

# Using Picture Post Project in Your Classroom to Study Vegetation Changes

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Southern New England Weather Conference

November 4, 2017



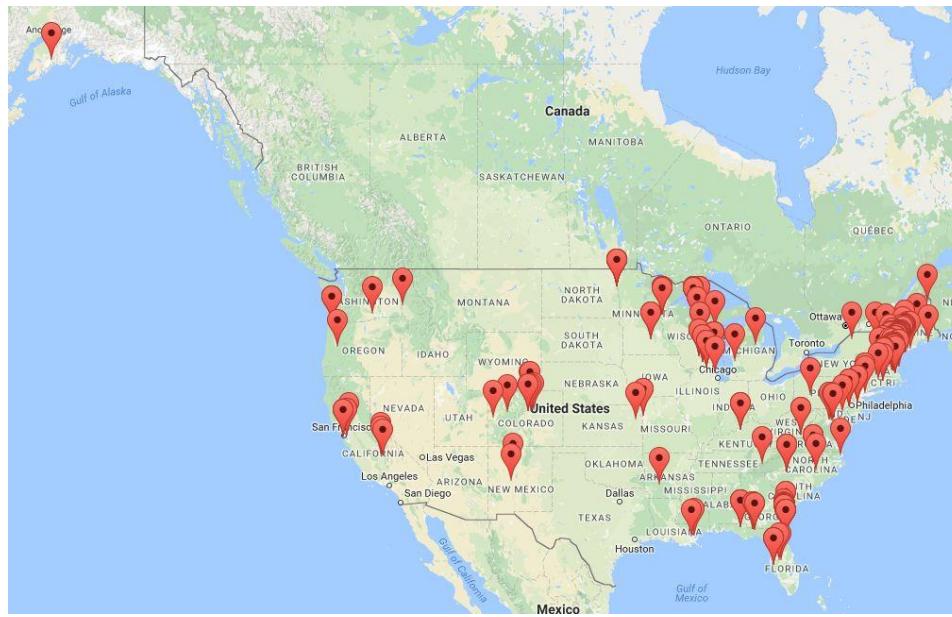
# What Will be Covered

- Background
- Picture Post Locations at Blue Hill Summit
- Samples of What You Can Do With Them
- Levels of Participation in the Picture Post Project
- Wrap Up

# Background

# Picture Post...

- Is a network of over 300 Picture Post Sites where landscapes are being monitored.



<http://picturepost.unh.edu/>

# Picture Post Posting Cycle

- Each Picture Post location has a fixture used to take pictures, usually on a post.
- Fixture is used to align camera in the right direction, starting at 'N'.
- 8 pictures are taken horizontally, then 1 vertically, for a total of 9 in a set.
- Then these are uploaded to the Picture Post web site.



# Registering

If you have already registered with **Picture Post** and would like to update your registration information, please [login](#) first.

* Email:	<input type="text"/>
* Username:	<input type="text"/>
* Password:	<input type="password"/>
* Confirm Password:	<input type="password"/>
* First Name:	<input type="text"/>
* Last Name:	<input type="text"/>
Phone:	<input type="text"/>
Mobile Phone:	<input type="text"/>

\* = required field  
A phone number is requested in case we need to contact you regarding your post(s) or picture(s).  
A mobile phone number is requested for our new mobile app - coming soon!

I agree to the [Terms Of Service and Forum Guidelines](#).

Type the text

reCAPTCHA™

[Privacy & Terms](#)

# Uploading Pictures

Login

email or username

Create Account  
[Forgot your password?](#)

password

[Log In with Facebook](#)

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[About](#) | [Terms of Service](#) | [ADA Disclaimer](#) | [Privacy Policy](#) | [Contact](#)  
We thank our supporters! NASA The National Park Service

Upload picture set

upload zip

Blue Hill Observatory-Tower

N



NE



# 'Set' of Pictures



INN (North)



2NE (North East)



3EE (East)



4SE (South East)



5SS (South)



5SW (South West)



7WW (West)



8NW (North West)



