WAAS Web Application Portal

Rollup Display

Contents

Introduction

As part of the William J. Hughes Technical Center WAAS Test Team website (www.nstb.tc.faa.gov), the WAAS Web Application Portal allows you to view a Rollup Display of aggregated airport and Ionospheric Grid Point (IGP) statistics on a geographic display over a given time period.

We recommend using either Google Chrome or Firefox web browsers.

The following information shows you how to navigate the website. First, click on the "WAAS Web Application Portal" link (See red arrow below).

Once you click the link, you come to the screen below. Next, click on "Rollup Display" (See red arrow below).

Welcome to The William J. Hughes Technical Center WAAS Test Team

Interactive Web Application Portal

Disclaimer: The data on this website is for information only and should not be used for flight planning.

Real-Time Applications

OTE Display   – Real-Time Receiver Data Display
SMS Display   – Real-Time Service Monitoring Subsystem Display
SBAS Display (Coming Soon) – Real-Time EGNOS / MSAS / WAAS Display

Reporting Applications

Airport Actual Outages – Provides "rolled up" airport outage information on a geographic display
Airport Schedules   – Shows predicted airport schedules for the next two weeks
Interactive PAN Report – Allows for interactive generation of select PAN Report Tables over a user specified period of time
NPA SPS Summary   – Summary NPA SPS Statistics
PA Summary   – Summary PA Statistics
Rollup Display   – Displays aggregated airport and IGP statistics on a geographic display
SMS Animation Display – Animates SMS data over user selected time periods on an interactive geographic display
UDREi Daily Graphs   – Displays savable UDREi GEO graphs for a given day

After clicking "Rollup Display," you will see a screen like the one below. As can be done with all Google Maps, you may zoom in and out by sliding the zoom control on the upper left corner of the map or by using the scroll wheel on your computer mouse. You may also pan left/right/up/down using the Pan control (See the red box below).

In the Data Settings dialog box, you may enter a date by clicking within the boxes next to Start Time and End Time. This box goes as far back as October 2013.

Please note: you may view data for up to 24 hours.

Time & Date Selection

Below, we clicked within the "Start Time" box, which opened a calendar to the current day, May 1, 2014. Notice, any future days are grayed out, but you may go as far back as necessary (until October 2013) by using the left arrow (See #1 below). Also, you may pick the start hour and minute by using the slider bar at the bottom of the box (See #2 below).

Here we chose a start time of 04/30/2014 00:00 and an end time 04/30/2014 05:00 (See #1 below). Once we have chosen the start and end date and time, we click the "Done" button (#2 below).
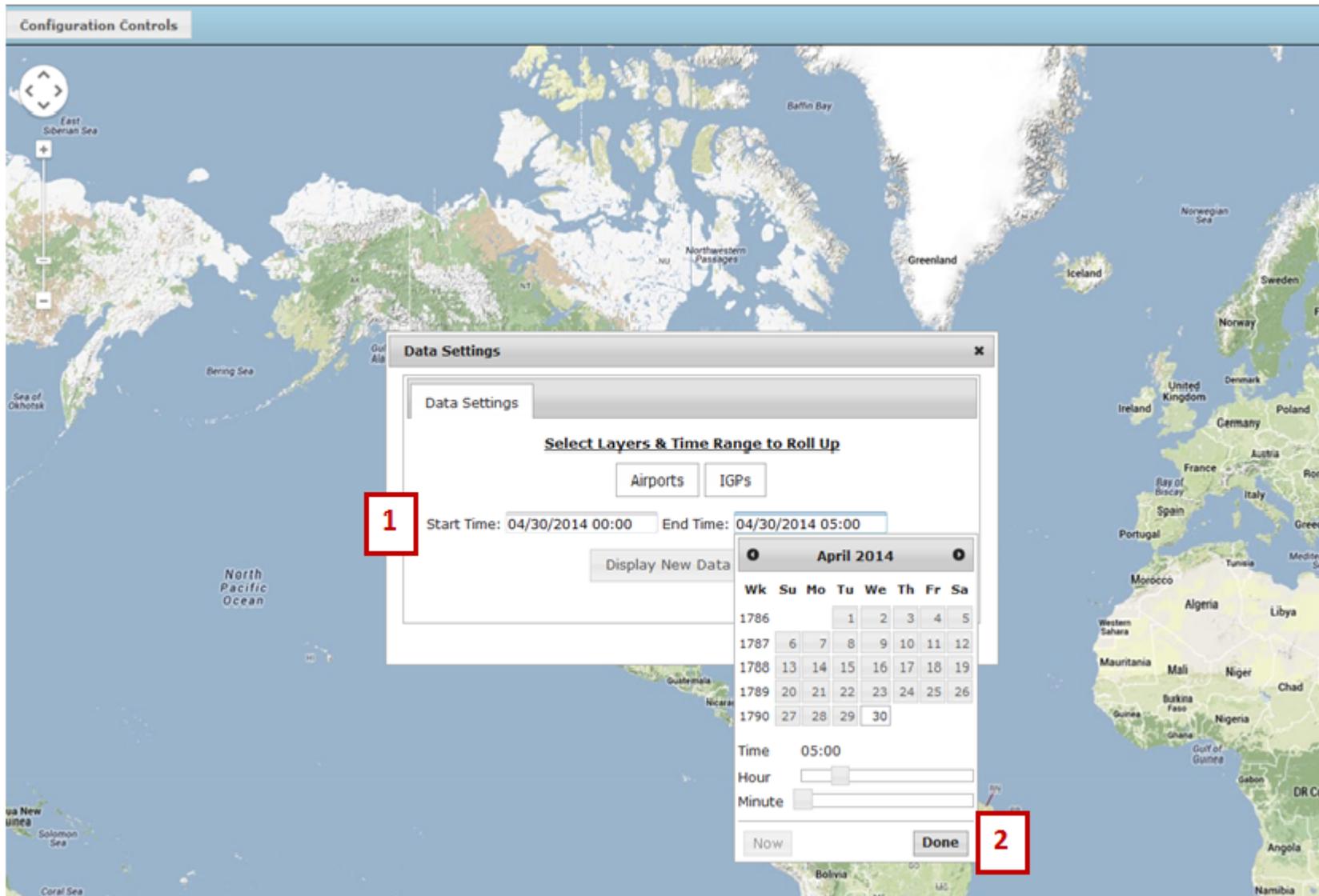
Display New Data Rollup

