

Beija-flor User's Guide



An Internet-based Approach for Sharing Scientific Data in LBA

LBA-ECO Project Office
Goddard Space Flight Center
Oak Ridge National Laboratory
University of Tennessee

LBA Project Office
INPE/CPTEC

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor**
Search Engine for the LBA Project

Simple Search **Advanced Search** **Browse**

Search by Keywords

FullText
**Hint: wildcards and phrases are allowed. Ex: %" or BIGFOOT;BOREAS*

[Help](#) | [Clear](#)

Search by Date Range

during thru
mm/dd/yyyy mm/dd/yyyy

[Help](#) | [Clear](#)

Search by Spatial-Coordinate

Select from the pick list below:
Select from list

Click on to make an area selection

Search Area:

overlaps encloses

North

West East

South

[Help](#) | [Clear](#)

Search from Data Sources

- LBA (Last Updated: Sep 25, 2007)
- ESIP (Last Updated: Sep 25, 2007)
- IAI (Last Updated: Sep 25, 2007)

**deselect the boxes to limit the search*

Query being built:

Not Editable

Results/Page:

An Internet-based Approach for Sharing Scientific Data in LBA

In cooperation with the Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA) Data and Information System (DIS) Working Group (WG), the LBA project and the LBA-ECO project designed and developed the Beija-flor and LBA Metadata Editor (LME) components of LBA-DIS (see Figure 1). Beija-flor is the metadata search and data retrieval component of the LBA-DIS: used during the data collection, sharing, and documentation development phases of the project and will continue to be used by LBA after the data have been archived. The LME facilitates the entry, editing, and storage of metadata in standard formats for use by Beija-flor. Metadata is the information that describes the characteristics (e.g., geographic location, parameter names, date) of each data set. In the near future, full data set documentation capabilities will be integrated with the LME. By using World Wide Web, or simply "Web" technology, the combined capabilities of Beija-flor and the LME allow data and documentation to be stored on, and accessed from, the networked computers of individual scientists located around the world. The roles and functions of the Beija-flor and the LME components within the overall LBA-DIS are illustrated in Figure 2.

Beija-flor

Beija-flor provides the data search and sharing functionality by harvesting and organizing metadata that are then accessed and reviewed by the users. Data providers and scientists use the LME to provide metadata to Beija-flor by properly formatting it and saving the files of information in either of two locations/nodes: LBA DIS at INPE/CPTEC or at ORNL. Each Beija-flor system/node (currently INPE/CPTEC and ORNL) harvests metadata contained in the files stored at both nodes. The harvested metadata are stored in a database that is available for search and retrieval by users. Sharing of harvested information by the Beija-flor nodes enables LBA participants to access information about all registered data.

Users are able to search and review available metadata by accessing the Web-based Beija-flor and LME interfaces at either of the nodes with their Web-browser software. The Web-browsers that are recommended for use are Internet Explorer 4.0 and higher and Netscape 4.0 and higher. More detailed information about using Beija-flor to find data and example searches are contained in the following pages.

LBA Metadata Editor (LME)

The LME allows users to enter metadata information by using standard pick lists and entering information in text fields. It is also possible to copy and edit existing metadata files. As noted above, full data set documentation capabilities will be integrated with the LME in the near future. When the metadata for a data set are complete, the data provider changes the "Searchable" from "No" to "Yes". During its nightly harvesting activities, Beija-flor collects metadata from only the files that have been marked in this way as "Searchable".

In addition to entering and updating metadata, the LME allows data providers to select which data sets and metadata/documentation files are visible to Beija-flor users. At any time, the data provider can share a metadata/documentation file, can update the file, or can stop sharing the file with Beija-flor. More detailed information about using LME to find data and example searches are contained in the following pages. Assistance in using the LME can be obtained by contacting the administration staff by telephone or email (see below).

References

Beija-flor Search Page, US: <http://beija-flor.ornl.gov/lba/>
Beija-flor Search Page, Brazil: <http://lba.cptec.inpe.br/beija-flor/>
LBA Metadata Editor, U.S.: <http://daac.ornl.gov/cgi-bin/MDEDIT/access.pl>
LBA Metadata Editor, Brazil: <http://lba.cptec.inpe.br/cgi-bin/LME/access.pl>
LBA Home Page: <http://lba.cptec.inpe.br/lba/>
LBA-ECO Project Office: <http://www.lbaeco.org/>

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Figure 1. LBA Data and Information System.

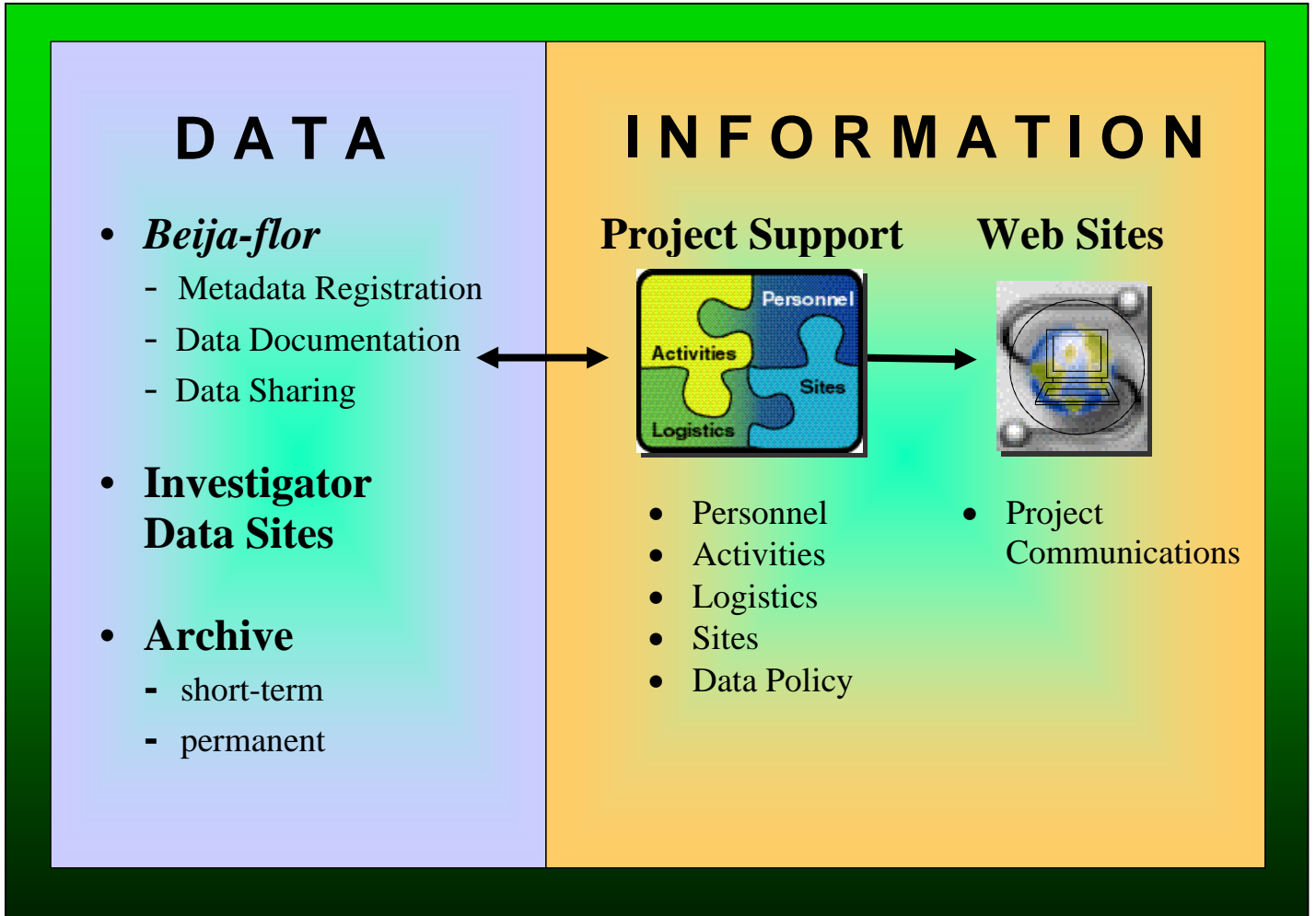
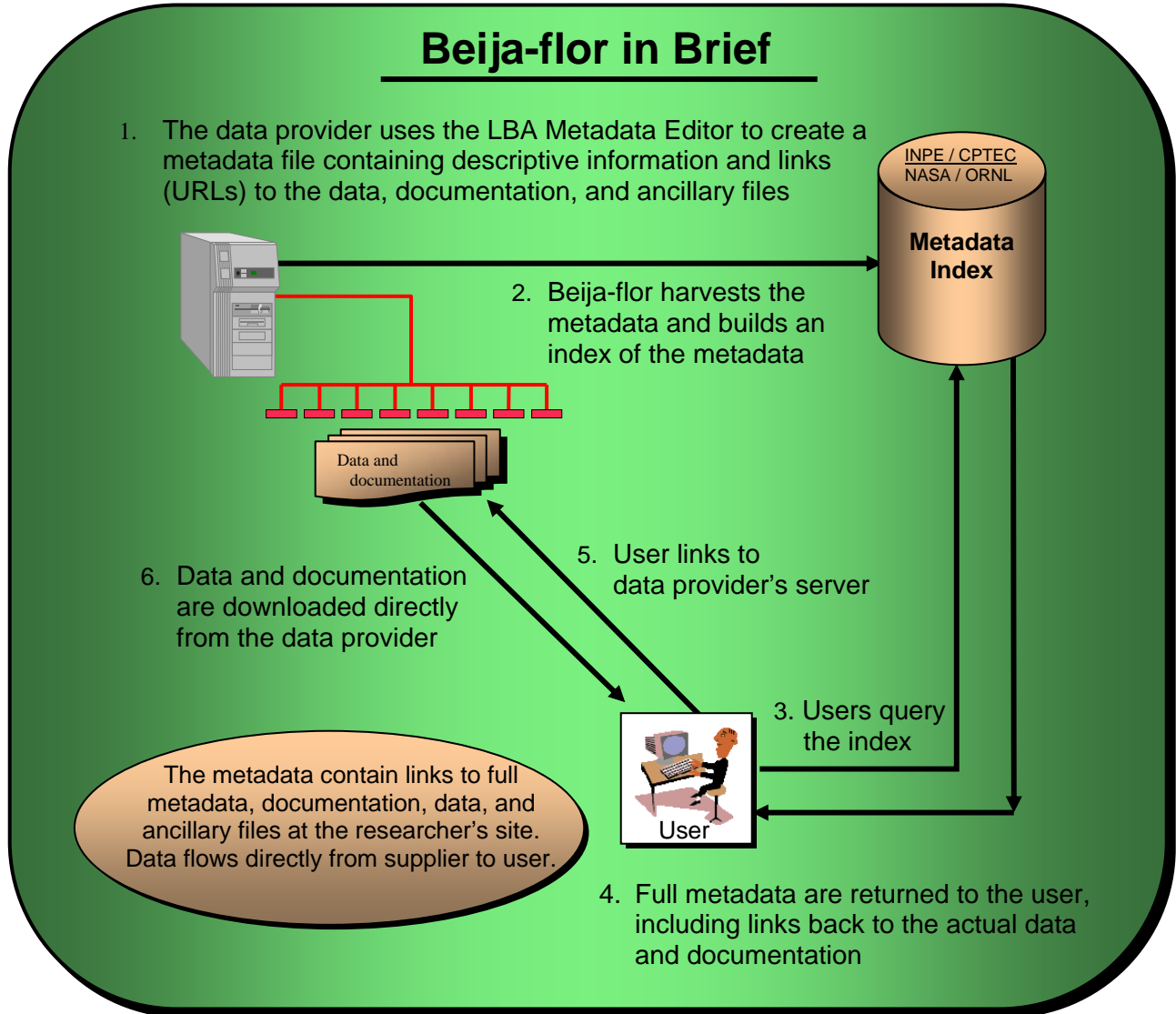


