Real Time Pilot Project

Minutes of Teleconference

IGS RTPP

03 November 2010

1 Meeting Summary

This teleconference was held on 03 November 2010 and was hosted by NRCan and chaired by Loukis.

Participants were:

BKG:	Georg Weber
CVUT:	Leos Mervart
DLR:	Andre Hauschild
ESOC:	Loukis Agrotis, Pedro Alfaro
Geo++:	Gerhard Wuebbena
NRCan:	Mark Caissy, Ken MacLeod

The meeting agenda items are listed below:

1. Web site
2. Redundancy concepts - stations, corrections and users
3.RTCM -SSR message types supported and expected rates
4. IODE delay for SSR encoding (RTCA - standard practice is to issue old for 2 minutes)
5. Combination methods - importance of sigmas from correction providers
7. AOB

1) Web Site.

We will improve the web site in two steps. Step one will be to implement the improvements suggested at the IIGS - Workshop. At NRCan this task has been assigned and work will begin in early December. Step two will start when the IGS (or someone) sets up a web server and implements a web based content management system that enables designated RTIGS contributors to update the designated pages.

2) Redundancy Concepts.

We all agree that we have to work towards building as much redundancy as is possible and practical into the RTIGS systems. The goals are to have the following levels of redundancy:

a) Each stations data is hosted at two or more casters.
b) Each regional data centre should endeavor to have an onsite and off site caster or some means of providing robustness
c) Analysis Centres should implement a data acquisition plan that enables them to operate if a regional or global data centre is down
d) Each Analysis centre should work towards having computational redundancy i.e. two servers generating corrections.
e) We need 2 or more combination centres and correction distribution points. We need some basic alarms at the combination centre and rules to specify when the combination is generated or not. For example if we only receive corrections from 1 analysis centre we will not issue corrections or

if we do the sigmas will be large. If this event occurs for more than X seconds an alarm is issued. We need to exchange some emails and produce a list of typical combination alarm events. The redundancy and checks and balances described here are required when we transition from a pilot to a service (Initial Operational Capability). Current RTPP contributing organizations and other organizations are encouraged to consider hosting a real-time combination and distribution service.

3) RTCM -SSR message types supported and expected rates

The RTIGS will work towards supporting all standard RTCM-SSR messages. The target correction output rate is every 5 seconds with an end to end (SV broadcast to reception by user) delay of 10 seconds.

4. IODE delay for SSR encoding (RTCA - standard practice is to issue old for 2 minutes)

This problem is normally handled by issuing corrections with respect to the previous ephemeris for a specified time. During the discussion it was thought that about one minute would be reasonable. All analysis centre will work towards supporting this feature. Is more discussion required?????

5. Combination methods - importance of sigma's from correction providers

All participants agreed that we should work towards providing some measure of correction accuracy. This information would be transmitted in RTCM-SSR message number 1061. The derivation of how the UDRE is defined needs to be discussed further. Then the accuracy information would be used in the combination and a new UDRE would be computed for the combined correction.

6. GB meeting proposal for service

Over the next few days and weeks Mark will discuss with RTPP members the steps and timing of when and how the RTIGSPP transitions to initial operations. When we transition to initial operations, I understand that we will lose GMV. Does anyone know if we will lose any other RT Analysis centres or if there will be other issues?