

# MAP INTELLIGENCE

## Map Intelligence Application Guide

### Fisheries Management Application

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**APPLICATION VERSION INFORMATION****Map Intelligence**

MI Client Excel - v 4.2

MI Server – SP – v 4.4

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## INTRODUCTION

### ABOUT THIS APPLICATION

This very simple Map Intelligence application looks at fish catch analysis and specifically focuses on shot points. A shot point is the place where a fishing boat deploys it's net. This application uses maps of the ocean.

This Guide will take you through each step for

- changing themes;
- viewing additional information in the Location Information panel;
- zooming into the map;
- using the Active Points links; and
- viewing in 3D

### HOW TO ACCESS THE FISHERIES MANAGEMENT APPLICATION

1. From the Integeio website, Fisheries Management demonstration page, click the **Start Fisheries Management Application** button.



START FISHERIES MANAGEMENT APPLICATION

2. A browser will open launching the application.

## EXPLORING MAP INTELLIGENCE

On opening the browser will display the MI Viewer showing a map of a half-degree grid of the ocean, color-coded by amount of fish caught in each grid square.

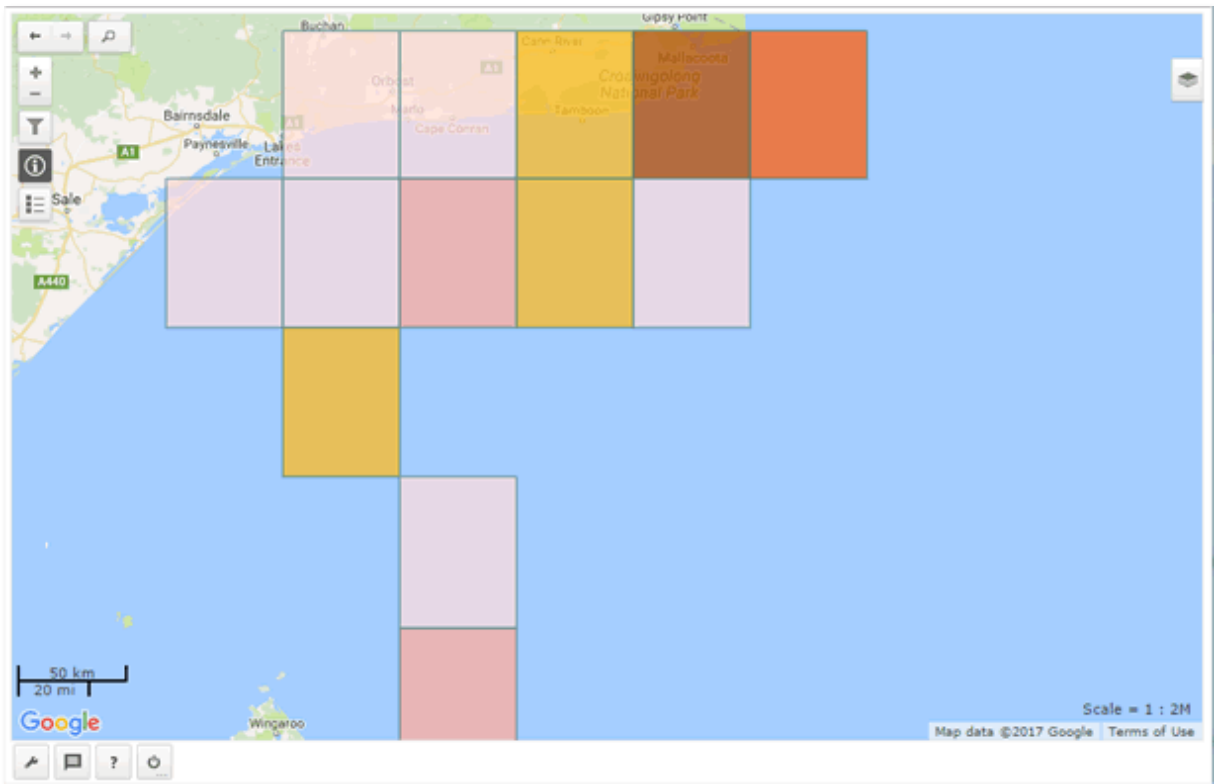


Figure 1: Map of a half degree grid of the ocean.

## VIEWING THE LEGEND

To display the Map Intelligence Legend

1. Click the **Show Legend** button .

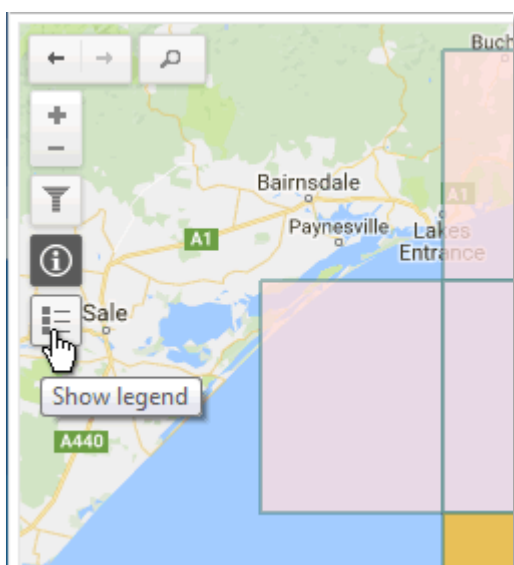


Figure 2: Selecting the Show Legend button.

