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

Technical Center

Atlantic City Int'l Airport
New Jersey 08405

July 13, 1995

Dear International Aircraft Materials Fire Test Working Group Member:

Enclosed in this package is a copy of the Minutes/Information Package from the June 27-28, 1995, meeting held in Toulouse, France. Included in the package are copies of a few of the presentations given at the meeting.

The next working group meeting will be held ***Monday, November 13, 1995***, at Harrah's Casino-Hotel in Atlantic City, New Jersey, prior to the International Conference on Cabin Safety Research. Special hotel rates are available. The reservation telephone number is 800-242-7724, in the United States and 609-441-5600, outside the United States. Please use the Reservation Code: FAA Cabin Safety Conference. It is recommended that you make your hotel reservations early as space is limited. A Meeting Return Form is enclosed in this package.

Please contact April Horner at 609-485-4471, or by fax at 609-646-5229, if you need any additional information.

We hope to see you in November.

Sincerely yours,

Richard G. Hill
Program Manager

Enclosures

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST WORKING GROUP MEETING MINUTES

AEROSPATIALE, TOULOUSE, FRANCE - JUNE 27, 1995
C.E.A.T., TOULOUSE, FRANCE - JUNE 28, 1995

TUESDAY, JUNE 27, 1995

Presentations and Updates By Task Group Leaders

Copies of Task Group Leader Presentations are included in this package.

#1 Continued Airworthiness Update - R. Hill

Explained field study and testing of in-service seat covers. The Report is in the final draft process. We will begin testing some of the fire blocked foams. H. Betz: Are you going to test graphite foams? R. Hill: I am not sure what materials we have, because we had difficulty getting airlines to supply foams for fire testing. S. Campbell: Did you get any years of service data? R. Hill: Yes, we received some. Bunsen Burner Tests for Continued Compliance - we used various panel materials (sidewalls, stowbins, ceiling materials). In general, these materials still passed the bunsen burner test. Generally, all the materials passed except for one partition panel because of afterburn, however, the materials that performed poorly were primarily foams. H. Betz: Did you also test old panels with new decorative materials on them? R. Hill: No, we used panels that were very old that were probably taken out of the plane prior to the OSU rule.

#2 Production Quality Assurance - R. Hill

The problem here is that we haven't gotten a lot of input from the task group members. What we are looking for is: Should we set a minimum for quality assurance?

#3 Minor Changes to Qualified Materials - R. Hill

The group originally decided to look at one particular area because this subject was so broad. We have asked Schneller to produce some panels with a wide range of colors from a reflective to an absorbent. We are talking about the material meeting the pass/fail. S. Campbell: Schneller has data on panels tested with different colors. R. Hill: We have to put together one report that has all the information summarized and the advisory type material to go to the certification group for review for inclusion in the Handbook. We may need to assign responsibilities to task group members to put something together to be presented to certification people--we'll discuss that during the task group meeting later. This group needs to focus on preparing the report in order to accomplish its task.

#4 Material Systems Renovation and Repair Procedures

This task group is divided into 3 areas: refurbishment and renovation of cabin materials, repair of cabin materials, repair of cargo liners.

Renovation and Repairs - H. Betz

(A copy of data presented is included in this package).

S. Campbell: How often does the airline do the piggybacking procedure? H. Betz: Sometimes at turnaround time, because passengers sometimes have cases with sharp corners that rip the panel coverings and the panel has to be repaired immediately. You can tell by looking at a panel if it is piggybacked.

Comments - R. Hill: You must continually comply with the requirements in testing. We need a report explaining tests with an appendix that can be reviewed by certification people for possible inclusion in the Aircraft Materials Fire Test Handbook.

BLANKET AND PILLOW DISCUSSION - R. Hill

At the present time, there are no flammability requirements for blankets and pillows on aircraft. Pat Cahill has been running a number of tests for blankets and pillows. She has one test method that she is going to recommend. The FAA is not going to regulate pillows and blankets, but we are going to put out a suggested test method to buy blankets to. The test method may go into a TSO, but this has not been finalized. The test method Pat has looked into for blankets is a multiple-ply horizontal bunsen burner test. A report should be written in the near future and will be available to those interested. Pat has tested pillows also. The pillows have tested well. R. Miranda: when is the test method coming out? R. Hill: the final report will be ready in a couple months. R. Miranda: what form will this report be in? R. Hill: It will come out as an FAA Technical Center final report, and it may become a TSO. H. Betz: It should go into the Aircraft Materials Fire Test Handbook, because it will be a test method. R. Hill: Yes, we may include this test method in the Handbook.

W. Morgenroth: what about fire test requirements of footrests? R. Hill: in the U.S., we do not have anything like this. If our regulatory authorities were to ask me that question, I would say that it would have to meet the same requirements as the seat cushions. C. Lewis: We have never looked at anything like this at TCA, so I don't know how we would handle this.