After selecting "Done," click on "Display New Data Rollup" button in the Data Settings dialog box (Highlighted by red box below).
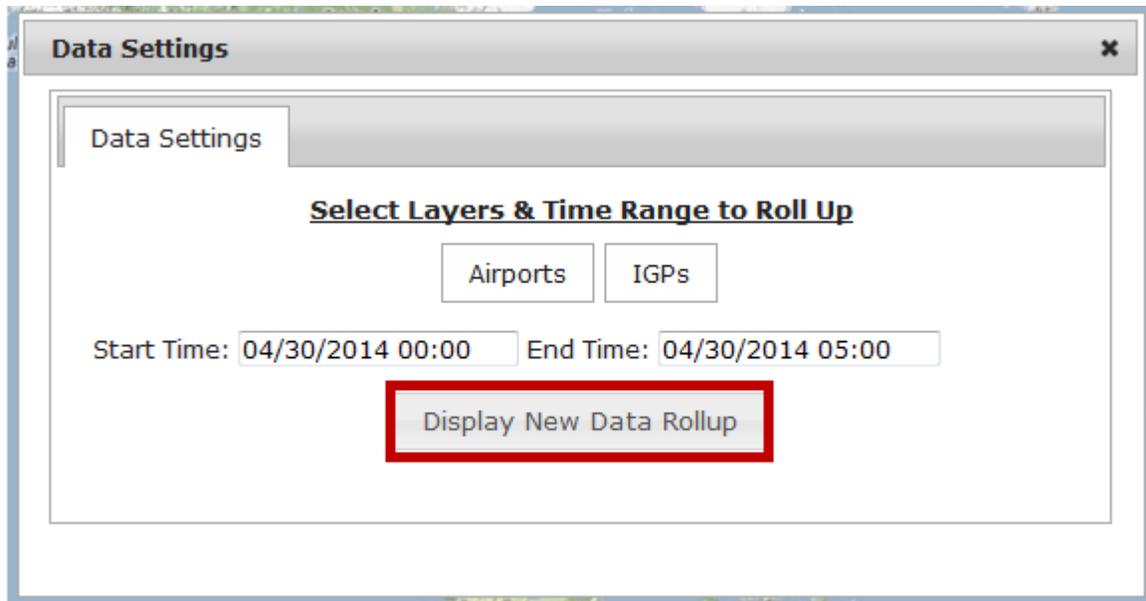
After clicking "Display New Data Rollup," we see this screen. Notice, the default WAAS Layers, (#1 below) Airports LPV and IGP GIVE, are shown as small boxes and larger, different colored boxes respectively. Grid Ionospheric Vertical Error, or GIVEs, indicate the accuracy of ionospheric vertical delay correction at a geographically defined ionospheric grid point (IGP). WAAS transmits one GIVE for each IGP in the mask. In the window below, the WAAS Layers box may be hidden by clicking "WAAS Layers."

The date, time and which parameters we are viewing show up at the bottom left corner of the screen (See #2 below).

Notice too, we zoomed in closer to get a better look. Here, we scrolled in closer using the scroll wheel on the mouse. You may also zoom out to get a broader view of the earth.
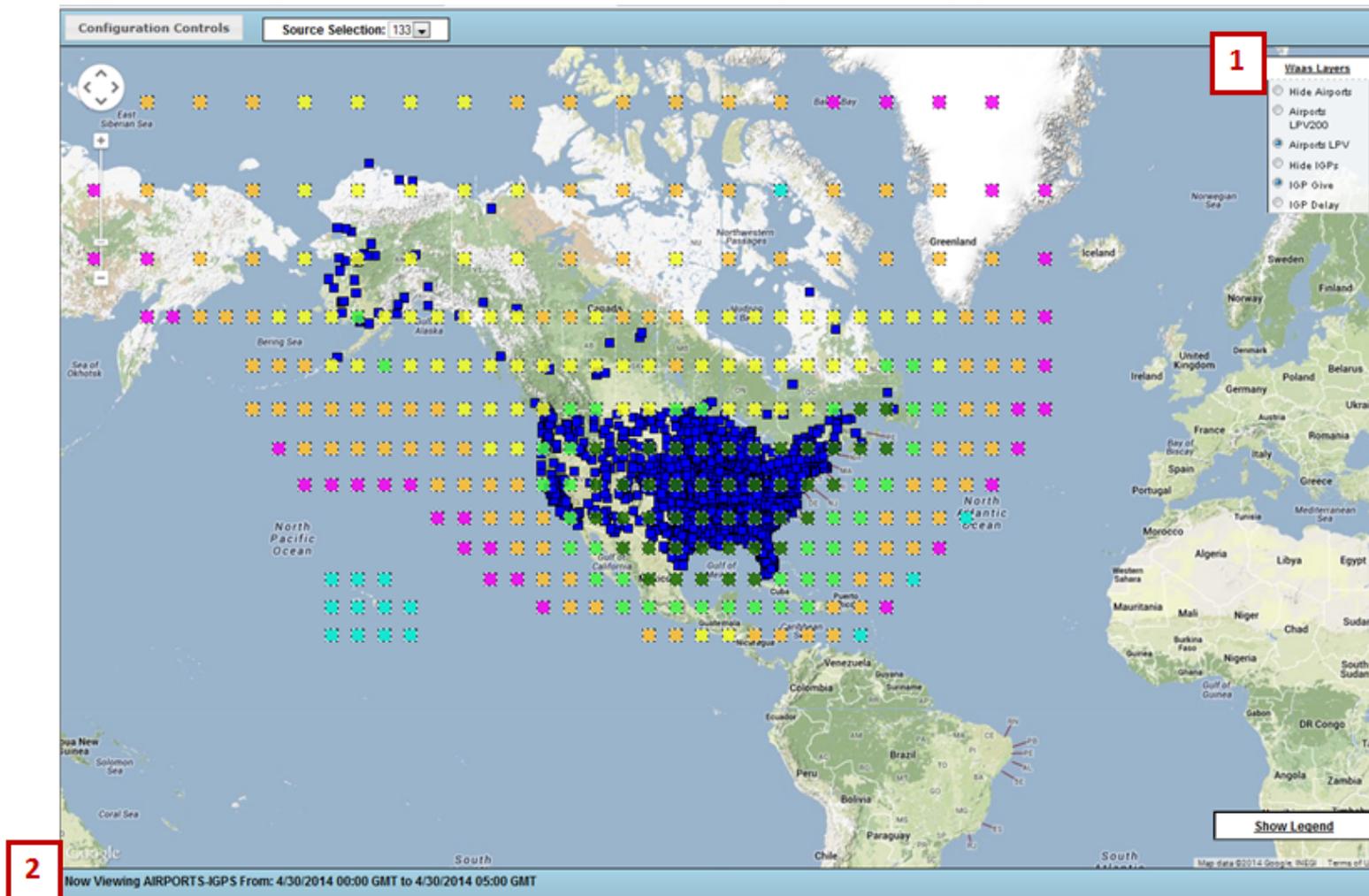
Airport LPV and IGP GIVEs

