JAQG Special Process WG
Organization and Activities

JAQG Special Process Working Group
Akihiko Hotta (KHI), Leader

Nadcap Asia Symposium in Japan
31 Oct, 2011
Introduction and Explanation

- JAQG Organization
  (JAQG: Japanese Aerospace Quality Group)
- JAQG Special Process WG members
- Scope of the WG activities
- Detail Activities
- Reporting of the Activities
International Aerospace Quality Group

IAQG Council

IAQG General Assembly

20 Organization (SAE)

34 Organization (ASD)

13 Organization (SJAC)

SAE: Society of Automotive Engineers
ASD: Aerospace and Defense Industries Association of Europe
SJAC: Society of Japanese Aerospace Companies
Members of Special Process WG (FY2011)

The WG consists of the members from Japanese major airframe/engine/equipment companies.

- Akihiko Hotta (KHI) *(Leader)*
- Junji Tsuji (IHI)
- Yasushi Kakuda (FHI)
- Katsumi Nagasaki (MHI)
- Kunio Takimoto (MHI)
- Hiroaki Kakimoto (Shin Maywa)
- Tetsuo Taniguchi (Shimadzu)
- Yoshihisa Okafuji (Sumitomo Precision Products)
- Kazuhiko Kubo (Nabtesco)
- Koichiro Takeuchi (Mitsubishi Electric) *No Nadcap accreditation*

Support Members for the WG

- Yoshiomi Sukesada (Asahi Kinzoku Kogyo)
- Toshiyuki Serizawa (IHI)
Scope and Activities of the WG

• Scope:
The WG is supporting that Japanese suppliers acquire and maintain Nadcap accreditation.

• Detail Activities:

(1) AC Checklists translation
- Nadcap AC Checklists translated to Japanese, and posted on JAQG Web. (44 ACs posted as of today, 31 Oct 2011)
  (JAQG Web Site  http://sjac-jaqg.kir.jp)

AC checklist in Japanese is very valuable for Japanese Suppliers to completely understand applicable AC checklist.

(To be continued)
## Activities (Cont’d)

### (1) AC Checklists translation

**Posted on JAQG Web**

(44 ACs posted, as shown the Table (right-hand))

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**Example of AC Checklist**

(English - Japanese translated)

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**AC Checklists posted on JAQG Web**