Figure 2. Roles and functions of Beija-flor and the LBA Metadata Editor.



LBA Metadata Editor FAQs (Frequently Asked Questions)

What is metadata?

Metadata is descriptive information about the content, quality, condition, and other characteristics of a data set. Metadata can have 2 purposes:

(1) To facilitate the search and retrieval, or identify the location of data that meet a user's selection criteria, e.g. the "card catalog" type of descriptive information about a data set, and

(2) To help a user fully understand the data content and evaluate the usefulness of the data for his or her purposes, i.e. [data set documentation](#).

What is the LBA Metadata Editor?

The LBA Metadata Editor is a Web-based tool that helps researchers create and maintain [metadata](#) files that describe their research. The Metadata Editor offers researchers a convenient form to enter the information and provides a way to save the metadata as an XML file.

Why do I need the LBA Metadata Editor?

The LBA Metadata Editor helps you to provide standardized information that is easy for others to find using a search engine. It helps you to publicize your work, and makes it more accessible to other researchers.

Why should I bother to create metadata?

The metadata provide the search terms by which other researchers can find out about your work through Internet search engines such as *Beija-flor Search Engine*. To understand more about metadata, click [here](#).

What if I don't want my metadata to be searched?

Your metadata files will remain "invisible" to the search engine unless you declare them to be "Searchable". You can have some files searchable and other files not searchable. You have to set the option for each file. After you save metadata in a file, radio buttons will appear at the top of the Web form to let you set the "Searchable" option. If you make the file searchable, the search engine will collect the metadata from your file and enter the metadata in its search index so that other researchers can learn about your research by querying the search engine. If you later change your mind and turn off the "Searchable" option, the metadata from your file will be removed from the search index, but the metadata file itself will remain on the server for your private use.

What if I have little or no metadata information?

You can use the LBA Metadata Editor to create metadata files with any amount of information at any stage of your project. The Web form allows you to add, delete, or revise metadata at any time. You can leave portions of the Web form blank until you have the necessary information. Thus, the LBA Metadata Editor is a convenient tool for developing metadata as your project progresses.

Do I have to type in every bit of metadata individually?

You don't need to type in information that already exists elsewhere as text in standard electronic form. The LBA Metadata Editor allows you to import whole metadata from other files and to copy and paste pieces of information from other sources, including XML files and the displayed portion of Web pages. In addition, for some types of information, the LBA Metadata Editor allows you to select text from a picklist on the Web form.

I already have a directory on a Web host (e.g., America Online). Can I just put my metadata there?

Yes, but we don't recommend it because the LBA Metadata Editor most likely is not installed on the external Web host. Thus you would not have the advantage of the automated features of the Metadata Editor. It is much easier to create and maintain your metadata files on the ORNL DAAC server (where the Metadata Editor is installed). Or, if you know someone who has installed a copy of the LBA Metadata Editor on his/her server, you could ask that person whether you may use his/her server to create and maintain files.

What is ultimately going to happen to my data?

This tool does not maintain data sets. You should accumulate your data in a way that is convenient for you. Ultimately, when the data are fully processed, you will be encouraged by your sponsors to submit your data to an online archive and to provide formal documentation. The metadata that you record using this tool will be useful in composing your publications and documentation.

LBA Metadata Editor Tutorial

- [Introduction](#)
- [Examples](#)
 - [Creating a new metadata file](#)
 - [Modifying metadata in an existing file](#)
 - [Making metadata searchable by *Beija-flor Search Engine*](#)
 - [Making metadata unsearchable by *Beija-flor Search Engine*](#)

Introduction

The LBA Metadata Editor is a Web-based tool that allows you to create and maintain [metadata](#) files (i.e., XML files) containing key information about your research. Metadata include information about the specific projects, parameters, time periods, and locations associated with the data. You can also include links to Web pages (html files) that you may have already developed. Such information helps to put your research findings into context. When you are ready, you can let other researchers search for your metadata using the [Beija-flor Search Engine](#).

You simply use the LBA Metadata Editor to enter relevant metadata into boxes on a Web form. From the information on the form, the Metadata Editor will create a metadata file.

You can use the Metadata Editor to modify existing metadata files or to create new ones.

As you enter information into the Metadata Editor's form, the metadata will also appear on the left side of the screen so you can easily verify that the system has entered your information correctly. (The Metadata Editor requires that your browser settings be set as described [here](#)).

To allow other people to find your metadata through [Beija-flor Search Engine](#), you must make it "Searchable" using the radio buttons at the top of the page. These buttons appear after the metadata is saved. You can make the file searchable or unsearchable at any time by opening the file in the Metadata Editor and then clicking on the desired button.

Note that you are responsible for limiting access to your data. If you want to restrict your data to other members of your science team, you should either not put it on the web or else you should require a password to access it. Study your web server documentation to learn how to set up passwords. Please do not confuse access to your data with access to your metadata. Your metadata consist of names of investigators, the location of your experiment, etc. This information can and should be made widely available using the LBA Metadata Editor even if your data is not yet ready for the public.

The LBA Metadata Editor form provides a place to put one or more URLs for accessing your data. Please be considerate and provide a very specific URL when possible, rather than just linking the user to your institution's home page.

Examples

The following examples explain how to use the LBA Metadata Editor to create and edit metadata files and how to make the metadata files searchable or unsearchable by *Beija-flor Search Engine*.

Creating a new metadata file

1. Select **New** from the dropdown menu under **File**.
2. A blue Web form will appear on the right half of the screen. Fill in the appropriate fields. You don't have to complete the form all at once--you can save the file and open it later, if you like.
3. Select **Save** from the **File** dropdown menu. Enter a file name for the new file.
4. Click **OK**.

Congratulations! You have created a metadata file!

Note: When you use the LBA Metadata Editor, your files will be created and maintained on the computer on which the Metadata Editor is installed. For example, if the Metadata Editor is installed on your own computer, your files will be stored on your computer. If you use a Web browser to connect to a copy of the LBA Metadata Editor installed on someone else's computer, your files will be stored on that computer.

Hint: It is not necessary to view your new XML file, but if you have a recent browser you can view it using a URL like

`http://<computer's Web name>/<Web filepath>/<new filename>.xml`

or by using the Metadata Editor's View/Download option under the File menu.

Modifying metadata in an existing file

1. Select **Open** from the **File** dropdown menu. You will see a list of the metadata files that you have created or modified in the Metadata Editor. Highlight the file you want to work on, and click the **Open** button. If you want to work on a file that is not listed, you can enter the file name into the box marked **File to Open**.
2. Edit the metadata in the blue frame. You can use the (+) and (-) symbols to collapse or expand sections as you work, if you like.
3. Select **Save** from the **File** dropdown menu.

Hint: You can use the **Save** function as often as you wish to incrementally save your changes.

