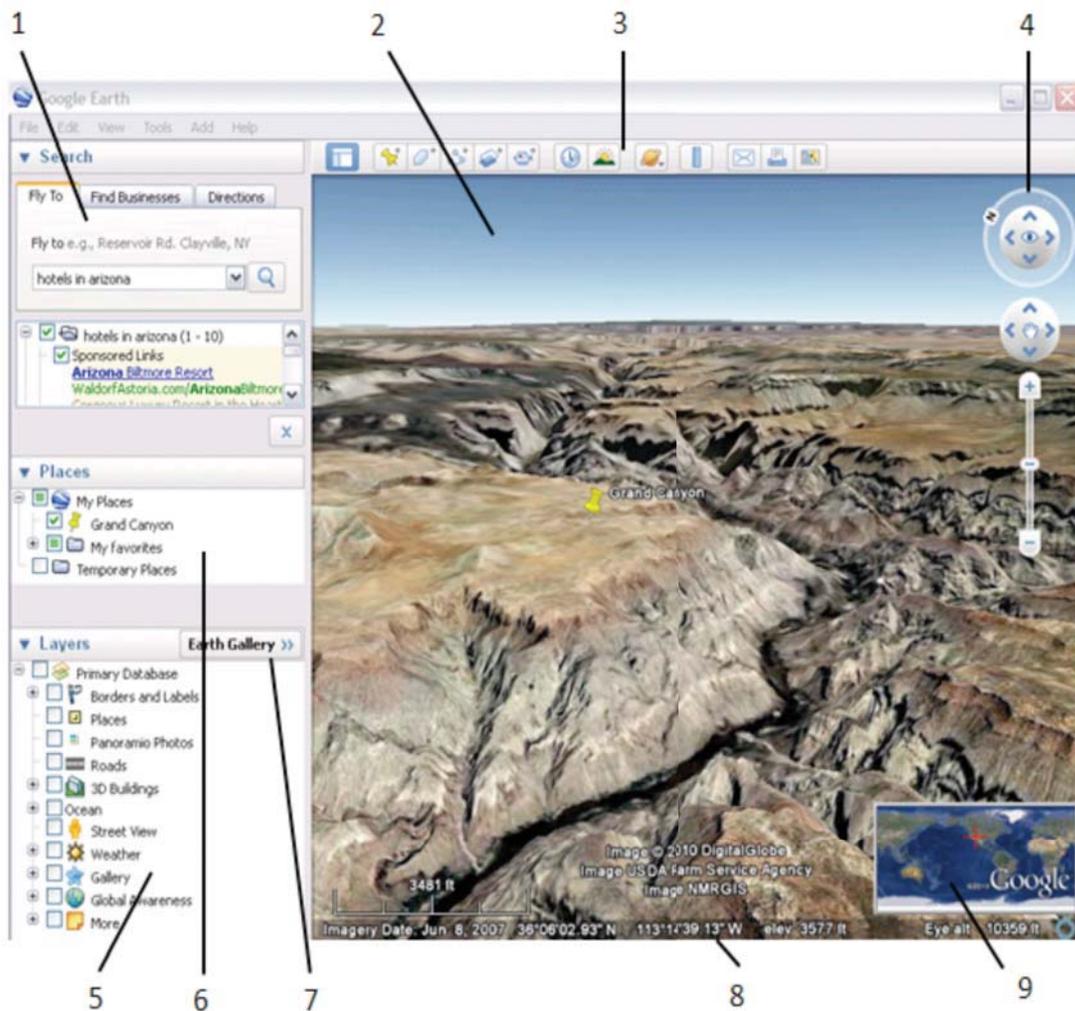


BASIC FEATURES

Getting started

Getting to know Google Earth

The following diagram describes some of the features available in the main window of Google Earth:



1. **Search panel** - Use this to find places and directions and manage search results. Google Earth EC may display additional tabs here.
2. **3D Viewer** - View the globe and its terrain in this window.
3. **Toolbar buttons** - See 'Using the Navigation Controls' (p. 6).
4. **Navigation controls** - Use these to zoom, look and move around (p.4).
5. **Layers panel** - Use this to display points of interest.
6. **Places panel** - Use this to locate, save, organize and revisit placemarks.
7. **Earth Gallery** - Click this to import exciting content from the Earth Gallery

8. **Status bar** - View coordinate, elevation, imagery date and streaming status here.
9. **Overview map** - Use this for an additional perspective of the Earth.

