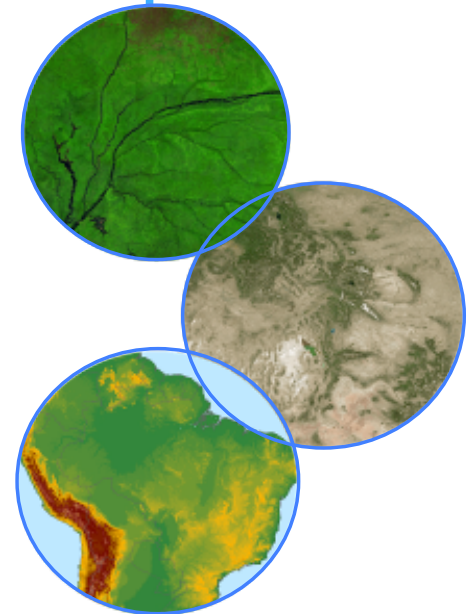




Access ORNL DAAC OGC WMS Service in Virtual Globe Tools

Overview:

Access ORNL DAAC Open Geospatial Consortium (OGC) Web Map Service (WMS) service using popular virtual globe tools such as Google Earth, NASA World Wind, and ESRI ArcGIS Explorer.



ORNL DAAC:

<http://daac.ornl.gov>

uso@daac.ornl.gov

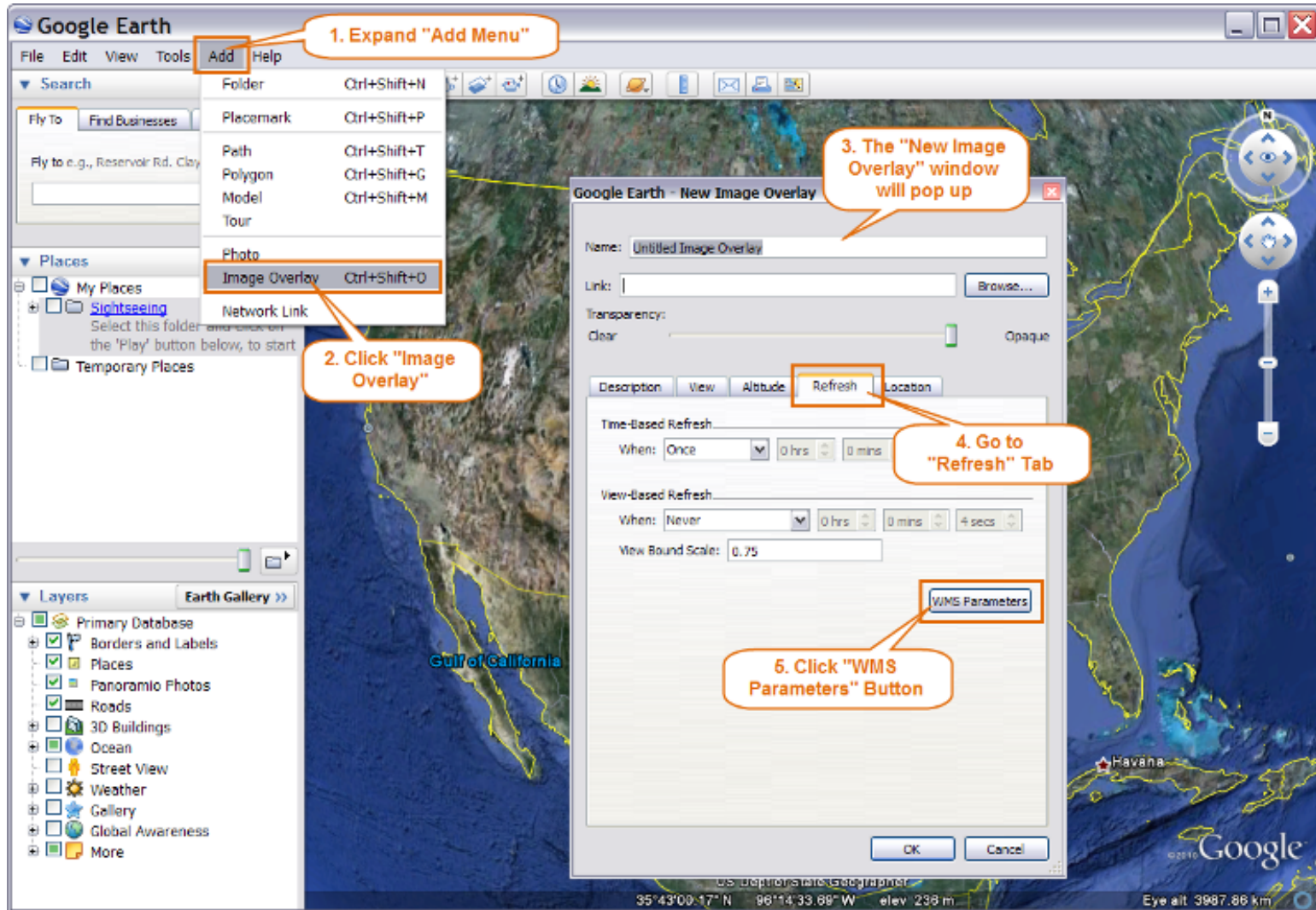
