry Hills – FedEx 6/26/2007 This does not reflect the discussions and elements that transpired at the MMEL IG #66 in Memphis, April 18 regarding the discussion on the Nav Data Base currency issue. We have reviewed it and take exception to the Discussion statement, first sentence that the industry was in agreement with the benefits of revising the repair interval to a B category from current C category. We were not.

Mike Krueger – FedEx 6/26/2007 D4 does not remotely represent the IG meeting consensus. The consensus was to leave the repair category as C and simplify the proviso language

Bruce Barefoot – Gulfstream 6/28/2007 D4 does not reflect the consensus of the group when the subject was discussed in Memphis. We have Part 91 and 135 operators who are on international trips for several days at a time and in locations where updates may not be available. To change relief from "C" to "B" would increase operating cost and create the potential for loss of revenues for an operator.

ITEM CONTINUED NEXT PAGE

IG 72 NOTE: Revision 1, draft 9 and draft 10 have been posted on the website. Draft 9 was authored by the Flight Operations Policy Board (FOPB). A notice needs to be sent to advise that draft 10 has been posted. Bob Davis got comments from AFS 200 and AFS 400 that the C repair interval category was too long. ALPA, APA and operators were agreeable with a C category and feel that a B category is too short. This would pose an inconvenience for operators who are stuck at far-away stations. THE Current FMS relief is a C category. Jerry Mumfrey proposed that we add provisos that would address missing data in order to address AFS-400's concerns. All members were requested too make their comments on opspecs.com in opposition to the proposed B category. There was also a proposal to merge the two sets of provisos to accommodate routes that included RNAV and non-RNAV procedures or routes. Draft 11 has been submitted to AFS-260 for posting on Opspecs.com for public review.

IG-73 NOTE: In draft 11 of PL-98, Tom Atzert tweaked the NOTE, combined sub-items and changed the repair category back to a "C". Draft 11 is currently on the OPSPECS website for comment. Bob Davis held meetings within the FAA and with AFS-300/400 AEGs. Their position was how best to comply with an equivalent level of safety (Risk Management). Bob was unable to get a total consensus within the FAA. Plans are to have another internal telecon and report back at the next meeting. Dave Stewart asked that the FAA come back at the next meeting with their position on what repair category is appropriate. The IG group consensus is to have a Category "C" for relief. Tom asked group members to comment on the website as the FAA weighs their own internal comments.

IG-74 NOTE: Group recommends that Draft 11 go final. Bob Davis spoke to risk management. FAA view is that "we need to reduce flight crew workload to minimize risk." FAA recommends Category "B" – 3 days if the flight crew manages or Category "C" – 10 days if the company has dispatch / maintenance manage. PL to be re-written by AFS-260 and D12 will be posted for public review and comment on opspecs.com upon its completion.

IG 75 NOTE: Charting expert from FAA HQ spoke to the group about chart changes and their relation to nav database updates. Bob Davis will work with the charting group to add wording to the PL-98 for clarification.

Mark Lopez will resend operator out-of-currency MEL procedures to Bob Davis for review as part of the overall PL-98 revision process. Item was tabled until next IG meeting.

ITEM CONTINUED NEXT PAGE

IG 76 NOTE: Steve Kane reported that there was no update yet. Two new FAA orders about air traffic are in work. There is also an AIM revision about NAV Databases along with the two new FAA Orders. AIM drafts will be posted along with the minutes.

*** Draft 14 of PL-98 is now posted on Opspecs.com. *** Several comments posted ***

IG-78:

78-10. Agenda Item 78-10: Nitrogen Gas Generation / Fuel Inerting – Repair Category Discussion - See Agenda 78-10

Objective: Change to Category D during compliance period, and Category C at compliance deadline.

Item Lead: Mark Lopez, ATA

Discussion: Mark has been in discussions with ACO concerning Repair Category.

IG-78:

78-11. Agenda Item: PL-25, Policy Concerning MMEL Definitions - See Agenda 78-11

Objective: To revise coverage for Airbus Electronic Fault Alerting Systems in Definition 23; correct definition 1.e and add new definition for HMV.

Item Lead: Tom Atzert

Discussion:

1. Airbus FOEB Chairman signed off on Airbus Def #23c
2. Minor correction to rev bar requirement in Def #1.e
3. Much discussion at IG meeting concerning use of acronym HMV in MMELs. AFS-300 agreed to latest proposal. New Def #31 added.

78-12. New Agenda Item: PL-104 Overhead Storage Bin(s)/Cabin and Galley Storage Compartments/Closets – See Agenda 78-12

Objective: Add relief for Hinged Door(s) and Retractable Door(s).

Item Lead: David L. Robinson, SEA AEG

Discussion: The current policy letter does not provide relief for hinged or retractable door(s) such as those on the EMB-135/145.

IG 75 NOTE: David Robinson was not in attendance. Item will be tabled until next IG meeting.

IG 76 NOTE: Item tabled. Bryan Watson to coordinate with the author on new proposal.

IG-78:

78-13. Agenda Item 75-20: PL-87, Master Minimum Equipment list (MMEL) for Flight Data Recorder (FDR) - See Agenda 78-13

Objective: Review current PL for possible revision.

Item Lead: David L. Robinson, SEA AEG

Discussion: The "Number Required for Dispatch" designators for each proviso set are confusing. Some of them are hyphens where they may possibly need to be ones and vice-versa.

IG 75 NOTE: AFS-260 will review PL-87 in response to a Safety Rec submitted by a field inspector having concerns with 20-day relief for required DFDR parameters.

IG 76 NOTE: PL-87 R9, D2 presented. This limits the number of required parameters that can be inoperative under second relief option. D2 aligns FAA PL with Transport Canada and EASA policy. D2 also clarifies the PL is applicable to both FDR and CVFDR installations (FedEx request).

Final draft of PL-87 sent to George for coordination on 11/18.

IG-78:

78-14. Agenda Item 75-21: PL-123, Passenger Notice System (Lighted Information Signs) - See Agenda 78-14

Objective: Clarify PL as it pertains to operations other than 14 CFR Part 121 and 135 with less than 19 seats – see below.

Item Lead: Gene Hartman, LGB AEG

Discussion: This policy letter is applicable to 121 air carriers, and 135 air carriers operating aircraft with more than 19 passenger seats. It does not provide useable relief for 135 operators who operate aircraft with less than 19 seats.

1. Most 135 aircraft with less than 19 seats are not required to have a flight attendant or cabin hostess. Nor are they required under 135.150 to have a PA system.

2. Because some of these aircraft have fewer seats, (in some cases only 4-6 passenger seats), only 1 "Fasten Seat Belt" or "No Smoking" may be installed on the aircraft. Therefore Proviso 1 is not appropriate. Limited availability of seating could also pose a problem.

3. Also because many 135 aircraft do not have a PA system because of less than 19 seats, Proviso 2 is not appropriate.

4. And, because, cargo configurations are not applicable to many 135 aircraft, Proviso 3 is not appropriate.

That leaves the proviso that addresses Part 19 aircraft without PA systems or Cabin Crew. This proviso should pertain to Part 91 operations and Part 135 operations in aircraft with 19 seats or less and without a required cabin crew (which is the vast majority of 135 operations).

"(O) May be inoperative provided alternate procedures are established and used to notify cabin occupants."

Right now, the way I read this Policy Letter, it handicaps many small 135 operators.

Stephen L. Ford
Federal Aviation Administration
Long Beach Aircraft Evaluation Group

IG 75 NOTE: Darrel Sheets will take the lead on this and work on a re-write.

IG 76 NOTE: Formatting was discussed. Darrell Sheets has PL in work and has sent to Tom Atzert.

IG-78:

78-15. Agenda Item 70-12: PL-31 MMEL Format Specifications; Spec #12; Identification of FARs- See Agenda 78-15a & 78-15b

Objective: Revise PL-31 Spec #12 to address identification of specific FAR references in MMELs

Item Leads: Paul Nordstrom, Darrel Sheets, Pete Neff

Discussion: Recent change to PL-31 required insertion of specific FAR reference in certain MMELs with "As required by FAR" in Remarks or Exception column. Many members objected to the PL change and offered suitable alternative suggestion, which basically adds a list of specific FAR references and the associated MMEL relief item as Appendix A to PL-31. This will facilitate operator MEL development and the FAA inspector MEL review and approval process.

78-16. Agenda Item 75-24: PL-31 MMEL Format Specifications – "Next-Gen" MMEL Specs

Objective: Align PL-31 with new XML MMEL product.

Item Lead: Walt Hutchings, MKC AEG

Discussion:

IG 75 NOTE: Walt Hutchings reported on the progress of the new FAA XML Schema. Testing is in progress at the FAA. Walt hopes to do a presentation at the next IG meeting in Wichita. It was discussed that we will need to revise PL-31 to align with the new schema and authoring protocol.

IG 76 NOTE: No updates. More to come after first FAA XML schema is launched.

IG-78:

78-17. Agenda 2003-04: Conversion of FAA MMEL Documents to XML (MMEL Transformation)

Objective: To streamline the process of formatting MMELs to upload on FAA server.

Item Leads: AFS-260 / Tom Atzert

Discussion: Working Group formed to develop MMEL XML schema. Group is to report progress at each IG meeting.

FAA will discuss short-term (convert MMELs to MS Word in tables format) solution of MMEL authoring challenges.

IG 72 NOTE: Bob Davis reported that the FAA mainframe is now shut down. The FSIMS website will host MMELs and Policy Letters and will have an e-mail notification function. He also stated that MMELs should be available on the new website within a few months.

IG 73 NOTE: Mark Lopez reported that CDG – Continental Data Graphics, a company that converts documents, will speak with Bob Davis to get some FAA-AQS contacts and XML experts to possibly begin working on a new format.

IG-74 NOTE: Mark Lopez at ATA is setting up a meeting in mid-May in Oklahoma City to discuss XML possibilities.

IG 75 NOTE: ATA e-business formed the MMEL Project Team, which has been tasked with developing a more robust MMEL XML schema that will provide data exchange capabilities. Project team met in OKC with FAA to discuss XML possibilities and direction. Representatives from Boeing, Airbus, Delta, United, JetBlue and Southwest attended. The second meeting was held recently in DC at ATA headquarters. The next meeting is to be hosted by Airbus and is planned for this October in Toulouse, France.

Walt Hutchings reported on the progress of the new FAA XML Schema. Testing is in progress at the FAA. Walt hopes to do a presentation at the next IG meeting in Wichita.

IG 76 NOTE: Bob Davis reported that testing so far has been successful. Industry MMEL Project Team (ATA e-business sponsored team) is working on an industry XML MMEL schema. Progress made at meeting in Toulouse, hosted by Airbus. Work continues, further updates to come.

IG 78 NOTE: Walt Hutchings reports that operator MEL compliance tracking and reporting functionality has been tested and soon to be deployed. Notice that will go out to field offices has been written, and is awaiting final coordination before sending out. AEG authoring/publication tools about two thirds complete.

IG-78:

78-18. Agenda Item 70-18: Policy Letter Rewrite: New format with FAA branding and incorporate new GC Header

Objective: 1) Adopt new PL format w/FAA branding, and 2) incorporate new GC header.

Item Lead: AFS-260 Bob Davis, Tom Atzert

Discussion: AFS-260 has begun to use a new PL format that improves readability and standardizes the manner in which PLs are authored. This new format should be rolled to existing PLs. In addition, with the release of revised PL-59 (Global Change), PLs designated as GC should incorporate the new header.

IG 70 NOTE: PL Working Group held conference call to discuss/refine objectives, issued final PL assignments. New PL format developed and approved by AFS-260 and distributed to W/G.

IG 72 NOTE: Mark Lopez reported that some proposals have been received for archiving and they have been posted on opspecs.com for comment. January 28-29, 2009 is the target for submissions and Working Group members are requested to send their revised PLs to Mark Lopez. Mark suggested that the Working Group have a web meeting on December 5th to go over the revised PLs. He further suggested that we have a meeting on January 27th, 2009 in PHX before IG 73 around 1 pm. Mark will advise and confirm later about the meeting in PHX depending upon how many of the reviewers would be able to attend.

IG-73 NOTE: The PL working group recommended 19 (total) PLs recommended for action. Of those, 13 are recommended for archiving via incorporation into 8900.10, which belongs to AFS-1, and 6 PLs that can be deleted / canceled. 8 PLs still need to be submitted / reviewed. There are 89 total PLs and of those 71 have been revised to the new format. Below is a list of the recommendations and some of the comments received. Please see attached file for summation.

PL Reformat W/G Recommends the Following Action for these PLs:

PL-6 (Digital Engine Tachometer Certification Guidance) - Certification issue - Guidance i.e. PL-6 put in same place.

PL-11 (Part 23 Fuel Pressure Indications): This PL should be deleted / canceled as this PL is more restrictive than what is required by FAR (14 CFR) 23.1305.

PL-16 (Operations (O) and Maintenance (M) Procedures): 8900 Guidance is available.

PL-27 (Electrical Systems-two engine A/C): This is basic airmanship – Can be canceled.

PL-33 (Pax Convenience Items): No longer applicable due to NEF.

PL-36 (**FAR Pt 91 MEL Approval)**: Information contained in preamble to PL 34.

PL-46 (Standard and Interim Revisions): Only change since original issued in 1990 is the reformat from 1997. Recommend relocation to 8900.

ITEM CONTINUED NEXT PAGE

PL-47 (Megaphones): This PL should be incorporated into 8900.

PL-65 (Cargo Provisions for Cargo Ops): 8900 Guidance available.

PL-68 (Use of Additional (M) and (O) Symbols in Operators' MEL): Only change since original issued in 1993 is the reformat from 1997. Recommend relocation to 8900.

PL-69 (**External Door Indicating System):** PL is specific to one kind of door and can be canceled

PL-70 (**Definitions Required in MELs) –** Delete Pax Convenience Item definition (only).

PL-71 (Policy Concerning Configurations and Fleet Approvals): Was incorporated into PL-25 by Revision 6 dated 1/31/95.

PL-81 (MEL and CDL Operator Procedures): Information included in 8900.1 Volume 4, Chapter 4 Section 4-878.

PL-82 (Use of "Operative" Terminology in MELs): Only change since original issued in 1996 is the reformat from 1997. Recommend relocation to 8900.

PL-85 (Lav Door Ashtrays): MMEL relief is per AD 74-08-09 R2, not the PL.

PL-88 (Air Carrier Handling of Discrepancies Discovered After "Blocking Out"…): This PL should be archived because this policy is now included in 8900.1, Volume 4, Chapter 4, section 4-629 E.

PL-92 (Parking Brakes): No revisions have been issued, still in original form dated 1982. Recommend PL to be archived.

PL-107 (Inoperative APU Generator): Was published because of an issue with the Fokker FOEB Chairman and has since gone away

PL-115 (Capstone-Alaska): Incorporation of Chelton EFIS into MMEL should be complete – can be archived.

IG-74 NOTE: Bob Davis is working on which Policy Letters that are remaining to go to 8900. The FAA felt that 20 Policy Letters were obsolete, should be archived or removed for inactivity.

IG 75 NOTE: Mark Lopez discussed IG Policy Letter review. Group is still working on this project. Mark asked for a volunteer to pick up Jim Foster's 8 Policy Letters for reviewing. Kevin Peters at FedEx volunteered.

IG 76 NOTE: Tom Atzert updated the group on rebranding and reformatting. Sorted into several "buckets". **1.** Reformatted with no change. **2.** Reformatted, but needs rewrite. **3.** Archived. **4.** PL into 8900. George Ceffalo mentioned that he has received Policy Letters from Mark Lopez and that reformatting can move forward.

IG-78:

78-19. Agenda Item 75-25: Clarify Use of "-" in "Number Installed" Column in Operator MELs

Objective: Clarify the use of "-" in "Number Installed" column in operator MELs.

Item Lead: Tom Atzert, UAL

Discussion: Many in the industry contend that there are many items where a "-" in the "Number Installed" column of operator MELs is appropriate.

IG 75 NOTE: Tom Atzert and David Burk agreed to draft proposal for 8900.1 that will allow use of "-" in operator MELs for certain items like Flight Deck Lighting, Cabin Lighting, Storage Compartments, and others where the dispatch limitations are clearly delineated in the Remarks or Exceptions column. For these type of items, the requirement to have a hard number in the "number installed" column serves no purpose.

IG 76 NOTE: Tom Atzert and David Burk are working on a proposed change for 8900. Tabled.

IG-78:

78-20. Agenda 77-25: PL-119 – Two Section MMELs– See Agenda 78-20

Objective: Revise PL to add Part 135 applicability.

Item Lead: JP Dargis (Bombardier)

Discussion: Previous release of PL allow Section Two (CAS Message Relief) of Two-Section MMELs to e used by Part 91 operators only. Goal is to introduce Two-Section MMELs to Part 135 operators.

78-21. New Agenda Item: MMEL Preamble Discussions

Objective:

Item Lead: Tom Atzert, UAL

Discussion:

- AFS-260 has received input from Field Inspectors and Operators expressing concern and confusion with having two separate MMEL Preambles
- AEGs have also expressed concerns with the workload associated with maintaining two separate MMELs for aircraft types that are operated Part 91 as well as Parts 135
- FAA has suggested that combing the two Preambles is the best solution
- MMEL IG has submitted an alternative solution.

IG 78 NOTE: AFS-260 accepted MMEL IG alternative solution reviewed at IG 77. Agenda item will remain open until Preamble issue is closed.

78-22. Agenda Item 78-22: NEF Universal List Discussion– See Agenda 78-22a & 78-22b

Objective: Clarify PL-116 and FSIMS 8900.1 NEF Guidance concerning items that are candidates for inclusion in operator NEF Programs.

Item Lead: Tom Atzert, Jim Foster

Discussion:

- AFS-260 has been receiving reports of inconsistent application of NEF Guidance; some items being added to list should not be.
- One operator has expressed concerns to the IG about items like Potable Water Quantity Indicators and Potable Water and Toilet Service Dust cover caps for service ports being on the List
- Jim Foster and Tom Atzert had previously agreed to audit List and make recommendations.

78-23. New Agenda Item: Airbus EASA MMEL Section 3 Discussion

Objective: Make MMEL IG members aware of Airbus plans to remove Section 3 (Recommended MEL Maintenance Procedures) from the EASA MMEL.

Item Lead: Tom Atzert, Tim Kane, Airbus Rep

Discussion: Operators have expressed concern to Airbus re: their plans to delete Section 3. MMEL IG decided to elevate the discussion.

78-24. Agenda 39-01: FAA / EASA MMEL Harmonization

Objective: Monitor the status of FAA/EASA Harmonization initiatives regarding MMELs.

Item Lead: Jim Foster (FAA AEG/SEA)

Discussion: FAA MMEL Procedures Manual discussed at IG 60. AEG SEA and AFS 260 will review the FAA MMEL Procedures Manual and report back to the IG.

IG requests this manual be formally accepted as FAA policy.

IG 68 NOTE: MMEL IG will be represented at EASA MMEL SG Meeting in Cologne, Germany Dec 18-19. Tom Atzert will attend and provide overview of EASA meeting.

IG-73 NOTE: Jim Foster had nothing new to report. Thierry Vandendorpe from EASA spoke about Operational Certificate Data (OCD) NPA and the CSS MMEL.

IG-74 NOTE: Jim Foster was not in attendance and the FAA had nothing to report.

IG 75 NOTE: Colin Hancock from EASA briefed the group. JAA has closed out as of June 30, 2009. Manufacturers must use an application form from the EASA website for MMEL changes or additions. EASA still sends the information to the National Civil Aviation Authority for final approval.

IG 76 NOTE: Thierry Vandendorpe from EASA spoke about development of a Policy Letter book for implementation in 2012.

IG-78:

78-25. Agenda Item 71-29: ASAWG Update - See Agenda 78-25

Objective: To provide update on ASAWG activities

Item Lead: Dennis Landry

Discussion: At IG 70, Dennis Landry showed us a PowerPoint presentation on the Airplane-level Safety Analysis Working Group (ASAWG). This is a panel of engineers and risk experts who are looking into risk assessments pertaining to MMELs. Dennis Landry will keep us updated on the progress of the ASAWG meetings.

IG 72 NOTE: Paul Nordstrom gave us an update on the ASAWG's recent meeting in Wichita. A PowerPoint presentation was given and Colin Hancock from EASA added that the term "CS-MMEL" in the PowerPoint presentation refers to EASA's input.

IG 73 NOTE: Paul Nordstrom from Boeing and Christophe Giraudeau from Dassault are tweaking the language in the proposed guidance. They hope to have an update ready for the next IG meeting in April.

IG-74 NOTE: Paul Nordstrom provided update. Dennis Landry was not in attendance at this meeting.

