MMEL IG Meeting 81 Minutes
January 26-27, 2011
San Antonio, TX

Time	Agenda Item Number	MMEL IG 81 DAY 1 Wednesday, January 26, 2011	Lead
0830-0845	81-01	**Introduction / Administrative Remarks**	Bob Wagner
0845-0900	81-02	**MMEL IG /FOEB Calendar**	Bob Wagner
0900-0915	81-03	**2011 Final Policy Letters**	Bob Wagner
	81-04	**MMEL Policy Letter Status / Policy Letters Under Revision**	
0915-0930	81-05	**Agenda Item 79-05: Opspecs.com Status**	Pete Neff
0945-0950	81-06	**Agenda Item 79-35: PL 128 Lavatory Call System**	Pete Neff
0950-1000	81-07	**Agenda Item 66-07: ATA – MMEL / MEL Value to Industry Survey**	Joe White
1000-1030		**BREAK**	
1030-1045	81-08	**PL-98, Navigation Databases**	ALPA/AFS 350
1045-1100	81-09	**Agenda Item 78-10: Nitrogen Gas Generation / Fuel Inerting – Repair Category Discussion**	AFS-260/Joe White
1100-1115	81-10	**Agenda Item 79-11: PL-25, Definitions**	Pete Neff/ Paul Nordstrom
1115-1130	81-11	**Agenda Item 79-12: PL-70, Definitions Required in MELs**	Pete Neff
1130-1145	81-12	**Agenda Item 78-15: PL-31, MMEL Format Specifications – (Spec #12; Identification of FARs)**	Paul Nordstrom/ Darrel Sheets/ Pete Neff
1145-1200	81-13	**Agenda Item 75-24: PL-31, MMEL Format Specification – 'Next-Gen' MMEL Specs**	Walt Hutchings
1200-1315		**LUNCH**	

Time	Agenda Item Number	MMEL IG 81 DAY 1 (Cont'd) Wednesday, January 26, 2011	Lead
1315-1330	81-14	**Agenda Item 2003-04: Conversion of FAA MMEL Documents To XML (MMEL Transformation)**	AFS-260
1330-1340	81-15	**Agenda Item 70-18: Policy Letter Rewrite: New Format, FAA Branding and incorporate new GC Header**	Joe White/George Ceffalo/Darrel Sheets
1350-1400	81-16	**Agenda Item 77-25: PL-119, Two-Section MMELs**	JP Dargis/ Nick Petty
1410-1420	81-17	**Agenda Item 78-23: Airbus EASA MMEL Section 3 Discussion**	Tim Kane/ Tom Atzert
1420-1430	81-18	**Agenda Item 39-01: FAA / EASA MMEL Harmonization**	Jim Foster
1430-1445	81-19	**Agenda Item 71-15: PL-58, Boom Microphone**	David Burk
1445-1500	81-20	**Agenda Item 60-14: PL-85, Lavatory Door Ashtrays**	Joe White/Bob Wagner/Jim Foster
1500-1530		**BREAK**	
1545-1600	81-21	**Agenda Item 78-30: FSIMS 8900.1 Rewrite Project: Volume 4, Chapter 4 (MEL)**	Pete Neff
1600-1615	81-22	**PL-104, Storage Bins/Cabin and Galley Storage Compartments/Closets**	Paul Nordstrom

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Time	Agenda Item Number	MMEL IG 81 DAY 2 Thursday, January 27, 2011	Lead
0800-0810	81-23	**PL-47 Megaphones**	Paul Nordstrom
0810-0825	81-24	**PL-91 White Position Lights and Strobe Lights**	Paul Nordstrom
0825-0840	81-25	**PL-105 ADSB and PL-76 ATC Transponders**	Paul Nordstrom/Tom Atzert
0840-0850	81-26	**MMEL Agenda Proposal &Coordination process**	Bob Wagner
0850-0900		**BREAK**	
0900-0930	81-27	**PL-73 EEMK**	Pete Neff
0930-0945	81-28	**PL-120 ELT**	Gene Hartman/Steve Ford/John McCormick
0945-1000	81-29	**New MMEL proposal system.**	Walt Hutchings
1010-1020	81-30	**PL-72 – Agenda Item 79-33: Wing Illumination/Ice detection Lights**	Pete Neff
1020-1030	81-31	**PL-97 Flight Attendant Seat(s)**	DK Deaderick
1030-1035	81-32	**Helicopter Operations Monitoring System (HOMP)**	Ed Hinch (FTWAEG)
1035-1040	81-33	**Cargo Compartment Zones PL-102 Cargo Compartment Smoke Detection and Fire Suppression Systems and PL-108 Carriage of Empty Cargo Handling Equipment**	Paul Nordstrom
1040-1100	81-34	**PL-112 Relief for 14 CFR 25.795 Compliant Flight Deck Doors**	Paul Nordstrom
1100-1110	81-35	**PL-79 Passenger Seats Relief**	Tim Kane
1110-1115	81-36	**PL-25 Policy Concerning MMEL Definitions – Introduce OPERATIVE definition.**	Luciano Saraiva
1115-1130		**NEW AGENDA ITEMS**	TBA

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81-01. Introduction / Administrative Remarks

Introductory comments.

FAA asked IG members to consider scheduling IG meetings in SEA, KCI or DCA due to FAA travel budget restrictions.

John Melotte announced his retirement from Delta Air Lines after 25 years with the Company. We will need to replace John's position as IG Secretary at the next IG Meeting.

81-02. MMEL IG /FOEB Calendar

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

IG-81:

Refer to calendar.

81-03. 2011 Final Policy Letters

IG-81:

Refer to Final PLs.

81-04. MMEL Policy Letter Status/Policy Letters Under Revision

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-81:

Refer to PL status/Policy letters under revision.

Safety concern was raised by Cessna regarding global change (G. C.) applicability for flight deck lighting. It is in conflict with some MMEL criteria that stipulate additional lights are required by some manufacturers. Also wants to make G.C. specific to appropriate operators – CFR 121, 91, ETC. AFS-260 to review applicability of global changes for all policy letters. AFS-260 will remove G.C. from those which may conflict with present MMEL relief. Todd Schooler also to provide paragraph to Pete Neff for inclusion into 8900 re-write that MMEL provisions (when more restrictive) take precedence over G.C. policy letter provisions.

81-05. Agenda Item 80-05: Opspecs.com Status

Objective: Complete migration away from Opspecs.com.

Item Lead: Pete Neff

Discussion: Opspecs.com will be "turned off" in August. FSIMS is replacement.

IG-80:

George Ceffalo updated group that opspecs.com has links to take you to documents previously listed on the site.

Paul Nordstrom and Tom Atzert voiced concern that comments are no longer able to be viewed. George stated that this is only temporary until the new sites get fully updated.

www.faa.gov/aircraft/draft_docs

IG-81:

Bob Davis – AFS-260 stated that FAA issued InFo 10018, indicating where documents are now located or linked to in FSIMS. FSIMS will be re-named to AVSIMS (Aviation Safety Management System) in the future.

81-06. Agenda Item 80-06 PL 128 Lavatory Call System

Objective: PL 128 Lavatory Call System.

Item Lead: Pete Neff

Discussion:

IG 80:

PL 128 is under review by FAA and with handicapped specialist. Could be category A relief, should have answer soon.

Tim Kane briefed IG with examples of procedures utilized by Jet Blue FAs for monitoring disabled pax utilizing the lavatory. AFS 260 indicates dispatch may continue to be allowed provided company personnel monitor handicapped pax to assist when they are ready to exit lav.

IG 81:

Comments were reviewed by the group as provided by AFS-260. Comments are attached at the end of these minutes.

United (T. Atzert) stated that this PL draft should be withdrawn, and suggested we add an item for lav call buttons to PL-9, which will address any safety concerns that may be present on flights with lav call inoperative. Any safety concerns that may be present on flights with lav call inoperative would be present on single or dual aisle airplanes, any type of operation, regardless of whether a passenger that needed to contact someone outside the lav was disabled or not.

Pete Neff stated that based on legal counsel, installed means operative. Pete said they indicate separating call from accessibility issues. FAA will take it back to DOT for discussion and resolution. Paul Nordstrom stated that other MMEL items could be impacted by this interpretation, such as handicapped accessible lavatories.

81-07. Agenda Item 80-08: 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: Joe White

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-80:

Joe White asked for operators to please provide this valuable information. Dave Bridgens suggested taking each MEL Item applied and looking at it as a cancellation, that would be easier than trying to obtain various costs generated during operations. Discussions will continue about simplifying the equation for ease of use in generating cost savings.

IG-81:

ATA not present, no comments.

81-08. Agenda Item 80-09: PL-98, Navigation Databases

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

Item Lead: ALPA/AFS-350

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-79:

Meeting mini-meeting conducted on August 19, by Terry Pearsall from AFS 350. Terry to adjust latest PL 98 to include manually tuning approach aids, then post for comments. Discussed were effects on the following operations: RNP 10, RNP 4, RNAV 2, RNAV 1, RNP 0.3 and RNP AR. No SIDs or STARS are allowed with out of date nav data base.

IG-80:

Pete Neff tried obtaining the latest draft PL-98 from Terry Pearsall.

IG-81:

Bob Davis update – FAA is working on this internally. John McCormick suggested the MMEL IG working group continue to be involved.

81-09: Nitrogen Gas Generation / Fuel Inerting – Repair Category Discussion

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

Item Lead: AFS-260 / Joe White, ATA

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

IG-78:

Mr. Bryan Watson from SEA AEG gave a presentation on the NGS system and how the rules relate to it and how the MMEL time limit was determined for the A318/319/320/321. The timeline was also shown indicating when operators to retrofit their aircraft with these systems. Ref. CFR 121.1117.

Boeing 737, 747-400 & 777 MMEL relief for NGS at Cat A, 10 day
A320 Family MMEL relief for NGS at Cat A, 20 day

Industry is concerned that spare parts unavailability will lead to flight interruptions since MMEL relief at Cat A is not extendable.

It is highly possible that, during the compliance period, an NGS modified airplane at one gate could be grounded for lack of spare parts, while an airplane without NGS installed at the next gate departs.

Dave Stewart suggested that pilot group may be able to influence repair category during the compliance period.

IG-79:

Mark Lopez stated ATA NGS working group gathering costs to install and will petition FAA to delay required dates for installation. Also, trying to change the existing category A (20 flight days) time limit to category C. Boeing 787 MMEL reflects 10 flight days.

IG-80:

Bryan Watson said that TAD would not allow more time than 10 days relief, since it was determined by them that this was an appropriate length of time for this system to be deferred.

IG-81:

Bryan Watson said Efforts are still continuing by TAD to align Airbus with Boeing – 10 flight days for both Vs 20 flight days for Airbus.

81-10. Agenda Item 80-11: PL-25 Definitions

Objective: Add FAR Listing in Appendix A

Item Lead: Pete Neff, Paul Nordstrom

Discussion: Add list of FARs to aid MMEL/MEL authors in determining which rules apply for items with "As required by FAR" in the Remarks column.

PL-25 R17 Draft 3 posted on Opspecs.com 7/7/10.

IG-79:

Tom Atzert revised definition 22 to include: (14CFR 91 MEL users do not need to comply with the repair categories but shall comply with any provisos defining a repair interval (flights, flight legs, cycles, hours, etc).

D4 also deletes the proposed change to the "extension" paragraph. Tom's rationale is this: the proposed change would have set a limit to extensions in a document (PL-25), the purpose of which is to define MMEL terms. Extensions are not really relevant to the content of an MMEL. My position is that any change to extension policy should be made in D095 and FSIMS. I'm not opposed to FAA's desire to provide some clarity on MEL extension policy and guidance; however, I do oppose using PL-25 to effect the change.

Please consider going final with D4 as I'm sure the UAL CMO is awaiting final resolution of the proposed change to Def # 24.

IG-80:

George Ceffalo stated that PL-25 is ready to go final. Paul Nordstrom will clarify note under item 3. Also change the header at top for appendix A.

IG-81:

PL is published, closed – Final.

81-11. Agenda Item 80-12 PL-70 MMEL Definitions Required in MELs

Objective: Update PL-70 to align with recent PL 25 activity

Item Lead: Pete Neff

Discussion:

PL-70 R3 Draft 1 posted on Opspecs.com 7/7/10.

IG-80:

PL 70 Item 21 Pax Convenience needs to be updated to reference NEF; however, some MMELs have not yet replaced pax conv with NEF. Darrel Sheets accepted Lead assignment.

IG-81:

PL is published, closed – Final.

81-12. Agenda Item 80-13: PL-31 MMEL Format Specifications; Spec #12; Identification of FARs

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-25. This will facilitate operator MEL development and the FAA inspector MEL review and approval process.

IG-80:

George Ceffalo stated PL-31 is ready to go final.

IG-81:

PL is published, closed – Final.

81-13. Agenda Item 80-14: 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-78:

Steve Kane briefed the group on the movement of all PL's to FSIMS site by the end ot the year. Web view will be very similar to what is seen today for PL's on the OPSPECS web site.

IG-79:

XML schema is in OKC (ATA spec 2300). Final schemas to be published in about 2 months.

IG-80:

Walt not in attendance, Bryan Watson stated that Walt is trying to push IT for a "go" date.

IG-81:

Walt Hutchings was not in attendance, no update.

81-14. Agenda Item 80-15: 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

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

IG-78:
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-79:

Mr. Paul Conn from ATA spoke to the group about work being done with XML schemas as they relate to ATA Spec 2300. FOIG group schema is set and should be released within several months.

IG-80:

Pete Neff stated that meetings are ongoing in DC and an update is likely at next IG meeting.

IG-81:

Bob Davis – This is still in work and will likely occur in 2012. Paul Nordstrom stated that there are two different MMEL "word templates' out there for use and was expecting to see one eventually.

Other thoughts included discussion about Spec 2300 Schema (is completed) and Boeing, Airbus and FAAs need to eventually synch up.

81-15. Agenda Item 80-16: 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: Joe White / AFS-260 George Ceffalo/Darrel Sheets

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-78:

AFS – 200 still working 13 PL's toward final formatting.

IG-79:

Mark Lopez to send George Cefallo 6 Policy Letters to upload in new format. George said that archived policy letters will be available only to FAA inspectors.

Kevin Peters expressed concerns regarding loss of a Policy Letter "discussion" portion after a PL is archived.

George Ceffalo stated a cross reference list of archived policy letters who's contents are covered in 8900.1 will be developed to include Vol/Chapter/Section/Paragraph.

IG-80:

Darrell Sheets to produce new draft for next IG meeting; his proposed changes to the summary of what occurred in previous revisions 1 through 3 will be withdrawn; this information will remain as is.

IG-81:

Bob Davis stated most GCs are rebranded.

Darrell Sheets to provide updated PL-59 draft at next MMEL IG meeting.

81-16. Agenda 80-17: PL-119 – Two Section MMELs

Objective: Revise PL to add Part 135 applicability.

Item Lead: JP Dargis/Nick Petty

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.

IG-78:

Waiting for information from part 91 operator updates. AFS-800 to facilitate gathering of data from Part 91 Global Express operators. Revisit during Aug IG meeting.

IG-79:

Eli Cotti to update at MMEL IG 80. Bob Wagner to notify JP and Eli of action for IG 80.

IG-80:

JP Dargis asked why the delay for expanding the two section MMEL to include Part 135 operations. Pete Neff is going to follow up with AFS 300 and 800 and report back.

IG-81:

Pete Neff reported that PL-119 will only apply to Part 91 operators. JP Dargis stated Bombardier's disappointment and offered Bombardier's assistance as required. It should apply to other operations, Pete said he would find the reasoning for him regarding the FAA's decision for denial before the April Global Express FOEB.

Of note; Tom Atzert mentioned that a significant number of non-US registered Global Express airplanes, in both private and commercial operations around the world, have the ability to use the two part MEL since their MEL is based on Transport Canada's MMEL.

81-17. Agenda Item 80-18: 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.

IG 78:
Airbus representatives Gerry Walker and Valentino Vernier presented Airbus's proposal for the removal of Section 3 from the EASA A320F MMELs. They stated that the AMM will replace section 3. Valentino stated that Airbus was able to identify 28 items that they will convert from (M) procedures to (O) procedures within their MMEL. This will allow more crew deferral items by moving the action from the AMM to the MMEL (O) procedure.
Tim Kane recommended to Airbus that they develop a Dispatch Deviation Guide for operators to use along with the current FAA MMEL. This would synchronize numbering and procedures to the FAA MMEL for use by operators when building their MEL.
Removal of Section 3 from EASA MMELs under review by Airbus.

IG-79:
Item CLOSED. Airbus agreed to provide an extract of the AMM procedures related to the FAA MMEL. Mid-term vision is for Airbus to provide a DDG; Airbus to do a feasibility study and operators will demonstrate the added value of a DDG.

Develop added value statements and provide to Airbus representatives. Tom Atzert, Bob Taylor, Bob Wagner to develop position and provide to Airbus by September 15.

Rudy Canto suggests a conference call with Airbus in late September to follow up.

IG-80:

Tim Kane updated group regarding the letter submitted to Airbus by Jet Blue, UAL, DAL, and USA, the anticipated November release of a MMEL Maintenance Procedures Manual, and ultimately an FAA oriented Operator DDG.

IG-81:

MMP document provided by Airbus is available on Airbus World but operators are unable to download the document. IG requests from attending Airbus representative (Dan Cohen-Nir – Programs director Airbus Americas, Inc.) the status of end state DDG document to be provided to operators based on the FAA MMEL.

81-18. Agenda 80-19: 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-78:

Emilie Marchais from EASA stated no updates because of cancellation of a meeting in Europe due to travel problems associated with recent volcanic activity.

IG-79:

Pete Neff updated the group that the EASA MMEL policy document will be made available on the EASA website around April 2011.

IG-80:

Pete Neff reported EASA is currently re-writing their regulations -certification specification (CSMMEL). April 2011, rule should be out for comment. April 2012, rule should go final. EASA MMELs are OEM owned and managed where as FAA MMELs are FAA owned and managed.

IG-81:

Jim Foster was not in attendance, but Thierry Vandendorpe updated the IG on EASA. He stated they are developing certification specification by choice, very similar to FAA policy letter guidance. The CS MMEL will be the responsibility of the OEM, not EASA.