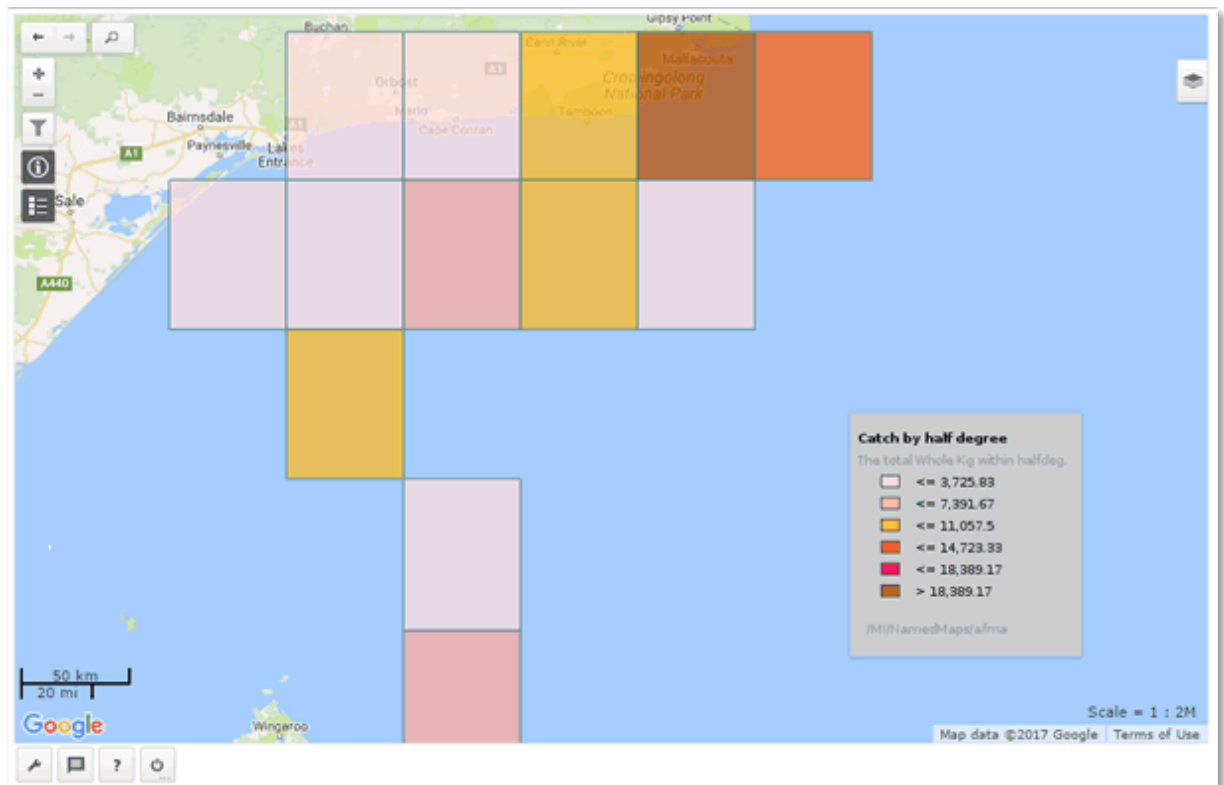



Figure 3: Map and Legend.


### Moving the Legend

1. Click the **Legend**, the mouse pointer changes from a Pointer to a pan pointer .
2. Move to reposition the Legend and when in the correct position, release the mouse.

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### NAVIGATION - PAN

To Pan (move the map)

1. Click the **Map**, the mouse pointer changes from a Pointer to a pan pointer .
2. Move to reposition the map and when the desired layout is achieved, release the mouse.



Touch screen users can swipe to pan greater distances.


**TIP**

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### LOCATION INFORMATION

Further details about a location can be found by using the *Location Information* feature.

#### To activate Location Information

1. Ensure that the Location Information button  is active, if not click the button.



- Once activated the Location Information button will change to active mode , click again to turn Location Information off.
- By default the Location Information mode is active.


2. Click on the brown square region to the top right of the map. The click point will be highlighted by a *Location Information Marker* (Figure 4) and the *Location Information panel* will open displaying the features found underneath the cursor, in this example the *Catch by half degree* states the amount of fish caught in the region (Figure 5).



Figure 4: Location Information marker






Figure 5: Location Information.

3. Click the **Close** button  to close the Location Information panel.

## THEMATIC LAYERS

You can easily change the color-coding or theme of regions to display a different view.

1. Click the **Layer Manager** button , located at the top right of the MI Viewer. The *Layer Manager* will open showing the *Thematic Layers* panel.

- From the **Thematic Layers** panel , select the **Most Common Vessel** section. The map will now display a theme color coding the ocean according to the boat which caught the most fish in a particular grid square (Figure 6).
- Now select the **Most Common Fish Caught** section, the map will update to show the grid squares color-coded according to the most common type of fish caught in a particular grid square (Figure 7).
- Clicking on any of the grid squares will provide further information for each grid square in relation to the selected theme.
- Click the **Close** button  to close the Location Information panel.

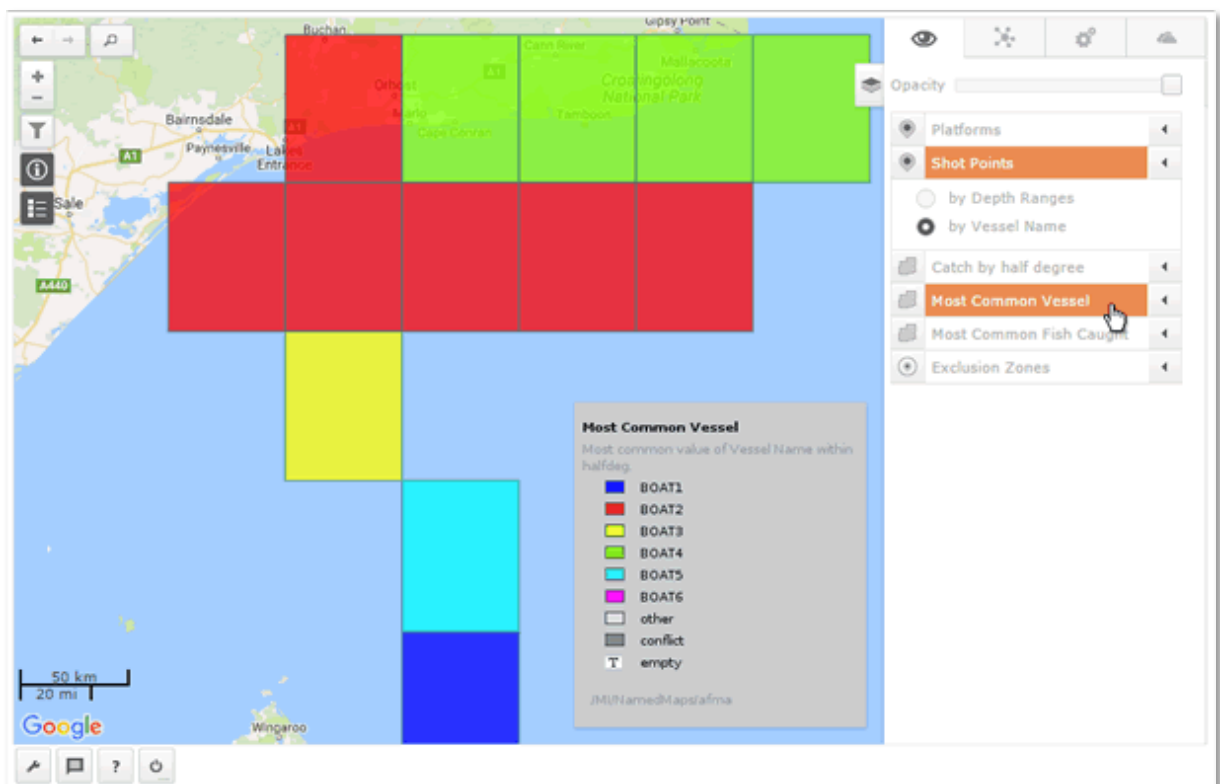


Figure 6: Map grid squares color coded according to the boat which caught the most fish in a particular grid square.



