



## Exercise 1: How to Order a BARC?

### What is a BARC?

The Geospatial Technology and Applications Center (GTAC) provides **Burned Area Reflectance Classification (BARC)** products for U.S. Forest Service **Burned Area Emergency Response (BAER)** teams. Burned Area Reflectance Classifications (**BARCs**) come in two flavors: the **BARC256** and the **BARC4**. The **BARC256** is a continuous raster dataset that contains values from 0-255. It is developed by analyzing the difference between pre-fire and post-fire satellite imagery. Specifically, the process analyzes changes that occur following a fire in the near-infrared and short wave infrared portion of the electromagnetic spectrum. By measuring the magnitude of these post-fire changes, we can estimate the effects of the fire on the vegetation and soils of the burned area. BAER teams utilize this knowledge to assess post-fire damage and risk.

The second BARC product is the **BARC4**. The **BARC4** is a simplified version of the **BARC256**. It is a thematic raster dataset that has been classified into 4 categories, or classes. These classes are unburned to very low, low, moderate and high severity. The **BARC** is considered a preliminary product only and should be validated by a BAER team before it is used for any damage assessment. A trained analyst at GTAC uses expert knowledge to provide a best estimate of the threshold values for the four burn severity classes, but those thresholds vary from fire to fire and are dependent on many different factors. Therefore, the actual soil conditions on the ground must be documented and the **BARC256** should be modified as necessary in order to create a final **soil burn severity** dataset.

The process for utilizing a BARC product in a BAER team assessment generally follows the timeline below:

1. Request a BARC product from GTAC
2. Download the BARC data bundle
3. Collect soil burn severity field data
4. Adjust the BARC based on ground samples
5. Provide the final soil burn severity dataset to GTAC for distribution and archiving



## How Do I Obtain a BARC?

BARC products can be ordered for any official BAER team assessment. BARC products may also be ordered, on a limited basis and as a cost-reimbursable, for non-BAER team activities. Official BAER team requests will always have the highest priority, however. Requests should be made through the GTAC BAER Imagery Support website at:

<https://fsapps.nwcg.gov/mtbs/birch/requests>. Note that a user account is required to access the request form and that this information is different than your Active Directory account. An account can be requested and is processed instantaneously.

### Exercise Overview

Part 1. Create an Account or Review Your Existing Account.....	2
Part 2. Create a request for an existing fire.....	5
Part 3. Create a blank request for a fire not shown on the map.....	6

### Part 1: Create an Account or Review Your Existing Account

The BAER Imagery Support Website, also called BIRCH for short, is available from the main BAER Imagery Support page, or directly at this url:

<https://fsapps.nwcg.gov/mtbs/birch/requests>.

1. Open the BIRCH website at the link above
  - a. Click the link or copy and paste into a web browser to open the site. The default page for this site shows a Google Map interface with a number of red balloons on it.

# BAER Imagery Support

## BARC Request Page

[Incident Map](#)
[Request Queue](#)
[Login](#)

To submit a BAER support request or to check on the status of an existing request please select the incident from the map or the dropdown list. You can also browse existing requests from the [Request Queue](#)

Don't see your incident? [Create Blank Request](#)

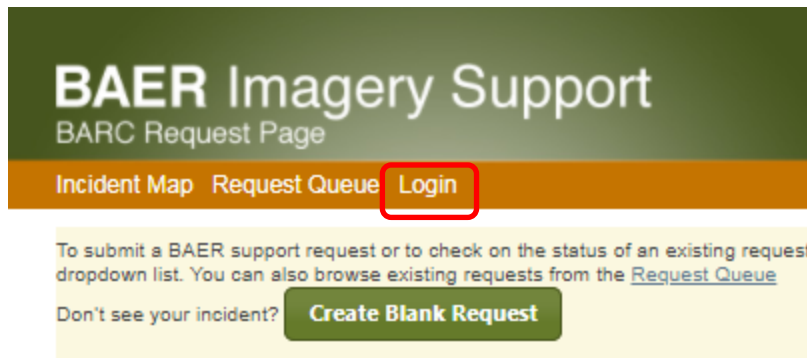
Map Satellite

Having trouble? If your request is related to a US Forest Service fire contact Justin Epting at [jepting@fs.fed.us](mailto:jepting@fs.fed.us). If your request is related to a Dept. of Interior fire contact Randy McKinley at [rmckinley@usgs.gov](mailto:rmckinley@usgs.gov). If your request is not related to an active BAER incident please send an email to [BAERimagery@fs.fed.us](mailto:BAERimagery@fs.fed.us)

The red balloons represent currently active fires, and are updated daily. A balloon with an 'R' inside of it indicates that someone has already requested a BARC product for that fire. If your fire of interest is on the map, you can simply click on it and enter some additional information in order to make a BARC request. If no balloon is present for your fire of interest, it must first be added to the map. In this exercise, we will perform both of the aforementioned tasks to illustrate the possible ways of making a formal BARC request.