IG 75 NOTE: Paul Nordstrom reported that there was a meeting in Cedar Rapids last month. There is still a push from the ASAWG group to use quantitative analysis / assessments for MMEL approval of new items.

IG 76 NOTE: CW Robertson from Cessna gave informative presentation on MMEL risk assessments as it pertains to the work being done by ASAWG. For more info, contact CW @ 316-517-1891 or cwrobertson@cessna.textron.com

IG-78:

78-26. Agenda Item 71-15: PL-58 Boom Microphone

Item Lead: David Burk

Discussion: David Burk proposed revision to PL-58 to address non-certificated operators (Part 91).

IG 72 NOTE: David Burk was unable to attend IG-72 and requested that this agenda item be deferred to IG 73.

IG-73 NOTE: David Burk requested that this item be tabled until the next meeting in Orlando. More research is needed on the regulations before moving forward. It was suggested that Draft 2 be removed from the website for now.

IG-74 NOTE: David Burk requested this be tabled again.

IG 75 NOTE: David Burk is still working on his proposal. It will be ready for the next IG meeting.

IG 76 NOTE: Tabled.

IG-78:

78-27. Agenda: 60-14: PL-85, Lavatory Door Ashtrays

Objective: To determine whether or not to pursue a change to AD 74-08-09 R2

Item Lead: Tom Atzert, R. Wagner

Discussion: Qantas has requested a change to PL-85 and AD 74-08-09 R2 based on the fact that most airlines, if not all, are operating non-smoking flights. They feel that the interior ashtray is more essential than the exterior ashtray. DAL had submitted a proposal to the FAA to revise the AD in order to give maximum flexibility to the operators. FAA rejected the proposals saying that people will smoke regardless of the operating rule. On-demand air taxi and non-certificated operations (i.e. Part 91) may still allow smoking on board and, on those airplanes, lav door ashtrays are airworthiness/safety items. AD 74-08-09 R2 applies to all transport category airplanes, not just Part 121 passenger carrying operations. Seattle AEG agreed to discuss with ACO the possibility of revision to AD 74-08-09R2.

IG 64 NOTE: This has not been a problem for US carriers yet. No progress made yet on revising AD. Need feedback from SEA AEG on status.

IG 65 NOTE: Seattle AEG to have further discussion with ACO regarding the AD.

IG 66 NOTE: SEA ACO agreed to revise AD. Coordination with MMEL IG to take place before AD moves to NPRM status.

IG 67 NOTE: Bob Wagner was to review previous ACO/AEG proposal and provide suggestions.

IG 68 NOTE: Bob Wagner forwarded proposed AD revision (Para d) to Jim Foster/SEA AEG.

IG 70 NOTE: From Mark Lopez:

To all,

I called Ali Barahmi's office yesterday and received a return call from Alan Sinclair who is the FAA person responsible for this AD. I spoke with Alan and he mentioned the proposed revision to the AD, which would provide 3 days relief for more than one lavatory ashtray missing is in fact on his desk and drafted.

That being said, he mentioned the Transport Airplane Directorate (TAD) is basically on a "freeze" for revision submittals unless they are safety related (severe resource limitation). He stated the FAA legal has a long list of backlog items; one in particular is a Part 25 Cabin Equipment AC which Alan deemed much more important than this AD change request. He mentioned the draft AC has been on legal's desk for six months and keeps moving to the bottom based on other safety related items moving to the top.

Long story short is he had no estimate as to when the rule change might be published.

That's the update . . .

ITEM CONTINUED NEXT PAGE

IG 72 NOTE: Mark Lopez reported that this is still in work but at bottom of the ACO's list of priorities. The ACO has put a freeze on these activities unless they are safety related. Mark Lopez will follow-up in December and report at the next meeting.

IG-73 NOTE: Mark Lopez reported that this item is pretty much where it was at his last update. Alan Sinclair from the ACO stated that unless the revision to the FAR is safety critical (sensitive), it will be put on hold due to resources. Also, the new president has suspended any new rulemaking for now.

IG-74 NOTE: Mark Lopez had no updates at this time. Post meeting he obtained some additional SACO contact names (supervisors, etc.) and will call them for an update and report at IG 75 in D.C.

IG 75 NOTE: Mark Lopez asked the group (airline members) to look into how many onboard smoking events they have had this past year and report the results to him.

Several airlines provided data to Mark, who provided it to ACO.

IG 76 NOTE: Mark Lopez advises progress being made with the ACO toward getting the AD revised. Smoking occurrence data (requested by ACO) has been sent to Mark Lopez.

IG-78:

78-28. Agenda Item 67-17: PL-VV Policy for Equipment Required for Passenger Carrying Operations

Item Lead: Paul Nordstrom

Discussion: Paul Nordstrom raised the issue of Passenger Carrying Requirements in FAR 121.583. Previous agenda item 57-25 had the objective to determine if FAR 121.583 allows for carriage of revenue cargo. Ric Mabie was waiting for letter from Jerry Ostronic. No response from FAA on this and issue closed for now. Paul will propose a proviso (No passengers are carried) to be added to PL items required for passengers that would allow flight to only carry cargo (remains a passenger operation) and present them at next meeting. Dan Leduc will forward to Paul existing Transport Canada policy guidance on similar items

IG 68 NOTE: Revised proposal sent to AFS-260 to post for review and comment on Opspecs.com.

IG 71 NOTE: D5 sent to AFS-260 for posting on Opspecs.com for review and comment.

IG 72 NOTE: This item is still on the Draft Section of the OPSPECS website and no comments have been made. AFS-260 has been requested to post R0 D6 as final.

IG-73 NOTE: Bob Davis reported that he is receiving a lot of negative feedback in Washington on the "19" passenger provision in the PL. The FAA in Washington would like to see "0" passengers. A conference call with HQ personnel and interested IG members would help alleviate concerns with the proposed PL. Tom Atzert suggested to Bob Davis that a conference call be set up.

IG-74 NOTE: Bob Davis said that FAA Washington was still reviewing and that they had suggested changing the word "passengers" to "authorized persons". Also, there was a lot of pushback on supernumerary terminology. Bob Davis will try to get the folks in Washington that are against this to show up at the next IG meeting in DCA to express their concerns.

IG 75 NOTE: Jodi Baker, FAA Cabin Safety Specialist, was briefed by Paul Nordstrom on this item. She is going to take this PL proposal to AFS-200 for further review and research and get report back to the IG.

IG 76 NOTE: Steve Kane reported that Jodi Baker was discussing this with General Council and that we should have the FAA decision at the next meeting.

IG 78 NOTE: PL-125 expected to go final prior to IG 78.

IG-78:

78-29. New Agenda Item: PL-9 PA / Interphone - See Agenda 78-29

Objective: Bob Taylor, US Airways, is proposing a revision to correct copy / paste errors introduced into PL @ Rev 8

Item Lead: Bob Taylor, US Airways

Discussion:

IG 78 NOTE: PL-9 expected to go final prior to IG 78.

78-30. Agenda Item 78-30: FSIMS 8900.1 Rewrite Project: Volume 4, Chapter 4 (MEL)

Objective: Improve and clarify content of MEL Sections of 8900.1.

Item Lead: Steve Kane

Discussion: Industry and FAA inspectors continue to struggle with intent of various portions of 8900.1 MEL guidance.

IG 78 NOTE: Steve Kane advises that tentative start date for project is June, 2010.

78-31. New Agenda Item: Discrete Warning / Caution / Advisory & Other Types of Status Lights - See Agenda 78-31

Objective: Identify best method for deferring failures of bulbs in multi-bulb annunciators and switch lights.

Item Lead: Tom Atzert

Discussion: AMTs reportedly incorrectly deferring Discrete Warning / Caution / Advisory & Other Types of Status Lights using Cockpit and Instrument Lighting System MEL item.

78-32. New Agenda Item: TCAS: Required to be Operative in Certain Foreign Airspace? - See Agenda 78-32

Objective: Determine foreign country requirements for operative TCAS (China, Japan, Australia, etc).

Item Lead: Tom Atzert

Discussion: IFALPA reports TCAS required to be operative in certain foreign airspace and says flight crews subject to fines if TCAS on MEL and special permission to operate not obtained. Apparently waivers can be obtained, but the method to obtain the waiver is a mystery.

78-33. New Agenda Item: Night Vision Goggles

Objective:

Item Lead: Steve Kane

Discussion:

78-34. New Agenda Item: Capstone Equipment (was PL-115)

Objective:

Item Lead: Steve Kane

Discussion:

78-35. New Business:

1. PL-15: No mention of 14 CFR 121.628

2. PL-29: CVR

AIR TRANSPORT ASSOCIATION
AIRLINE INDUSTRY MMEL INDUSTRY GROUP

MMEL IG Calendar, Revision 78, as of March 2, 2010
(Provide corrections/additions to Bob Wagner - robert.wagner@delta.com or MMEL IG Corresponding Secretary John Melotte - john.melotte@delta.com)
2010

Currently Scheduled Date	Originally Planned Date(s)	Cause of Delay	Pre-Meeting	Type Meeting	Host / Lead Airline	MMEL Rev Date	DDG Pub Date	Remarks
Jan 6-7				**MMEL IG 77**	Comair			Cincinnati
Jan 20-22				CRJ FOEB	FAA AEG			Long Beach
April 28-29				**MMEL IG 78**	UAL			Chicago
Aug - TBD				**MMEL IG 79**	**FAA**			**Washington DC**
Aug 3-6				B747-8 Industry	Boeing			Seattle
Aug 31 – Sep 3				B787 Industry	Boeing/Delta			Seattle
Sep 21-24				B747-8 FOEB	Boeing			Seattle
Sep 28 – Oct 1				B787 FOEB	Boeing/Delta			Seattle
Nov 3 – 4				**MMEL IG 80**	JetBlue			Orlando

AIR TRANSPORT ASSOCIATION
AIRLINE INDUSTRY MMEL INDUSTRY GROUP

2011

Currently Scheduled Date	Originally Planned Date(s)	Cause of Delay	Pre-Meeting	Type Meeting	Host / Lead Airline	MMEL Rev Date	DDG Pub Date	Remarks
TBD				**MMEL IG 81**	Southwest			Dallas
Feb 15 - 17				BD-700-1A10/11 FOEB	Global Express			Long Beach
TBD				**MMEL IG 82**	Delta			**???**
TBD				**MMEL IG 83**	FAA / ATA			Washington DC
TBD				**MMEL IG 84**	American			Tulsa

FINAL FAA Policy Letters Issued in 2010

As of April 7, 2010

PL NUMBER & REVISION #	TITLE	DATE
PL-1	Wide-body Door / Slide Inoperative – R4	02/27/2010
PL-39	Altitude Alerting System – R5	01/28/2010
PL-40	New ETOPS Rule – R2	12/03/2009
PL-79	Passenger Seat – R7 1	2/01/2009
PL-86	Compliance with MMEL Revs – R5	01/29/2010
PL-96	Galley/Cabin Waste Receptacles – R2	01/29/2010
PL-99	All Cargo Slide Relief – R2	02/26/2010
PL-124	Damaged Window/Windshield – R0 (posted 04/02/2010 with minor change)	01/20/2009
PL-125		

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

CURRENT POLICY LETTERS IN EFFECT			
PL NO.	**REV NO.**	**DATE**	**SUBJECT**
1	3	Jan 04, 08	Operation of Wide-Body Jets with Door/Slide Inoperative
2	1	Aug 15, 97	Aural and Visual Speed Warning Policy
3	1	Aug 15, 97	DME Systems MMEL Policy
4			ARCHIVED
5	1	Aug 15, 97	Takeoff Warning Systems
6	1	Aug 15, 97	Certification Guidance for Digital Engine Tachometers
7			ARCHIVED
8			ARCHIVED
9	8	Jan 20, 09	Public Address System
10	1	Aug 15, 97	Magnetic Compass System
11	1	Aug 15, 97	FAR Part 23.1305(g) Fuel Pressure Indicators
12			ARCHIVED
13	1	Aug 15, 97	Oil Temperature and Pressure Instrument MEL Policy
14			ARCHIVED
15	1	July 26, 04	Policy Regarding Continued Operations with Inoperative or Missing Equipment
16			Operations ("O") and Maintenance ("M") Procedures and Standardization – Transferred to 8900.1
17			ARCHIVED
18			ARCHIVED
19			ARCHIVED
20			ARCHIVED
21			ARCHIVED
22			ARCHIVED
23			ARCHIVED
24	3	Nov 02, 09	Lavatory Fire Protection
25	14	Nov 02, 09	Policy Concerning MMEL Definitions
26	1	Aug 15, 97	Thrust Reversers On Small Turbojet Airplanes
27	1	Aug 15, 97	Electrical System Requirements for Two-engine Airplanes
28			ARCHIVED
29	4	Sep 15, 04	Master Minimum Equipment List (MMEL) Requirements for Cockpit Voice Recorder (CVR)
30	1	Aug 15, 97	Flight Instruments in the Basic "T" MMEL Policy
31	1	Oct 15, 97	MMEL Format Specification
32	7	July 07, 06	Policy Regarding Traffic Alert Collision Avoidance System (TCAS)
33	3	June 25, 01	Policy Regarding MMEL Relief for Passenger Convenience Items in Master Minimum Equipment List
34	4	Aug 15, 97	MMEL and MEL Preamble
35			ARCHIVED

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

CURRENT POLICY LETTERS IN EFFECT			
PL NO.	**REV NO.**	**DATE**	**SUBJECT**
36	2	Aug 15, 97	FAR Part 91 MEL Approval
37			ARCHIVED
38	1	Aug 15, 97	Policy Regarding MMEL Relief for Primary Thrust Setting Instruments on Two-Engine Airplanes
39	4	Sept 29, 08	Altitude Alerting System Requirement
40	1	Aug 15, 97	Policy Regarding MMEL Requirements For ETOPS Beyond 120 Minutes
41			ARCHIVED
42			ARCHIVED
43	1	Aug 15, 97	Crewmember Protective Breathing Equipment (PBE) MMEL Policy
44			ARCHIVED
45	2	March 4, 04	Time Limited Dispatch (TLD) Authorization for Full Authority Digital Electronic Control (FADEC) Engines
46			Standard and Interim Revisions – Transferred to 8900.1
47	1	Aug 15, 97	Megaphone MMEL Requirements
48			ARCHIVED
49			ARCHIVED
50			ARCHIVED
51			ARCHIVED
52	3	Nov 19, 01	Category D Repair Interval
53			ARCHIVED
54	10	Oct 31, 05	Terrain Awareness and Warning System (TAWS)
55			ARCHIVED
56	4	Sep 15, 04	Flight Deck Fwd Observer Seat Relief
57			ARCHIVED
58	3	July 12, 01	Boom Microphone MMEL Requirements
59	3	June 20, 08	Global Change Revisions
60			ARCHIVED
61			ARCHIVED
62	1	Aug 15, 97	New Equipment Installation MMEL Requirements
63	3	Jan 29, 04	Equipment Required For Emergency Procedures
64	1	Aug 15, 97	Electrical Power MMEL Policy - Four Engine Cargo Airplanes
65	1	Aug 15, 97	Policy Regarding Cargo Provisions in the MMEL for Cargo Operations
66			ARCHIVED
67	3	Dec 5, 05	Windshear Warning and Flight Guidance System (RWS) Windshear Detection and Avoidance System (PWS)
68			Policy Regarding Use of Additional (M) and (O) symbols in operators MEL – Transferred to 8900.1
69	2	Sep 24, 03	External Door Indication System

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

CURRENT POLICY LETTERS IN EFFECT			
PL NO.	**REV NO.**	**DATE**	**SUBJECT**
70	2	Sept 11, 06	Definitions Required in MELs.
71			Policy concerning configurations and fleet approval. – Transferred to 8900.1
72	3	March 24, 08	Air Carrier Aircraft Wing Illumination/Ice Lights
73	4	Apr 18, 06	MMEL Relief for Emergency Medical Equipment
74			ARCHIVED
75	1	Aug 15, 97	Portable Fire Extinguisher MMEL Requirements
76	5	March 24, 08	ATC Transponders and Automatic Altitude Reporting System MMEL Requirements
77	1	Aug 15, 97	Cockpit and Instrument Lighting System MMEL Requirements;
78			ARCHIVED
79	6	Aug 4, 08	Passenger Seats And Underseat Baggage Restraining Bar Relief
80			ARCHIVED
81			MEL and Configuration Deviation List Operator Procedures – Transferred to 8900.1
82	1	Aug 15, 97	Use of "Operative" Terminology in MELs
83	4	Oct 15, 01	Master Minimum Equipment List (MMEL) Requirements for Water and Waste on Air Carrier Aircraft
84	1	Aug 15, 97	Master Minimum Equipment List (MMEL) for Reduced Vertical Separation Minimum (RVSM) Operations
85	2	Feb 7, 00	Lavatory Door Ashtray Policy
86	4	Jan 04, 08	Policy Regarding Air Carrier Compliance with Master Minimum Equipment List (MMEL) Revisions
87	8	Oct 7, 05	Master Minimum Equipment List (MMEL) for Flight Data Recorder (FDR)
88	1		Air Carrier Handling Of Equipment Discrepancies That Are Discovered After "Blocking Out," But Before Takeoff Was Aug 15, 97 – Transferred to 8900.1
89	1	Nov 19, 01	FASTEN SEAT BELT WHILE SEATED Signs or placards
90	1	Nov 20, 01	Pitot Heat Indicating System
91	1	Nov 14, 03	White Position Lights and Strobe Lights
92	0	Jul 12, 1982	Parking Brakes
93	1	Sept 11, 06	Autopilot Disconnect MMEL Policy
94	1	Oct 8, 04	Liquid or Paste Propeller Deicer
95	1	March 20, 02	VHF Communications MMEL Requirements
96	1	June 8, 01	MMEL Relief Galley Waste Receptacles Access Doors
97	4	Sep 06, 07	Flight Attendant Seat(s)
98	0	Jan 20, 99	Navigation Databases
99	1	Jan 04, 08	Narrow-Body All-Cargo Aircraft Slide Relief Policy
100	1	May 29, 02	Weight & Balance - Cargo Operations
101	1	Sep 13, 01	Guidance for MMEL and MEL Relief for Autopilot(s)

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

CURRENT POLICY LETTERS IN EFFECT			
PL NO.	**REV NO.**	**DATE**	**SUBJECT**
102	0	Sep 29, 99	Cargo Compartment Smoke Detection and Fire Suppression Systems
103	0	March 21, 00	MEL policy for 14 CFR 129 and 129.14 Foreign Air Operators
104	3	Aug 4, 08	Overhead Storage Bin(s)/Cabin and Galley Storage Compartments/Closets
105	1	Oct 21, 09	Automatic Dependent Surveillance-Broadcast System
106	3	Oct 7, 05	High Frequency (HF) Communications
107	1	May 22, 01	MMEL Relief for Inoperative APU Generator
108	0	Oct 10, 01	Carriage of Empty Cargo Handling Equipment
109	0	Dec 13, 01	Supplemental Type Certificate (STC) MMEL Relief Process
110			ARCHIVED
111	1	Jan 29, 04	MMEL Policy for Inoperative Standby Attitude Indicator
112	1	Jan 29, 04	MMEL/MEL Relief, Compliant Flight Deck Doors
113	0	Dec 20, 02	MMEL Relief for Anti-Skid Inoperative
114	0	Feb 6, 04	MMEL Policy for Inoperative Rudder Pedal Steering
115	1	Mar 20, 06	Capstone Equipped Aircraft - Alaska
116	1	Dec 21, 07	Non-Essential Equipment and Furnishings
117	0	Oct 7, 05	Selective Call System (SELCAL)
118	0	June 1, 06	Nitrogen Gas Generation
119	2	Dec 10, 08	Policy regarding equipment for which failure indication can be used to determine aircraft dispatchability status
120	1	Jan 20, 09	Emergency Locator Transmitters (ELT)
121	0	Sept 06, 07	(EFB) Electronic Flight Bag
122	0	Apr 04, 08	Flight Deck Door Surveillance Systems
123	0	Jan 20, 09	Passenger Notice System (Lighted Information Signs)
124	0	Jan 20, 09	Damaged Window/Windshield Relief

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

CURRENT POLICY LETTERS UNDER REVISION/DRAFT				
PL NO.	REV NO.	DRAFT NO.	DRAFT DATE	SUBJECT
1	4	9	Sep 29, 09	Operation of Wide-Body Jets with Door/Slide Inoperative
31	2	4	Dec 8, 08	MMEL Format Specification
39	5	5	Sep 23, 09	Altitude Alerting System Requirement
40	2	5	Sep 29, 09	ETOPS and Polar Operations
58	4	2	July 11, 08	Boom Microphone MMEL Requirements Not on OPSPECS Draft website anymore.
72	4	2	Jun 13, 08	Air Carrier Aircraft Wing Illumination/Ice Lights Not on OPSPECS Draft website anymore.
77	2	1	Sept 9, 08	Cockpit and Instrument Lighting System MMEL Requirements Not on OPSPECS Draft website anymore.
79	7	1	Sep 21, 09	Passenger Seats Relief
83	5	1	Oct 1, 08	Master Minimum Equipment List (MMEL) Requirements for Water and Waste on Air Carrier Aircraft Not on OPSPECS Draft website anymore.
86	5	4	April 16, 09	Policy Regarding Air Carrier Compliance with Master Minimum Equipment List (MMEL) Revisions
87	9	1	Sep 23, 09	Flight Data Recorder (FDR)
96	2	0	Sep 23, 09	Galley/Cabin Waste Receptacles Access Doors/Covers
98	1	14	Nov 23, 09	Navigation Databases
100	2	6	Jan 06, 09	MMEL/MEL Relief for Cargo Restraint Components
99	2	4	Sep 29, 09	Door/Slide Relief Policy for Narrow-body in All Cargo Configuration and Wide-body Airplanes in All Cargo and Combination Passenger/Cargo Configurations
118	1	3	Jun 30, 09	Nitrogen Generation System (NGS)
VV	0	6	Jan 06, 09	Policy for Equipment Required for Passenger Carrying Operations

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

NEW POLICY LETTERS			
PL LTR	DRAFT NO.	DRAFT DATE	SUBJECT

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

POLICY LETTER STATUS SUMMARY
Revision 77 as of December 18, 2009

POLICY LETTERS ON HOLD			
PL LTR	DRAFT NO.	DRAFT DATE	SUBJECT

Provide corrections/additions to John Melotte at Delta Air Lines, john.melotte@delta.com,
Phone: 404-714-6753

Federal Aviation Administration

MMEL Policy Letter 100, Revision 2

Date:	Month dd, yyyy
To:	All Region Flight Standards Division Managers All Aircraft Evaluation Group Managers
From:	Manager, Air Transportation Division, AFS-200
Reply to Attn of:	Manager, Technical Programs Branch, AFS-260

MMEL GLOBAL CHANGE

PL-100 is designated as GC-**XX**

This Global Change (GC) is an approved addendum to all (or a significant number of MMELs)[1] existing MMEL documents. Operators may seek use of the specific relief contained in this policy letter by revising their Minimum Equipment List (MEL). In doing so, each applicable sample proviso stating the relief in this policy letter, must be copied verbatim (or by using equivalent text) [2] in the operator's MEL. Approval of a revised MEL is gained utilizing established procedures, through the Operator's assigned Principal Operations Inspector (POI).