ORNL DAAC

Access ORNL DAAC OGC WMS service using:

- Google Earth
 - <http://earth.google.com>
- NASA World Wind (Open Source)
 - <http://worldwind.arc.nasa.gov/java/>
- ESRI ArcGIS Explorer (formerly ArcExplorer)
 - <http://www.esri.com/software/arcgis/explorer/arcexplorer.html>

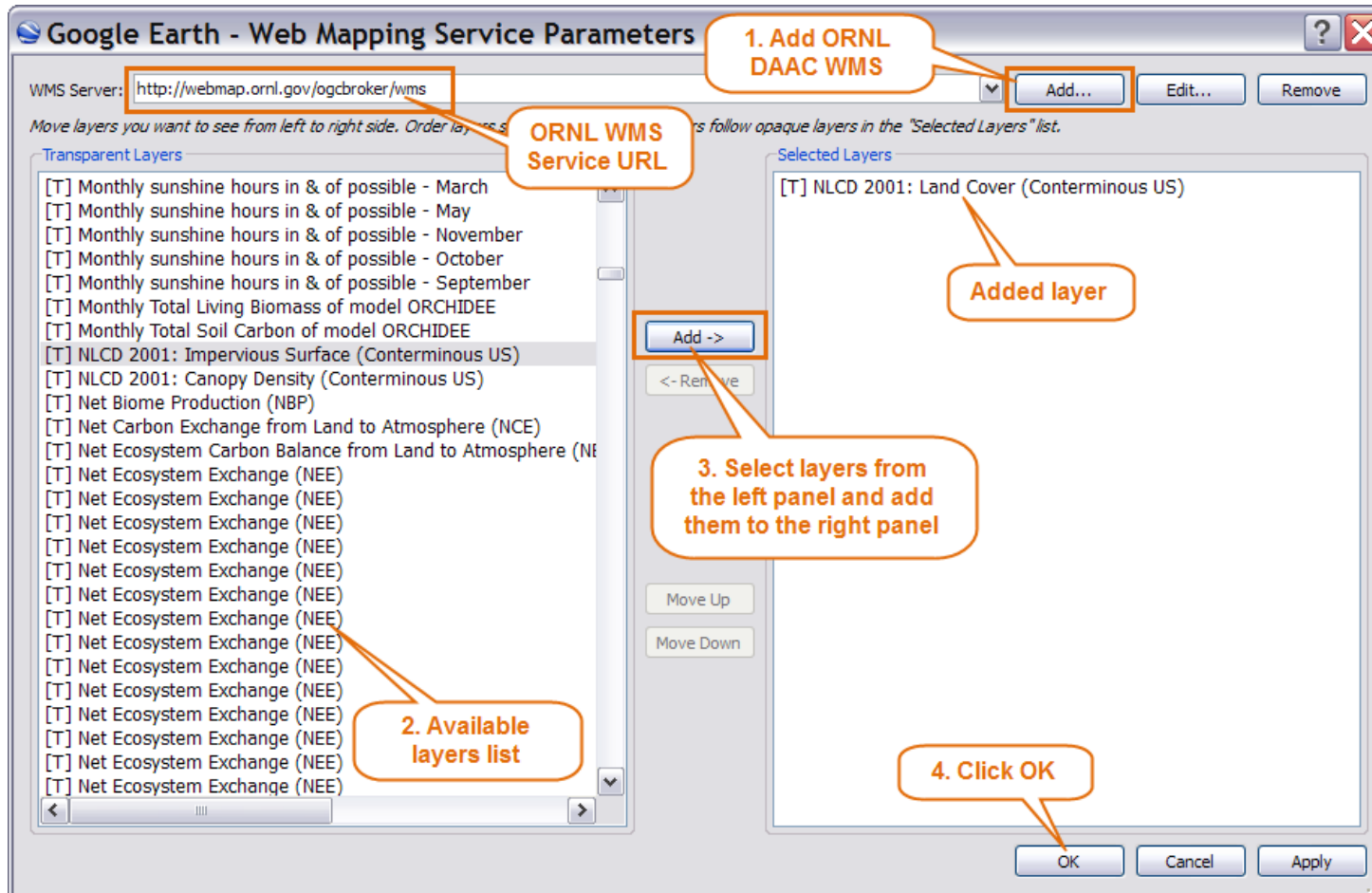
Access ORNL DAAC WMS in Google Earth: Step 1/4