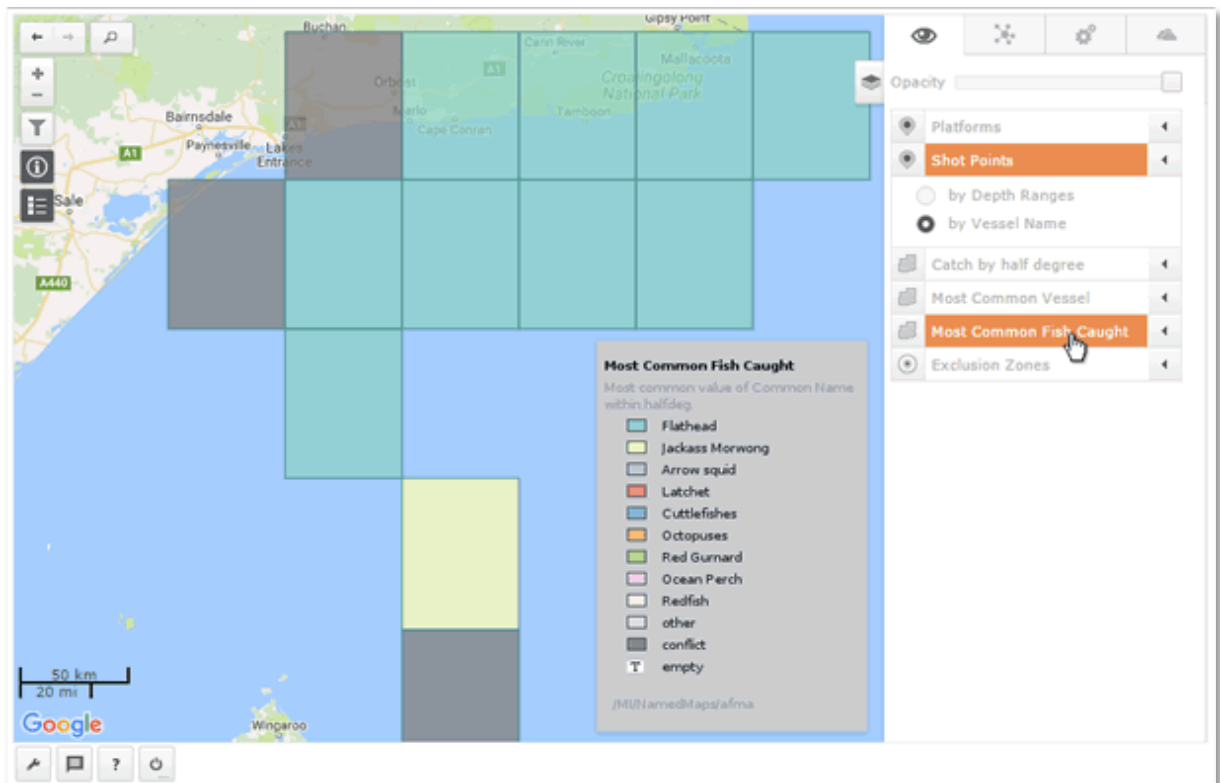



Figure 7: Map grid squares color coded according to the most common fish type caught in a particular grid square.

- Return to the initial view by clicking on the **Catch by half degree** section.

- To close the **Layer Manager**, click the **Layer Manager** button .

## ZOOMING IN FOR A CLOSER LOOK

Using the **Zoom to Marquee** navigation tool, we are now going to take a closer look at the area where most of the fish were caught. This is the brown grid square towards the top of the map.

- Move the mouse to a start point on the map, press the **SHIFT** key, click on the map and draw by dragging, a rectangle shape around the dark red grid, as seen in Figure 8.

The map will change to show the points where the fish were caught, represented by boat images, colored according to the name of the boat, red for Boat 5, green for Boat 3, etc as shown in the Legend. Each point is labeled according to the name of the fish caught.

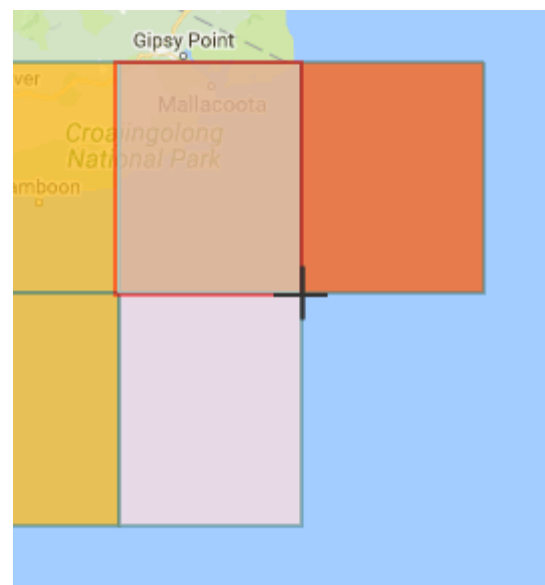



Figure 8: Zoom to Marquee



If you do not see the boats immediately, click the  button on the navigation controls to zoom in by one level at a time, until the boats are visible.