DISCUSSION ON CURRENT TEST METHODS - R. Hill

Are there any problems with the current test methods or any questions that anyone would like to discuss? We will be starting a worldwide round robin on the NBS and the OSU sometime within the near future (approximately 3 materials will be included). The FAA Technical Center will act as a liaison and will tabulate the data received. S. Hasselbrack: how does one obtain a list of the FAA approved NBS and OSU labs? R. Hill: the FAA does not approve labs. The FAA checks the equipment for conformity. This determines that the equipment conforms to test the material. Tell those who ask you to go to the FAA Certification Office and ask them for the labs they deal with.

WEDNESDAY, JUNE 28, 1995

HEAT FLUX TRANSDUCER ROUND ROBIN UPDATE - R. Hill

Explained transducer problems with calibration. Currently NIST and manufacturers are working together to identify problems. The FAA Technical Center has purchased 2 transducers from High Cal, Medtherm, and Thermogauge at 0-10 each to conduct another round robin. These will be delivered with a bare face and will be coated (painted) and calibrated at the FAA Technical Center. Each of the three companies and NIST will then calibrate these transducers also. S. Campbell: what is the target completion date of your round robin? R. Hill: It was to be completed by this meeting, however, at this time, only

two of the manufacturers have delivered the transducers we ordered. We hope to have this round robin completed by the end of the summer.

DISCUSSION ON AIRCRAFT MATERIALS FIRE TEST HANDBOOK -- R. Hill

Handbook will possibly be available on diskette. We are planning to send it to the Northwest Mountain Region for final review by September-October. We are presently working to input Chapters 9-13 and convert them to the new format (format of current draft of Chapters 1-8). There are also two new chapters. R. Hill reviewed changes in Handbook Chapters 1-8 since original publication in 1990.

CHAPTER 1

H. Betz: Where does sample go in center of front face or corner? S. Campbell: I thought we put in some words about worst case... R. Hill: We will check on this.

CHAPTER 2

No comments.

CHAPTER 3

No comments.

CHAPTER 4

No comments

CHAPTER 5

No comments.

CHAPTER 6

Not available at this time.

CHAPTER 7

No comments.

CHAPTER 8

No comments.

Member question: What about maximum temperature on oil burner tests? R. Hill: we are only concerned with minimum temperatures and heat fluxes. It is up to the manufacturer as to how they want to calibrate their burners.

R. Hill: The new Handbook may come out as an Advisory Circular, or it may come out as an FAA Technical Center report and be referenced in an Advisory Circular. We will include some wording to inform everyone that these changes are acceptable.

W. Lampa: Will the end Appendixes be included (such as Appendix E and F)? R. Hill: Yes, send us any additions or changes as soon as possible for the end Appendixes. W. Lampa:

will do this for the European area. W. Lampa: Add a note as discussed yesterday that the FAA and the GAA do not approve test labs to Appendix F. R. Hill: We will add something to Appendix F about this. R. Hill: If there is any new/changed information for the U.S. for the end Appendixes , please send it to us as soon as possible, also.

M. Reeves: Is there empirical data as to where the flame comes in contact with the seat cushions? R. Hill and S. Campbell: No, the test is designed to test the worst case design features of the seat.

NEXT MEETING

The next meeting will be held on Monday, November 13, 1995, at Harrah's Casino-Hotel in Atlantic City, New Jersey. A Meeting Return Form is included in this package. Special hotel rates are available, see cover letter for details.

RENOVATION/REFURBISHMENT

{ OR + } = 100/100 OR 65/65/200

ANY COMBINATION — ORIGINAL BASE PANEL

IF ORIGINAL BASE PANELS CANNOT BE OBTAINED, THEN:

INITIAL METHOD PROPOSED — TEST OR + 3 SURROGATE PANELS (+/- 10 OF ORIG O.S.U.) NEGOTIABLE

EXAMPLE: ORIGINAL BASE PANEL HRR/HRP = 45/50

TEST PANEL 1 BASELINE = 55/55, TEST PANEL 1 WITH = 60/60

TEST PANEL 2 BASELINE = 50/50, TEST PANEL 2 WITH = 57/57

TEST PANEL 3 BASELINE = 40/40, TEST PANEL 3 WITH = 49/49

WORST CASE (9/9) - SAFETY FACTOR (5/5) = 14/14

ADD 14/14 TO ORIGINAL 45/50 = 59/64 "ACCEPTABLE"

RENOVATION/REFURBISHMENT

{ OR + } = 100/100 OR 65/65/200

ANY COMBINATION — ORIGINAL BASE PANEL

IF ORIGINAL BASE PANELS CANNOT BE OBTAINED, THEN:

FINAL SUGGESTED METHOD — TEST OR + 3 SURROGATE PANELS (2 PANEL AVE)

TEST PANEL 1 WITH = 60/60

TEST PANEL 2 WITH = 57/57

TEST PANEL 3 WITH = 49/49

WORST CASE (60/60) - SAFETY FACTOR (5/5) = 65/65

"ACCEPTABLE"

RENOVATION/REFURBISHMENT

QUALIFICATION PROCESS REPEATED FOR OTHER INTERIOR PANELS

HONEYCOMB
CRUSH CORE
THERMOPLASTIC
ALUMINUM
} SIDEWALL, STOWAGE BIN GALLEY PANEL, ETC.