Making metadata searchable by *Beija-flor Search Engine*

1. Open the file that you wish to make searchable (select **File** from the dropdown menu, highlight the file name, and click on **Open**).
2. Radio buttons will appear near the top of the page after the prompt: "Searchable?" If the "No" button is highlighted, click the "Yes" button.

Hint: You can make the file searchable at any time.

Note: Your metadata will not appear in *Beija-flor Search Engine* search results until after the next periodic refresh. Normally this happens nightly. However, people who know the URL of the file can view the raw XML file immediately if they have access to the server on which your file is stored.

Making metadata unsearchable by *Beija-flor Search Engine*

1. Open the file that you wish to make unsearchable (select **File** from the dropdown menu, highlight the file name, and click on **Open**).
2. Radio buttons will appear near the top of the page after the prompt: "Searchable?" If the "Yes" button is highlighted, click the "No" button.

Hint: You can make the file unsearchable at any time.

Note: The *Beija-flor Search Engine* will continue to show your metadata until after the next periodic refresh. Normally this will happen nightly. Even though the metadata is "unsearchable" by *Beija-flor Search Engine*, people who know the URL of your file can view the raw XML file if they have access to the server on which your file is stored! You may wish to rename, delete, or move files that you don't want anyone to see. Or you may want to set up password protection (if you need help with password protection, please consult your server administrator).

Using the LBA Beija-flor Data Discovery Tool


Free Text Searches

Any use of the Beija-flor tool begins with the default full-text search page.

The screenshot shows the LBA Beija-flor Search Engine interface. At the top, there is a banner with the LBA logo and the text "The Large Scale Biosphere-Atmosphere Experiment in Amazonia". To the right, it says "Welcome to Beija-flor Search Engine for the LBA Project". Below the banner, there are three navigation tabs: "Simple Search" (highlighted in yellow), "Advanced Search", and "Browse". The main content area is titled "Search entire document for" and contains a search input field with the text "vegetation cover". Below the input field, there is a hint: "Hint: boolean operators, wildcards and phrases are allowed. ex: precipitation or (rain* and \"moisture content\")". A section titled "Query being built:" shows the constructed query: "Entire Document : \"vegetation cover\" and from sources: All". Below this, it says "Not Editable". At the bottom, there is a "Results/Page" dropdown menu set to "10", and three buttons: "SEARCH", "CLEAR QUERY", and "HELP".

Fig 3. Full text search for “vegetation cover”


From here we can begin generic searches through the document database which will treat entered words or phrases as free-form text. Any text in the basic edit box will be treated as a series of terms in a boolean clause. Unless otherwise specified, these will be by default separated by a boolean AND. Quoted phrases will be treated as a single term. At the bottom of the page a free-form representation of the query being built is shown. Use of the full text form alone will by default search all available datasources. For LBA, this will be LBA, IAI and LBAESIP. Figure 3 shows a search for documents containing the whole phrase “vegetation cover” being built, while the results of this search are shown in Figure 4.



**The Large Scale
Biosphere-Atmosphere
Experiment
in Amazonia**

Welcome to
Beija-flor
Search Engine for the LBA Project

Metadata Summary

[Bookmark](#) [Email](#) [Help](#) 

Your search found: 68 documents.
Query: text:vegetation cover AND datasource:(lba lbaesip iai)

Filter by datasource	Filter by parameter	Filter by sensor	Filter by topic	Filter by project
lbaesip (32) lba (25) iai (11)	vegetation cover (21) land cover (12) vegetation index (3) agricultural lands (2) biomass (2) carbon (2) land classes (2) land use classes.. (2)	analysis (5) avhrr (advanced very.. (4) modis (moderate-resolution imaging.. (3) avhrr (2) thematic mapper (2) atrs-2 > along-track.. (1) chromatographs (1)	biosphere (30) land surface (14) human dimensions (3) hydrosphere (3) atmosphere (1) radiance or imagery.. (1)	esip .. (24) lba (large-scale biosphere-atmosphere.. (13) lba-eco (10) 012 (6) lba .. (6) 040 (2) 032 (1)

Viewing Documents 1 - 10 out of 68

[Prev](#)
[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[6](#)
[7](#)
[Next](#)

[Return to Search](#)

Sort By:

Index Rank	Period of record	Source	Project
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MODIS LBA MOSAIC, 16 DAY MAXIMUM NDVI COMPOSITE	09/29/2000 - 07/23/2008
<p>This is a 16 day maximum NDVI composite of 250m MODIS data. The area covered is the six available MODIS 250m tiles in South America. This includes most of Brazil, Bolivia, and the s...</p> <p><i>Data source:</i> LBAESIP <i>Project:</i> ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM</p> <p>★★★★★★★★★★ View full metadata</p>	
LANDSAT 7 ETM+ DATA FOR THE LEGAL AMAZON REGION FROM THE TROPICAL RAIN FOREST INFORMATION CENTER (TRFIC)	07/08/1999 - 07/23/2008
<p>This data set consists of acquired Landsat 7 ETM+ imagery for the legal Amazon rain forest. The data and imagery can be browsed online and ordered by WRS2 path, WRS2 row, date of acquisiti...</p> <p><i>Data source:</i> LBAESIP <i>Project:</i> ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM</p> <p>★★★★★★★★★★ View full metadata</p>	
FOREST COVER MAPS FOR THE LEGAL AMAZON FROM THE TROPICAL RAIN FOREST INFORMATION CENTER (TRFIC)	01/01/1975 - 12/31/1975
<p>This data set consists of forest cover maps derived from Landsat satellites for the legal Amazon rain forest. The maps can be downloaded in .PDF or .EMF format from the Tropical Rain Fores...</p> <p><i>Data source:</i> LBAESIP <i>Project:</i> ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM</p> <p>★★★★★★★★★★ View full metadata</p>	

Fig 4. brief page showing results for the “vegetation cover” search.

Figure 5 illustrates building a boolean search using the full-text page.

Search entire document for

"vegetation cover" or "leaf area index"

Hint: boolean operators, wildcards and phrases are allowed. ex: precipitation or (rain and "moisture content")*

Fig 5. Full text search for "vegetation cover" or "leaf area index"

Fielded or Keyword Searches

Selecting the "Advanced Search" tab at the top of the page will allow us to refine our search by specifying certain metadata field content values in the query. These "keyword" searches are full text and have an auto completion feature to help minimize errors. Selection of an entry in the keyword dropdown list will automatically enable a secondary dropdown of all valid values, or, a string may be entered free-form into the edit box. Valid keywords and their definitions are listed in appendix A.

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor** Search Engine for the LBA Project

Simple Search **Advanced Search** **Browse**

Search by Keywords

FullText []

**Hint: wildcard, phrases are allowed. Ex: %" or BIGFOOT;BOREAS*

define search criteria based on common metadata fields. Select a field from drop down list and enter parameter in edit box

Help | Clear

Search by Date Range

during [] thru []

mm/dd/yyyy *mm/dd/yyyy*

Enter date search using the calendar or typing directly in to the text box

Clear

Search by Spatial-Coordinate

Select from the pick list below:

Acre - Assis Brasil

Choose geographic search area by selecting from the place name list

Click on [] to make an area selection

Search Area:

overlaps encloses

North []

West [] East []

South []

Select a geographic search area by clicking here and dragging bounding box on the map

Select a geographic search area by entering the coordinates directly

Clear

Search from Data Sources

LBA (Last Updated: Sep 25, 2007)

ESIP (Last Updated: Sep 25, 2007)

IAI (Last Updated: Sep 25, 2007)

**deselect boxes to limit the search*

Select the data source of interest, by default, all the sources are selected

Query being built:

Not Editable

Results/Page: 10

SEARCH CLEAR QUERY HELP

Fig 6. Advanced Search options

Spatial Searches

You may search for data sets on the basis of spatial coverage. If you do not select coordinates for the search, Beija-flor will include all coordinates in its query by default. In effect, location will be ignored.

Spatial Coordinates

You have three options for selecting coordinates.

- Select a known site or region from the Select Area pick list. The coordinates will automatically be entered into the bounding box.

Search by Spatial-Coordinate

Select from the pick list below:

Amazonas (Manaus) - Pico Da Neblina National Park

Click on to make an area selection

Search Area:

overlaps encloses

North

0.48300

West East

-66.500 -66.500

South

0.48300

POWERED BY Google

data ©2006 MapLink/Tele Atlas - [Terms of Use](#)

[Help](#) | [Clear](#)

- Type in the northernmost and southernmost latitudes and the easternmost and westernmost longitudes for the area in which you are interested.
- Choose the coordinates by selecting the GoogleMaps cursor tool and drawing a bounding box on the GoogleMaps display. The coordinates for that box will automatically appear in the boxes on the right side of the map window.

At any time, you can click on "CLEAR " to remove spatial coordinates you have selected and to restore the default values. If you click on "CLEAR," your other search criteria (e.g., topic, temporal criteria) will remain unchanged

Spatial Search Methods:

If you choose spatial search criteria, you must select one of two search methods.

