

# Meeting Agenda

**To:** MMPDS Coordination and Industry Steering Group Members

**Date:** March 14, 2003

**Subject:** Agenda for 3<sup>rd</sup> MMPDS, and 11<sup>th</sup> ISG Coordination Meeting

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## Hotel Information

As previously announced, the 3<sup>rd</sup> MMPDS, and 11<sup>th</sup> ISG meetings will be held April 14 – 17, 2003, at the Boardwalk Hotel in Las Vegas Nevada. Your attendance and active participation is encouraged.

The Boardwalk Hotel The Boardwalk Hotel is located on the Las Vegas Strip between the Bellagio and the Monte Carlo hotels. The hotel is a short ride from Las Vegas McCarran Airport. There are several shuttle companies and taxi services available at the airport to take you to the facility. For further information on the hotel and surrounding areas, you can visit their web site – [www.boardwalklv.com](http://www.boardwalklv.com), phone toll free 800-635-4581, or fax 702-730-3166. The group code to use when making reservations is **MMPDS Meeting**. Credit cards will be charged for one night's room and tax at time of booking. Reservations made by Friday, March 14, 2003 were guaranteed a corporate rate of \$59/night. Reservations made after this date will be accepted on a space-available basis and the rates may be higher.

## Registration

A pre-registration form has been prepared and is enclosed. Please fill out the pertinent information and fax it to Anne Mundy at Battelle before April 1, 2003. Her fax number is 614-424-3457 and her phone number is 614-424-6496. Alternatively, you may contact her by email at [mundya@battelle.org](mailto:mundya@battelle.org) to request that she send you the registration form as a Word document, in which case you can fill in the pertinent information and return the completed form to her by email.

A registration fee of \$100.00 U.S. per person will be charged for general participation at the 3<sup>rd</sup> MMPDS Coordination Meeting. Those attending only one day of the meeting will be charged a registration fee of \$50 U.S. per person. These fees will be used to help defray approximately \$5,000 in hotel charges for refreshments (a continental breakfast is included daily) and meeting rooms. Advance payment of the registration fee is encouraged because Battelle is required by the Boardwalk Hotel to submit the final number of guests attending this meeting by April 7, 2003\*.

The registration fee may be paid in advance by check to Battelle, in care of Anne Mundy, 505 King Avenue, Columbus, Ohio 43201-2693; or by credit card by completing the enclosed Credit Card Information form. You may fax the credit card form to Anne at the above number or request that she send it to you as a Word document and return it to her by email. Those who register at the door may

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\* If your registration fee is paid in advance, and you are unable to attend, the registration fee will be refunded, upon request, following the meeting.

pay their registration fee by cash or check. Receipts will be provided in the mail or at the door, as appropriate.

### **Meeting Information**

The planned schedule of meetings is shown in the attached table. The general coordination meeting will take place on April 17, beginning at 8:30 a.m. Other steering group, task group, and working group meetings will be held earlier in the week. A variety of special presentations will be given during the course of the week; the planned timing of each of these presentations is noted either in the main list of agenda items or in the ISG agenda (see list of attachments).

Reminder: The second Laser Additive Manufacturing (LAM) working group meeting will take place on Wednesday afternoon, beginning at 3:15pm. There will be several special presentations and technical discussion focused on the potential inclusion of design properties for LAM Ti-6Al-4V in the MMPDS.

As noted on the schedule most task group and working group meetings are open to all attendees. The late morning and early afternoon sessions of the Fastener Task Group meeting on Wednesday will be limited to FTG members only. The steering group meetings on Monday will also be limited to members only, with the exception of the afternoon session of the Industrial Steering Group, which will be open to all coordination-meeting attendees. For additional information regarding the MMPDS Industrial Steering Group and its current activities, go to [www.mmpds.org](http://www.mmpds.org).

### **Corrections to Minutes**

Corrections to the 2<sup>nd</sup> MMPDS Minutes are included immediately following this cover letter and schedule. The corrections cover omitted Item 02-27 Revision of Table 9.10.1 in Revised Chapter 9. Also included is corrected Table 9.10.1 as it will appear in MMPDS-01 and MIL-HDBK-5J.

