



Announcing the 5th MMPDS / 13th ISG Coordination Meeting



April 19-22, 2004

San Francisco, California

The 5th MMPDS and 13th ISG meetings will be held April 19-22 at the Hilton Fisherman's Wharf in San Francisco, CA. Your attendance and active participation in the upcoming meeting is encouraged! A list of preliminary agenda items has been enclosed with this mailing.

The Hotel

The Hilton Fisherman's Wharf is the site of this year's spring coordination meeting. Not only is it located in the historic Fisherman's Wharf area of San Francisco, the other exciting sights and sounds of the city are just a heartbeat away including the world-famous cable cars, Ghirardelli Square, North Beach, and Chinatown. A hotel brochure has been enclosed with further information about the facility and what it has to offer. From the San Francisco International Airport (16 miles from the hotel), taxi service is approximately \$35-\$40 each way and Super Shuttle service is approximately \$15 each way. Or if you prefer, Oakland Airport is 18 miles away. Typical taxi service is \$45-50 and the subway is approximately \$5 each way.

The group code to use when making reservations is **MMPDS/ISG Meeting**. All reservations must be guaranteed with a credit card or one night's deposit by check or cash. Our meeting rate is \$119/night (which is an excellent rate for the San Francisco area) if your reservation is made before **Friday, March 19, 2004**. After this date, reservations will be accepted on a space-available basis, and the rates will be the hotel rack rates. Reservations can be made by calling the Hilton Reservations Line at 800-228-8408. Remember be sure to use the identity MMPDS/ISG when making your reservation in order to receive our meeting rate.

NOTE

There are multiple Hiltons in downtown San Francisco, so please make note that the meeting location is the Hilton Fisherman's Wharf.

Meeting Registration

A meeting pre-registration form has been enclosed with this mailing. Please fill out the pertinent information and fax to Anne Mundy at Battelle by March 15, 2004. Her fax number is 614-458-6496. If you prefer, phone Anne at 614-424-6496 to request that she send you the registration form as a Word document, in which case you can fill in the information and return the completed form to her by email.

A registration fee of \$100 U.S. per person will be charged for general participation at the 5th MMPDS Coordination Meeting. Those planning to attend only one day of the meeting will be charged a registration fee of \$40 U.S.

These fees will be used to help defray approximately \$5,000 in hotel charges for refreshments (a continental breakfast and afternoon snack are included daily) and meeting rooms. Advance payment of the registration fee is encouraged (and is refundable if you do not attend). The registration fee may be paid in advance by credit card (by completing the enclosed Credit Card Information form), or by check payable to Battelle, in care of Anne Mundy, 505 King Avenue, Columbus, Ohio 43201-2693. You may fax the credit card form to Anne at the fax number indicated earlier (the fax goes directly into her computer). Or, you can request that she send it to you as a Word document and so you can return it to her by email. Those who register at the door may pay their registration fee by credit card, cash or check. Receipts will be provided.

Meeting Schedule

The planned schedule of meetings is shown in the attached table. Currently planned agenda items have also been enclosed along with applicable submission deadlines and contact information. The final schedule of meetings will be mailed with the full agenda package, which will be distributed approximately March 19, 2004. The General Coordination Meeting will take place on April 22, beginning at 8:30 a.m. Other steering group, task group, and working group meetings will be held earlier in the week.

As noted on the schedule, most task group and working group meetings are open to all attendees. However, as usual, the Fastener Task Group breakout session on Wednesday may be limited to members only. The steering group meetings on Monday will also be limited to members and invited guests only, with the exception of the joint late afternoon session of the Industrial Steering Group and Government Steering Group, which will be open to all coordination-meeting attendees.

We look forward to your attendance and active participation in these aircraft metallic materials handbook coordination meetings.

Sincerely,

John Bakuckas
FAA Co-Chairman
MMPDS Coordination Group
Aging Aircraft Structural Integrity Research
Airworthiness Assurance R&D Branch
FAA William J. Hughes Technical Center
Atlantic City Int'l Airport, New Jersey

Steve Thompson
DoD Co-Chairman
MMPDS Coordination Group
Air Force Research Laboratories, Materials
and Manufacturing Directorate
Wright-Patterson AFB, Ohio