- **"Enclosed within"** -- this is the simpler, more straightforward method of search. Consider that each data set has four bounding coordinates that draw a "box" around the data set coverage area: a northernmost boundary (or latitude), a southernmost boundary (latitude), an easternmost boundary (or longitude) and a westernmost boundary (longitude). When you select "Enclosed within," you are telling the search mechanism, "I will draw a box on the map, and I want all data sets for which all four boundaries fall within the box that I draw." The search will return only those data sets whose bounding coordinates are completely contained within your search criteria box.
- **"Overlaps"** -- this is a more sophisticated method of search and yields a wider set of results. When you select **"Overlaps"** as your search option, you are saying, "I will draw a box on the map, and I want all data sets for which any of the four boundaries fall within this box." That is, the boxes of the data sets and the box that you specify can overlap to any degree.

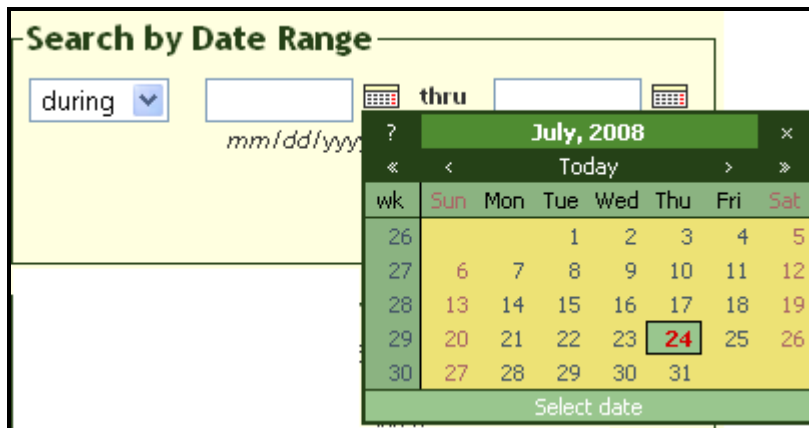
Potential Confusing Search Results

Searching with the "Overlaps" method may yield confusing results because it queries data sets on the basis of their bounding box rather than the exact location of individual data points. The coordinates of the boundary boxes are assigned at the data set level; that is, they indicate the farthest most north, south, east, and west coordinates whether or not those coordinates correspond with individual data points.

Imagine, for example, that Data Set A contains only two data points: one in Belem at 1.2° N, 48.5° W and the other in Cuiba at 15° S, 56° W. The bounding coordinates for Data Set A would be 1.2° N (northernmost latitude), 15° S (southernmost latitude), 48.5° W (easternmost longitude), and 56° W (westernmost longitude). Thus, the bounding box for the data set would be quite large even though the data set would contain only two points. Then imagine that you want to search for data collected near Santarem. You might draw a box on the map that includes 2° N, 2° S, 53.5° W, and 56° W as the bounding coordinates. If you select "Overlaps" as your search method, the search results would include Data Set A *even though the data points in Data Set A do not fall within your search box*. The northernmost boundary of the Data Set A, however, would fall within the southernmost boundary of your search box (i.e., the outer boundaries of the two boxes would overlap).

Temporal Searches

You may search for data sets on the basis of their temporal coverage. If you do not specify temporal search criteria, Beija-flor will include all dates in its database by default. In effect, it will ignore date in its search.



The screenshot shows a web interface for searching by date range. It features a dropdown menu set to 'during', two empty input fields for dates, and a 'thru' label. A calendar for July 2008 is displayed, with the date 24 highlighted. The calendar includes a header for 'July, 2008', navigation arrows, and a table of dates.

wk	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26			1	2	3	4	5
27	6	7	8	9	10	11	12
28	13	14	15	16	17	18	19
29	20	21	22	23	24	25	26
30	27	28	29	30	31		

You have three options for selecting temporal search criteria.

- **Before:** Enter one date. Data sets with data before that date will be returned.
- **During:** Enter a date range (two dates). Data sets with data during that range will be returned.
- **After:** Enter one date. Data sets with data after that date will be returned.

At any time, you can select "CLEAR " to remove all temporal criteria you have selected and to restore the default values. If you click on "CLEAR," your other search criteria (e.g., topic, spatial criteria) will remain unchanged.

Search Results and Faceted Searching

After clicking the 'Submit' button a new window is opened and the Brief Page Results summary is displayed.

The screenshot shows the LBA search engine interface. At the top, there is a header with the LBA logo and the text 'The Large Scale Biosphere-Atmosphere Experiment in Amazônia'. To the right, it says 'Welcome to Beija-flor Search Engine for the LBA Project'. Below the header is a 'Metadata Summary' section with buttons for 'Bookmark', 'Email', 'Help', and a RSS icon. The main content area displays 'Your search found: 7 documents.' and the query 'text:ground water AND datasource:(lba lbaesip iai)'. There are five faceted search filters: 'Filter by data providers' (lba (5), iai (2)), 'Filter by parameter' (aquifer transmissivity (1), discharge/flow (1), river network (1), river simosity (1), water chemistry (1), water depth (1), water management (1), water table (1)), 'Filter by sensor' (lysimeter (1), water level gauge... (1)), 'Filter by topic' (hydrosphere (3), land surface (3), human dimensions (1)), and 'Filter by project' (lba (large-scale biosphere-atmosphere... (3), lba-eco (2), 012 (1), 080 (1)). Below the filters, it says 'Viewing Documents 1 - 7 out of 7' and provides navigation links: 'Prev 1 Next' and 'Return to Search'. A 'Sort By' section has four options: 'Index Rank' (selected), 'Period of record', 'Source', and 'Project'. The first result is 'AGUA E CRESCIMENTO DE UMA FLORESTA NA AMAZONIA SUL-OCIDENTAL, ACRE, BRASIL: CHUVA AFETA CRESCIMENTO, MAS NIVEL DO LENÇOL FREATICO NAO (POSTER)' with a date range of '10/09/1999 - 09/04/2003'. The description states: 'This is a poster presented in the special session of LBA-Project during the VI Brazil Congress of Ecology in November, 2003. The results show that the growth of the forest is strongly correlated with...'. The data source is 'LBA' and the project is 'LBA (LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN THE AMAZON)'. There are seven stars and a 'View full metadata' button. The second result is 'IAI-FINALREPORT_ISP1_080' with a date range of '05/11/2005 - 06/23/2008'. The description states: 'This dataset refers to Final Report of the ISP round I project number 080, which has the name "BIOGEOCHEMICAL DETERMINANTS OF LAND-COVER CHANGE AND LAND-USE IN SAVANNA-CULTIVATION-GRAZING SYSTEMS...'. The data source is 'IAI' and the project is '080'.

Figure 7. Brief page results for “ground water”

Faceted Searching

The results page allows further refinement of a search via Faceted searching. New queries are built and launched in response to mouse clicks on select metadata elements displayed in list boxes at the top of the page and a new results page displayed.

For example, we can select to filter by providers and display only those documents specific to LBA.

The screenshot displays the LBA Search Engine interface. At the top, the LBA logo is on the left, and the text 'The Large Scale Biosphere-Atmosphere Experiment in Amazonia' and 'Welcome to Beija-flor Search Engine for the LBA Project' is on the right. Below this is a 'Metadata Summary' header with 'Bookmark', 'Email', and 'Help' buttons. The search results section shows 'Your search found: 6 documents.' and the query 'text:ground water OR Argentina AND datasource:lba'. A filter for 'datasource : lba' is active. There are four filter panels: 'Filter by parameter', 'Filter by sensor', 'Filter by topic', and 'Filter by project'. The 'Filter by project' panel is highlighted with a callout: 'Click here to filter the search results'. Below the filters, it says 'Viewing Documents 1 - 6 out of 6' and provides navigation links 'Prev 1 Next' and 'Return to Search'. A 'Sort By' section has buttons for 'Index Rank', 'Period of record', 'Source', and 'Project'. The first result is 'AGUA E CRESCIMENTO DE UMA FLORESTA NA AMAZONIA SUL-OCIDENTAL, ACRE, BRASIL: CHUYA AFETA CRESCIMENTO, MAS NIVEL DO LENÇOL FREÁTICO NÃO (POSTER)' with a date range of '10/09/1999 - 09/04/2003'. A description follows: 'This is a poster presented in the special session of LBA-Project during the VI Brazil Congress of Ecology in November, 2003. The results show that the growth of the forest is strongly correlated with ...'. Below the description are 'Data source: LBA' and 'Project: LBA (LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN THE AMAZON)' with a star rating and a 'View full metadata' button. The second result is 'WATER TABLE FLUCTUATION IN THE CATUABA EXPERIMENTAL FARM FOREST AREA - UFAC' with a date range of '02/12/1999 - 12/22/2004'.

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor** Search Engine for the LBA Project

Metadata Summary

[Bookmark](#) [Email](#) [Help](#)

Your search found: 6 documents.
Query: text:ground water OR Argentina AND datasource:lba
Filters: datasource : lba ([remove](#))

Filter by parameter	Filter by sensor	Filter by topic	Filter by project
aquifer transmissivity (1) discharge/flow (1) land cover (1) river network (1) river sinuosity (1) water chemistry (1) water depth (1) water management (1)	avhur (advanced very... (1) lysimeter (1) water level gauge.. (1)	hydrosphere (3) land surface (2) human dimensions (1)	lba (large-scale biosphere-atmosphere.. (4) lba-eco (2)

Viewing Documents 1 - 6 out of 6
[Prev](#) [1](#) [Next](#)
[Return to Search](#)

Sort By: [Index Rank](#) [Period of record](#) [Source](#) [Project](#)

AGUA E CRESCIMENTO DE UMA FLORESTA NA AMAZONIA SUL-OCIDENTAL, ACRE, BRASIL: CHUYA AFETA CRESCIMENTO, MAS NIVEL DO LENÇOL FREÁTICO NÃO (POSTER) 10/09/1999 - 09/04/2003

This is a poster presented in the special session of LBA-Project during the VI Brazil Congress of Ecology in November, 2003. The results show that the growth of the forest is strongly correlated with ...