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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, New Jersey

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

SRT/JGB/RCR/akm

**Schedule of Meetings for the 3<sup>rd</sup> MMPDS, and 11<sup>th</sup> ISG Coordination Meetings  
April 14 – 17, 2003 – Las Vegas, Nevada**

Time Period	Monday		Tuesday	Wednesday			Thursday
	Steering Groups		Guidelines Task Groups	Materials Task Groups			General Coordination
8:30am – 10:00	<b>11<sup>th</sup> ISG*</b> (ISG 2003 members only)		<b>SWG*</b> (Open)	<b>MTG*</b> (Open)	<b>Joint FIWG/FTG</b> (Open)		<b>GCC*</b> (Open)
10:00 – 10:15	Break				<b>Break</b>		
10:15 – 12:00	<b>GSG</b> (Members only)	<b>11<sup>th</sup> ISG*</b> (ISG 2003 members only)			<b>FIWG</b> (Members only)	<b>FTG</b> (Members only)	
12:00pm – 1:15	Lunch Break (individual responsibility)						
1:15 – 3:00	<b>11<sup>th</sup> ISG</b> (Open)		<b>GTG*</b> (Open)	<b>MTG</b> (Open)	<b>FIWG</b> (Members only)	<b>FTG</b> (Members only)	
3:00 – 3:15	Break			<b>Break</b>			
3:15 – 4:30	<b>Joint ISG/GSG</b> (Open)			<b>LAMWG</b> (Open)	<b>Joint FIWG/FTG</b> (Open)		
4:30 – 5:00	<b>ASG</b> (Members only)						

\* Catered break during meeting,

ISG - Industrial Steering Group  
 GSG - Government Steering Group  
 GTG - Guidelines Task Group  
 FIWG - Fastener Industry Working Group  
 LAMWG - Laser Additive Manufacturing Working Group

ASG - Airframer Steering Group  
 SWG - Statistics Working Group  
 MTG - Materials Task Group  
 FTG - Fastener Task Group  
 GCC - General Coordination Committee

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**Corrections to  
Minutes of the 2<sup>nd</sup> MMPDS and 102<sup>nd</sup> MIL-HDBK-5  
Coordination Meeting**

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## MINUTES OF THE 2<sup>ND</sup> MMPDS AND 102<sup>ND</sup> MIL-HDBK-5 COORDINATION MEETINGS

Item 02-27      **Revision of Table 9.10.1 in Revised Chapter 9. (MTG)** This new item was defined at the 2<sup>nd</sup> MMPDS meeting when reviewing Item 98-7, which addressed the complete restructuring of Chapter 9 to improve its usability. J. Hjelm, FAA, raised a concern about the possible misuse of Table 9.10.1 (Table 9.6.4.1 in MIL-HDBK-5H), which includes one-sided tolerance limit factors for the normal distribution. In years past, when design allowables were computed based on the normal distribution this table was of major importance. However, in recent years, as normal analysis procedures have been replaced by more sophisticated Pearson and Weibull analysis procedures, this table of ‘k’ factors has reduced in importance and relevance. In fact, its primary intended purpose at present is to support the definition of S-basis minimum properties on new materials (see Section 9.4 of MMPDS-01). This table of ‘k’ factors is not intended for use to calculate ‘official’ A- and B-basis design properties, because the normal distribution does not account for skewness, and many aircraft alloys display skewed strength distributions. In particular, it is not intended for the calculation of A- and B-basis design properties on very small sample sizes (less than 30 observations).

Therefore, it was agreed that Table 9.10.1 should be modified to eliminate ‘k’ factors for sample sizes less than 30. It was also agreed that some kind of cautionary note should be added to the table, to discourage its usage for calculation of A- and B-basis design properties. A draft modification of the table was prepared and reviewed by the FAA and AF. After several iterations, the version included with these minutes was adopted and incorporated into MMPDS-01.

Action: Item approved and closed. (New items that have not been included in a coordination meeting agenda package or prior meeting are not normally approved at that meeting. However, in special situations where the matter is considered urgent, that traditional requirement may be waived and the item placed on a “fast track” review and approval cycle.)