Since the default shows the Airports with LPV and IGP GIVEs (See #1 below), we look at the top half of the legend box to ascertain what the box colors represent (See #2 below). Notice you may hide and show this legend box at any time by clicking either "Show Legend" or "Hide Legend."
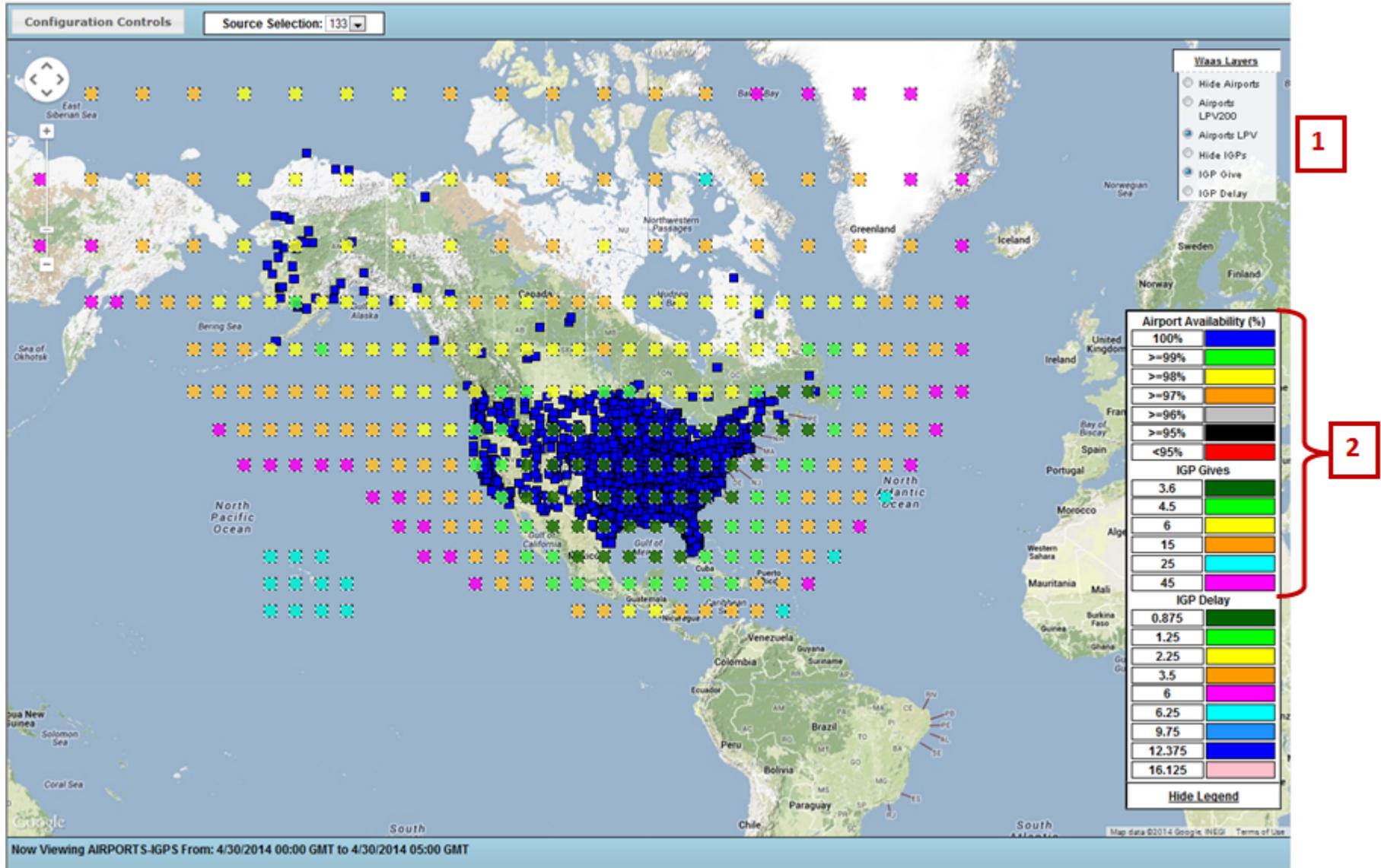
Hide Airports

Here we clicked on Hide Airports. Notice only IGP GIVEs are shown now.
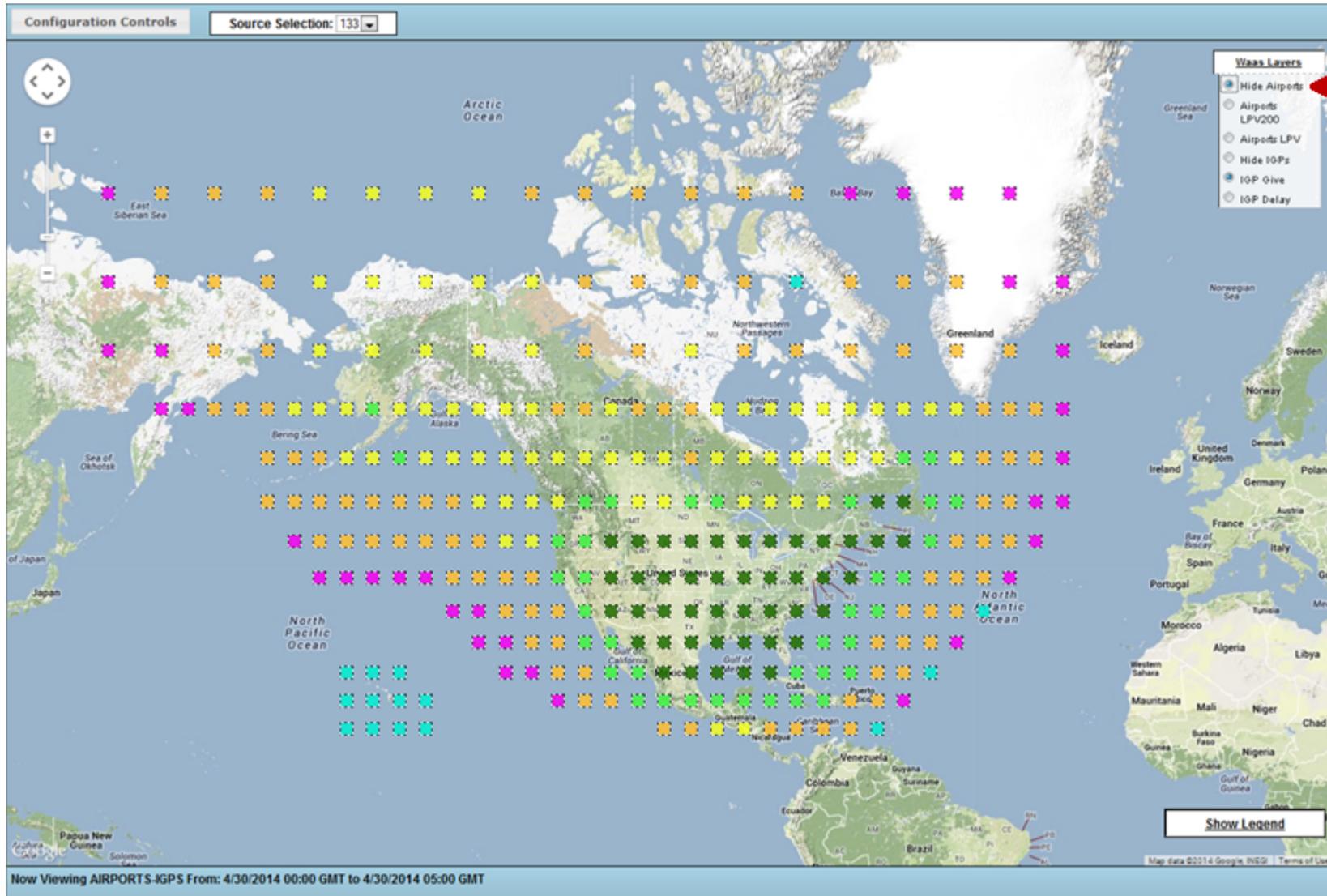
Selecting Layers