Click the following toolbar buttons to...

 Conceal or the display the side bar	 Display sunlight across the landscape
 Add a placemark for a location	 View the sky, moon and planets
 Add a polygon	 Measure a distance or area size
 Add a path (line or lines)	 Email a view or image.
 Add an image overlay on the Earth	 Print the current view of the Earth
 Record a tour	 Show the current view in Google Maps
 Display historical imagery	

Sightseeing

If you are using Google Earth for the first time, this feature is a great introduction. A 'Sightseeing' folder inside the 'My Places' folder contains a number of points of interest already marked on the earth for you to explore. To view them, expand the folder and double-click one of the entries. The 3D viewer flies to that location.



Tip - If you are upgrading to Google Earth from a previous version, you can access the 'Sightseeing' folder by opening the 'default_myplaces.kml' file located in the Google Earth installation folder, as follows:

1. Click **File > Open**. A dialog box appears. Use the dialog box to navigate to the folder where Google Earth is installed. If you installed Google Earth using the default method, look in **Program Files > Google > Google Earth** for the application.
2. Select the *default_myplaces.kml* file and click **Open**. A second 'My Places' folder appears in the 'Temporary Places' folder.
3. Expand this second 'My Places' folder to view the 'Sightseeing' folder within. If you wish, you can drag the sightseeing items to your original 'My Places' folder if you want them to appear the next time you start Google Earth. Or, simply right-click any place you want to save and select **Save to My Places** from the pop-up menu.

You can also tour places in the 'Sightseeing' folder as you would any placemark.

Navigation

Navigating in Google Earth

In Google Earth, you see the Earth and its terrain in the 3D viewer. You can navigate through this 3D view of the globe in several ways:

Using a mouse

To get started navigating with your mouse, simply position the cursor in the middle of the 3D viewer (image of the earth), click one of the buttons (right or left), move the mouse and note what happens in the viewer. Depending upon which mouse button you press, the cursor changes shape to indicate a change in behavior. By moving the mouse while pressing one of the buttons, you can:

- Drag the view in any direction
- Zoom in or out
- Tilt the view (requires middle button or scroll wheel)
- Look around from a single vantage point
- Rotate the view (requires middle button or scroll wheel)

The following table describes all the actions you can accomplish using the mouse:

Move the view in any direction (north, south, east, or west)	To move the view, position the mouse cursor on the viewer and press the LEFT/main mouse button. Notice that the cursor icon changes from an open hand  to a closed hand  . Pull the viewer as if the hand cursor is like a hand on an actual globe, and you want to drag a new part of the earth into view.
---	---

	 <p>You can drag in any direction to reveal new parts of the globe, and you can even drag in circular motions.</p> <p>Once you are at ground level, you can move around as if you were walking by using the W, A, S, D or arrow keys.</p>
<p>Drift continuously across the Earth</p>	<p>If you want to drift continuously in any direction, hold the left/main mouse button down. Then, briefly move the mouse and release the button, as if you are "throwing" the scene. Click once in the 3D viewer to stop motion.</p>
<p>Zoom in</p>	<p>There are a number of ways to zoom in with the mouse.</p> <ul style="list-style-type: none"> ● You can double-click anywhere in the 3D viewer to zoom in to that point. Single-click to stop, or double-click to zoom in more. ● If your mouse has a scroll wheel, use it to zoom in by scrolling towards you. Use the ALT (Option on the Mac) key in combination with the scroll wheel to zoom in by smaller increments. ● You can also position the cursor on the screen and press the RIGHT mouse button. Once the cursor changes to a double arrow, move the mouse backward or pull toward you, releasing the button when you reach the desired elevation. Note that crosshairs appear and that your view zooms toward this. ● ● If you want to zoom continuously in, hold the button down and briefly pull the mouse down and release the button, as if you are "throwing" the scene. Click once in the viewer to stop the motion. Note that your viewing angle swoops (tilts) as you approach ground level. ● On some Macintosh laptops, you can drag two fingers across the trackpad to zoom in and out.
<p>Zoom out</p>	<p>There are a number of ways to zoom out with the mouse.</p> <ul style="list-style-type: none"> ● Using the RIGHT mouse button, double-click anywhere in the 3D