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**MINUTES OF THE 2<sup>ND</sup> MMPDS AND 102<sup>ND</sup> MIL-HDBK-5  
COORDINATION MEETINGS**

**Changes and Additions for MMPDS and MIL-HDBK-5J Approved at the 2<sup>nd</sup>  
MMPDS and 102<sup>nd</sup> MIL-HDBK-5 Meeting**

<b>Item No.</b>	<b>Item</b>	<b>Backup Report</b>	<b>Final Revision</b>	<b>Disposition of Item</b>
02-21	Update of Government MIL Specifications	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-22	A- and B-Basis Properties for Custom 465 H950 & H1000 Bars, Wires, and Forgings	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
00-06	A- and B-Basis Properties for 2297-T87 Plate	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Handout	Closed
01-09	Derived Properties for 2297-T87	102 <sup>nd</sup> Agenda & Handout	102 <sup>nd</sup> Minutes	Closed
01-15	S-Basis Properties for 7055-T76511 Aluminum Extrusions	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-10	Design Minimum Properties for 7055-T74511 Extrusions	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-16	A- and B-Basis Properties for 7050-T7651 Aluminum, 1.0-1.5 Inch Thick Plate	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-28	Shear Modulus correction of Ti-6-4	102 <sup>nd</sup> Handout	102 <sup>nd</sup> Handout	Closed
02-29	Additional Stress-Strain Curves for Haynes 230	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Minutes	Closed
02-26	Update and Expansion of Table 9.6.4.7 (Table 9.10.6 in revised Chapter 9)	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Minutes	Closed
98-7	Complete Restructuring of Chapter 9 Guidelines to Improve Usability	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda and Minutes	Closed
99-27	Revised Analytical Techniques for Analysis of Fastened Joints	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
00-13	Rewrite of Section 9.4 Properties of Joints and Structures	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda and Minutes	Closed
01-06	Historical Review of MIL-HDBK-5 Round-off Procedures	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-24	Addition of References for the Pearson Type III Distribution	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Agenda	Closed
02-25	Corrections to Table 9.6.4.4	102 <sup>nd</sup> Agenda	102 <sup>nd</sup> Minutes	Closed
02-27	Revision of Table 9.10.1 in Revised Chapter 9	102 <sup>nd</sup> Minutes	102 <sup>nd</sup> Minutes	Closed

**MINUTES OF THE 2<sup>ND</sup> MMPDS AND 102<sup>ND</sup> MIL-HDBK-5  
COORDINATION MEETINGS**

**New Agenda Item Numbers Assigned in 2002**

- Item 02-01 Design Properties for Custom 465 in the H950 & H1000 Conditions (Ch. 2)
- Item 02-02 Reduced Beryllium Replacement for D357-T6 (Ch. 3)
- Item 02-03 Reduced Beryllium Replacement for A357-T6 (Ch. 3)
- Item 02-04 A- and B-Basis Properties for 2026-T3511 Aluminum Alloy Extrusions (Ch. 3)
- Item 02-05 T99 Values for 7075-T73 & T7352 (Ch. 3)
- Item 02-06 Effect of Exposure at Elevated Temperature curves (Ch. 3)
- Item 02-07 Correlative Information Correction for Figure 3.7.8.1.8(c), 7175-T73511 Extrusion (Ch. 3)
- Item 02-08 Mechanical Properties for Ti-6.5Al-3V-2Fe-2Mo Titanium Bar (Ch. 5)
- Item 02-09 Derived Properties for Ti-6.5Al-3V-2Fe-2Mo Titanium Sheet (Ch. 5)
- Item 02-10 Design Minimum Properties for 7055-T74511 Aluminum Extrusions (Ch. 3)
- Item 02-11 Full Range Stress Strain Curves for 2024-T3/Aramid Fiber Laminate (Ch. 7)
- Item 02-12 Update of Fastener Index and Editorial Correction of Fastener Summary Tables (Ch. 8)
- Item 02-13 Correction to Yield Strength Value in Table 8.1.3.2.1(f) Covering Design Allowables for MS20601AD Rivets (Ch. 8)
- Item 02-14 Design Minimum Properties for 7150-T77511 Extruded Wide Panels (Ch. 3)
- Item 02-15 A- and B-Basis Design Minimums for Ti-6Al-4V Plate (Ch. 5)
- Item 02-16 A- and B-Basis Properties for 7050-T7651 Aluminum, 1.0-1.5 Inch Thick Plate (Ch. 3)
- Item 02-17 Addition of Stress-Strain Curves for Haynes 230 Plate (Ch. 6)
- Item 02-18 Testing Direction for Die Forging (Ch. 9)
- Item 02-19 Commonly Used Formulas (Ch.1)
- Item 02-20 Reconsideration of Item 97-9. Static Joint Strength of HC3214 Blind Flush Head Rivets in Clad 2024 Sheet (Ch. 8)
- Item 02-21 Update of Government MIL Specifications (Ch. 2, 3, 4, & 5)
- Item 02-22 A- and B-Basis Properties for Custom 465 H950 & H1000 Bars, Wires, and Forgings (Ch.2)
- Item 02-23 Stress Strain Curves for Haynes 230 alloy (Ch. 6)