SCHEDULE OF MEETINGS FOR THE 5TH MMPDS AND 13TH ISG COORDINATION MEETINGS



April 19-22, 2004 San Francisco, CA

Time Period	Monday		Tuesday	Wednesday		Thursday
	Steering Groups		Guidelines Task Groups	Materials Task Groups		General Coordination
8:30am – 10:00	GSG (Members only)	ISG (Invitation only)	SWG (Open)	MTG* (Open)	FTG (Open)	GCC* (Open)
10:00 – 10:15	Break				Break	
10:15 – 12:00	GSG (Members only)	ISG (Invitation only)	GTG (Open)		FTG (Members only)	
12:00pm – 1:15	Lunch Break (individual responsibility)					
1:15 – 3:00	GSG (Members only)	ISG (Invitation only)	EDWG (Open)	PIMWG* (Open)	FTG (Members only)	
3:00 – 3:15	Break				Break	
3:15 – 4:30	Joint ISG/GSG (Open)		Supplemental Task Group Discussions (as required) (Open)		FTG (Open)	
4:30 – 5:30	ASG (Members only)					

* Catered break during meeting

ASG – Airframer Steering Group
FIWG – Fastener Industry Working Group
GCC – General Coordination Committee
GTG – Guidelines Task Group
PIMWG – Process Intensive Materials Working Group
SWG – Statistics Working Group

EDWG – Electronic Data Working Group
FTG – Fastener Task Group
GSG – Government Steering Group
ISG – Industrial Steering Group
MTG – Materials Task Group



**Registration
for**



5th MMPDS and 13th ISG Coordination Meeting
San Francisco, CA
April 19-22, 2004

Please complete and fax (614-458-6496) or email (mundya@battelle.org) the registration form to Anne Mundy no later than March 15, 2004

<p>Name _____</p> <p>Company _____</p> <p>Address _____</p> <p>City _____</p> <p>State _____ Zip Code _____</p> <p>Country _____</p> <p>Email _____</p> <p>Phone _____</p> <p>Fax _____</p>	<p align="center">Registration Fee \$100</p> <p align="center"><i>Method of Payment</i></p> <p>Prior to the Meeting</p> <p><input type="checkbox"/> Check</p> <p><input type="checkbox"/> Credit card*</p> <p>At the Door</p> <p><input type="checkbox"/> Cash or Check</p> <p><input type="checkbox"/> Credit card</p> <p>* Please complete Credit Card Information Form. Contact Anne Mundy if you need assistance: (614) 424-6496</p>
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Please Indicate Planned Meeting Participation

	Task and Working Groups	
Steering Group Meetings, 4/19	4/20	4/21
<input type="checkbox"/> Industry (ISG)** <input type="checkbox"/> Government (GSG)***	<input type="checkbox"/> Statistics (SWG) <input type="checkbox"/> Guidelines (GTG) <input type="checkbox"/> Electronic Data Working Group (EDWG)	<input type="checkbox"/> Process Intensive Materials Working Group (PIMWG) <input type="checkbox"/> Materials (MTG) <input type="checkbox"/> Fastener Task Group (FTG)***
<input type="checkbox"/> General Coordination Meeting (GCC), 4/22		

** Members and invited guests only, until 3 pm.

*** Members only.



Credit Card Information

Purpose of charge:
Registration for 5th MMPDS/13th ISG Meeting
April 19-22, 2004 San Francisco, CA

(circle one) **Mastercard** **Visa** **Amex**

Card number: _____

Expiration date: _____

Name on card: _____

Company: _____

Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone number: _____

Amount: _____ **\$100 entire week**

Signature: _____

Submit to:

Anne Mundy
(Fax) 614-458-6496
(Email) mundya@battelle.org
(Phone) 614-424-6496

Battelle Memorial Institute

505 King Avenue
Columbus, OH 43201-2693

Preliminary Agenda – 5th MMPDS

This is a list of the preliminary agenda items for the 5th MMPDS/13th ISG Coordination Meetings. If you have any input or suggestions, please contact Richard Rice, Battelle via email at ricerc@battelle.org, or phone (614) 424-4433. It is requested that all technical input and data be provided prior to February 20, 2004.