QUALIFICATION PROCESS APPLICABLE ONLY WHEN:

ORIGINAL SUBSTRATE UNAVAILABLE

ORIGINAL O.S.U. TEST DATA IS AVAILABLE

QUALIFICATION PROCESS NOT *ALLOWED IF:*

ORIGINAL PANELS ARE LACKING O.S.U. TESTING DATA

SMOKE TESTING: D_S < 200 (3 PANELS)

FILLER-ONLY TESTS

- TEFLON MOLDS USED TO PRODUCE SAMPLES
- 2 THICKNESSES TESTED: .125" AND .250"
- 5 TYPES OF FILLERS
  - ADTECH CORP. MICRO ULTRA FILLER 15-3 (BOEING BMS 5-136A TYPE II/CLASS I)
  - HSH AEROSPACE FINISHES (INTERPLAN 100 SP FLEXIBLE SPATULA BODY FILLER)
  - MANKIEWICZ ALEXIT-FST-FULLER (495.14 FILLER, 491.14 HARDENER)
  - QUADRANT CHEMICAL (PE-6010) POLYESTER RESIN
  - QUADRANT CHEMICAL (PE-6013, LOW HEAT/SMOKE) POLYESTER RESIN

.125" FILLER TESTS

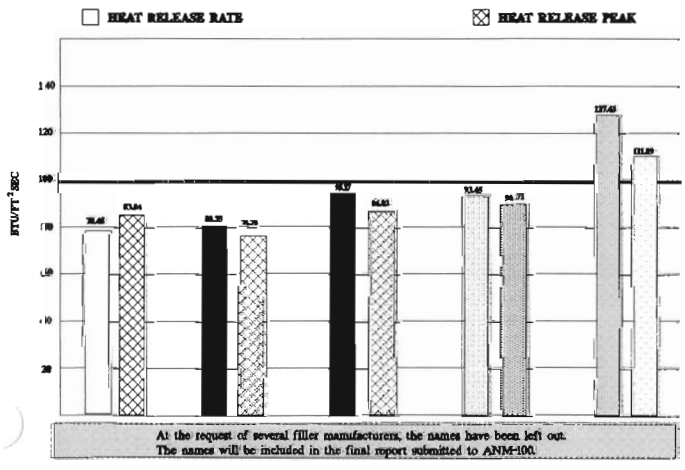


figure 14

.250" FILLER TESTS

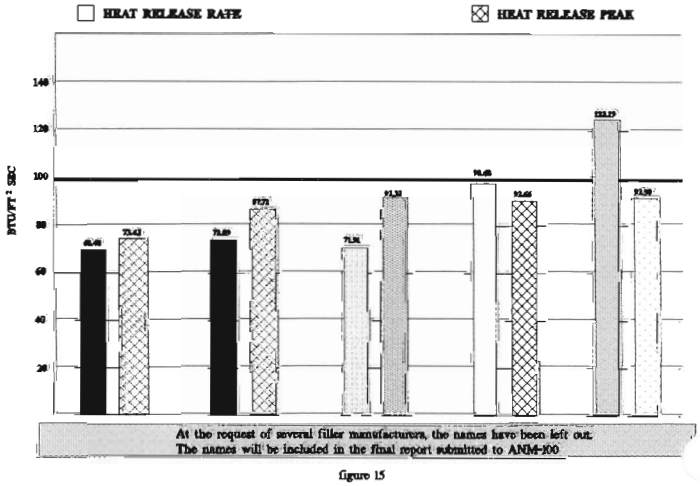


figure 15

FILLER TEST QUESTIONNAIRE

40 LETTERS SENT TO WORKING GROUP MEMBERS (MOSTLY SUBGROUP 4)

9 RESPONDENTS

METHOD I: FILLER ONLY ✓✓✓✓

METHOD II: FILLER SYSTEM ✓✓

OTHER ✓✓✓

COMMENTS/SUGGESTIONS

- TEST METHOD I IS THE MOST STRAIGHTFORWARD
- IF USING METHOD I, WHAT IS ACCEPTANCE CRITERIA?
- USE METHOD I FOR SPATULA/PUTTY, METHOD II FOR SPRAY/BRUSH
- USE BOTH METHODS: I FOR SCREENING BAD FILLERS, II TO CONFIRM FINAL SYSTEM
- TEST METHOD I IS INCONSISTENT WITH CURRENT FAA REGULATIONS
- FAR 25.853 IS "PART-BASED" NOT INTENDED FOR INDIVIDUAL COMPONENTS OF PARTS

RECOMMENDED FILLER TEST METHOD

IF AREA TO BE REPAIRED IS:

