



Minutes of the 33rd MMPDS Coordination Meeting

Held in:

Baton Rouge, Louisiana
March 26-29, 2019

Compiled by:

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33rd MMPDS Coordination Meeting

I. Introduction of Attendees

A list of 33rd Coordination Meeting attendees, indicating the meetings they attended, has been incorporated into this document.

II. Chairman's Remarks – Jim Kabbara, FAA

Thank you to all of those who participated in the 33rd MMPDS Coordination Meeting held in Baton Rouge, Louisiana. I would like to thank the Battelle team for organizing and managing the MMPDS week of activities.

My special thanks to Andrew Steevens and Pete Bittner for their effort on updating MMPDS Bylaws.

I would like also to thank Mark James of the FAA Small Aircraft office and Sam Corder of NASA for taking the lead on the Emerging Technology Working Group (ETWG). They are working on developing the content of Volume II of the MMPDS Handbook. This ETWG activity, in my opinion, is a significant undertaking that keeps the MMPDS a dynamic source of material information.

Again, thank you for attending the 33rd MMPDS Coordination Meeting. Your dedication to maintaining MMPDS as the premier source in the world for metallic material properties used in the design of aerospace structures is most appreciated. I look forward to seeing everyone at the 34rd MMPDS Coordination Meeting.

Thank you,
Jim Kabbara

III. Approval of the 32nd MMPDS Meeting Minutes

The 32nd MMPDS Coordination Meeting Minutes were approved,

33rd MMPDS Coordination Meeting Minutes

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New Item Numbers Assigned in 2019

19-01	Stabilization of Specifications and Other Specification Changes
19-02	Equivalent Rounds for Steel Alloys
19-03	Revision of Sunset Clause
19-04	Considerations for Certifying an AM Part
19-05	Derived Properties Requirement When Expanding Thickness Range in a Table
19-06	Identification of Forging Types for PH13-8 and MLX17
19-07	Identification of Response to Heat Treat Properties in MMPDS
19-08	One-Sample Equivalence Method
19-09	Removing Test Specification Version
19-10	Secondary Properties for 718 Bar per AMS 5662 and AMS 5663
19-11	Updates to Several Load Control Fatigue Figures
19-12	Clarify Minimum Content Requirements for Public Specifications - Section 9.2.2
19-13	Mechanical and Physical Properties of 2043-T85 Aluminum Alloy Extrusions
19-14	Clarification of Off-Axis Orientation
19-15	Update Section 9.4.1 "S-Basis Minimum Properties" to Include Censored Normal
19-16	Update Creep Curve Formats
19-17	Minimum Content Requirements for Public Specifications - Volume II
19-18	Addition of Stress-Strain Curves & Physical Properties for 7097-T7651 Plate
19-19	Consideration of a new Equivalent Stress model for Load-Controlled Fatigue
19-20	Data Requirements for Volume II
19-21	Determine Buckling Notes for Existing Figures With Dual-Shape Parameters
19-22	Develop a Heat-Normalized Approach for Strength vs. Temperature Analysis

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New Item Numbers Assigned in 2019