SUBJECT: MMEL/MEL Relief for Cargo Restraint Components

MMEL CODE: **25 (EQUIPMENT/FURNISHINGS)**

REFERENCE: PL-100, Revision 1, dated May 29, 2002, signed by Mathew J. Schack
PL-100, Revision Original, dated February 17, 1999

PURPOSE:

This policy letter provides standardized policy and guidance for the development of MMEL/MEL relief relative to Cargo Restraint Systems, i.e., cargo pallets, containers, and locking mechanisms, etc. It also provides for weight and loading limitations that may be imposed as a result of those inoperative components.

DISCUSSION:

Revision 2: Revised Repair Interval to Category "A" with the repair limit stated as "Next Heavy Maintenance Visit." This will provide operators more flexibility in planning and accomplishing repairs. Previous repair Category "C" was too restrictive in light of the fact that operations under this MMEL are conducted in an FAA approved configuration. Also revised ATA coding per ATA iSpec 2200.

Revision 1: Clarifies relief for cargo restraint systems/devices. It requires limitations to be observed from an approved source, i.e., Approved Cargo Loading Manual, Cargo Handling Manual or Weight and Balance Document, with no change to policy.

POLICY:
The Flight Operations Policy Board (FOPB) has determined that use of the MMEL/MEL system to facilitate relief for Cargo Restraint Systems, i.e., inoperative cargo latching and locking systems, provides several significant safety benefits. Those benefits include the following:

1. Information relative to the status of the mechanical systems and any corresponding limitations is conveyed to all responsible personnel associated with the operation,
2. Provides improved information flow relative to the command and control of the flight,
3. Provides a designed method for tracking the status of the mechanical systems, which aids in scheduling repairs, when necessary, and
4. Provides a uniform means to identify the appropriate approved documentation that shall be utilized to configure the loads for a specific dispatch condition.

Standardized MMEL Policy for Cargo Restraint Systems/Devices, which may include Cargo Pallet Locks, Cargo Container Locks, Cargo Compartment Restraint Components, etc., is as follows:

25 (EQUIPMENT/FURNISHINGS)		Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
XX	Cargo Restraint Systems	**A**	-	-	**(M) May be inoperative or missing provided:** **a) Acceptable cargo loading limits from an approved source, i.e., an Approved Cargo Loading Manual, or Weight and Balance Document are observed, and** **b) Repairs are made prior to the completion of the next heavy maintenance visit.**
		C	-	-	May be inoperative, or missing provided cargo compartment remains empty.

The intent of this policy is not to additionally constrain nor reduce the flexibility that already exists with regard to cargo loading systems relief, however, it is intended to ensure that all appropriate and responsible personnel are involved in the decision making process at dispatch. It also ensures a more uniform approach with regard to the handling of these systems across fleet types, which is a primary concern.

Each Flight Operations Evaluation Board (FOEB) Chairman should apply this Policy to affected MMELs through the normal FOEB process.

(AFS 200 Manager Name here), Manager,
Air Transportation Division, AFS-200

U.S. Department
of Transportation
**Federal Aviation
Administration**

MAR 23 2010

In Reply Refer To: ANM-112-10-003

Mark Lopez
Director, Engineering and Maintenance
Air Transport Association
Suite 1100
1301 Pennsylvania Avenue NW
Washington, DC 20004

Dear Mr. Lopez:

Thank you for your letter dated February 5, 2010, about the Federal Aviation Administration (FAA) master minimum equipment list (MMEL) for fuel tank flammability reduction means (FRM), referred to in current airplane installations as a nitrogen generation system. ATA has asked to classify the FRM as a 10-day extendable item, referred to as Category C, in the MMEL.

I have reviewed ATA's request carefully. I share ATA's desire to avoid unnecessary flight interruptions and cancellations. The current maximum 10-day period, listed as a Category A with 10-day relief, in the MMEL for aircraft with an FRM that is not working effectively is consistent with the Title 14, Code of Federal Regulations (14 CFR) part 25 certification basis. It is also consistent with the FAA policy for FRM. However, we have found that some aspects of the FRM being inoperative do warrant Category C classification. The MMEL for one manufacturer's FRM does include Category C for operation with certain FRM failures that result in the FRM working in a degraded mode or where the built-in performance monitoring system has failed.

On November 23, 2005, we released a Federal Register notice proposing the fuel tank flammability reduction (FTFR) rule. We found "the safety advantages associated with a fuel tank system equipped with an FRM or [ignition mitigation means] IMM design ... are so compelling that we propose requiring that operators use these systems as soon as they are available."

In the preamble to the FTFR final rule, we said "While the FRM system is needed to maintain the safety of a fleet of airplanes, it is not considered flight critical for every flight, since the ignition prevention means required by § 25.981 requires robust failsafe features that provide an adequate level of safety during short periods of time when the FRM is inoperative under the MMEL (no greater than 1.8 percent of the operating time)."

The FRM performance standards adopted in 14 CFR part 25 at Amendment 25-125 include specific FRM reliability provisions for MMEL dispatch. For example, 14 CFR N25.3(d)(2) requires that if dispatch with the system inoperative under the MMEL is asked for, the applicant must use 60 flight hours for a 10-day MMEL dispatch limit in the reliability analysis. The exception would be an alternative period that is approved by the Administrator. Other reliability standards require the FRM design be highly reliable.

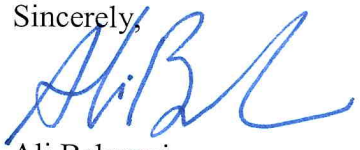
You point out that 14 CFR section 121.1117(e) does not require the installation and operation of the FRM on existing fleet of aircraft until 2014 for 50% of the fleet and 2017 for the entire fleet of applicable aircraft. Additionally, you note that it would be inconsistent to levy higher standards on aircraft with FRM versus those that have yet to be retrofitted with FRM. While it may seem inconsistent to hold one group of aircraft to a higher standard than another group, this approach is consistent with other phase-in programs, most notably compliance with airworthiness directives. We considered the phase-in aspects of FRM carefully during FTFR rulemaking. Because of the safety advantages of FRM, we did not want to allow for deactivation or removal of an FRM once installed on an airplane even before 2014. However, we did find it acceptable to allow some dispatch with an inoperative FRM under the MMEL based on the ignition prevention means required by § 25.981. Therefore, § 121.1117(f), "Compliance After Installation" requires that "Except in accordance with [the MMEL provisions of] § 121.628, no certificate holder may… Operate an airplane on which IMM or FRM has been installed before the [retrofit compliance] dates unless the IMM or FRM is operational."

You also raised concerns about the long lead times for spare parts for the existing FRM. We agree that addressing these concerns is necessary. However, classifying FRM as Category C in the MMEL will not adequately mitigate this concern. The FAA Flight Standards Service has pointed out to us they have no policy or procedure that would tolerate multiple or lengthy extensions and that they would not likely grant extensions to allow the long lead times you note. It is possible the cause of long lead times for spare FRM parts is the lack of orders for such parts. Ordering and keeping spare parts would not only reduce the need for MMEL extensions but may serve to reduce the long lead times for spare FRM parts.

We will work with Flight Standards to develop a process to use on a case-by-case basis in approving extensions to the MMEL items for an inoperative FRM. Operators should prepare for potential and unforeseen failures as they would with any other safety-related system on the aircraft. We expect anything we develop would involve steps to ensure that operators have taken measures to get enough spare parts for their FRM installations.

I look forward to working with you to continue to address your concerns.

Sincerely,



Ali Bahrami
Manager, Transport Airplane Directorate
Aircraft Certification Service

Federal Aviation Administration

MMEL Policy Letter 25 Revision 16

Date: XX/XX/2010

To: All Region Flight Standards Division Managers
All Aircraft Evaluation Group Managers

From: Manager, Air Transportation Division, AFS-200

Reply To Attn Of: Manager, Technical Programs Branch, AFS-260

MMEL GLOBAL CHANGE

PL-25 is designated as GC-159

This Global Change (GC) is an approved addendum to all existing MMEL documents. Operators may seek use of the specific relief contained in this policy letter by revising their Minimum Equipment List (MEL). In doing so, each applicable sample proviso stating the relief in this policy letter, must be copied verbatim in the operator's MEL. Approval of a revised MEL is gained utilizing established procedures, through the Operator's assigned Principle Operations Inspector (POI).

Subject: Policy Concerning MMEL Definitions

MMEL CODE: 00 (GENERAL)

REFERENCE: Policy Letter 25, Revision 15, dated November 02, 2009
Policy Letter 25, Revision 14, dated August 26, 2008
Policy Letter 25, Revision 13, dated September 11, 2006
Policy Letter 25, Revision 12, dated June 5, 2006
Policy Letter 25, Revision 11, dated July 5, 2005
Policy Letter 25, Revision 9, dated August 15,1997
Policy Letter 25, Revision 8, dated January 31, 1995

PL-25 Revision 16 corrects revision bar requirement in definition #1.e; revises the Electronic Fault Alterting System for Airbus aircraft (definition #23c.); adds new MMEL definition #31 for HMV.

PL 25 Revision 15 revises definition 22.A. "Category A Repair Interval" by including a reference to "calendar days", aligning the criteria for Day of Discovery with definition 27 "Day of Discovery". A-380 aircraft added to definitions, 23c

PL-25 Revision 14 revises definition #1a to include the listing of the repair interval categories (A, B, C and D) in column 1, revises definition #7 to align with recent ETOPS rulemaking, adds day of discovery to definition #22 Category A, adds MEL repair interval extensions information to

definition #22, adds "787" to definition #23a, adds G-150 and G-200 to definition #23g, corrects NEF Definition #30 to align with FSIMS 8900.1 Volume 4 (Aircraft Equipment and Operational Authorizations) Chapter 4 (MEL and CDL) Section 11 (NEF) paragraph 4-898.

PL-25 Revision 13 adds clarification to definition 10. Icing Conditions for aircraft (structural) and engines (induction) icing.

PL-25 Revision 12 adds definitions for “considered Inoperative”, “is not used” and “Nonessential equipment and furnishings (NEF).“ Added the term “14 CFR” to Definition 3 (As required by FAR).

PL-25 Revision 11 adds the Boeing 717 and MD-10 aircraft to the definitions Paragraph 23-b. as both aircraft are Electronic Instrument Systems (EIS) equipped aircraft. Definition 23-c (Airbus) has been revised to add A-318 to the fleet listing and clarify requirements for MAINTENANCE status (Class II) messages. Definition 23-f (Embraer EMB-145) has been revises to add applicable models EMB-135/145 and ERJ-170/190. Definition 23-g (Gulfstream) has also been revised to add applicable models G-IV, GV-SP, and GIV-X. This revision also changes MMEL Definition to Revision #11

Rev 16 Definitions

1**.** System Definitions.
System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.
a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MMEL revision.

2. "Airplane/Rotorcraft Flight Manual" (AFM/RFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM/RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for time specified by repair category. The term “14 CFR” may be substituted for “FAR” in MMELs or operator MELs.

4. Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).

15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL.

16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in FAR Part 91. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" means those items related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, ash trays, stereo equipment, overhead reading lamps, etc.

22. Repair Intervals: All users of an MEL approved under FAR 121, 125, 129 and 135 must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators:

> Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in “calendar days” or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.
>
> Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.
>
> Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.
>
> Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

An operator who has the authorization to use an MEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use an MEL.

23. Electronic fault alerting system – General New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented.

The following are customized definitions (specific to each manufacturer) to help determine the level of messages affecting the aircraft's dispatch status. When preparing the MEL document, operators are to select the proper Definition No. 23 for their aircraft, if appropriate.

a. BOEING (747-400, 757, 767, 777, 787)
Boeing airplanes equipped with Engine Indicating and Crew Alerting Systems (EICAS), provide different priority levels of system messages (WARNING, CAUTION, ADVISORY, STATUS and MAINTENANCE). Any messages that affects airplane dispatch status will be displayed at a STATUS message level or higher. The absence of an EICAS STATUS or higher level (WARNING, CAUTION, ADVISORY) indicates that the system/component is operating within its approved operating limits or tolerances. System conditions that result only in a maintenance level message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operators standard maintenance program.

b. BOEING (B-717, MD-10, MD-11)
These aircraft are equipped with an alerting function which is a subsystem within the Electronic Instrument System (EIS). The alerting function provides various levels of system condition alerts (WARNING, CAUTION, ADVISORY, MAINTENANCE and STATUS). Alerts that affect aircraft dispatch will include WARNING, CAUTION, STATUS or MAINTENANCE level. MAINTENANCE alerts are displayed on the status page of the EIS display panel under the maintenance heading. A MAINTENANCE alert on the EIS indicates the presence of a system fault which can be identified by the Central Fault Display System (CFDS) interrogation. The systems are designed to be fault tolerant, however, for any MAINTENANCE alert, the MEL must be verified for dispatch purposes.

c. AIRBUS (A300-600, A310, A318/319/320/321, A330, A340, A380)
Airbus aircraft equipped with Electronic Centralized Aircraft Monitoring (ECAM) provide different levels of system condition messages {WARNING (red), CAUTION (amber)}. On A318/319/320/321, A330 and A340, the ECAM STATUS page also provides MAINTENANCE STATUS messages.

Any message that affects airplane dispatch is displayed at the WARNING or CAUTION level. For A318/319/320/321, MAINTENANCE STATUS messages may also affect airplane dispatch.

System faults that result only in messages on the Central Maintenance System (CMS) (for A330, A340 and A380) or on the Centralized Fault Display System (CFDS) (for A318/319/320/321) do not affect airplane dispatch and do not require action other than as addressed within the operator's standard maintenance program.

d. FOKKER (FK-100)
Fokker aircraft are equipped with Multi Function Display System (MFDS) which provides electronic message referring to the different priority levels of system information (WARNING (red), CAUTION (amber), AWARENESS (cyan) AND STATUS (white). Any messages that affects aircraft dispatch will be at the WARNING, CAUTION or AWARENESS level. In these cases the MEL must be verified for dispatch capability and maintenance may be required. System conditions that only require maintenance are not presented on the flight deck. These maintenance indications/messages may be presented on the Maintenance & Test Panel (MAP) or the Centralized Fault Display Unit (CFDU) and by dedicated Built In Test Evaluation (BITE) of systems.

e. CANADAIR (CL-65, CL-604)
Canadair aircraft equipped with Engine Indication and Crew Alerting Systems (EICAS) provide four classes of messages (WARNING, CAUTION, ADVISORY, and STATUS). Any message that affects aircraft dispatch will be at the WARNING, CAUTION, or STATUS level. System conditions that only require maintenance are not visible to the flight crew. These maintenance indications/messages are only activated by maintenance personnel using the Maintenance Diagnostics Computer.

f. EMBRAER (EMB-135/145, ERJ-170/190 Series)
The EMB-135/145 and ERJ-170/190 are equipped with an Engine Indicating and Crew Alerting System (EICAS) that provides three different message levels: WARNING, CAUTION, and ADVISORY. The ERJ-170/190 Series add STATUS messages. Failures that effect dispatchability are presented to the flight crew at one of these levels. Other failures may be presented only to the maintenance personnel on the Multi Function Display (MFD) maintenance pages or through the download of the Central Maintenance Computer (CMC). System conditions that result only in a maintenance level message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operator's standard maintenance program.

g. GULFSTREAM (G-IV, G-V, GV-SP,GIV-X, G-150 and G-200)
Gulfstream airplanes equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY, STATUS and MAINTENANCE (cyan or blue). Any WARNING or CAUTION message affects airplane dispatch status and requires that the Airplane Flight Manual or the MEL be used to determine dispatch capability. STATUS messages which indicate a system failure (e.g., FMS 1 fail) require that the Airplane Flight Manual or the MEL be used to determine dispatch capability. MAINTENANCE messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be identified by Maintenance Data Acquisition Unit (MDAU on the G-V) interrogation, Central Maintenance Computer (CMC on the GV-SP/GIV-X) interrogation or by reference to the Airplane Flight Manual.

Gulfstream mid-cabin airplanes (G-150, G-200) equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY (green), and STATUS (white). The Airplane Flight Manual prohibits take off with any WARNING message displayed. CAUTION, ADVISORY and STATUS messages may affect airplane dispatch status and requires the Airplane Flight Manual or the MEL be used to determine dispatch capability. The airplane may dispatch with CAUTION, ADVISORY and STATUS messages that indicate proper system operation and are not illuminated due to a system failure (i.e. FUEL STBY PUMP ON when the pump is selected ON, GND A/B OUT with LAND selected on the ground, or APU GEN OFF with the switch OFF). MAINTENANCE and MAINTENANCE DATA STATUS messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be retrieved from the Maintenance Diagnostics Computer. In all cases, the Airplane Flight Manual must be referenced and procedures compiled with for the displayed message prior to applying MEL dispatch relief.

h. De-HAVILLAND (DASH 8 SERIES 400)
Series 400 aircraft are equipped with a Caution/Warning Panel that annunciates all cautions and warnings. Advisory messages are displayed by the Electronic Indication System (EIS) or individual advisory lights supplied in the cockpit. "Class 1 failures" are failures that prevent continued operation of a specific Line Replacement Unit or channel and are annunciated via advisory messages: caution, warning or advisory lights in the flight compartment. Dispatch with such posted failures are to be in accordance with the MMEL. "Class 2 failures" are failures which do not prevent continued system function. These faults will not be annunciated to the flight crew and the absence of the higher level alert (warning, caution, advisory) indicates that the system/component is operating within its approved operating limits or tolerances. Such faults would be evident during maintenance interrogation performed during maintenance activities. Class 2 faults do not affect dispatch and will be listed in the Fault Isolation Manual (FIM). Class 2 faults will be left to the discretion of the operators when these faults are to be rectified.

24. "Administrative control item" means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator's MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "***" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment. This provision is applicable to all MMEL items, i.e., categories "A, B, C, and D."

28. “Considered Inoperative”, as used in the provisos means that item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. “ Is not used” in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL “is not used.” In such cases, crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crewmembers that a component or system is not to be used under normal operations.

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft’s ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator’s NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer’s maintenance manual or operator’s approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator’s NEF process. .

31. As used in MMELs, Heavy Maintenance Visit (HMV) is a scheduled C-check/D-check or airworthiness maintenance program inspection where the aircraft is scheduled to be out of service for 4 or more days.