In US, FAA is responsible for the MMEL.

81-19. Agenda Item 80-20: PL-58 Boom Microphone

Item Lead: David Burk

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

IG-80:

Dave Burk presented draft PL; it needs to add language regarding requirements for single pilot operation for certain GA aircraft (regarding required boom mic/headset earphones).

IG-81:

David Burk presented PL 58 R4 D4. David will forward a copy to George to upload for comment.

81-20. Agenda: 80-21: PL-85, Lavatory Door Ashtrays

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

Item Lead: Joe White, Bob Wagner, Jim Foster

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-78:

Tom Atzert updated the group about the status of the AD. The AD is to be revised at FAA, but is in line with several other projects, so the timeframe is undetermined at this time. Todd Schooler to look at part 23 aircraft and split PL and report back to the group.

IG-79:

Jim Foster updated the group and showed a re-write of the AD to the group. NPRM – 45 day response time for review after it is posted for comment.

IG-80:

NPRM for revision to AD was issued October 6, 2010. Joe White will provide query to operators requesting feedback to NPRM and then post comments accordingly to the proposed rule change.

IG-81:

ATA and Jim Foster not in attendance, defer to next IG meeting.

Bob Taylor advised the group that US Airways CMO informed them that AD 74-08-09 R2 prohibits the deferral of an ashtray serving the enrtry side of a lavatory door if there is no other ashtray available that can be seen readily from the cabin side of the affected lavatory door. US Airways requests that this issue be clarified by AFS 260 to ensure PL 85 correctly reflects the relief provided by the AD.

81-21. Agenda Item 80-22: FSIMS 8900.1 Rewrite Project: Volume 4, Chapter 4 (MEL)

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

Item Lead: Pete Neff

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.

IG 78:

8900.1 Vol4 Chpt 4 re-write project. Steve Kane reported that Bob Davis wants this section re-written starting this summer. Steve has been tasked with forming a working group along with industry involvement. The group will consist of industry and AEG.

Submit to Tom Atzert your name via e-mail if you wish to participate in this effort. Will be 2 face to face meetings and the rest will be telecon. Probably 3 from IG will participate, but more IG members may be involved to assist those chosen. Tom will organize telecon for those itnerested, and to select industry working group members.

IG 79:

Steve Kane updated the group on 8900 re-write. Meeting in Kansas City in mid July resulted in Part 91 being 85-90% complete. Third week in October for next meeting in Kansas City, work on Part 121 and 135 will begin. Rick Chitwood to fill in for Steve Kane during that meeting.

IG-80:

8900 re-write is in progress. Part 91 section completed and undergoing final review. Part 121/125/135 sections in work.

FAA took action to check on FAA review/approval process regarding an operator's submittal to add a new fleet type to their existing MEL program.

IG-81:

Greg Janosik AFS 260 briefed IG on progress of 8900.1 rewrite. Solid link between 8900.1 V4 C4 CDL MMEL and V8 C2 AEG and MMELs. AC 25-7A is the only published guidance on CDLs. He is looking for more published guidance. Reference MMEL IG 81 power point inlcuded with the minutes.

81-22. Agenda Item 80-24 PL-104, Storage Bins/Cabin and Galley Storage Compartments/Closets

Objective: Bring in line with recently issued PL-125 Equipment Relief Without Passengers. To add lavatories per Bob Taylor.

Item Lead: Paul Nordstrom (Boeing).

Discussion: Paul Nordstrom will revise and PL-104 will be posted for comment.

IG-80:

Paul Nordstrom added lavatory to the title. No questions or comments. Paul will forward D2 to George Ceffalo to post for comments.

IG-81:

Paul Nordstrom presented PL-104 R5 D2. Todd Schooler recommended removing G.C. from this PL, then AFS to post as a draft.

81-23. Agenda Item 80-25. PL-47 Megaphones

Objective: Bring in line with recently issued PL-125 Equipment Relief Without Passengers.

Item Lead: Paul Nordstrom (Boeing)

Discussion: Paul Nordstrom will revise and PL-47 will be posted for comment.

IG-80:

PL 125 provides a "Summary of equipment" normally required for passenger carrying operations which is allowed to be inoperative or missing provided no passengers are carried; some of the equipment identified is also the subject of other existing PLs (e.g. PL 47 Megaphones). Discussion at IG 80 evolved into whether or not it is appropriate to individually align the existing PLs with the intent of PL 125; a group consensus favored simultaneous revision of existing PLs, as well as the creation of new PLs as necessary to address all equipment covered in PL 125.

Post-meeting discussions suggest it may now be more prudent to:

1. Address this issue via a revision to PL 125 defining relief for each of the eight items currently identified in the "Summary of equipment" (as opposed to opening up multiple existing Policy Letters).
2. Provide two options for each of the eight items:
   A.) Flight Crew only onboard, and
   B.) Flight Crew and up to 19 persons allowed onboard with certain equipment limitations spelled out.

Bob Taylor has volunteered to become lead on PL-125 and produce a draft proposal to be presented at the next IG meeting.

IG-81:

Paul Nordstrom presented changes to PL-47 for megaphones. Send draft to AFS-260 for posting as draft.

Draft changes to PL-125 to give specific examples of relief for various equipment permitted to be missing. This will contain all items within one PL.

81-24. Agenda Item 80-26. PL-91, White Position Lights and Strobe Lights

Objective: Clarify PL about substitution of exterior wing/strobe lights

Item Lead: Paul Nordstrom (Boeing).

Discussion: Paul will continue to research possibility of changes to MMEL.

IG-80:

Each FOEB Chairman should bring in certification folks to assist in determining if relief can be granted. Ref AC 20-74. Jim Foster suggested the option of placing AC 20-74 into 8900.1 re-write.

IG-81:

Paul Nordstrom presented a draft PL clarifying AFT facing wing or tail strobe requirements when white position lights are inoperative. EASA does not permit use of strobes due to ground, so do not allow use in lieu of NAV lights. Pete Neff to check on acceptabilility regarding the use of strobes on the ground. Pete Neff to review and advise. Paul presented the following CFR references: 25.1385, 25.1387, 25.1389.

81-25. Agenda Item 80-27. PL-105 ADSB and PL-76 ATC Transponders

Objective: Is intent of PL still valid?

Item Lead: Paul Nordstrom / Tom Atzert

Discussion: No CFR 14 reference in PL, UPS had installed the system under a test program. ADS B will be required by 2020. Reference CFR 91.225, 91.227.

IG-80:

Tom Atzert and Paul Nordstrom will revise PLs to bring them up to date.

IG-81:

Paul Nordstrom – PL 76 R6 D0 – ADSB Squitter Transmissions – Added second set of provisos regarding establishment of alternate procedures. Also, repair category updated. Boeing has not developed any procedures and defers to the operators. They are actually routing restrictions. AFS 260 will review PL draft with AFS 400 and post for comment. No action on PL-105 at this time.

81-26. Agenda Item 80-28. Master Minimum Equipment List (MMEL) Agenda Proposal & Coordination Process document

Objective: Keep on agenda for updates

Item Lead: Bob Wagner

Discussion:

IG-80:

Lead duties changed for B787 and B747-400. New lead airline assignments as follows:

787 – United Airlines

B747-400 – Delta Airlines

IG-81:

Bob Wagner mentioned several updates have been received for contact information and will be included in the next revision. Please review and provide comments to Bob.

81-27. Agenda Item 80-29. PL-73 EEMK

Objective: MMEL relief established by PL-73 for emergency medical equipment is being challenged by FAA legal. Reference to CFR 121.803, 121.628, and A.C. 121.33b.

Item Lead: Pete Neff

Discussion: Policy Letter change to be posted and comments should be made to the posting.

IG-80:

Pete Neff stated the relief may still be around as legal understands that an aircraft should be able to be dispatched after a diversion and said one flight is being considered as the maximum proposed time limit.

IG-81:

Pete Neff said AFS is continuing to analyze this item to reduce the flight legs from 3 to 1. Tom Atzert stated that 1 flight is too restrictive and that at least 2 would be needed to adequately position the airplane for replacement of EEMK items. Bob Davis said the CFR allowed no relief. Tom suggested carriers collect EMK usage data in an effort to support maintaining the 3 flight limit. Data previously collected by operators show extremely rare occurences of EMK usage on back-to-back flights. Summary of this data was published by FAA in Notice N 8000.320, dated 4/12/06. The data was an important consideration in the FAA's decision to first publish EMK relief in PL-73, and should be considered during ongoing discussions about the PL.

NOTE: FAA Notice N 8000.320, dated 4/12/06 is shown on the following page.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

NOTICE
N 8000.320

Effective Date:
4/12/06
Cancellation Date:
4/12/07

SUBJ: MMEL RELIEF FOR EMERGENCY MEDICAL EQUIPMENT

1. PURPOSE. This notice provides standardized Master Minimum Equipment List (MMEL) guidance for the deferral of emergency medical equipment required by Title 14 of the Code of Federal Regulations (14 CFR) part 121, subpart X - Emergency Medical Equipment and Training. This guidance accompanies the issuance of MMEL Policy Letter (PL-73), which provides MMEL relief of first aid kit(s), an emergency medical kit (EMK), and an automated external defibrillator.

2. DISTRIBUTION. This notice is distributed to the division level in the Flight Standards Service in Washington headquarters; to the branch level in the regional Flight Standards divisions; to the Flight Standards District Offices; and to the Regulatory Standards Division at the Mike Monroney Aeronautical Center. This notice is also distributed electronically to the division level in the Flight Standards Service in Washington headquarters and to all regional Flight Standards divisions and district offices. This information is also available on the Federal Aviation Administration's (FAA) Web site at: http://www.faa.gov/library/manuals/examiners_inspectors/8000/media/N8000-320.doc.

3. BACKGROUND.

(1) On April 12, 2001, the FAA issued a final rule, 14 CFR part 121, subpart X - Emergency Medical Equipment and Training. This rule requires that passenger-carrying airplanes are equipped with approved first aid kit(s), an approved EMK, and an approved automated external defibrillator. Until the issuance of MMEL PL-73, no MMEL relief has been available for this equipment.

(2) Data collected from major air carriers, beginning in 1998, shows extremely rare use of an EMK on back-to-back flights (three occurrences in almost 6 million flights). This equates to one occurrence in 1,941,443 flight cycles or once every 27.4 months. On two of these occurrences, the EMK was replaced between flights; on the other occurrence, medical care provided by the crewmembers was not compromised because the medical supplies used on the previous flight were not needed on the subsequent fight. Diversions for medical emergencies have, in some cases, caused extreme distress on the remaining passengers due to the lack of facilities and support. The requirement for a full EMK has resulted in large delays in moving the passengers to their original destinations until a new kit could be procured.

Continued

(3) Also, recently the European Joint Aviation Authorities (JAA) has developed and implemented JAA MMEL relief for first aid kits and emergency medical kits.

4. GUIDANCE. Based upon this data, the FAA has determined that a large number of passengers may be at more risk at a diversion airport than they would be if MMEL relief for the medical equipment were provided and the aircraft was allowed to dispatch to its destination. Therefore, the FAA, within PL-73, provides MMEL relief for up to three flight cycles (three takeoffs and landings) for automated external defibrillators and an EMK. For airplanes requiring more than one first aid kit, MMEL relief is limited to only one of the required first aid kits for up to three flight cycles.

5. ACTION. Principal inspectors should review PL-73 (which can be found on the following Web site: http://www.opspecs.com/) and, upon request of their assigned operator, amend their MMEL to incorporate this guidance.

6. DISPOSITION. The material in this notice will not be incorporated into Order 8400.10, Air Transportation Operations Inspector's Handbook. Questions regarding this notice should be directed to the Air Transportation Division, AFS-200, at (202) 267-8166.

ORIGINAL SIGNED BY:

James J. Ballough
Director, Flight Standards Service

81-28. Agenda Item 80-30. PL-120 ELT

Objective: Clarify PL 120.

Item Lead: Gene Hartman/John McCormick/Steve Ford

Discussion: Fixed ELT per CFR 91.207 was discussed by Gene Hartman.

IG-80:

LGB AEG asked the IG to review PL-120 as it relates to 14 CFR 91.207. Pete Neff will check with part 135 and follow up at the next IG meeting.

IG-81:

Gene Hartman and John McCormick stated that most operators are exempt from CFR 91.207.

Item closed remove from agenda.

81-29. Agenda Item 80-31. New MMEL Proposal System

Objective: Volunteers needed to submit MMEL items through a new MMEL proposal program.

Item Lead: Walt Hutchings

Discussion:

IG-80:

Walt not in attendance, Bryan Watson stated that Walt is trying to push IT for a "go" date.

IG-81:

Walt Hutchings not in attendance, updates deferred to next IG meeting.

81-30. Agenda Item 80-32. Agenda Item 79-33: PL-72 Wing Illumination / Ice Detection Lights

Objective: Resolve concerns raised about relief provided in PL-72.

Item Lead: Pete Neff

Discussion: Draft is posted on Opspecs.com.

IG 79:
Seve Kane briefed the group. Legal reviewed and re-worked R4D8. Original policy letter did not meet the intended purpose of the lighting. It is not only used for ground deicing only, ref. 23.1419d. and 25.1403. Paul Nordstrom briefed the Boeing system and stated the certification of the system is different for the larger Boeing airplanes and that they are used for ground deicing procedures. PL draft posted for comments.

Dave Bridgens recommended two policy letters be developed, one for wing illumination and one for wing ice detection.

IG-80:

Pete Neff will explore writing the policy letter to better align with regulations. Paul Nordstrom to send current draft PL to Pete. Mentioned at the meeting, AC 23.1419-2D prohibits use of a flashlight for viewing wing surfaces.

IG-81:

Carlos to provide proposal for next IG meeting.

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81-31. Flight Attendant Seat(s)

Objective: Discussion

Item Lead: DK Deaderick / FAA

Discussion:

DK asked for information regarding the use of passenger seats when a flight attendent is displaced from a flight attendant seat. Australian authorities are seeking reasoning about how a flight attendant can view the passengers when displaced from an aft facing seat.

81-32. Agenda Item 80-33. Helicopter Operations Monitoring System

Objective: Planning and development of MMEL relief for Helicopter Operations Monitoring System (HOMP) which is similar to the electronic fault alerting system under Part 25

Item Lead: Ed Hinch, FTW AEG

Discussion:

IG 79:

Ed Hinch provided a power point presentation. Eurocopter is developing an ECAM type system similar to Airbus for use on helicopters. Ed will work with Colin Hancock and EASA during certification to develop MMEL and other procedures needed for use with this system. It was suggested that Ed Hinch develop a draft change to definition 23 of PL-25 to accomodate the new monitoring system.

IG-80:

Presently, no MMEL relief exists. STCs are being written to address new system(s).

IG-81:

Steve Sorich FTW AEG, provided a powerpoint presentation on the HOMP System. This is included with the minutes.

81-33. Agenda Item 80-34: Cargo Compartment Zones PL-102 Cargo Compartment Smoke Detection and Fire Suppression Systems and PL-108 Carriage of Empty Cargo Handling Equipment

Objective: PL-102 Cargo Compartment Smoke Detection and Fire Suppression Systems and PL-108 Carriage of Empty Cargo Handling Equipment are being clarified to allow for individual zones to remain empty.

Item Lead: Paul Nordstrom

Discussion: FOEB Chairman interprets current PLs to require the entire cargo compartment to remain empty.

IG-80:

Jim Foster proposes deletion of GC designation for PL-108 and recommends certification reviews system to ensure capability in degraded modes of operations.

Paul Nordstrom to revise PL-102, breaking out detection and suppression components.

IG-81:

Paul Nordstorm presented draft PL 102, it provides separate relief for detection and suppression. Global change header will be removed from both PL 102 and 108 and then post by AFS 260 for comments.

81-34. Agenda Item 80-35. PL-112 Relief for 14 CFR 25.795 Compliant Flight Deck Doors

Objective: Clarify flight deck doors that have decompression function that is independent of the door locking system.

Item Lead: Paul Nordstrom

Discussion: Based on 787 MMEL industry review meeting discussions with FAA.

IG-80:

Paul Nordstrom will change nomenclature to flight deck door decompression panels. Paul will send to George Ceffalo to post for comments.

IG-81:

Paul Nordstrom provided PL-112 R2 D2, this clarifies the decompression function of flight deck doors. PL will be submitted to AFS-260 to post for comments.

81-35. Agenda Item 80-36. PL-79 Passenger Seats Relief

Objective: Include airbag equipped seat belts into PL-79.

Item Lead: Tim Kane

Discussion:

IG-80:

Tim Kane to lead a re-write of PL 79 and send to David Burk and Todd Schooler for review.

IG-81:

Jim Crupi from AmSafe presented a PowerPoint presentation on their airbag system. Tim Kane presented a draft for PL-79. Group decided that relief will need to be broken out either more in PL-79 or as a new PL for airbag seats. Certification requirements as well as seat pitch may define the MMEL Policy for occupying the seat with an inoperative airbag component. There is a web site www.amsafe.com that can be accessed for information, under customer login.

81-36. PL-25 Policy Concerning MMEL Definitions – Introduce OPERATIVE definition

Objective: Propose adding the above definition to PL-25 (now in 8900.1 V4, Ch4, Section 1). Justification is that PL-82 was archived.

Item Lead: Luciano Saraiva

Discussion: Definition of Operative. A system and/or component will accomplish its intended purpose and is consistently functioning normally within its design operating limit(s) and tolerance(s). When an MMEL item specifies that an item of equipment must be operative, it does not mean that its operational status must be verified (unless specified in the provisions); it is to be considered operative unless reported or is known to be malfunctioning. When an MMEL item specifies that an item of equipment must be verified operative, it means that it must be checked and confirmed operative at the interval(s) specified for that MMEL item. When an MMEL item specifies that an item of equipment must be verified, but no interval is specified, verification is required only at the time of deferral. The operator's MEL may incorporate standardized terminology of its choice, to specify that an item of equipment must be operative, provided the operator's MEL definition indicates that the selected operative terminology means that the required item of equipment will accomplish its intended purpose.

IG-81:

Luciano is accomplishing a rewrite to PL-25 and will present at next meeting.

