An update from the Performance Standards Team

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ICG-12, Dec 3-7, 2017, Kyoto, Japan
Background

- ICG-6 (2011) WG-A(S) Recommendation 4.1 – develop a template that individual GNSS providers consider when defining open service performance.
  - Goal: reach consensus on minimum common set of parameters
  - Each system use its own definitions and calculation methods
- October 2012 – WG-A(S) prepares draft template (V2)
- ICG-10 (2015) - WG-A(S) agrees not to have common document, but asks providers to share information
- ICG-11 (2016) “Dream Team” formed at ICG-11 in Sochi to push work forward
  - Steps taken to identify minimum common set of parameters
The Performance Standards Sub-group “Dream Team”

- Alexey Bolkunov (co-lead), Igor Silvestrov – Russian Federation
- John Lavrakas (co-lead), Andrew Hansen – United States
- Hillar Tork, Rafael Lucas-Rodriguez, Daniel Blonski, Peter Buist – European Union
- Yoshiyuki Murai, Satoshi Kogure – Japan
- Jianwen Li, Du Juan - China
Timeline of recent events

- **December 2016** – Team members **Survey** by email on minimum common parameters (Keep, Don’t Keep, Maybe Keep)

- **May 2017** – Guidelines to replace the 2012 template proposed at PS meeting in Shanghai

- **September 2017** – Resolution of most issues in the Guidelines at PS meeting in Portland
Current Status

• Prepared a draft Performance Standard Guidelines document
• Developing definitions (including continuity) and calculation methodologies
• Considering additional documents that can be issued for optimizing PS creation and monitoring procedures – DT Document Tree
• Considering connection with IGMA activities and support of IGMA activities
Additional Documents - Document Tree

Recommendations for developing GNSS Performance Analysis Guidelines (previously called Monitoring and Performance Standards General Guidance Document)

- International level document

GNSS Performance Analysis Guidelines (for each GNSS Provider)

- Provider level document

Guidelines for developing Performance Standards (previously called Performance general directions guidance document)

- International level document

Performance Standards (for each GNSS Provider)

Goal – GNSS Parameters monitoring and validation

International Committee on GNSS – ICG-12 2-7 December 2017, Kyoto, Japan
### Roadmap & Scorecard - GNSS Performance Standards Guidelines

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommend content for Performance Standards</td>
<td>Complete</td>
<td>Draft Performance Standard Template prepared in 2012</td>
</tr>
<tr>
<td>Collect inputs on minimum common set</td>
<td>Complete</td>
<td>Survey conducted in Dec 2016</td>
</tr>
<tr>
<td>Finalize minimum common set</td>
<td>Complete</td>
<td>Resolved at Sep 2017 meeting</td>
</tr>
<tr>
<td>Each GNSS/RNSS provide definitions for terms</td>
<td>In progress</td>
<td>Request for definition of continuity. Preparing document tree. Discuss at 2018 Workshop.</td>
</tr>
<tr>
<td>Each GNSS/RNSS identify calculation methods</td>
<td>In progress</td>
<td>Plans to hold 2018 Workshop in Spring in Europe</td>
</tr>
<tr>
<td>Finalize set of definitions</td>
<td>In progress</td>
<td>Target complete by ?</td>
</tr>
<tr>
<td>Issue Performance Standard template</td>
<td></td>
<td></td>
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</tbody>
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Next steps

• Proposal – hold workshop in spring 2018
  ▫ Focus on Definitions, Calculations and Methods
  ▫ Consider combined with IGMA workshop
  ▫ Host by EU, with steering committee having reps from all GNSS service providers; set agenda
  ▫ Dream team to formulate questions to be addressed/answered at workshop

• Increase collaboration with IGMA
  ▫ Monitoring Analysis Guidelines
    • Distribute a draft, get feedback, provide a revised draft

• Consider future challenges and way forward for DT
Thank you!

GNSS Performance Standards “Dream Team” Co-leads

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