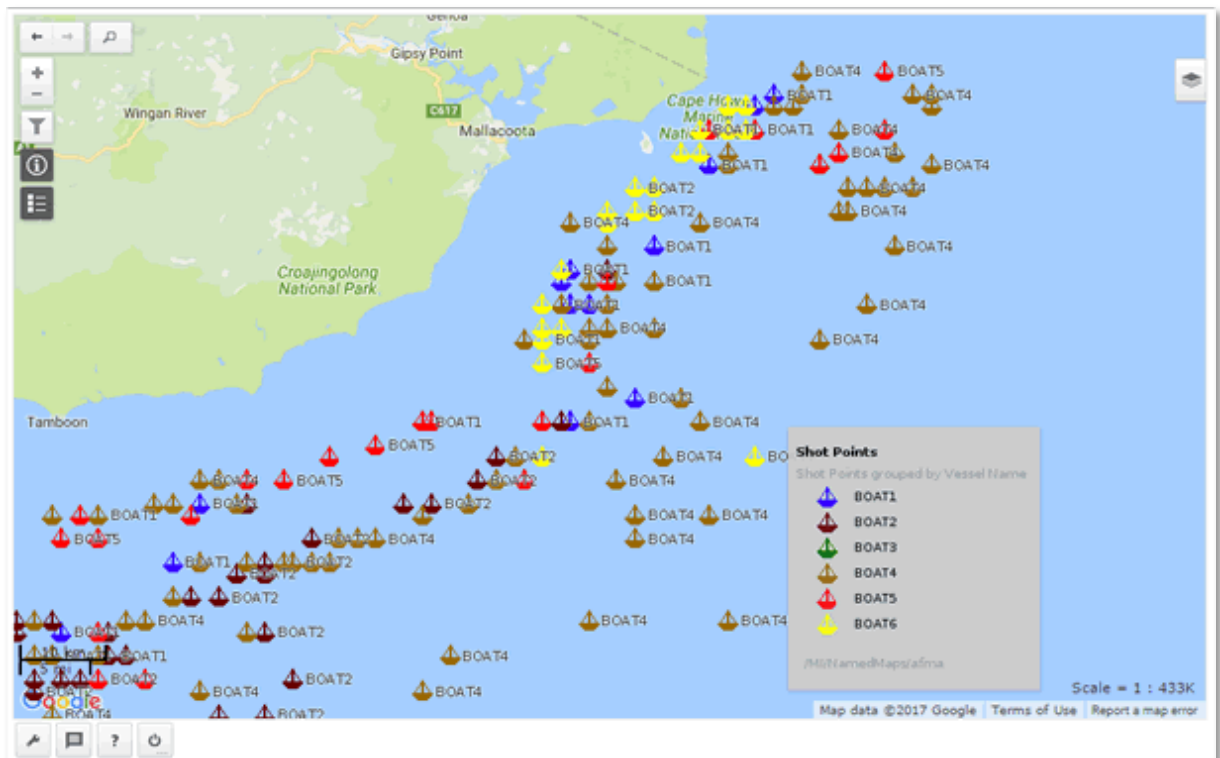



Figure 9: Points themed (color coded) by the name of the boat.

## THEMATIC POINT LAYERS

You can easily change the color-coding or theme of points to display a different view.

1. Click the **Layer Manager** button , located below the navigation controls. The *Layer Manager* will open showing the *Thematic Layers*.

As the Point Layer (Shot Points) has multiple themes, the available themes appear listed below the Point Layer name.

2. Click the select **by Depth Ranges** radio button. (Figure 10).

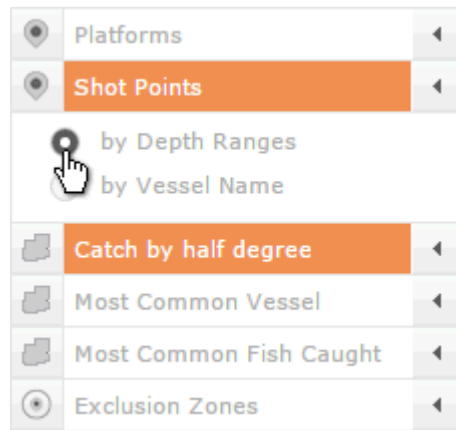


Figure 10: Configure Shot Points - by Depth Ranges theme.

3. Close the **Layer Manager**.

The points will now be displayed as colored triangles - blue for 100 to 150 meters, yellow 50 to 100 meters, etc (Figure 11).

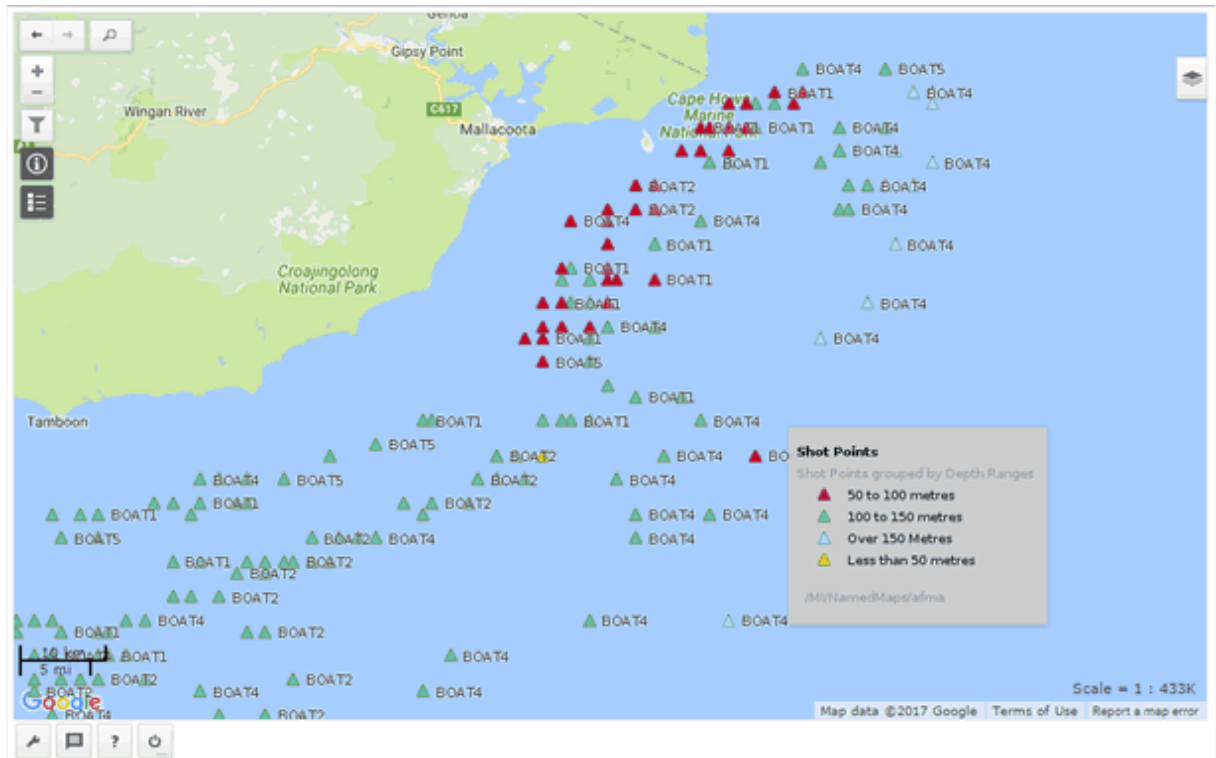


Figure 11: Points – by Depth Range theme.

- Click on a triangle for further information on the particular shot point (Figure 12).