Zoom in on an area you'd like to see a WMS overlay, then add an image overlay ...



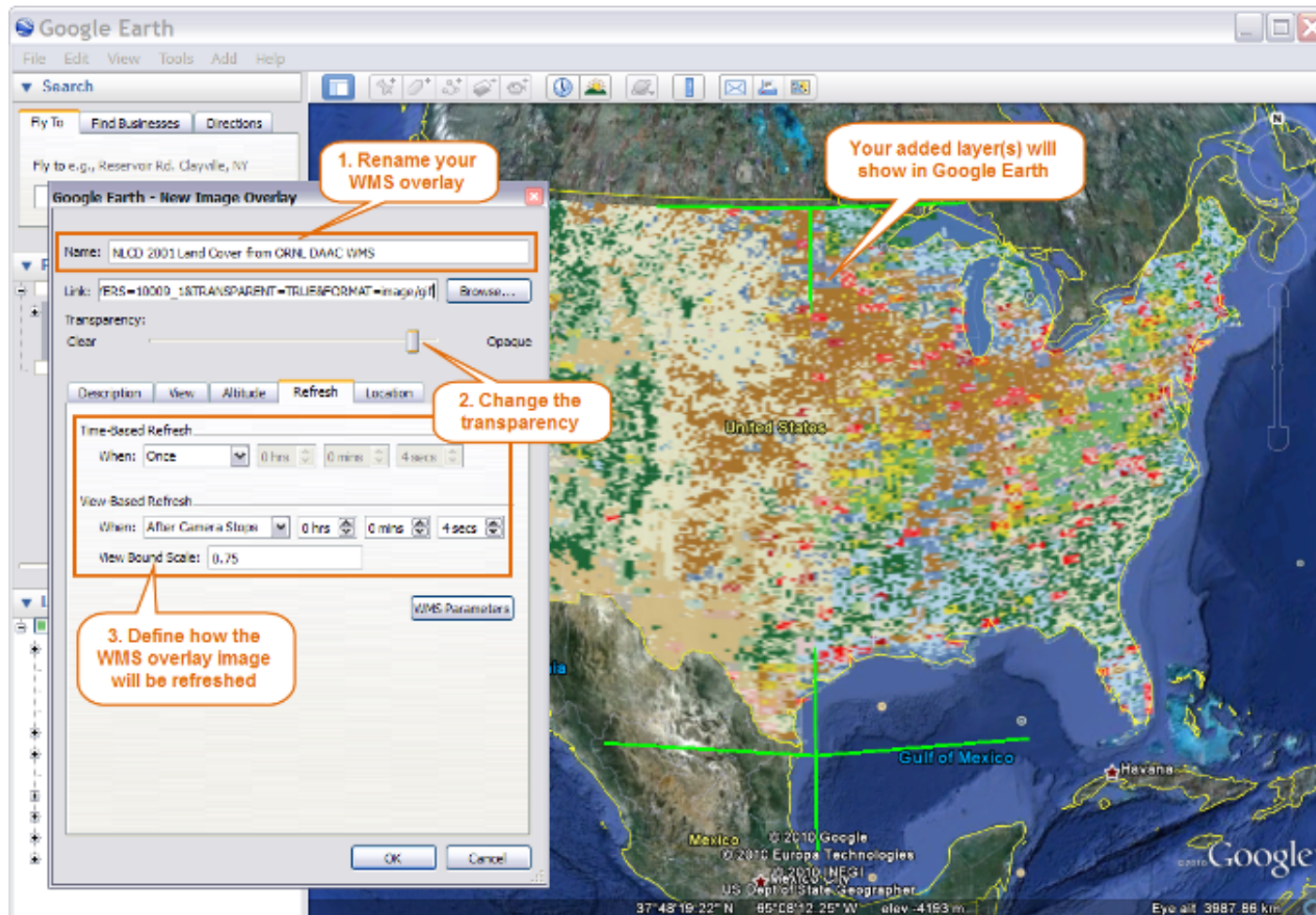
Access ORNL DAAC WMS in Google Earth: Step 2/4