19-23 Review and Revise MMPDS Bylaws

19-24 Guidelines for Identification of Punch/Blanking Shear Properties

19-25 Guidelines for Derived Properties for Legacy Alloys

33rd MMPDS Coordination Meeting Minutes CHANGES TO MMPDS-15

Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
12-16	MTG	ASG/ MATSSG	Footnote for Steel When Test Specimen is Not From Full Thickness	Approved w Changes and Closed	The added sentence is approved with addition of 1.4.14 reference. D6AC should have these notes added as well.
15-34	GTG		Stress-Strain Curve Extension	Approved and Closed	Add new sections as proposed. Add procedure to Stress-Strain software tool
16-24	GTG		Guidelines for Modulus When Average Value is Insufficient	60 Day Approval	Agreed to proposed guidelines with addition of a footnote in tables showing the sample size, average, and standard deviation. Show final example in minutes.
16-30	MTG		AM-355 Stainless Steel in SCT850 Condition	Approved w Changes and Closed	Remove SCT850 column in Bar and forging and related figures, do not add AMS 5744
17-41	MTG		R-Curve for Alclad 2029-T8 Aluminum Alloy Sheet	Approved and Closed	Fig 3 in Agenda should be 2029-T8.
17-44	GTG		Clarification of Ten-Lot Minimum Requirement for Derived Properties	60 Day Approval	Approval with revised wording as follows, "A single lot of material cannot be split at heat treat simply to meet the 10-lot requirement as defined in Section 9.2.4.3."
18-07	FTG	WWG	Review of Inconsistencies in Table 8.2.2.1.2(d) for Spot-Weld Joints	Approved and Closed	Proposal removal of associated curves
18-24	MTG		Contemporary Tension and Compression Modulus Data for Ti-6Al-4V Annealed Sheet	Approved w Changes and Closed	Item 16-24 footnotes are the changes
19-01	MTG		Stabilization of Specifications and Other Specification Changes	Approved and Closed	No changes from proposed
19-02	GTG		Equivalent Rounds for Steel Alloys	Approved and Closed	Proposed text approved as shown.
19-06	MTG		Identification of Forging Types for PH13-8 and MLX17	Approved w Changes and Closed	Approved with changes noted in Handout.
19-09	GTG		Removing Test Specification Version	Approved and Closed	Text approved as proposed.
19-11	MTG		Updates to Several Load Control Fatigue Figures	Approved and Closed	Check significant digits to assure that proposed 3 decimal places for equations is appropriate compared to 1 in previous results
19-12	GTG		Clarify Minimum Content Requirements for Public Specifications - Section 9.2.2	Approved and Closed	Option 2: Was approved to Replace sections 9.2.2 and 9.2.2.1 with single section as shown.
19-15	GTG		Update Section 9.4.1 "S-Basis Minimum Properties" to Include Censored Normal	Approved and Closed	Text approved as proposed.

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CLOSED AGENDA ITEMS

Item No	Title	Action	33rd Meeting Minutes
10-13	Wrought Steels S-Basis Summary	Closed w no Action	ASG recommended close with no action which was agreed.
12-16	Footnote for Steel When Test Specimen is Not From Full Thickness	Approved w Changes and Closed	The added sentence is approved with addition of 1.4.14 reference. D6AC should have these notes added as well.
14-61	Update Creep Guidelines	Closed w no Action	Close with no action. Not enough interest at this time.
15-34	Stress-Strain Curve Extension	Approved and Closed	Add new sections as proposed. Add procedure to Stress-Strain software tool
16-24	Guidelines for Modulus When Average Value is Insufficient	60 Day Approval	Agreed to proposed guidelines with addition of a footnote in tables showing the sample size, average, and standard deviation. Show final example in minutes.
16-30	AM-355 Stainless Steel in SCT850 Condition	Approved w Changes and Closed	Remove SCT850 column in Bar and forging and related figures, do not add AMS 5744
17-41	R-Curve for Alclad 2029-T8 Aluminum Alloy Sheet	Approved and Closed	Fig 3 in Agenda should be 2029-T8.
17-44	Clarification of Ten-Lot Minimum Requirement for Derived Properties	60 Day Approval	Approval with revised wording as follows, "A single lot of material cannot be split at heat treat simply to meet the 10-lot requirement as defined in Section 9.2.4.3."
18-07	Review of Inconsistencies in Table 8.2.2.1.2(d) for Spot-Weld Joints	Approved and Closed	Proposal removal of associated curves
18-11	Stress-Strain Curves for 2050-T852 Aluminum Alloy Die Forging 4.000-6.000 inch	Closed w no Action	
18-16	Full-Range Stress-Strain Curves for 2050-T852 Aluminum Alloy Die Forging	Closed w no Action	
18-19	Legacy Confirmation for Ti-6-4 Investment Castings per AMS4992	Closed w no Action	Move to Item 10-14
18-20	Upgrade S-Basis to A- and B-Basis 7075-T76, T7651 Bare and Clad Sheet and Plate	Closed w no Action	Move to Item 10-14
18-24	Contemporary Tension and Compression Modulus Data for Ti-6Al-4V Annealed Sheet	Approved w Changes and Closed	Item 16-24 footnotes are the changes