Data source: LBA Project: LBA (LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN THE AMAZON)
★★★★★★★★★★ [View full metadata](#)

WATER TABLE FLUCTUATION IN THE CATUABA EXPERIMENTAL FARM FOREST AREA - UFAC 02/12/1999 - 12/22/2004

Obtaining Data

The full documentation at the data supplier's site will also contain a link(s) to the data files themselves, or to ftp areas where you can download data sets directly from the data supplier. If your browser understands the format of the file (e.g., a GIF file) it will open it, and you can save it. If the browser does not know the format of the file (a SAS(R) file) you can save it directly without opening it.

If the supplier's machine is down, you will have to wait to retrieve the data set(s).

In the Browse pages, query results are represented as nodes in an expandable tree structure where each trunk represents the starting point for a new fixed query.

The relevant query is indicated by the trunk title:

“Data Set Titles” presents as a tree a list of available data sets from the selected archive. Each title presented has links to further information specific to this dataset, and to the archive view and order facility.

“Parameter / Source / Site” begins with the sorted list of “parameters” retrieved from the metadata files for this particular datasource.

“Site / Sensor / Parameter” begins with the sorted list of “sites” retrieved from the metadata files for this particular datasource.

“Topic / Term / Parameter” begins with the sorted list of “topics” retrieved from the metadata files for this particular datasource.

“Parameter / Source / Sensor” begins with the sorted list of “parameters” retrieved from the metadata files for this particular datasource.

From these starting points, the tree allows one to “drill down” by automatically populating the tree with the results obtained by including the selected terms as logical AND conditions appended to the tree’s base query.

[Simple Search](#) [Advanced Search](#) [Browse](#)

Mercury3 Browsed Tree Search

- 📁 [Large-Scale Biosphere - Atmosphere Experiment in Amazonia \(LBA\)](#)
- 📁 [Large-Scale Biosphere - Atmosphere Experiment in Amazonia ESIP \(LBAESIP\)](#)



The Large Scale Biosphere-Atmosphere Experiment in Amazonia



Welcome to **Beija-flor**
Search Engine for the LBA Project

LBA Web Browse tree

Please select the field you want to browse | [Help](#)

[Collapse All](#)

- 📁 Data Set Titles
- 📁 Parameter / Source / Site
- 📁 Site / Sensor / Parameter
- 📁 Topic / Term / Parameter
- 📁 Parameter / Source / Sensor

For example, the initial search results from the “**Site / Sensor / Parameter**” trunk represent the equivalent of “SELECT SITE WHERE DATASOURCE =”LBA”.

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor** Search Engine for the LBA Project

LBA Web Browse tree

Please select the field you want to browse | [Help](#)

[Collapse All](#)

- [-] Data Set Titles
- [-] Parameter / Source / Site
- [+] Site / Sensor / Parameter
 - [-] Abracos Hill [View All](#)
 - [-] Acre [View All](#)
 - [-] Acre - Assis Brasil [View All](#)
 - [-] Acre - Catuaba Experimental Farm [View All](#)
 - [-] Acre - Epitaciolandia [View All](#)
 - [-] Acre - Humaita Forest Reserve [View All](#)
 - [-] Acre - Parque Zoobotanico [View All](#)
 - [-] Acre - Projeto de Assentamento Humaita [View All](#)
 - [-] Acre - Projeto de Assentamento Peixoto [View All](#)
 - [-] Acre - Rio Branco [View All](#)
 - [-] Alo Brasil [View All](#)
 - [-] Amazon [View All](#)

“Drilling down” by selecting a site , one could obtain the tree EQUIVALENT “SELECT SOURCE WHERE DATASOURCE =”LBA AND SITE = Amazon Basin”.

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor** Search Engine for the LBA Project

LBA Web Browse tree

Please select the field you want to browse | [Help](#)

[Collapse All](#)

- [-] Data Set Titles
- [-] Parameter / Source / Site
- [-] Site / Sensor / Parameter
 - [-] Abracos Hill [View All](#)
 - [-] Acre [View All](#)
 - [-] Acre - Assis Brasil [View All](#)
 - [-] Acre - Catuaba Experimental Farm [View All](#)
 - [-] Acre - Epitaciolandia [View All](#)
 - [-] Acre - Humaita Forest Reserve [View All](#)
 - [-] Acre - Parque Zoobotanico [View All](#)
 - [-] Acre - Projeto de Assentamento Humaita [View All](#)
 - [-] Acre - Projeto de Assentamento Peixoto [View All](#)
 - [-] Acre - Rio Branco [View All](#)
 - [-] Alo Brasil [View All](#)
 - [-] Amazon [View All](#)
 - [-] Amazon Basin [View All](#)
 - [-] [\(View All\)](#)
 - [-] air thermometer [\(View All\)](#)
 - [-] aldf sensor [\(View All\)](#)
 - [-] altimetric radar [\(View All\)](#)
 - [-] analysis [\(View All\)](#)
 - [-] [\(View All\)](#)

Selecting one of the sensor items, we get the added parameter nodes available for site = amazon basin and datasource = lba and sensor = altimetric radar.


LBA Web Browse tree

Please select the field you want to browse | [Help](#)

[Collapse All](#)

- [-] Data Set Titles
- [-] Parameter / Source / Site
- [-] Site / Sensor / Parameter
 - [-] Abracos Hill [View All](#)
 - [-] Acre [View All](#)
 - [-] Acre - Assis Brasil [View All](#)
 - [-] Acre - Catuaba Experimental Farm [View All](#)
 - [-] Acre - Epitaciolandia [View All](#)
 - [-] Acre - Humaita Forest Reserve [View All](#)
 - [-] Acre - Parque Zoobotanico [View All](#)
 - [-] Acre - Projeto de Assentamento Humaita [View All](#)
 - [-] Acre - Projeto de Assentamento Peixoto [View All](#)
 - [-] Acre - Rio Branco [View All](#)
 - [-] Alo Brasil [View All](#)
 - [-] Amazon [View All](#)
 - [-] Amazon Basin [View All](#)
 - [-] [\(View All\)](#)
 - [-] air thermometer [\(View All\)](#)
 - [-] aldf sensor [\(View All\)](#)
 - [-] altimetric radar [\(View All\)](#)
 - [-] stage height
 - [-] analysis [\(View All\)](#)
 - [-] anemometer [\(View All\)](#)

Selecting one of the parameter nodes will bring up the metadata report .



LBA
The Large Scale
Biosphere-Atmosphere
Experiment
in Amazonia

Welcome to
Beija-flor
Search Engine for the LBA Project

Metadata Report

[Email](#)

Search Criteria: sensorText:"altimetric radar" AND site:"amazon basin" AND parameterText:"stage height" AND datasource:(lba)

Title:	Satellite Radar Altimeter Data										
Project(s):	LBA-HydroMeteorology										
Investigator(s):	Birkett, Dr. Charon M cmb@nemo.gsfc.nasa.gov Costa, Marcos Heil mhcosta@mail.ufv.br Jasinski, Michael F mjasinsk@hsb.gsfc.nasa.gov										
Status:	Final										
Access Restrictions:	Public										
Data Set Location:	LBA DIS / CPTEC										
Data Center Contact:	Birkett, Dr. Charon M. - cmb@nemo.gsfc.nasa.gov Costa, Dr. Marcos Heil - mhcosta@ufv.br										
Data Center URL:	ftp://lba.cptec.inpe.br										
Data Set Citation:	Birkett, Dr. Charon M Costa, Marcos Heil Jasinski, Michael F Satellite Radar Altimeter Data http://lba.cptec.inpe.br/harvest/mcosta/metadata/sh01.xml										
Download Data Sets:	Radar Altimeter Network Data RALNET-LBA										
Parameter Description:	<div style="text-align: center; margin-bottom: 5px;"> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #336633; color: white;"> <th>Parameter</th> <th>Sensor</th> <th>Source</th> <th>Term</th> <th>Topic</th> </tr> </thead> <tbody> <tr> <td>STAGE HEIGHT</td> <td>ALTIMETRIC RADAR</td> <td>TOPEX/POSEIDON</td> <td>SURFACE WATER</td> <td>HYDROSPHERE</td> </tr> </tbody> </table>	Parameter	Sensor	Source	Term	Topic	STAGE HEIGHT	ALTIMETRIC RADAR	TOPEX/POSEIDON	SURFACE WATER	HYDROSPHERE
Parameter	Sensor	Source	Term	Topic							
STAGE HEIGHT	ALTIMETRIC RADAR	TOPEX/POSEIDON	SURFACE WATER	HYDROSPHERE							
Keywords:	River stage Altimetric radar Topex/Poseidon										
Abstract:	Utilizing remotely sensed spatial and temporal patterns of surface water fluxes, the project science objectives encompass hydrology, ecology, hazard and climate-related applications and issues. A satellite radar altimeter is not an imaging device, but continuously records average surface 'spot' heights as it transverses over the Earth's surface. Operating at ~13.6GHz, each altimeter emits a series of microwave pulses towards the surface. By noting the two-way time delay between pulse emission and echo reception, the surface height can be deduced. Each returned height value is an average of all surface										

At any point in this process, selecting the “View All” will link to a summary page for the terms selected up to that point.

