

USGS/EDC Earth Images for Education: Tracking Change Over Time MultiSpec Worksheet

Name _____ Date _____

Using this worksheet as a guide, identify and describe different features in the four sets of satellite images.

You can use these buttons on the menu bar



to reset the image size, zoom in, or zoom out to see details more clearly.

To change band combinations in an image, go to the menu bar at the top of the screen and click on *Processor*. When the drop-down menu appears, click on *Display Image*, and then select *Channels*. Enter your new band numbers and click OK. **(Please note: Not all band combinations are available for every image. Files of type = Multispectral and Open image as = Multispectral type.)**

Write the band combination that you think makes it easiest to see each feature in the following images:

Image Name	Streets or highways	Urban areas	Rivers or lakes	Fire scars	Crops or vegetation
Las Vegas					
lasvegas_091372					
lasvegas_091086					
lasvegas_091092					

Image Name	Streets or highways	Urban areas	Rivers or lakes	Fire scars	Crops or vegetation
Saudi Arabia					
sa_1986					
sa_1991					
sa_2000					

Image Name	Streets or highways	Urban areas	Rivers or lakes	Fire scars	Crops or vegetation
Mississippi Delta					
Mississippi_Delta_01_16_73					
Mississippi_Delta_03_12_89					
Mississippi_Delta_01_06_03					

Image Name	Streets or highways	Urban areas	Rivers or lakes	Fire scars	Crops or vegetation
Black Hills					
bh_nov15_1999					
bh_sep14_2000_					
bh_aug07_2001					
bh_sep20_2002					

USGS/EDC Earth Images for Education: Tracking Change Over Time MultiSpec Worksheet - Las Vegas

Name _____ Date _____

Using this worksheet as a guide, describe differences in what is visible in satellite images using different band combinations.

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Describe how each feature listed below appears in the three Las Vegas images using band combinations 4,3,2 and 3,2,1, as well as a combination of your own choosing.

lasvegas _091272	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

lasvegas _091086	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

lasvegas _091092	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

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MultiSpec Worksheet - Saudi Arabia

Name _____ Date _____

Using this worksheet as a guide, describe differences in what is visible in satellite images using different band combinations.

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To change band combinations in an image, go to the menu bar at the top of the screen and click on *Processor*. When the drop-down menu appears, click on *Display Image*, and then select *Channels*. Enter your new band numbers and click OK. **(Please note: Not all band combinations are available for every image. Files of type = Multispectral and Open image as = Multispectral type.)**

Describe how each feature listed below appears in the three Saudi Arabia images using band combinations 4,3,2 and 3,2,1, as well as a combination of your own choosing.

sa_1986	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

sa_1991	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

sa_2000	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

USGS/EDC Earth Images for Education: Tracking Change Over Time MultiSpec Worksheet - Mississippi Delta

Name _____ Date _____

Using this worksheet as a guide, describe differences in what is visible in satellite images using different band combinations.

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To change band combinations in an image, go to the menu bar at the top of the screen and click on *Processor*. When the drop-down menu appears, click on *Display Image*, and then select *Channels*. Enter your new band numbers and click OK. **(Please note: Not all band combinations are available for every image. Files of type = Multispectral and Open image as = Multispectral type.)**

Describe how each feature listed below appears in the three Mississippi Delta images using band combinations 4,3,2 and 3,2,1, as well as a combination of your own choosing.

Mississippi_Delta_01_16_73	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

Mississippi_Delta_03_12_89	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

Mississippi_Delta_01_06_03	Band 4,3,2	Band 3,2,1	Your combination
Streets or highways			
Urban areas			
Rivers or lakes			
Fire scars			
Crops or vegetation			

USGS/EDC Earth Images for Education: Tracking Change Over Time MultiSpec Worksheet - Black Hills

Name _____ Date _____

Using this worksheet as a guide, describe differences in what is visible in satellite images using different band combinations.



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To change band combinations in an image, go to the menu bar at the top of the screen and click on *Processor*. When the drop-down menu appears, click on *Display Image*, and then select *Channels*. Enter your new band numbers and click OK. **(Please note: Not all band combinations are available for every image. Files of type = Multispectral and Open image as = Multispectral type.)**

Describe how each feature listed below appears in the four Black Hills images using band combinations 4,3,2 and 3,2,1, as well as a combination of your own choosing.

bh_nov15_1999			
	Band 4,3,2	Band 3,2,1	Your combination
	Streets or highways		
	Urban areas		
	Rivers or lakes		
	Fire scars		
	Crops or vegetation		
bh_sep14_2000			
	Band 4,3,2	Band 3,2,1	Your combination
	Streets or highways		
	Urban areas		
	Rivers or lakes		
	Fire scars		
	Crops or vegetation		
bh_aug07_2001			
	Band 4,3,2	Band 3,2,1	Your combination
	Streets or highways		
	Urban areas		
	Rivers or lakes		
	Fire scars		
	Crops or vegetation		
bh_sep20_2002			
	Band 4,3,2	Band 3,2,1	Your combination
	Streets or highways		
	Urban areas		
	Rivers or lakes		
	Fire scars		
	Crops or vegetation		