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>AC Number / Rev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AEROSPACE QUALITY SYSTEM (AQS)</strong></td>
<td></td>
</tr>
<tr>
<td>Inspection and Test Quality System</td>
<td>AC7004 Rev. E</td>
</tr>
<tr>
<td><strong>CHEMICAL PROCESSING (CP)</strong></td>
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<tr>
<td>Basic Chemical Processing Checklist</td>
<td>AC7108 Rev. D</td>
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<td>Painting &amp; Dry Film Coatings</td>
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<tr>
<td>Etch</td>
<td>AC7108/2 Rev B</td>
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<tr>
<td>Surface preparation prior to metal bonding</td>
<td>AC7108/3 Rev A</td>
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<tr>
<td>Chemical Milking</td>
<td>AC7108/4 Rev</td>
</tr>
<tr>
<td><strong>COATINGS (CT)</strong></td>
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<tr>
<td>Basic Coatings Checklist</td>
<td>AC7109 Rev.C</td>
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<td>Thermal Spray</td>
<td>AC7109/1 Rev B</td>
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<tr>
<td>Coating Evaluation Lab Practices</td>
<td>AC7109/5 Rev.D</td>
</tr>
<tr>
<td><strong>HEAT TREATING (HT)</strong></td>
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<td>Carburizing</td>
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<td>Nitriding</td>
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<tr>
<td>Supplemental Audit Criteria for Heat Treating</td>
<td>AC7102 S Rev.C</td>
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<td><strong>NONCONVENTIONAL MACHINING (NM)</strong></td>
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<tr>
<td>Nonconventional Machining</td>
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<td>Electrical Discharge Machining (EDM)</td>
<td>AC7116/3 Rev A</td>
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<tr>
<td>Laser Beam Machining (LBM)</td>
<td>AC7116/4 Rev.A</td>
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<tr>
<td><strong>SURFACE ENHANCEMENT (SE)</strong></td>
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<tr>
<td>Shot Peening, Peen Forming, Glass Bead Peening</td>
<td>AC7117 Rev A</td>
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<tr>
<td>Supplement, Shot Peening, etc.</td>
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<td>Automated Peening</td>
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<td>Supplement, Automated Peening</td>
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<tr>
<td>Supplement, Manual Peening</td>
<td>AC7117S Rev</td>
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<td><strong>NONDESTRUCTIVE TESTING (NDT)</strong></td>
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<td>Basic NDT Checklist</td>
<td>AC7114 Rev E</td>
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<td>Supplement, NonDestructive (NDT)</td>
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<td>Penetrant</td>
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<td>Supplement, PT</td>
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<td>Magnetic Particles</td>
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<td>Supplement, MT</td>
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<td>Ultrasound</td>
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<td>Supplement, UT</td>
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<td>Radiography</td>
<td>AC7114/4 Rev E</td>
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<tr>
<td>Supplement, RT</td>
<td>AC7114/4S Rev F</td>
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<td><strong>WELDING (WLD)</strong></td>
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<td>Basic Welding Checklist</td>
<td>AC7110 Rev E</td>
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<td>Supplement, Fusion Welding</td>
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<td>Electronic Beam Welding</td>
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<td>Supplements, Fusion Welding</td>
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<tr>
<td>Welder/Welding Operator Qualification</td>
<td>AC7110/12 Rev C</td>
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<td>Supplement, Welder/Welding Operator Qualification</td>
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<tr>
<td>Metallurgical Evaluation of Welds</td>
<td>AC7110/13 Rev A</td>
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<tr>
<td>Supplement, Metallographic Evaluation of Welds</td>
<td>AC7110/13S Rev A</td>
</tr>
<tr>
<td><strong>COMPOSITE (COMP)</strong></td>
<td></td>
</tr>
<tr>
<td>Basic Composites Checklist</td>
<td>AC7118 Rev B</td>
</tr>
</tbody>
</table>