New Agenda Items:

1. Stacey Anderson (SEA AEG) indicated that ATR MMEL will be posted soon.
2. Bryan Watson (SEA AEG) mentioned a fixed wing night vision goggle PL will be coming soon.
3. David Burke stated that some MMELs refer to PL-25 definitions and others to PL-25 and PL-70, so they are not standard, resulting in some offices misinterpreting the intent on which definitions need to be placed into an operators MEL. Pete Neff to investigate.

AIR TRANSPORT ASSOCIATION
AIRLINE INDUSTRY MMEL INDUSTRY GROUP

MMEL IG /FOEB Calendar, Revision 82, as of February 11, 2011
(Provide corrections/additions to Bob Wagner - robert.wagner@delta.com)
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
Jan 11-12				A300-600				Seattle
Jan 26-27				**MMEL IG 81**	Southwest			San Antonio
Feb 15 - 17				BD-700-1A10/11 FOEB (Electronic)	Global Express			Long Beach
Apr 26-28				BD-100-1A10 (CL-300) FOEB				Long Beach
May 11-12				**MMEL IG 82**	Delta			Atlanta
Jul 19-22				CL-600-2E25 (CRJ 1000) FOEB				Long Beach
Aug 17-18				**MMEL IG 83**	FAA / ATA			Washington DC
Sept 10			Ind. Mtg. Aug 23	ERJ 170-190 FOEB				TBD
Sept 13-15				BD-700-1A10/11 FOEB	Global Express			Long Beach
Oct 18-20 (subject to AEG approval)			(Industry meeting) July 26-28 MIA	A318/319/320/321 FOEB 330 FOEB	Delta US Airways			Seattle
Nov 2-3				**MMEL IG 84**	American			Dallas

AIR TRANSPORT ASSOCIATION
AIRLINE INDUSTRY MMEL INDUSTRY GROUP

2012

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 25-26				**MMEL IG 85**	Air Wisconsin			TBD
TBD				**MMEL IG 86**				TBD
Aug 15-16				**MMEL IG 87**	FAA / ATA			TBD
TBD				**MMEL IG 88**	American			TBD

FINAL FAA Policy Letters Issued in 2011

As of February 11, 2011

PL NUMBER & REVISION #	TITLE	DATE
PL-25 R17	Policy Concerning MMEL Definitions	1-20-11
PL-31 R3	MMEL Format specification	1-20-11
PL-70 R3	Definitions Required in MELs	1-20-11

POLICY LETTER STATUS SUMMARY
Revision 81 as of January 21, 2011

CURRENT POLICY LETTERS IN EFFECT (1-19-2011)			
PL NO.	REV NO.	DATE	SUBJECT
1	4	Feb 27, 2010	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			ARCHIVED
7			ARCHIVED
8			ARCHIVED
9	9	Apr 30, 10	Public Address System
10			Transferred to 8900.1
11			ARCHIVED
12			ARCHIVED
13	1	Aug 15, 97	Oil Temperature and Pressure Instrument MEL Policy
14			ARCHIVED
15			Transferred to 8900.1
16			Transferred to 8900.1
17			ARCHIVED
18			ARCHIVED
19			ARCHIVED
20			ARCHIVED
21			ARCHIVED
22			ARCHIVED
23			ARCHIVED
24	4	Nov 02, 09	Lavatory Fire Protection
25	17	Jan 20, 2011	Policy Concerning MMEL Definitions
26	1	Aug 15, 97	Thrust Reversers On Small Turbojet Airplanes
27			ARICHIVED
28			ARCHIVED
29	5	Aug 8, 10	Master Minimum Equipment List (MMEL) Requirements for Cockpit Voice Recorder (CVR)
30			ARCHIVED
31	3	Jan 20, 2011	MMEL Format Specification
32	7	July 07, 06	Policy Regarding Traffic Alert Collision Avoidance System (TCAS)
33			ARCHIVED
34	4	Aug 15, 97	MMEL and MEL Preamble
35			ARCHIVED
36	2	Aug 15, 97	FAR Part 91 MEL Approval

Provide corrections/additions to Bob Wagner at robert.wagner@delta.com, Phone: 404-715-8123

POLICY LETTER STATUS SUMMARY
Revision 81 as of January 21, 2011

37			**ARCHIVED**
38	1	Aug 15, 97	Policy Regarding MMEL Relief for Primary Thrust Setting Instruments on Two-Engine Airplanes
39	5	Jan 29, 10	Altitude Alerting System Requirement
40	2	Dec 3, 09	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	Mar 4, 04	Time Limited Dispatch (TLD) Authorization for Full Authority Digital Electronic Control (FADEC) Engines
46			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			ARCHIVED
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			Transferred to 8900.1
69	2	Sep 24, 03	External Door Indication System
70	3	Jan 20, 2011	Definitions Required in MELs.
71			Transferred to 8900.1

POLICY LETTER STATUS SUMMARY
Revision 81 as of January 21, 2011

72	3	Mar 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	Mar 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	7	Dec 1, 09	Passenger Seats And Underseat Baggage Restraining Bar Relief
80			ARCHIVED
81			MEL and Configuration Deviation List Operator Procedures
82			Transferred to 8900.1
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	5	Jan 29, 10	Policy Regarding Air Carrier Compliance with Master Minimum Equipment List (MMEL) Revisions
87	9	Mar 8, 10	Master Minimum Equipment List (MMEL) for Flight Data Recorder (FDR)
88	1		Transferred to 8900.1
89	2	Jan 31, 09	FASTEN SEAT BELT WHILE SEATED Signs or placards
90	1	Sep 20, 01	Pitot Heat Indicating System
91	1	Nov 14, 03	White Position Lights and Strobe Lights
92			ARCHIVED
93	1	Sept 11, 06	Autopilot Disconnect MMEL Policy
94	1	Oct 8, 04	Liquid or Paste Propeller Deicer
95	1	Mar 20, 02	VHF Communications MMEL Requirements
96	2	Jan 29, 10	MMEL Relief Galley Waste Receptacles Access Doors
97	4	Sep 06, 07	Flight Attendant Seat(s)
98	0	Jan 20, 99	Navigation Databases
99	2	Feb 26, 10	Narrow-Body All-Cargo Aircraft Slide Relief Policy
100	2	Jan 20, 10	Weight & Balance - Cargo Operations
101	1	Sep 13, 01	Guidance for MMEL and MEL Relief for Autopilot(s)
102	0	Sep 29, 99	Cargo Compartment Smoke Detection and Fire Suppression Systems
103	0	Mar 21, 00	MEL policy for 14 CFR 129 and 129.14 Foreign Air Operators
104	4	Jun 18, 10	Overhead Storage Bin(s)/Cabin and Galley Storage Compartments/Closets
105	1	Jan 20, 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

POLICY LETTER STATUS SUMMARY
Revision 81 as of January 21, 2011

108	0	Oct 10, 01	Carriage of Empty Cargo Handling Equipment
109	0		Transferred to 8900.1
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			ARCHIVED
116	1	Dec 21, 07	Non-Essential Equipment and Furnishings
117	0	Oct 7, 05	Selective Call System (SELCAL)
118			ARCHIVED
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	1	Apr 30, 10	Passenger Notice System (Lighted Information Signs)
124	0	Jan 20, 09	Damaged Window/Windshield Relief
125	0	Apr 1, 10	Equipment Relief without Passengers
126	0	May 28, 10	Chelton Flight Logic Electronic Flight Instrument Systems
127	0	Jun 7, 10	Night vision Imaging systems (NVIS)

POLICY LETTERS UNDER REVISION/DRAFT (2-11-2011)				
PL NO.	**REV NO.**	**DRAFT NO.**	**DRAFT DATE**	**SUBJECT**
25	18	1		Policy concerning MMEL Definitions – Include OPERATIVE definition (Lead Luciano Saraiva)
47	2	1	July 21, 10	Megaphone MMEL Requirements (Lead Paul Nordstrom)
58	4	4		Boom Microphone (Lead David Burk)
59	4	1		Global Change Revisions (Lead Darrell Sheets)
65	2	1		Policy Regarding Cargo Provisions in the MMEL for Cargo Operations (Lead Joe White)
72	4	8		Air Carrier Aircraft Wing Illumination/Ice Lights (Lead AFS-260)
73	5	1		EEMK (Lead AFS-260)
76	6	0	Jan 6, 2011	ATC Transponders and Automatic Altitude Reporting Systems (Lead Paul Nordstrom)
83	5	1	Aug 21, 08	Master Minimum Equipment List (MMEL) Requirements for Water and Waste on Air Carrier Aircraft (Lead AFS-260)
85			Pending AD changes	Lavatory Door Ashtrays (Lead Joe White, Bob Wagner, Jim Foster)
91	2	0		White Position Lights and Strobe Lights (Lead Paul Nordstrom)
98	1	14	Nov 23, 09	Navigation Databases (Lead AFS-350/ALPA)
102	1	2		Cargo Compartment Smoke Detection and fire Suppression Systems (Lead Paul Nordstrom)
103	1	1		MEL Policy for 14 CFR 129 and 129.14 Foreign Air Operators (Lead AFS 250/260)
104	5	2	July 19, 10	Overhead Storage Bin(s) /Cabin and Galley Storage Compartments/Closets (Lead Paul Nordstrom)
105				ADSB (Lead Paul Nordstrom)
107	1	1		MMEL Relief for Inoperative APU Generator (Lead AFS 250/260)
108	1	2		Carriage of Empty Cargo Handling Equipment (Lead Paul Nordstrom)

Continued on next page

112	2	2		Relief for CFR 25.795 Compliant Flight Deck doors (Lead Paul Nordstrom)
119	3	1		Two-Section MMELs (Part 91 and Part 135) (Lead JP Dargis/Nick Petty)
120	1	1		ELT (Lead Gene Hartman, Steve Ford, John McCormick)
125	1	1		Equipment Relief with out Passengers (Lead Paul Nordstrom/Bob Taylor)
128	0	4		Accessible Lavatory Call System (Lead AFS-260)

Federal Aviation Administration

MMEL Policy Letter 47, Revision 2 D1

Date:	February 7, 2011
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: Megaphone MMEL Requirements

MMEL CODE: 25 (Equipment and Furnishings)

REFERENCE: PL-47, Revision 1, dated 15 August 1997
PL-47, ~~Revision~~ Original, ~~(undated)~~ not dated, signed by David R. Harrington

PURPOSE:
This policy letter provides standardized MMEL requirements for cabin megaphones.

DISCUSSION:
Revision 2 adds requirement to remove or obscure the megaphone placard.

Revision 1 reformats Policy Letter 47 and changes the C category to D with no change to policy.

Megaphones are required by FAR 121.309 (f) for passenger carrying operations. The number required is one (1) for airplanes with a seating capacity of more than 60 and less than 100 passengers, and two (2) for airplanes with seating capacity of more than 99 passengers. MMEL relief for inoperative or missing megaphones can therefore only be applied for units that are carried in excess of the regulatory requirement. COMBI type operations are required a megaphone, the quantity corresponding to the number of passenger seats installed. The regulation does not extend the megaphone requirement to all-cargo type operations.

POLICY:
To ensure that the requirements set forth in the Federal Aviation Regulations (FAR) are met, the FOPB has determined that the number of megaphones required by regulation must be installed and fully functional. Megaphones in excess of the number required may be granted relief.

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

25 (Equipment and Furnishings)

Megaphones	D	-	-	Any in excess of those required by FAR may be inoperative or missing provided: a) The inoperative megaphone is removed from the passenger cabin, b) Associated placard is removed or obscured, and c) Required distribution is maintained.

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

~~PL-47 reformatted 01/20/2010 with no change in content~~

Federal Aviation Administration

MMEL Policy Letter 72, Revision 4 D 8

Date:	xxxx xx, 2010 Lead: Pete Neff
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: Wing Icing Detection Lights

MMEL CODE: 33 (LIGHTS)

REFERENCE: PL-72, Revision 3, dated March 24, 2008
PL 72, Revision 2, dated August 15, 1997
PL 72, Revision 1, dated July 31, 1995.

PURPOSE:
This policy letter provides standardized Master Minimum Equipment List (MMEL) Policy for Wing Icing Detection Lights.

DISCUSSION:

Revision 4 changes the proviso statement by adding night operations restrictions, except on aircraft where the wing surfaces are not visible from inside the aircraft.

Revision 3 deleted the Global Change designation of GC-54 from this Policy Letter and revises FOEB Chairman guidance statement.

Revision 2 cancelled and replaces the following Policy Letters:

Master Minimum Equipment List, Policy Letter 37, dated September 15, 1993,
Subject: Relief for Wing/Illumination Ice Lights

Master Minimum Equipment List, Original Policy Letter 72, dated December 16, 1993,
Subject: Cargo Aircraft Ice Lights Relief.

This Policy Letter is issued to comply with 14 CFR for wing icing detection lights. This policy letter contains changes to make it clear that this policy only applies to aircraft during certain ground de-icing situations, or where the wing surfaces are not visible from inside the aircraft.

MMEL relief is necessary for wing icing detection lights for various configurations of aircraft operating under current regulatory aircraft deicing requirements. The current generation of cargo jet aircraft equipped with modular containers does not permit access to the aircraft cabin to view ice formation on the wings as do some other aircraft. Fuselage windows are not installed, or are covered on some cargo aircraft, so they may not be available as a viewing station.

Therefore, for certain configured jet aircraft, the wing icing detection lights may not meet their intended purpose. Current regulatory requirements exist for ground deicing of aircraft and for the ability to determine the formation of ice on the wing surfaces in flight. Wing icing detection lights for certain configured jet aircraft may be inoperative under specified conditions.

POLICY:

The FAA position is that wing icing detection lights provide illumination for viewing critical wing surfaces on certain aircraft which should be inspected prior to commencing take off under certain adverse weather conditions. These lights should be operable for night operations on those aircraft where the wing surface can be adequately viewed from **inside the aircraft**. For those configured jet aircraft which preclude a view of critical wing surfaces from inside aircraft, the wing icing detection lights may be inoperative provided ground deicing procedures do not require their use.

Accordingly, the following proviso shall be used in the MMEL, for items entitled "Wing Icing Detection Lights", or equivalent, on airplanes where the view of wing surfaces from the inside the aircraft is restricted.

33 LIGHTS
XX-X Wing Icing Detection Lights

1)	Airplanes with Critical Wing surfaces visible from inside airplane	C	- 0	(O) May be inoperative provided **a) operations at night in known, or forecast icing conditions are prohibited unless an alternate means of illumination is used, and** **b) an alternate means of illumination must not cause glare or reflection that would handicap crewmembers in the performance of their duties, and** **c)operations at night in known or forecast icing conditions are prohibited if the pilot side wing ice detect light is inoperative and operating as a single pilot operation on all aircraft regardless of certification basis.**
		C	- O	**(O)May be inoperative provided:** **a) an alternate means is used to determine the formation of**

			ice on the critical wing surface b) ground deicing procedures do not require their use.
2)	Airplanes with Critical Wing surfaces not visible from inside airplane	C - O	**(O)May be inoperative provided** **a) ground deicing procedures do not require their use, and** **b) operations at night in known or forecast icing conditions are prohibited if the pilot side wing ice detect light is inoperative and operating as a single pilot operation on all aircraft regardless of certification basis.**

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Flight Operations Evaluation Board Chairman should review the MMELs for necessary action. If appropriate for the airplane configuration and applicable certification rules, they may apply this policy to affected MMELs through the normal Flight Operations Evaluation Board process. Principal Inspectors may affect changes to the MEL in accordance with this policy letter when requested by their assigned certificate holders.

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

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MMEL PL DOCUMENT COMMENT LOG

Originating Office:	Document Title / Description:	Project Lead:	Last Update Date:
AFS 260	DRAFT PL-72 R4 D8	AFS 260	12/01/2010

Submittal Date	Name and Organization	ATA Section, Item Number	Comment		
10/05/2010	T Atzert &		Needs major work to include – sub catagories for		
	T Schooler		Lights installed for cert requirements, lights for ground deicing, and single pilot ops		
10/25/2010	D Landry		ALPA agrees with general concept "If individual aircraft procedures do not rely, or require pilots to observe the wing during icing operations"		
10/08/2010	D Sheets		Edits and mechanical corrections		

Federal Aviation Administration

MMEL Policy Letter 76, Revision 6 D0

Date:	January 6, 2011 Lead: Paul Nordstrom
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-76 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, the sample proviso stating the relief in this policy letter must be copied verbatim in the operator's MEL. Approval of the revised MEL is gained utilizing established procedures, through the Operator's assigned Principal Operations Inspector (POI).

SUBJECT: ATC Transponders and Automatic Altitude Reporting Systems

MMEL CODE: 34 (Navigation)

REFERENCE: PL-76, Revision 5, dated March 24, 2008
PL-76, Revision 4, dated May 26, 2005
PL-76, Revision 3, dated November 7, 2003
PL-76, Revision 2, dated October 16, 2001
PL-76, Revision 1, dated August 15, 1997
PL-76, Original, dated January 11, 1995

PURPOSE:
The purpose of this policy letter is to provide standardized Master Minimum Equipment List (MMEL) requirements for Air Traffic Control (ATC) transponders and automatic altitude reporting systems

DISCUSSION:
Revision 6 revises the repair category for ADS-B squitter transmissions and added relief for when it is required by operations.

Revision 5 adds relief for ADS-B Extended Squitter Transmissions. Removes the word Enroute from all provisos**.**

Revision 4 adds relief for Mode S Elementary and Enhanced Downlink Aircraft reportable parameters not required by FAR. These parameters are required for operations in Europe.

Revision 3 changed the relief category for operating without a transponder from "C" to "B". This change was made in order to align it with Traffic Alert and Collision Avoidance System (TCAS) relief.

TCAS relief is Category "B" and the transponder is needed for TCAS.

Revision 2 deleted the first set of the MMEL remarks in Revision 1 to clarify that there is no relief for ATC transponders and automatic altitude reporting systems required by 14 CFR. The remarks were also revised to indicate that operations in Reduced Vertical Separation Minimums (RVSM) require an operating altitude reporting transponder. Revision also deleted a discussion paragraph already stated in the purpose.

Revision 1 reformatted policy letter 76 with no change to policy.