Configuration Controls allow you to select layers. Initially, both Airports and IGPs will be shown after you click on "Display New Data Rollup." #1 below shows the dialog box as it is seen by default, before we select specific layers.
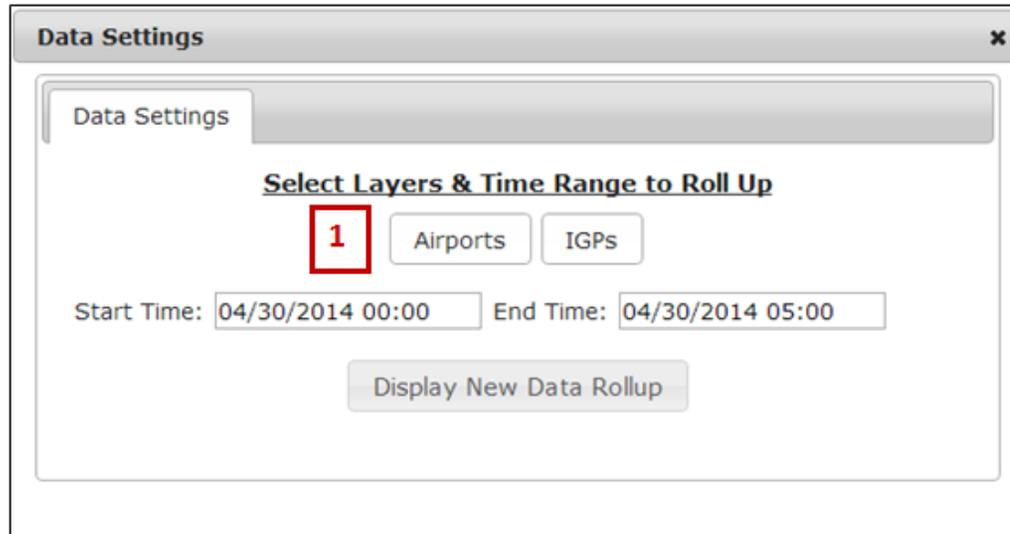
If we only want to view only IGPs for this day, we must click on the "Airports" button to deselect it. The darker colored button indicates the "Airports" layer has been turned **OFF**.
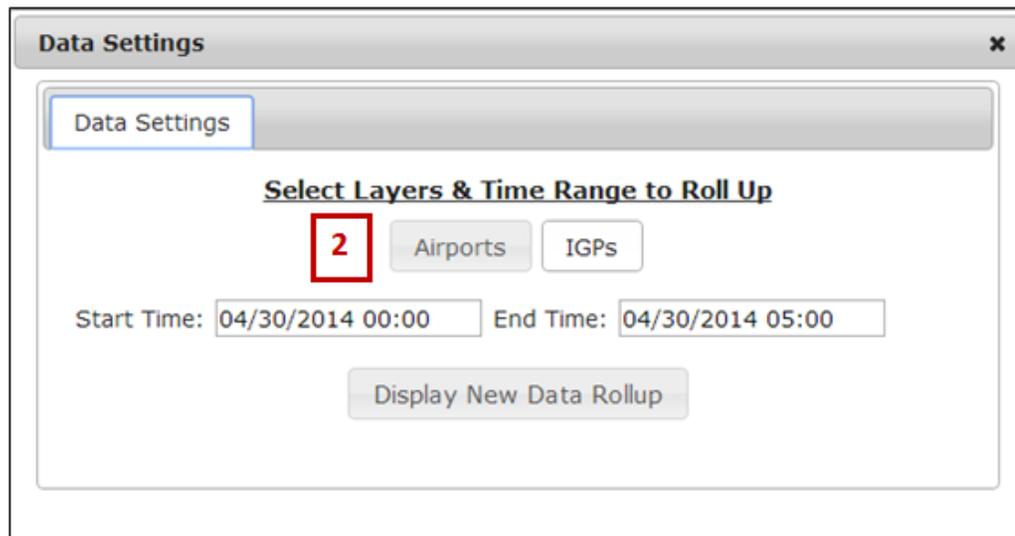
Notice too, since we deselected the Airports button, we only see IGPs on the next screen. The WAAS Layers box is only listing the layers relating to IGPs. (See red box below).
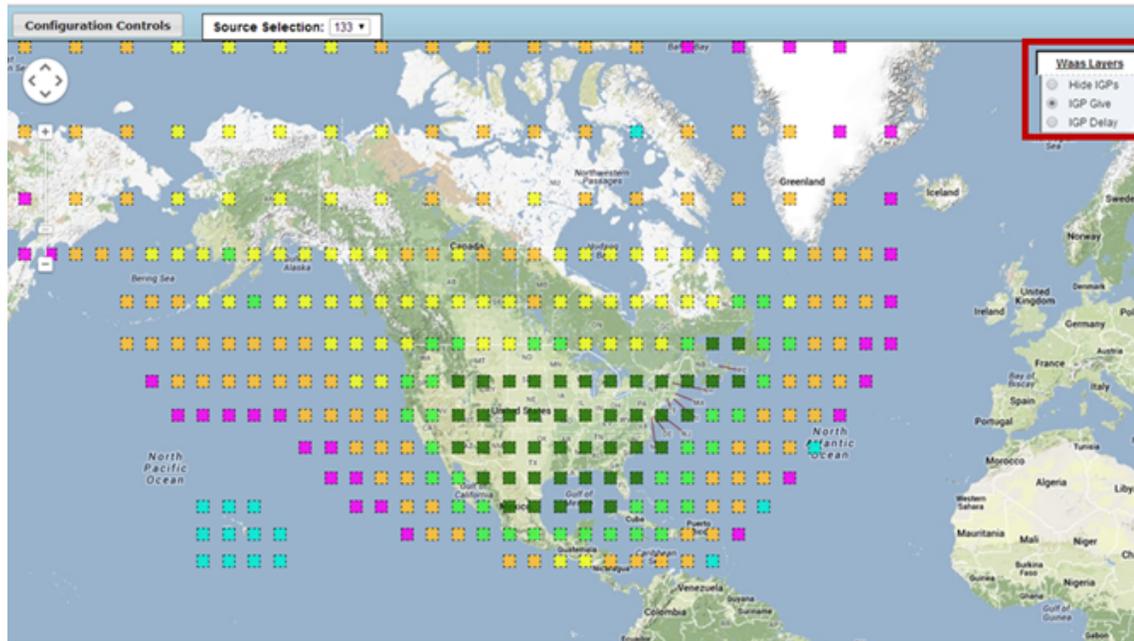
In contrast, below is the screen we see after we deselected IGPs in the Date Selection dialog box. Notice the WAAS Layers only have to do with viewing the Airports' LPV and LPV200. There is no mention of IGPs.
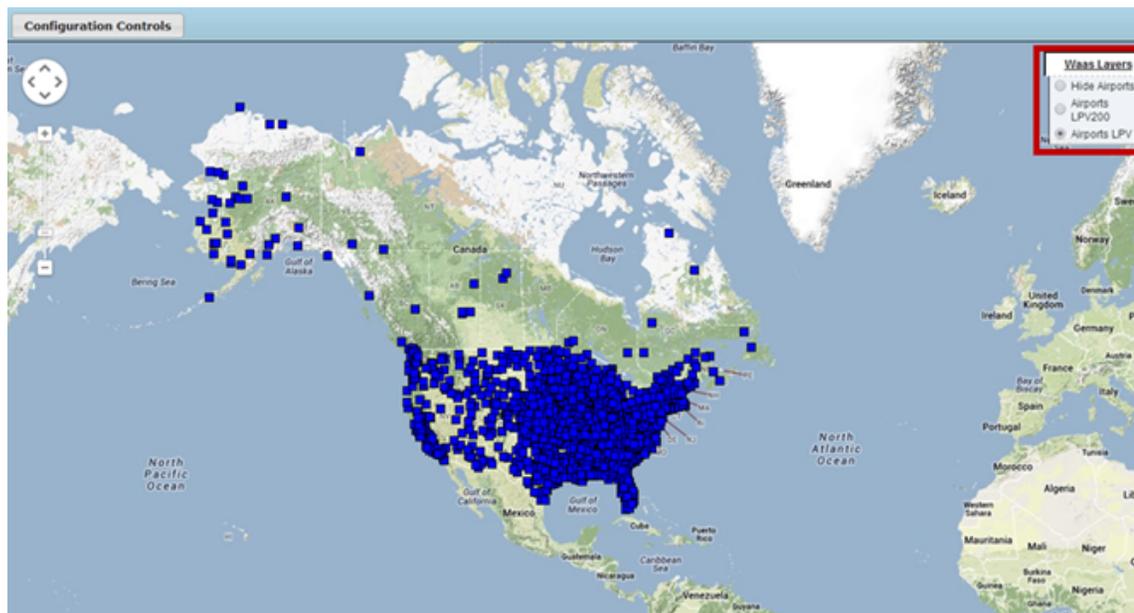
IGP GIVEs