	<p>viewer to zoom out from that point. The viewer will zoom out by a certain amount. Single-click to stop, or right double-click to zoom out more.</p> <ul style="list-style-type: none"> • If your mouse has a scroll wheel, you can use the scroll wheel to zoom out by scrolling away from you (forward motion). Use the ALT (Option on the Mac) key in combination with the scroll wheel to zoom out by smaller increments. • You can also position the mouse cursor on the screen and press the RIGHT mouse button. Once the cursor changes to a double arrow, move the mouse forward or push away from you, releasing the button when you reach the desired elevation. Note that crosshairs appear and that your view zooms toward this. If you want to zoom continuously out, hold the right button down and briefly push the mouse forward and release the button, as if you are "throwing" the scene. Click once in the viewer to stop motion.
Tilt the view	<p>If your mouse has either a middle button or a depressible scroll wheel, you can tilt the view by depressing the button and moving the mouse forward or backward. If your mouse has a scroll wheel, you can tilt the view by pressing the SHIFT key and scrolling. You can also press Shift and the left mouse button and drag. Note that crosshairs appear and that your view tilts from this point.</p> <p>See the Tilting and viewing hilly terrain section for more information.</p>
Look	<p>To look around from a single vantage point, as if you were turning your head, press CTRL and left mouse button and drag.</p>
Rotate the view	<p>If your mouse has either a middle button or a depressible scroll wheel, you rotate the view by clicking on the middle button and moving the mouse to the left or right. You can also press Shift and the left mouse button and drag. Note that crosshairs appear and that your view rotates around this.</p> <p>You can also use the CTRL key in combination with the scroll wheel to rotate the view. Press CTRL and scroll UP to rotate clockwise, CTRL + scroll DOWN to rotate counter-clockwise.</p> <p>See the Tilting and viewing hilly terrain section for more information.</p>

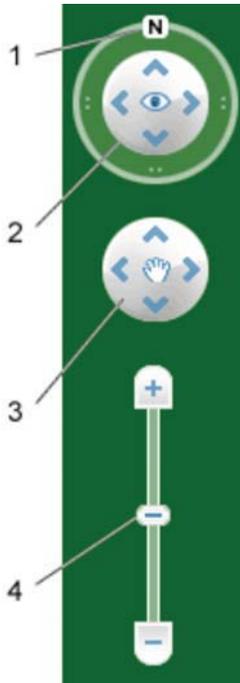
Mouse wheel	<p>To change the mouse wheel settings, click Tools > Options > Navigation (on the Mac: Google Earth > Preferences > Navigation > Mouse Wheel Settings). Move the slider to set how fast or slow your viewpoint of the earth zooms in or out. Check 'Invert Mouse Wheel Zoom Direction' to reverse the direction of zooming when you use the mouse wheel.</p>
Other controllers	<p>(Windows and Linux) Tools > Options > Navigation > Navigation Mode > Pan and Zoom. (on the Mac: Google Earth > Preferences > Navigation > Non-mouse controller settings). If you use a joystick or other non-mouse controller, you can also change how perspective moves in the 3D viewer under 'Non-mouse controller settings'. Choose 'User-Based' to move your particular vantage point or 'Earth Based' to move the globe. Check 'Reverse Controls' to reverse the actions of the joystick.</p>

Using the navigation controls

To view and use the navigation controls, move the cursor over right corner of the 3D viewer. After you start Google Earth and move the cursor over this area, the navigation controls fade from sight when you move the cursor elsewhere. To view these controls again, simply move the cursor over the right corner of the 3D viewer.