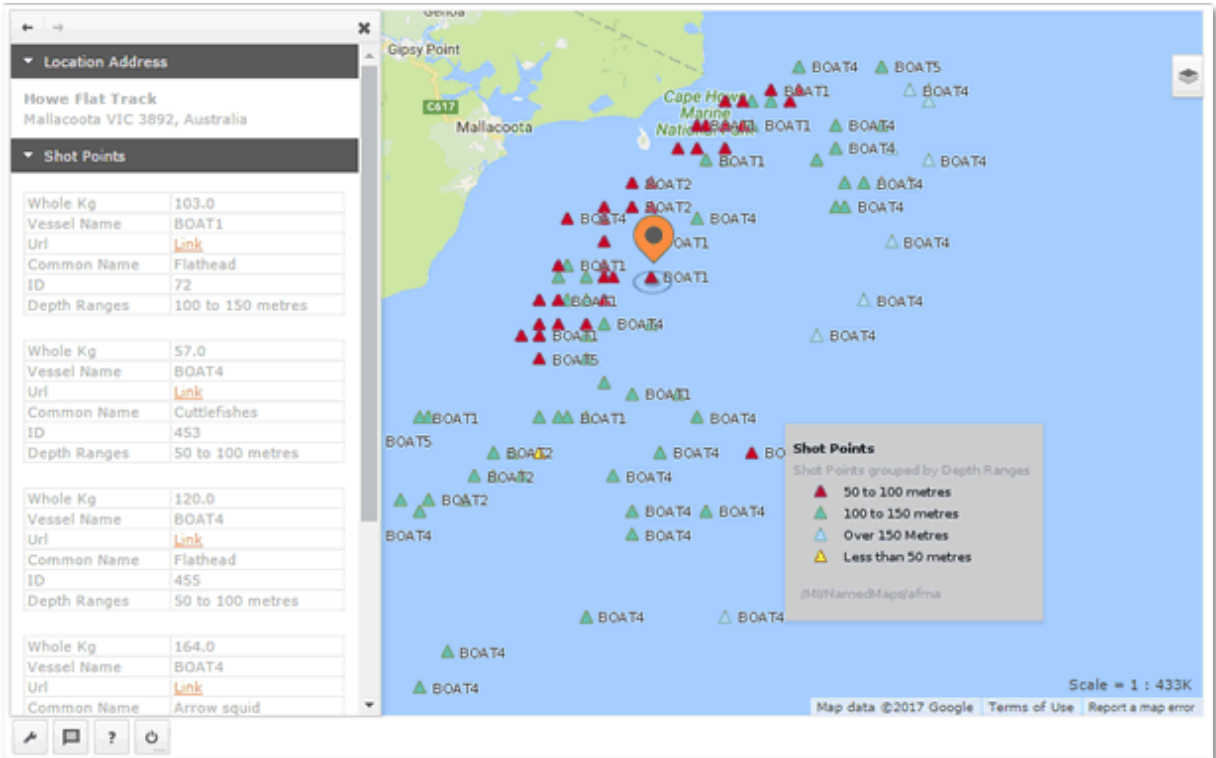


Figure 12: Location Information Popup displaying shot point information

ACTIVE POINT LINKS

If a URL has been assigned to a specific point, a **Link** will be displayed in the popup, clicking the link will launch the URL associated with the point.

1. From the **Location Information** panel, click on a [Link](#) to launch a URL, in this case a report on the vessel.

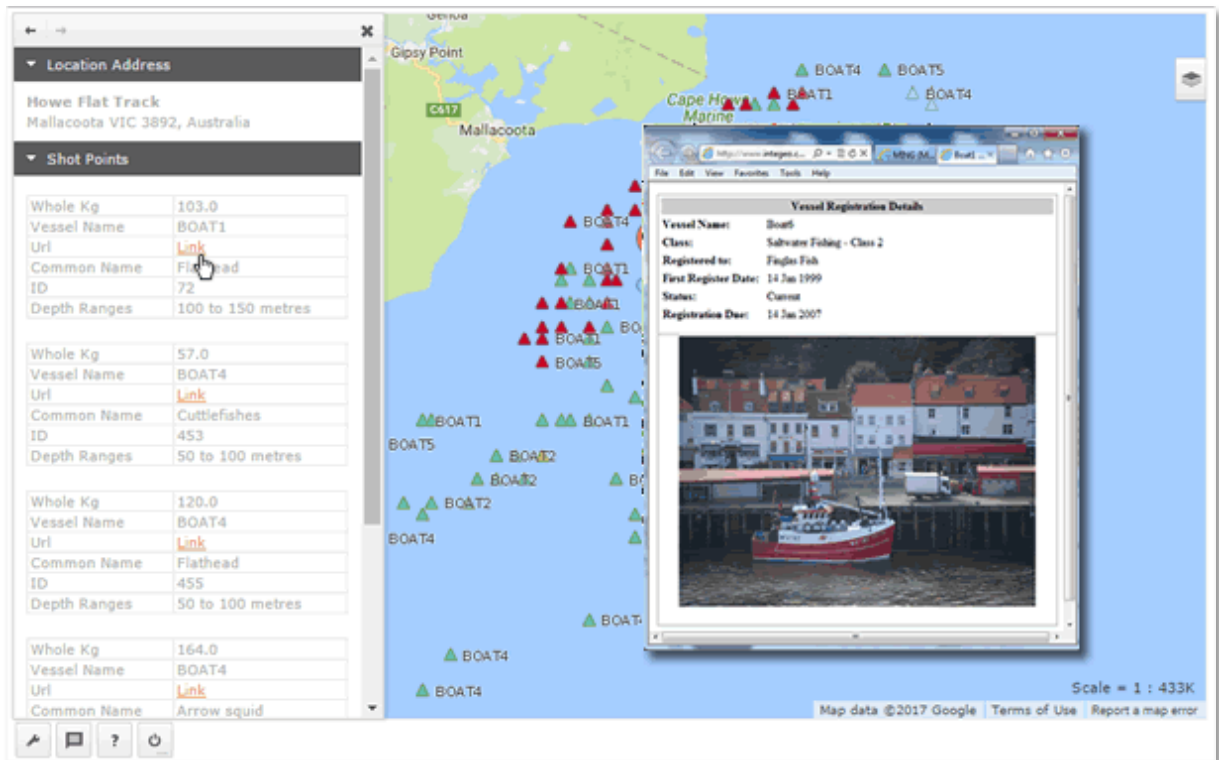




Figure 13: Active Point Link.

2. Click the **Close** button  to close the Location Information panel.

To change the points back to the initial theme

1. Click the **Layer Manager** button , located below the navigation controls. The *Layer Manager* will open showing the *Thematic Layers*.
2. Click the select **by Vessel Name** radio button. (Figure 14).
3. Close the **Layer Manager**.

The points will now be displayed as boats once again.

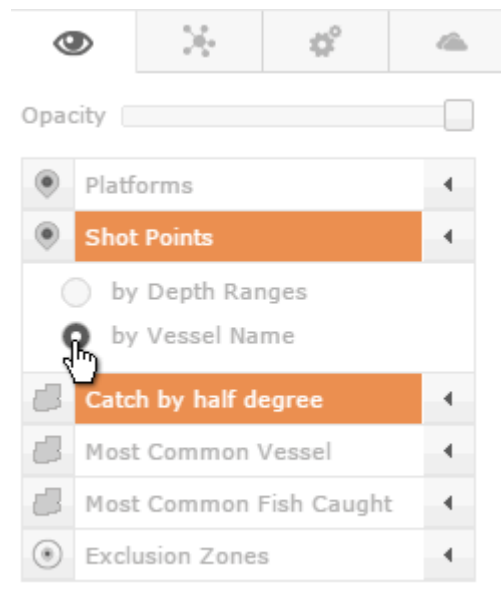



Figure 14: Configure Shot Points - by Vessel Name

## NAVIGATION HISTORY

The navigation **Back** and **Forward** buttons  can be found above the Navigation controls and act similarly to the back and forward buttons found on a web browser.