LBA The Large Scale Biosphere-Atmosphere Experiment in Amazonia

Welcome to **Beija-flor**
Search Engine for the LBA Project

Metadata Summary

[Bookmark](#) [Email](#) [Help](#) [RSS](#)

Your search found: 95 documents.
Query: site:amazon basin AND datasource:(lba)

Viewing Documents 1 - 10 out of 95
[Prev](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [Next](#)
[Return to Search](#)

Sort By: **Index Rank** **Period of record** **Source** **Project**

LBA REGIONAL MONTHLY CLIMATOLOGY FOR THE 20TH CENTURY (NEW ET AL.) 01/01/1901 - 07/23/2008

This data set is a subset of global mean monthly surface climate data, 1901-1995 (New et al). The subset is for the LBA study area which is defined to be 10N to 25S and 85W to 30W. Temporal coverage ...

Data source: LBA *Project:* LBA-ECO
 ★★★★★★★★★★ [View full metadata](#)

HOURLY PRECIPITATION ESTIMATED FROM GOES IMAGERY 07/18/2000 - 07/23/2008

DIGITAL DATA IN GRADS FORMAT The real time, 4 Km by 4 Km resolution rainfall rate estimation data on digital format are compressed files named by the Julian day followed by the hour and the minutes....

Data source: LBA *Project:* LBA (LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN THE AMAZON)
 ★★★★★★★★★★ [View full metadata](#)

LBA REGIONAL ORGANIC SOIL CARBON AND NITROGEN DATA (ZINKE ET AL.) N/A - 07/23/2008

The data set consists of a LBA study area subset of the Worldwide Organic Soil Carbon and Nitrogen Data. The data were obtained from soil surveys by Zinke (1965,1974,1976,1978,1979, and 1984) and soi...

Data source: LBA *Project:* LBA-ECO
 ★★★★★★★★★★ [View full metadata](#)

LARGE SCALE REMOTE OBSERVATIONS OF DISTURBANCE IN THE AMAZON BASIN (POSTER) 01/01/1982 - 01/01/1998

If more flexibility is required, try browsing from the main page’s “Advanced” tab , which allows for faceted searching of the most relevant terms obtained from the metadata.

LBA Metadata Editor Glossary

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

[A](#)

abstract

A summary. Text that briefly describes the purpose and methods of a research effort. It may also give helpful information about availability of data.

Hint: A convenient way to develop an abstract in the LBA Metadata Editor is to copy and paste text or html markup from elsewhere.

[\(examples\)](#)

activity

Activity or campaign with which this data set is associated and which will link data sets that are related thematically, spatially, or temporally. This could be the title of the grant under which the activity was funded (e.g. "Pre-LBA Data Sets Initiative") or an intensive field campaign during which the data were collected (e.g. "Claire 1998", "Rondonia Wet Season Campaign 1999"). If no other phrase better describes your data, then use the program name with which the data set is associated, e.g. "LBA-Ecology", "LBA-Hydrology", "Webster", "HydroNET".

administration

The Metadata Editor is installed on various computers corresponding to different URLs. Each computer has one or more people acting as administrators, with the power to add or delete user IDs, etc. The Administration option is visible only to administrators and can be used for this purpose. Non-administrators see a [User Info](#) option instead, and can only change their own info.

archive status

(For use by LBA DIS personnel only)

auto-collapse

A mode which causes the previous active section of the form to collapse when a new section is expanded. Note that merely clicking in a section that is already open does not cause the previous section to collapse, although it does cause the new section to become the active section. Autocollapsing occurs up to the same hierarchical level as the section which has just been expanded. See also [expand](#) and [collapse](#).

[B](#)

[C](#)

close

A function in the LBA Metadata Editor that allows users to exit an open metadata file.

collapse

To shorten the form by showing only the header of a chosen section. See also [expand](#).

contact information

Details about how to establish communication with a person, or contact, associated with a data set.

contact person

Person to contact for more information about a data set.

[D](#)

DIF

Abbreviation for "Directory Interchange Format." A concise [metadata](#) format used in the Global Change Master Directory ([GCMD](#)). A collection of fields that detail specific information about a data set. These fields help users determine whether a particular data set would be useful.

Data Set Documentation

Information that can be added to the searchable metadata to construct an HTML template for complete data set documentation. In principle, the data set documentation can be written completely within the ORNL metadata editor. We also offer an option to download a template created from the metadata to your desktop and use a Word Processor or HTML editor to create the documentation, including tables, equations, and figures.

Data Set Overview

An overview of the data set.

Example: [RemoteSens1](#)
(See also the [Instructions for Data Set Documentation](#).)

data access

Instructions for accessing the data and documentation are normally maintained by the curator of the archiving institution. The original author of the data set documentation will not normally know the directory structure of the archive.

data access information

Details about how to gain access to a data set, either to view it or to obtain copies of it.

data acquisition materials and methods

This section describes the source or platform, sensors, and their use for aerial or space platforms. For field experiments, it should provide similar relevant information.

Examples: [FieldMeas1](#) [FieldMeas2](#) [FieldMeas3](#) [RemoteSens1](#)
(See also the [Instructions for Data Set Documentation](#).)

data application and derivation

This section assists users in applying the data and understanding the data at both theoretical and detailed technical levels.

Example: [RemoteSens1](#)
(See also the [Instructions for Data Set Documentation](#).)

data center

The institution or computer system where a data set is maintained. The system can be a computer, workstation, or server in the care of an investigator or someone else.

data center contact

Name of person to contact at the data center with questions regarding this data set. Email and phone number of the data center contact person can be provided in this field as well.

data center url

The Web address, or Uniform Resource Locator (URL), for the main Web page of the institution or computer system that is currently maintaining a data set. The URL can be for a computer, workstation, or server in the care of an investigator or someone else.

data characteristics

This section contains details of the spatial and temporal extent of the data, the organization of the data files, data file formats, variable descriptions, and a sample data record, if applicable.

Examples: [FieldMeas1](#) [FieldMeas2](#) [FieldMeas3](#) [FieldMeas4](#) [RemoteSens1](#) [Gridded1](#)
(See also the [Instructions for Data Set Documentation](#).)

data file

A computer file containing data.

data last modified

The date of last modification of the **data**. This is not necessarily the date when you modify your **metadata** using this form. Please remember to come back and change this date when you want people to download your revised data.

data originator

People who produced the data and metadata.

data set

A collection of related data.

data set citation

The complete bibliographic reference that identifies an individual data set and its origin. Citations should contain author names, date of publication, data set title, medium of transmission, publishing organization, and place of publication. Citations should be formatted as follows:

Jones, A. B., C. D. Smith, and E. F. White. 2002. Title of the Data Set. Data set. Available on-line [<http://www.daac.ornl.gov/>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A.

[\(Citation Examples\)](#)

data set information

Details about the contents of a data set and the characteristics of the data in it.

data set link

The URL and label that together in a Web document will direct the user to an online data set, data file(s), accompanying documentation or readme files, or other ancillary information. By clicking on the data set link, the user can view the data set, data file, or documentation file online and choose whether to download the file(s).

data set location

Details about the place where a data set resides (or will reside).

data set restrictions

Restrictions to access of actual data, as opposed to metadata. Metadata is public information once it is put on the web, but the holder of the corresponding data may choose to limit access to the data to certain groups of people. This is normally done by configuring the web server at the data-holding site to require passwords. **Note: selecting a certain level of restriction using this metadata editor does not enforce those restrictions!** The metadata merely informs prospective data users about possible restrictions to data access.

data set status

The current condition of the data set, whether it is proposed, preliminary, or final. When entering the data set status in the LBA Metadata Editor, users should select a standard expression from the pick list for data set status if at all possible.

data set title

The formal name given to a [data set](#). The data set title should be descriptive enough to uniquely identify the data set. It can include any or all of the following information as appropriate: the associated project, type of data collected, geographic location, temporal coverage, team ID, sampling frequency. An example would be "Daily Precipitation across the Amazon Basin in Brazil from 1998-1999 (LBA)". We recommend limiting the length of the title to 80 characters to be compatible with conventions followed in [EOSDIS](#) and [GCMD](#).

delete

A function in the LBA Metadata Editor that allows users to completely remove a file from the computer file system.

description

A brief description of the experiment and/or data. This will frequently look like an abstract, but the format may vary depending on the situation. It may also give helpful information about availability of the data.

Hint: A convenient way to develop a description in the LBA Metadata Editor is to copy and paste text from elsewhere.

document NOT to be included in free-text search

A document to be shown as a link in the search results, but not to be included in a free-text metadata search.

document to be included in free-text search

Any html, xml, or plain-text document that you wish to be available to the search engine for free-text searching. Avoid naming these files with standard extensions like .doc, .xls, .ppt, etc.

document link

The URL and label that together in a Web document will direct the user to a document on-line. By clicking on the document link, the user can view the document file.

documentation tool

The Documentation Tool will provide the opportunity for the data producer to record more detailed information about the data content that will help a user understand and use the data. This information will then be harvested by Beija-flor and will be included in the indexed information that is accessible for character-string searches via the "Entire Document" search mechanism in Beija-flor.

dtd

Abbreviation for "Document Type Definition." The set of rules (or grammar) that accompanies a document in a markup language and specifies how the codes for the structural elements in the document are to be processed to display and print and document. The DTD defines document types in markup languages such as SGML and XML.