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CLOSED AGENDA ITEMS

Item No	Title	Action	33rd Meeting Minutes
19-01	Stabilization of Specifications and Other Specification Changes	Approved and Closed	No changes from proposed
19-02	Equivalent Rounds for Steel Alloys	Approved and Closed	Proposed text approved as shown.
19-06	Identification of Forging Types for PH13-8 and MLX17	Approved w Changes and Closed	Approved with changes noted in Handout.
19-07	Identification of Response to Heat Treat Properties in MMPDS	Closed w no Action	Information is already included in Section 1.4.14.
19-09	Removing Test Specification Version	Approved and Closed	Text approved as proposed.
19-11	Updates to Several Load Control Fatigue Figures	Approved and Closed	Check significant digits to assure that proposed 3 decimal places for equations is appropriate compared to 1 in previous results
19-12	Clarify Minimum Content Requirements for Public Specifications - Section 9.2.2	Approved and Closed	Option 2: Was approved to Replace sections 9.2.2 and 9.2.2.1 with single section as shown.
19-15	Update Section 9.4.1 "S-Basis Minimum Properties" to Include Censored Normal	Approved and Closed	Text approved as proposed.
19-16	Update Creep Curve Formats	Approved and Closed	Approved to clean up figures as proposed. Not shown in minutes

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FINAL MINUTES AGENDA ITEM SUMMARY

Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
03-14	MTG	ASG	Review of Currency of Existing Database on Legacy Alloys	Continue	7475 T7351 Plate has Corus(2004),Aleris(2015) but these are same company now. Jay will try to get Arconic data for this item. This item number will be tracked under Maintenance Category.
04-21	FTG		Fastener Tables of Sunset Review Interest	Continue	This item number will be tracked under Maintenance Category.
08-23	FTG		Sunset Review of Table 8.1.3.2.2(c), NAS1921C	Continue	
09-13	FTG		Sunset Review of Table 8.1.3.2.3(a), MS21140	Continue	
10-13	MTG	ASG	Wrought Steels S-Basis Summary	Closed w no Action	ASG recommended close with no action which was agreed.
10-14	MTG	ASG	Wrought Aluminum Alloys with S-Basis Minimums	Continue	This item number will be tracked under Maintenance Category.
10-15	MTG		Mechanical Properties for Aluminum Alloy Forgings	Continue	This item number will be tracked under Maintenance Category.
10-17	MTG		Re-evaluate Legacy Alloy Stress-Strain Curves in Chapter 3	Continue	Group agreed with proposal to remove Tables 3.1.2.1.4(a) & (b) and to identify figures either in caption or in the Figure with n1=NA, n2=NA where the dual shape was evaluated and did not fit. May either use this item or close and open new item for all Handbook. A new proposal will be made at the Fall meeting
10-25	GTG-F	FTG	Fastener Installation Parameters for Joint Tension Allowables	Continue	N. Anderson to send Word version to Battelle
11-05	MTG		AMS Coordination	Continue	General agreement to continue including summary of AMS spec changes as part of minutes. This item number will be tracked under Maintenance Category.
11-15	MTG		Division of Low Alloy Steel Table 2.3.1.0(g2)	Continue	Targeting for Fall meeting
11-38	FTG		Sunset Review of Flush Head, Mechanical Lock Spindle Blind Rivet Table 8.1.3.2.2(e)	Continue	
11-43	FTG		Supporting Data and Basis Identification for Table 8.1.2(b)	Continue	No effort at this time
12-105	GTG-F	FTG	Modification to the Sunset Criteria Procedures	Continue	
12-16	MTG	ASG/ MATSSG	Footnote for Steel When Test Specimen is Not From Full Thickness	Approved w Changes and Closed	The added sentence is approved with addition of 1.4.14 reference. D6AC should have these notes added as well.
12-17	MTG	MATSSG	Footnote for Non-Ferrous Alloys Test Specimen When Not From Full Thickness	Continue	Need to determine appropriate alloys applicable but once done the same notes as approved for 12-16 will be applied.
12-50	GTG-F	FTG	Evaluation of new Regression and Confidence Models for Lap Joint Tests	Continue	
12-52	GTG-F	FTG	Fastener Minimum t/D Requirements	Continue	FTG members will read the 1945 paper. The topic will be revisited in a telecom so that a proposal can be prepared for the Fall meeting. BMI will contact the publisher and ask for a "clean" copy of the paper; the figures are difficult to read. Review the need for consistency of t/D >0.18 vs. t/D > 0.25