There is a need for standardizing the MMEL for like items. MMEL provisos and the number required for dispatch for various aircraft have not been consistent and places operators at a competitive disadvantage. After review by the Flight Operations Policy Board, a determination was made that the same level of safety intended by the Federal Aviation Regulations could be maintained with these modifications. The MMEL should be standardized in accordance with this policy letter.

Per MMEL policy, the MMEL ~~relief category~~ repair interval for units in excess of 14 CFR is category "D".

POLICY:

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

34 NAVIGATION				
ATC Transponders and Automatic Altitude Reporting Systems	B	-	0	May be inoperative provided: a) Operations do not require its use, and b) Prior to flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight
	D	-	1	Any in excess of those required by 14 CFR may be inoperative
1) Elementary and Enhanced Downlink Aircraft Reportable Parameters not Required by 14 CFR ***	A	-	0	May be inoperative provided: a) Operations do not require its use, and b) Repairs are made prior to completion of the next heavy maintenance visit
2) ADS-B Squitter Transmissions ***	D	-	0	May be inoperative provided operations do not require its use.
	C	-	0	(O)May be inoperative provided alternate procedures are established and used. NOTE: Any ADS-B Out function that operates normally may be used.

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

Thomas K. Toula, Manager,
Air Transportation Division, AFS-200

~~PL-76 reformatted on 01/20/2010 with no change to content.~~

Federal Aviation Administration

MMEL Policy Letter 102 Revision 1 D2

Date:	February 7, 2011
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: **Cargo Compartment Smoke Detection and Fire Suppression Systems**

MMEL CODE: 26 (FIRE PROTECTION)

REFERENCE: PL-102, Original, dated September 29, 1999

PURPOSE:
The purpose of this policy letter is to provide guidance for establishing standardized Minimum Equipment List (MEL) relief for both Cargo Compartment Smoke Detection and also Fire Suppression (Extinguishing) Systems being installed on transport category airplanes by either Type Certificates or Supplemental Type Certificates per Title 14 Code of Federal Regulations (14 CFR) sections 25.855, 25.857, 25.858, and 121,314, Revised Standards for Cargo or Baggage Compartments in Transport Category Airplanes; Final Rule, dated February 17, 1998. This rule requires the installation of such detection and suppression systems in Class D cargo compartments by no later than March 19, 2001.

DISCUSSION:
Revision 1 removes the Global Change and clarifies relief for cargo holds with individual smoke detection zones.

14 CFR sections 25.855, 25.857, 25.858, and 121.314, Revised Standards for Cargo or Baggage Compartments in Transport Category Airplanes; Final Rule, upgrades the fire safety standards for cargo or baggage compartments by eliminating Class D compartments as an option for future type certification. Compartments that no longer can be designated as Class D will be required to comply with the standards for either Class C, or Class E compartments, as applicable.

The Class D compartments in transport category airplanes manufactured under existing type certificates and used in passenger service will be required to comply with both the fire detection and suppression standards for Class C compartments by March 19, 2001 for use in air carrier, commuter, on-demand, or most other commercial service. The Class D compartments manufactured under existing type certificates and used only for the carriage of cargo will also be required to comply with both the fire detection and suppression standards, or the detection standards for Class E compartments by that date for such service. These improved standards are required in order to increase protection from possible in flight fires.

POLICY:
As a result of this new rule, the following guidelines are provided for determining an air carrier's specific MEL relief for both smoke detection and fire suppression (Extinguishing) systems installed in transport category aircraft.

Due to the numerous types of systems being installed, MEL relief should be granted in order to operate these systems fully and yet not penalize an operator if a discrepancy in either system should occur. Appropriate (M) and/or (O) procedures (if required) will be developed by the operator for the MEL as appropriate.

Inoperative components of a system(s) may be considered for MMEL/MEL relief if it is determined that the smoke detection/suppression system will continue to function as intended.

Cargo holds that have individual smoke detection zones that continue to operate normally may be loaded provided the inoperative smoke detection zones remain empty.

26 FIRE PROTECTION

Cargo Compartment Smoke Detection-Systems	C	-	0	May be inoperative provided associated cargo compartment or zone remains empty. NOTE: Does not preclude the carriage of empty cargo containers, pallet, ballast, etc.
Cargo Compartment Fire ~~Detection/~~Suppression Systems	C	-	0	May be inoperative provided associated cargo compartment remains empty. NOTE 1: Does not preclude the carriage of empty cargo containers, pallet, ballast, etc. NOTE 2: Class E cargo compartments require only the installation of smoke or fire detection systems (not suppression).

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

Federal Aviation Administration

MMEL Policy Letter 108, Revision 1 D2

Date:	February 7, 2011
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: Carriage of Empty Cargo Handling Equipment

MMEL CODE: 00 (GENERAL)

REFERENCE: PL-108, Original, dated October 10, 2001

PURPOSE:
The purpose of this policy letter is to provide standardized relief statements in Master Minimum Equipment List (MMEL) that allow for the carriage of empty cargo handling equipment when the compartment is otherwise required to be empty of cargo.

DISCUSSION:

Revision 1 removes Global Change and clarifies relief for cargo holds with individual smoke detection zones.

As a condition of deferral for many existing MMEL items such as air conditioning and air distribution components, smoke/fire detection systems, and other such related items, etc., cargo compartments are required to remain empty of cargo. In an effort to address the needs of air carriers to be able to redistribute cargo handling equipment such as containers, pallets, igloos (typically referred to as Unit Loading Devices (ULDs)), ballast, and related cargo restraint components throughout their route structure, successive MMEL revisions have added statements that have attempted to address this need. Principally, the statements; "..affected compartment remain empty, or only non- combustible (and/or non-flammable) materials are carried in the affected compartments," were added to many MMELs. Due to the lack of availability and uniformity of definitions for such terms as combustible and flammable, many operators were confronted with the necessity to conform to only the strictest interpretation of these provisos and fly with the cargo compartment completely empty.

Most recent attempts to address this issue have resulted in MMEL provisos that have been changed to state that "...affected compartment remain empty," along with the addition of a NOTE that states "does not preclude the carriage of empty cargo containers, pallets, ballast, and cargo restraint components." Several air carriers have expressed concern that this new standard also will not allow them to carry empty cargo handling materials because Notes, by their definition, "... do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos."

Operators argue that this definition can lead them back to the need to void the entire compartment and once again leave urgently needed ULDs and ballast, etc., at remote locations, disrupting their system, all because the proviso they are left to comply with is essentially "… Affected compartment remains empty." Other parties have also expressed concern that this note in MMELs lacks any creditable authority to ensure that inappropriate items associated with cargo handling such as shoring timbers, plywood panels, cardboard boxes, etc., are not also being loaded.

In response to these concerns industry submits that their cargo handling materials, consisting of ULDs (containers, pallets, and igloos), ballast, and related cargo restraint components and equipment, are designed and tested to standards that are equivalent to standards that the aircraft structure must meet, principally, Title 14 Code of Federal Regulations Part 25, Appendix F, Part 1. These items of equipment are all manufactured in accordance with various STCs, TSO, ISO, or SAE standards for such equipment. All such standards require the equipment and its materials to meet the minimum performance standards of NAS 3610, or other designations that are in accordance with IATAs ULD Technical Manual, Chapter 5, Standards Specifications 50/0 and 50/4.These standards have been reviewed and approved, or accepted, by the Administrator for routine use in cargo carriage.

Additionally, some operators have an installed storage unit(s) called Fly Away Kits (alternately referred to as Parts for Maintenance [PFM] (Boxes), which have been reviewed and approved by the Administrator to remain on the aircraft when the compartment is to be considered empty. The purpose of such kits is to carry aircraft certified spare parts and hardware. It is the responsibility of each operator, who uses such kits, to ensure that they be voided of any item(s) that may not be compatible with the goal of minimizing potential sources of smoke, fume, or fire while MEL items affected by this policy are being carried on deferral. Examples of such item(s) that shall be removed are all self contained fluids, i.e., cans of hydraulic oil, cleaning solvents, etc. In addition, any item that either stores or can produce a source of ignition, i.e., devices that store energy such as batteries and capacitors, chemical generators, etc., shall be removed. When part of a Fly Away Kit, serviceable tires should only be inflated to a minimal pressure that preserves their serviceability.

The presence of cargo handling equipment (unloaded, empty, or with ballast) or installed Fly Away Kits, onboard the aircraft constitute no greater hazard in regards to propagation of fire, smoke, and fumes than the aircraft itself.

Each operator is required to maintain records of the types of cargo handling materials they carry, and thus be able to demonstrate that empty cargo handling material loaded in conjunction with any MMEL proviso that mandates no cargo be carried are of these approved, or accepted, categories. Further, each operator has the responsibility of ensuring and recording the exact position, and tare weight, of empty cargo equipment that are loaded onboard an aircraft in accordance with an approved weight and balance program, load manifest, etc. Since this information must be validated by the crew, the operator shall also establish and use a procedure that verifies the cargo compartment is empty or contains only empty cargo handling equipment, ballast, and/or Fly Away Kits. To maintain operational flexibility, ballast may be loaded in ULDs.

POLICY:

~~Flight Operations Evaluation Board (FOEB) chairmen should apply the following policy to affected MMELs through the normal FOEB process. Any~~ MMEL items for cargo compartment smoke detection and fire suppression systems that ~~carries a~~ have provisos that state~~s~~ the "affected cargo compartment or zone remains empty" be changed to read as follows:

> (O)May be inoperative provided procedures are established and used to ensure the associated compartment or zone remains empty, or is verified to contain only empty cargo handling equipment, ballast (ballast may be loaded in ULDs), and /or Fly Away Kits.
>
> NOTE: Operator MELs must define which items are approved for inclusion in the Fly Away Kits, and which materials can be used as ballast.

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

Federal Aviation Administration

MMEL Policy Letter 112, Revision 2 D2

Date:	February 7, 2011
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: Relief for 14 CFR 25.795 Compliant Flight Deck Doors

MMEL CODE: 52

REFERENCE: PL-112, Revision 1, dated January 29, 2004
PL-112, Original, dated June 28, 2002

PURPOSE:
The purpose of this policy letter is to provide guidance to Flight Operations Evaluation Board (FOEB) Chairmen relative to the granting of standardized Master Minimum Equipment List (MMEL) relief for Title 14 Code of Federal Regulations (14 CFR) section 25.795 compliant flight deck doors.

DISCUSSION:
Revision 2 removes Global Change and clarifies relief for flight deck doors that have a decompression function that is independent of the primary door locking system.

Revision 1: Adds title (Passenger/Combi Aircraft Only) and example provisos (Primary and Secondary Locking Systems) for new flight deck door(s) and establishes time deferral limits for use within MMELs.

Revision Original**:** As a result of the September 11, 2001 attacks by terrorists whose focus included United States aviation interest as targets, the U.S. Government, the Federal Aviation Administration, and the U.S. aviation industry joined together to increase levels of aviation security including transport airplane flight deck security. Passage of SFAR 92 and subsequent Amendments 92-1 through 92-4, Amendments
25.106 and 121.288, along with the approval of Advisory Circulars 25.795-1 and 25.795-2, highlighted some of the regulatory activities that supported increased security awareness. The newly designed 14 CFRs provide for more robust flight deck door designs on transport aircraft that will be utilized in service by U.S. operators. The U.S. operating rules (14 CFR) provide MMEL/MEL relief for inoperative equipment subject to specified conditions. U.S. operating rules (14 CFR section 121.587) have required locked flight deck doors during 14 CFR part 121 operations for approximately 40 years (August 6, 1964). Policy letters provide guidance specific to the management and oversight of the MMEL/MEL approval process.

POLICY:
FOEB chairmen may not allow relief for flight deck doors, as a system, however they may allow relief for certain specific items associated with the design of flight deck doors, as has been the Flight Operations Policy Board's (FOPB) long standing practice. The normal FOEB practice of considering the type of failure and the next probable failure in the granting of MMEL relief must be followed, and an acceptable level of safety must be maintained. In all cases the primary consideration will be the maintenance of flight deck security and the prevention of unauthorized access, as required by 14 CFR.

Further, any flight deck door locking device in use in 14 CFR part 121 operations must meet the requirements of 14 CFR section 25.795, as amended. The part(s) of the system that alerts the flight crew that the auto opening cycle has been activated, and that the door locking system is entering the unlocked mode, must be operative, unless the auto-opening system has been deactivated. The part(s) of the system that allows the flight crew to take immediate action to cause the door to remain locked or default to a locked mode, until positive (visual) identification of the person seeking entry can be validated, must remain operative, unless a tertiary locking device is used that does not allow flight deck access.

The FOPB is aware that some designs may incorporate tertiary locking features or locking features that were originally designed for use in other than in-flight operations. These latter locking features, or system attributes, may be accompanied by placards labeled "For Ground Use Only", etc. While Aircraft Certification may not have envisioned the use of those kinds of devices in-flight, considering that the use of those particular systems would not meet the requirements for aircraft certification; the FOPB believes that the use of certain of these devices will enable the operator to maintain a level of safety, considering the unauthorized entry case, by using these devices at dispatch, where certain door locking failures occur in service. Additionally, the use of certain of these features will provide safety benefits after an enroute failure of the primary locking system(s).

In these cases, the FOEBs are encouraged to utilize these locking system resources to good advantage. Provisos should address alternative Placarding provisions, when appropriate, that specify when the use of appropriate alternative locking subsystems may provide an additional safety benefit.

Inoperative components of the door locking system may be considered for MMEL/MEL relief, if it is determined that the door may be locked and the locked indication is clearly visible or discernable to the flight crew.

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

Passenger and Combi airplanes with decompression function Dependent of primary locking system:

52 DOORS

-XX Enhanced Flight Deck Security Door Primary Locking System (FAR 25.795 Compliant) ***	A	1	0	(M)(O) May be inoperative provided: a) Primary locking system is deactivated, b) Secondary locking system operates normally and is used to lock the door, c) Alternate procedures are established and used for locking and unlocking the door using the secondary locking system, and d) Repairs are made within two flight days
-XX Enhanced Flight Deck Security Door Secondary Locking System (FAR 25.795 Compliant) ***	C	1	0	May be inoperative provided primary locking system operates normally.

Passenger and Combi airplanes with decompression function Independent of primary locking system:

52 DOORS

-XX Enhanced Flight Deck Security Door Primary Locking System (FAR 25.795 Compliant) ***	C	1	0	(M)(O) May be inoperative provided: a) Primary locking system is deactivated, b) Secondary locking system operates normally and is used to lock the door and c) Alternate procedures are established and used for locking and unlocking the door using the secondary locking system.
-XX Enhanced Flight Deck Security Door Secondary Locking System (FAR 25.795 Compliant) ***	C	1	0	May be inoperative provided primary locking system operates normally.
-XX Flight Deck Door Decompression Panel Decompression Function (FAR 25.795 Compliant) ***	A	-	0	May be inoperative provided: a) Panels are in the latched position, and b) Repairs are made within two flight days.

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

Federal Aviation Administration

MMEL Policy Letter 128 Revision O D4

Date:	XX/XX/2011 Lead AFS-260
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: Accessible Lavatory Call System

MMEL CODE: 23 (COMMUNICATIONS)

REFERENCE: 14 CFR 382.63 (a) (3) 14CFR 382.71 (a)

PURPOSE:
The purpose of this policy letter is to provide updated guidance for Flight Operations Evaluation Board (FOEB) Chairmen for the Flight Attendent Visual/Audio Alerting System, Accessible Lavatory Call System (Call Button).

DISCUSSION:
MMELs provide relief for the Passenger to Attendant Call System as a Non Essentual Equipment and Furnishings (NEF) item. **DOT/FAA review has determined relief for two isle wheelchair accessible lavatories is not allowed by 14 CFR 382.63 (a) (3). Additionally, 14 CFR 382.71 (a) specifically states carriers must maintain features in working order, therefore relief should not apply except in specific situations. DOT maintains that in order to insure that carriers are accountable for providing nondiscriminatory service to passengers with disabilities, detailed standards and requirements are essential. MMEL/MEL relief is based on redundancy in systems. It does not currently exist in accessible lavatories. However, the FAA recognizes the need to move an aircraft from an unplanned divert location to an airfield where the system can be repaired.**

14 CFR 382 does not apply to single isle aircraft with a wheelchair accessable lavatory installed.

POLICY:
The Passenger to Attendant Call System (call button) for two isle wheelchair Accessible Lavatories will be granted only limited and specific relief in MMELs, or MELs. Passenger to Attendant Call System NEF relief in MMELs and MELs only applies to non wheelchair accessable lavatories, and to single isle wheelchair accessable lavatories

23 (COMMUNICATIONS)

XX-X	**Accessible Lavatory Flight Attendent Visual/Audio Alerting System (Call Button) Two isle aircraft (wheelchair accessible)**	**A**	**1**	**1**	**(a) No relief granted for revenve, passenger carrying flights, two isle aircraft, except for diverts to a site without repair capabilities, then one flight will be allowed to a airport where repairs can be made.** **(b) May be inoperative for non revenue ferry flights.**

Flight Operations Evaluations Board Chairmen should review MMELs for necessary action and apply this policy to affected MMELs through the normal Flight Operations Evaluation Board process. Principal inspectors may affect changes to the MEL in accordance with this policy letter.