Manager
AFS 200

PL-104 SUBJECT: Overhead Storage Bin(s)/Cabin and Galley Storage Compartments/Closets

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PL-104 is designated as GC-154

This Global Change (GC) is an approved addendum to all (or a significant number of MMELs) existing MMEL documents. Operators may seek use of the specific relief contained in this policy letter by revising their Minimum Equipment List (MEL). In doing so, each applicable sample proviso stating the relief in this policy letter, must be copied verbatim (or by using equivalent text) in the operator's MEL. Approval of **a** revised MEL is gained utilizing established procedures, through the Operator's assigned Principal Operations Inspector (POI).

PL-104 Revision 3 **Aug 4, 2008**

SUBJECT: Overhead Storage Bin(s)/Cabin and Galley Storage Compartments/Closets

MMEL CODE: 25 (EQUIPMENT/FURNISHINGS)

REFERENCE: PL-104 Revision 2, dated 24 March, 2008
PL-104 Revision 1, dated September 24, 2004

FROM: Manager, Air Transportation Division, AFS-200

TO: All Regional Flight Standards Division Managers
All Aircraft Evaluation Group Managers

REPLY TO
ATTN OF: Manager, Technical Programs Branch, AFS-260

PURPOSE:
The purpose of this policy letter is to provide guidance for establishing standardized Master Minimum Equipment List (MMEL) relief for overhead storage bin(s)/cabin and galley storage compartments/closets.

DISCUSSION:
Revision 3 adds the Global Change designation to the Policy Letter.

Revision 2 includes changes that allows compartment doors to be missing provided no items are stored in the compartments unless they are permanently affixed. This allows any emergency equipment permanently affixed within the compartment to be made available during an emergency. Placarding requirement added to existing relief. Also added sub-item for Storage Compartment Key
Locks. Removes the Global change designation.

Revision 1 acknowledges that some FAR required Emergency Equipment located in storage compartments have individual specific MMEL provisions. Hence, continued operation with that equipment is allowed in an inoperative storage compartment. This policy was established to provide standardized relief for storage compartments.

POLICY:
Flight Operations Evaluation Board (FOEB) chairman should apply the following policy to affected MMELs through the normal FOEB process.

25 EQUIPMENT/ FURNISHINGS		
Overhead Storage Bin(s)/ Cabin and Galley Storage Compartment/Closets	C | - | - |	(M) May be inoperative provided: a) Procedures are established to secure compartment CLOSED, b) Associated bin or compartment is prominently placarded DO NOT USE, c) Any emergency equipment located in affected compartment is considered inoperative, and d) Affected compartment is not used for storage of any item(s) except for those permanently affixed. NOTE: If no partitions are installed, the entire overhead storage compartment is considered one bin or compartment.
*** 1) Hinged Door(s)	C **| - | - |**	(M)(O) May be inoperative provided: a) Affected door(s) is removed, b) Associated bin or compartment is not used for storage of any items, except those permanently affixed, c) Associated bin or compartment is prominently placarded DO NOT USE, d) Procedures are established and used to alert crew members and passengers of inoperative bins, and e) Passengers are briefed that associated bin or compartment is not used. NOTE1: If no partitions are installed, the entire overhead storage compartment is considered one bin or compartment. NOTE2: Any emergency equipment located in the associated compartment (permanently affixed) is available for use.

***	2) Retractable Door(s)	C | - | - |	(M)(O) May be inoperative provided: a) Affected door(s) is removed or secured in the retracted (fully open) position, b) Associated bin or compartment is not used for storage of any items, except those permanently affixed, c) Associated bin or compartment is prominently placarded DO NOT USE, d) Procedures are established and used to alert crew members and passengers of inoperative bins, and e) Passengers are briefed that associated bin or compartment is not used. NOTE1: If no partitions are installed, the entire overhead storage compartment is considered one bin or compartment. NOTE2: Any emergency equipment located in the associated compartment (permanently affixed) is available for use.
***	3) Storage Compartment Key Locks	D | - | 0 |	(M) May be inoperative in the unlocked position provided doors can be secured by other means.

Gary Davis
Manager, AFS 200

Rev 9 Draft 1: Lead AFS-260 / Tom Atzert

Federal Aviation Administration

MMEL Policy Letter 87 Revision 9

Date: Xxxx xx, 2009

To: All Region Flight Standards Division Managers
All Aircraft Evaluation Group Managers

From: Manager, Air Transportation Division, AFS-200

Reply to Attn of: Manager, Technical Programs Branch, AFS-260

SUBJECT: Flight Data Recorder (FDR)

MMEL CODE: 31 (INDICATING / RECORDING SYSTEMS)

REFERENCE: PL-87, Revision 8, dated October 7, 2005
PL-87, Revision 7, dated September 15, 2004
PL-87, Revision 6, dated November 25, 2002
PL-87, Revision 5, dated July 23, 2001
PL-87, Revision 4, dated October 05, 2000
PL-87, Revision 3, dated November 20, 1999
PL-87, Revision 2, dated September 23, 1998
PL-87, Revision 1, dated February 15, 1997
PL-87, Original, dated January 27, 1997
PL-29, Revision 1, dated March 29, 1991

PURPOSE:
The purpose of this policy letter is to provide standardized Master Minimum Equipment List (MMEL) requirements for the Flight Data Recorder (FDR) on air carrier aircraft.

DISCUSSION:
Revision 9: Revised relief for required FDR parameters by allowing only up to three parameters to be inoperative.

Revision 8: Revised PL 87 is to clarify MMEL relief for those air carriers who have a Flight Recorder System installed and when not required by FAR. The number required is changed from “1” to “-” for the C category MMEL item.

Revision 7: Revised PL 87 to provide additional MMEL relief for operators other than holders of an air carrier or commercial operator certificate**.**

Revision 6: Clarifies relief provisions existing for systems when modified with an installed Combined Voice and Flight Data Recorder (CVFDR).

Revision 5: Revises policy letter provisos to include the intent of the policy letter narrative concerning FDR failure after pushback or repair attempt.

Revision 4 contains inoperative parameters to be repaired under a hard time requirement. It also clarified the term "designated airport" and “FDR inoperative dispatch”.

Revision 3 clarifies the intent of the policy stated in Revision 2 by adding an item for FAR required parameters similar to the existing item for parameters not required by Title 14 Code of Federal Regulations (14CFR).

Revision 2 clarifies the intent of policy letter 87, revision 1, and provides for continued use of an FDR with missing required parameters.

Revision 1 reformats policy letter 87 with no change to policy.

This policy letter was revised in March 1991 as a result of National Transportation Safety Board (NTSB) Safety Recommendation A-90-74, which requested the Federal Aviation Administration (FAA) to require more stringent repair interval criteria for inoperative Cockpit Voice Recorder (CVR) and FDR systems. Each system was assigned a category A repair interval, and the related proviso specified repairs be made within three flight days. The policy granting MMEL relief for the FDR provided the CVR remained operational remained in effect.

NTSB Safety Recommendation A-96-46 subsequently requested the FAA to further reexamine this policy to ensure that flight with an inoperative FDR is permitted only until the aircraft's first arrival at a suitable repair facility, but not to exceed three days.

Recent 14 CFR changes and requirements have placed greater emphasis on FDR functionality and access to additional parameters. However, the loss of parameters (failures), both those required by 14 CFR and those not required by 14 CFR, is not apparent to the flight crew due to the lack of a visible flight deck indication. The operational status of these parameters is identified by maintenance program procedures. Therefore, relief for these parameters is now specified as Category A and must be repaired within the intervals specified by the MMEL.

In order to maintain maximum FDR capability, if it is determined that a parameter is missing, every effort should be made to continue to record all available parameters rather than considering the complete flight data recorder inoperative per MMEL.

POLICY:
The following separate policy has been established for the FDR so that flight with an inoperative recorder is minimized. The FDR system continues to be assigned a Category A repair interval and repairs remain required to be made within three flight days.

It is the intent of this policy to ensure that flight with an inoperative FDR is permitted only until the aircraft arrives at a designated airport. The operator will designate airport(s), which have FDR repair capabilities in their respective Minimum Equipment List (MEL). These airport(s) may differ from normal maintenance facilities.

In cases where FDR failure occurs after pushback but prior to takeoff at a designated airport, continued operation of the aircraft is allowed to the next designated airport.

In cases where repair is attempted but not successful, the aircraft may be dispatched on a flight or series of flights to the next designated airport. When a repair attempt is not successful, repair must be accomplished at the next designated airport.

On aircraft that have been modified with a CVFDR, where CVFDR replaces the stand alone CVR and adds redundant FDR functionality, failure of either the Digital Flight Data Recorder (DFDR), or FDR Function of CVFDR, does not invoke the need to make stops for repairs at designated airports and can be deferred at the "C" category. Only when all recording is lost, dual FDR failure occurs, or failure of the digital Flight Data Acquisition Unit, does the "A" category relief need be imposed.

The following standard MMEL proviso and repair category is adopted to provide standardization among all MMELs.

Insert ATA ## and Title here	Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
31 INDICATING / RECORDING SYSTEMS				
XX-X Flight Data Recorder (FDR) System	C	-	-	Any in excess of those required by FAR may be inoperative.
	A	-	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a designated airport as listed in the operator's MEL unless: 1. The FDR failure occurs after pushback but prior to takeoff, or 2. The FDR repair was attempted but no successful. c) In those cases where repair is attempted but not successful, the aircraft may be dispatched on a flight or series of flights until the next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within three flight days.
FDR Recording Parameters required by FAR	A	-	-	Up to three (3) recording parameters may be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repairs are made within 20 calendar days.
FDR Recording Parameters not required by FAR	A	-	-	May be inoperative provided repairs are made prior to the completion of the next heavy maintenance visit.

FLIGHT DATA RECORDER (FDR) INSTALLED FOR AN OPERATOR OTHER THAN A HOLDER OF AN AIR CARRIER OR COMMERCIAL OPERATOR CERTIFICATE

XX-X Flight Data Recorder (FDR) System	C	-	1	Any in excess of those required by FAR may be inoperative.
	A	-	0	May be inoperative provided repairs are made in accordance with applicable FARs.

Each Flight Operations Evaluation Board (FOEB) Chairman should apply this Policy to affected MMELs through the normal FOEB process.

(AFS 200 Manager Name here), Manager,
Air Transportation Division, AFS-200

Draft 05, 12/09/09

Federal Aviation Administration

MMEL Policy Letter 123 Revision 01

Date:	Xxx yy, 2010
To:	All Region Flight Standards Division Managers All Aircraft Evaluation Group Managers
From:	Manager, Air Transportation Division, AFS-200
Reply To Attn Of:	Manager, Technical Programs Branch, AFS-260

Subject: Passenger Notice System (Lighted Information Signs)

MMEL CODE: 33 (LIGHTS)

REFERENCE: PL-123, Original, dated January 20, 2009

PURPOSE:
This policy letter provides guidance regarding Passenger Lighted Information Signs (e.g., "No Smoking"/"Fasten Seat Belt"/"Return to Cabin (Seat)").

DISCUSSION:
Revision 1 clarifies relief for certain operations not addressed in the original policy letter. Although the several 14 CFR sections contain similar language, effecting relief for inoperative equipment is subject to differing certification and operating rules, principally those related to public address system and flight attendant requirements.

14 CFR sections 91.517(a), 121.317(a), 125.217(a) and 135.127(a) require, in part, that no person may operate a passenger-carrying airplane unless it is equipped with passenger information signs, and the signs must be constructed so the crewmembers can turn them on and off.

POLICY:
Flight Operations Evaluation Board (FOEB) chairmen should adopt the following wording, as appropriate, for Passenger Lighted Information Signs (e.g., "No Smoking"/"Fasten Seat Belt"/"Return to Cabin (Seat)"). FOEB chairmen should consider the affect of an inoperative lavatory (blocked) on emergency egress requirements.

33 LIGHTS	Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
-20 Passenger Lighted Information Sign	C	-	-	(M) May be inoperative provided: a) Associated passenger seat or lavatory is not occupied from which a passenger lighted information sign is not readily legible, and b) Associated seat or lavatory is blocked and placarded - DO NOT OCCUPY. NOTE: These conditions are not intended to prohibit lavatory use or inspections by crewmembers.
	C	-	-	(O) May be inoperative and associated passenger seat or lavatory may be occupied provided: a) PA system operates normally, and b) PA system is used to notify passengers and cabin crew when associated sign(s) are placed on or off.
1) All-Cargo, Supernumerary/Courier Area Lighted Information Sign	C	-	-	(O) May be inoperative provided alternate procedures are established and used to notify couriers/supernumeraries when associated sign(s) are placed on or off.

The following pertains only to operations involving aircraft certified with 19 or less passenger seats, wherein certification or operating rules do not require a public address system or flight attendant.

-20 Passenger Lighted Information Sign	C	-	-	(O) May be inoperative provided alternate procedures are established and used to notify cabin occupants.

Each Flight Operations Evaluation Board (FOEB) chairman should apply this policy to affected MMELs through the normal FOEB process.

/s/

AFS-200

Federal Aviation Administration

MMEL Policy Letter 31, Revision 3

Date:	April 1, 2010
To:	All Region Flight Standards Division Managers All Aircraft Evaluation Group Managers
From:	Manager, Air Transportation Division, AFS-200
Reply to Attn of:	Manager, Technical Programs Branch, AFS-260

MMEL GLOBAL CHANGE

PL-31 is designated as GC-XXX

This Global Change (GC) is an approved addendum to all existing MMEL documents. Operators may seek use of the specific relief contained in this policy letter by revising their Minimum Equipment List (MEL). In doing so, each applicable sample proviso stating the relief in this policy letter must be copied by using equivalent text in the operator's MEL. Approval of a revised MEL is gained using established procedures, through the Operator's assigned Principal Operations Inspector (POI).

SUBJECT: MMEL Format Specification

MMEL CODE: 00 (General)

REFERENCE: PL-31, Revision 2, dated October 15, 2009
PL-31, Revision 1, dated August 15, 1997
Previous PL-28 items 3 and 11, dated 19 May 1987
PL-41, no date and PL-44, no date
PL-61, dated March 19, 1993

PURPOSE:
This policy letter provides the Aircraft Evaluation Groups (AEGs) a Master Minimum Equipment List (MMEL) format specification document.

DISCUSSION:

Revision 3 revises Policy specification 12 back to the policy prior to Revision 2 (applicable FARs should not be identified). Revision 3 adds an Appendix A to this policy letter for aiding in the identification of the applicable FARs. PL-31 Appendix A is a non-inclusive list of FARs.

Revision 2 reformats this policy letter, clarifies existing policy, adds three specifications and makes editorial changes. Specifications have been rearranged to better align their application to the MMEL format. New specifications are identified by their number in this rearranged sequence: Specification 1 directs use of the attached MMEL title page template when drafting or revising MMELs; Specification 5 directs the use of exact nomenclature when referencing annunciators or EICAS messages; and Specification 8 outlines the use of three asterisks "***" to identify optional installed equipment. Additionally, Specification 7 expands guidance on notation for deleted or moved relief, and Specification 23 is revised to add further guidance regarding the use of NOTEs.

Revision 1 reformatted policy letter with no change to policy. The use of "OR" has caused confusion as to which set of provisos are required for dispatch. Deletion of "OR" wherever possible and repeating the provisos needed will help eliminate this confusion. This policy is stated in Specification 22. The Board was asked to consider deleting "if Installed" from the notes and definitions section of the MMEL. The term "if installed" was no longer needed and in some cases caused confusion. Chairmen should review all MMELs for which they are responsible and remove the term "if installed" through the normal FOEB revision schedule and process.

Nonstandard use of the change bar or its omission has resulted in confusion by industry as to its intended use in MMELs. Specifications 2 and 3 graphically identify all current changes. The process used in administering MMEL items in which relief has been eliminated has created confusion among users after a revision to an MMEL. It is necessary to develop a standard procedure to indicate when items are deleted from, combined with, or moved in an MMEL. Specification 7 defines such a procedure.

Item 4 in the DEFINITIONS section of the Master Minimum Equipment List/Minimum Equipment List (MMEL/MEL) indicates that an inoperative item must be placarded to inform and remind crew members and maintenance personnel of inoperative equipment. Industry representatives have taken the position that since all inoperative items in the MMEL/MEL are required to be brought to the attention of the flight crew and maintenance personnel, using an asterisk to identify placarding needs is superfluous. Evolving technology on newer aircraft equipped with EICAS, FADEC, etc., automatically "placards" a system or equipment when it experiences a failure. All asterisks used to identify the need for placarding in MMELs/MELs may be deleted at the earliest opportunity. Specification 24 states this policy.

POLICY:

1. Use the attached title page template when drafting or revising an MMEL.
2. For each page of the MMEL that is revised, change bars are to be placed to the right of the proviso for every line of text that is changed due to addition or deletion of either word or character.
3. All change bars applicable to the previous revision of the MMEL are to be removed prior to release of the next revision. This applies to all pages, including those not affected by the new revision.
4. Identify sub-system titles in column one with 1), 2) etc. For example,
   28-xx Fuel Quantity Indicating System
   1) Main Tank
   2) Center Tank
5. When referencing annunciations or EICAS messages, use exact panel or EICAS nomenclature.
6. Delete or do not include any items that must be operative for all conditions.
7. When a relief item is deleted or moved, the item name and sequence number will be retained in the MMEL, with an appropriate notation in the REMARKS or EXCEPTIONS column. Include the revision number of the deleted or moved relief item. For example,
   1) Relief is deleted entirely: "Deleted, Revision X."
   2) Relief is combined with relief at another location: "Relief combined with ATA 31-XX, (Relief Title), Revision X."
   3) Relief is moved to another ATA chapter: "Relief moved to ATA 31-XX, Revision X."
   4) Relief is moved to another FAA approved document: "Relief moved to (Document Name), Revision X."

   The item name, sequence number and notations may be deleted from the MMEL/MEL with the next numbered revision provided permanent documentation of this change is retained by the AEG.
8. Use three asterisks "***" below the relief item number to identify optional equipment that may have been installed on some models of aircraft.
9. In Number Installed or Number Required for Dispatch columns, use a number whenever possible; otherwise, use a "-" with proper qualification.
10. When only one proviso condition exists, arrange it into the statement of relief.
11. Where a control or switch position is specified, indicated by label, or special emphasis is required, use all caps instead of underlining, e.g., ON-OFF; OPEN-CLOSED. Use of the word "position" in reference to ON-OFF, OPEN- CLOSED, is often redundant and need not be included.
12. When the term "As required by FAR" or "Any in excess of those required by FAR may be inoperative" is used in the proviso, the applicable FAR should not be identified (e.g., FAR 91.33). Appendix A

provides a list of applicable FARs.

13. Where a proviso refers to another item listed in the MMEL, typically to require that item be operative, the item will always be referred to using the exact same title as listed. The relief item number will generally not be used to reference an item.
14. When there is an "(M)" or "(O)" in the REMARKS or EXCEPTIONS column, remarks or proviso(s) are required for clarification.
15. Whenever possible, all limiting altitudes stated should include the words "or below" (e.g., "10,000 feet MSL or below", "FL 310 or below").
16. The word "operative" should be used instead of "operable".
17. Delete the word "the" wherever possible.
18. Delete all instances of "if installed".
19. Use letter and parenthesis, e.g., a), b), etc., to identify proviso conditions.
20. Indent proviso condition identifiers and subsequent text approximately six spaces, and delete line space between proviso conditions.
21. Use a comma after all proviso conditions, and prior to the last one use ", and". Use a period after last proviso condition. For example,
    a) First condition,
    b) Second condition, and
    c) Last condition.
22. Delete the word "OR" when it is located between proviso conditions. Each set of needed proviso conditions should be repeated as required to eliminate the use of "OR".
23. Each NOTE applies to only the relief proviso it immediately follows, and shall be located in the REMARKS or EXCEPTIONS column, using all caps for the word "NOTE". NOTEs should be repeated as necessary following each applicable proviso. Where there is only one NOTE, do not number it. Where more than one NOTE occurs, number them, (e.g., "NOTE1:" "NOTE 2: ").
24. Delete all single asterisks "*" used to indicate the need for placarding. The requirement to placard MMEL items is stated in Policy Letter 25 Definitions.

Each Flight Operations Evaluation Board (FOEB) Chairman should apply this policy to affected MMELs through the normal FOEB process.

/s/

John Duncan, Manager
Air Transportation Division, AFS-200

U.S. Department of Transportation
Federal Aviation Administration
Washington, D.C.