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Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
12-89	GTG	PSG	Target Materials for Propulsion Applications	Continue	Will continue discussion at the next meeting.
13-34	MTG		Addition of AMS 4919 Ti-6-2-4-2 Plate Properties	Continue	ATI data received. Still awaiting AFRL and Arconic data. AFRL data is primarily fatigue data. Will need secondary properties as well.
13-50	GTG		ASTM Coordination	Continue	This item number will be tracked under Maintenance Category.
14-19	GTG		Inclusion of KIsI Fracture Toughness Data	Continue	ASTM is still working on specification.
14-24	MTG		Identification of Stress-Strain Curves Which Have Been Evaluated for 2-Shape Factor for Chapters 4-7	Continue	Group agreed with proposal to remove Tables 3.1.2.1.4 as discussed in Item 10-17 using same action, indicating if dual parameters evaluated in the figure or caption. There will be a new proposal for the Fall Meeting
14-28	FTG		Sunset Review of Table 8.1.4.2(i), LGPL2SC-V Pin, 3SLC-C Collar in Clad 7075-T6	Continue	
14-61	GTG	PSG	Update Creep Guidelines	Closed w no Action	Close with no action. Not enough interest at this time.
14-62	GTG		Evaluate Inclusion of other Fracture Toughness Data (JIC, KJIC)	Continue	Doug Hall to send latest version to Doug Wells for comments.
14-66	MTG		Addition of 15-5PH Sheet S-Basis per AMS 5862 for H1025 Condition	Continue	Waiting for final temper data as we currently just have response to heat treat.
14-67	MTG		Addition of 3-6 Inch Range for 7075-T73X Bar and Rod per AMS 4124	Continue	Waiting on data. Will need secondary daa.
15-13	MTG	ISG & GSG	Clarification of Shear Orientation for Legacy Alloys	Continue	Investigation of this 7075 and 7475 bare and clad alloy is complete and it is understood what was originally done but this remains open as additional alloys are evaluated. Two new GTG guideline items will be opened for the overall issues of how to handle punch shear (L-LT) and legacy testing with fewer tests than currently required in MMPDS. For 7075-T7352, the Fsu for <2.000 inch will be removed. Fsu test orientations will be added and test spec footnoted as per agenda.
15-19	GTG-F	FTG	Verification of Secondary Modulus Methods for Fasteners	Continue	No effort at this time
15-34	GTG		Stress-Strain Curve Extension	Approved and Closed	Add new sections as proposed. Add procedure to Stress-Strain software tool
15-36	GTG	ISG & GSG	Modification of Indirect Analysis Equation	Continue	Current method leads to wide variability compared to direct method. May need to keep indirect method in as it is referenced in Chapter 1 for looking at extrusion properties in non-primary leg. Would like to find a correlation that allows justification to keep secondary properties as A/B-Basis. B. Krill will continue working on this problem and prepare an agenda item for the Fall Meeting.
15-38	GTG		Reevaluation of Degrees of Freedom Calculation for Regression with Effect of Temperature	Continue	

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FINAL MINUTES AGENDA ITEM SUMMARY