9UP (Up)

# Picture Post at Blue Hill

# Blue Hill Picture Post Sites

- Blue Hill East (BHE)



- Blue Hill West (BHW)



- Blue Hill Tower (BHT)



# Blue Hill Sites: BHE, BHW, BHT

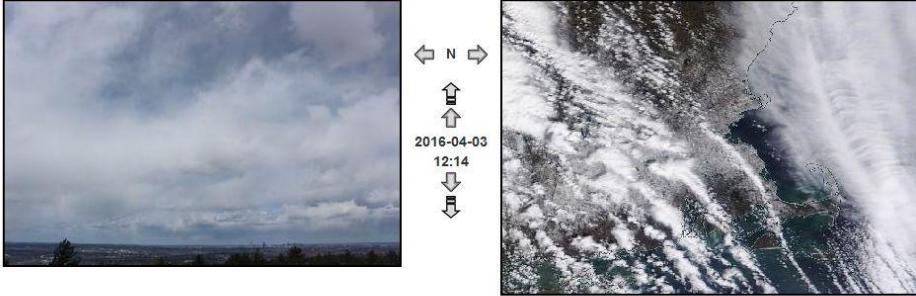
 picture post News Map Resources

My Account:  
NorStar

[◀ back](#)

## Blue Hill Observatory-Tower

satellite  greenness index  exif data



N  
2016-04-03  
12:14  
UP

Photographer's note: Partly sunny, cool, very windy, visibility to Mt. Wachusett, 1st of two early spring snow storms - Sky

[view 50 per page](#) >>

N	NE	E	SE	S	SW	W	NW	UP
								
								
								
								
								

2016-04-03 12:22  
[manage](#)  
2016-04-03 12:16  
[manage](#)  
2016-04-03 12:14  
[manage](#)  
2016-04-03 12:12  
[manage](#)  
2016-03-26 11:06  
[manage](#)  
2016-03-26 11:01  
[manage](#)

# Blue Hill Picture Posts

- Over four years of postings taken weekly from three locations.
- Several posts were taken on the same day (showing changes over time in one day)
- In addition to standard posts, sky pictures, grape filter (stress) and other experiments have been conducted.

# Samples of What You Can Do

# What You Can Do: BHT North

- Visually – Describe a Scene in an Image



# What You Can Do: BHT North

- Visually Observe Changes in a Scene over Time



# What You Can Do: BHT North

- Compare Images Taken on the Same Day, Different Year



# What You Can Do: BHT North

- Visual (no changes to the images)
  - Compare Images Over one Day



# What You Can Do: BHT North

- Visual (no changes to the images)
  - Compare Images between Different Picture Post Locs