**MINUTES OF THE 2<sup>ND</sup> MMPDS AND 102<sup>ND</sup> MIL-HDBK-5  
COORDINATION MEETINGS**

**New Agenda Item Numbers Assigned in 2002 (Continued)**

- Item 02-24 Addition of References for the Pearson type III Distribution. (Ch. 9)
- Item 02-25 Corrections to Table 9.6.4.4 (Ch. 9)
- Item 02-26 Update and Expansion of Table 9.6.4.7 (Table 9.10.6 in revised Chapter 9). (Ch. 9)
- Item 02-27 Revision of Table 9.10.1 in Revised Chapter 9. (Ch. 9)
- Item 02-28 Shear Modulus Correction of Ti-6-4. (Ch. 5)
- Item 02-29 Additional Stress-Strain Curves for Haynes 230

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**MMPDS-01**  
**1 February 2003**

**Table 9.10.1. One-Sided Tolerance Limit Factors<sup>a</sup>, k, for the Normal Distribution, 0.95 Confidence, and n-1 Degrees of Freedom**

Note: These P values should only be used for substantiation of S-basis minimum properties (see Section 9.4). Weibull, Pearson, or nonparametric procedures should be used when calculating  $T_{90}$  and  $T_{99}$  values to determine A- and B-basis minimum static properties (see Section 9.5).

n	P = 0.99	n	P = 0.99	n	P = 0.99	n	P = 0.99
30	3.064						
31	3.048	61	2.802	91	2.704	121	2.648
32	3.034	62	2.798	92	2.701	122	2.646
33	3.020	63	2.793	93	2.699	123	2.645
34	3.007	64	2.789	94	2.697	124	2.643
35	2.995	65	2.785	95	2.695	125	2.642
36	2.983	66	2.781	96	2.692	126	2.640
37	2.972	67	2.777	97	2.690	127	2.639
38	2.961	68	2.773	98	2.688	128	2.638
39	2.951	69	2.769	99	2.686	129	2.636
40	2.941	70	2.765	100	2.684	130	2.635
41	2.932	71	2.762	101	2.682	131	2.634
42	2.923	72	2.758	102	2.680	132	2.632
43	2.914	73	2.755	103	2.678	133	2.631
44	2.906	74	2.751	104	2.676	134	2.630
45	2.898	75	2.748	105	2.674	135	2.628
46	2.890	76	2.745	106	2.672	136	2.627
47	2.883	77	2.742	107	2.671	137	2.626
48	2.876	78	2.739	108	2.669	138	2.625
49	2.869	79	2.736	109	2.667	139	2.624
50	2.862	80	2.733	110	2.665	140	2.622
51	2.856	81	2.730	111	2.663	141	2.621
52	2.850	82	2.727	112	2.662	142	2.620
53	2.844	83	2.724	113	2.660	143	2.619
54	2.838	84	2.721	114	2.658	144	2.618
55	2.833	85	2.719	115	2.657	145	2.617
56	2.827	86	2.716	116	2.655	146	2.616
57	2.822	87	2.714	117	2.654	147	2.615
58	2.817	88	2.711	118	2.652	148	2.613
59	2.812	89	2.709	119	2.651	149	2.612
60	2.807	90	2.706	120	2.649	150	2.611

