

***WAAS Technical Report
William J. Hughes Technical Center
Atlantic City International Airport, New Jersey
1/7/14***

Author(s): Tom McHugh

DR #117: Excessive “Not Monitored “ Alarms on PRN 1/SVN 63

GPS Week/Day:

Week 1769 Day 3 (December 4, 2013) to W1778D0 (February 2, 2014)



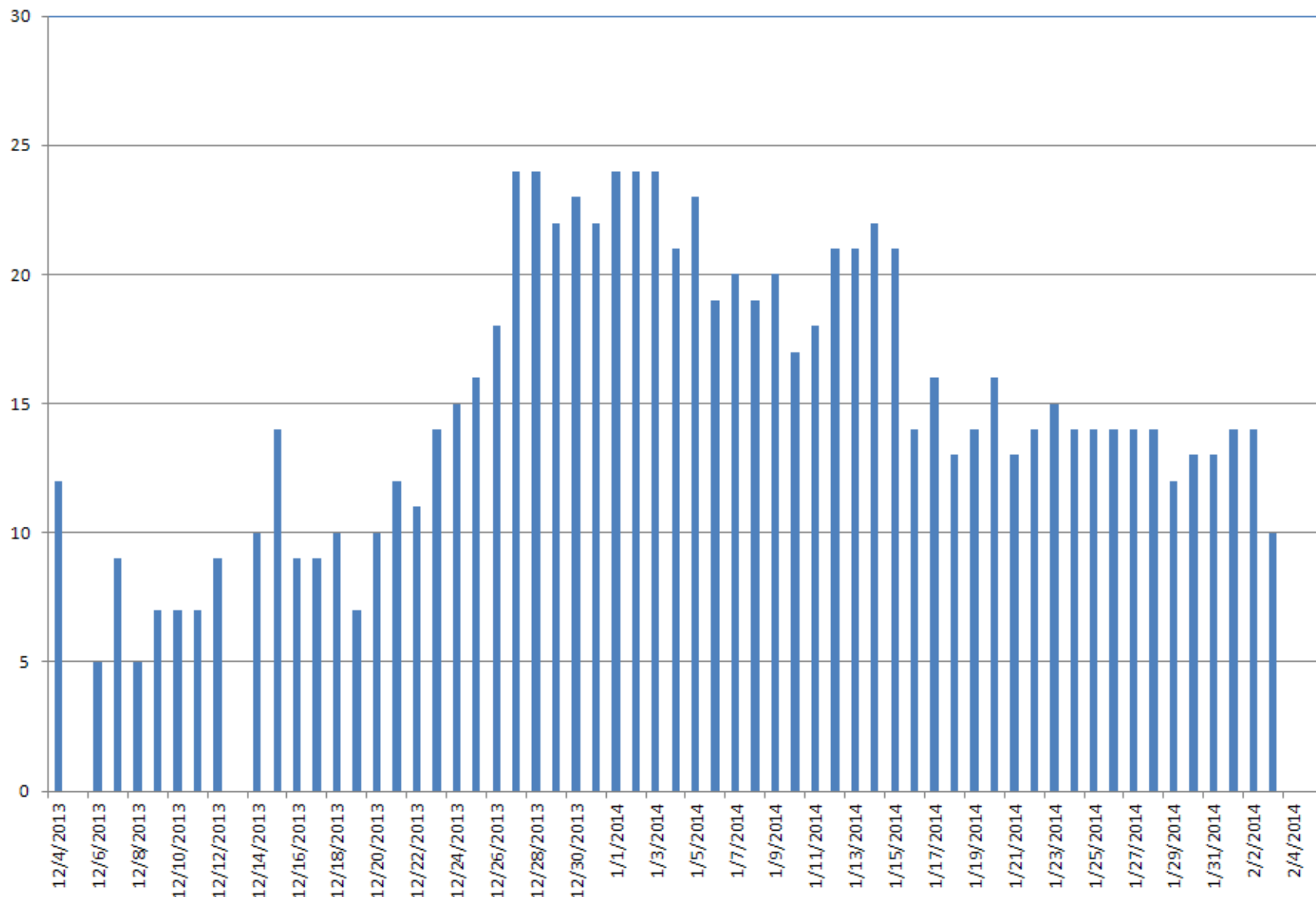
**Federal Aviation
Administration**

SVN-63 PRN-1 Excessive Alarms

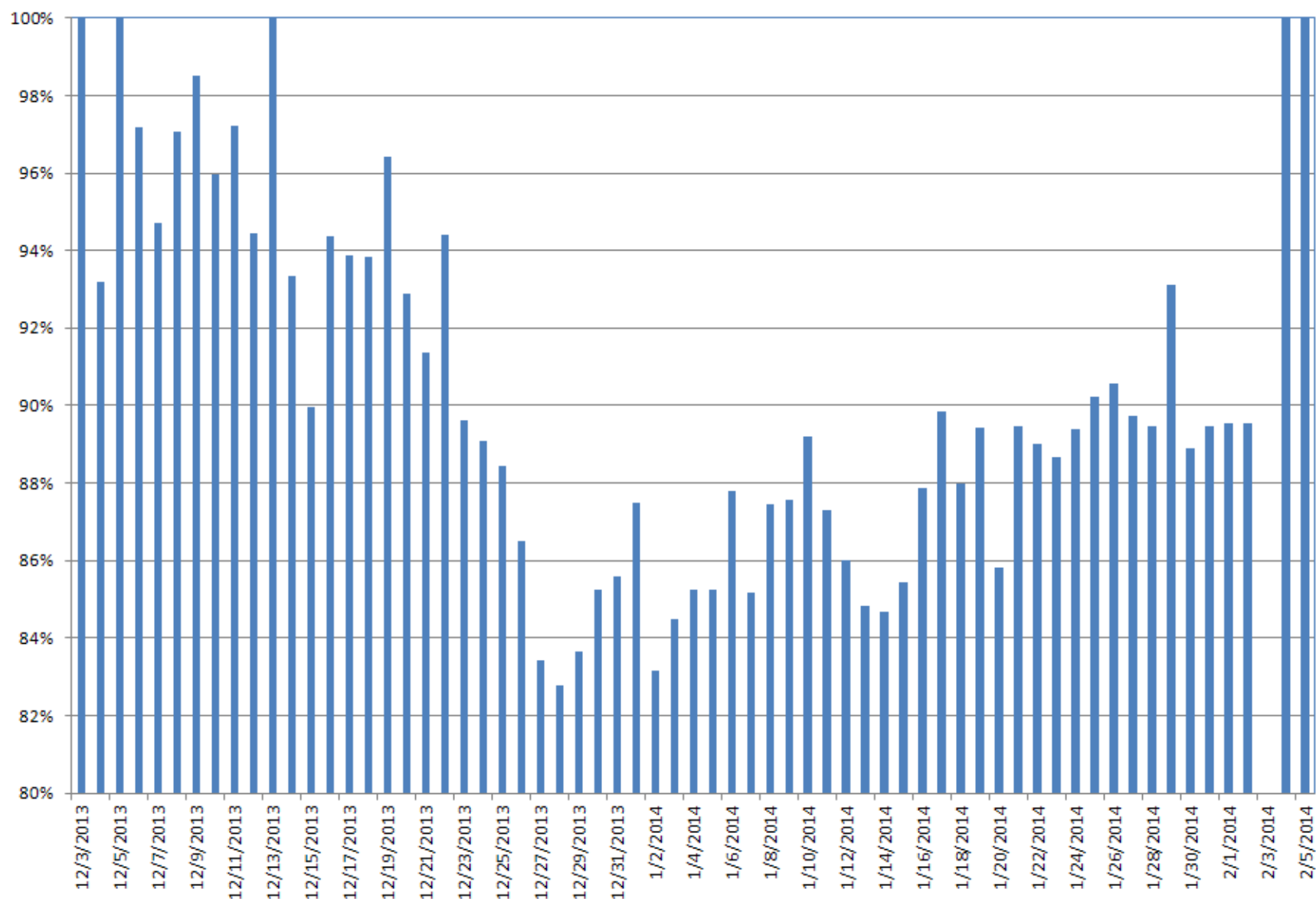
- ***Starting on 12/4/13 WAAS began transmitting a large number of "Not Monitored" Alarms for PRN-1***
 - SVN-63 is a IIF launched July 2011
 - Impact to WAAS was minimized because PRN-1 is part of the D-plane expanded slot
 - There were multiple events where PRN-1 caused brief LPV-200 outages
- ***Similar to an earlier event on 10/26/12***
- ***Carrier phase "jerks" simultaneous on both L1 and L2***
 - Triggering the L2 high pass filter cycle slip detector
 - Some of the jerks caused loss of tracking
 - Some instances of all receivers losing track
- ***Issue resolved by maintenance on 2/3/14***
 - (NANU 2014009)