John Duncan, Manager
Air transportation Division, AFS-200

MMEL PL DOCUMENT COMMENT LOG

Originating Office:	Document Title / Description:	Project Lead:	Last Update Date:
AFS 260	DRAFT PL-128 R0 D4	AFS 260	12/27/2010

Submittal Date	Name and Organization	ATA Section, Item Number	Comment		
12/15/2010	Bob Wagner		Since I suspect there will be comments for this item, I have a couple of thoughts. Could you please assist me with the following two regarding PL-128 proposal: 1. Can we obtain from AFS the comments that are made to this item and review them at the next MMEL IG (81) meeting, and 2. Can this PL draft proposal not be issued as final until after MMEL IG 81, (pending review and any adjustments made to it resulting from comments received).		
12/16/2010	Tom Atzert		UAL objects to the PL for several reasons. The way we interpret the 14 CFR 382 paragraphs cited in the draft PL is that they require airplanes to be ***equipped*** with various items to ensure accessibility, and do not prohibit MEL deferral of these items. Further, airlines have comprehensive maintenance programs in place that ensure accessibility items are maintained in proper working order, and do not interpret 382.71(a) to mean those items may not be deferred. FAA inspectors and DOT reps agreed with our position during past discussions on this topic. In fact, current FAA PL-83 makes such a statement. We are coordinating with DOT ACAA specialists (again) to get clarification on the intent of the rules. The statement about “MMEL/MEL relief” in draft PL-128 “DISCUSSION” section isn’t complete: the MMEL/MEL concept is based		

Originating Office:	Document Title / Description:	Project Lead:	Last Update Date:
AFS 260	DRAFT PL-128 R0 D4	AFS 260	12/27/2010

Submittal Date	Name and Organization	ATA Section, Item Number	Comment		
			on transfer of control of the function of the inoperative item to any of the following: ▪ A redundant system; ▪ An alternate system; ▪ An alternate procedure; or ▪ An operational restriction. To provide more rigid controls for Lavatory Call System MEL deferrals than currently exist today in operator NEF programs, and to more appropriately address recent FAA concerns, we propose that PL-128 be withdrawn, and a new sub-item of relief be added to PL-9 that reads: Lavatory Call System C/-/0 (O) May be inoperative provided alternate procedures are established and used. This new item would be applicable to lav call systems on all aircraft with lavs, including single and dual aisle airplanes, whether they have accessibility features or not. The function of the lavatory call system could be effectively transferred to an alternate procedure. It must be noted that the MMEL item proposed in PL-128 does not conform to current MMEL formatting and authoring standards.		
12/20/2010	Bill Rocovich		Spelling corrections		

MMEL PL DOCUMENT COMMENT LOG

Originating Office:	Document Title / Description:	Project Lead:	Last Update Date:
AFS 260	DRAFT PL-128 R0 D4	AFS 260	12/27/2010

Submittal Date	Name and Organization	ATA Section, Item Number	Comment		
12/20/2010	Al Islar		Spelling corrections		
12/16/2010	Bob Wagner		It appears to be design, incorporation and equipage requirements, not much on MMEL though. Also, I looked through the A330 MMEL just to see what it contains and there are a lot of lavatory items (see attached) the last item (38-30-01) even states "Including wheelchair accessible lavatories" and these are 10 day relief category. It would appear that these related items in all MMELs would need to be revised or one could apply any of these to a wheelchair accessible lavatory for up to 10 days.		

U.S. Department
of Transportation

**Federal Aviation
Administration**

InFO

Information for Operators

InFO 10018
DATE: 8/30/10

Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info

An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.

Subject: Termination of www.opspecs.com Operations

Purpose: This InFO informs operators that the Federal Aviation Administration (FAA) website www.opspecs.com will cease operations August 31, 2010.

Background: The FAA developed the www.opspecs.com as a way to share information and invite public comment regarding draft Master Minimum Equipment Lists (MMEL), Policy Letters (PL), Flight Standards Board Reports (FSB) and Operations Specifications (OpSpecs), Management Specifications (MSpecs), Training Specifications (Training Specs) and Letters of Authorization (LOA) both within and outside the FAA.

The platform on which www.opspecs.com was built and housed is outdated and no longer being supported. The content of the website is being transferred to various other websites, which are more dedicated to the specific topics and have enhanced features, including subscription notification. The FAA is relocating the contents of www.opspecs.com in accordance with agency guidelines.

Final Documents: Final documents and information will be available on the Flight Standards Information Management System (FSIMS) located under the Publications link: http://fsims.faa.gov/PublicationForm.aspx

- MMELs, PLs, FSBs, and MMEL Industry Group (IG) meetings and agendas are listed under MMEL & AEG Guidance Documents.
- Information pertaining to the Operations Specifications Work Group (OSWG), including agendas and meeting notes is under Operations Safety System (OPSS) Documents.

Document Open for Public Comment: Documents open for public comment for MMELs, PLs, FSBs, and OpSpecs/MSpecs/LOAs are now located on the FAA website: http://www.faa.gov/aircraft/draft_docs. Individuals now have the option to subscribe to specific sites by category. This will enable the subscriber to be notified via e-mail each time a new or revised draft document is posted for comment.

Master Minimum Equipment List (MMEL)	http://www.faa.gov/aircraft/draft_docs/mmel/
MMEL AEG Policy	http://www.faa.gov/aircraft/draft_docs/mmelpl/
Flight Standardization Board (FSB) Reports	http://www.faa.gov/aircraft/draft_docs/fsb/
(OpSpecs/MSpecs/LOA)	http://www.faa.gov/aircraft/draft_docs/opspecs/
Foreign Operations Specifications (OpSpecs)	http://www.faa.gov/aircraft/draft_docs/129opspecs/

Recommended Action: Industry users should review the contents of this InFO, become familiar with the applicable websites, and subscribe to any sites as necessary.

Contact: Questions or comments concerning this InFO should be directed to the Technical Programs Branch, AFS-260 at (202) 267-8166.

AIR TRANSPORT ASSOCIATION

November 22, 2010

U.S. Department of Transportation
Docket Operations, M-30
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue, SE.
Washington, DC 20590

Subject: Docket No. FAA-2010-0956; Directorate Identifier 2010-NM-018-AD; Airworthiness Directives; Transport Category Airplanes, re: **Time an Airplane may be Operated with Certain Ashtrays Missing;** 75 Fed. Reg., Vol. 193, October 6, 2010

Ladies and Gentlemen:

The FAA has proposed to revise an existing airworthiness directive (i.e., AD 74-08-09 R2) that applies to transport category airplanes that have one or more lavatories equipped with paper or linen waste receptacles. The proposed revision would retain existing requirements, but would extend the time an airplane may be operated with certain ashtrays missing. The FAA proposed the revision based on its determination that certain Master Minimum Equipment List (MMEL) relief times specified by the existing AD could be extended and still provide an acceptable level of safety against fires.

For airplanes having multiple lavatory doors, the proposed AD would allow operations with up to 50 percent of the lavatory door ashtrays missing or inoperative, provided 50 percent of the missing or inoperative ashtrays were replaced within three days and all remaining missing or inoperative ashtrays were replaced within 10 days. The proposed AD also would allow airplanes having only one lavatory door to be operated for a period of ten days with the lavatory door ashtray missing or inoperative.

We appreciate the FAA's proposed extension of the relief allowed for missing or inoperative ashtrays. In view of the prohibition of smoking on board commercial transports and societal pressures against smoking, we believe extended relief allowing operations with some ashtrays missing is long overdue, can be accomplished without impairing the level of safety of commercial transports, and will prevent delays and disruptions of service over a missing item that no longer serves its intended safety function. We note that for airplanes having multiple lavatory doors, current MMEL relief allows one ashtray to be missing for ten days. The proposal would expand "ten-day" relief to 50 percent of the ashtrays, provided that half of the missing ashtrays were replaced within three days. For airplanes having only one lavatory door, current relief allows the ashtray to be missing for three days. The proposal would extend that relief to ten days.

While we appreciate the proposed extension, we recommend that FAA simplify and clarify the proposed relief provisions for airplanes having multiple lavatory doors. We recommend that for those airplanes, the AD provide MMEL relief for up to *and including* 50 percent of the ashtrays for ten days. This recommendation would remove the proposed requirement to replace half of the missing ashtrays within three days. It would provide for a level of safety equal to or exceeding the level proposed for airplanes having only one lavatory door. Importantly, this approach would greatly simplify the management and

Air Transport Association of America
1301 Pennsylvania Avenue., NW - Suite 1100 Washington, DC 20004-1707
202-626-4000

oversight of MMEL relief by operators and FAA inspectors, respectively. Further, it would make clear that "up to 50 percent" is an inclusive term and avoid differing interpretations.

(j) An airplane with multiple lavatory doors may be operated for a period of 10 days with up to and including 50 percent of the lavatory door ashtrays missing or inoperative. An airplane with only 1 lavatory door may be operated for a period of 10 days with the lavatory door ashtray missing or inoperative.

We appreciate the opportunity to contribute comments to this proposed rulemaking, and thank you for your consideration of these views. Please contact me if you have any question.

Sincerely,

Joe White
Managing Director, Engineering & Maintenance

Cc: Mr. Alan Sinclair, ANM-115, Transport Airplane Directorate, 425–227–2195
MMEL IG, ATA Members

Helicopter Operations Monitoring Programme (HOMP)

A helicopter Flight Data Monitoring (FDM) programme

Civil Aviation Authority

Shell Aircraft

smiths

BRISTOW HELICOPTERS

BRITISH AIRWAYS

HOMP

What is Flight Data Monitoring?

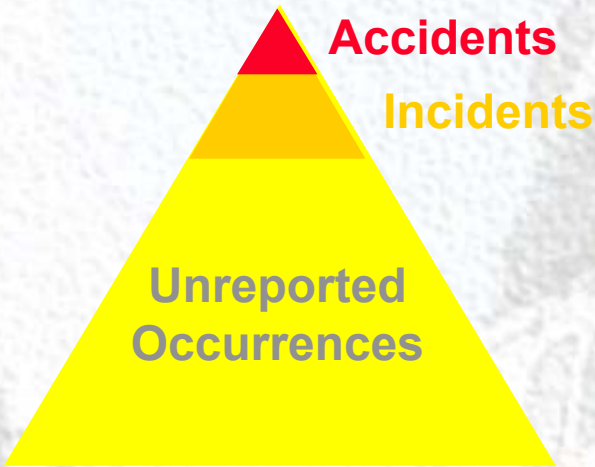
Definition:

"A systematic method of accessing, analysing and acting upon information obtained from digital flight data records of routine operations to improve safety"

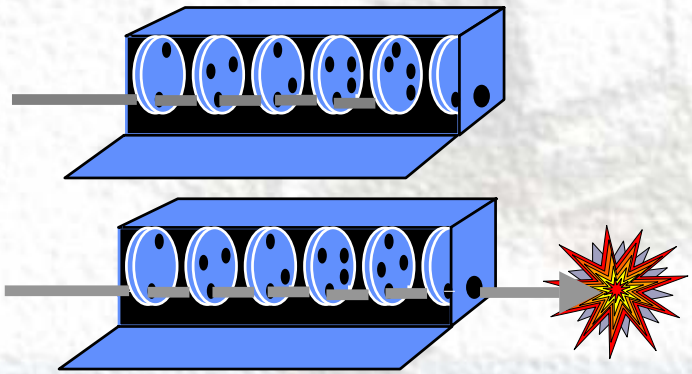
FDM involves the pro-active use of flight data to identify and address operational risks before they can lead to incidents and accidents

Why Flight Data Monitoring?

The Heinrich Pyramid

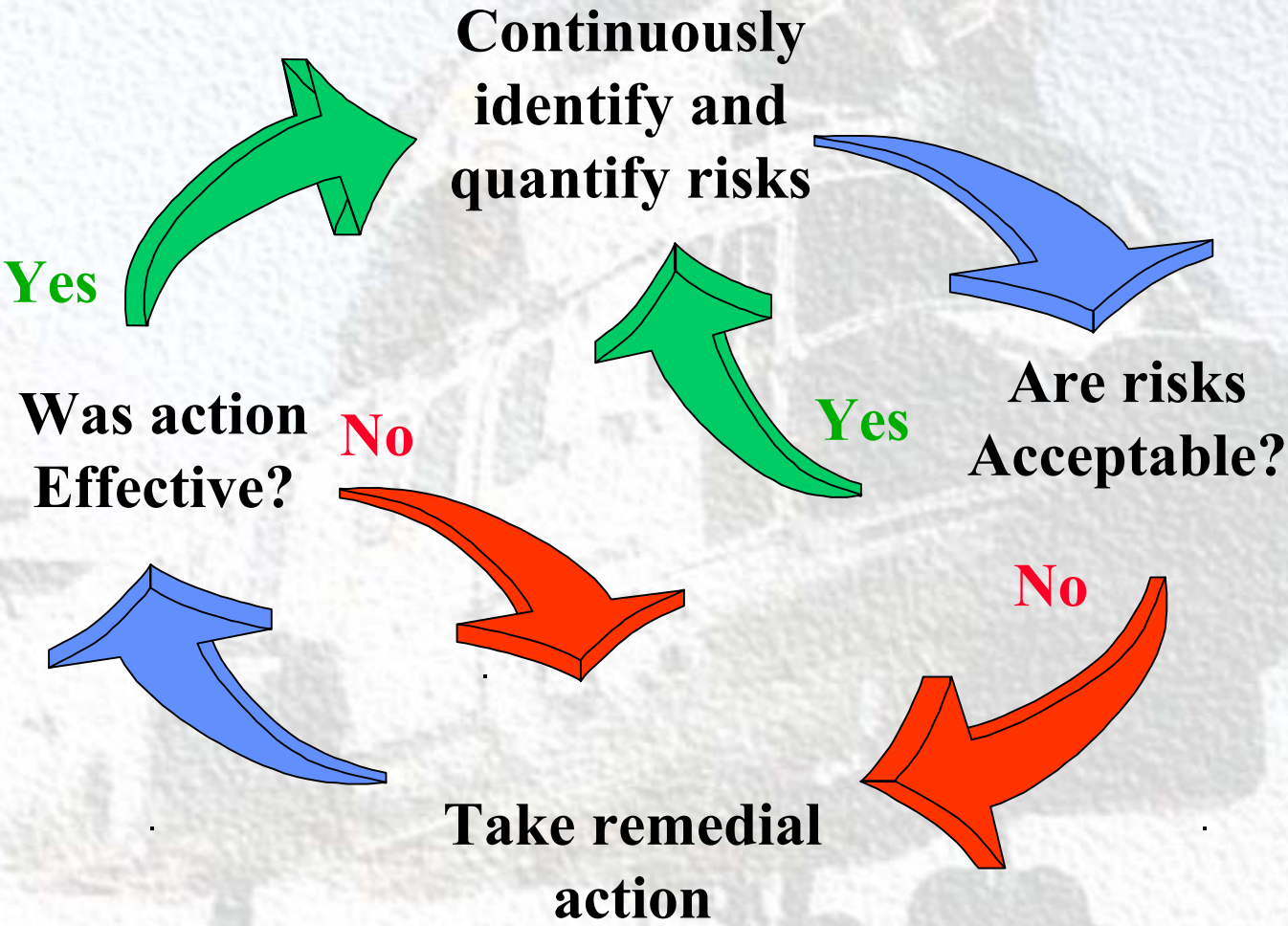


The Light Box



- For every major accident there are several less significant accidents, hundreds of reportable incidents and thousands of unreported incidents
- Below this lie the normal variations present in all operations
- FDM gives more detail on the incidents, encourages more consistent reporting and fills in the void below this that we know very little about

Risk Management



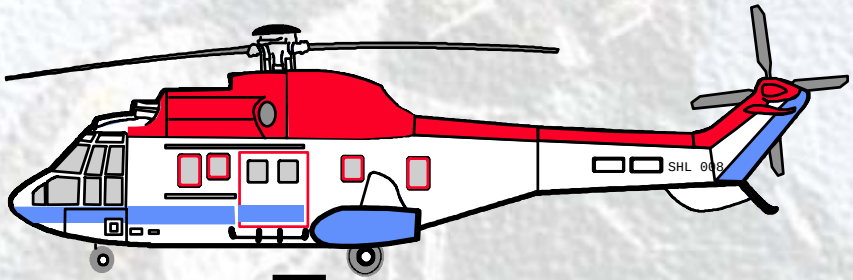
The "Closed Loop" Flight Data Monitoring Process

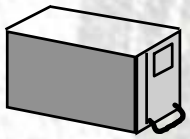
HOMP Trial Objectives

- Establish how best to monitor helicopter flight operations
- Evaluate the safety benefits of this monitoring
- Evaluate the tools and equipment selected for the trial, eliminate technical risks
- Establish a HOMP management strategy
- Assess the workload for a typical operator
- Obtain aircrew and management ‘buy-in’
- Further expose Industry to the concept of a HOMP

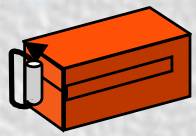
HOMP Aircraft System

CQAR





IHUMS DAPU (existing)



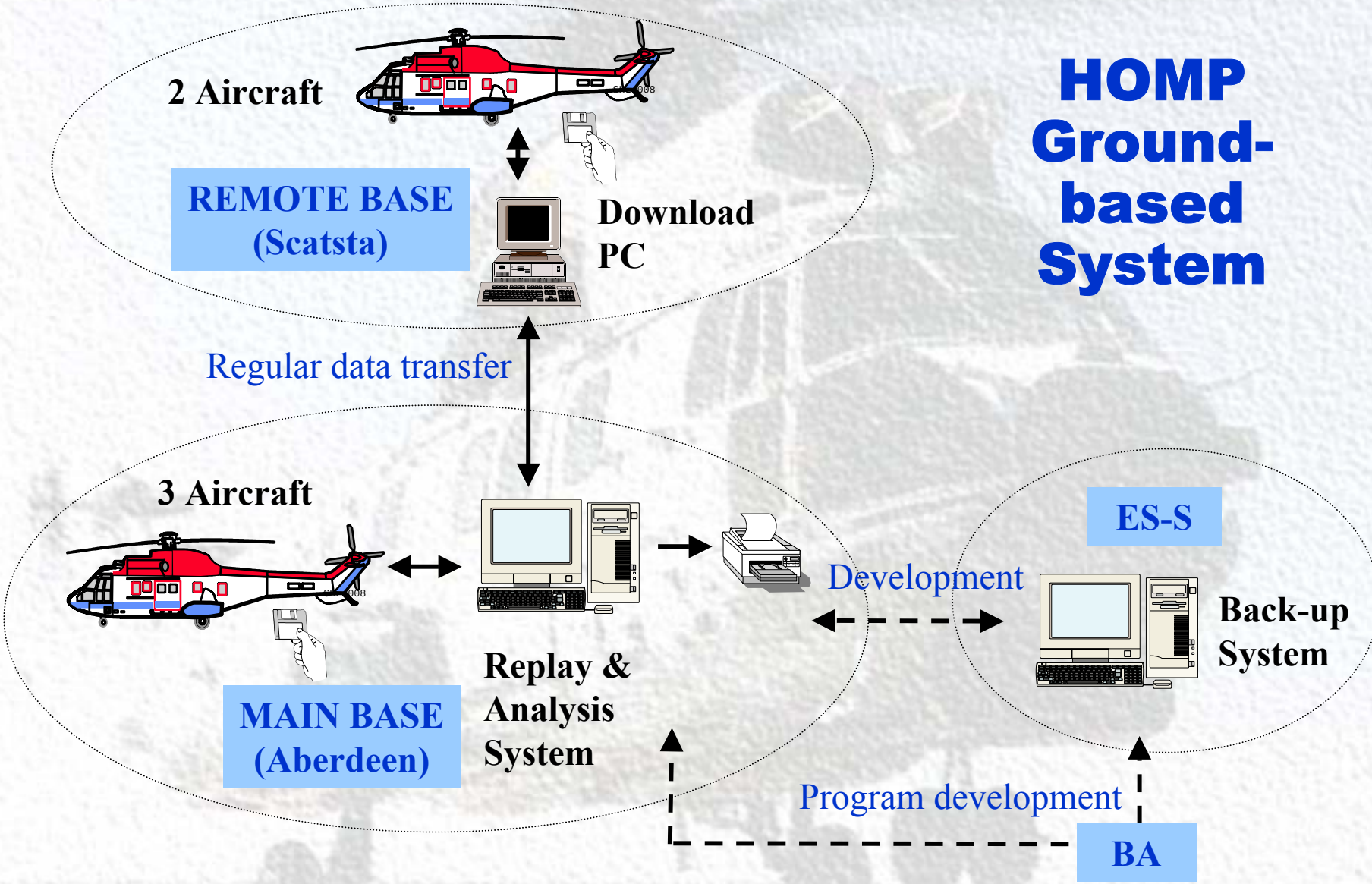
CVFDR (existing)