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	Final	Initial			
15-40	GTG	ASG/MA TSSG	Guidelines for When Specimens Are Not From Full Thickness	Continue	Need to accurately reflect what is tested. ASG would like future designs to reflect what the designers need. Suggest a Max. Thickness for Solution Treated row and a row for Aged Thickness. Battelle to initiate calls with working group identified in previous meeting.
15-42	MTG		Casting Allowables for 15-5PH and 17-4PH steel	Continue	
16-02	GTG		Updates to Strain Departure Methods for Stress-Strain Curve Analyses	Continue	Need to confirm the proportional limit in step 1. Make sure the software is doing what is described. Step 5 (current)
16-12	FTG		Identifying Basis of Fastener Shear Strength on Remaining Tables	Continue	No effort at this time
16-13	FTG		Corrections to Table 8.1.3.2.2(c) NAS 1921C	Continue	
16-15	GTG	ETWG	Emerging Technology Working Group	Continue	Minutes are included. Elevated from a Working Group to a Task Group. New name of Emerging Technologies Task Group (ETTG). This item number will be closed.
16-20	GTG	ETWG	Equivalence Testing Assuming Change in Process (From Item 11-40)	Continue	This is the 2 sample test for Vol II (additive).
16-23	GTG	PSG	Re-evaluate Guidelines for Effect of Temperature Curves	Continue	Will continue discussion at the next meeting.
16-24	GTG		Guidelines for Modulus When Average Value is Insufficient	60 Day Approval	Agreed to proposed guidelines with addition of a footnote in tables showing the sample size, average, and standard deviation. Show final example in minutes.
16-29	GTG	ASG	Review of Section 1.4.7 Bearing Properties	Continue	Prepare fall agenda. ASG did not have any changes.
16-30	MTG		AM-355 Stainless Steel in SCT850 Condition	Approved w Changes and Closed	Remove SCT850 column in Bar and forging and related figures, do not add AMS 5744
16-36	GTG-F	FTG	Use of T99 as A-Basis When Higher than Specification for Fastener Shear and Tension	Continue	Contact M. Tefend to check on the status of the Cherry Table data. The curves suggest that the fasteners used in the test might have been stronger, influencing how the tri-linear curve should be shifted down. Check nominal hole diameters on the other three tables. There seem to be incompatible hole vs. rivet diameter numbers
16-37	GTG-F	FTG	Chapter 1 Guidelines on Fastener Design Allowable Usage	Continue	No effort at this time
16-40	MTG		Estimated Values in Table 7.3.2.0(c) Copper Beryllium Strip	Continue	Review the three remaining tables.
16-41	GTG		Update Static Property Examples in Section 9.8.1	Continue	Attendees asked to review handout and provide feedback over the next couple months. Feedback will be incorporated, and an
17-09	MTG		Fatigue Curves for 2099-T83 Extrusion	Continue	An agenda will be prepared for Fall meeting.
17-10	MTG		Fatigue Curve for 2099-T81 Extrusion	Continue	An agenda will be prepared for Fall meeting.
17-19	MTG		Addition of Transverse Bearing Strength Properties for Custom 465 Bar	Continue	Data has been requested. Arvind said he will provide data.
17-23	GTG		Legacy Alloy Review Strategy – Near Term	Continue	On Hold for x years
17-25	GTG		Re-evaluation of Reduced Ratio Sample Size Determination	Continue	Waiting for resolution of Item 15-36

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Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
17-26	GTG	/MATSSG/	Guidelines for Generation and Use of A/B Allowables for Castings	Continue	Roger Reinmuller, Leslie Steele & Bruce Thomas will work on definitions of prolongations. S. Thompson suggested data should be some % of parts. For first bullet change from "production castings OR integrally cast" to "AND". Going forward, requirement that castings are only S-basis until actual part data are received. This would not include current agreements for step-castings. J. Bennet does not want S-basis castings with step castings. Revise - "For large castings...", to say that does not have to have 1/lot. Suggested to change to periodic first article. E. Heckman asked for defining of "large" casting. Clarification of AMS spec requirements that this is a guidance to suppliers in drafting their specifications.
17-28	GTG-F	FTG	Consideration of Origin in Multiple Regression Analysis for Joint Allowables	Continue	
17-29	GTG-F	FTG	Replacement of T90 Yield Curve with a Multiple-Regression Typical Yield Curve for Joint Allowables	Continue	
17-30	GTG-F	FTG	Revision of Table Format for Joint Allowables	Continue	
17-31	FTG		Sunset Shear Strength Rule Criteria Addition	Continue	
17-32	GTG-F	FTG	Edit Table 8.1.5.1	Continue	No effort at this time
17-33	GTG	PSG	Alternative Fitting Function for Effect of Temperature Data	Continue	On hold until data needing this method are received.
17-34	GTG	SSWG	Guidelines for Rejection of Stress-Strain Curves from Parametric Analysis	Continue	Would like feedback from this agenda to prepare item for Fall. M. Hahn thinks the rejection criteria should be closer to 10%. Edwin clarify the modulus is a way to determine if the stress-strain data should be rejected. J. Rossi noted that sometimes the algorithm that picks the modulus is important.
17-41	MTG		R-Curve for Alclad 2029-T8 Aluminum Alloy Sheet	Approved and Closed	Fig 3 in Agenda should be 2029-T8.
17-44	GTG		Clarification of Ten-Lot Minimum Requirement for Derived Properties	60 Day Approval	Approval with revised wording as follows, "A single lot of material cannot be split at heat treat simply to meet the 10-lot requirement as defined in Section 9.2.4.3."
17-45	MTG		Effect of Temperature Curves for 2395-T84 Extrusion	Continue	
17-47	GTG-F	FTG	Clarification of Guidance for Normal/Censored Normal Analysis	Continue	Approved by FTG. A proposal will be prepared for the fall meeting to approve and close by GTG
17-52	GTG	FatWG	Review Section 9.6.1 - Load and Strain Control Fatigue	Continue	Agenda will be prepared for Fall meeting.
17-54	MTG		Inclusion of Properties for AMS 4221, 2124-T8151 Plate	Continue	Roger will check with Aero at Lockheed if they have data.
17-55	MTG	PSG	Supplemental Data for Ti-6-2-4-2 Forging	Continue	Will continue discussion at the next meeting.
17-56	MTG		FCG Analysis for 2397-T87 Plate	Continue	Data in hand.