E

EOSDIS

Earth Observing System Data and Information System

easternmost longitude

The most-eastern location of data collection, expressed in positive (+) degrees and fractions of degrees longitude east of the prime meridian and negative (-) degrees and fractions of degrees longitude west of the prime meridian (e.g., -5.040°).

email

Short form for "electronic mail." In using the LBA Metadata Editor, users should include a full e-mail address. E-mail addresses have three parts: (1) a user ID followed by "@" (the "at" sign), (2) a place ID followed by a period, and (3) the domain ID. For example, the address **smithf@tuniv.edu** has "smithf" for the user named Fred Smith, "tuniv" for the place where he works, and "edu" for the domain ID. If you are unsure of your e-mail address, please contact your system administrator.

end date

The date on which data-gathering instruments stopped collecting data or the date on which the research effort officially ceased. In the case where different parameters in the data set were measured at different times, the end_date is the last date on which any of the data parameters included in this data set were collected or measured. When using the LBA Metadata Editor, users should enter the start date in the 8-character format YYYYMMDD, with four numerals for the year (YYYY), two numerals for the month (MM), and two numerals for the day (DD). Single-digit numbers for months and days should be preceded by a zero (e.g., 01).

example-abstract

The results of published and unpublished experiments investigating the impacts of elevated carbon dioxide on the chemistry (nitrogen and lignin concentration) of leaf litter and the decomposition of plant tissues are assembled in a format appropriate for statistical meta-analysis of the effect of carbon dioxide. The synthesis originated from a workshop, Litter Quality and Decomposition under Elevated CO₂, held in Capri, Italy, September 1998, under the auspices of Global Change and Terrestrial Ecosystems project (GCTE) and the European COST network. Data on litter chemistry and decomposition of plant tissue grown in elevated and ambient carbon dioxide concentrations were gathered from participants of that workshop and from other published and pre-publication sources. The litter chemistry database comprised observations of naturally senesced leaves of herbaceous and woody plants exposed to elevated carbon dioxide (typically 600-700 ppm) in the field or in field chambers in the United States, Europe, New Zealand, and Australia. Data from plants grown in growth chambers with artificial lighting were excluded because of the possible artifacts of unbalanced nutrition or abnormal senescence. Also excluded were data from non-senescent green leaves. The measures of litter chemistry were nitrogen concentration (mg/g) and lignin concentration (mg/g), with the number of replications and standard deviations included when available. The decomposition database included a wide range of plant tissue from different types of carbon dioxide-enrichment experiments. The measure of decomposition was percentage of initial mass lost over the course of the decomposition trial, which varied in duration.

exclude

A function in the LBA Metadata Editor that allows users to retract one or more metadata files from the search engine database. Equivalent to [make unsearchable](#).

expand

To lengthen the form by showing the sub-headings or text boxes within a chosen section. See also [collapse](#).

experiment name

The officially approved name of the experiment.

export

A function in the LBA Metadata Editor that allows users to copy all of the [metadata](#) of an open file into a DIF file.

Note: If the DIF file already exists, it will be totally overwritten through the "export" function. If the current open file has blank fields, those blank fields will also be exported into the DIF file.

F

G

gcmd

Abbreviation for "[Global Change Master Directory](#)." A comprehensive directory of information maintained by the National Aeronautics and Space Administration (NASA). The directory contains Earth science data, including broad coverage of the oceans, atmosphere, hydrosphere, solid earth, biosphere, and human dimensions of global change.

geodetic datum

Georeference system on which the bounding coordinates were based. Geodetic datums define the size and shape of the Earth and the origin and orientation of the coordinate systems used to map the Earth.

geospatial data

Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on Earth. This information may be derived from remote sensing, mapping, and surveying technologies, among other sources.

H

head

The top portion of a Web page file that precedes the body and is marked by special codes. The header is not visible on the screen when the Web page is viewed in a browser such as Netscape or Internet Explorer.

html

Abbreviation for "hypertext markup language." A machine-readable language that uses special codes, or tags, to embed formatting instructions within plain text. HTML is an application of [SGML](#) and is used in creating Web documents. The Web browser displays Web documents according to the formatting instructions in the embedded HTML. The LBA Metadata Editor uses HTML along with XML.

I

ISBN Number

The International Standard Book Number (ISBN) is a unique identifier for all books. See the [ISBN Home Page](#).

import

A function in the LBA Metadata Editor that allows users to insert all of the [metadata](#) from a [DIF](#) file into an open metadata file.

Note: The open metadata file will be totally overwritten through the "import" function. If there are blank fields in the file from which metadata are imported, those blank fields will also be imported into the open metadata file.

investigation team

An officially approved investigator team from the picklist. If the picklist does not contain the appropriate information, requests for changes should be made through the [appropriate LBA Project Office](#).

investigator

A scientist or researcher involved in an experiment or investigation. The investigator has responsibility for the outcome of the effort.

J

K

keywords

A list of words that indicate the main content of a data set or document. Keywords can include distinguishing aspects of data collection, such as location(s) and time(s), as well as subject matter. By providing as many descriptive keywords as possible that are relevant to your data set, you will increase the chances that your data set will be identified by a user's search query via Beija-flor. Also, this is a good place to put those entries that you wanted to put in Site, Region, Source, Sensor, and Parameter, but couldn't because those are controlled fields!

L

LBA

Large Scale Biosphere-Atmosphere Experiment in Amazonia

LBA DIS

LBA DIS: Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA) Data and Information System (DIS)

LBA science component

An official LBA Science Component to which the research team belongs. Science Component is based on disciplinary theme, e.g. Atmospheric Chemistry (AC), Carbon Dynamics (CD), Human Dimensions (HD), Land Surface Hydrology (SH), Land Use and Land Cover (LC), Nutrient Dynamics (ND), Physical Climate (PC), and Trace Gas and Aerosol Fluxes (TG).

label

The text part of a Web link that the user sees on-screen in a Web page and clicks to view the linked file or portion of a document. The label can match the URL of the linked file, or it can be a title, word, or phrase.

latitude

Angular distance north or south from the equator.

Iba dis archive

(For use by LBA DIS personnel only)

link

The URL and label that together in a Web document will direct the user to a file on-line. By clicking on the label, the user can view, download, or execute the linked file.

longitude

Angular distance between an east or west meridian and the prime meridian (as in Greenwich, England).

M

meridian

A great circle on the surface of the Earth that passes through the North and South poles.

metadata

Information about the content, quality, condition, and other characteristics of a data set. Metadata include the names of the investigators, the title of the data set, keywords, and descriptive information related to the project for which the data are collected. Note that these metadata are intentionally general in content and are, in effect, a "least common denominator" designed to help a user search for and locate data sets that are similar in content but are located in many geographically distributed sources. These metadata fields are not detailed enough to fully document your data set. To document your data set, you will need to access the Documentation Tool that is currently under development and, when completed, will be incorporated into the LBA Metadata Editor.

metadata author

The person entering the metadata. This is probably you.

N

National Geospatial Data Clearinghouse

A distributed electronic network that links producers, managers, and users of geospatial data in the United States. Building on initiatives such as the national information infrastructure, the clearinghouse uses the Internet to link participants. Data producers provide descriptions of their available data (called "metadata") in an electronic form and offer access via a communications network. The data for the clearinghouse are located at the sites of data producers (or, where more efficient, at the sites of the data producers' intermediaries). Through the clearinghouse, people can locate data that are suitable for their applications.

name

The full name and title of an investigator associated with a data set. When entering as name in the LBA Metadata Editor, users should adopt the following format: Surname [comma] + personal

title + additional name and initial(s) [comma] + additional name abbreviation (if any). For example, Professor Reginald van Poodle III would be entered as "van Poodle, Prof. Reginald, III" on the Web form, and Dr. Ralph M. Smith would be entered as "Smith, Dr. Ralph M."

new

A function in the LBA Metadata Editor that allows users to start a new metadata file.

northernmost latitude

The most-northern location of data collection, expressed in positive (+) degrees and fractions of degrees latitude above the equator and negative (-) degrees and fractions of degrees latitude below the equator (e.g., -5.040°).

note for data set link

Instructions or remarks that appear beside a clickable link. These might say that it is necessary to register in order to access the link, or they might give information about how to navigate deeper into the web site. Please try to provide a precise URL when possible, rather than a home page URL and instructions for navigating the site.

O

open

A function that allows users to select an existing metadata file for editing. The file must be stored on the computer that hosts the Metadata Editor. To transfer files to that system, see [upload](#).