The “Google Earth – Web Mapping Service Parameters” window should pop up. Add the ORNL DAAC WMS server (<http://webmap.ornl.gov/ogcbroker/wms>) and all the available layers will show on the left panel. Select the WMS layers you want to see and add them to the right panel. Then Click “OK”.



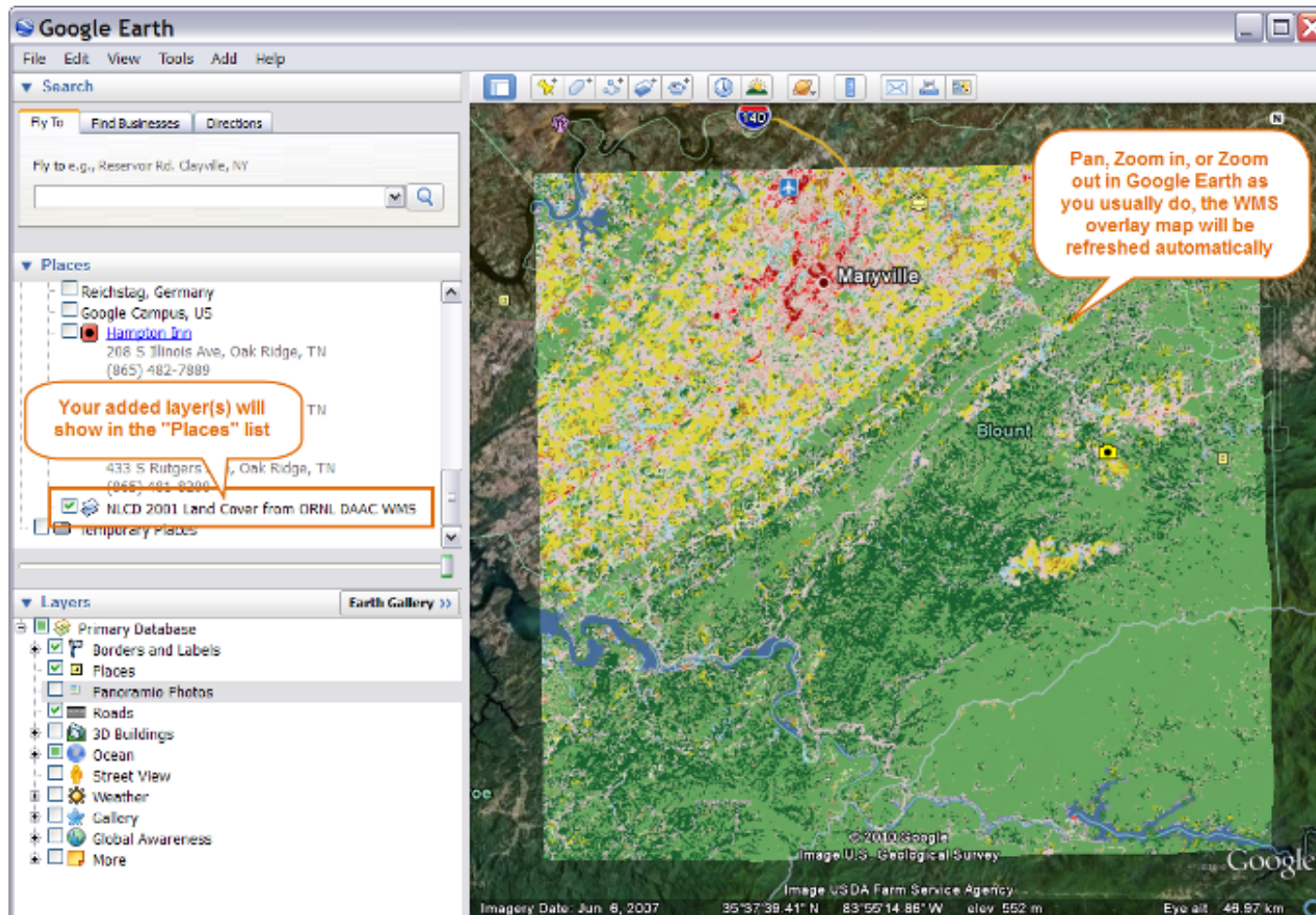
Access ORNL DAAC WMS in Google Earth: Step 3/4