1. Click on the **Back** button to return to the initial view (Figure 15).

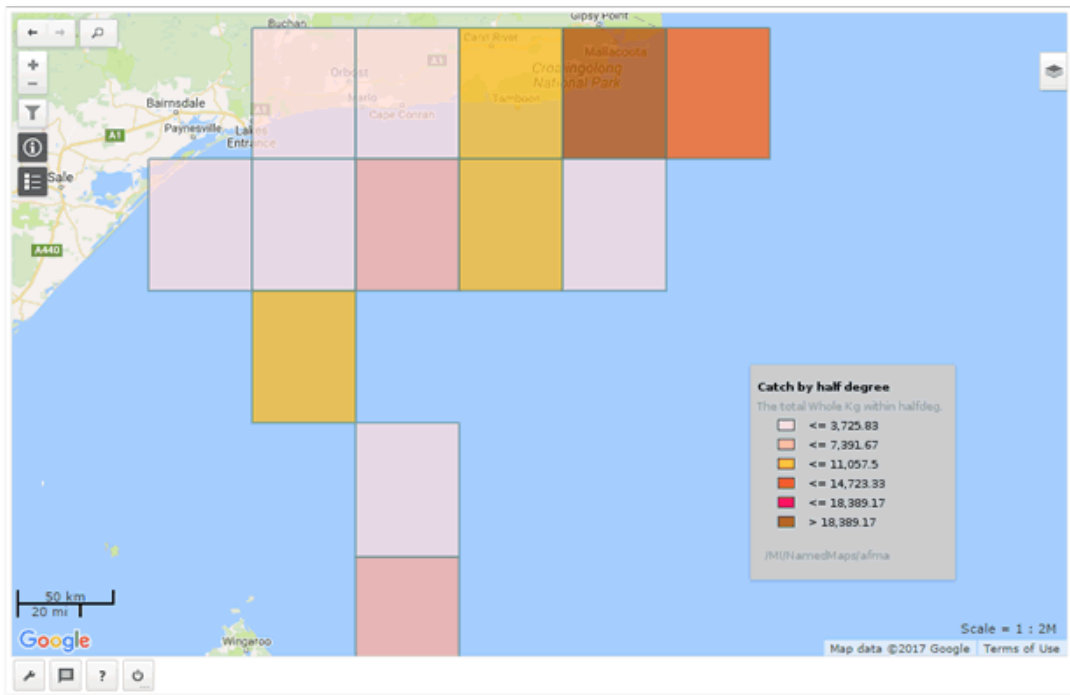



Figure 15: Initial view.

## EXCLUSION ZONES

Let's now view areas where fishing is prohibited within a 15 km radius of Marine Platforms.

1. Click the **Layer Manager** button .
2. From the **Thematic Layers** panel, select the Point Layer **Platforms** and then select the Radius Relationship Layer **Exclusion Zone**.
3. Close the **Layer Manager**.

The map will now show platform images representing the ocean platforms, around each platform are a green circles indicating the 15 km exclusion zone. Notice that the circles are shaded according to the number of illegal catches (Figure 17).

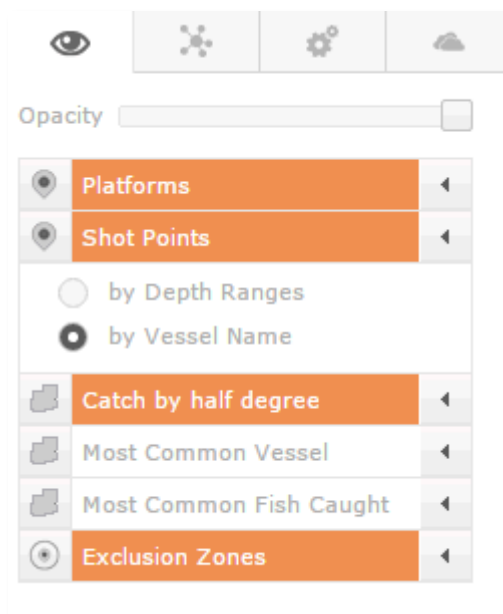


Figure 16: Selecting the Platforms and Exclusion Zone layers.

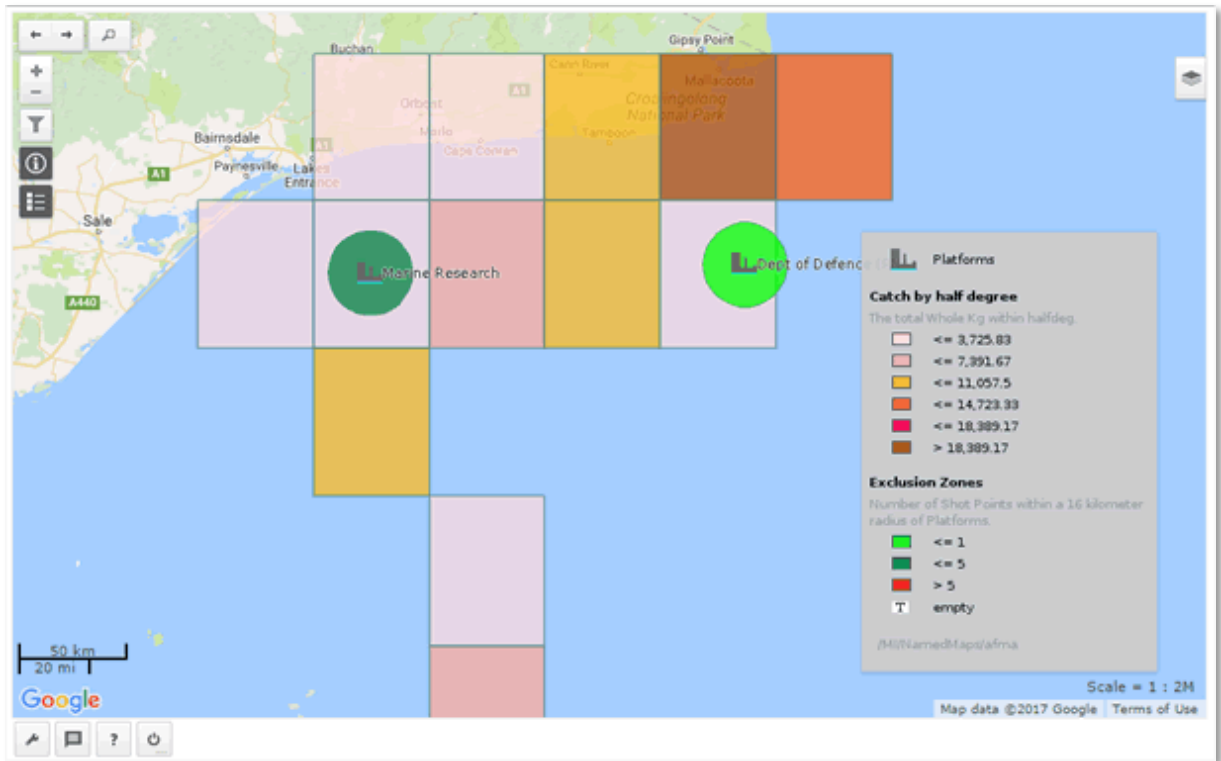


Figure 17: Map View displaying Platforms and Exclusion Zones.