CHAPTER 1. GENERAL

- No Item No. **AMS Coordination. (GCC)** Contact J. Jackson, Battelle, with input prior to 4/7. She is planning to prepare a handout for the meeting of draft AMS specifications and current AMS specifications being revised.
- No Item No. **Meetings of Potential Interest to MMPDS Coordination Members. (GCC)** Contact R. Rice, Battelle, with input prior to 3/3. He will be reviewing and updating the list of meetings for the agenda. He will also be including information on relevant technical society websites.
- No Item No. **Government Steering Group. (GSG)** J. Bakuckas, FAA, will prepare and submit the Government Steering Group meeting agenda to Battelle by 4/2. Battelle will distribute the draft agenda by email to individuals designated by J. Bakuckas within 1 week of receipt.
- No Item No. **Airframer Steering Group. (ASG)** J.T. Amin, Lockheed, will prepare and submit the Airframer Steering Group meeting agenda to Battelle by 4/2. Battelle will distribute draft agenda by email to individuals designated by J.T. Amin within 1 week of receipt.
- No Item No. **Industrial Steering Group. (GCC)** Contact R. Rice with suggested ISG presentations and discussion topics. He plans to complete the draft ISG meeting agenda by 3/6.
- No Item No. **Guidelines Task Group. (GTG)** Contact R. Rice with suggested GTG presentations and discussion topics. He plans to complete the draft GTG meeting agenda by 3/7.
- No Item No. **Materials Task Group. (MTG)** Contact J. Jackson with suggested MTG presentations and discussion topics. She plans to complete the draft MTG meeting agenda by 3/6

To date possible presentations include:

- 7068-T6511, Tenalum (Roy Coats or Jim Merzlak)
- Working with European alloys, what the AA is doing, other problems – Harold Bushfield representing the Aluminum Association

- No Item No. **Statistics Working Group. (SWG)** Contact R. Rice with suggested SWG presentations and discussion topics. He plans to complete the draft SWG meeting agenda by 3/8.
- No Item No. **Process Intensive Materials Working Group. (PIMWG)** Contact S. Thompson, AFRL, or R. Rice with suggested PIMWG presentations and discussion topics. They plan to complete the draft PIMWG agenda by 4/10 for inclusion in the meeting handout package.
- Item 03-14 **Review of Currency of Existing Database on Legacy Alloys. (MTG)** Contact R. Rice or J. Jackson with inputs and/or data. The current focus is on the following alloys and tempers:
- 2024-T351 plate (*bare and clad*)
 - 2124-T851 plate
 - 7050-T7451 plate
- All certification data submissions on these legacy alloys must be in-hand by no later than 2/20 to be considered for this agenda.
- Item 03-15 **Trademark Identification. (GCC)** Contact J. Jackson with any input on this item.
- No Item No. **Special Presentation. (GTG)** Contact R. Rice, J. Bakuckas or S. Thompson with recommendations for a special presentation at the Guidelines Task Group meeting. Abstracts of agreed-upon presentations should be ready for inclusion in the main agenda package by 3/10.
- No Item No. **Special Presentation. (MTG)** Contact R. Rice or J. Jackson to make arrangements for a special presentation at the Materials Task Group meeting; abstracts of agreed-upon presentations should be ready for inclusion in the main agenda package by 3/10.
- No Item No. **Special Presentation. (GCC)** Contact R. Rice, J. Bakuckas or S. Thompson with recommendations for a special presentation at the General Coordination Committee meeting; abstracts of agreed-upon presentations should be ready for inclusion in the main agenda package by 3/10.

CHAPTER 2. STEEL ALLOYS

- No Item No. **Wrought Steels S-Basis Summary. (ASG/MTG)** Contact R. Rice or J. Jackson with inputs on this handout item prior to 4/3. The goal is to upgrade as many steel alloys and product forms from S-basis to A- and B-basis. It was agreed at the 4th MMPDS coordination meeting that the initial focus should be on the following alloys:
- *Hy-Tuf*

- *9Ni-4Co-0.20C and*
- *9Ni-4Co-0.30C*

All certification data submissions on these steel alloys must be in-hand by no later than 3/19 to be considered for this handout item. It should be noted that many of these materials are heat-treated by the user to their final strength levels, so it is likely that most of the meaningful data on these alloys will have to come from the high strength steel users within the aerospace community.

Item 04-01 **A- and B-Basis Properties for D6AC Plate Produced in Accordance with AMS 6439. (MTG)** R. Rice and J. Jackson plan to complete this new agenda item by 3/7, based on a substantial collection of certification data from the mid-1990s already available in MMPDS files.

No Item No. **Correction of Footnotes in Table 2.7.1.0(b) for AISI 301 and other Annealed Stainless Steels** R. Rice plans to complete this small agenda item by 2/20.