GREATER THAN 144 SQUARE INCHES ➡ SYSTEM TEST

LESS THAN 144 SQUARE INCHES ➡ FILLER ONLY TEST

FILLER TEST ACCEPTANCE CRITERIA (REPRESENTATIVE THICKNESS):

O.S.U. 100/100

N.B.S. 200 D_S

METHOD WILL USUALY RESULT IN:

TESTING OF SPRAY/BRUSH FILLERS IN THE SYSTEM FORMAT

TESTING OF SPATULA/PUTTY FILLERS IN ISOLATION

DRAFT REPORT

- SENT TO ANM-100 (AIRCRAFT CERTIFICATION DIVISION, N.W. MOUNTAIN REGION)
- SUMMARY OF SUBGROUP 4 ACTIVITIES, INCLUDING:

BACKGROUND
TESTWORK PERFORMED
PROBLEM AREAS
RECOMMENDATIONS

} PERTAINING TO CERTIFICATION OF {

CABIN INTERIOR RENOVATION
CABIN INTERIOR REPAIR
CARGO LINER REPAIR

- REVIEW DOCUMENT, SUBMIT CHANGES FOR INCLUSION IN FINAL REPORT

Experience of Heat Release Tests for Renovation and Repair

How to achieve a continuous compliance with the heat release rules

Problems of Testing

- Requirements by AC-Manufacturers
- Definition of test panel
- Selection of test lab
- Comparison to original test results
  - Availability of production dates
  - Quality of test results

⇩ **Large number of tests necessary**

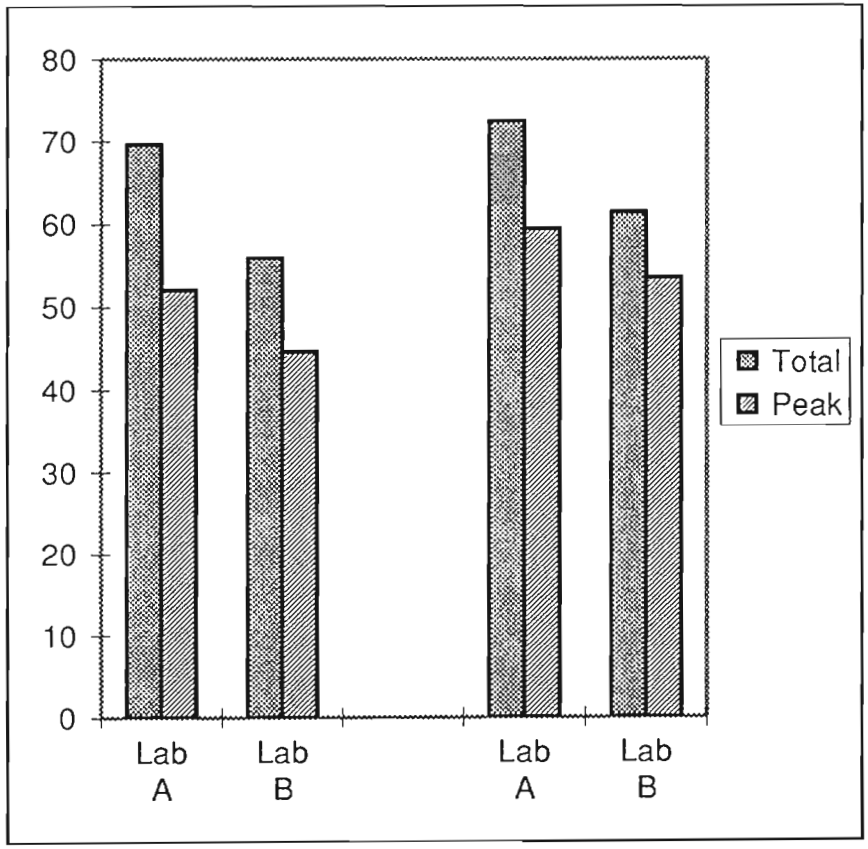
⇩ **Not audible**

Sample for a Testing

- Scrapped panels for testing
- Test panels prepared
  - Original
  - Repaired
- Lab selected
  - Average acc. to latest round robin test
  - Approved by FAA and controlled by DER