Blue Hill Tower-05/14/2016



Concord Acad.-05/13/2016

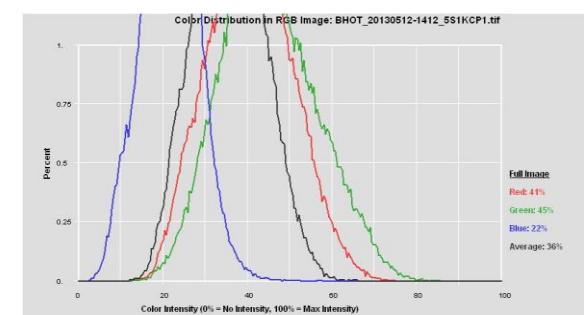
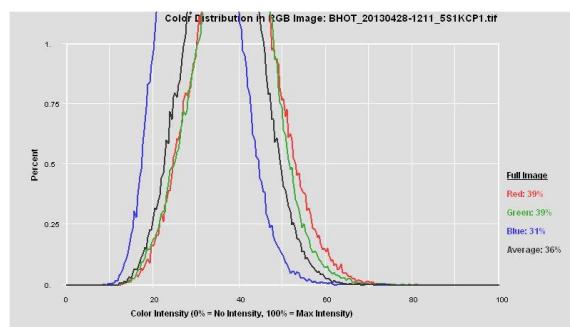
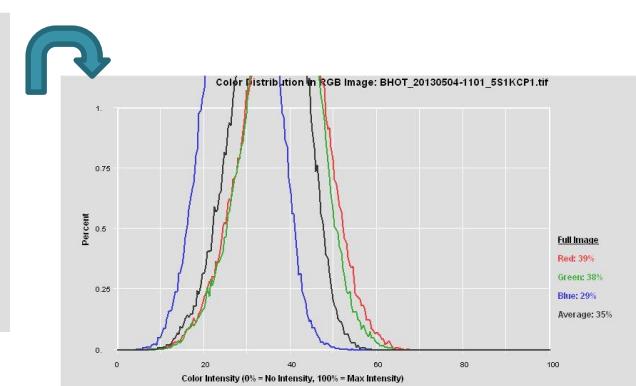
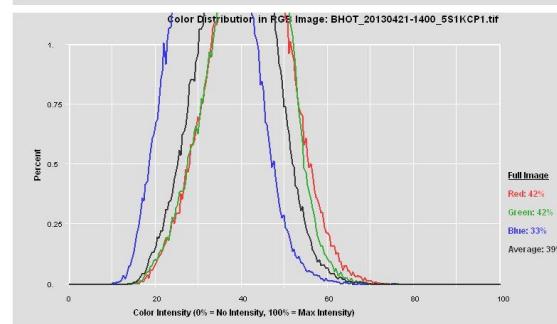
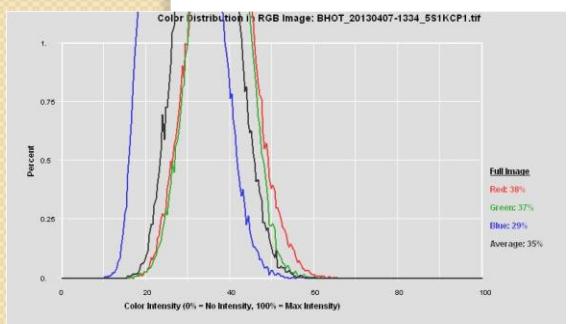
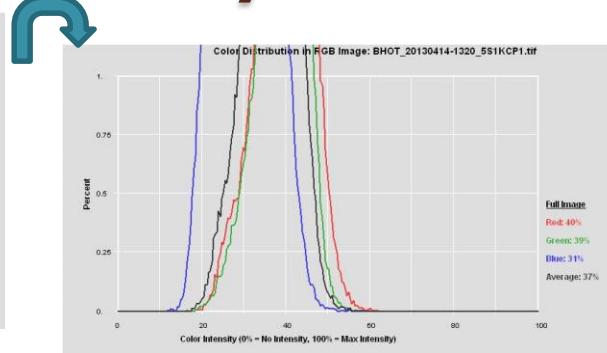
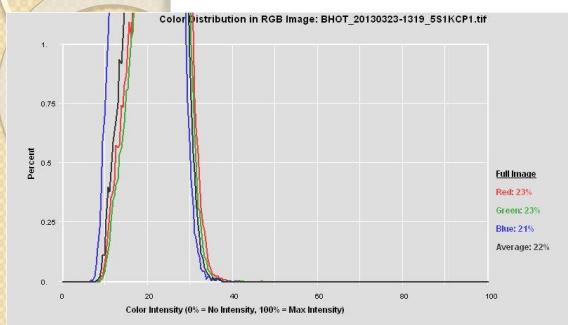