Below we have hidden the airport layer by selecting the "Hide Airports" radio button in the WAAS Layers box.

Hovering over one of the IGPs will show the latitude and longitude in parentheses, the Max GIVE, Max Delay and Count (See red arrow below).

The Count indicates the number of times the GIVE was set to 25 or 45 depending on the Geostationary source. Here our GEO source is 133 (See "Source Selection" at the top of the image). To find out more information, we need to click on the IGP GIVE box.

NOTE: 25 is not a real value for IGP GIVEs. It means that the grid point is not monitored. There is no 25 meter IGP GIVE. There is, however, a 45 meter IGP GIVE.
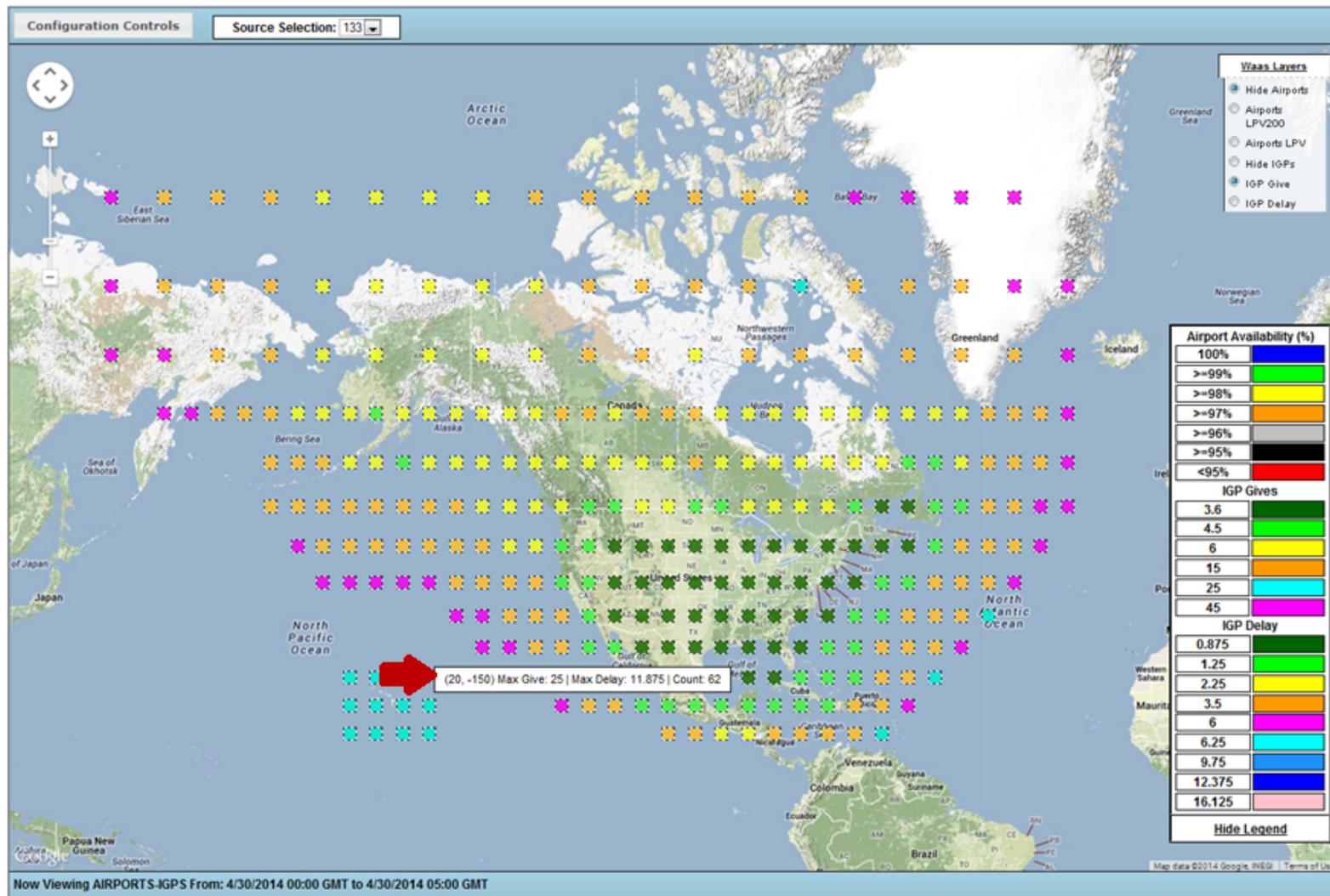
After clicking on an IGP that has a value of 25 or 45, a dialog box will appear. This dialog box shows Absolute time (ABSTIME), the number of seconds that have passed since the epoch of January 1, 1980; the GMT time, the GEO, GIVE and Delay in meters.