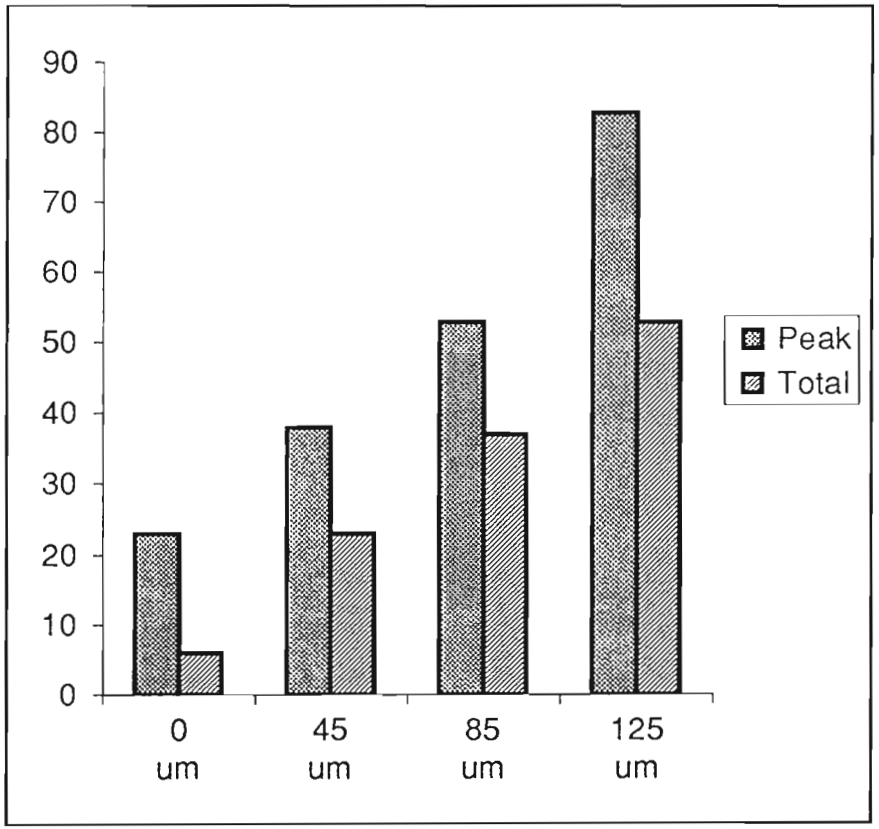
➧ **Original panel already failed!**

Repairing by piggy backing



- Original panel failed in lab A
- Test with spare panel in lab B passed
- Difference between original and repaired panel within labs approx.. constant!

Repairing by painting



- Results are mainly dependant on paint thickness
- Behaviour of each paint system has to be determined

Proposal

- Definition of average values per A/C part type
  - Window panels
  - Bin doors
  - Ceiling panels etc..
- Calculation of heat release rate by basic data
  - Basic data determined by FAA/JAA approved lab
- Repair decisions with HRR manual

Calculation of the Heat Release

UPPER DECK - CABIN HEAT CALCULATION AFTER OVERHAUL

		A/C Manufacturer			Repair station		Calculated			
Code	Components	sqm Total	Avg HRR	Avg HR	sqm repaired	Repair Method	New HRR	New HR	Average Revised HRR	Average Revised HR
A	DADO	1,5	48,0	53,0	0,0	Piggy Backed	58	55,7	48,0	56,2
B	SIDEWALLS	3,8	55,0	52,0	1,0	Paint	60,5	54,6	56,4	54,9
C	PSU- AREAS	4,7	52,0	50,0	4,7	Piggy Backed	62	52,5	62,0	53,0
D	BIN - DOORS	6,8	40,0	45,0	0,0	Piggy Backed	50	47,3	40,0	47,8
E	CLOSURE - AREAS	1,2	51,0	52,0	0,0	Piggy Backed	61	54,6	51,0	55,1
F	CEILING - PANELS	6,8	55,0	52,0	6,8	Piggy Backed	65	54,6	65,0	55,1
G	LAVATORIES	6,9	57,0	55,0	4,0	Paint	62,7	57,8	60,3	58,0
H	GALLEYS (Sell)	1,3	50,0	48,0	0,0	Paint	55	50,4	50,0	50,6
I	DIVIDERS	6,2	45,0	42,0	0,0	Paint	49,5	44,1	45,0	44,3
J	STAIRWAY	1,0	55,0	50,0	0,5	Paint	60,5	52,5	57,8	52,8
M	DOOR # LH & RH	1,0	49,0	53,0	1,0	Piggy Backed	59	55,7	59,0	56,2
	Average per Zone	41,2	55,7	55,2			64,32	58,0	**59,5**	**58,4**

New HRR = Avg HRR+Δ-Number

Average Revised HRR =
(Avg HRR * sqm not repaired +
New HRR * sqm repaired) / sqm

Aims and Objectives

- Minimise costs
  - Testing
  - Samples
- Controllable continuous compliance
  - Different materials
  - Different methods of repairs
  - Decisions of optimum repair methods

Test Results from different original Panels

Heat-Release Tests on Original Panels							
	Test Lab	Peak Avge	Total Avge			Peak Avge	Total Avge
Window panel 737-300	A	52,1	69,6		Original Window Panel Piggy Backed	59,4	72,5
	B	44,6	55,9		Original Window Panel Piggy Backed	53,5	61,4
Original Ceiling Panel 747-400	A	53,2	64,4		Original + 20 •m 404-12	52,7	72,5
					Original + 40 •m 404-12	51,9	72,0
					Original + Primer 414-12 40•m+ 50 •m 404-12	68,4	66,3
Orginal Lavatory Wall 747-400 other Airline	C	not available	not available		Original 24,6 mm Piggy backed	69,0	71,2
	C	not available	not available		Original 18,3 mm Piggy backed	53,2	63,1
	C	not available	not available		Original 18,3 mm Piggy backed	61,0	75,6
Original 747-400 Lavatory door	D	67,2	61		Original 24,6 mm new decorated	62,0	62,2
Schneller Std Panel	A	44,5	36,3				
	B	31,8	30,2				