**MMPDS-01**  
**1 February 2003**

**Table 9.10.1. One-Sided Tolerance Limit Factors<sup>a</sup>, k, for the Normal Distribution, 0.95 Confidence, and n-1 Degrees of Freedom (concluded)**

Note: These P values should only be used for substantiation of S-basis minimum properties (see Section 9.4). Weibull, Pearson, or nonparametric procedures should be used when calculating T<sub>90</sub> and T<sub>99</sub> values to determine A- and B-basis minimum static properties (see Section 9.5).

n	P = 0.99	n	P = 0.99	n	P = 0.99	n	P = 0.99
151	2.610	176	2.587	205	2.566	330	2.512
152	2.609	177	2.587	210	2.563	340	2.509
153	2.608	178	2.586	215	2.560	350	2.506
154	2.607	179	2.585	220	2.557	360	2.504
155	2.606	180	2.584	225	2.555	370	2.501
156	2.605	181	2.583	230	2.552	390	2.496
157	2.604	182	2.583	235	2.549	400	2.494
158	2.603	183	2.583	240	2.547	425	2.489
159	2.602	184	2.581	245	2.544	450	2.484
160	2.601	185	2.580	250	2.542	475	2.480
161	2.600	186	2.580	255	2.540	500	2.475
162	2.600	187	2.579	260	2.537	525	2.472
163	2.599	188	2.578	265	2.535	550	2.468
164	2.598	189	2.577	270	2.533	575	2.465
165	2.597	190	2.577	275	2.531	600	2.462
166	2.596	191	2.576	280	2.529	625	2.459
167	2.595	192	2.575	285	2.527	650	2.456
168	2.594	193	2.575	290	2.525	675	2.454
169	2.593	194	2.574	295	2.524	700	2.451
170	2.592	195	2.573	300	2.522	750	2.447
171	2.592	196	2.572	305	2.520	800	2.443
172	2.591	197	2.572	310	2.518	850	2.439
173	2.590	198	2.571	315	2.517	900	2.436
174	2.589	199	2.570	320	2.515	1000	2.430
175	2.588	200	2.570	325	2.514	∞	2.326

a The following equations may be used to compute k factors in lieu of using table values:

$$k_{99} = 2.326 + \exp [1.34 - 0.522 \ln(n) + 3.87/n]$$

$$k_{90} = 1.282 + \exp [0.958 - 0.520 \ln(n) + 3.19/n]$$

These approximations are accurate to within 0.2% of the table values for n greater than or equal to 30.

**Agenda Items  
for  
3<sup>rd</sup> MMPDS Coordination Meeting  
in Las Vegas, NV  
April 14-17, 2003**

**CHAPTER 1. GENERAL**

- No Item No.     **AMS Coordination. (GCC)** J. Jackson, Battelle will provide a status report of draft AMS specifications and current AMS specifications being revised. The spring AMS meeting will be held the week prior, April 7-11<sup>th</sup> in Reno, NV.
- No Item No.     **Meetings of Potential Interest to MMPDS Coordination Members. (GCC)** R. Rice, Battelle, will review the enclosed list of meetings. Note that the current list also contains relevant technical society websites.
- No Item No.     **Special Presentation. (ISG & SWG)** C. Davies, FAA Technical Center, will give a special presentation Monday afternoon during the joint GSG/ISG open session on Current and Pending MIL-HDBK-17 Statistical Analysis Methods and Data Requirements. C. Davies and R. Rice will also lead a discussion Tuesday morning in the SWG on future interaction/collaboration between the MIL-HDBK-17 and MMPDS subcommittees responsible for statistical guidelines development.
- No Item No.     **Special Presentation. (ISG & GTG)** A. Quilter, ESDU, will give a special presentation on Monday afternoon during the open session of the ISG on Overview of The Metallic Materials Data Handbook (ESDU 932). A. Quilter and R. Rice will also lead a discussion on Tuesday afternoon in the GTG on whether there is a need for resolution of any of the differences in the guidelines of MMPDS and ESDU 932.
- No Item No.     **Special Presentation. (MTG)** (Speaker TBA) A special presentation will be given Wednesday morning in the MTG on New Alloys, Tempers, and Product Forms of Interest to the European Aircraft and Aerospace Community.
- No Item No.     **Special Presentation. (ISG & GCC)** J. Bakuckas, FAA Technical Center, will give a special presentation on Monday afternoon during the open session of the ISG on the MMPDS Management Plan. J. Bakuckas will also give an abbreviated version of this presentation on Thursday morning during the GCC.
- No Item No.     **Special Presentation. (GCC)** R. Yarges, FAA Transport Airplane Directorate (TAD), will give an update on the current 25.613 rulemaking activity, which addresses revised requirements for material strength properties and design values for transport airplanes.
- No Item No.     **Special Presentation. (LAMWG)** R. Rice will give a special presentation after the break Wednesday afternoon on Statistical Analysis of LAM Ti-6Al-4V Static Strength Properties. Although not currently formalized for this agenda, other LAMWG participants will also give technical presentations on recent efforts to develop design allowable properties for LAM material.