Note - If the navigation controls do not appear when you move the cursor over the right corner of the 3D viewer, click **View > Show Navigation > Automatically** and try again.
 To hide or show the compass icon in the 3D viewer, click **View > Compass**. See also **Showing or Hiding Items in the 3D Viewer**.

The Google Earth navigation controls offer the same type of navigation action that you can achieve with mouse navigation. In addition, you can use the controls to zoom and swoop (perhaps for a perspective on terrain) or to rotate your view. The following diagram shows the controls and explains their functions.



1. Click the north-up button to reset the view so that north is at the top of the screen. Click and drag the ring to rotate your view.
2. Use the Look joystick to look around from a single vantage point, as if you were turning your head. Click an arrow to look in that direction or continue to press down on the mouse button to change your view. After clicking an arrow, move the mouse around on the joystick to change the direction of motion.
3. Use the Move joystick to move your position from one place to another. Click an arrow to look in that direction or continue to press down on the mouse button to change your view. After clicking an arrow, move the mouse around on the joystick to change the direction of motion.
4. Use the zoom slider to zoom in or out (+ to zoom in, - to zoom out) or click the icons at the end of the slider. As you move closer to the ground, Google Earth swoops (tilts) to change your viewing angle to be parallel to the Earth's surface. You can turn off this automatic tilt (Tools > Options > Navigation > Navigation controls; Mac: Google Earth > Preferences > Navigation > Navigation controls).

You can also use the keyboard to control navigation. See 3D Viewer Navigation in Keyboard Controls for more information (p.9).

You can also manipulate your view of the earth by tilting the terrain for perspectives other than a top-down view. Finally, you can reset the default view for a north-up, top-down view wherever you are.

Tilting and viewing hilly terrain

When you first start Google Earth, the default view of the earth is a "top-down" view, which is straight down.

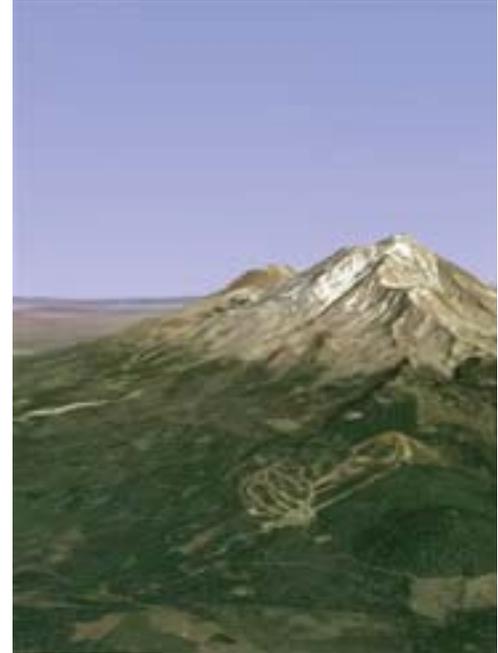
- **Tilt the terrain from 0 - 90 degrees** - You can use the mouse to tilt the view in order to see a different perspective of the area you're exploring. You can tilt to a maximum of 90 degrees, which provides a view of the object as well as the horizon, in some cases.
- **Turn on terrain** - Using the tilt feature is particularly interesting when you are looking at a part of the earth where the terrain is hilly. Make sure the terrain setting is on.
- **Rotate the view for a new perspective** - Once you have tilted the view so that you are looking at a particular object, such as a hill, you can also rotate around that object. When you do this, the object remains in the center of the view, but you look at it from different perspectives (i.e., north, south, east, west) as you rotate around it.
- **Use the middle mouse button (if available) for seamless movement** - If your mouse has a middle button or a depressible scroll wheel, you can depress the button to both tilt and rotate the view. Movements up or down tilt the view, and movements left or right rotate the view. See **Using a Mouse** for more information.