- **Test Lab A shows results above 65/65, even though Aircraft Manufacturer achieved results less than 55/55**
- **A similar result showed Lab B**

Published Heat Release Requirements in Maintenance Manual

- Boeing 747-400 (MM 25-00-00)
  - max. repair for decor foil 100 sq. inch (page 808)
  - painting allowed no restriction (page 701)
- Airbus A340 (MM 25-00-00)
  - repair size not determined (page 817)
  - painting not excluded (page 820)
- Airbus A320/321 (MM 25-00-00)
  - repair for decor foil 124 sq. inch (page 841)
  - painting allowed no restriction procedures for different paint systems (page 837 ff.)

⇘ **With approved documents no continuous compliance with the heat release rule feasible!**

HEAT RELEASE (H R) B747-400

FREIGEGEBEN
FRA WF 22
H. BETZ
DATE.....

CABINCOMPONENTS

DECISIONDIAGRAM

STATUS REPAIR REPORT

A/C B747-400 D-ABVB

NOTE: CLEANED = C
REPAIRED : R (IN ACCORDANCE WITH ROW)

HANDLING OF CABINCOMPONENT ARE ZONAL			PAINT SYSTEM 404-12	PAINT SYSTEM 404-12	LHR DEKOR	ZONAL TREATMENT						
HR 65/65 REQUIREMENT			LAC THICK-NESS	LAC THICK-NESS	PIGGY							
CABIN COMPONENTS	YES	NO	µm 20-40	µm 40-50	PACKING	A	B	C	D	E	F	U/D
DADO- PANELS	X		X			C	C	C	C	C		
WINDOW PANELS MD & FRAMES UD	X		X		X *	R	R	R	R	R		R
PSU- PANELS	X		X			C	C	C	C	C		C
BIN BODY INSIDE		X		X		C	C	C	C	C		C
BIN BODY OUTSIDE	X		X			C	C	C	C	C	C	C
BIN DOORS	X		X			R	R	R	R	R	R	R
BIN ENDCAPS	X		X			R	R	R	R	R	R	R
CLOSURE PANELS	X			X		C	C	C	C	C	C	C
CEILING PANELS M/D	X		X			R	R	R	R	R		
LOWER CEILING PANELS	X				X *	R	R	R	R	R		
DOOR LININGS	X		X			R	R	R	R	R		R
DOOR FRAME LININGS	X		X			R	R	R	R	R	R	R
STAIRWAY BODY	X			X			R					
STAIRWAY LININGS	X		X				R					
GALLIES INSIDE		X		X								
GALLIES OUTSIDE	X		X									
STOWAGES & LAV. INSIDE		X		X		TOUCH UP						
STOWAGES & LAV. OUTSIDE	X		X			R	R	R	R	R	R	R
PAX. SEATS		X		X								
ATT. SEATS		X		X								
CREW BANK INSIDE		X		X								
CREW BANK OUTSIDE	X		X									

NOTE : * ONLY IF EXISTING LAMINATE IS NOT REMOVABLE

Boeing OSU and Smoke Data Summary

Data Sources: Qualification, QC, Baseline Panels of Studies

Constructions:
A - 1 ply/ 1 ply, 0.125-inch thick
B - Cl 3/ 0.188-inch core/ Cl 2 or 4/MAT
C - 2 ply/ 2 ply, 0.5-inch thick
D - 6 ply/6 ply, 0.75-inch thick
E - 8800/ 0.125-inch core/120 /2 BRK--/crowfoot/glass mat

Material	Construction	QT avg.	S.D.	Qp avg	S.D.	Smoke
Glass/phenolic						
BMS 8-222, Style 181	A. Bare	15	4	24	7	<10
	A-Bare, 0.25" core	28	5	49	5	30
	A- w/Tedlar	44	5	38	0.7	97
	C-Bare 0.375 inch core	5	2	24	3	<10
	C- w/Tedlar	41	3	52	6	120
	C- w/Paint	10	4	21	2	<10
	E- Bare	16	—	20	—	1
	E- w/Tedlar	51	3	40	1	115
Graphite/Phenolic						
Bms 8-274	A- Bare	24	4	36	5	<10
	A- w/Tedlar	53	3	39	2	102
	B - Bare	37	3	50	7	<10
	B-w/Tedlar	55	4	42	3	137
	C- w/Tedlar	36	4	51	2	132
	C- w/paint	17	2	36	3	21
	D- Bare	4	2	39	6	<10
	D- w/Tedlar	25	1	37	3	112
	D- w/paint	9	3	32	5	27
	E-Bare	32	—	32	—	6