Here we see the geostationary source of the IGP GIVE data (See red arrow below). If we were to change the GEO source to 135 or 138, the data in this dialog box could change. You may change the Source Selection while this dialog box is open or not. To view the data in this dialog box table format, you would need to re-click on the same IGP.

IGP: (20, -150) Data

ABSTIME	GMT	GEO	GIVE	DELAY
1082851326	00:01:50	138	25	11.625
1082851445	00:03:49	135	25	11.875
1082851494	00:04:38	133	25	11.875
1082851614	00:06:38	138	25	11.875
1082851733	00:08:37	135	25	11.625
1082851782	00:9:26	133	25	11.625
1082851902	00:11:26	138	25	11.625
1082852021	00:13:25	135	25	11.375
1082852070	00:14:14	133	25	11.375
1082852190	00:16:14	138	25	11.375
1082852309	00:18:13	135	25	11.125
1082852358	00:19:02	133	25	11.125
1082852478	00:21:02	138	25	11.125
1082852597	00:23:01	135	25	10.875
1082852651	00:23:55	133	25	10.875
1082852766	00:25:50	138	25	10.875
1082852886	00:27:50	135	25	10.875
1082852939	00:28:43	133	25	10.875

Now Viewing AIRPORTS-IGPS From: 4/30/2014 00:00 GMT to 4/30/2014 05:00 GMT

Different Source Selections

Here are two screen images of the same IGP with different source selections. Notice the Count only changed by one.
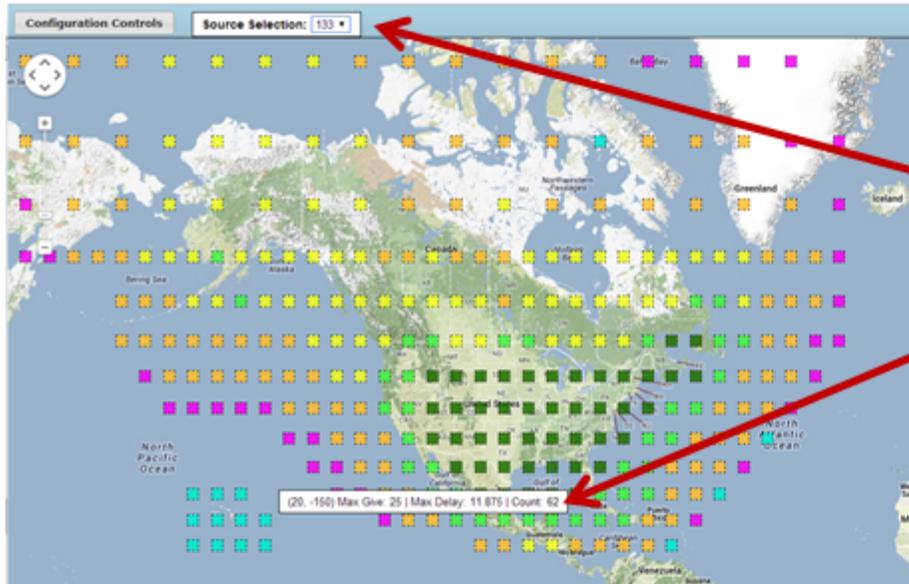
Source Selection: 133

Count: 62

All other information is identical.
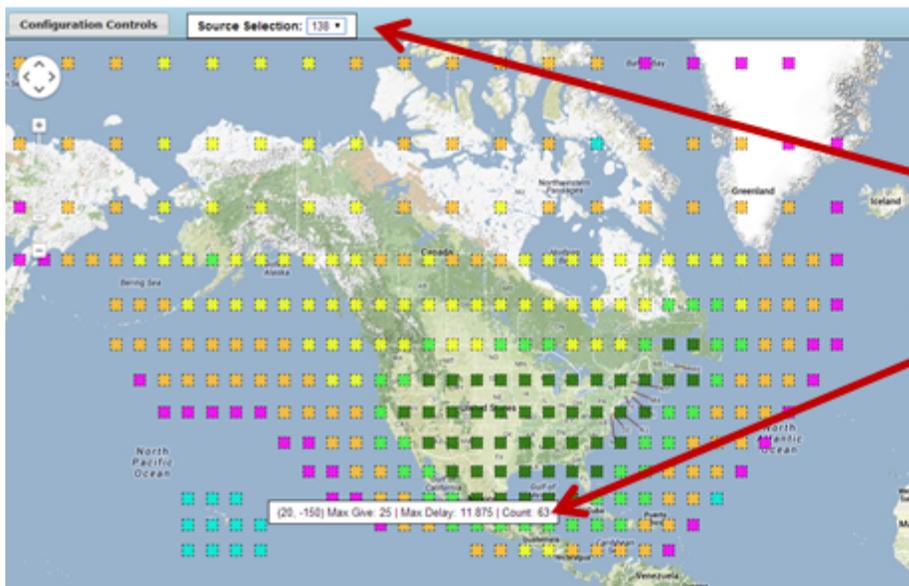
Source Selection: 138

Count: 63

All other information is identical.

Here we have clicked on a different IGP. (See red arrow below) Notice the GIVEs have changed. The legend shows we have GIVEs of both 25 and 45 (See red box below).