The following figures show a comparison view of Mount Shasta in California with and without tilt enabled.



Top down view

Imagery Date: December 31st, 2004
c. 2010 Google



Tilted view

Imagery Date: December 31st 2004
c.2010 Tele Atlas
c.2010 Europa Technologies

You can adjust the appearance of the terrain if you would like the elevation to appear more pronounced. To do this, click **Tools > Options > 3D View** from the **Tools** menu (for the Mac, choose **Google Earth > Preferences > 3D View**) and change the 'Elevation Exaggeration' figure. You can set it to any value from 1 to 3, including decimal points. A common setting is 1.5, which achieves an obvious yet natural elevation appearance. See Viewing Preferences for more information (p. 56).

Navigating the ocean

You can navigate under the surface of the ocean just as you can anywhere else in Google Earth. This means that you can explore sea floor terrain, such as deep ocean trenches. You can hide or display the surface of the ocean. To do this, click **View > Water Surface**. You can view this visual effect from above or below this surface. Note that you can navigate under the ocean surface when it is displayed.

Tip - To view exciting content related to oceans, in the Layers panel, click **Ocean**.
Resetting the default view

After tilting and rotating the 3D view in Google Earth, you can always quickly reset to the default north-up and top-down view. To do this:

- Click the North-up button **N** to reset the view so that north is at the top of the viewer.
- (Windows and Linux only) Click in the 3D viewer and type r on the keyboard to reset the view.

Changing views

Ground-level view

Ground-level view provides an intuitive view of the world from the ground. There are two ways to enter this view:

1. Zoom in as much as possible on a particular location in Google Earth.
2. Zoom into an area at an altitude of approximately 500km or until you see you a pegman icon 🧑 appear below the navigation controls on the right. Click and drag the 🧑 icon to the area of interest, and select the building icon that appears in the top right of the 3D viewer.
3. Make sure the terrain and 3D Buildings layers are on for an enriched experience. Applicable layers that are selected in the left panel under Layers are also visible.



To control your view, you can do any of the following:

- Double click an area of the image with your mouse.
- Drag the imagery to the right or left with your mouse. In some locations, you can drag the imagery down to look skyward.
- Use the keyboard arrows.

- Use the scroll wheel of your mouse.

The widget at the top right allows you to easily toggle between Street View and ground-level view:

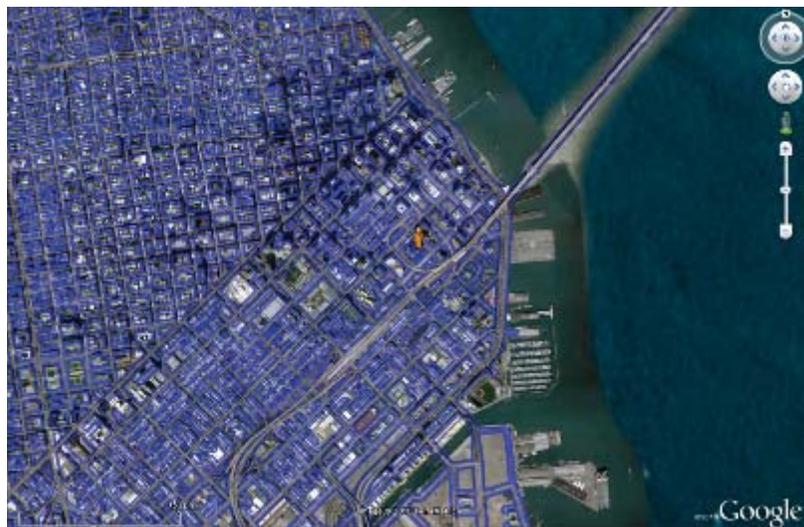


To exit this mode, select the **Exit ground-level view** button.