Winckel Chestnut Farm-05/14/2016



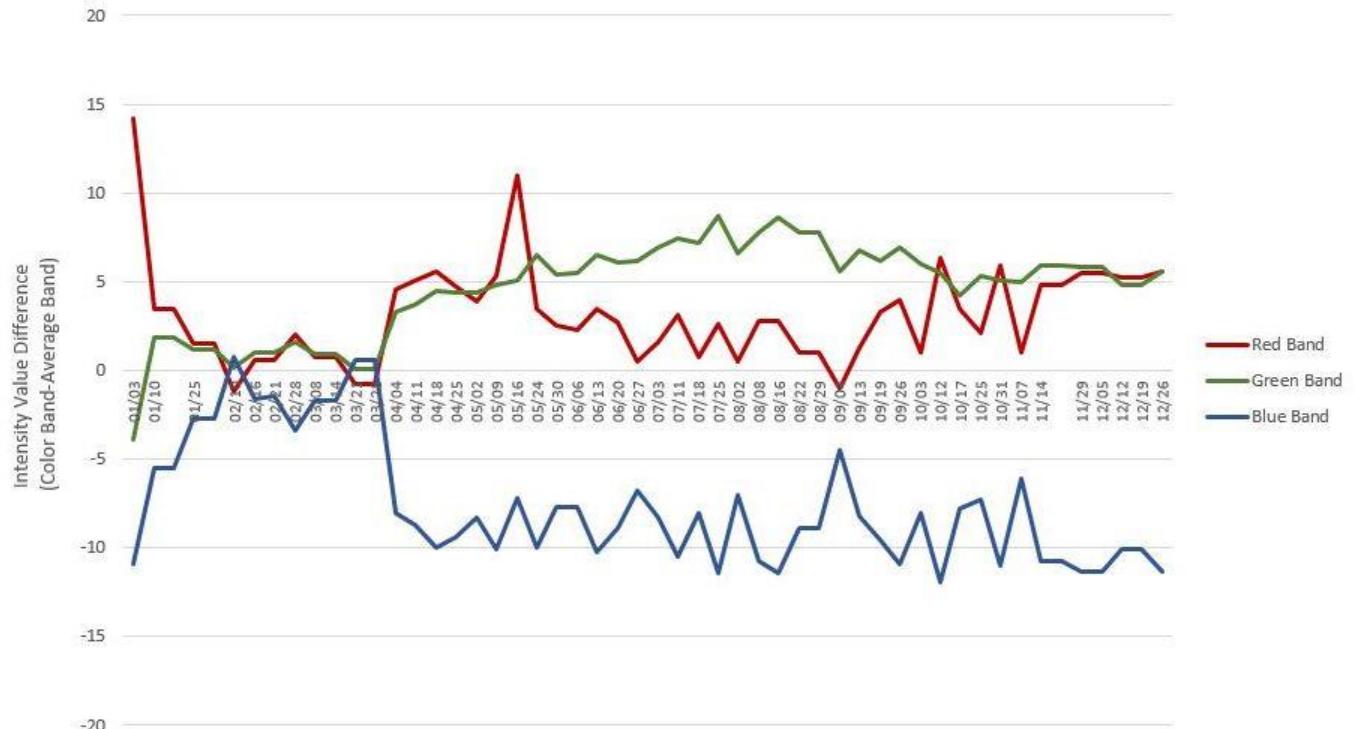
Grand Trunk Tr.05/20/2016

# Advanced Analysis: Graphing Trends