Master Minimum Equipment List

Revision: xx
Date: Month DD, YYYY

Manufacturer Name

Airplane Model

Name, Chairman
Flight Operations Evaluation Board (FOEB)

Federal Aviation Administration
Aircraft Evaluation Group
Address
Address
Address

Telephone: (xxx) xxx-xxxx
FAX: (xxx) xxx-xxxx

PL-031 Appendix A Applicable 14 CFR Parts 91, 121, 125, 129, 135			
ATA Ch. #	PL-#	Item	14 CFR References
ATA 21		Ozone Converters	14 CFR 121.578
ATA 23	PL-029	Cockpit Voice Recorder (CVR) System	14 CFR 91.609, 91.1045, Appendix E to Part 91 14 CFR 121.359 14 CFR 125.227 14 CFR 129.24 14 CFR 135.151
	PL-058	Flight Deck Headsets/Headphones	14 CFR 91.511 14 CFR 121.318, 121.349, 121.359 14 CFR 125.203, 125.227 14 CFR 135.151, 135.165
	PL-106	High Frequency (HF) Communication Systems	14 CFR 91.511 14 CFR 121.345, 121.347, 121.349, 121.351 14 CFR 125.203 14 CFR 135.98, 135.165
	PL-009	Passenger Address System	14 CFR 121.318 14 CFR 135.150
	SATCOM	Satellite Communication System	14 CFR 121.99, 121.122, 121.345, 121.347, 121.349, 121.351 14 CFR 125.203 14 CFR 135.98, 135.165
	PL-095	VHF and UHF Communications Systems	14 CFR 91.126, 91.127, 91.129, 91.130, 91.135, 91.511 14 CFR 121.345, 121.347, 121.349, 121.351 14 CFR 125.203 14 CFR 129.17 14 CFR 135.161 135.165

ATA 25		Crash Ax/Crow Bar	14 CFR 91.513 14 CFR 121.309 14 CFR 125.207 14 CFR 135.177
	PL-120	Emergency Locator Transmitter (ELT)	14 CFR 91.205, 91.207 14 CFR 121.353, 121.339
	PL-073	Emergency Medical Equipment (AED, EMK, FAK)	14 CFR 91.513 14 CFR 121.803 14 CFR 125.207 14 CFR 135.177
		Extended Overwater Equipment (Emergency, Flotation, Survival)	14 CFR 91.205, 91.509 14 CFR 121.339, 121.340 14 CFR 125.209 14 CFR 135.167
		Flashlight Stowage/Charger Assemblies (Including Flashlights)	14 CFR 121.310, 121.549 14 CFR 135.107, 135.178
	PL-097	Flight Attendant Seat Assembly (Single or Dual Position)	CFR 91.533 14 CFR 121.391 14 CFR 125.269 14 CFR 135.107
	PL-047	Megaphones	14 CFR 91.513 14 CFR 121.309 14 CFR 125.207
	PL-056	Observer Seat	Observer Seat Not Required By FAR Aircraft operated under 14 CFR 91 are not required to have an observer seat(s) 14 CFR 135.75
ATA 26	PL-075	Portable Fire Extinguishers	14 CFR 91.513, 91.525 14 CFR 121.309 14 CFR 125.119 14 CFR 135.155

ATA 31		Clocks	14 CFR 91.205
	PL-087	Flight Data Recorder (FDR) System	14 CFR 91.609, 91.1045, Appendix E to Part 91, 14 CFR 121.343, 121.344, 121.344a 14 CFR 125.225, 125.226 14 CFR 129.20
ATA 33	PL-123	Passenger Notice System (Lighted Information Signs)	14 CFR 91.517 14 CFR 125.207, 125.217 14 CFR 135.127, 135.177
ATA 34		ADF Systems	14 CFR 121.347, 121.351 14 CFR 125.203 14 CFR 91.205
	PL-039	Altitude Alerting System	14 CFR 91.219, Appendix G to Part 91 (RVSM)
	PL-076	ATC Transponder/Automatic Altitude Reporting Systems	14 CFR 91.130, 91.135, 91.215, Appendix G to Part 91 (RVSM)
	PL-105	Automatic Dependent Surveillance - Broadcast (ADS-B) System	None
	PL-003	Distance Measuring Equipment (DME)	14 CFR 91.205 14 CFR 121.349 14 CFR 125.203 14 CFR 129.17
		Flight Management Computer System (FMCS	14 CFR 91.205 14 CFR 121.347, 121.349, 121.351 14 CFR 125.203 14 CFR 129.17 14 CFR 135.161, 135.165
	PL-054, PL-067	Ground Proximity Warning System (GPWS)	14 CFR 91.223, 91.1045 14 CFR 121.354, 121.358 14 CFR 135.154

ATA 34 (Cont'd)		Instrument Landing System (ILS	14 CFR 121.347, 121.349 14 CFR 129.17 14 CFR 135.165
		Long Range Navigation Systems (GPS, INS, Loran, Omega)	14 CFR 121.351, 121.355 14 CFR 125.267
		Marker Beacon System	14 CFR Appendix A to Part 91 (Cat II Operations) 14 CFR 121.349 14 CFR 125.203 14 CFR 129.17 14 CFR 135.165
	PL-111	Standby Attitude Indicator	14 CFR 121.305 14 CFR 91.205, 91.507 14 CFR 135.149, 135.159
		Thunderstorm Detection	14 CFR 135.173
	PL-032	Traffic Collision and Avoidance System (TCAS)	14 CFR 91.221, 91.1045, Appendix G to Part 91 (RVSM) 14 CFR 121.356 14 CFR 125.224 14 CFR 129.18 14 CFR 135.180
		VOR Navigation Systems	14 CFR 91.131, 91.205 14 CFR 121.345, 121.347, 121.349, 121.351 14 CFR 125.203 14 CFR 129.17 14 CFR 135.161 135.165
	PL-067	Weather Radar System	14 CFR 91.1045 14 CFR 121.357, 121.358 14 CFR 125.223 14 CFR 135.175

ATA 35		Oxygen System (Chemical or Gaseous)	14 CFR 91.211 14 CFR 121.329, 121.333, 121.574 14 CFR 125.219 14 CFR 135.157
		Portable Oxygen Dispensing Units (Or Equivalent) (Bottle and Mask)	14 CFR 121.329, 121.333
	PL-043	Protective Breathing Equipment (PBE)	14 CFR 121.337
ATA 52	PL-099	Main Cabin Exits/Slides (All Cargo Configuration	14 CFR 121.583 14 CFR 125.583 14 CFR 135.85

Federal Aviation Administration

MMEL Policy Letter 119 Revision 3 D1

Date: Month/Day/Year

To: All Region Flight Standards Division Managers
All Aircraft Evaluation Group Managers

From: Manager, Air Transportation Division, AFS-200

Reply To Attn Of: Manager, Technical Programs Branch, AFS-260

Subject: Two-Section MMELs (Part 91 and Part 135)

MMEL CODE: 00 (GENERAL)

REFERENCE PL-119, Revision 2, dated December 10, 2008,
PL-119, Revision 1, dated February 14, 2008, (Cancellation notice)
PL-119, Original, dated September 12, 2006

PURPOSE:
The purpose of this policy letter is to establish a standard Master Minimum Equipment List (MMEL) policy regarding the use of two-section MMELs. These MMELs are for aircraft equipped with self diagnostic technology which provide Crew Alerting System (CAS) messages for determining aircraft airworthiness status. Initially, this policy letter only applies to Part 91 Operations.

This policy is for AEG MMEL development and review.

DISCUSSION:
Revision 3: Revises Policy Letter to allow Part 135 operators to use the Two-Section MMELs.

Revision 2: Revises and clarifies the Policy Letter policy and guidance. Guidance is provided for standardized formatting of the two-section MMELs. Section Two CAS message relief is also clarified.

Revision 1: Withdrew original policy letter policy and guidance due to confusion over who (crew or maintenance) can accomplish CAS self diagnostic actions.

POLICY:
Two section MMELs are authorized by FAA Policy Letter 119, Revision 2. Section Two of two-section MMELs may grant relief for failure indications presented as CAS messages on Engine Indicating and Crew Alerting Systems (EICAS), or Electronic Centralized Aircraft Monitoring (ECAM), rather than the traditional relief (Section One) for failed equipment. New technology self diagnostic tests eliminate the need for failure isolation procedures by maintenance personnel for many CAS messages. By using (O) procedures, the crew can complete selected system/component deactivation/re-configuration from the cockpit. Section Two will only contain CAS message relief if the crew can act on the item. CAS message

relief must ensure safe operation of aircraft. Flight Operations Evaluation Boards will use the normal FOEB processes for determining which CAS messages go into each section.

TWO-SECTION MMEL GUIDANCE

Modern technology CAS MMELs shall be divided into two sections.

Section One – Items which either require maintenance actions (this may include some CAS messages), or caution/advisory information. Section One will continue to use the existing Line Replaceable Units (LRU-oriented) MMEL format and should address the following type of equipment failures:

- failures which are not annunciated to crew, and
- failures which are annunciated, but the failure indication by itself is not considered sufficient to determine the aircraft airworthiness status.

Section Two –Includes only items where flight members may act on CAS messages. MMEL items where CAS messages can be used to determine the aircraft airworthiness should be formatted as follows:

-It should have only two columns.
-The first column should list the failure indications (messages) for which relief is given (if desired, the messages will be listed in alphabetical order with no ATA break down)
-The second column should include the corresponding MMEL limitations and/or procedures. The format of this column should be in line with the format requirements of "Remarks or Exceptions" column of the conventional "LRU oriented" MMEL.

In many cases CAS messages will not require maintenance to perform fault analysis. Relief provisos for these CAS items are expected to be more restrictive in content, and repair interval, as compared to Section One relief provisos.

Section Two CAS message relief items require flight crews to accomplish one or more steps to deactivate/re-configure the affected system prior to flight. The "(O)" indicates the need for these tasks. Tasks include, but are not necessarily limited to the following duties:

a) Procedures accomplished using cockpit (or cabin) system controls.

b) Deactivation of affected systems (by pulling system breaker or use of remote electronic system isolation);

c) Visual confirmation of remote gauge indications, or valve positions as provided by integral external indicators.

d) Visual inspection behind panels (internal or external) which are accessible without tools via quick-release latches and which clearly indicate their unlocked or unsafe state;(red/green safe window; flush fit latches - candidates to be verified at FOEB) may be accomplished by the crew;

In addition, the following statement shall be included on page 1 of Section Two in all two-section MMELs;

"Section Two of the MMEL will list only Crew Alerting system (CAS) messages meeting the following requirements;

1) Equipment failure indications(s) that can be used to determine the airworthiness status of the airplane,

2) Messages that the crew can act upon with simple troubleshooting procedures without the assistance of a mechanic, and

3) Messages using the new self-diagnostic technology (virtual) actions.

CAS message relief items not meeting these requirements will be listed in Section One of the MMEL."

Flight Operations Evaluation Board (FOEB) chairman should apply the above policy to applicable MMELs through the normal FOEB Process.

(AFS Manager name here), Manager
Air Transportation Division, AFS-200

NEF Universal List

NOTE: THE FOLLOWING LIST WAS COMPLIED BY THE ***FAA/ATA MMEL IG*** TO FACILITATE DEVELOPMENT OF OPERATOR'S NEF PROGRAMS.

- THE LIST IS NOT ALL INCLUSIVE AND DOES NOT INCLUDE ALL ITEMS THAT MAY BE APPROPRIATE FOR DEFERRAL UNDER AN OPERATOR'S NEF PROGRAM.
- SOME ITEMS ON THE LIST MAY NOT BE APPROPRIATE FOR SOME OPERATOR'S NEF PROGRAMS.
- THIS LIST HAS NOT BEEN APPROVED BY THE FAA.
- ANY NEF LIST DEVELOPED BY THE OPERATOR MUST BE SUBMITTED TO THE FAA FOR REVIEW AND APPROVAL AS PART OF THEIR NEF PROGRAM, WHERE REQUIRED BY FAA PL-116 AND THE APPROPRIATE FAA GUIDANCE MATERIAL.

Cabin General

1. Misc Cabin Forms: Missing, Needs Replenishing
2. Appearance Items: Worn, Soiled, Frayed, Torn, Damaged, Loose, Missing (must not present hazard to pax/crew or impede emergency egress)
   a. Cabin Interior Trim
   b. Carpet / Floor Coverings
   c. Curtains / Tiebacks
   d. Wall Coverings (including sidewall panels; excluding sidewall return air grilles)
3. Door Cover / Slide Bustle: Dirty, Minor/Insignificant Damage
4. Safety Demo Equipment
   a. Demo Tape (notify lead flight attendant, physical demo required)
   b. Demo Equipment: Safety Belt, Life Vest, O2 Mask (consider availability of safety video)
      This should apply only to excess items, or if safety video system available and operative
5. Coat Hanger Installation
6. Cabin Lighting/Signs (only items not covered by MEL ATA 33)
   a. Reading Lights
   b. Light Lens/Covers (including emergency light): Loose, Damaged but light functions properly
   c. Lavatory Occupied Light
7. Spare Life Vests: Missing
8. Magazine Rack / Restraint
9. Cabin Mirrors
10. Seat Number Placards
11. Seat Track Covers: Damaged, Loose, Missing (any exposed wiring must be protected)
12. Cabin Windows

a. Crazed, Moisture Between Panes
In some cases there may be AMM limits for crazing so NEF would not be appropriate.
b. Interior Panel: Damaged, Needs Cleaning
c. Shades: Damaged, Inoperative
d. Window Trim: Loose, Damaged, Missing

13. PSU Panel: Damaged/Needs Cleaning but functions properly
    a. Individual Gasper Outlets: Inoperative, Damaged, Won't Shutoff
    b. Attendant Call: Light or Switch Inoperative
14. Fire Extinguisher Seals (safety pin intact and fire extinguisher otherwise fully serviceable)
This has been questioned by some FAA inspectors
15. Cabin Handset Cradle: Damaged (handset fully operational)
16. Electrical Outlets
17. Ventilation Grill: Dirty
18. Therapeutic Oxygen Fittings
Some MMELs cover Therapeutic Oxygen
19. Universal Precaution Kit: Missing, Contents Used
20. Braille Book: Missing
21. On Board Wheelchair: Missing (notify Customer Service Rep)
22. Cabin Step Stool
23. Cabin Divider Panels: Operable, but Difficult to Position Closed
24. Attendant Work Table
25. Attendant Storage Box
26. Bassinet or attachment point missing
27. Seat Belt Extensions
28. Boarding Music
29. Airfone – individual handset inop or missing
30. Handset Directory Placard damaged or missing
31. Life Vest – Adult spare vest bag damaged
32. Seat ID number placard damaged or missing
33. Cabin Speakers static but operational
34. Electrical Outlet Door damaged or missing
35. Emergency Floor Light cover damaged
36. Stow Bin snubber damaged
37. Switch Guard for EVAC button missing
38. Therapeutic O2 mounting anchor missing
39. Seatback / Bulkhead / Sidewall Literature Pockets
40. Aircraft Removable Equipment:
    a. Dirty linen storage containers
    b. Waste containers

GALLEY

1. Coffee Makers
2. Coffee/Tea/Brewing Pots
3. Water Boilers
4. Warmer Pads
5. Ovens and Controls
6. Cart Top Extension and Stowage Case
7. Collapsible Trolley
8. Carts (may be FOEB item)
9. Waste Containers
10. Trash Compactor
11. Carriers
12. Plate Warmers
13. Air Gaspers
14. Work Lights
15. Thermos Units
16. Galley Heating
17. Galley Sinks and Drains
18. Chillers
19. Work Tables
20. Bun Warmer
21. Refrigeration System
22. Galley Floor Heater
23. Coat Hanger Clips
24. Paper Clips
25. Retention Lugs
26. Chilled Air Temperature Gauge
27. Mirrors
28. Sink Drain Handle
29. 115VAC Power Outlets
30. Water Spigot
    MMEL Potable Water item provides relief
31. Cabin Cart tie down (mushroom)

Flight Deck

1. Access compartment latches
2. Ashtrays
3. Coat and/or hat hooks
4. Circuit breaker floor cover behind 1st Officer seat (alternate procedures may be required)

5. Circuit breaker guards (alternate procedures may be required)
6. Coat and/or hat hooks
7. Compartment Doors
   This one is questionable
8. Cup holders (alternate procedures may be required)
9. Document holder (including retention bar/strap)
10. Eyebrow window visor
11. HGS quilted cover
12. Spring Clip (located left of document holder)
13. Seat belt tidy clips
14. Spare bulb kit and contents
15. Trim, seat, sidewall, overhead & etc.
16. Window Heat contact covers
17. Vanity door mirror
18. Yoke chart clips
19. Sunshades
20. Captain's food tray
21. Captain's brief case bungee strap
    This one is questionable
22. Carpet
23. Flight deck door hold-open magnet
24. Foot Tread Trim
25. Logbook Holder
26. Observer's storage compartment
    This one is questionable
27. Observer's foot holder
28. Observer's seat latch knob
29. Outlet for external power test equipment 115V 400 cycle 1000 watts (inside upper left)
30. Outlet for external power test equipment 28V 400 cycle 400 watts
31. Second microphone holder
32. Side panel door cover
33. Spare Headset
34. Trim: seat, sidewall, overhead, etc

Lavatories and Crew Rest Areas

LAVATORIES

1. Door spring
2. Sanitizer dispenser
3. Seal strip on lavatory door

4. Privacy stop on lavatory door
5. Vanity mirror
6. Lavatory seat cover holder
7. Toilet paper roller
8. Vanity lights
9. Lights
10. Mirror lights
11. Diaper changing table
12. Sink drain screen
13. Assist handles
14. Toilet seat lid
15. Toilet seat
16. Soap holder
17. Faucet aerator
18. Hot and cold faucet indicators
19. Cup holder
20. Coat hook
21. Deodorizer holder
22. Bio hazard disposal container
23. Inside door ash trays
24. Miscellaneous placards
25. Door slow rater
26. Paper towel holder
27. Interior wall trim/coverings
28. Air grill covers

FLIGHT CREW REST AREAS

1. Reading lights
2. Air vents /grills
3. Phone holder
4. Stowage compartment bag/lights
5. Door latches
6. Coat hangar
7. Personal electronic device power
8. Food tray table
9. Mirror (damage must not pose any safety hazard to passengers or crew)
10. Ash trays
11. Interior wall trim/coverings
12. Hat clips
13. Pillow/blankets/sheets

14. Assist handles
15. Floor track covers
16. Carpet

CABIN CREW REST AREAS

1. Mirrors
2. Changing table
3. Chair
4. Stair tread lights
5. Air grill covers
6. Assist handles
7. Stowage compartments
8. Doors or privacy curtains
9. Bunk pads
10. Pillow sheets
11. Blankets
12. Carpet and associated trim
13. Interior wall trim/coverings
14. Bunk reading lights
15. Smoke detector latch covers
16. Curtain/curtain tiebacks for bunks
17. Floor track covers

Placards & Miscellaneous

ATA	Type	Condition
0500	Document, Certificate	Illegible or missing
	Document, Checklist (Taxi)	Illegible or missing
	Document, Checklist (Cockpit)	Temporary in use
	Document, Manual	Illegible or missing
	Tooling, Gear Pins	Missing
	Tooling, Brake Deactivation	Missing
1100	Placard, Interior, Required	Degraded but legible
	Placard, Interior, Required	Temporary in use
	Placard, Interior, Non Required	Degraded but legible
	Placard, Interior, Non Required	Missing or Illegible
	Placard, Exterior, Required	Degraded but legible
	Placard, Exterior, Required	Temporary in use

	Placard, Exterior, Non Required	Degraded but legible
	Placard, Exterior, Non Required	Missing or Illegible
	Seal, Tamper	Missing or Broken
2500	Handcuffs	Missing
	Sharps Container(s)	Missing
	Universal Precautions Kit(s)	Missing
	CPR Resuscitators	Missing
5100	Sealant, Aerodynamic	Degraded
	Paint, Non Cosmetic	Worn, Damaged or Missing
	Coating, Non Cosmetic	Worn, Damaged or Missing

Service Bays

NOTE: **(M)** INDICATES MAINTENANCE ACTION MAY BE REQUIRED.