The added layer(s) will automatically show up in Google Earth. You can modify the WMS overlay properties in the “Google Earth – New Image Overlay” window.



Access ORNL DAAC WMS in Google Earth: Step 4/4

The added layer(s) will show up in Google Earth's "Places" list. You can Pan, Zoom in, or Zoom out in Google Earth as you usually do, the WMS overlay map will be refreshed automatically



Access ORNL DAAC WMS in NASA World Wind: Step 1/3

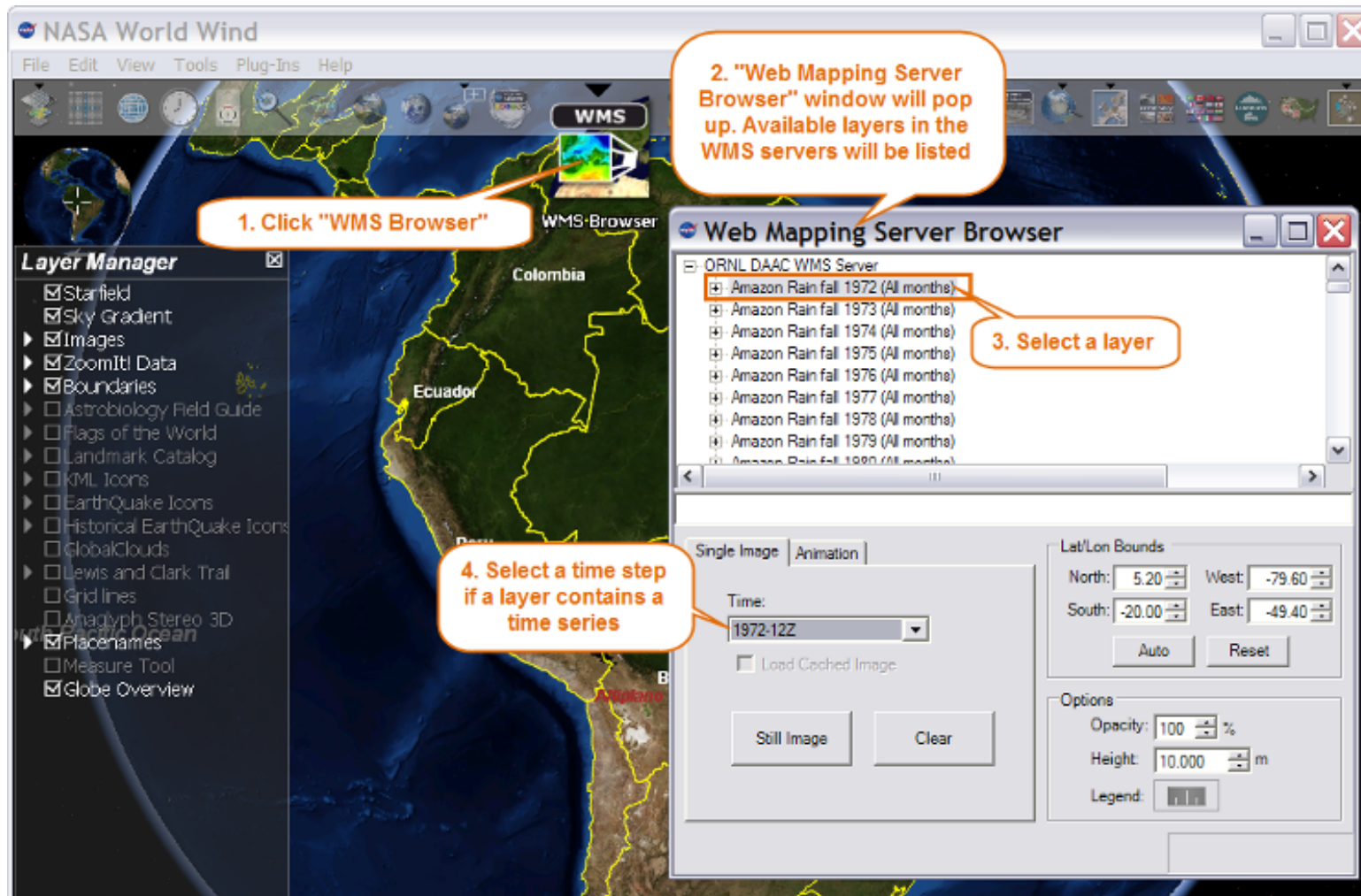
Modify <WORLD_WIND_INSTALLATION_DIRECTORY>\Config\Earth\Tools\wms_server_list.xml to update WMS server list in NASA World Wind Installation directory