1. Ensuring **Location Information** is active, click on the light green exclusion zone around the Department of Defence platform. The Location Information panel will open informing us that there has been one illegal catch within the zone and information about the platform.

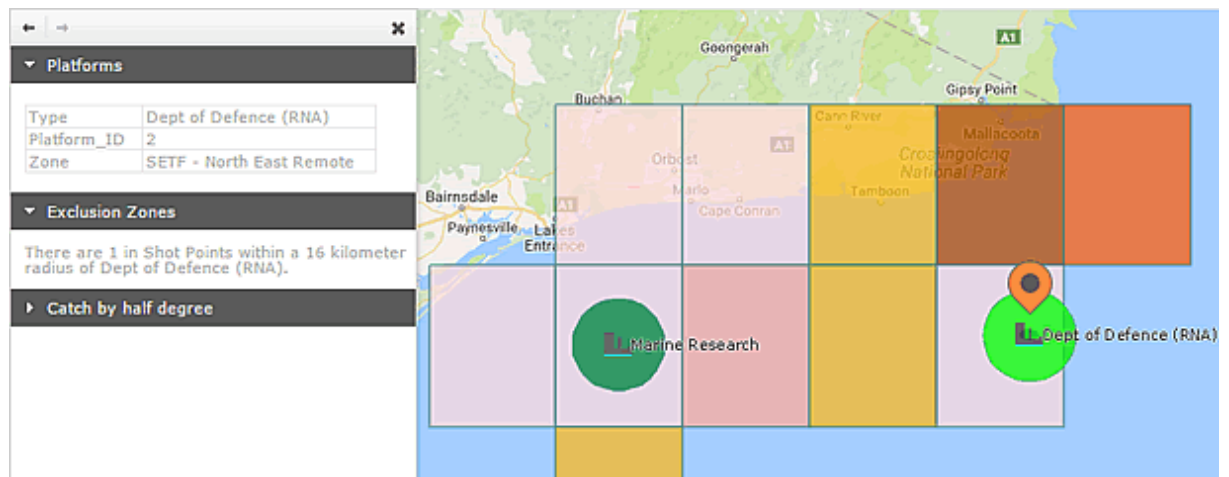


Figure 18: Exclusion Zone Pop-up Information box showing 1 illegal catch.

2. Click on the dark green exclusion zone around the Marine Research platform. The Location Information panel will update to inform us that three illegal catches occurred within the zone.

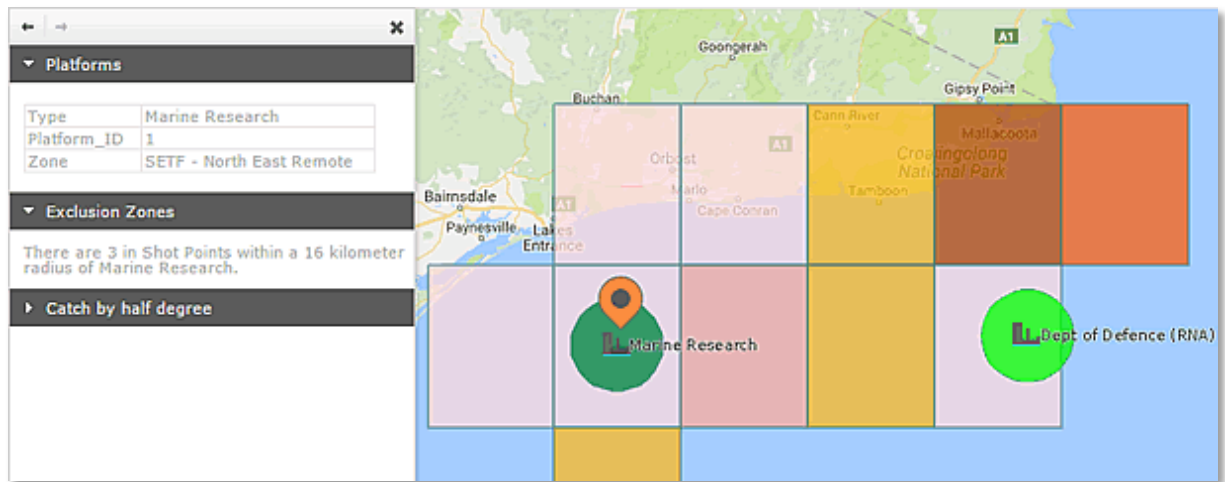





Figure 19: Location information panel showing 3 illegal catches.



**NOTE**

In the Location Information panel, you can use the   buttons to expand and collapse the result groups, in the example above the information relating to the *Catch by half degree* results section is collapsed.

3. Click the **Close** button  to close the Location Information panel.

## ZOOMING IN FOR A CLOSER LOOK

Using the **Zoom to Marquee** navigation tool, we are now going to take a closer look at the exclusion zone around the Marine Research platform.

1. Move the mouse the start point on the map, press the **SHIFT** key, click on the map and draw by dragging, a rectangle shape around the dark green exclusion zone, as seen in Figure 20.

The map will change to show the points where the fish were caught (Figure 21).