EXTERNAL POWER CONNECTION

1. Hold open rods or lanyards
2. Compartment lighting switches **(M)**

AIR CONDITIONING SERVICE BAYS

1. Hold open rods or lanyards
3. Compartment lighting lenses Indication light lenses **(M)**
2. Compartment lighting switches **(M)**

POTABLE WATER SERVICE BAY

1. Hold open rods or lanyards
2. Compartment lighting lenses **(M)**
3. Compartment lighting switches **(M)**
4. Dust cover caps for service ports
   This one is questionable – may be covered under Potable Water MMEL item
5. Water quantity indication
   This one is questionable – may be covered under Potable Water MMEL item
6. Dust cap chains or lanyards

TOILET SERVICE

1. Hold open rods or lanyards
2. Compartment lighting lenses **(M)**
3. Compartment lighting switches **(M)**
4. Dust cover caps for service ports
   This one is questionable – may be covered under Lavatory MMEL item

5. Dust cap chains or lanyards

HYDRAULIC SERVICE BAY

1. Hold open rods or lanyards
2. Compartment lighting lenses **(M)**
3. Compartment lighting switches **(M)**
4. Dust cover caps for service ports
5. Dust cap chains or lanyards
6. Manual service hoses

GROUND AIR SERVICE BAY

1. Hold open rods or lanyards
2. Compartment lighting lenses **(M)**
3. Compartment lighting switches **(M)**
4. Dust covers and lanyards

APU SERVICE BAY

1. Compartment lighting **(M)**
2. Compartment lighting switches **(M)**

AFT FUSELAGE/TAIL ACCESS

1. Compartment lighting lenses **(M)**
2. Compartment lighting switches **(M)**
3. Hold open rods

Passenger Seats

NOTE: OPERATOR MUST DETERMINE IF ITEM MUST BE DEACTIVATED OR SECURED FOR DISPATCH AND DEVELOP APPROPRIATE PROCEDURES.

PASSENGER VIDEO SYSTEM

1. Projection Screen(s)
2. Video Monitor(s) (wall- or overhead-mounted units)
3. Video Monitor Head-strike Lamps
4. IFE Video Monitor Shroud(s)
5. Video Cassette Player(s)
6. In-Seat Video Player(s)/Personal Video Players
7. Seat Back Video Monitor(s)
8. In-Arm Seat Video Display(s) (ISVD)
9. Interactive Video System
10. Individual Seat(s) Video
11. Interactive Video System

12. Passenger Video Zone(s)

PASSENGER PHONE

1. Individual Unit(s)
2. Zone(s)
3. Complete System(s)

PASSENGER AUDIO ENTERTAINMENT

1. Jack(s)
2. System(s)
3. Speaker(s)
4. Passenger Seat Volume Control

PASSENGER CALL

1. Passenger Seat Call Light(s)
2. Passenger Seat Call Button(s)

LIGHTING

1. Passenger Reading Light(s)
2. Crew Rest Area Light(s)
3. Work Station Light(s)
4. Snake Lights

MISCELLANEOUS

1. Passenger Seat Tray Table Assembly (& Latch)
2. Passenger Seat Headrest(s)
   May be inop, but not removed/missing
3. Passenger Seat Footrest(s)
4. Passenger Seat Trim
5. Passenger Seat Cushion(s)

Cargo Compartment

AIR OUTLET(S):

1. Trim piece missing
2. Vent grill damaged

BALLMAT(S):
Are these part of Cargo Loading System?

1. Worn

BULK CARGO COMPARTMENT:

1. Floor panel damaged

CARGO COMPARTMENT:

1. Anti skid paint, worn
2. Anti-skid paint, missing
3. Cargo stop(s) inop
4. Door light housing requires replacement
5. Non-slip tape, worn
6. Non-slip tape, missing
7. Profile bar bent
8. Placard(s) missing

CARGO DOOR(S):

1. Actuator cover bracket broken
2. Assist spring(s) missing
3. Control handle hold down clip(s) broken
4. Draft seal worn
5. Insulation blanket worn
6. Insulation blanket contaminated (removed)
   Cert requirement?
7. Safety net, missing net
8. Safety net, missing storage pouch
9. Safety net, stowage bag worn
10. Safety net, storage pouch loose
11. Safety net, storage pouch torn
12. Safety strap damaged

CARGO HANDLING SYSTEM:

1. Control c/b(s) require replacement
2. Master cargo control, drive control bad

DRIVE WHEEL(S): I
Are these part of Cargo Loading System?

1. Inoperative

DUMB WHEEL(S):
Are these part of Cargo Loading System?

1. Inoperative
2. Low pressure

LONG WHEEL(S):
Are these part of Cargo Loading System?

1. Actuator c/b broken

LOWER CARGO COMPARTMENT:

1. Avionics door handle broken off
2. Avionics door handle bottom nut plate loose
3. Ceiling panel needs to be painted white
4. Conveyer restraint broken
5. Conveyer flip up stop(s) missing
6. Divider damaged
7. Door access fairing damaged
8. Door seal torn
9. Floor boards require sealing
10. Missing screw(s) in floor panel(s)
11. Net damaged
    Cert issue?
12. Net missing around door
13. Overriddeable "y" latch inop

MAIN CARGO DECK:

1. Cargo handling system inop
   MMEL item
2. Center beam assembly has slight bend
3. Door frame liner tear
4. Door panel missing lanyards
5. Floor center guide missing
   Is this part of Cargo Restraint System?
6. Missing screw(s) in floor panel(s)
7. Rail ramp(s) missing
8. Side wall trim missing
9. Sidewall missing endcap(s)
10. Smoke curtain Velcro wearing
11. Track roller will not lock in track

POWER DRIVE UNIT(S):
Part of Cargo Loading System

1. Inoperative
2. Load control, rubber cover unserviceable
3. Load control, no power

PROFILE STRAP:
Are these part of Cargo Loading System?

1. Has pulled attach point
2. Not attached

RIGID BARRIER SLIDING DOOR:

1. Handle broken
2. Handle inoperative
3. Stop bumper broken
4. Stop bumper missing

ROLLER TRAY:
Are these part of Cargo Loading System?

1. Attach bracket(s) cracked
2. Broken attach fitting(s)
3. Dented roller(s)
4. Missing roller(s)
5. Rail has bent shaft

SILL GUARD:
Is this part of Cargo Restraint System?

1. Aft pin lanyard(s) missing
2. Bumper shock mount stripped
3. Crack(s) in middle
4. Guide rod retainer/spring(s) broken
5. Lock(s) broken
6. Removed
7. Shock pin(s) require replacement
8. Support bracket clevis missing
9. Turnbuckle(s) broken
10. Vertical guide release trigger broken

SMART WHEEL(S):
Are these part of Cargo Loading System?

1. Inoperative
2. Will not drive

SMOKE DETECTOR:

1. Grill damaged (detector fully functional)

TRANSVERSE WHEEL(S):
Are these part of Cargo Loading System?

1. Actuator c/b broken

DO **NOT** NEF ITEMS

FLIGHT DECK

1. Emergency Systems, Equipment and Airworthiness Items
2. Instrument Panel Fasteners
3. Flight Deck Instrument and Panel Lights
4. System annunciator lights: one inop, other bulb working OK
5. Hydraulic Pump Switch “ON” Light
6. Observer Seat Hand Microphones
7. Crew Rest Area Call System (including Call Lights)
8. Maintenance level messages and indications
9. Air System Synoptic (applies to all system synoptic displays)
10. APU Switch Guard

CABIN

1. EEMK Storage Compartment Serviceable but not in optimum condition.
2. EEMK Storage Compartment Key Locks Inoperative.
3. EEMK Incomplete, Missing or Inoperative.
4. AED Compartment Lock
5. Passenger Seat Armrests (including FC seat retractable armrests)
6. Cabin Handset Cradle – damaged but serviceable
7. Cabin/Flight Attendant Emergency Light Switch Guard missing
8. Miscellaneous Cabin/Galley Quarter Turn Restraints
9. Cabin/Galley Compartment Doors missing or inoperative CLOSED
10. Cabin/Galley Compartment Doors missing or inoperative OPEN
11. Passenger seat cushions missing
12. EVAC Switch Guard
13. Floor Proximity Emergency Lights Maintenance Test Switch
14. Prerecorded Announcements (PRAM)
15. Cabin System Control Panel (CSCP)

LAVATORY / POTABLE WATER

1. Potable Water Fountains
2. Lavatory Speakers
3. Potable Water System Leaks
4. Galley Potable Water System
5. Lavatory Waste Tank Dump Cables
6. Potable Water System Components
7. Galley Faucet (won’t shutoff)
8. Lavatory Tank Fill Shutoff Valve
9. Lav Dump Connection / Door Assy

EXTERIOR ITEMS

1. APU Fire Light on External Panel inoperative
2. Mechanic Call Light in External Power Receptacle inoperative
3. AVAIL Light in External Power Receptacle inoperative
4. NOT IN USE Light in External Power Receptacle inoperative
5. Nose Gear APU Fire Light inoperative

6. Fuel Cap O-Ring missing
7. Defuel Valve Light/Lens Cover
8. Hydraulic Service Panel Quantity Gauge

MISCELLANEOUS

1. A Check items
2. Insulation blankets
3. Crew Rest / Bunk Door Locks
4. Crew Rest Door
5. Cargo Pit PDUs

MMEL Task 4 Recommendations

I. Executive Summary

The final evaluation of the current policies and practices implemented by OEMs and the various regulatory organizations concerning the development and approval of the MMEL over the past several decades has consistently demonstrated a high level of reliability and comprehensiveness in maintaining the necessary safety margins that both the engineering and operations communities have come to expect and require. Our past and current MMEL development considerations have primarily been based on consideration of the "next worst case failure", and the impact of that failure on crew workload and the integrity of the aircraft after that failure. This report finds that these procedures have provided excellent aircraft safety margins and, as such, we recommend that these procedures be continued as the primary path for future MMEL development and approval. This report also recommends establishing a standardized numerical analysis methodology for proposed MMEL items – when numerical analyses of a given MMEL dispatch configuration are considered useful. This report further recommends revising the Arsenal and current versions of AC 25.1309 statements relative to the MMEL. Dispatches with multiple inoperative MMEL items are handled separately by the FOEB and considered to be outside the scope of this proposed guidance.

II. Benefits of the Recommended Changes

When used to support a proposed MMEL item's qualitative assessment, the recommended numerical analysis guidance would provide a standardized methodology that would maintain fleet average reliability objectives.

III. Applicability of the Recommended Rules/ACs

Changes to the Arsenal version of AC 25.1309, paragraphs 12.b.(1) and paragraph 12.d., and the current AC 25.1309 -1A, paragraph 12.d are recommended. These changes are intended to make it clear that reliability analyses concerning MMEL dispatches need not be included in the numerical analyses submitted for certification to show compliance with FAR/JAR 25.1309(b).

IV. The Recommended Changes

(A) Recommendations to Industry and the Authorities (FAA Flight Standards, EASA, TCCA, etc.) for potential incorporation into MMEL Development Process:

This guidance is provided as a recommendation to industry and the authorities, and is recognized as not the only means to support the primary qualitative justification for a proposed MMEL item; therefore, this guidance is not mandatory. It should also be recognized that the FOEB Chairpersons have the authority to request additional analyses. This guidance is not intended to be applied retroactively to approved MMELs.

This guidance recognizes that under MMEL conditions, single failures leading to a potentially hazardous or catastrophic failure condition are normally not permitted at dispatch.

The results of numerical safety assessment of MMEL allowed dispatch with an inoperative item may be used to supplement the qualitative safety assessment review with the Authorities. Numerical safety assessments may be needed when relief is proposed for items, functions and/or systems involved in Catastrophic or Hazardous failure conditions, where that failure condition can not be mitigated by operational procedures, limitations or a maintenance action prior to dispatch. Numerical analyses do not normally need to be considered when the operation with the inoperative item leaves the aircraft more than one failure away from a Hazardous failure condition or more than two failures away from a Catastrophic failure condition.

Items for which a numerical assessment is carried out to supplement the qualitative MMEL development process in accordance with the above mentioned criterion should be reported. Items for which the probabilities per flight hour of 10^{-08} for Catastrophic failure conditions and 10^{-06} for Hazardous failure conditions are not met in that dispatch configuration, should be reviewed with the Authorities . The following guidance applies to these proposed dispatches: This guidance includes formulae to control how long these configurations are allowed to exist, such that the fleet average objectives will be achieved (see logic flowchart provided in Figure 1.).

For Catastrophic Failure Conditions:

- A probability per flight hour of $\leq 1 \times 10^{-8}$/flt.hr is the objective when dispatching with the inoperative item. When this objective is met, no calculation for a maximum allowable dispatch time is considered necessary.

- A limited number of items may be considered where the above objective is not met. In these cases, the maximum allowable probability per flight hour when dispatching with the inoperative item should not exceed 1×10^{-7}/flt.hr, and the maximum dispatch time should be less than that calculated using the following formula, Eq(1).

  The 1×10^{-8}/flt.hr objective and 1×10^{-7}/ flt.hr upper limit apply to each catastrophic top event involving the inoperative-at-dispatch MMEL item. If more than one top level event is involved, the maximum allowable dispatch time should be the smallest of those calculated for the affected top events.

  Max Dispatch Time [flight hours] = (1×10^{-9} probability per flight hour) /[(Probability of Failure condition per flight hour under Dispatch condition) x (Failure Rate of proposed MMEL item per flight hour)] Eq(1)

  Which can be shown as:

$$\text{Max Dispatch Time [flight hours]} = \frac{(1 \times 10^{-9} \text{ probability per flight hour})}{PF \times FR}$$

  Where

  PF = Probability of Failure condition per flight hour under dispatch condition

FR = Failure Rate of proposed MMEL item per flight hour

For Hazardous Failure Conditions:

- A probability per flight hour of $\leq 1 \times 10^{-6}$/ flt.hr is the objective when dispatching with the inoperative item. When this objective is met, no calculation for a maximum allowable dispatch time is considered necessary.

- A limited number of items may be considered where the above objective is not met. In these cases, the maximum allowable probability per flight hour when dispatching with the inoperative item should not exceed 1×10^{-5}/ flt.hr, and the maximum dispatch time should be less than that calculated using the following formula, Eq.(2).

  The 1×10^{-6}/flt.hr objective and 1×10^{-5}/ flt.hr upper limit apply to each Hazardous top event involving the inoperative-at-dispatch MMEL item. If more than one top level event is involved, the maximum allowable dispatch time should be the smallest of those calculated for the affected top events.

  Max Dispatch Time [flight hours] = (1×10^{-7} probability per flight hour) /[(Probability of Failure condition per flight hour under dispatch condition) x (Failure Rate of proposed MMEL item per flight hour)] Eq.(2)

  Which can also be shown as:

$$\text{Max Dispatch Time [flight hours]} = \frac{(1 \times 10^{-7} \text{ probability per flight hour})}{PF \times FR}$$

  Where
  PF = Probability of Failure condition per flight hour under dispatch condition
  FR = Failure Rate of proposed MMEL item per flight hour

Dispatch times will primarily be based on operational considerations. Allowed MMEL dispatch times may be considerably less than the maximum times calculated.

Note: The formulae given above for maximum dispatch times for MMEL items or functions involved in Catastrophic or Hazardous failure conditions provides dispatch times that are compatible with the fleet average top level reliability requirements of FAR/JAR 25.1309(b). The above equation would yield a maximum operating time in the particular configuration to be $\leq$ 1% of the fleet operating time when the dispatch configuration has a failure rate of 10^{-7}/ flt.hr.

Maximum dispatch times as calculated from the above formulae or other appropriate methods, should be maintained by the applicant's operations/MMEL group. That group will work with the Flight Operations Evaluation Boards (FOEB/OEBs) to decide on an acceptable MMEL entry.

Example Aircraft Level:
When a quantitative analysis is desired to support the qualitative assessment of an MMEL inoperative item dispatch, the following example may be helpful:

a) Use the fault trees for the Catastrophic failure conditions affected by the proposed MMEL item, where that failure condition cannot be mitigated by operational procedures, limitations or a maintenance action prior to dispatch

b) Review the fault trees to determine whether operation with the inoperative MMEL item (item probability set to 1) leads to a probability per flight hour (at dispatch) of $\leq 1 \times 10^{-8}$/ flt.hr

If Yes ($\leq 1 \times 10^{-8}$/ flt.hr):	No numerical analysis needed for maximum allowable dispatch time
If No ($>1 \times 10^{-8}$/ flt.hr):	go to c)

c) Calculate the Maximum Dispatch Time using equation Eq.(1) above:
Example numbers:
- Probability of Failure condition per flight hour under Dispatch condition – determined from fault tree with probability of MMEL item to 1:
  - Example: 3.0×10^{-8}/ flt.hr
- Failure Rate of proposed MMEL item per flight hour
  - Example: 10^{-4} / flt.hr

Maximum Dispatch Time $\leq (1 \times 10^{-9})/[(3.\times 10^{-8}) \times (10^{-4})]$
Maximum Dispatch Time ≤ 333 flight hours

This may result in a 10 day, Category C relief listing in the MMEL.

(B) Changes to Arsenal version of AC 25.1309 and AC 25.1309-1A:
The following recommended wording changes to the Arsenal version of AC 25.1309 will allow better coordination and improved clarity between the AC's recommended certification compliance requirements for FAR/JAR 25.1309 and the above recommendations concerning the MMEL development process. The last paragraph, paragraph 12.d, is also contained in the current AC 25.1309 -1A. The changes shown below in paragraph 12.d are also recommended for the current -1A AC. The advisory circular for FAR/JAR 25.1309 should not imply that MMEL configurations be included in the reliability analyses required by that regulation for aircraft certification.
The proposed changes to AC 25.1309 (Arsenal) paragraph 12.b.(1) and 12.d. are shown below:

b. Maintenance Action. Credit may be taken for correct accomplishment of reasonable maintenance tasks, for both qualitative and quantitative assessments. The maintenance tasks needed to show compliance with §/JAR 25.1309(b) should be established. In doing this, the following maintenance scenarios can be used:

(1) For failures known to the flight crew see paragraph 12.d.

(2) Latent failures will be identified by a scheduled maintenance task. If this approach is taken, and the Failure Condition is Hazardous or Catastrophic, then a CCMR maintenance task should be established. Some Latent Failures can be assumed to be identified based upon return to service test on the LRU following its removal and repair (component Mean Time Between Failures (MTBF) should be the basis for the check interval time).

c. Candidate Certification Maintenance Requirements.

(1) By detecting the presence of, and thereby limiting the exposure time to significant latent failures that would, in combination with one or more other specific failures or events identified by safety analysis, result in a Hazardous or Catastrophic Failure Condition, periodic maintenance or flight crew checks may be used to help show compliance with §/JAR 25.1309(b). Where such checks cannot be accepted as basic servicing or airmanship they become CCMRs. AC/AMJ 25.19 details the handling of CCMRs.

(2) Rational methods, which usually involve quantitative analysis, or relevant service experience should be used to determine check intervals. This analysis contains inherent uncertainties as discussed in paragraph 11e(3). Where periodic checks become CMRs these uncertainties justify the controlled escalation or exceptional short term extensions to individual CMRs allowed under AC/AMJ 25.19.

d. Flight with Equipment or Functions Known to be Inoperative. An applicant may elect to develop a list of equipment and functions which need not be operative for flight, based on stated compensating precautions that should be taken, e.g., operational or time limitations, flight crew procedures, or ground crew checks. The documents used to show compliance with §/JAR 25.1309, together with any other relevant information, should be considered in the development of this list. Experienced engineering and operational judgment should be applied during the development of this list. When more than one flight is made with equipment known to be inoperative and that equipment affects the probabilities associated with Hazardous and/or Catastrophic failure conditions, time limits may be needed for the number of flights or allowed operation time in that aircraft configuration. These time limits should be established in accordance with the recommendations contained in FAA Flight Standards Policy.

V. General Comments on Costs and Benefits (beyond Section II above) of the Recommendations
MMEL - Provides a better foundation for potential harmonization between the FOEB and JOEB.

VI. Alternatives Considered
None

VII. Dissenting Opinions

The purpose of this paragraph is to provide the discussions that have been held between Cedar Rapids and the issuance of the MMEL Task#4 report the dissenting positions remaining after those discussions as well as ASAWG dispositions and recommendations to TAEIG.

A - Submitted written opinions and rationale

Subsequent discussions between ASAWG members were held following Cedar Rapids report issuance. Those discussions lead to tweak some wording in order to clarify the intent and get a consensus on the attached flowchart. Those discussions and agreement have been tracked through the issuance of an interim final report dated July 17, 2009.

In parallel, the same day , TCCA expressed mainly a concern on the use in the MMEL process of mitigation factors to alleviate and further proposed a change to the first box of the flowchart

Dassault Aviation requested clarifications on the proposed change to the flowchart. Following discussions with EASA and TCCA, Dassault Aviation was satisfied by their answers and cleared the proposed text (Extract from Dassault mail dated August 21 and 25, 2009).

Extract from
Dassault Aviation mai

Finally, Boeing expressed two dissenting positions:

Dissenting Position#1:

The sentence "Numerical safety assessments may be needed when relief is proposed for items, functions and/or systems involved in Catastrophic or Hazardous failure conditions, where that failure condition can not be mitigated by operational procedures, limitations or a maintenance action prior to dispatch." is subject to misinterpretation that all MMEL items must be mitigated if possible, even when the qualitative justification may allow no mitigation. The wording of this sentence should be modified to make it clear that this was not the intent of the ASAWG MMEL Team.