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Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
17-58	MTG		How Casting Specification Work	Continue	L. Steele, R. Reinmuller, & B. Thomas will work this item.
17-61	GTG	FatWG	Revising R-curve Requirement in Table 9.2.4	Continue	Will continue discussion at the next meeting.
17-62	GTG	FatWG	Revising Fatigue Requirement in Table 9.2.4	Continue	Will continue discussion at the next meeting.
17-63	GTG	FatWG	Use of Box-Cox Transformation in the Fitting of Fatigue Data	Continue	Will continue discussion at the next meeting.
18-05	GTG	MATSSG	Data Quantities for Large Gage Ranges	Continue	Agenda will be prepared for Fall meeting.
18-06	GTG-F	FTG	Revision of Figure 9.3.4.4 Failure Codes for Fasteners	Continue	Symbols in the figure need to be modified to clarify allowables above shear cut-off. The figure is a legacy image.
18-07	FTG	WWG	Review of Inconsistencies in Table 8.2.2.1.2(d) for Spot-Weld Joints	Approved and Closed	Proposal removal of associated curves
18-08	MTG		718 Investment Cast (AMS5383) Addition of Tensile A/B-basis and Elevated Temperature	Continue	An agenda item will be prepared. Agreed that no Location is appropriate. The reduced ratios will be looked up to determine if they are based on sufficient data and for actual reduced ratios. Elevated temperature data will be added.
18-09	GTG	PSG	Update Creep Guidance in Chapter 1	Continue	Agenda will be prepared for Fall meeting.
18-10	GTG		Data Requirements for Forgings	Continue	Waiting for casting requirements
18-11	MTG		Stress-Strain Curves for 2050-T852 Aluminum Alloy Die Forging 4.000-6.000 inch	Closed w no Action	
18-13	GTG		Guidelines for Exclusion of Low Secondary Property Test Values	Continue	
18-14	MTG		Addition of A206.0-T4 and T71 Sand Casting Stress-Strain Curves, Physical Properties, and Fatigue Analyses	Continue	
18-16	MTG		Full-Range Stress-Strain Curves for 2050-T852 Aluminum Alloy Die Forging	Closed w no Action	
18-18	MTG	WWG	Update AMS-QQ-A-250/4 in Table 8.2.2.1.2(a) (MMPDS-13)	Continue	Remove spec column and add tempers, review footnotes, and would like to add an AWS reference if WWG can find.
18-19	MTG		Legacy Confirmation for Ti-6-4 Investment Castings per AMS4992	Closed w no Action	Move to Item 10-14
18-20	MTG		Upgrade S-Basis to A- and B-Basis 7075-T76, T7651 Bare and Clad Sheet and Plate	Closed w no Action	Move to Item 10-14
18-21	MTG		Upgrade S-basis to A/B-basis for 2219-T852 Aluminum Alloy Hand Forgings	Continue	Jana will go back to determine if extremely low values below spec minimum should have been excluded from analysis. Temper typo in table pp A107-A108, needs to be fixed. Should be T852 Can supplier be convinced to provide data for thicker than 8 inch for secondary. AMS 4144