CHAPTER 3. ALUMINUM ALLOYS

Item 03-19 **A- and B-Basis Properties for 6061-T6 Drawn Tubing. (MTG)** J. Jackson plans to complete this agenda item by 2/27. It should be noted that Battelle does not have old data in the files to compare with current production of 6061-T6 drawn tubing.

Item 03-20 **A- and B-Basis Properties for 6061-T4 Drawn Tubing. (MTG)** J. Jackson plans to complete this agenda item by 3/5. It should be noted that Battelle does not have old data on this alloy for comparison with current production. Kaiser and Alcoa have agreed to provide data in the 0.1-0.5 inch thickness range.

Item 04-02 **Stress Strain Curves for 7055-T76511 Aluminum Extrusions. (MTG)** R. Rice to complete this agenda item by 3/5. The proposal will be based on a proposed new analysis procedure (see Item 03-34) that better accounts for the non-Ramberg-Osgood initial yield behavior of this material.

No Item No. **Compression Properties and Stress Strain Curves for 2297-T87 Plate. (MTG)** J. Jackson plans to prepare a status report on this item by 4/9. At present additional data are still required for determination of compression properties.

Item 04-03 **Verification of Bearing Value Type (Dry or Wet Pin) For Clad 2024 Sheet and Plate. (MTG)** J. Jackson plans to complete agenda item by 2/15 for review at the next meeting.

No Item No. **Wrought Aluminum Alloys with S-Basis Minimums. (ASG/MTG)** J. Jackson plans to prepare a status report on this item by 4/2. This report will provide a list of priorities, based on a recent survey of major aluminum

producers and users, of which alloys, tempers and product forms should be given priority for upgrading their design properties in MMPDS from S-basis to A- and B-basis.

- Item 04-04 **Mechanical Properties for 2297-T87 Plate in Thickness Ranges From 1.5-4 inches.** J. Jackson plans to complete agenda item by 2/6 for review at the next meeting.
- Item 04-05 **2124-T851 Plate Legacy Alloy re-evaluation.** J. Jackson plans to complete this agenda item by 2/13 for review at the next meeting.
- Item 04-06 **A- and B-Basis Mechanical Properties for 7068-T6511 Extrusions.** J. Jackson has already completed draft agenda item, based on tensile data only. Derived property data will not be available prior to the meeting, so this item will be held open for at least one meeting.
- Item 04-07 **7068-T6511 Extrusion Fatigue Data.** J. Jackson plans to complete this brief agenda item by 2/6. The item will include no fatigue analyses, but will provide a summary of load control axial fatigue data received to data on this product.
- Item 04-08 **7075-T73511 Thin Extrusions AMS-QQ-A-200/11.** J. Jackson plans to complete this draft agenda item by 3/3 for review at the 5th MMPDS coordination meeting.

CHAPTER 4. MAGNESIUM ALLOYS

No Chapter 4 magnesium alloy agenda items or handouts are currently planned for the 5th MMPDS coordination meeting.

CHAPTER 5. TITANIUM ALLOYS

- Item 03-17 **Mechanical Properties for Ti-6Al-4V Plate Produced by Electron Beam Melt. (MTG)** J. Jackson plans to complete agenda item by 3/10. The item will include a comparison of derived properties with current VAR process.
- Item 03-27 **Ti-6Al-4V Casting Load Control Fatigue Properties at Room Temperature and 600°F. (MTG)** R. Rice plans to complete agenda item by 2/20 for review and approval at the 5th MMPDS meeting.
- Item 04-09 **Evaluation of Legacy Alloy Ti-6Al-4V Bar.** J. Jackson plans to complete agenda item by 2/6.
- Item 04-10 **Using Ti-6Al-4V Plate for Bar.** J. Jackson plans to complete agenda item by 2/13.

CHAPTER 6. HEAT RESISTANT ALLOYS

- Item 03-09 **Update Figure 6.3.7.1.7 for Rene 41 to Comply with Current Creep Property Guidelines. (MTG)** R. Rice will provide a status report at the meeting on this item. Those individuals interested in retaining creep properties in the MMPDS on Rene 41 are requested to provide data produced within the past 5 years by no later than 3/26.
- Item 03-10 **Update Figure 6.4.1.1.7 for L-605 to Comply with Current Creep Property Guidelines. (MTG)** R. Rice will provide a status report at the meeting on this item. Those individuals interested in retaining creep properties in the MMPDS on L-605 are requested to provide data produced within the past 5 years by no later than 3/26.