Dissenting Position#2:

The sentence "Numerical analyses do not normally need to be considered when the operation with the inoperative item leaves the aircraft more than one failure away from a Hazardous failure condition or more than two failures away from a Catastrophic failure condition." can be interpreted that the OEM must ensure that all MMEL items are more than two failures from Catastrophic condition. This is next to impossible to implement if interpreted on an across-the-airplane basis. While these sentences were intended to narrow the scope, they could in fact broaden it, by then having to demonstrate that there are no MMEL event + 2 failure cases leading to a catastrophic outcome. The concept that two failures after an MMEL condition is not consistent with what the Latent group is doing (which not only acknowledges that there are dual failure conditions that are catastrophic, but acknowledges that some of those dual failures are latent - without consideration of MMEL). If the intent is to narrow the scope, it is doubtful that this sentence does much good at all, in that there are few systems with catastrophic failure

conditions that are quad redundant throughout their critical functionality, but this is what would be needed if any part of that critical redundancy were included as an MMEL item. Also, since MMEL components (like electrical generators) are a part of several if not all FTAs, and there is no limit on what the next critical failure might be (e.g. engine loss) it may be beyond the scope of current airplane design to consider this. In reality, under this guidance all MMEL conditions that are part of an FTA for a catastrophic event will need a numerical analysis. Boeing suggest this sentence be reworded to state "No numerical analyses is needed when the operation with the inoperative item leaves the aircraft more than one failure away from a Hazardous failure condition." (this is currently within the scope of current MSG3 analysis).

The flow chart steps based on these two sentences should be revised appropriately.

B - ASAWG dispositions

Discussions on dissenting position #1 have been held through Dassault Aviation paper. Feed-back from related Authorities have been positively accepted by Dassault Aviation. However, so as to avoid different interpretations from different Authorities, Boeing raised this issue as a dissenting opinion. The short time period between the issuance of the dissenting position and this report did not allow to converge on a agreed verbiage on this issue.

Boeing dissenting position #2 was actually part of Boeing position (3) and also in Boeing position (4). Both Boeing positions were voted and while Boeing position (3) was rejected, Boeing position (4) was agreed.

C - ASAWG recommendations to TAEIG for how the dissenting opinions may be addressed.

For Boeing dissenting position#1, ASAWG considers that technical agreement have been reached amongst OEM and Authorities. However, to avoid misinterpretation from people not participating to the group, ASAWG recommends that an explanatory note TBD be added to explain the meaning of the sentence with potential update of the flowchart.

For Boeing dissenting position#2, ASAWG considers that agreeing on Boeing position (4) takes into account Boeing's concern and that no wording change is necessary.

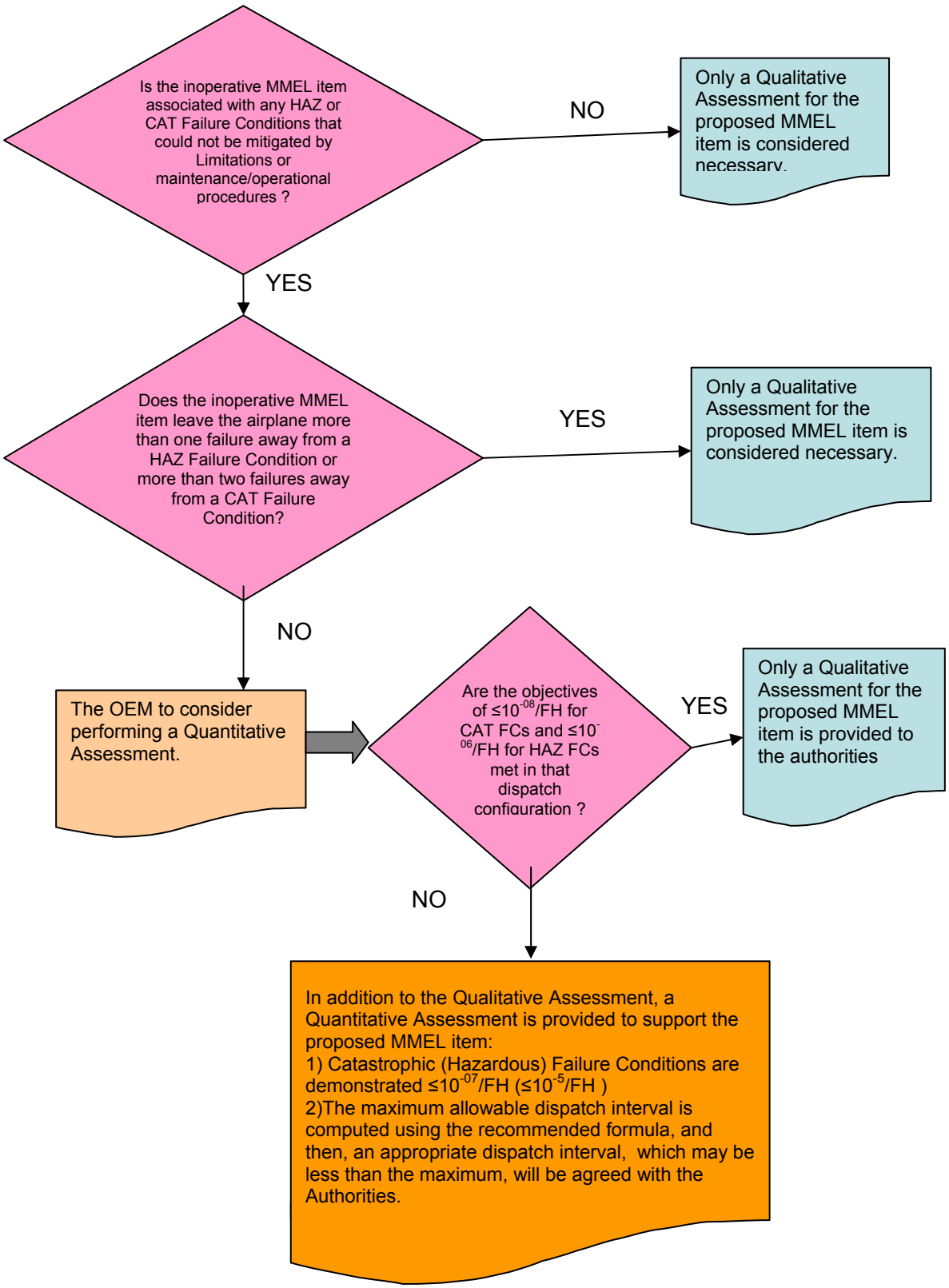


Figure 1. Logic Flowchart to Support Numerical Analyses for Proposed MMEL Items

Federal Aviation Administration

MMEL Policy Letter 9, Revision 9

Date:	Jan XX, 2010
To:	All Region Flight Standards Division Managers All Aircraft Evaluation Group Managers
From:	Manager, Air Transportation Division, AFS-200
Reply to Attn of:	Manager, Technical Programs Branch, AFS-260

SUBJECT: Public Address System, Crewmember Interphone and Alerting Systems

MMEL CODE: 23 (COMMUNICATIONS)

REFERENCE: PL-9, Revision 8, dated January 20, 2009
PL-9, Revision 7, dated November 25, 2003
PL-9, Revision 6, dated February 5, 2003
PL-9, Revision 5, dated October 15, 2001
PL-9, Revision 4, dated February 16, 2001
PL-9, Revision 3, dated April 28, 1998
PL-9, Revision 2, dated August 15, 1997
PL-9, Revision 1, dated May 10, 1993
PL-9, Revision Original, dated June 9, 1982
PL-116, Revision 1, dated December 21, 2007

PURPOSE:

The purpose of this policy letter is to establish a standard Master Minimum Equipment List (MMEL) policy for the Passenger Address System (PA) on passenger and cargo aircraft and a policy for crewmember interphone and alerting systems.

DISCUSSION:

Revision 9 corrects "visual" to "audio" in two places for Flight Attendant Audio Alerting System relief.
Revision 8 reformats PL-9 and revises "Passenger to Attendant Call System is considered a passenger convenience item" to "Passenger to Attendant Call System is considered Non-Essential Equipment and Furnishing (NEF)" to comply with PL-116.
Revision 7 incorporated the following changes:

1) Changed "airplanes" to "aircraft" in PURPOSE statement.
2) Revised number of lavatory speakers required on passenger aircraft.
3) Added relief for lavatory speakers on cargo aircraft.
4) For Alerting Systems (Audio / Visual):
   a) Revised relief to account for 14 CFR Section 25.854 requirements.
   b) Added (O) to ensure alternate procedures are established and used.
   c) Added NOTEs to indicate operative system functions may be used.

Revision 6 incorporated the following changes:
1) Clarified interphone station and handset relief.
2) Revised Flight Deck to Ground sub-items to increase system availability on large turbojet powered airplanes.
3) Added Category "C" relief for PA systems for aircraft in cargo configuration.
4) Added relief for lavatory speakers.
5) Added Category "D" relief for interphone handsets and alerting system functions for aircraft in cargo configuration when courier/supernumerary compartment is unoccupied.

Revision 5 clarified PA chime requirement, added relief for PA systems not required by Title 14 Code of Federal Regulations (14 CFR), incorporated security recommendations, added all cargo operations relief, added handset requirements, and revised Alerting Systems as sub-items.

Revision 4 added a note to "Flight Attendant Call Light" and "Flight Attendant Chime" items.

Revision 3 established a clarifying policy concerning a requirement for a two way normal or emergency communications between pilot compartment and crewmembers in the passenger cabin.

Earlier revisions placed an inoperative Public Address System in repair category "B" for passenger aircraft.
For cargo configured aircraft, the PA system was assigned repair category "D" and is not changed.

POLICY:

The following standard MMEL proviso and repair category is adopted to provide standardization among all MMELs for the Passenger Address System, Crewmember interphone and the alerting system.

23 (COMMUNICATIONS)		**Repair Interval**	**Number Installed**	**Number Required for Dispatch**	**Remarks or Exceptions**
23-X	Passenger Address System (PA)				
1)	Passenger Configuration	B	1	0	(O)May be inoperative provided: a) Alternate, normal and emergency procedures, and/or operating restrictions are established and used, and b) Flight attendant alerting system (audio and visual) operates normally. NOTE: Any station function(s) that operate normally may be used.
		C	1	0	(O)May be inoperative provided: a) PA not required by FAR, and b) Alternate, normal and emergency procedures, and/or operating restrictions are established and used.

23 (COMMUNICATIONS)		Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
					NOTE: Any station function(s) that operate normally may be used.
	a) Lavatory Speakers	C	-	0	(O)May be inoperative provided alternate procedures are established and used.
2)	Cargo Configuration (Courier/Supernumerary Address System)	C	1	0	May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.
	a) Lavatory Speakers	C	1	0	(O)May be inoperative provided alternate procedures are established and used.
		D	1	0	May be inoperative provided procedures do not require its use.

23 (COMMUNICATIONS)		Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
23-X	Crewmember Interphone System(s)	C	2	1	
1)	Passenger Configuration				
	a) Flight Deck to Cabin, Cabin to Flight Deck Functions	B	-	-	(O)May be inoperative provided: a) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least fifty percent of the cabin handsets, and b) Alternate communications procedures between the affected flight attendants station(s) are established and used. NOTE: Any station function(s) that operate normally may be used.
	b) Cabin to Cabin Function	B	2	0	(O)May be inoperative provided alternate communications procedures between the affected flight attendants stations are established and used. NOTE: Any station function(s) that operate normally may be used.
		B	-	-	(O)May be inoperative provided: a) Cabin to cabin interphone functions operate normally on at least fifty percent of the cabin handsets, and b) Alternate communications procedures between the affected flight attendants stations are established and used. NOTE: Any station function(s) that operate normally may be used.
	c) Flight Deck to Ground Function				
	1) Large Turbojet Powered Airplanes Operating under Part 121	C	1	0	(O)Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear/forward fuselage service interphone jack operates normally.

23 (COMMUNICATIONS)	Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
	C	1	0	(O)Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear/forward fuselage flight interphone jack operates normally.
	B	-	0	(O)May be inoperative provided alternate procedures are established and used.
2) All Other Aircraft/Operations	C	-	0	(O)May be inoperative provided alternate procedures are established and used.
	D	-	0	May be inoperative provided procedures do not require its use.
2) Cargo Configuration				
a) Flight Deck to Cabin, Cabin to Flight Deck Functions	C	1	0	(O)May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.
	D	1	0	May be inoperative provided procedures do not require its use.
b) Cabin to Cabin Function	D	1	0	
c) Flight Deck to Ground Function				
1) Large Turbojet Powered Airplanes Operating under Part 121	C	1	0	(O)Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear/forward fuselage service interphone jack operates normally.
	C	1	0	(O)Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Alternate procedures are established and used, and b) Nose gear/forward fuselage flight interphone jack operates normally.
	B	-	0	(O)May be inoperative provided alternate procedures are established and used.

23 (COMMUNICATIONS)	Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
2) All Other Aircraft/Operations	C	-	0	(O)May be inoperative provided alternate procedures are established and used.
	D	-	0	May be inoperative provided procedures do not require its use.
23-X Handset System(s)				
1) Passenger Configuration				
a) Flight Deck	C	-	0	(O)May be inoperative provided: a) Flight deck to cabin communication operates normally, and b) Alternate procedures are established and used.
	D	-	0	May be inoperative provided procedures do not require its use.
b) Cabin	B	-	-	(O)May be inoperative provided: a) Fifty percent of cabin handsets operate normally, b) On wide-body airplanes, one handset must operate normally at each pair of exit doors, and c) Alternate communications procedures between the affected flight attendants station(s) are established and used. NOTE 1: An operative handset at an inoperative flight attendant seat shall not be counted to satisfy the fifty percent requirement. NOTE 2: Any handset(s) function(s) that operate normally may be used.
2) Cargo Configuration				
a) Flight Deck	C	-	0	May be inoperative provided flight deck to courier/supernumerary communication operates normally.
	D	-	0	May be inoperative provided procedures do not require its use.
b) Courier/Supernumerary	D	-	1	
	D	-	0	May be inoperative provided courier/supernumerary compartment remains unoccupied.

23 (COMMUNICATIONS)		Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
23-X	Alerting System (Audio/Visual)				
1)	Passenger Configuration				
a)	Flight Deck Call Visual Alerting System	B	1	0	May be inoperative provided the flight deck audio alerting system operates normally. NOTE: The flight deck audio alerting must always be operative.
b)	Flight Attendant Visual Alerting System	B	1	0	(O)May be inoperative provided: a) PA system operates normally, b) If affected visual alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (audio or visual) is installed and operates normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to Attendant Call System is considered **Non-Essential Equipment and Furnishing (NEF).** NOTE 2: Any visual alerting system function(s) that operates normally may be used.
c)	Flight Attendant Audio Alerting System	B	-	0	(O)May be inoperative provided: a) PA system operates normally, b) If affected **audio** alerting system is used for lavatory smoke detector alerting, an alternate lavatory smoke detector alert (visual or audio) is installed and operates normally, and c) Alternate procedures for contacting flight attendants are established and used. NOTE 1: Passenger to Attendant Call System is considered **Non-Essential Equipment and Furnishing (NEF).** NOTE 2: Any **audio** alerting system function(s) that operates normally may be used.
2)	Cargo Configuration				

23 (COMMUNICATIONS)	Repair Interval	Number Installed	Number Required for Dispatch	Remarks or Exceptions
a) Flight Deck Call Visual Alerting System	B	1	0	May be inoperative provided the flight deck audio alerting system operates normally.
	D	1	0	May be inoperative provided courier/supernumerary compartment remains unoccupied.
b) Courier/Supernumerary Visual Alerting System	B	1	0	(O)May be inoperative provided: a) Courier/supernumerary address system operates normally, and b) Alternate procedures are established and used.
	D	1	0	May be inoperative provided courier/supernumerary compartment remains unoccupied. NOTE: Any visual alerting system function(s) that operates normally may be used.
c) Courier/Supernumerary Audio Alerting System	B	1	0	(O)May be inoperative provided: a) Courier/supernumerary address system operates normally, and b) Alternate procedures are established and used.
	D	-	0	May be inoperative provided courier/supernumerary compartment remains unoccupied. NOTE: Any audio alerting system function(s) that operates normally may be used.

Each Flight Operations Evaluation Board (FOEB) Chairman should apply this Policy to affected MMELs through the normal FOEB process.

/s/ Gregory Kirkland for

John Duncan
Manager, AFS-200

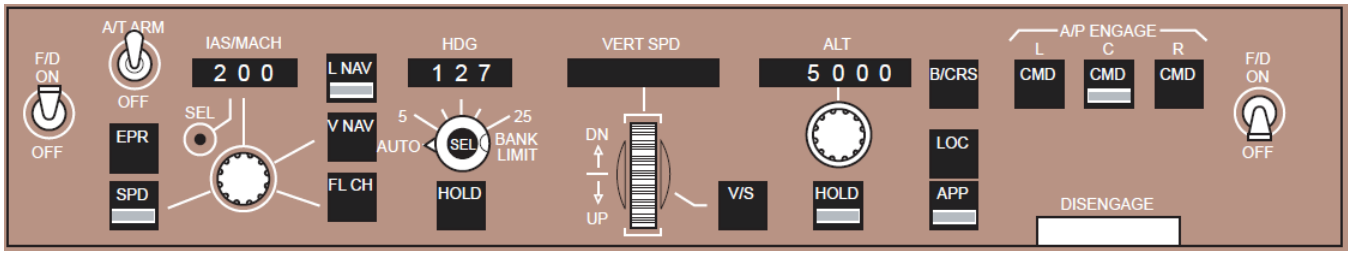
Annunciator / Switch Light Discussion

How to Handle Single Bulb Failures of a Multi-Bulb Annunciator / Switch Light

Flight Compartment & Instrument Light System Relief (PL-77)

- Individual lights may be inoperative provided remaining Lighting System lights are:
  - Sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided,
  - Positioned so that direct rays are shielded from flight crewmembers eyes, and
  - Lighting configuration and intensity is acceptable to the flight crew.