## 2. Create an account or login if you already have one.

Click on the login button



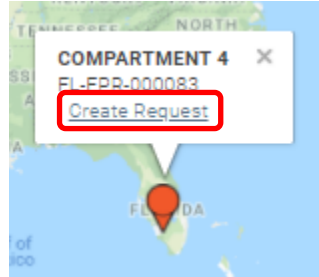
3. Login with your username and password or click on 'Or create an account' just below the login button.

4. Enter a username and password and your contact info. (Note, this information is NOT the same as your Active Directory information. This is a completely separate system).

5. You should receive an email within a few seconds stating that your account was created.
6. Log in to the system using your new account info.

## Part 2. Create a Request Using an Existing Fire

1. Locate your fire of interest using the Google map interface. (For this exercise, simply choose one of the existing fires).
2. Click the 'Create Request' button



3. Review the included information on the request form (see graphic below).
  - a. Each incident will have attributes associated with it, and these should now be pre-populated in the request form (the degree of completeness of the attributes will vary from fire to fire). Attributes include the fire name, ID, size, ignition date and information on containment. The location of the ignition point is also noted.
4. Provide information about the BAER team and yourself, the requestor.
  - a. In order to complete the request, GTAC needs information about you, the requestor, as well as the BAER team. Specifically, we need to know when the BAER team needs a BARC and who to contact. For this exercise, use a hypothetical BAER team to fill out the areas outlined in red below. In the comments area, you can add the names of anyone you want to be copied on email correspondence or any other pertinent information about the request or the BAER team.
5. Normally, after entering this information you would click the 'Submit' button, but since this is just an exercise, do not click Submit but instead click 'Cancel'.

Incident Information	
Incident name	COMPARTMENT 4
Agency	
Incident ID	FL-FPR-000083
Ignition date	12-Feb-18
Acres	882
Expected containment date	20-Feb-18
Percent contained	95.0

Incident Location	
<b>Add by Google Maps</b>	
Lat	26.163
Long	-81.449
<b>OR</b>	
<b>Enter Coordinates in DMS</b>	

BAER Team and Data Delivery Information	
BAER Assessment Start Date	
Department	Select...
BAER Team Leader Name	
Requestor name	
Requestor email	
Requestor phone	
Comments	
Supporting Agency	Select...
Status	Requested

Cancel
Submit



*Note: For these exercises, please do not click 'Submit'. Instead simply click 'Cancel' to exit the request form.*

### Part 3. Create a Blank Request (for a fire not shown on the map)

1. If your fire of interest is not shown as a red balloon on the map interface, you will need to add the fire to the system. To do that, first click on the 'Create Blank Request' button, shown here: Create Blank Request.
2. You will see the same form that you saw in the previous step, but this time the fields will all be blank. In order to complete the required fields, you will need some information about the fire, such as the name, the size in acres, the ignition date and the location of the ignition point. This information can usually be found on the InciWeb website located here: <https://inciweb.nwcg.gov/>. Go to the InciWeb site and look at a few of the fires there. Choose one fire and add the information about it to the blank form.
3. For this exercise, do not click submit. Click 'Cancel' after you have practiced entering the required information. Note that the bottom two fields should be left blank.

#### Incident Information

Incident name	<input type="text"/>	Incident ID	<input type="text"/>
Agency	<input type="text"/>	Acres	<input type="text"/>
Ignition date	<input type="text"/>	Percent contained	<input type="text"/>
Expected containment date	<input type="text"/>		

#### Incident Location

Lat  -OR-

Long

#### BAER Team and Data Delivery Information

BAER Assessment Start Date	<input type="text"/>	Department	<input type="text" value="Select..."/>
BAER Team Leader Name	<input type="text"/>	Requestor name	<input type="text"/>
Requestor email	<input type="text"/>	Requestor phone	<input type="text"/>
Comments	<input type="text"/>		
Supporting Agency	<input type="text" value="Select..."/>		
Status	<input type="text" value="Requested"/>		

**Congratulations!** You have successfully completed the first exercise.