CHAPTER 7. MISCELLANEOUS ALLOYS AND HYBRID MATERIALS

No Chapter 7 miscellaneous alloy or hybrid material agenda items or handouts are currently planned.

CHAPTER 8. STRUCTURAL JOINTS

- No Item No. **Fastener Task Group. (FTG)** N. Ontko, R. Goode, and M. Shaio plan to complete agenda for distribution to FTG members by 4/2.
- No Item No. **Status of Revised Analytical Techniques for Fastened Joints Software. (FTG)** R. Goode will prepare a status report on the required effort to revise and update the T90 calculation software and its associated data input templates. Progress and status will be reported at the 13th ISG and 5th MMPDS coordination meetings.
- Item 03-29. **Review of Yield Guidelines and Applicability for Joint Allowables (FTG)** R. Goode plans to complete agenda item listing affected tables by 3/26 for review at the 5th MMPDS coordination meeting.
- Item 03-30. **Incorporation and Implementation of a Sunset Clause for Mechanical Fasteners in MMPDS. (FTG)** R. Goode plans to complete a draft guideline proposal by 3/12 for review by the FTG.
- No Item No. **Review of Welded/Brazed Joints. (FTG)** R. Goode attended a related D17 coordination meeting at EWI in Columbus, OH. He will provide a report to the FTG on this meeting and discuss possible future cooperation with D17.

CHAPTER 9. GUIDELINES FOR THE PRESENTATION OF DATA

- Item 01-01 **Regression for Skewed Data. (SWG)** R. Rice plans to complete this agenda item by 3/3 for review at the 5th MMPDS coordination meeting.
- Item 01-02 **Proposal to Change Backoff Limit to Percentage of Standard Deviation in the Sequential Weibull and Sequential Pearson Procedures. (SWG)**
R. Rice plans to complete this agenda item by 2/27. The item will include an evaluation of the proposed change in backoff limit to 1% of average strength.
- Item 01-04 **Reevaluation of Statistical Procedures for Calculation of S-Basis Design Values. (SWG)** R. Rice plans to complete this agenda item by 3/3, working in collaboration with H.C. Tsai. The item will include the results of simulation studies done to verify the proposed method.
- Item 01-05 **Revise Section 9.1.6.8 in Coordination with SAE/AMS. (GTG)** J. Jackson plans to provide only a status report on this item, which awaits approval of Item 01-04.
- Item 03-01 **Determination of A- and B-Basis Allowables for Cases Where the Calculated T₉₉ Value is Greater Than the Specification Minimum Value. (GTG)** R. Rice plans to complete a draft guideline proposal by 3/10.
- Item 03-02 **Update and Addition of Example Problems in Chapter 9 Guidelines. (GTG)** R. Rice plans to complete an agenda item by 3/3 and a handout by 4/2 for review at the 5th MMPDS coordination meeting.
- No Item No. **Modification of Guidelines Regarding Electronic Submission of Certification Data for Definition or Verification of Design Allowables. (EDWG)** J. Pillers, Boeing, plans to prepare an EDWG meeting agenda for incorporation into the handout package by 4/9. R. Rice also plans to prepare a handout for discussion at that meeting that includes proposed guideline revisions on this subject.
- No Item No. **Review of Foreign Testing Standards for Possible Mention of Equivalence to ASTM Standards Cited in MMPDS. (GTG)** R. Rice plans to complete a handout on this item by 4/10.
- Item 03-34 **Review of a Proposed Modification to the Ramberg Osgood Procedure for Developing Typical Stress-Strain Curves. (GTG)** R. Rice to complete guideline proposal by 3/3 for review at the 5th MMPDS coordination meeting.
- Item 03-35. **By-Laws for MMPDS (GTG).** R. Rice plans to complete a draft of the by-laws for review by J. Bakuckas by 2/15. R. Rice plans to complete the final draft by 4/10 for review at the 13th ISG and 5th MMPDS coordination meetings.

Item 04-11 **Treatment of Outliers when Developing Static Design Allowables. (GTG).**
R. Rice plans to complete a draft guideline proposal on this topic by 2/27.

No Item No. **Consideration of an Alternative Regression Analysis Procedure for
Developing Static Design Allowables. (GTG)** R. Rice plans to complete this
agenda item by 2/27 for discussion at the 5th MMPDS coordination meeting.
The alternative procedure would allow the concurrent consideration of grain
orientation on both yield and ultimate strength properties as a function of
product thickness.