B-w/Tedlar	55	4	42	3	137
C- w/Tedlar	36	4	51	2	132
C- w/paint	17	2	36	3	21
D- Bare	4	2	39	6	<10
D- w/Tedlar	25	1	37	3	112
D- w/paint	9	3	32	5	27
E-Bare	32	—	32	—	6

LIST OF ATTENDEES
INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST
WORKING GROUP MEETING
Held in Toulouse, France
June 27-28, 1995

NAME	ORGANIZATION/ AFFILIATION	ADDRESS	PHONE/FAX
TIM MARKER	FAA TECH CTR.	ATLANTIC CITY	PHONE: (609) 485 6469 FAX: (609) 485 5580
Steve Beare	DuPont	Chestnut Run Plaza-Bldg 715 PO Box 80715 Wilmington, DE 19880-0715	PHONE: 302 - 9992240 FAX: 302 - 9992718
James M. Peterson	Boeing	M/S 73-48 Boeing PO Box 3707 Seattle WA 98124	PHONE: 206 2378243 FAX: 206 2370052
Beth McGee	McDonnell Douglas	3855 Lakewood Blvd M.C. 801-38 Long Beach, CA 90846	PHONE: (310) 982-7003 FAX: (310)-496-9300
Scott Campbell	"	3855 Lakewood M.C. 802-27 Long Beach, CA 90846	PHONE: (310) 497-6171 FAX: 310 982 0775
GEORGE J. DANKER	AKRO FIREGUARD PRODUCTS	9001 ROSEHILL RD LENEXA, KS 66061 USA	PHONE: (913) 888-7172 FAX: (913) 888-7372
Paul d'Arnaud	Fokker	PO Box 7600 1117 ZA Schiphol	PHONE: 20 6053406 FAX: 20 6054450
ADRIAN DE REGT	LANGENTHAL	DORFGASSE 5 4900 LANGENTHAL SWITZERLAND	PHONE: (41) 63-29771 FAX: (41) 63-232532
RAFAEL MIRANDA	CONTINENTAL AIRLINES	15333 JFK BLVD SUITE 425 HOUSTON, TX 77032 USA	PHONE: (713) 985-1454 FAX: (713) 985-2780
Hans-Jürgen Korl	Mankiewicz	D-21107 Hamburg Georg-Wilhelmstr 189	PHONE: (49) 40-75703-0 FAX: (49) 40-75703418
JACQUES ROBILLARD	MANKIEWICZ	40 RUE DES BIENELLES 92310 SEVRES . F.	PHONE: (33.1) 45.07.16.66 FAX: 45.34.06.29

LIST OF ATTENDEES
INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST
WORKING GROUP MEETING
Held in Toulouse, France
June 27-28, 1995

NAME	ORGANIZATION/ AFFILIATION	ADDRESS	PHONE/FAX
DROUET-FLEURIZELLE laurence	AEROSPATIALE Quality Dept.	A/PAQ/TO/LT - E 5001. 316, route de Bayonne 31060 TOULOUSE	PHONE: 33.61.18.18.70 FAX: 33.61.18.29.34
PETIT Jean François	CEAT	23 avenue H. Guillaumet 31056 Toulouse	PHONE: 33 61 58 74 10 FAX: 33 61 58 74 78
POLETTI PIERO	TESTORI TEXTILES	VIA DANTE 7 20026 NOVATE MILANESE ITALY	PHONE: 39-2-35 4721 FAX: 39-2-39100 510
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LIST OF ATTENDEES
INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST
WORKING GROUP MEETING
Held in Toulouse, France
June 27-28, 1995

NAME	ORGANIZATION/ AFFILIATION	ADDRESS	PHONE/FAX
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HANS HELSDINGEN	HSH AEROSPACE FINISHES	BRUSSELS	PHONE: 32-2-267 2670 FAX: 2671984
CLAUDE LENIS	NO	CHANGE	PHONE: FAX:
Dr. Michael Mitzlaff	HOECHST AG C 369	D-65926 Frankfurt a. M.	PHONE: 49-69-3053476 FAX: 49-69-30517071
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Sabine Buhrig	Metzeler Schaum GmbH	D-87700 Memmingen	PHONE: 49-8331-830284 FAX: 49-8331-830279
ULRICH HEITMANN	METZELER SCHAUM GMBH	D-87700 MEMMINGEN	PHONE: 49-8331-830437 FAX: 49-8331-830277
WOLFGANG LAMPA	DAIMLER-BENZ AEROSPACE AIRBUS	✓	PHONE: ✓ FAX:

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NAME	ORGANIZATION/ AFFILIATION	ADDRESS	PHONE/FAX
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MARK SNELL	Darchem		PHONE: FAX:
DARREN DODD	Darchem		PHONE: FAX:
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			PHONE: FAX:
			PHONE: FAX:
			PHONE: FAX:
			PHONE: FAX:

NOVEMBER 13, 1995
MEETING RETURN FORM

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST WORKING GROUP

NOTE: ***YOU WILL NOT RECEIVE MINUTES OF THIS MEETING UNLESS THIS FORM IS RETURNED.***

☐ I will not be able to attend, but please send me the meeting minutes.