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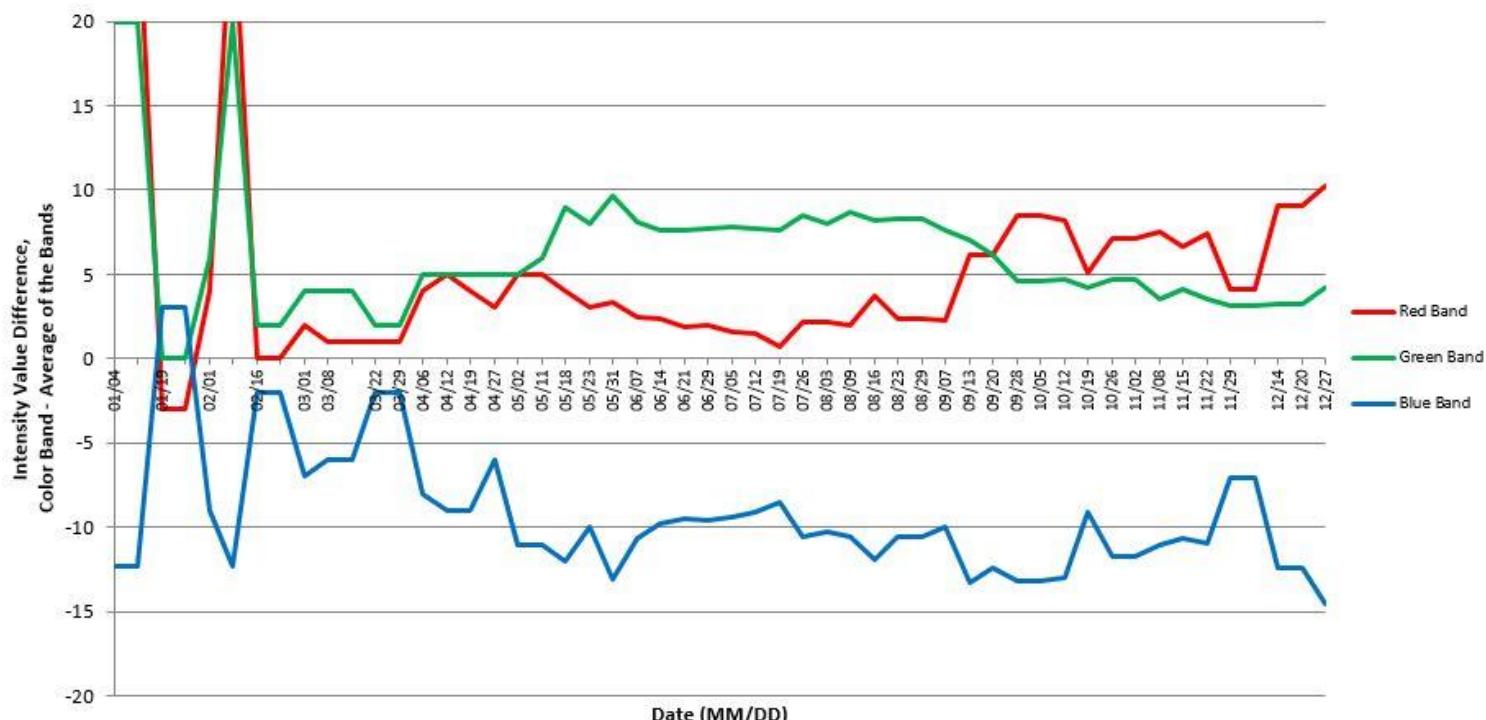
R-G-B Relative Band Peak Intensities, BHT-1NN  
2015