- No Item No. **Government Steering Group. (GSG)** J. Bakuckas will provide a GSG status report at the GCC meeting on Thursday morning. He will also give a brief presentation on the MMPDS management plan. A closed meeting of the GSG will be held Monday, April 14, beginning at 1:00pm.
- No Item No. **Airframer Steering Group. (ASG)** J.T. Amin, Lockheed, will provide a ASG status report at the GCC meeting on Thursday morning. A brief closed meeting of the ASG will be held at approximately 4:30pm on Monday afternoon, following adjournment of the ISG/GSG joint meeting. The ASG will review the guideline proposal included in the agenda package under Item 94-26, "Production Methods and Their Impact on Design Allowables". The ASG will also review the No Item No., "Review of Currency of Existing Database on Legacy Alloys". They will review the acceptability of both items from the standpoint of the participating aircraft manufacturers.
- No Item No. **Industrial Steering Group. (GCC)** R. Rice will give a status report at the GCC meeting on current ISG-supported technical activities. The 11<sup>th</sup> ISG meeting will be held on Monday, April 14<sup>th</sup>. The morning session will be limited to representatives of ISG 2003 member companies. However, the afternoon session will be open to other Handbook coordination-meeting attendees who would like to attend. The preliminary agenda of the ISG meeting is included as an attachment.
- No Item No. **Guidelines Task Group. (GTG)** R. Rice will lead discussion of current Chapter 9 items in the Guidelines Task Group meeting, which will take place on Tuesday, April 15<sup>th</sup>. A copy of the GTG meeting agenda is attached.
- No Item No. **Materials Task Group. (MTG)** J. Jackson and R. Rice will lead discussion of new and continued materials items for Chapters 2 through 7 in the Materials Task Group meeting on Wednesday, April 16<sup>th</sup>. A copy of the MTG meeting agenda is attached.
- No Item No. **Statistics Working Group. (SWG)** R. Rice will lead discussion of new and continued statistics items at the Statistics Working Group meeting on Tuesday, April 15<sup>th</sup>. A copy of the SWG meeting agenda is attached.
- No Item No. **LAM Working Group. (LAMWG)** R. Rice and P. Kobryn, AFRL, will lead technical discussions at the Laser Additive Manufacturing Working Group, which will begin at 3:15pm on Wednesday, April 16<sup>th</sup>.
- No Item No. **Trademark Identification. (GTG)** J. Jackson will review the enclosed agenda item.
- No Item No. **Review of Currency of Existing Database on Legacy Alloys. (SWG & MTG)** R. Rice will review the enclosed agenda item.

## CHAPTER 2. STEEL ALLOYS

- No Item No. **Review of Shear Ultimate Strength Data Integrity for Steel Alloys in MMPDS. (MTG)** J. Jackson will review the enclosed brief agenda item.