P

parameter

A descriptive class of variables that are included in the data set. This field is intended to help a user query the Beija-flor system to identify a group of data sets that contain similar variables; it is not intended to be used as a means of documenting the specific variable names or columns in the data set. When entering a parameter in the LBA Metadata Editor, users should select a standard expression from the picklist for parameters if at all possible.

parameter description

Classification information about a parameter, including the name of the parameter and the instrument that measured it. Many of the LBA data sets will eventually become indexed in the [Global Change Master Directory](#) (GCMD) and the [EOSDIS](#), as well as the [LBA DIS](#). To this end, the metadata fields in this section help us to classify the data set according to GCMD and EOSDIS conventions and facilitate the registration of your data sets into these other systems. The metadata fields [Topic](#), [Term](#), and [Parameter](#) provide a hierarchy of classification of the parameter along a science discipline schema, consistent with GCMD conventions. Another way of classifying the parameter is by using the EOSDIS schema, i.e. classification according to the [Source](#) (platform) and [Sensor](#) (instrument) that produced the [Parameter](#). By using the available selections in the respective picklists, you will ensure that the metadata describing your data will be consistent with that of other data sets that are part of LBA DIS. In addition, when the data become available to the public, you will have ensured that your metadata are consistent with the standards adopted by, and therefore will be accessible by, many other international data access and retrieval systems for future global research endeavors.

phone

"Complete" telephone number. May have spaces or dashes embedded.

pick list

A list of names or expressions from which the user can select, or pick, one item. When editing a metadata file in the LBA Metadata Editor, users must click the arrow on the right of the pick list box if they want to see the list displayed.

plain text

Characters that represent words and symbols in a natural language as opposed to code in a computer markup language such as HTML, SGML, or XML. The plain text is visible when the Web page is viewed by means of a Web browser.

poster link

An on-line poster, for example, a powerpoint or pdf file in an ftp area.

project

The authorized name of a research effort for which data is collected. This name is often reduced to a convenient abbreviation or acronym. All investigators involved in a project should use a common, agreed-upon name. For all data registered through the LBA Metadata Editor, the project should be "LBA (Large-Scale Biosphere-Atmosphere Experiment in the Amazon)".

publication abstract

Abstract of publication

publication authors

Authors of publication

publication citation

Citation for publication

publication keywords

Keywords for publication

publication title

Title of publication

Q

quality assessment

This section contains descriptions of data uncertainties, known problems, and descriptions of quality assessments that have been performed on this data by the provider and the Data Center.

Examples: [RemoteSens1](#)
(See also the [Instructions for Data Set Documentation](#).)

R

references

Provide references to Satellite/Instrument/Data Processing Documentation, Journal Articles and Study Reports, and Data Center/Database Management System Usage Documentation.

Use the format used in leading science Journals. If these documents exist online, refer to Bibliography Styles from the University of Illinois Writers' Workshop On-Line Handbook. URL:

<http://www.english.uiuc.edu/cws/wworkshop/bibliostyles.htm>.

(See also the [Instructions for Data Set Documentation](#).)

region

An official standard region name assigned by the project. If the picklist does not contain the appropriate selection, requests for changes should be made through the [appropriate LBA Project Office](#).

related publication information

A group of items that describe a publication that is related to this data.

remove

A function in the LBA Metadata Editor that allows users to eliminate all of the [metadata](#) from the current open file.

Note: The remove function should be used with caution. After the metadata have been removed, they cannot be automatically restored. The metadata must be recreated or reimported.

S

save

A function in the LBA Metadata Editor that allows users to save their modified metadata to a file. If the file is new, a message window will pop up, asking the user to give the file a permanent path and name. After the file has been saved, it will be stored in the central system of the LBA Metadata Editor, and the Save function will automatically overwrite that file each time the Save function is selected.

save as

A function in the LBA Metadata Editor that allows users to preserve the information of an open file in a second file. Through the Save As function, users can give the second file a different name, and/or they can change the directory in which the second file is located.

science component

An official LBA Science Component from the picklist.

science team information

Details about the LBA science team that collected the data, including the [LBA science component](#), [team ID](#), investigators involved in the data collection or data processing and their email addresses, and contact information in the event you have questions about the data.

search engine

A computer resource that collects information from files that are declared searchable, catalogues the information in a central database, and provides information to users who submit requests.

searchable

When a file is made searchable, the search engine can "harvest" the metadata for its database, and then users can find the metadata by querying the search engine.

Note: The metadata will not appear in the search results until after the next periodic refresh. (Normally, the search engine refreshes its database nightly.) However, people who know the URL of the metadata file can view it immediately if they have access to the server on which the file is stored! When a file is made unsearchable, the search engine will continue to show the metadata until after the next periodic refresh. Even though a metadata file is "unsearchable" by the search engine, people who know the URL of the file can view the metadata if they have access to the server on which the file is stored! To keep the files strictly private, the person who created the file can rename, delete, or move the files to a private area or set up password protection through their server administrator.

searchable metadata

Information that is harvested for use in a search engine. When a section by this name exists, it is normally the "main section" in an OME form, with other sections being used only to optionally export to a Guide Document, etc.

sensor

Also called "instrument." A device that is used for collecting data for a [data set](#). When entering a sensor in the LBA Metadata Editor, users should select a standard expression from the picklist for sensors if at all possible.

[Additional EOSDIS sensors/instruments](#)

site

The official name assigned by the project for the physical location where the data were collected. If the appropriate selection is not provided in the picklist, requests for changes should be made through the [appropriate LBA Project Office](#).

site information

Information about the site name and location.

smart picklist

A [picklist](#) mode that attempts to remove irrelevant items from the active picklist based on your previous selections and on known correlations. **This is not 100% complete and accurate!** If you do not find an acceptable item, try the "full" picklist mode.

source

Also called "platform." The mechanism used to support the sensor or instrument that gathers data for a data set. When entering a source in the LBA Metadata Editor, users should select a standard expression from the pick list for sources if at all possible. Note that for the LBA project, common sources are "TOWER", "LABORATORY", "MODELS", some type of aircraft (check picklist for specific models), or generically "FIELD INVESTIGATION" or "FIXED OBSERVATION STATIONS" when no other selections apply.

southernmost latitude

The most-southern location of data collection, expressed in positive (+) degrees and fractions of degrees latitude above the equator and negative (-) degrees and fractions of degrees latitude below the equator (e.g., -5.040°).

spatial reference method

Describes how the file is related to spatial location, if appropriate. Please choose a standard value or leave the field blank, instead of entering arbitrary text.

At this writing (9/2001), the standard values are as follows:

- "Vector" -- polygon bounding regions.
- "Raster" -- i.e., on a regular rectangular grid
- "Point" is for flux towers, etc.
- "Other" would be for things like tables of annual rainfall by country.

spatial coverage

The farthest geographic range of data collection for a specific data set, as expressed in terms of latitude and longitude.

start date

The date on which data-gathering instruments began collecting data or the date on which the research effort officially began. In the case where different parameters in the data set were measured at different times, the start_date is the first date on which any of the data parameters included in this data set were collected or measured. When using the LBA Metadata Editor, users should enter the start date in the 8-character format YYYYMMDD, with four numerals for the year (YYYY), two numerals for the month (MM), and two numerals for the day (DD). Single-digit numbers for months and days should be preceded by a zero (e.g., 01).

I

team id

ID assigned to the LBA investigation team, indicating a code for the general science theme ([LBA science component](#)) and a team number, e.g. CD-99 (Carbon Dynamics, team # 99). Team numbers are assigned based on the following classification system: 1-199 are NASA funded collaborations, 200-399 are European funded projects, and 400-599 are Brazilian funded investigations.

team information

Information about the investigation team, its members, and support staff.

temporal coverage

The inclusive starting and ending dates that define the period over which the data in the data set were collected.

temporal resolution

The frequency of the data sampling during which the data of a data set were collected. When entering a temporal resolution in the LBA Metadata Editor, users should select a standard expression from the pick list for temporal resolution if at all possible.

term

A secondary subject area within which earth science parameters can be categorized in the [topic](#) > [term](#) > [parameter](#) hierarchy. Example terms include "agricultural chemicals" and "atmospheric chemistry," among many others. When entering a term in the LBA Metadata Editor, users should select a standard expression from the pick list for terms if at all possible.

time period

Details about the time when the data in a data set were collected, including temporal coverage and the frequency of collection.

topic

The most general subject area within which an earth science parameter is categorized in the [topic](#) > [term](#) > [parameter](#) hierarchy. Example topics include "agriculture," "atmosphere," and "hydrosphere," among others. When entering a topic in the LBA Metadata Editor, users should select a standard expression from the pick list for topics if at all possible.

U

upload

A function that allows users to transfer a file from the desktop computer (where the browser is running) to the host computer (where the Metadata Editor is running). Note: the Metadata Editor cannot [open](#) a file unless it resides on the host computer.

url

Abbreviation for "Uniform Resource Locator." The electronic address of a Web page on the Internet. Please be considerate and enter a specific URL when possible, rather than a home page URL that is several steps away from the relevant information.

url link text

The text part of a Web link that the user sees on-screen in a Web page and clicks to view the linked file or portion of a document. Sometimes called a label. The label can match the URL of the linked file, or it can be a title, word, or phrase.

user information

The User Info option can be used to change your user ID, password, and email address.

V

view/download

A function in the LBA Metadata Editor that allows users to look at a file in a browser window. You also have the opportunity to download the viewed file to your desktop. (This is handy for DIF files that you create by exporting metadata). Recent browsers will reformat metadata (XML) files that you view into a more pleasing format.

W

westernmost longitude

The most-western location of data collection, expressed in positive (+) degrees and fractions of degrees longitude east of the prime meridian and negative (-) degrees and fractions of degrees longitude west of the prime meridian (e.g., -5.040°).

X

xml

Abbreviation for "extensible markup language." A standard that describes how to specify a machine-readable language, or tag set, to identify the structural elements and semantic attributes of documents. XML is a simplified version of [SGML](#), which embeds coding tags within plain text. Documents based on XML can be created in terms of document structure rather than appearance characteristics. The LBA Metadata Editor uses XML to store [metadata](#)

Y

Z