Street View

Street View in Google Earth 6

To view street-level imagery for a specific location, zoom into an area at an altitude of approximately 500km. You will see a pegman icon 🧑 appear at the top right below the navigation controls. Click and drag the 🧑 icon across the 3D viewer. A blue border will appear around roads that have street-level imagery available.



Drop the 🧑 on a road with the blue border and you will enter Street View. While in Street View, all applicable layers that are selected in the left panel under Layers are also visible.

You can navigate and rotate your view while in Street View mode by doing any of the following:

- Double click an area of the image with your mouse.
- Drag the imagery to the right or left with your mouse. In some locations, you can drag the imagery down to look skyward.
- Use the keyboard arrows.
- Use the scroll wheel of your mouse.

To exit Street View, select the **Exit Street** View button located at the top right.

If Street View is not available in a particular location, you will automatically enter the ground-level view.

Street View in Google Earth 5.2 and earlier

In certain areas, you can view and navigate street-level imagery in much the same way you can in Google Maps. To do this:

1. In the Layers panel, check 'Street View'. If this feature is available in the current view, photo icons  appear at locations with available views.
2. Zoom in until you can see individual streets. Note that if you are close enough, the photo icons appear as spheres.
3. Click a photo icon. A balloon appears.
4. Click **Show full screen**. The 3D viewer displays imagery of this location.
5. To move around, double click photo icons that appear on the street. You can also look around, zoom and exit at any time.



Terrain

The terrain option shows 3D elevation of your current view. Elevation is limited to natural geographic features, like mountains and canyons, and does not apply to buildings. Turn this feature on to get an even clearer image of your favorite ski resort or canyon trail.

You can turn terrain on by selecting:

Windows/Linux: **Tools > Options > 3D View**. Under the Terrain Quality section, select the 'Show terrain' box.

Mac: **Google Earth > Preferences > 3D View**. Under the Terrain Quality section, select the 'Show terrain' box.

You can also adjust the appearance of the terrain if you would like the elevation to appear more pronounced in your views by modifying the 'Elevation Exaggeration value'. The default value is set to 1, but you can set it to any value from 1 to 3, including decimal points. A common setting is 1.5, which achieves an obvious yet natural elevation appearance.

Tip: Because terrain data is additional information, more time is needed to download this information to Google Earth. If you are not interested in viewing terrain data, turn this option off for faster streaming from the server to the viewer.

Displaying the sun

You can display the sun and sunlight across the landscape, To do this:

1. Click **View > Sun** or the Sun button . Google Earth displays the current level of daylight at the location you are viewing. Note that the time slider appears.
2. To change the time of day, drag the time slider right or left. Depending on your location and time of year, you can view the sunrise or sunset while looking east or west.
3. To display an animation of sunlight across the landscape, click the time slider play button.
4. To hide the sun, click **View > Sun** or the Sun button .

Tip - This feature often produces dramatic effects when you are viewing hilly or mountainous terrain.

Viewing Mars and Moon

Note: This feature is available only in Google Earth 5 and later

Displaying a lat/long grid

Google Earth provides a special layer accessible from the View menu that displays a grid of latitude and longitude lines over the imagery in the 3D viewer. To turn on the grid do one of the following:

- Select **View > Lat/Lon Grid**.
- Type **CTRL + L** (**⌘ + L** on the Mac)
- The grid appears over the earth imagery as white lines, with each latitude/longitude degree line labeled in an axis across the center of the 3D viewer. You can position a geographical feature in the 3D viewer and determine its basic geo-spatial coordinates using this grid.
- As you zoom in, the level of detail of the degree lines increases. For example, from an eye elevation of about 100 miles, Las Vegas, Nevada, appears north of the 36th parallel, and just west of the 115th meridian.



Imagery Date: June 22, 2009
c. 2010 DigitalGlobe

- As you zoom to an eye altitude of just above 2000 feet, you can see that the marker for Las Vegas, Nevada, sits at W115 08'11" and N36 10'29".