PCMCIA card

Download/Replay PC

Removed by maintainer at end of day's flying

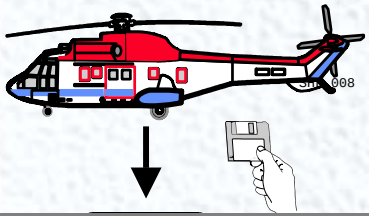
HOMP Ground-based System

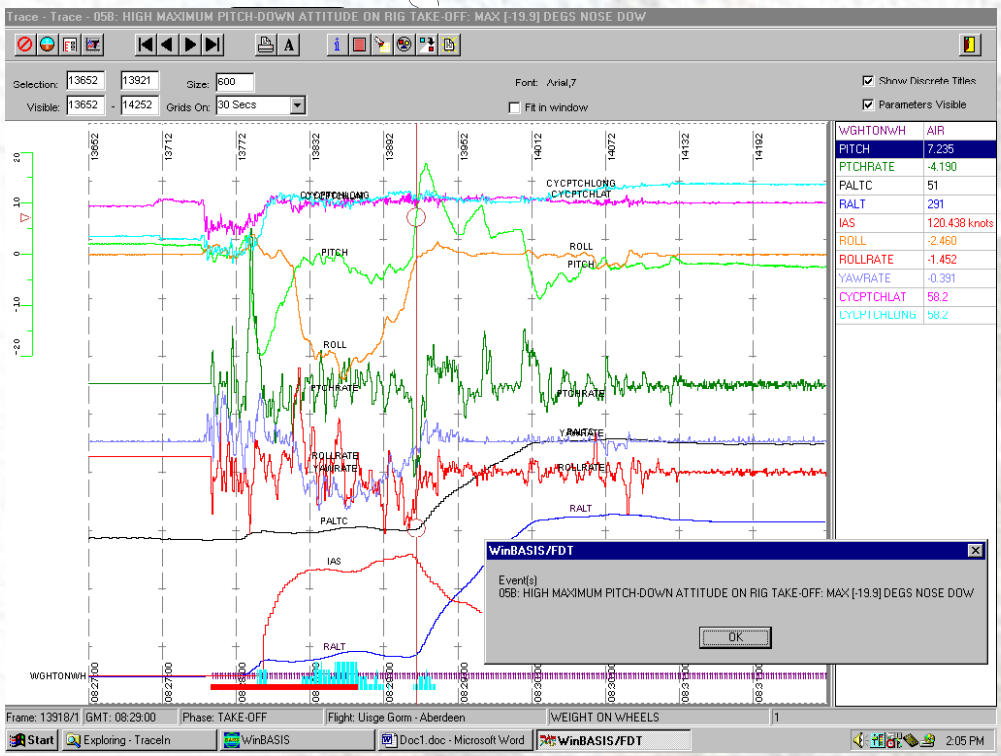


Flight Data Analysis

- **Event analysis**
  - Detects exceedences of pre-defined operational envelopes and provides information on the extremes of the operation
- **Measurement analysis**
  - Takes a set of measurements on every flight and provides information on the whole operation

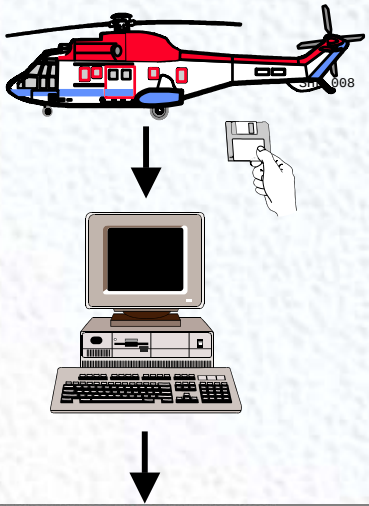
HOMP Analysis System

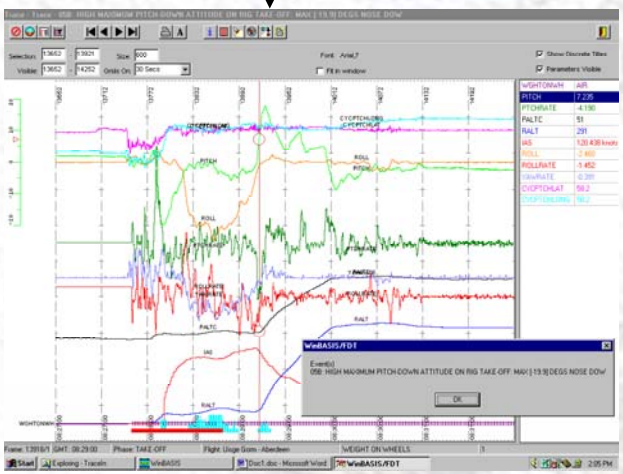




Flight Data Traces (FDT)

HOMP Analysis System

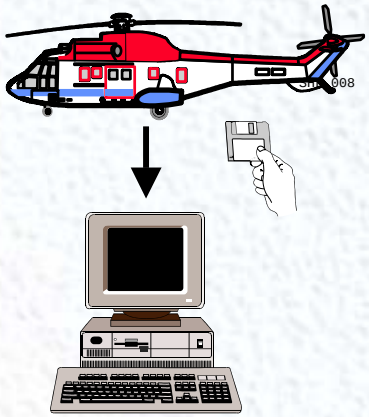


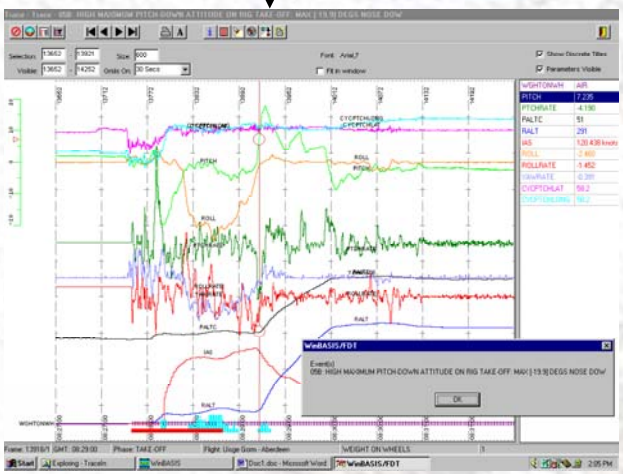


Flight Data Traces (FDT)

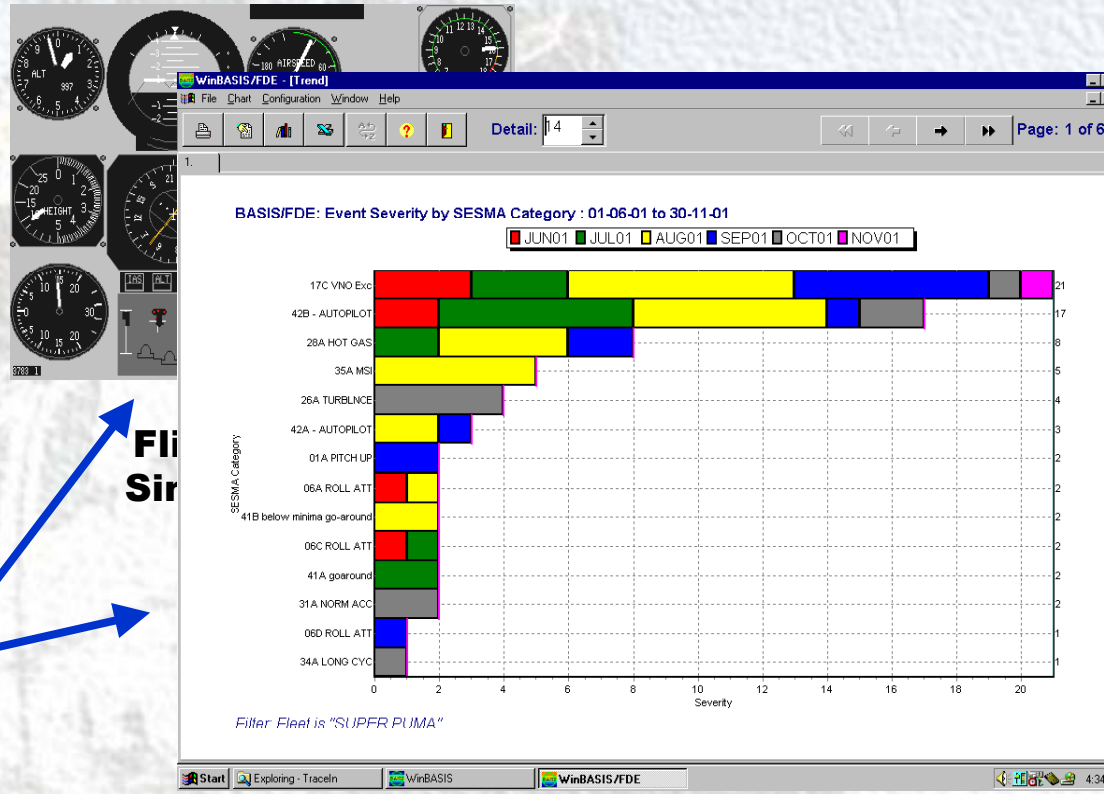
Flight Data Simulations (FDS)

HOMP Analysis System



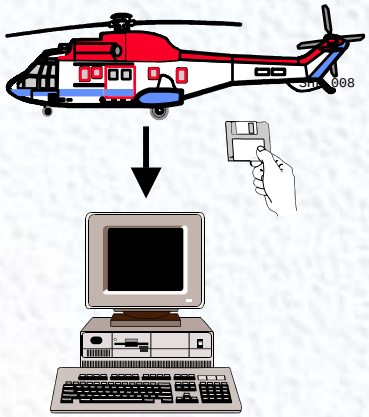


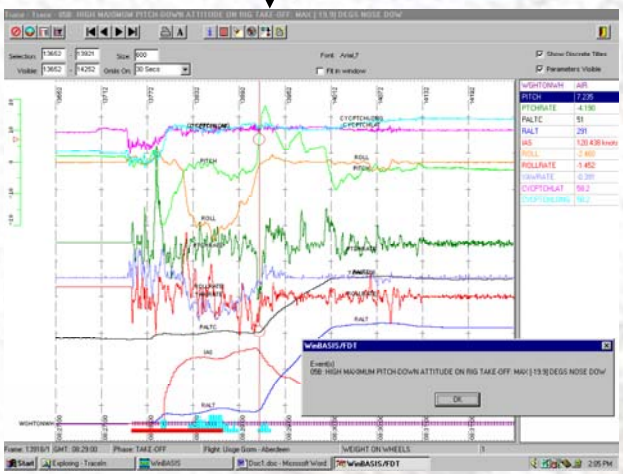
Flight Data Traces (FDT)

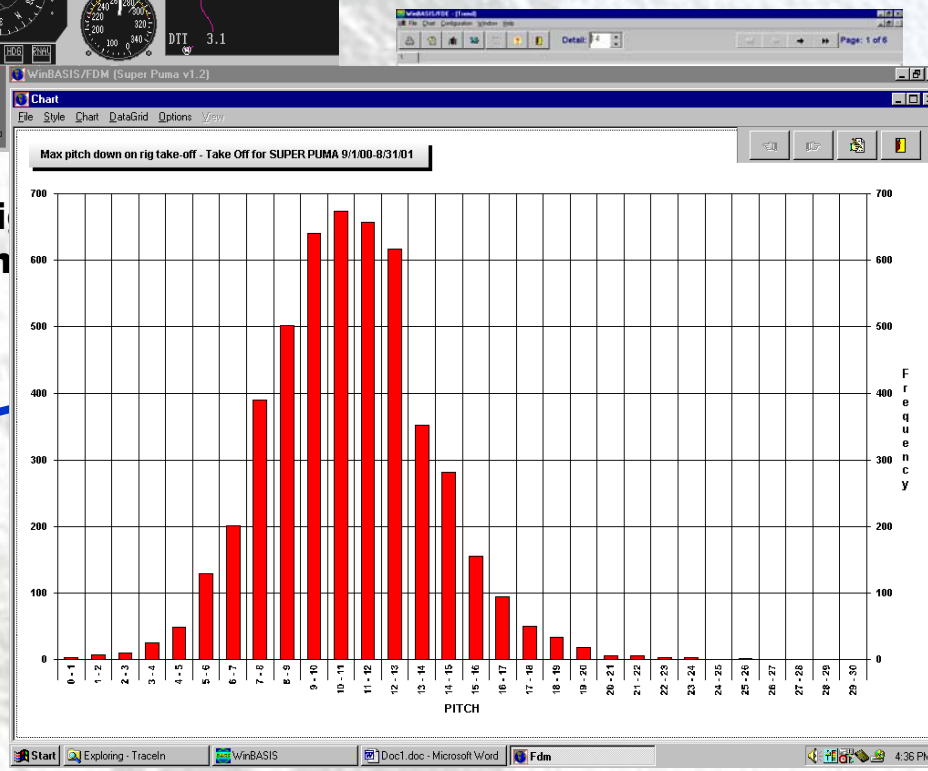


Flight Data Events (FDE)

HOMP Analysis System



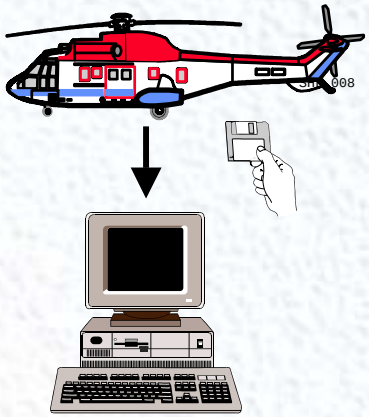




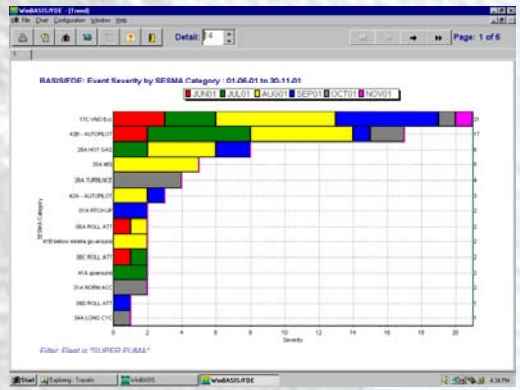
Flight Data Traces (FDT)

Flight Data Measurements (FDM)

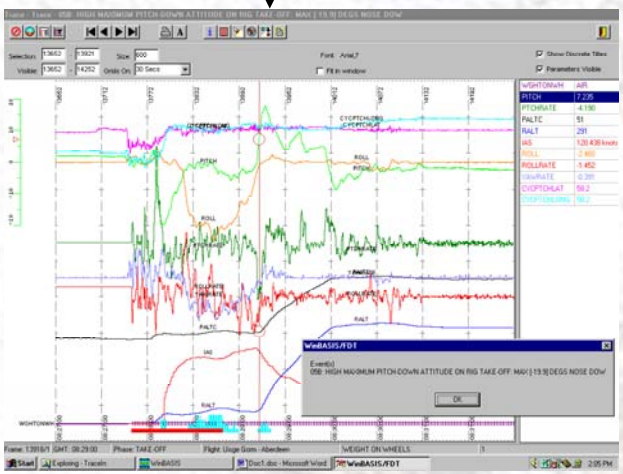
HOMP Analysis System



Flight Data Simulations (FDS)



Flight Data Events (FDE)



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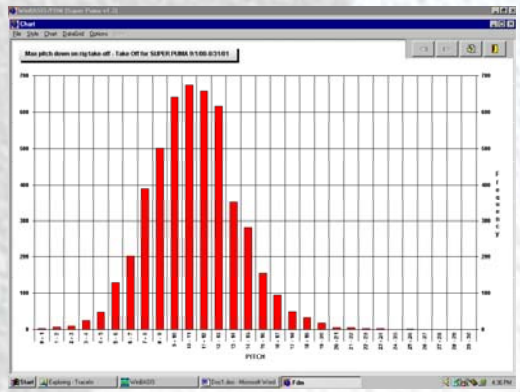


Flight Data Measurements (FDM)

Example HOMP Management Process

Flight data

HOMP OPERATOR: Data Replay, Analysis and Verification

Changes to HOMP, Investigations

HOMP MANAGER (PILOT): Assessment

Confidential Crew Feedback

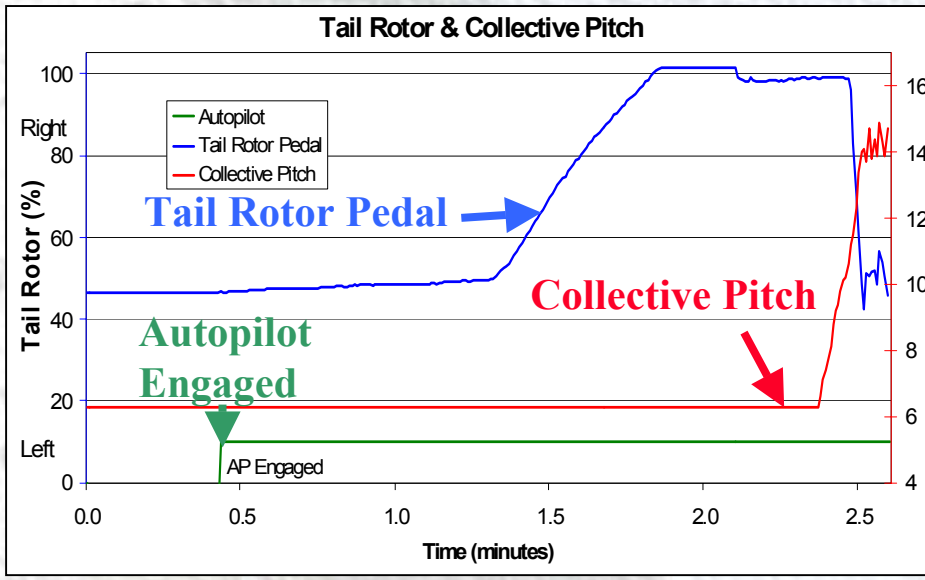
SAFETY OFFICER: Review Meeting

Reporting of Trend information to Management and Staff

Changes to Procedures, Manuals, Training etc.