## CHAPTER 3. ALUMINUM ALLOYS

- Item 00-10 **Reference for Weldability of Aluminum in Section 3.1.3.4. (MTG)** J. Jackson will review the enclosed item.
- Item 01-08 **Update Test Methods for Plane-Stress Fracture Toughness Data. (MTG)** R. Rice will give a status report on this item.
- Item 01-11 **A- and B-Basis Properties for 7250-T7451 Aluminum Alloy Plate. (MTG)** J. Jackson will provide a status report on this item. The AMS specification has been re-submitted to SAE to be sent to the ASC (Aerospace Council). Bearing and shear derived property data in the L orientation are still needed on this alloy.
- Item 01-16 **A- and B-Basis Tensile Properties for 7249-T76511 Aluminum Alloy Wide Extrusions. (MTG)** J. Jackson will provide a status report on this item. The AMS specification has been re-submitted to SAE to be sent to ASC. Needed LT shear and bearing data are being generated. If these data are supplied before March 24<sup>th</sup> a handout will be prepared and discussed covering the development of derived shear and bearing properties for this material.
- Item 02-02 **Reduced Beryllium Replacement for D357-T6. (MTG)** J. Jackson will review the enclosed agenda item. Alcoa has data that they will be supplying from various foundries.
- Item 02-03 **Reduced Beryllium Replacement for A357-T6. (MTG)** J. Jackson will review the enclosed agenda item.
- Item 02-14 **Design Minimum Properties for 7150-T77511 Extruded Wide Panels. (MTG)** J. Jackson will review the enclosed agenda item. This item was approved at the 101<sup>st</sup> MIL-5 meeting pending specification approval. AMS 4325 specification for this material was published January 22, 2003.
- No Item No. **Stress Strain Curves for 7055-T76511 Aluminum Extrusions. (MTG)** J. Jackson will present a handout item.
- No Item No. **A- and B-Basis Properties for 7055-T76511 Aluminum Extrusions. (MTG)** J. Jackson will present the enclosed agenda item which addressed extrusions from 0.500 to 3.000 inches thick. Revision A of AMS 4336 has been approved by SAE/AMS but still must be sent to ASC and be published before this item is approved.
- No Item No **Stress Strain Curves for 2297-T87 Plate. (MTG)** J. Jackson will review the enclosed agenda item.
- No Item No **Compression Properties for 2297-T87 Plate. (MTG)** J. Jackson will give a status report.
- No Item No. **A- and B-Basis Properties for 6013-T6. (MTG)** Material is produced under AMS-WW-700/6 and AMS-T-7081. S. Fantle, Boeing has requested data from Pechiney. Assuming the required additional data are received by 3/24, a handout will be prepared and reviewed on this item.

No Item No.     **Addition of S-Basis Minimum Properties for 7075-T76 and 7075-T7651x Extruded Rod, Bar, and Shapes for 1.00- to 4.00-Inch Thickness Range. (MTG)**  
R. Rice will present the enclosed agenda item..

#### **CHAPTER 4. MAGNESIUM ALLOYS**

No Chapter 4 agenda items or handouts currently planned.

#### **CHAPTER 5. TITANIUM ALLOYS**

Item 99-11     **A- and B-Basis Design Mechanical Properties for Ti-6-4 Castings. (MTG)** J. Jackson (static properties) and R. Rice (fatigue, crack growth, fracture toughness properties) will present the enclosed agenda item. AMS 4992 specification was published October, 2002.

No Item No.     **Expansion of Plane Strain Fracture Toughness Properties Included in Table 5.1.2.1.1 of MMPDS. (MTG)** R. Rice will review a handout on this item.

No Item No.     **Update Figure 5.4.1.2.7 for Ti-6Al-4V to Comply with Current Creep Property Guidelines. (MTG)** R. Rice will review a handout on this item.

No Item No.     **Mechanical Properties for Ti-6Al-4V Plate Produced by Electron Beam Melt. (MTG)** J. Jackson will review the enclosed agenda item.

No Item No.     **Review of Shear Ultimate Strength Data Integrity for Titanium Alloys in MMPDS. (MTG)** J. Jackson will review the enclosed agenda item.

No Item No.     **Consideration of Inclusion of Design Minimum Strength Properties in MMPDS for LAM Ti-6Al-4V Produced in Accordance with AMS 4999. (MTG)** R. Rice will give a special presentation based on the enclosed agenda item.