- The grid lines continue increasing in granularity even after you have zoomed past the base resolution of the earth imagery.

Switching to Full Screen Mode

Note - Currently, this feature is not supported for Mac versions of Google Earth. You can use the Google Earth application in either window or full-screen mode. To enter full-screen mode, or to return to window mode from full-screen mode:

- Select **View - Full Screen** from the menu
- Press the **F11** key

Switch to full-screen mode for the most dramatic display of earth imagery, such as when touring places or making presentations.

Using the Overview Map

The Overview Map window feature displays an additional view of the earth with a position indicator that corresponds to the current view inside the 3D viewer. In the following example, Google Earth is positioned over the city of Paris, France. The Overview window has a cross-hair marker to indicate the position of the view in relation to the entire earth.



To show or hide the Overview Map window, do one of the following:

- Click **View > Overview Map**
- Click CTRL + M (PC Only)

Overview Map Features

You can use the Overview Map window to:

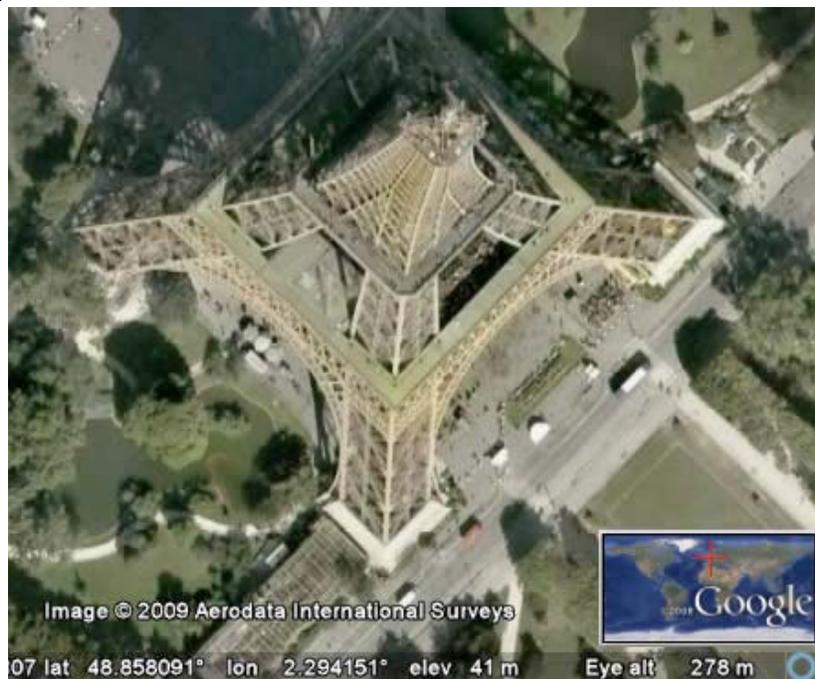
- Determine position of the current view relative to the entire earth
- For example, if you open a KMZ file from the Google Earth Community, the 3D viewer might fly quickly to a detailed view on the earth that you are unfamiliar with. You can open the 'Overview Map' window to see the position of the current view relative to the entire earth. As you adjust the position of the 3D viewer, the indicator in the Overview map continually adjusts to reflect the current position in the 3D viewer.
- Control the motion in the 3D viewer itself
- While the Overview Map window responds to position adjustments in the 3D viewer, you can also interact directly with the 'Overview Map' window itself. Double click any area within the window and both the overview display and the 3D viewer adjusts position to the point in the Overview Map window that you click. For example, if the current view is located in the United States, you can double click the African continent and both the Overview Map indicator and the 3D viewer will move to the new position.

Adjusting the Overview Map Size and Zoom Ratio

To adjust the Overview map preferences, select **Tools > Options > 3D View** (Mac:**Google Earth > Preferences > 3D View**). Adjust the slider control in the Overview Map options to scale the Overview map from small to large.