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**English-Japanese**

**Line by Line style**

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**PRO C ESS**

**AC  Number / Rev.**

**AERO SPAC E Q UALITY SYSTEM  (AQS)**

**Inspecti on and Test Q ual i ty System**

AC 7004 Rev. E

**CHEMICAL PROCESSING  (CP)**

**Basic Chemical Processing Checklist**

AC 7108 Rev. D

**Painting & Dry Film Coatings**

AC 7108/1 Rev A

**Etch**

AC 7108/2 Rev B

**Surface preparation prior to metal bonding**

AC 7108/3 Rev A

**Chemical Milking**

AC 7108/4 Rev

**COATINGS (CT)**

**Basic Coatings Checklist**

AC 7109 Rev. C

**Thermal Spray**

AC 7109/1 Rev B

**Coating Evaluation Lab Practices**

AC 7109/5 Rev. D

**HEAT TREATING (HT)**

**Basic Heat Treating Checklist**

AC 7102 Rev. F

**Aluminum Heat Treating**

AC 7102/2 Rev. B

**Carburizing**

AC 7102/3 Rev. A

**Nitriding**

AC 7102/4 Rev. A

**Hardness Testing**

AC 7102/5 Rev. A

**Supplemental Audit Criteria for Heat Treating**

AC 7102 S Rev. C

**NONCONVENTIONAL MACHINING (NM)**

**Nonconventional Machining**

AC 7116 Rev. A

**Electrical Discharge Machining (EDM)**

AC 7116/3 Rev. A

**Laser Beam Machining (LBM)**

AC 7116/4 Rev. A

**SURFACE ENHANCEMENT (SE)**

**Shot Peening, Peen Forming, Glass Bead Peening**

AC 7117 Rev A

**Supplement, Shot Peening, etc.**

AC 7117S Rev A

**Automated Peening**

AC 7117/2 Rev

**Supplement, Automated Peening**

AC 7117/2S Rev

**Flapper Peening**

AC 7117/4 Rev

**Manual Peening**

AC 7117/5 Rev

**Supplement, Manual Peening**

AC 7117S Rev

**NONDESTRUCTIVE TESTING (NDT)**

**Basic NDT Checklist**

AC 7114 Rev. E

**Supplement, NonDestructive (NDT)**

AC 7114S Rev. F

**Penetrant**

AC 7114/1 Rev. E

**Supplement, PT**

AC 7114/1S Rev. F

**Magnetic Particles**

AC 7114/2 Rev. E

**Supplement, MT**

AC 7114/2S Rev. F

**Ultrasound**

AC 7114/3 Rev. F

**Supplement, UT**

AC 7114/3S Rev. F

**Radiography**

AC 7114/4 Rev. E

**Supplement, RT**

AC 7114/4S Rev. F

**WELDING (WLD)**

**Basic Welding Checklist**

AC 7110 Rev. E

**Electronic Beam Welding**

AC 7110/3 Rev. F

**Fusion Welding**

AC 7110/5 Rev. F

**Supplement, Fusion Welding**

AC 7110/5S Rev A

**Welder/ Welding Operator Qualification**

AC 7110/12 Rev. C

**Supplement, Welder/ Welding Operator Qualification**

AC 7110/12S Rev. A

**Metallurgical Evaluation of Welds**

AC 7110/13 Rev. A

**Supplement, Metallographic Evaluation of Welds**

AC 7110/13S Rev. A

**COMPOSITE (COMP)**

**Basic Composites Checklist**

AC 7118 Rev. B
Activities (Cont’d)

AC checklists on JAQG Website

JAQG Members Website
http://sjac-jaqg.kir.jp/

Nadcap AC checklists (English - Japanese)
Click Here!
Activities (Cont’d)

Detail Activities (Cont’d)

(2) Proposals and requests regarding AC checklist.

- Proposals, requests, opinion, etc. from Japanese suppliers, summarized by the WG, and submitted to Task Group.

Request Form used --->
(From supplier to the Task Group)
Activities (Cont’d)

Detail Activities (Cont’d)

(2) Proposals and requests regarding AC checklist. (Cont’d)

- After submitting, discussion made directly with prime members/staff engineers of the Task Group at the Nadcap Meeting, requesting the Task Group to reflect the proposals/requests to the next revision of the applicable AC checklist.

- Applicable commodities and results of the activities:
  FY2010; CP (Chemical Process)
  17 requests submitted -> *6 included* in next revision of AC7108 Series.
  FY2011; SE (Surface Enhancement, Shot Peening)
  10 requests submitted -> *8 included* in next revision of AC7117 Series.

- Commodities planned for the future activities:
  FY2011 to FY2012; CT (Coatings)
  FY2012 and after; HT, NDT, COMP.
(3) PRI Board of Director meeting
- Dispatch WG member to “PRI Board of Director” meeting.
  (This year 2011, Mr. Tsuji (IHI): October 2011 (Boudreaux) )

(4) Supporting Nadcap Meeting (Past activity)
- The WG Supported “Nadcap Meeting Yokohama” (2008/10/6-10/9).
Reporting of the Activities (All JAQG Activities)
(Reporting General Assembly)

- 1 Feb 2012 (Wed), Tokyo
- 3 Feb 2012 (Fri), Nagoya

Detail will be informed to the JAQG members through “JAQG NEWS”.

See you in the Assembly!
In closing, I would like to thank you all for listening so attentively.

We welcome your questions and comments.

JAQG Special Process WG