Again, you may change the GEO that you are viewing by clicking the down arrow next to "Source Selection" at the top of the page.
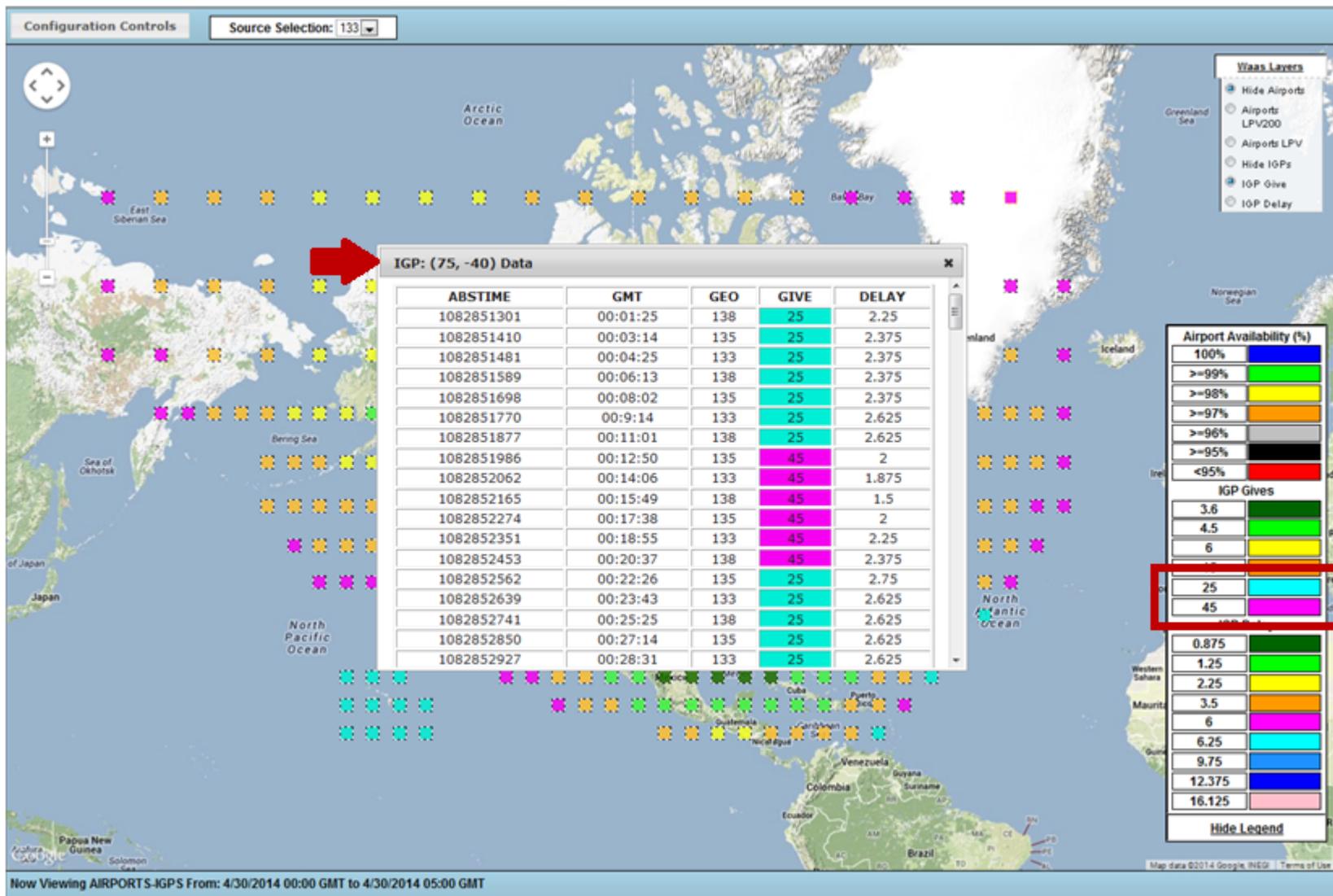
Airports LPV200

Here we hid the IGP GIVEs and we selected Airports LPV200 (See red box). Notice, we cannot select both Airports with LPV200 and LPV approaches. We can only view one parameter at a time.

Also, we hovered over the box for OTZ airport. The white box shows OTZ's LPV200 availability is at ≥98% (See red arrow). The number of entries evaluated with the number of outages is also located here.

Clicking on OTZ's box will give us even more information.
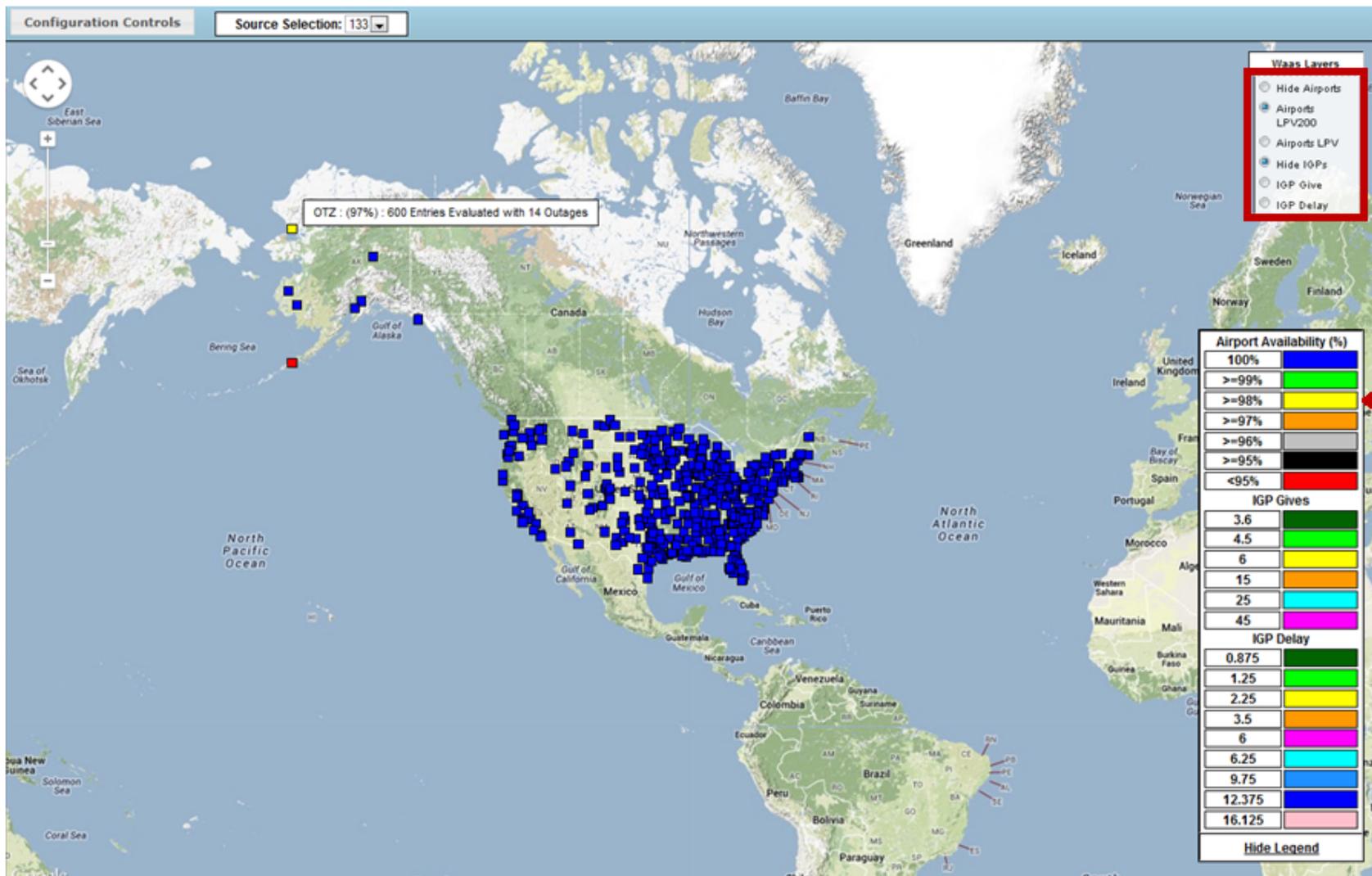
Clicking on the Airport box brings up another dialog box containing the Airport Name at the top, followed by the ABSTIME, GMT time, the service available(SERVICE), the number of satellites used (SATS), the horizontal dilution of precision (HDOP), the vertical dilution of precision (VDOP), the HPL and VPL.