The image shows a file explorer window on the left and an XML editor window on the right. The file explorer window is titled "Tools" and shows the path <WORLD_WIND_INSTALLATION_DIRECTORY>\Config\Earth\Tools. The file wms_server_list.xml is selected, and an orange arrow points from it to the XML editor. The XML editor shows the following code:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSPY v2004 rel. 4 U (http://www.xmlspy.com) by
Patrick Hogan (private) -->
<WMS_SERVER_LIST xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation=
"C:\WorldWind\bin\Debug\Configuration\wms_server_list.xsd">
  <Server>
    <Name>Animated Earth</Name>
    <ServerUrl>http://aes.gsfc.nasa.gov/cgi-bin/wms</ServerUrl>
    <Version>1.3.0</Version>
    <Abstract>Animated Earth Visualization Server</Abstract>
  </Server>
  <Server>
    <Name>GLOBE</Name>
    <ServerUrl>http://viz.globe.gov/viz-bin/wmt.cgi</ServerUrl>
    <Version>1.1.1</Version>
    <Abstract>GLOBE Visualization Server</Abstract>
  </Server>
  <Server>
    <Name>ORNL DAAC</Name>
    <ServerUrl>http://webmap.ornl.gov/ogcbroker/wms</ServerUrl>
    <Version>1.1.1</Version>
    <Abstract>ORNL DAAC WMS Server</Abstract>
  </Server>
</WMS_SERVER_LIST>
```

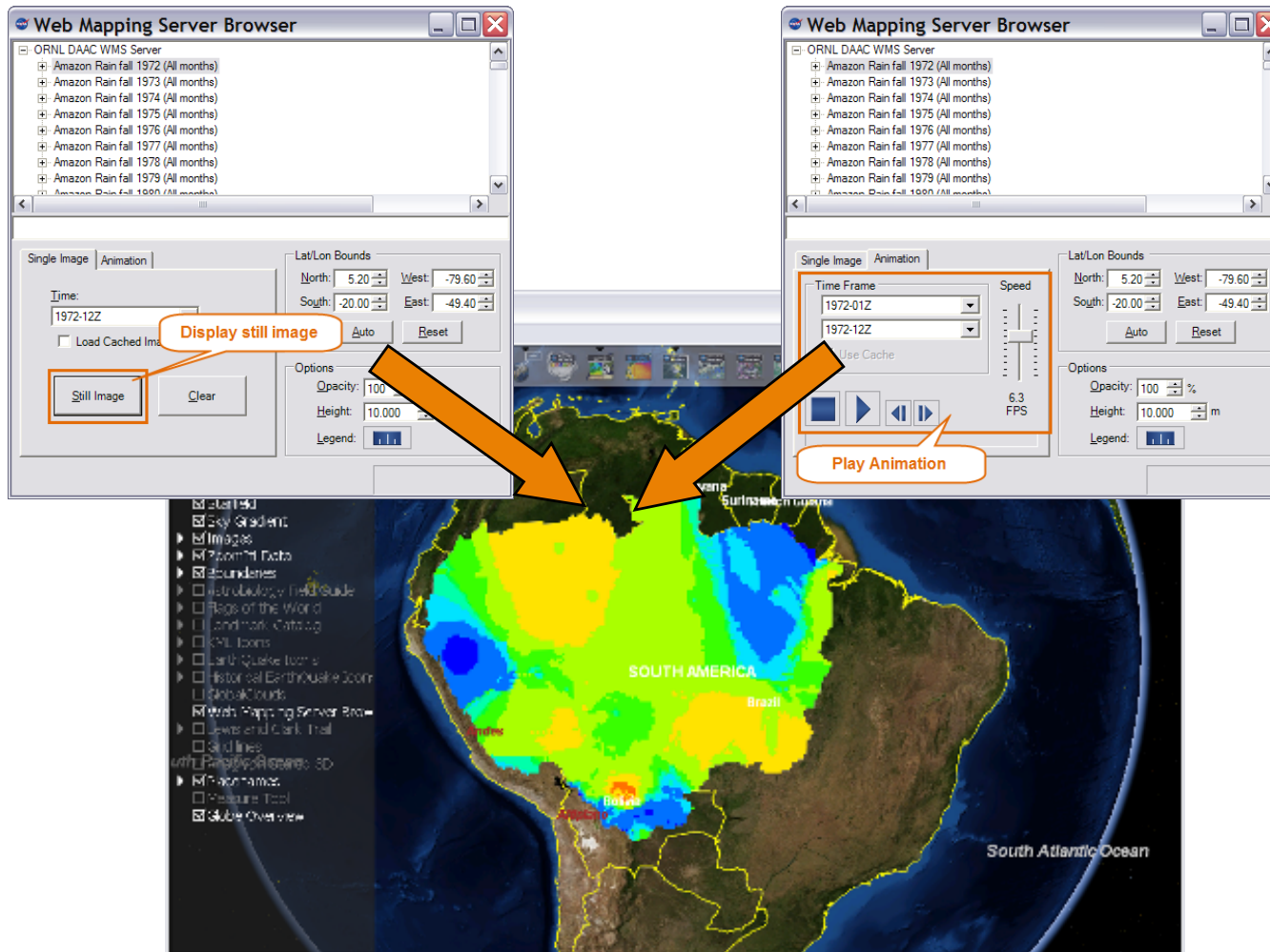
Access ORNL DAAC WMS in NASA World Wind: Step 2/3

Use “WMS Browser” tool to view available WMS layers and select layers to display in World Wind



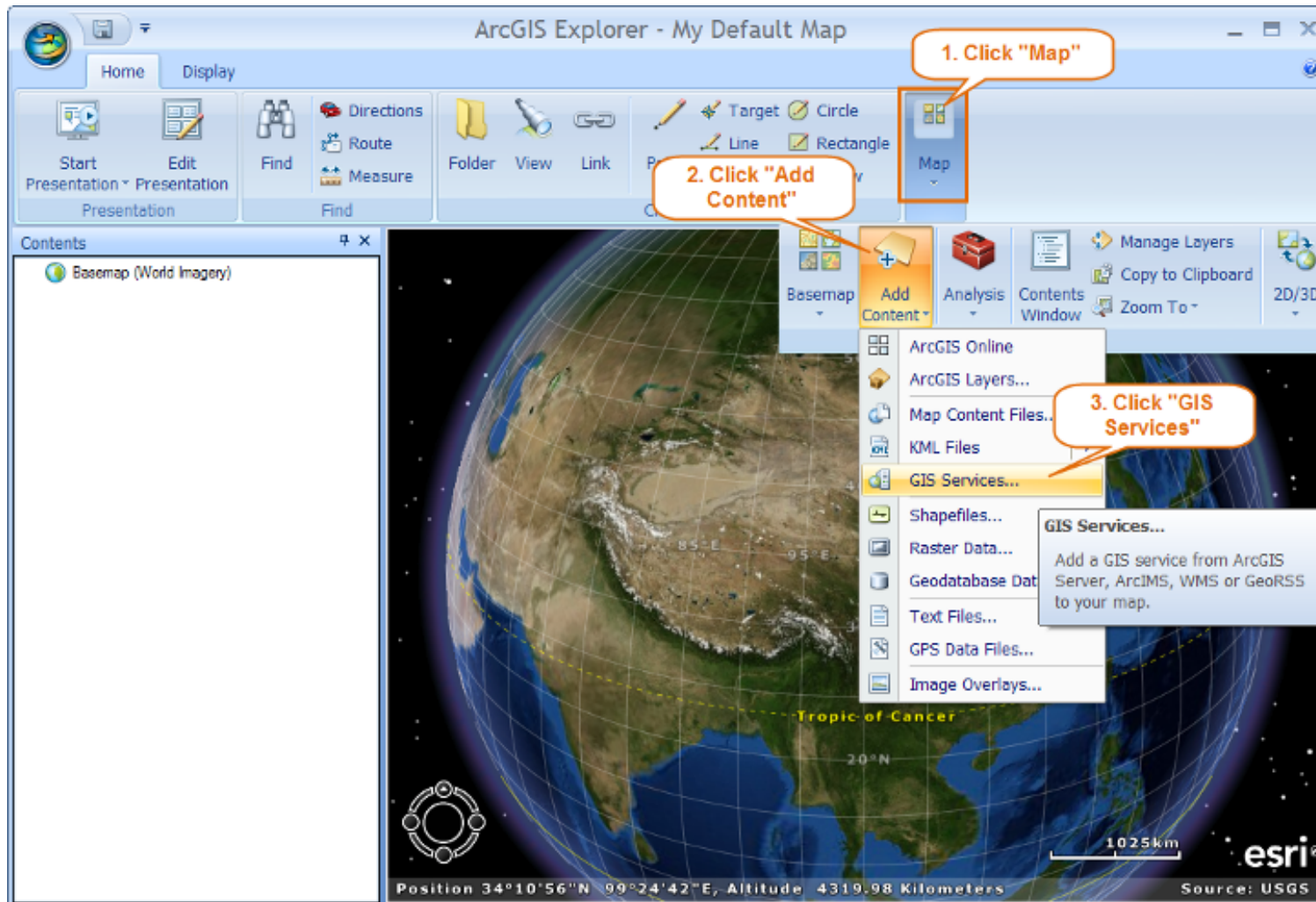
Access ORNL DAAC WMS in NASA World Wind: Step 3/3

You may choose to display selected WMS layer as still image or time series animation (only available for layers with multiple time steps)



Access ORNL DAAC WMS in ESRI ArcGIS Explorer: Step 1/3

Bring up the "Add GIS Service" window:



Access ORNL DAAC WMS in ESRI ArcGIS Explorer: Step 2/3

Add ORNL DAAC WMS service (<http://webmap.ornl.gov/ogcbroker/wms?>) into ArcGIS Explorer following the steps below:

1. Select server type "WMS", version 1.1.1, and type URL or ORNL DAAC

2. Click "Next"

3. Available WMS layers will be listed here

The first screenshot shows the 'Add GIS Service' dialog box with the following fields:

- Server type: WMS (selected)
- Version: Version 1.1.1 (selected)
- Server: <http://webmap.ornl.gov/ogcbroker/wms?>
- Example: <http://www.server.com/wms?>
- Account (optional):
 - User name: []
 - Password: []
 - Save user name and password
- Buttons: Back, Next, Cancel

The second screenshot shows the 'Add GIS Service' dialog box with the following content:

- Choose a service
- ORNL DAAC WMS Server
 - Amazon Rain fall 1972 (All months)
 - Amazon Rain fall 1973 (All months)
 - Amazon Rain fall 1974 (All months)
 - Amazon Rain fall 1975 (All months)
 - Amazon Rain fall 1976 (All months)
 - Amazon Rain fall 1977 (All months)
 - Amazon Rain fall 1978 (All months)
 - Amazon Rain fall 1979 (All months)
 - Amazon Rain fall 1980 (All months)
 - Amazon Rain fall 1981 (All months)
 - Amazon Rain fall 1982 (All months)
 - Amazon Rain fall 1983 (All months)
 - Amazon Rain fall 1984 (All months)
- Buttons: Back, Add Service, Cancel

Access ORNL DAAC WMS in ESRI ArcGIS Explorer: Step 3/3

The selected WMS layer will be listed and displayed in ArcGIS Explorer.