757 Mode Control Panel



MMEL Relief Available for
Individual Mode Annunciators

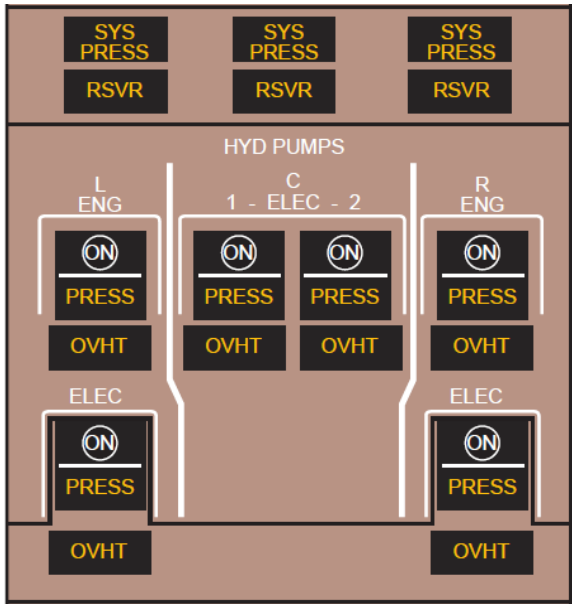
757 Annunciator Panel

MMEL Relief Available for Some of the Associated Systems & Annunciator Lights, but not for Single Bulb Failures

757 Annunciator Panel

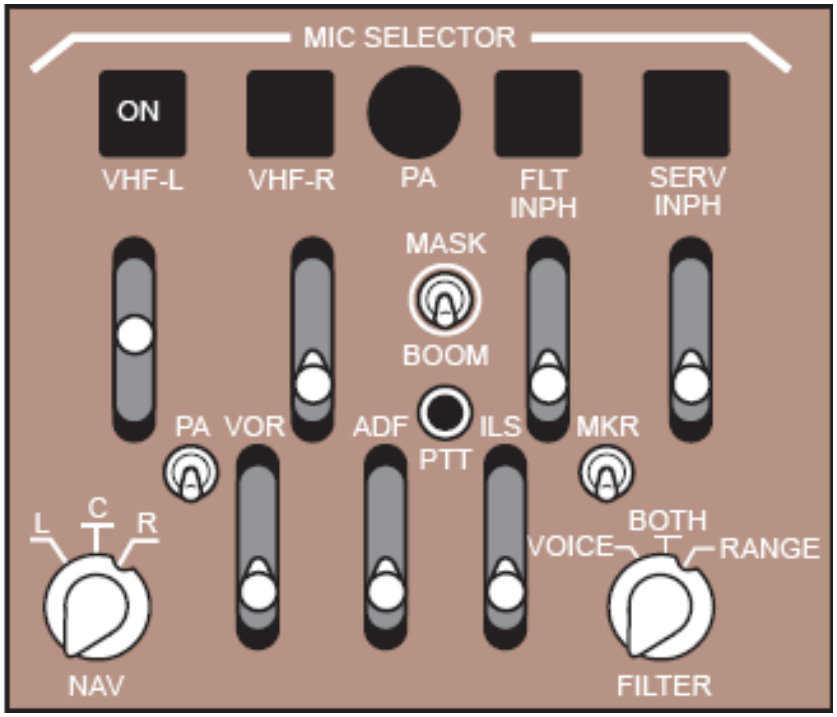
MMEL Relief Available for Some of the Associated Systems & Annunciator Lights, but not for Single Bulb Failures

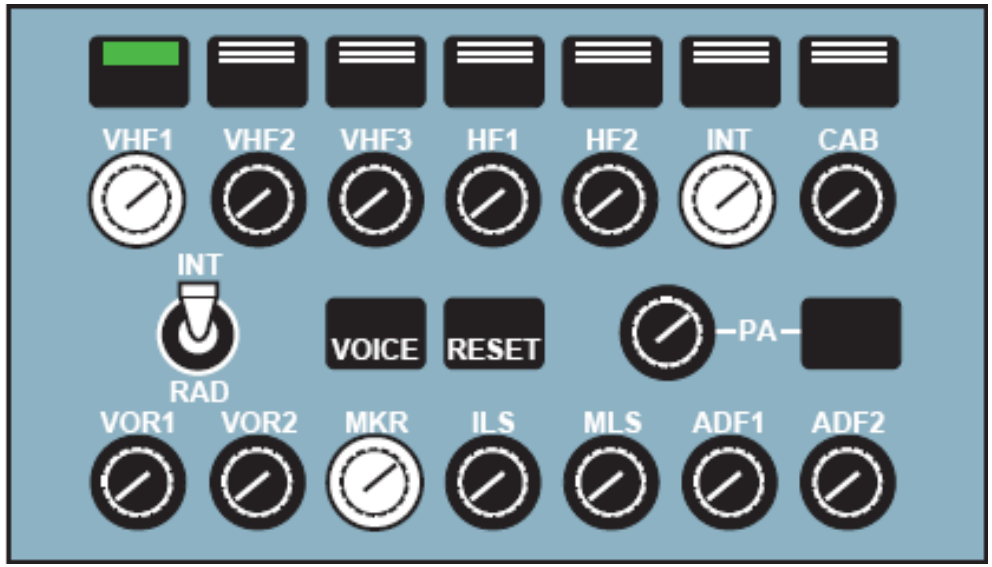
757 Annunciator Panel



MMEL Relief Available for Some of the Associated Systems & Annunciator Lights, but not for Single Bulb Failures

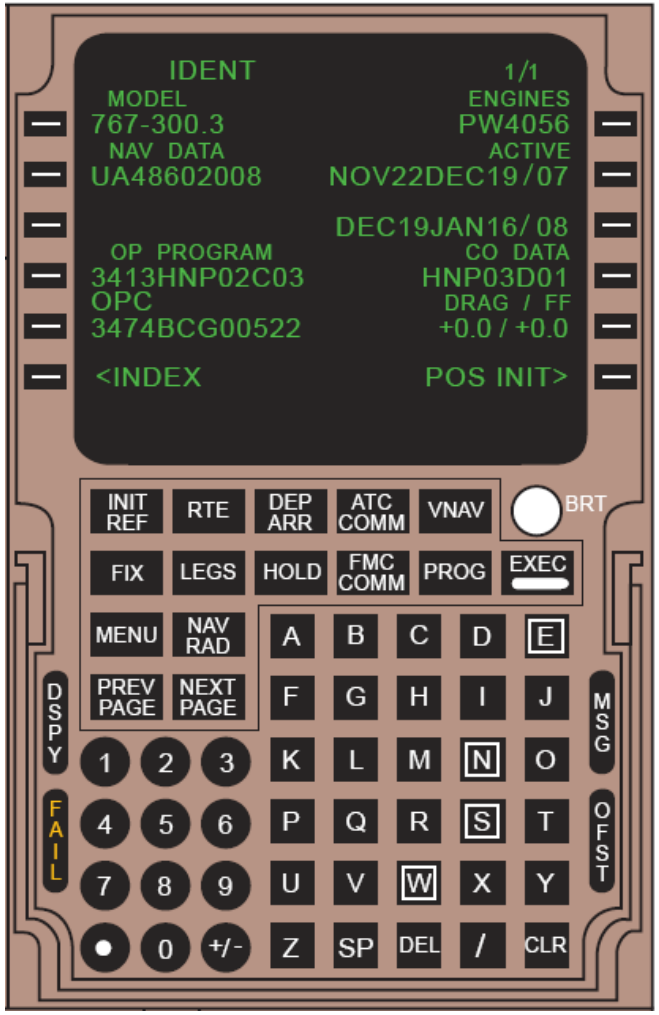
Typical Audio Panels





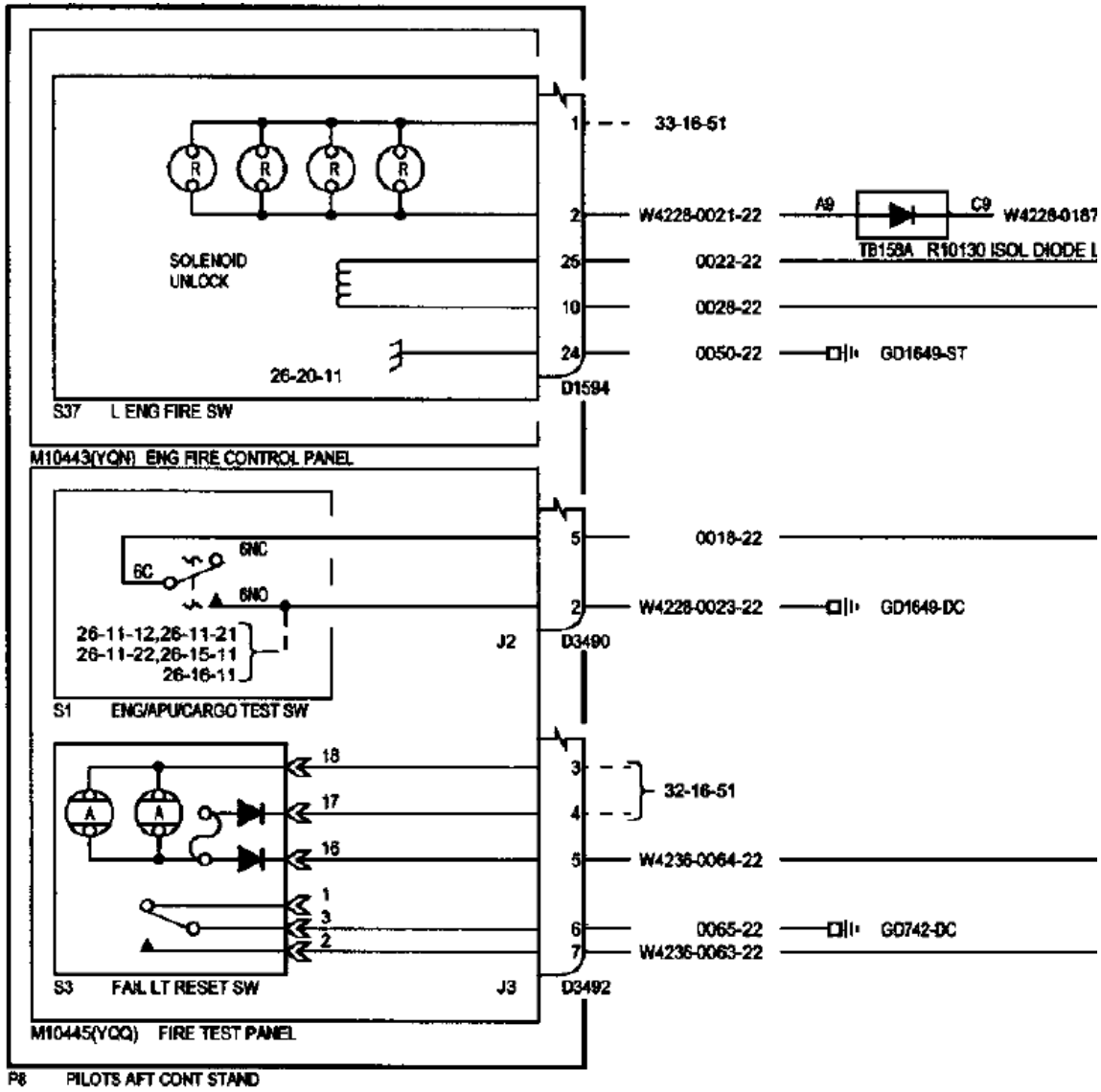
MMEL Relief Available for Individual Functions and Panel Overlay, but not for Pushbutton Selector Lights

757/767 FMS MCDU EXEC Light

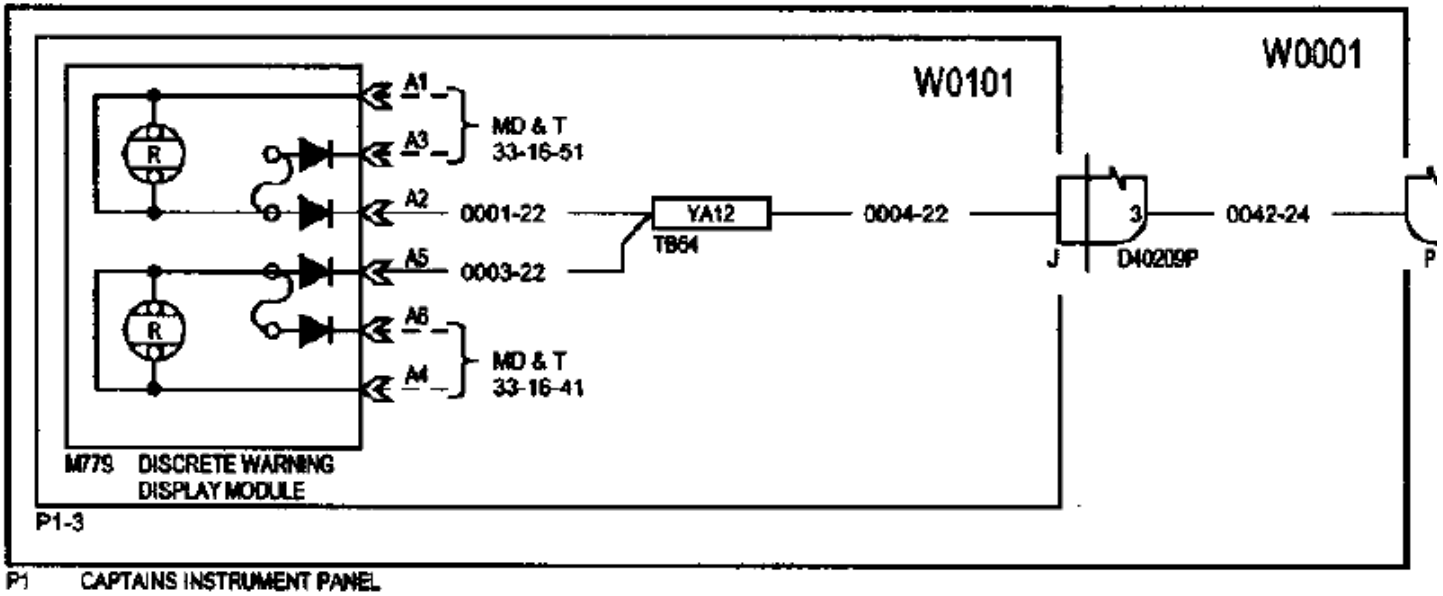


MMEL Relief Not Available for EXEC Light

757 Fire Detection WDM



757 Fire Detection WDM



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10SAB12

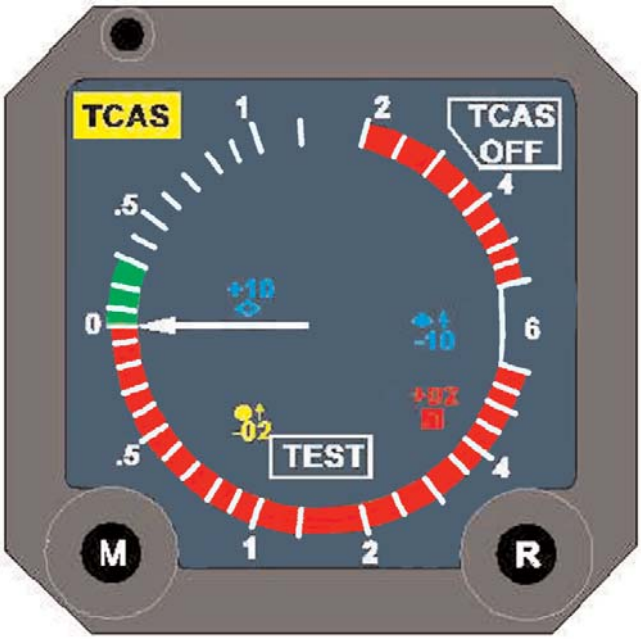
11 January 2010

Functioning TCAS or government dispensation required in Japanese Airspace

Introduction

According to the Master Minimum Equipment List (MMEL), for most aircraft in airline service it is permissible to dispatch aircraft with the Traffic Collision Avoidance System (TCAS) inoperative until it returns to its main base or for a defined period from the time of failure whichever is the shorter. An example of this is the MMEL for the B777 (revision 15) which says that the aircraft can be dispatched with an inoperative TCAS provided it is repaired within three calendar days (72 hours) after the fault was recorded. Likewise, in its MMELs, Airbus says that it is OK to dispatch with the TCAS inoperative. However, both companies add the caveat that this is subject to national regulations. Some countries, for example China, demand that all aircraft entering their airspace have a functioning TCAS. Like these countries, Japan requires all airliners operating within the Fukuoka FIR to have a functioning TCAS. That said, aircraft are permitted to operate to or from Japan provided they have a waiver from the Minister of Ministry of Land, Infrastructure, Transport and Tourism (LITT). Operating without this waiver is prohibited under Article 60 of the nation's Aviation Law and the pilot in command of an aircraft found to be in contravention can be punished with a fine of ¥1,000,000 (US$11,221) in accordance with Article 147 of the Enforcement Regulations Act. Basically, applying your airline's MEL which, even though it might allow dispatch with certain conditions, will not be sufficient since the MELs of foreign airlines are not accepted in Japan since they are not subject to Japanese regulatory oversight - you must comply with Japanese law and without the waiver you may be open to a serious fine.

The potential for an inadvertent contravention of regulations is heightened because there is no reference to the TCAS inoperative procedure in Japan's AIP which many airlines use as the primary reference to ensure compliance with national regulations. This procedure is explained below. The flight standards division of the Japan Civil Aeronautics Bureau (JCAB) has a procedure designed to expedite the issue of the waiver by the Ministry of



Excerpt from
Japanese Aviation Law Article 60

"No aircraft specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism shall be used for air navigation unless it is equipped with devices for measuring aircraft attitude, altitude, position or the course to be flown, wireless telephone and other devices for ensuring safe flight operations of aircraft pursuant to the provision of Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism; provided however the same shall not apply when permitted by the Minister of Land, Infrastructure, Transport and Tourism".

LITT for foreign registered aircraft with a desk manned 24 hours a day which will receive applications and issue approvals. According to JCAB officials, crews should expect the waiver to be issued within 20-30 minutes of the request being submitted.

Procedure for departing from an airport in Japan with TCAS inoperative

Notify the airport authorities that your TCAS is in-operative and request that they seek permission for departure. The airport will contact the Flight Standards Division at the Civil Aeronautics Board (CAB) in Tokyo. You can expect permission to dispatch between 20 and 30 minutes after the request has been submitted. (*Note: During a recent visit to the Flight Standards Division at the CAB IFALPA's Executive Vice President Asia Pacific and Regional Vice President – North Pacific were assured that the office is manned 24 hours a day 365 days a year and waiver permissions will be issued without delay.*)

Contact details:
Flight Standards Division, Japan Civil Aeronautics Bureau
2-1-3 Kasumiagaseki, Chiyoda-ku, Tokyo 100-8918
Tel: +81 3 5253 8731 Fax +81 3 5253 1661

Procedure for dispatch to an airport in Japan with TCAS inoperative

Again, permission from the Minister of LITT is required before departure. Depending on the local time in Tokyo at the time the request is submitted the processing time may be longer than the 20-30 minutes mentioned above.

Procedure for loss of TCAS enroute to or from Japan:

In this case the procedure is a lot simpler; you are only required to inform ATC of the loss of TCAS as soon as practically possible. There is no need to seek the government dispensation directly.

Clearly, this variation in the procedure is confusing and could expose pilots to large financial penalties. If your Home Association and/or company thinks, like our colleagues at ALPA Japan, that the procedure set out above is unrealistic they should ask the relevant National Civil Aviation Authority to contact the JCAB and urge them to consider modifying the procedures.

Federal Aviation Administration

MMEL Policy Letter 29 Revision 5 Draft 1

Date:	**April 5, 2010**
To:	All Region Flight Standards Division Managers All Aircraft Evaluation Group Managers
From:	Manager, Air Transportation Division, AFS-200
Reply To Attn Of:	Manager, Technical Programs Branch, AFS-260

MMEL GLOBAL CHANGE

PL-29, R **5** is designated as GC-**xxx**

This GC is an approved addendum to all existing MMEL documents. The operator may seek use of the specific relief contained in the policy letter by revising the Minimum Equipment List (MEL). In doing so, the sample proviso stating the relief in the policy letter must be copied verbatim in the operator's MEL. Approval of the revised MEL is gained utilizing established procedure, through the assigned Principal Operations Inspector (POI).

Subject: Master Minimum Equipment List (MMEL) Requirements for Cockpit Voice Recorder (CVR)

MMEL CODE: 23 (COMMUNICATIONS)

REFERENCE:
PL- 29, Revision 4, dated September 15, 2004 signed by Matthew J. Schack
PL- 29, Revision 3, dated August 15, 1997 **signed by Matthew J. Schack**
PL- 29, Revision 2 dated January 27, 1997 signed by David S. Potter

PURPOSE:

The purpose of this policy letter is to provide standardized MMEL requirements for the cockpit voice recorder (CVR) ~~on air carrier aircraft~~.

DISCUSSION:

Revision 5 adds relief for the CVR independent power source (14 CFR 25.1457) mandated for airplanes manufactured on or after 7 April 2010. There is no retrofit requirement.

Revision 4: Revised PL 29 to provide additional MMEL relief for operators other than holders of an air carrier or commercial operator certificate.

The original policy letter 29 provided MMEL requirements for both CVR and FDR systems and required that one of the two systems must be operative at all times. FDR requirements are now covered in

separate policy letter 87; this policy letter is revised to address CVR only.

The National Transportation Safety Board (NTSB) has determined that in too many cases investigations were hindered by inoperative CVR systems, or recorded data of such poor quality as to be of no value. The NTSB has recommended stringent repair requirements for CVR systems.

POLICY:

The following policy has been established for the CVR in order to ensure that at least the minimum level of safety intended by the Federal Aviation Regulations (FAR) is met. ~~On airplanes equipped with a FDR, Flight Operations Evaluation Board Chairmen should require it to be operative whenever the CVR is inoperative. In addition, the system is assigned a Category A repair interval with repairs to be made within three flight days. In order that operators of aircraft that are only equipped with a CVR are not penalized, continued operation with an inoperative CVR is permitted to the limited extent necessary to position the aircraft, parts, and personnel as necessary to effect repair. The system is assigned a Category A repair interval with repairs to be made within three flight days.~~

ATA 23 COMMUNICATIONS

COCKPIT VOICE RECORDER (CVR) WITH FLIGHT DATA RECORDER (FDR) INSTALLED

XX-X Cockpit Voice Recorder (CVR)	A	1	0	May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within three flight days.
***** 1) Independent Power Source**	**C**	**1**	**0**	

COCKPIT VOICE RECORDER (CVR) WITHOUT FLIGHT DATA RECORDER INSTALLED

XX-X Cockpit Voice Recorder (CVR)	A	1	0	May be inoperative provided repairs are made within three flight days.
***** 1) Independent Power Source**	**C**	**1**	**0**	

COCKPIT VOICE RECORDER (CVR) INSTALLED FOR AN OPERATOR OTHER THAN A HOLDER OF AN AIR CARRIER OR COMMERCIAL OPERATOR CERTIFICATE

XX-X Cockpit Voice Recorder (CVR)	A	1	0	May be inoperative provided repairs are made in accordance with applicable FARs.
***** 1) Independent Power Source**	**C**	**1**	**0**	

Each Flight Operations Evaluation Board (FOEB) Chairman should apply this Policy to affected MMELs through the normal FOEB process.

John Duncan, Manager,
Air Transportation Division, AFS-200