Event example: Take-off with full right pedal

- Junior co-pilot flying
- Aircraft yawed sharply, pitched and rolled during lift-off
- Crew did not know what had gone wrong
- HOMP detected event and revealed the cause
- Autopilot engaged and gradually applied right pedal
- No-one monitoring the controls
- Almost full right pedal still applied at lift-off
- Danger of aircraft roll-over



TR Pedal, Collective Pitch and Autopilot vs Ti

Event example: Inadvertent loss of airspeed

- Returning to airfield via low-level route
- Co-pilot decided weather unsuitable, initiated climb for instrument approach
- Aircraft now below MSA near terrain
- Co-pilot attempted to climb steeply to avoid terrain
- Airspeed below minimum IMC for 1 minute and reached 30kts
- Danger of loss of control

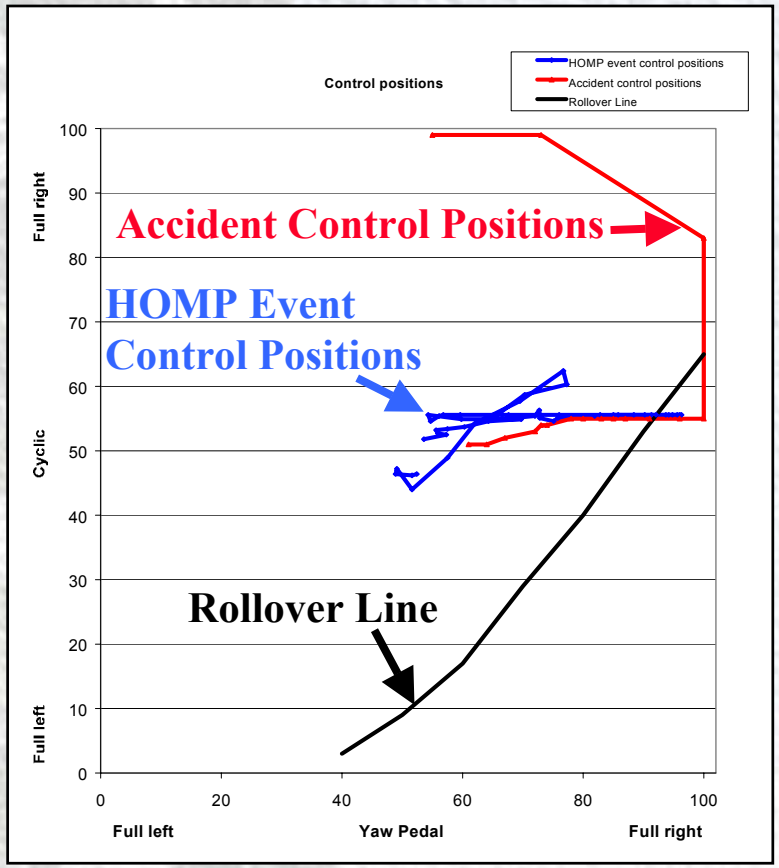
View showing loss of airspeed during climb

Event example: Takeoff with cabin heater on

- Heater must be off for takeoff and landing as there is single-engine performance penalty
- Many occurrences of heater being left on
- Offshore check list does not include this item
- A general bulletin was issued to aircrew
- Very few events subsequently occurred
- Decision not to add item to already long pre-takeoff checklist
- HOMP enabled action to be taken, then monitored the effectiveness of this action

Event example: Taxiing in rollover zone

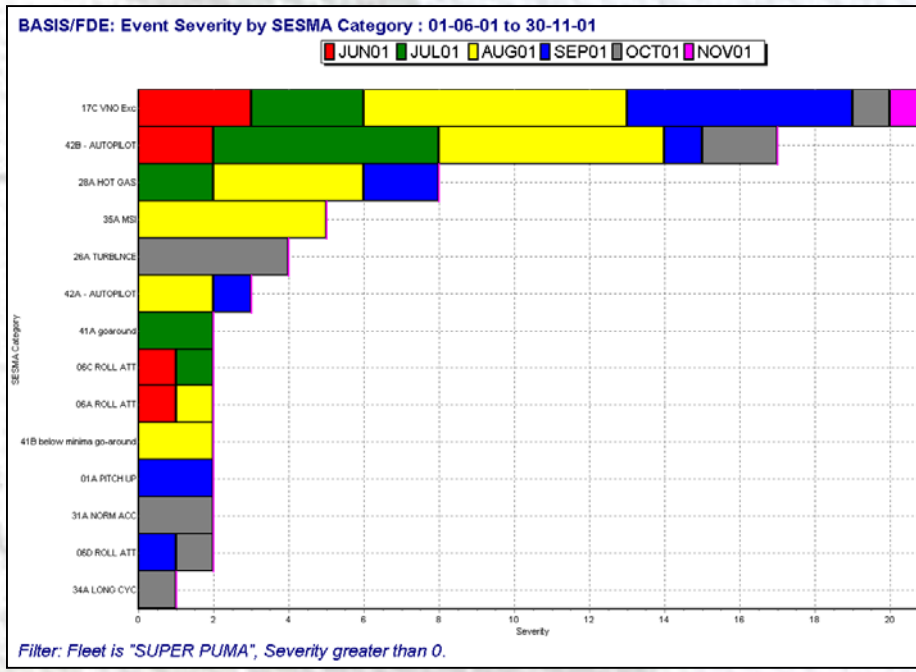
- Rollover can be induced during taxiing
- Many events triggered, in several cases control positions were close to those in a previous accident
- Confidential feedback to crew, issue highlighted in a flight safety newsletter
- Only a limited reduction in events
- Second campaign, including memo to training captains and another newsletter
- Event occurrence rate dropped significantly



TR Pedal and Lateral Cyclic

Event Trend Analysis

- Event trend data produced for a 6 month period
- Severity scale developed and severities allocated to events
- Top 5 events in terms of cumulative severity:
  - VNO exceedence
  - Autopilot left engaged after landing
  - Flight through hot gas
  - Excessive deck motion
  - Turbulence
- Trend information used to select items for a newsletter to aircrew

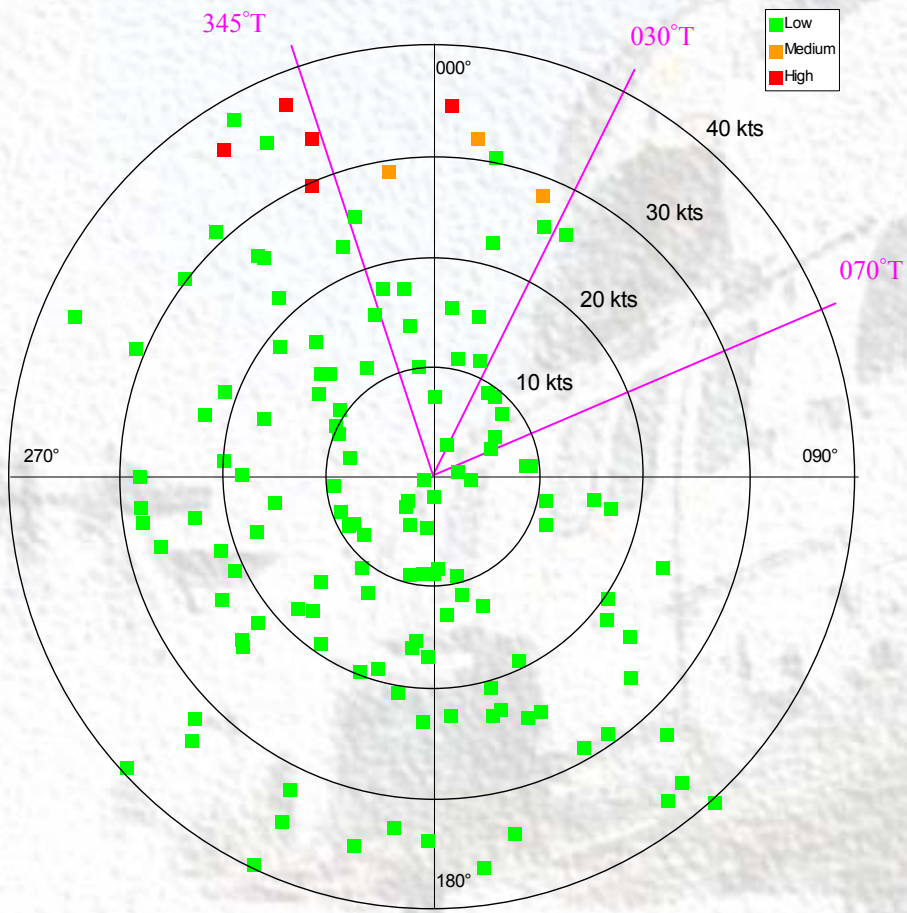


Cumulative event severities

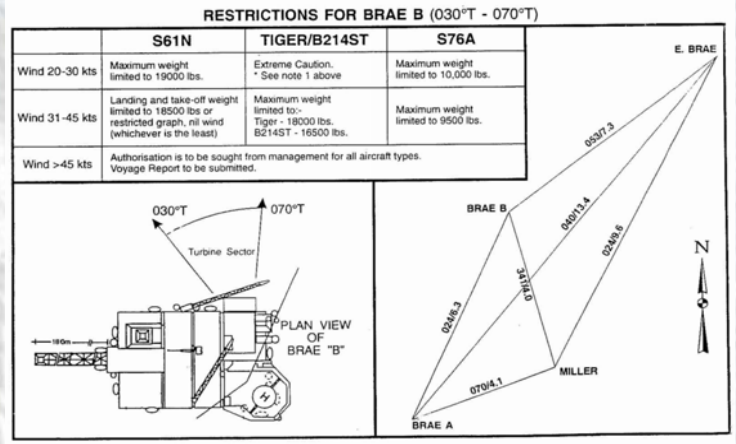
HOMP events identified issues with:

- Pilot knowledge & skill
- Gaps in the training system
- Operating procedures
- Environmental operating limitations
- CRM
- Culture at remote operating bases

Measurement example: Mapping the environment



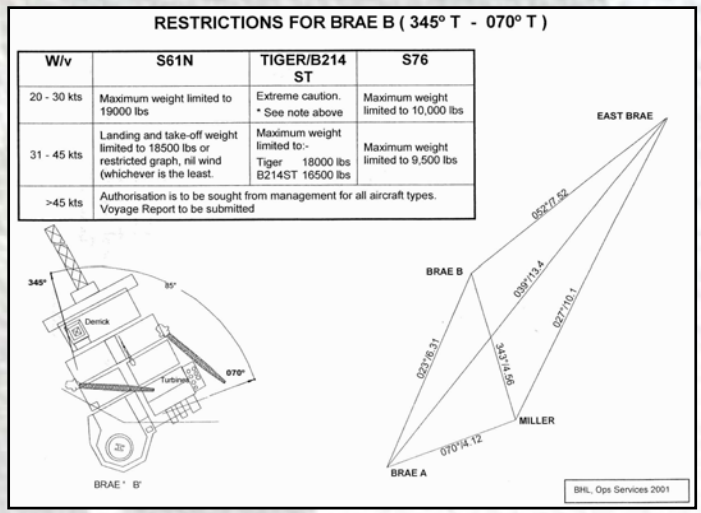
HOMP turbulence/workload data for Brae B



RESTRICTIONS FOR BRAE B (030°T - 070°T)

	S61N	TIGER/B214ST	S76A
Wind 20-30 kts	Maximum weight limited to 19000 lbs.	Extreme Caution. * See note 1 above	Maximum weight limited to 10,000 lbs.
Wind 31-45 kts	Landing and take-off weight limited to 18500 lbs or restricted graph, nil wind (whichever is the least)	Maximum weight limited to:- Tiger - 18000 lbs. B214ST - 16500 lbs.	Maximum weight limited to 9500 lbs.
Wind >45 kts	Authorisation is to be sought from management for all aircraft types. Voyage Report to be submitted.		

Old IVLL entry for Brae B



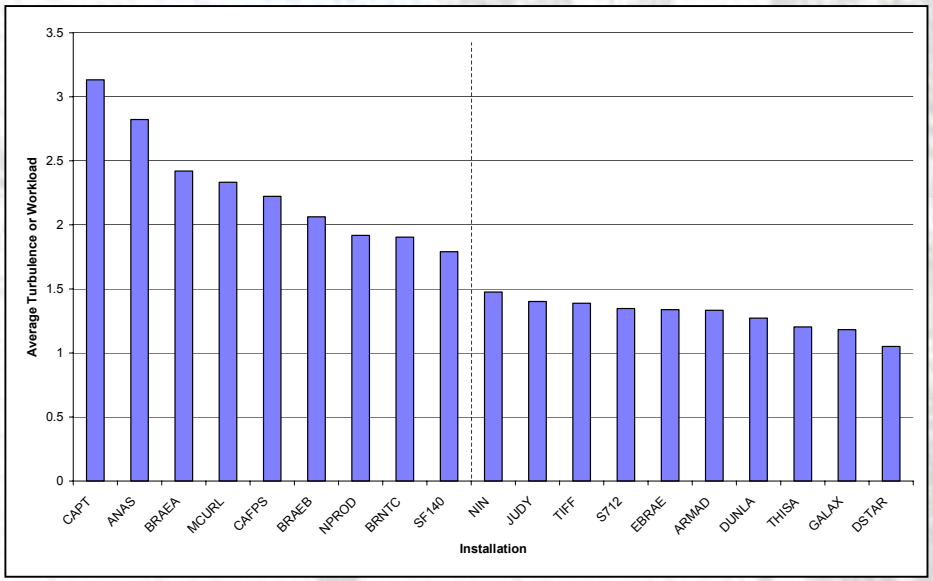
RESTRICTIONS FOR BRAE B (345° T - 070° T)

W/v	S61N	TIGER/B214 ST	S76
20 - 30 kts	Maximum weight limited to 19000 lbs	Extreme caution. * See note above	Maximum weight limited to 10,000 lbs
31 - 45 kts	Landing and take-off weight limited to 18500 lbs or restricted graph, nil wind (whichever is the least.	Maximum weight limited to:- Tiger 18000 lbs B214ST 16500 lbs	Maximum weight limited to 9,500 lbs
>45 kts	Authorisation is to be sought from management for all aircraft types. Voyage Report to be submitted		

New IVLL entry for Brae B

Measurement example: Operating differences by installation

- HOMP data used to compare operations to different platforms
- Average of turbulence/workload parameter plotted by installation
- Chart shows top 9 and bottom 10 installations
- Top installations all have features explaining high parameter values