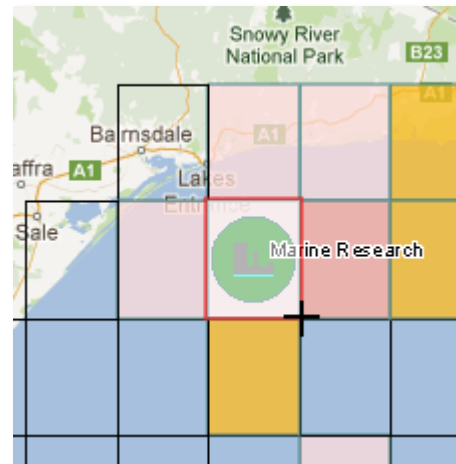


Figure 20: Zoom to Marquee

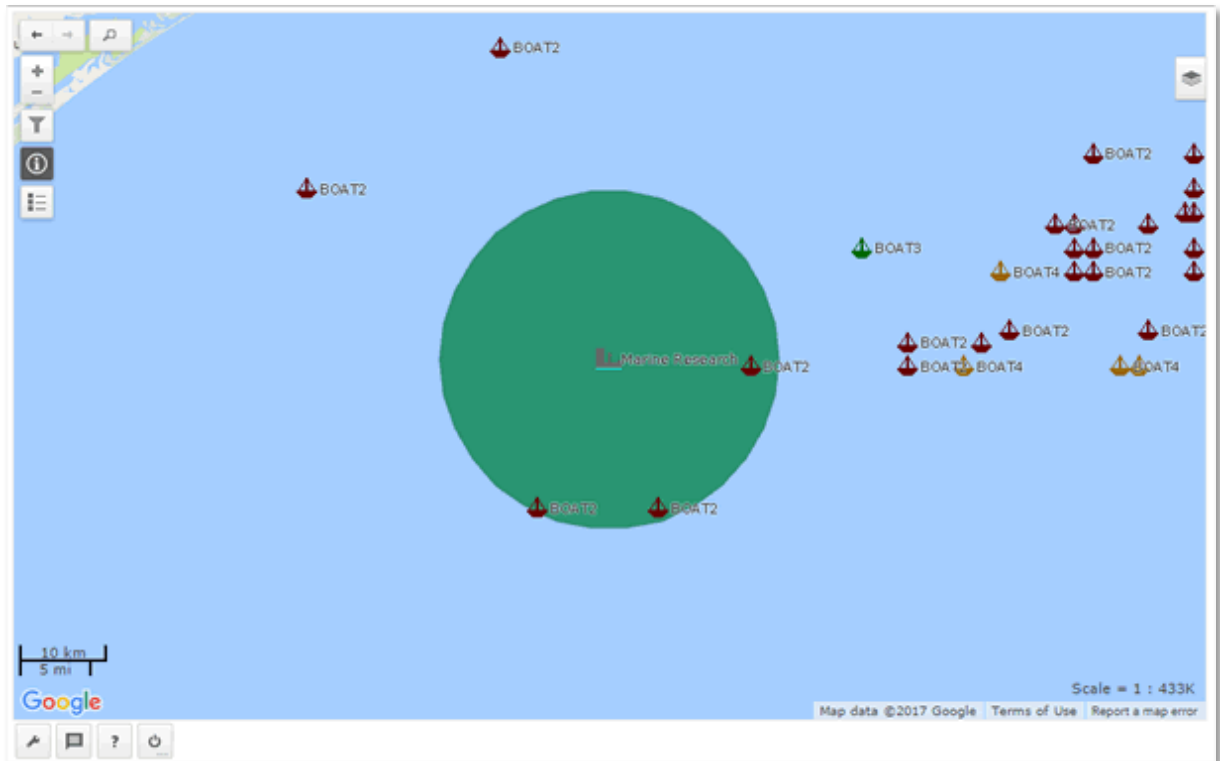

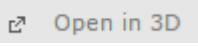


Figure 21: Zoom to Marquee Zoom in

### 3-D USING GOOGLE EARTH

If you have Google Earth installed you can easily display the map in Google Earth.

1. From the toolbar located at the bottom of the MI Viewer, select the **Tools** button , the Tools panel will open.
2. From the **Tools 3D** section, Click the **Open in 3-D** button , Google Earth will open and display the map view including the MI Custom layers.
3. Double click on a Map Intelligence Layers e.g. Shot Points. Google Earth will center the view and show all the features of that layer.
4. Click the **Legend** checkbox to view the Map Intelligence Legend.



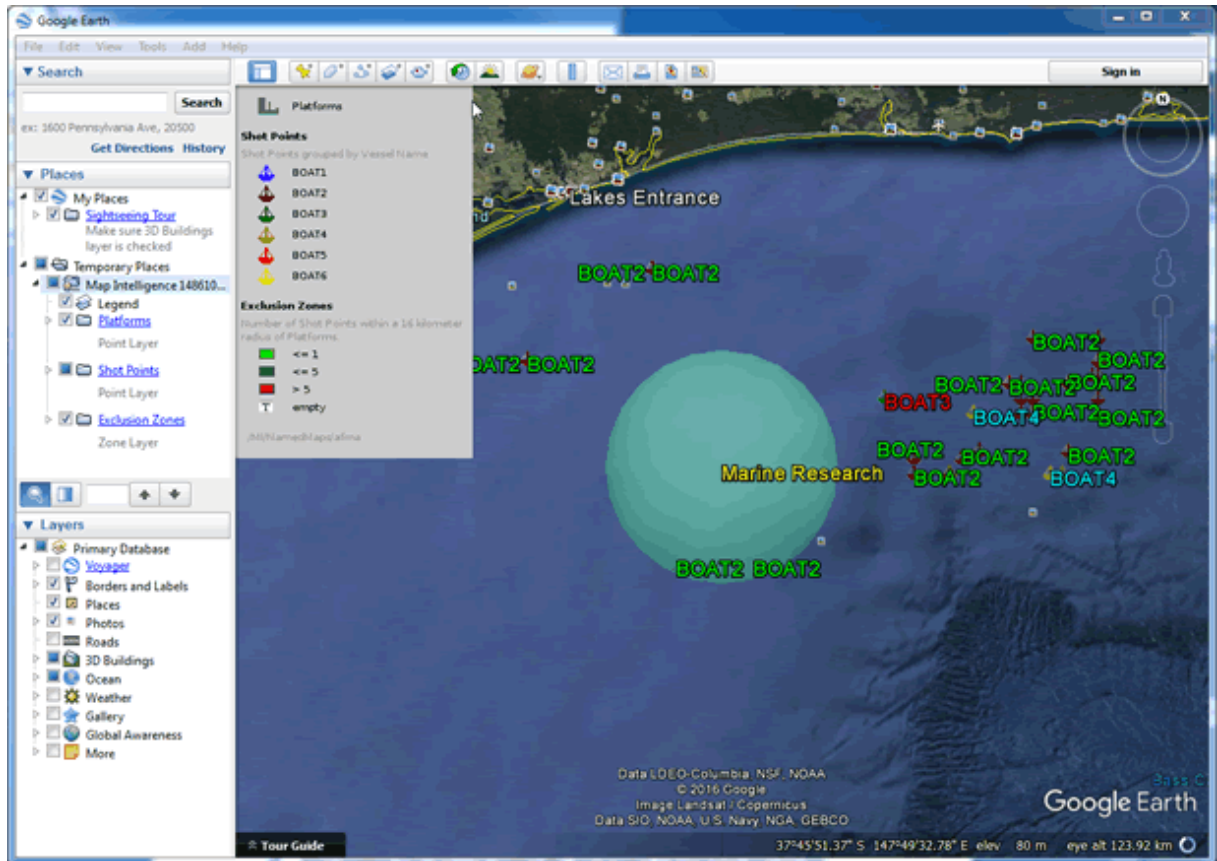



Figure 22: Map Intelligence and Google Earth.

5. Close Google Earth.


This has been a very simple demonstration, showing only a few of the analytical tools available in Map Intelligence.

You can find out more information about Map Intelligence tools by clicking the Help button  on the toolbar.

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## CLOSING MAP INTELLIGENCE

Before we close the MI Viewer, you need to end your Map Intelligence session.

1. Click the **End Session** button  to end your current Map Intelligence session.
2. Close your browser.