# Advanced Analysis: Graphing Trends

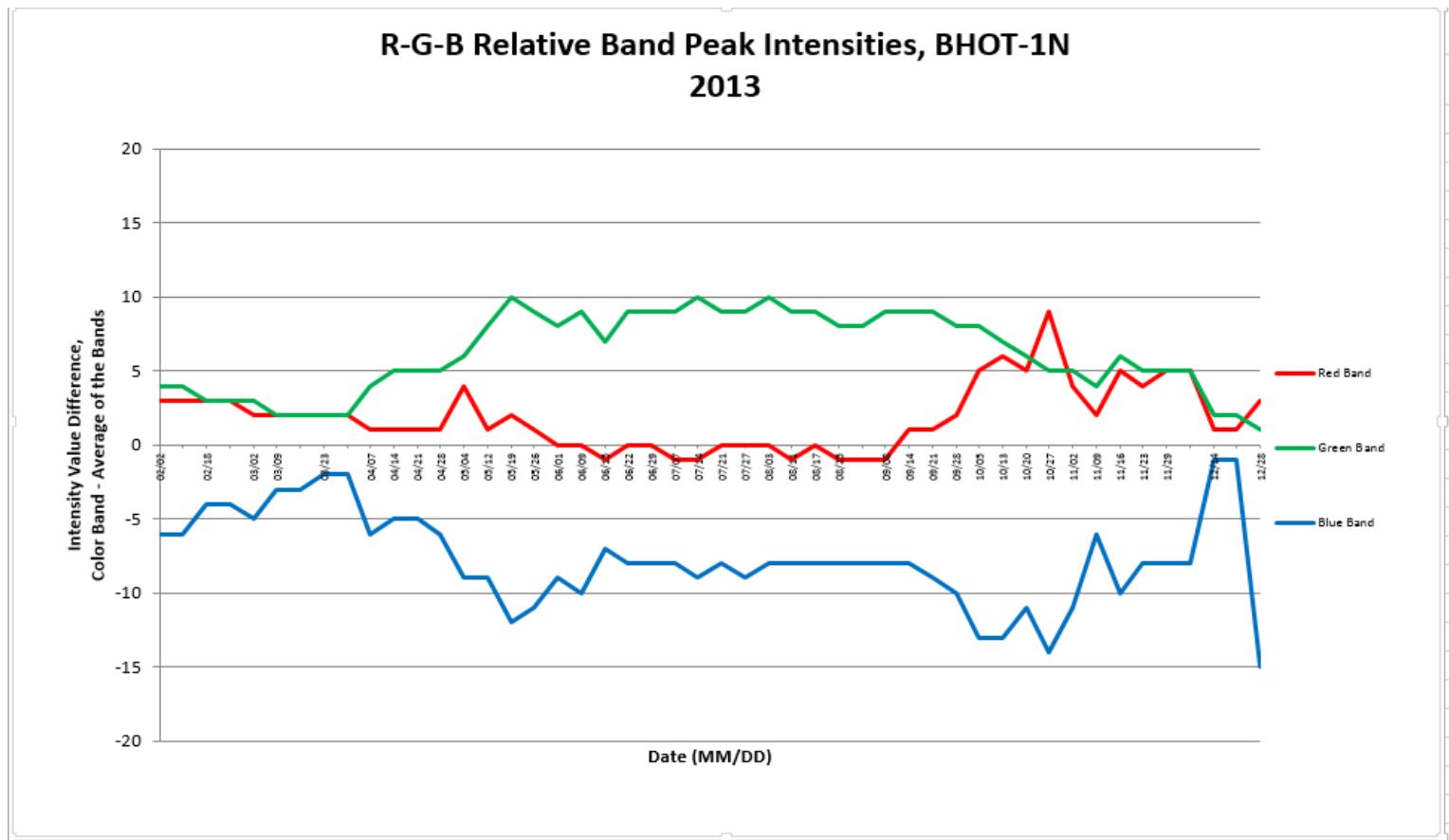
BHT-1N

R-G-B Relative Band Peak Intensities, BHOT-1N  
2014



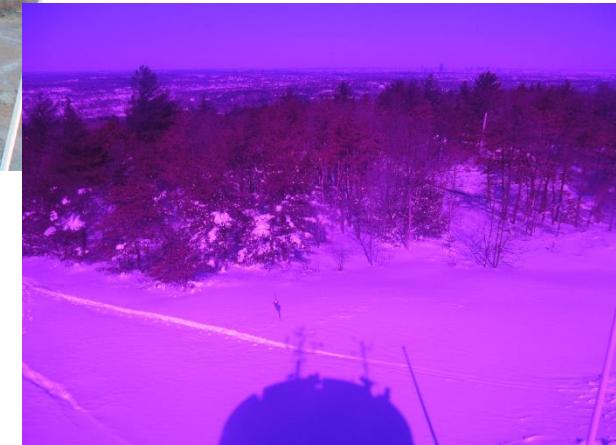
# Advanced Analysis: Graphing Trends

BHT-1N



# Picture Post Potential Uses

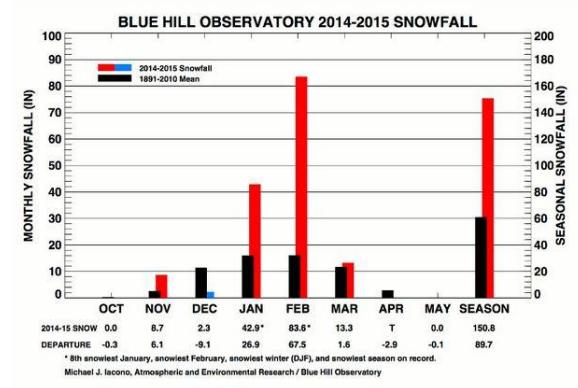
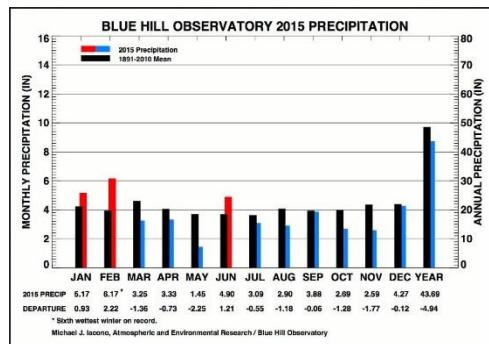
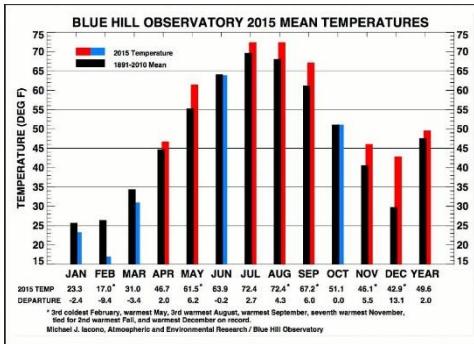
- Art



# Levels of Participation

- L1: Use/download the images from the web site
  - Picture Post Images
- L2: Get a copy of BHO hard disk
  - Picture Post Images (2012 (a few), 2013 - )
  - Image Sets of Trees and Other Vegetation
  - Copy of Personal Journal/Datasheets
  - Presentations, slide shows and other materials
- L3: Take Pictures/Start Your Own PP Site
  - Picture Post Images that you create for your own projects

# Blue Hill Observatory Weather Records

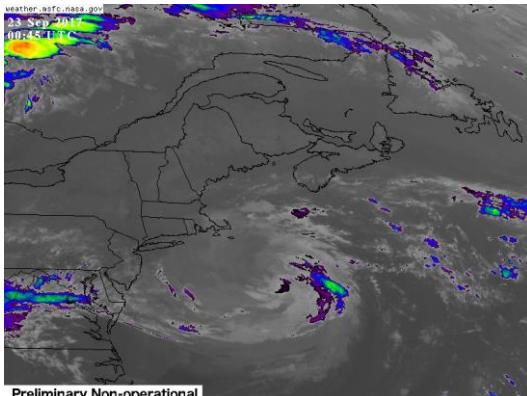


- Blue Hill Observatory has over 130 years of weather records
- Also, BHO has day, month and year reports
- These also could be used with Picture Post Images to determine change

# Other Data Sources



Local sources such as city/town government



USGS/NASA/NOAA satellite and aerial imagery



- MassGIS/other state agency satellite and aerial imagery and GIS data

# Summary and Wrap Up

# Summary:

- Picture Post Project is a citizen science project where anyone can monitor vegetation by using a digital camera.
- There are many activities that can be done using Picture Post images.
- You can download or obtain images from Picture Post or you can take your own.
- Blue Hill Observatory and UNH are here to help you utilize this valuable resource.

# How You Can Help

- Picture Post is **not** limited to education groups
- Find a Picture Post location near you
- Take pictures in each direction (8 + Up) at each Picture Post Site several times this year
- Promote Picture Post!

# Questions

- Resources:
  - Picture Post Project Welcome Page:  
<http://picturepost.unh.edu>
  - PPP - Community Page:  
<http://picturepost.unh.edu/community.jsp>
- Contact Info
  - Picture Post Project
    - Annette Schloss:  
[picturepostsupport@picturepost.unh.edu](mailto:picturepostsupport@picturepost.unh.edu)
  - Blue Hill Observatory
    - Don McCasland:  
[dmcasland@bluehill.org](mailto:dmcasland@bluehill.org)