Configuration Controls Source Selection: 133

Waas Layers
- ○ Hide Airports
- ◉ Airports LPV200
- ○ Airports LPV
- ◉ Hide IGPs
- ○ IGP Give
- ○ IGP Delay

Airport: OTZ Data ✕

| ABSTIME	GMT	SERVICE	SATS	MODE	HDOP	VDOP	HPL	VPL
1082854920	01:01:44	LPV200	10	3	.769	1.832	13.315	35.808
1082854950	01:02:14	LPV200	10	3	.768	1.829	13.362	35.543
1082854980	01:02:44	LPV200	10	3	.767	1.825	13.432	35.595
1082855010	01:03:14	LPV200	10	3	.766	1.821	13.55	35.476
1082855040	01:03:44	LPV200	10	3	.765	1.817	13.546	35.123
1082855070	01:04:14	LPV200	10	3	.764	1.812	13.593	35.144
1082855100	01:04:44	LPV200	10	3	.764	1.808	13.612	35.146
1082862900	03:14:44	LPV200	10	3	.838	1.565	17.376	35.722
1082862930	03:15:14	LPV200	10	3	.839	1.568	16.8	35.561
1082862960	03:15:44	LPV200	10	3	.84	1.57	16.824	35.442
1082862990	03:16:14	LPV200	10	3	.842	1.572	16.58	35.533
1082863020	03:16:44	LPV200	10	3	.843	1.574	16.559	35.633
1082863050	03:17:14	LPV200	10	3	.844	1.576	16.589	35.45
1082863080	03:17:44	LPV200	10	3	.845	1.578	16.756	35.673

Airport Availability (%)
100%	(blue)
>=99%	(green)
>=98%	(yellow)
>=97%	(orange)
>=96%	(gray)
>=95%	(black)
<95%	(red)

IGP Gives
3.6	(dark green)
4.5	(green)
6	(yellow)
15	(orange)
25	(cyan)
45	(magenta)

IGP Delay
0.875	(dark green)
1.25	(green)
2.25	(yellow)
3.5	(orange)
6	(magenta)
6.25	(cyan)
9.75	(blue)
12.375	(blue)
16.125	(pink)

Hide Legend

Toggling between IGP GIVEs and IGP Delay

We may toggle between IGP GIVE and IGP Delay using the radio buttons (See #1 below).

Since we are currently viewing the IGP Delays, we look at the bottom section of the Legend (See #2 below) to find the corresponding IGP delay in meters.

Please note: If a layer fails to appear after being selected in the Waas Layers box, refresh the rollup display by selecting the "Configuration Controls" button followed by the "Display New Data Rollup" button.
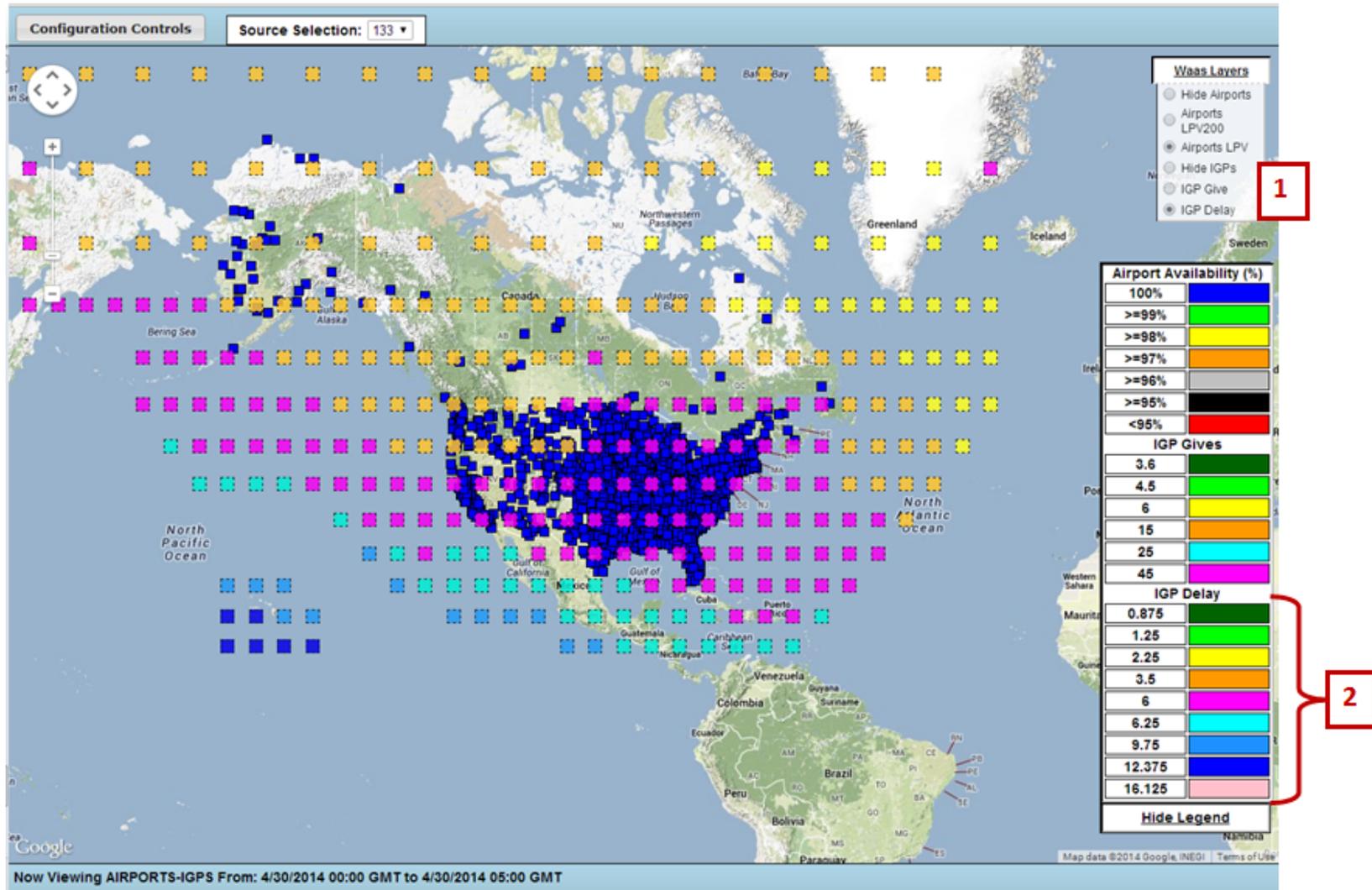
IGP Delay

Here we clicked on one of the IGP Delay boxes which opened a table with ABSTIME, GMT time, the GEO, GIVE and Delay in meters.

Note: IGP GIVEs update approximately every 5 minutes.