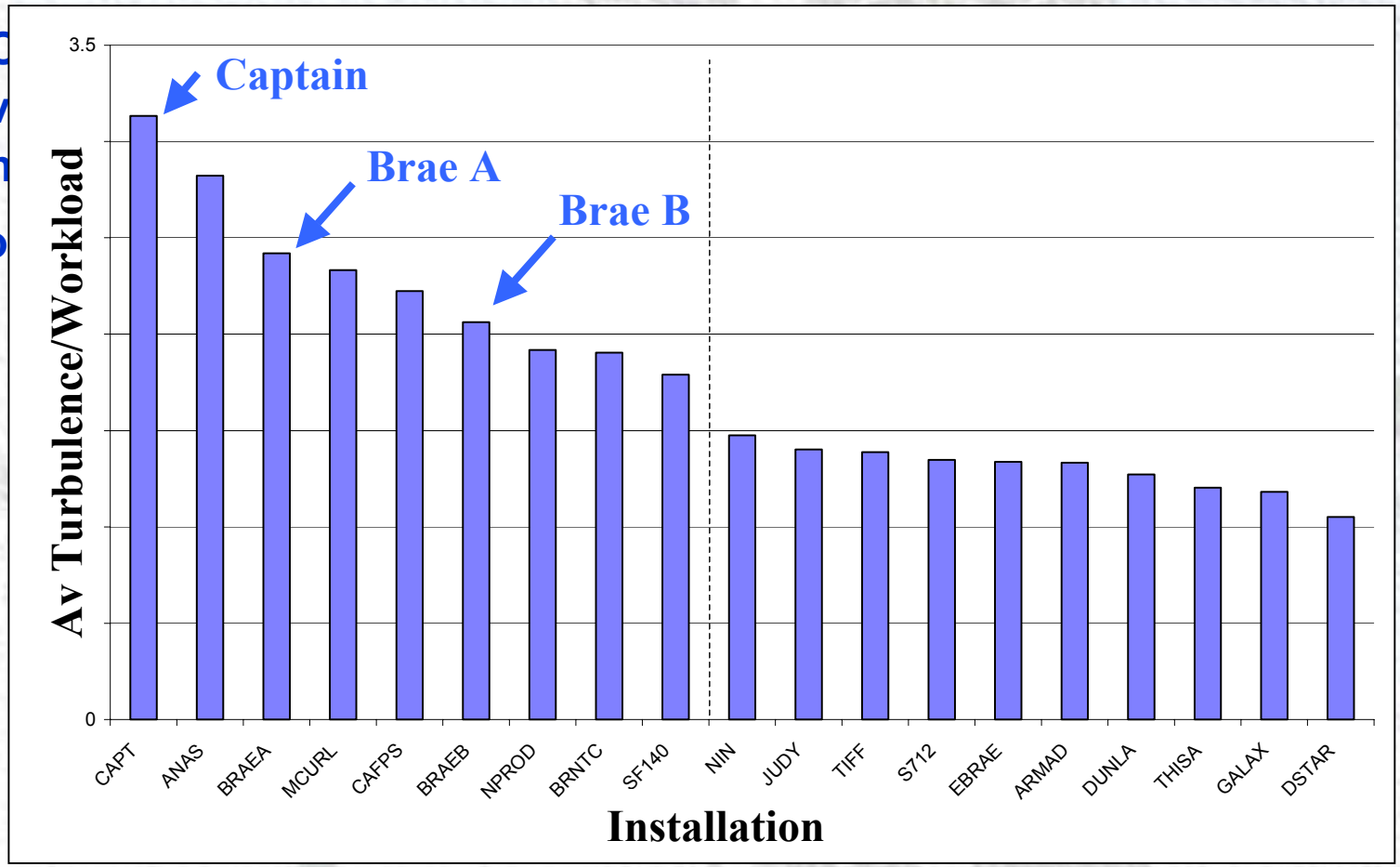


Average of turbulence/workload parameter by installation

Captain platform with large structure close to helideck

Measurement example: Operating differences by installation

- HC
- Av
- Ch
- To



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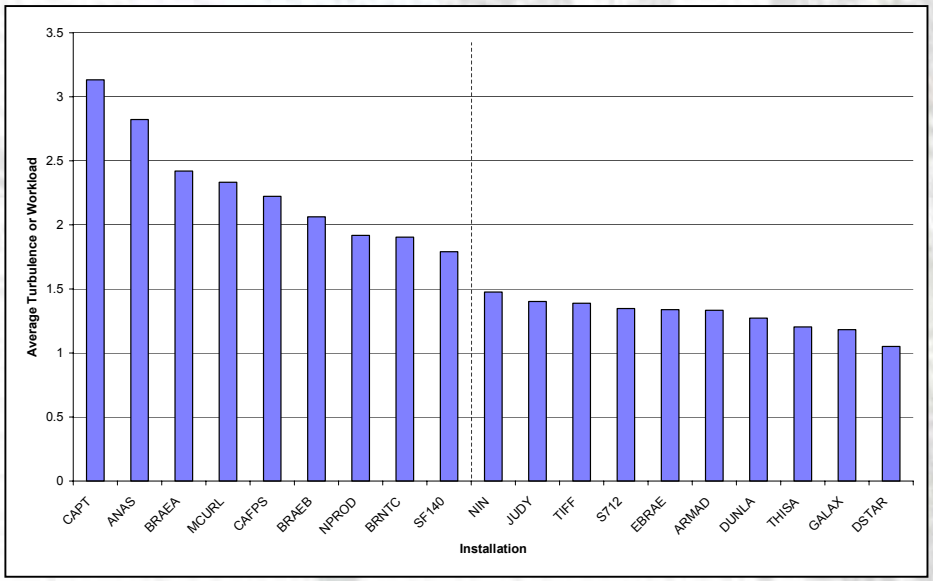
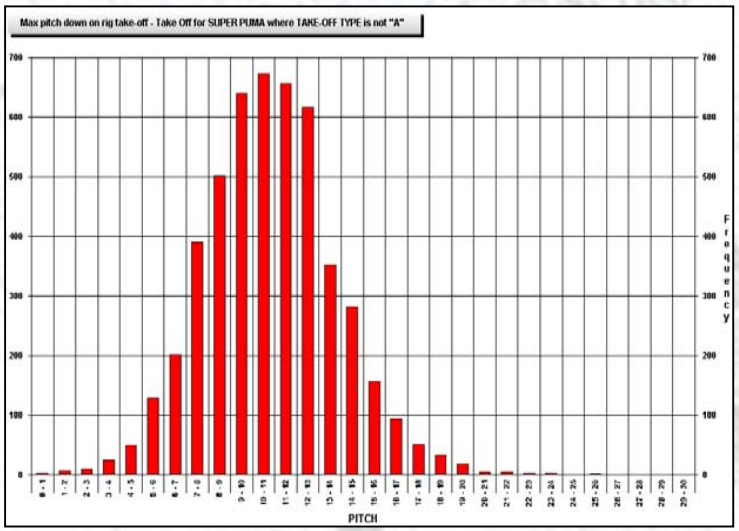


Average of turbulence/workload parameter by installation

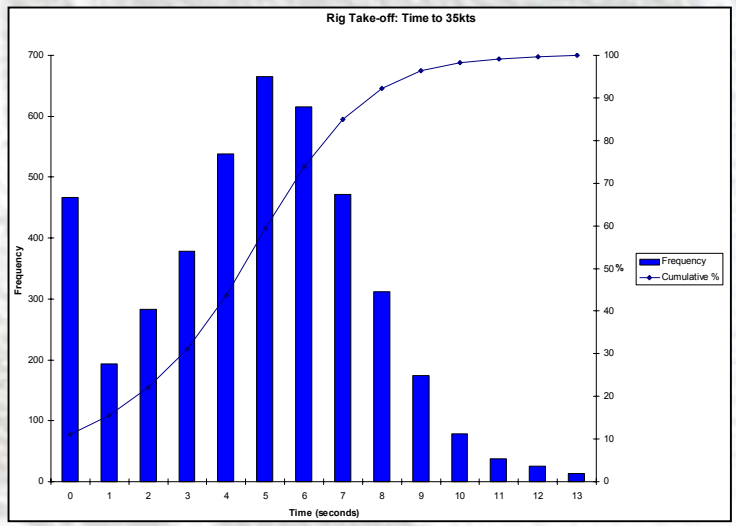
Captain platform with large structure close to helideck

Measurement example: Offshore take-off profile

- Offshore take-off profile aimed at minimising risk of an accident due to an engine failure on take-off (exposure time)
- (1) Exposure to deck edge strike: Measurements checked adherence to Ops Manual advice on take-off rotation manoeuvre
- (2) Exposure to ditching: Measurements made of time to 35kts from rotation, which is greater than time to Vfly-away



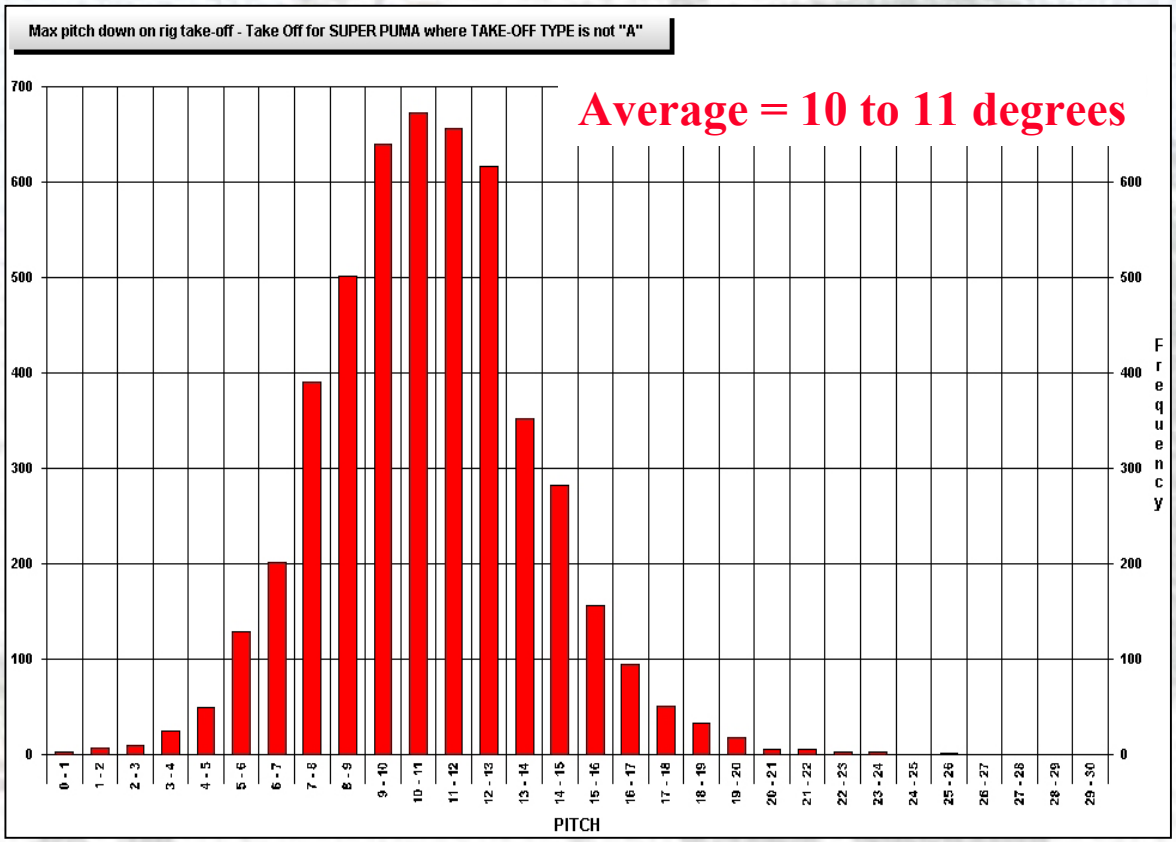
Maximum pitch angle (average = 10 to 11 degrees)



Time to 35kts (50% point on cumulative percentage graph= 4.5 secs)

Measurement example: Offshore take-off profile

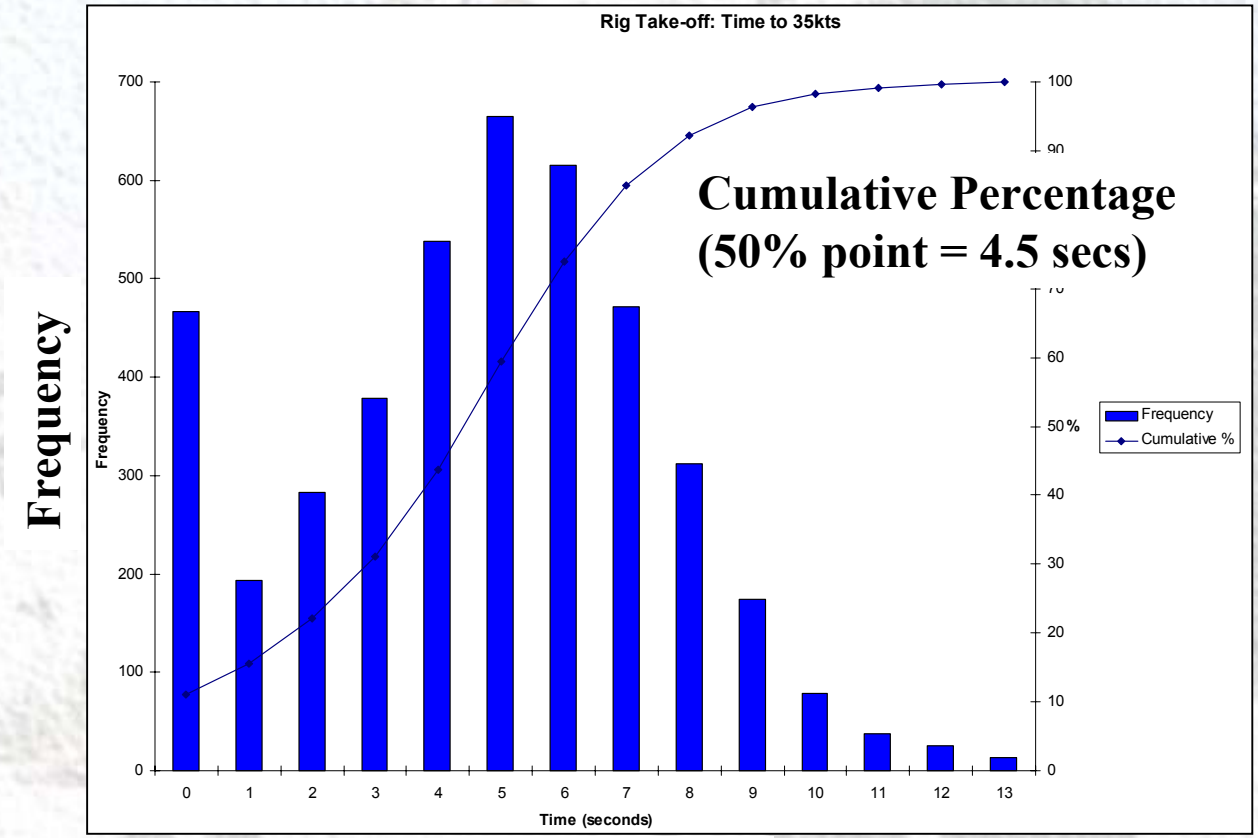
- (1) Exposure to deck edge strike: Measurements checked adherence to Ops Manual advice on take-off rotation manoeuvre



Max Pitch Angle

Measurement example: Offshore take-off profile

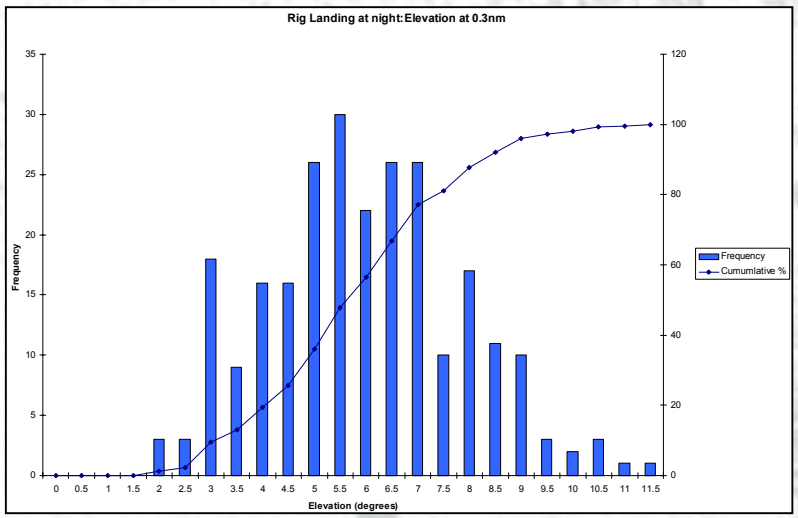
- (2) Exposure to ditching: Measurements made of time to 35kts from rotation, which is greater than time to Vfly-away



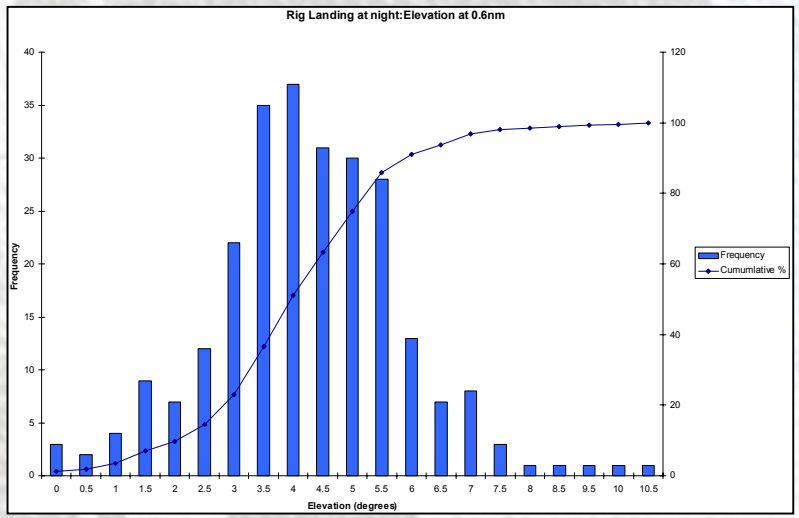
Time to 35kts

Measurement example: Offshore vertical landing profile

- Night time vertical landing profile measurements implemented to support CAA helideck lighting research
- Six approach angle and height measurements made from 0.1 to 1.0nm from touchdown
- Mean approach angles at 0.3nm and 0.6nm from touchdown were 5.5 and 4.0 degrees respectively



Approach angle 0.3nm from touchdown



Approach angle 0.6nm from touchdown

HOMP feedback into training:

- HOMP lessons can be fed back into the training process
- HOMP information can identify areas for improvements in training (e.g. taxiing technique)
- HOMP events can be used to highlight key safety-related points (e.g. danger of loss of airspeed in IMC)
- HOMP data can be used to improve pilot technique (e.g. flying ILS approach)

HOMP feedback into engineering:

- HOMP enables continuous checking of FDR parameters
- HOMP data can be used to troubleshoot pilot reported problems (e.g. event created to trap intermittent engine fault)
- HOMP data can be used to assess structural impact of events (e.g. aircraft hit by line squall)
- HOMP data can be used to detect misuse which could impact reliability (e.g. excessive use of collective)

Example Implementation Costs

- Start-up costs
  - Per aircraft costs (including CQAR, mod kit and installation): typically no more than £10k
  - Ground based system costs (3 fleets, including hardware, software and configuration): typically no more than £80k
  - System introduction and commissioning
- On-going costs
  - Personnel (3 fleets): One full-time technician, one part-time HOMP Manager (1/3 time), one part-time Fleet Rep per fleet (1/4 time), Flight Safety Officer (1/4 time)
  - System maintenance and support

Summary

- The HOMP provided valuable new information on the risks associated with helicopter offshore operations
- Events have identified hazards which otherwise would not have come to light
- The operator has been able to take appropriate corrective and preventative measures
- The measurements are building a useful picture of everyday operations which has not previously available
- The HOMP has shown how pro-active use of flight data in a FDM programme can significantly enhance the safety of helicopter offshore operations

In Conclusion

- The HOMP successfully identified and addressed significant safety issues
- The HOMP trial demonstrated that it is a practical and cost effective flight safety tool
- The trial equipment was very reliable and effective
- The operator has implemented good HOMP operation and management procedures and aircrew response has been positive
- Because of this success, UKOOA has committed its members to implement HOMP on all UK offshore helicopters