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Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
18-22	MTG		Legacy Confirmation and Upgrade to A- and B-basis for 7075-T76511 Extrusion	Continue	Data analysis initiated. Multiple suppliers. Derived properties meet current guideline requirements. An agenda item will be prepared for the Fall meeting.
18-24	MTG		Contemporary Tension and Compression Modulus Data for Ti-6Al-4V Annealed Sheet	Approved w Changes and Closed	Item 16-24 footnotes are the changes
18-28	GTG		Using the Logarithm Transformation with MIDAS Analysis of Minimum Properties	Continue	No effort at this time
19-01	MTG		Stabilization of Specifications and Other Specification Changes	Approved and Closed	No changes from proposed
19-02	GTG		Equivalent Rounds for Steel Alloys	Approved and Closed	Proposed text approved as shown.
19-03	GTG-F	FTG	Revision of Sunset Clause	Continue	The proposal was discussed. Changes will be made and circulated. Add a list of reasons why a table would/would not be reviewed. A telecom will be held by May 31 to review the updated proposal. Make changes to get FTG approval so that a GTG item can be proposed at the Fall meeting.
19-04	GTG	ETWG	Considerations for Certifying an AM Part	Continue	Continue. See ETWG minutes.
19-05	GTG		Derived Properties Requirement When Expanding Thickness Range in a Table	Continue	R. Reinmuller gave a presentation illustrating problem associated with this item. Prepare agenda item proposing guideline requiring derived properties when a table is expanded.
19-06	MTG		Identification of Forging Types for PH13-8 and MLX17	Approved w Changes and Closed	Approved with changes noted in Handout.
19-07	GTG	MATSSG	Identification of Response to Heat Treat Properties in MMPDS	Closed w no Action	Information is already included in Section 1.4.14.
19-08	GTG		One-Sample Equivalence Method	Continue	A final agenda will be presented in the Fall meeting to add this to Chapter 1. Suggested this be called an acceptance test instead of equivalence test. Add comment that if material passes by a huge margin, some other property may have changed. Kelse suggested incorporating any margin.
19-09	GTG		Removing Test Specification Version	Approved and Closed	Text approved as proposed.
19-10	MTG		Secondary Properties for 718 Bar per AMS 5662 and AMS 5663	Continue	Awaiting data.
19-11	MTG		Updates to Several Load Control Fatigue Figures	Approved and Closed	Check significant digits to assure that proposed 3 decimal places for equations is appropriate compared to 1 in previous results
19-12	GTG		Clarify Minimum Content Requirements for Public Specifications - Section 9.2.2	Approved and Closed	Option 2: Was approved to Replace sections 9.2.2 and 9.2.2.1 with single section as shown.

33rd MMPDS Coordination Meeting Minutes
FINAL MINUTES AGENDA ITEM SUMMARY

Item No	Responsible		Title	Action	33rd Meeting Minutes
	Final	Initial			
19-13a	MTG	MATSSG	Mechanical and Physical Properties of 2043-T85 Aluminum Alloy Extrusions	Continue	The direct properties are approved and the derived properties also approved (14 votes yes and 8 voted no) with the caveat that if a new method for 15-36 is developed for the next meeting, the data will be reanalyzed with the new method to ensure the most conservative values are being approved. If a new method for Item 15-36 is not agreed up at the next meeting, derived properties will be accepted with engineering judgment and included in the next release.
19-13b	MTG		Mechanical and Physical Properties of 2043-T85 Aluminum Alloy Extrusions	Continue	Stress-strain curves by Bron have n1=2 values that are incorrect based on bug in software
19-14	GTG		Clarification of Off-Axis Orientation	Continue	It was requested that a figure be added to clarify orientation. J. Bennet will submit possible other nomenclature and figure if available. If nothing is available by fall this will be presented for approval
19-15	GTG		Update Section 9.4.1 "S-Basis Minimum Properties" to Include Censored Normal	Approved and Closed	Text approved as proposed.
19-16	GTG		Update Creep Curve Formats	Approved and Closed	Approved to clean up figures as proposed.