## CHAPTER 6. HEAT RESISTANT ALLOYS

- No Item No. **Reevaluation of Stress Rupture Analysis Displayed in Figures 6.3.10.1.7(a) and (b) of MMPDS-01. (MTG)** R. Rice will review a handout on this item.
- No Item No. **Update Figure 6.3.7.1.7 for Rene 41 to Comply with Current Creep Property Guidelines. (MTG)** R. Rice will review a handout on this item.
- No Item No. **Update Figure 6.4.1.1.7 for L-605 to Comply with Current Creep Property Guidelines. (MTG)** R. Rice will review a handout on this item.
- No Item No. **Review of Shear Ultimate Strength Data Integrity for A-286 Alloy in MMPDS. (MTG)** J. Jackson will present this brief agenda item.

## CHAPTER 7. MISCELLANEOUS ALLOYS AND HYBRID MATERIALS

No Chapter 7 agenda items or handouts currently planned.

## CHAPTER 8. STRUCTURAL JOINTS

- No Item No. **Fastener Task Group. (FTG)** N. Ontko, AFRL/MLSC will lead the FTG meeting, which will be held beginning at 8:30am on Wednesday, April 16<sup>th</sup>. The FTG meeting will be closed from 10:15am until at least 12:00 noon, possibly extending until the afternoon break. FIWG members will meet on their own during the FTG closed session, as noted below.
- No Item No. **Fastener Industry Working Group. (FIWG)** The FIWG will meet with the FTG on Wednesday, April 16<sup>th</sup>, with the exception of the closed FTG session noted above. The FIWG will meet separately during the closed FTG session, when they will independently discuss current and proposed new Chapter 8 items. The FIWG and FTG will meet concurrently at the close of the day to resolve any outstanding issues and to identify key FTG and FIWG action items for the next 6 months.
- No Item No. **Clarification of Note Usage in Table 8.1.2.1(c). (FTG)** R. Rice will review the enclosed agenda item.
- No Item No. **Possible Removal of Footnote in Table 8.1.3.1.2(n). (FTG)** R. Rice will review the enclosed agenda item.
- No Item No. **Collection and Analysis of New Fastener Data to Refine and Validate New Fastener Analysis Guidelines. (FTG)** R. Rice will lead the discussion on the enclosed agenda item.
- No Item No. **Incorporation and Implementation of a Sunset Clause for Mechanical Fasteners in MMPDS. (FTG)** R. Rice and N. Ontko will lead the discussion on this handout item.

## CHAPTER 9. GUIDELINES FOR THE PRESENTATION OF DATA

- Item 94-26      **Production Methods and Their Impact on Design Allowables. (GTG)** R. Rice will review the enclosed agenda item.
- Item 98-3      **Procedure for Analyzing Lower Tail Censoring. (SWG)** R. Rice will give a status report on this item.
- Item 01-01      **Regression for Skewed Data. (SWG)** R. Rice will review a handout on this item.
- Item 01-02      **Proposal to Change Backoff Limit to Percentage of Standard Deviation in the Sequential Weibull and Sequential Pearson Procedures. (SWG)** R. Rice will review this agenda item.
- Item 01-04      **Reevaluation of Statistical Procedures for Calculations of S-Basis Design Values. (SWG)** R. Rice will review a handout on this item.
- Item 01-05      **Revise Section 9.1.6.8 in Coordination with SAE/AMS. (GTG)** J. Jackson will provide a status report on this item.
- No Item No.    **Define Lower Bound Properties for Elongation. (SWG)** R. Rice will provide a status report on this item.
- No Item No.    **Determination of A- and B-Basis Allowables for Cases Where the Calculated  $T_{99}$  Value is Greater Than the Specification Minimum Value. (GTG)** R. Rice and S. Fantle will review a handout on this item.
- No Item No.    **Analysis and Presentation of Fatigue Crack Growth Data. (SWG)**  
R. Rice will present a handout on this item.
- No Item No.    **Modification of Guidelines Regarding Electronic Submission of Certification Data for Definition or Verification of Design Allowables. (GTG)** R. Rice will present a status report on this item.
- No Item No.    **Update and Addition of Example Problems in Chapter 9 Guidelines. (GTG)** R. Rice will review a handout on this item.
- No Item No.    **Calculation of Indirect Minimums. (GTG)** J. Jackson will present the enclosed agenda item.