Using the settings in the **Options > 3D View** tab, you can also adjust the ratio of territory displayed in the Overview Map window relative to that in the 3D viewer. This ratio has three basic elements:

- **1:infinity** (default setting) - Here, the entire map of the earth is displayed in the Overview Map window regardless of the amount of territory displayed in the 3D viewer. This is shown above in the Paris example. **1:1** - The view in the Overview Map window corresponds exactly to that in the 3D viewer. As shown below, the Overview Map window now draws the bounds of the current view using a red bounding box. A small amount of the territory outside the current 3D viewer is displayed in the Overview window.



- **1:n** - Here, 'n' corresponds to any number you set, multiplied by the current view. This creates a relative "zoom" factor, so that you can choose to zoom out from the current view by 10, 50, or any other factor. The example below shows the same close-up view of a Paris building with the zoom factor adjusted up to 260.

Viewing historical imagery

Note: This feature is available only in Google Earth 5 and later



Las Vegas 1950 vs. 2010

By default, Google Earth displays best available imagery. You can view historical imagery so that you can see how places have changed over time.

To access historical imagery, do one of the following:

- Click **View > Historical Imagery**
- Click the Clock icon  in the toolbar above the 3D viewer.
- Click on the year that appears in the bottom left of the **Status bar**(Version 6.0).

The small vertical lines on the timeline indicate the dates of different imagery available for your location. Notice that the slider is automatically positioned at the far right of the timeline, showing that you are viewing more recent satellite imagery. Move back or forward in time by doing the following:

- Click the Forward or Back buttons above the slider.
- Drag the slider along the timeline. Note that regardless of where you release your mouse on the timeline, the slider automatically moves to the closest date for which imagery is available.

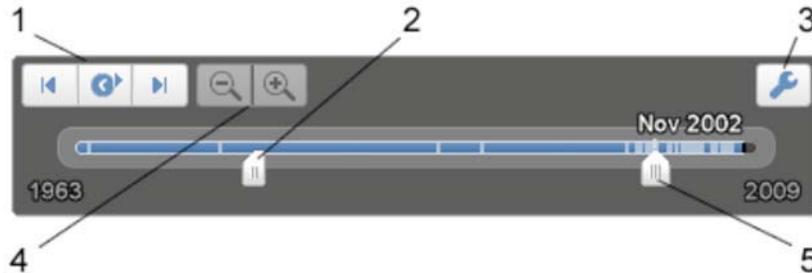
Basics of the time slider

Note: The time slider feature is available only in Google Earth 5 and later

When to use the Time Slider

If you have downloaded data that contains time information (for example, GPS tracks), you can view this information sequentially in Google Earth using the time slider. For example, you can view GPS tracks that occur within a specific time period and visually follow these tracks. Learn more about using the time slider to view your GPS Tracks.

Features of the Time Slider



Features of the time slider include:

1. Click this to play an animation of a sequence. Animations work best when you move the range marker to define a time range smaller than the whole set. Click the adjacent buttons to step forward or back.
2. Drag this range marker to the right or left to re-define the time range of data displayed.
3. Click this to set [options for the time slider](#).
4. Zoom in or out to shorten or lengthen the date range covered by your timeline. This lets you to more easily see the different imagery that's available within a shorter or longer period. Notice that as you zoom in or out, the Start and End dates on the timeline change.
5. Drag this to move the time range earlier or later.

Note: The time slider isn't available when you [record movies](#).

Setting Timeline Options

You can set options for the [timeline display feature](#). Here's how:

1. In the time slider, click the settings icon ([see above](#)). The Date and Time options dialog box appears. Options include:
 - **Start and End date/time** - Set the date and time for the start and end of the timeline.
 - **Display time in** - Choose the appropriate type of displayed time.
 - **Animation speed** - Use this slider to set the speed of the animation that occurs when you click the play button on the time slider ([see above](#)).
 - **Loop animation** - Select this checkbox to play your animation continuously.
2. When you're finished, click **OK**.

Drawing and measuring