The next meeting will be held on November 13, 1995, at Harrah's Casino Resort in Atlantic City, New Jersey. If you plan to attend or would like to receive copies of the Minutes, you must return this form by ***Friday, October 13, 1995.***

PLEASE COMPLETE THE FOLLOWING INFORMATION:

NAME: _____

COMPANY: _____

PHONE: _____ FAX: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

COUNTRY: _____

RETURN THIS FORM BY FAX BY FRIDAY, OCTOBER 13, 1995, TO:

APRIL HORNER
FAX: 609-646-5229

OR CALL:

PHONE: 609-485-4471

U.S. Department
of Transportation
Federal Aviation
Administration

INTERNATIONAL CONFERENCE ON CABIN SAFETY RESEARCH

November 14-16, 1995

Harrah's Casino-Hotel
Atlantic City, New Jersey
USA

Jointly Sponsored by:

European Joint Aviation Authorities	Transport Canada Aviation	United States Federal Aviation Administration

CONFERENCE OBJECTIVE:

Present to the aviation community proposed Cabin Safety Research Actions (e.g. FAA-TCA proposed Cabin Safety Research Program and Plan; other authorities programs) and obtain feedback on the same.

Agenda items will include:

- Overview of proposed FAA-TCA Cabin Safety Research Program and Plan
- Organization and Methodology of FAA-TCA Program and Plan
- Organization and Methodology of other authorities programs
- Presentations and discussion on Evacuation
- Presentations and discussion on Crash Dynamics
- Presentations and discussion on In-flight Emergencies
- Presentations and discussion on Fire Safety

In addition, there will be an opportunity for attendee participation in the development of specific comments and recommendations on the Plan.

Registration Fee:

There is no Registration Fee for this Conference, however, space may be limited.

For additional information, please complete the information below:

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

_____

_____

PHONE: _____ FAX: _____

Fax or mail this information to:

April Horner (GSC)
Conference Coordinator
Federal Aviation Administration (FAA) Technical Center
Fire Safety Section, AAR-422
Building 287
Atlantic City International Airport, NJ 08405
FAX: 609-646-5229

AGENDA

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST WORKING GROUP MEETING

To Be Held At

Aerospatiale and CEAT, Toulouse, France

June 27-28, 1995

TUESDAY, JUNE 27, 1995

8:10	Aerospatiale Bus Pick-up at Place Wilson (across from Gaumont Cinema)
8:40	Arrive at Aerospatiale
9:00-9:30	Opening and Introduction - R. Hill (FAA Technical Center) Aerospatiale Video Presentation
9:30-11:10	Presentations and Updates by Task Group Leaders
	9:30-9:50 #1 Continued Airworthiness - Final Report & Recommendations on Continued Compliance - Seat Fire Blocking Layers - Large Surface Panels
	9:50-10:10 #2 Production Quality Assurance
	10:10-10:30 #3 Minor Changes to Qualified Materials
	10:30-10:50 Break
	10:50-11:10 #4 Material Systems Renovation & Repair Procedures
11:10-11:30	Renovation and Repairs - H. Betz (Lufthansa)
11:30-12:30	Separate Task Group Meetings #1 Continued Airworthiness #2 Production Quality Assurance #3 Minor Changes to Qualified Materials #4 Material Systems Renovation & Repair Procedures
12:30-2:00	Lunch
2:00-2:30	Task Group Discussion/Task Group Leader Reports/Assignments
2:30-3:00	Blanket and Pillow Discussion
3:00-3:15	Break
3:15-4:00	Discussion on Current Test Methods (OSU/NBS/Oil Burner/Bunsen Burner)
4:00-4:45	New Topics
5:00	Aerospatiale Bus Departs to Place Wilson

WEDNESDAY, JUNE 28, 1995

8:10	CEAT Bus Pick-up at Place Wilson (Gaumont Cinema)
8:40	Arrive at CEAT
9:00-9:15	Ongoing Round Robin Testing Updates Heat Flux Transducer Round Robin Updates
9:15-10:45	Discussion on Aircraft Material Fire Test Handbook Test Methods
	9:15-9:45 Chapters 9-13
	9:45-10:45 Chapters 1-8 Presentation on Changes/Updates
10:45-11:00	Break
11:00-11:45	Test Method Videos Vertical Bunsen Burner Video New Videos
11:45-12:15	Discussion on Fuselage Burnthrough Test Method
12:15-1:00	General Discussion/Closing
1:00-2:00	Lunch
2:15	Bus Departs to Place Wilson