WAAS - Number of PRN-1 Alarms to "Not Monitored"

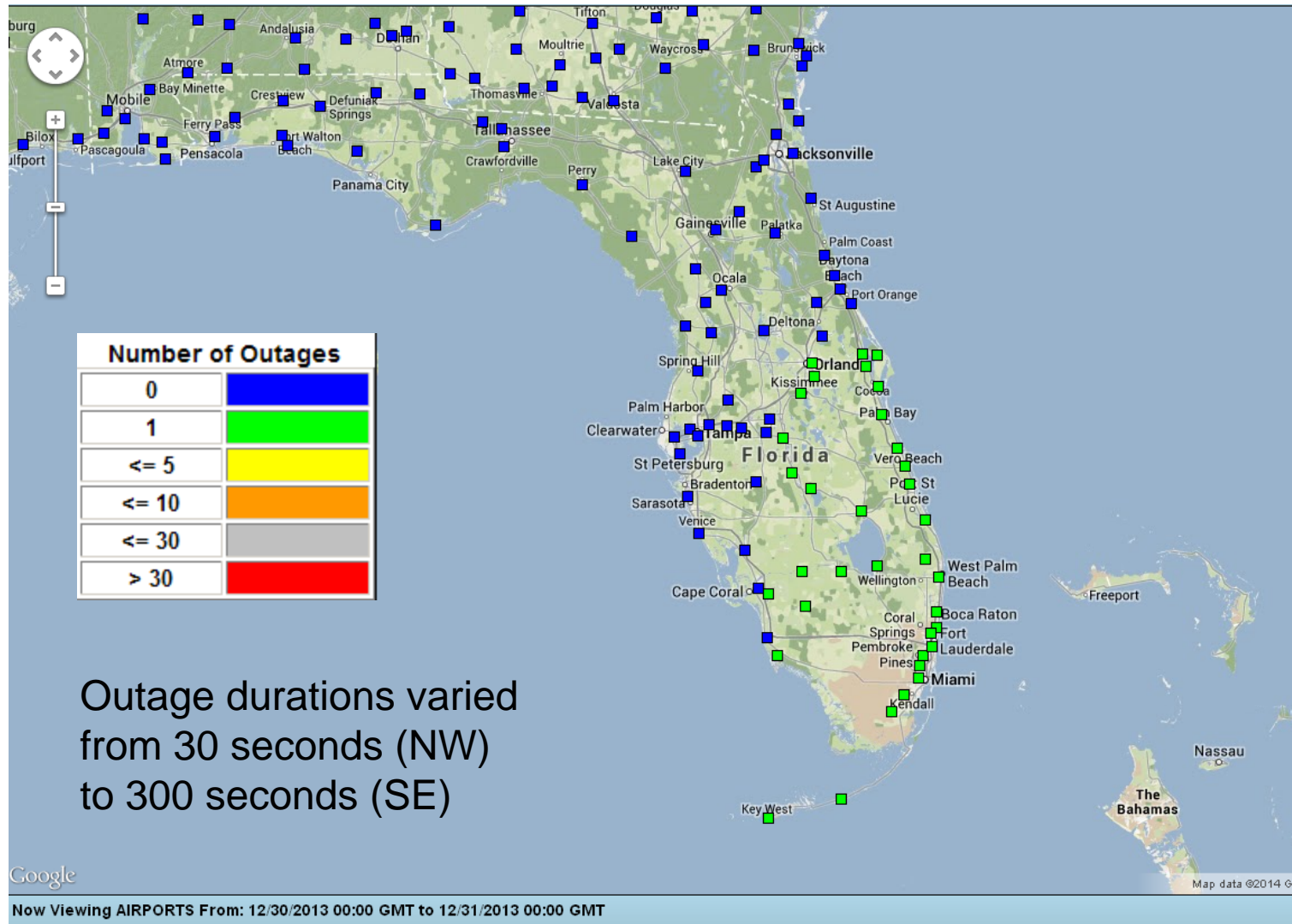


WAAS PRN-1 Precision Approach Quality Availability (actual vs. expected)



Example PRN-1 / SVN-63 Impact to WAAS

Sample day = 12/30/13 at Service Level = LPV-200



Federal Aviation
Administration