

GEOGRAPHY 115C: Remote Sensing of the Environment 3

Spring 2025

In-Class Exercise #2 – Choosing a Data Product

Name:

You work for the state of Alaska monitoring and managing wildfire. A large fire broke out in a very remote forest; it's been burning for about two weeks and has burned over 2000 square kilometers so far. However, the fire front is approaching a town, and you're trying to figure out how fast the fire is growing and in what direction. What dataset would you choose to map and measure the direction and speed that the fire is growing in?

Perfect!	Maybe	Unsuitable	Sensor/Data Product Name
			Landsat Series
			Sentinel-2
			Landsat/Sentinel Harmonized Data
			MODIS
			PlanetScope

You work for UCSB Library and are putting together an exhibit showing how campus has changed over the years. Goleta and Santa Barbara have grown and become much more urban over the past several decades, and you think it would be really cool to show when and how quickly this urbanization occurred from a bird's eye view. What dataset would you choose to showcase the development of Goleta and Santa Barbara over the past 40-50 years?

Perfect!	Maybe	Unsuitable	Sensor/Data Product Name
			Landsat Series
			Sentinel-2
			Landsat/Sentinel Harmonized Data
			MODIS
			PlanetScope

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You work for Acadia National Park, and every year, people come from around the country to see the beautiful autumn leaves. Unfortunately, they only stay at their peak vibrancy for 2-3 weeks, making it hard for people to plan their vacations. You think you can use remote sensing to figure out when the leaves *usually* start to turn orange, and then use that to guess when they'll be turning orange *this* year. However, since the change happens so quickly, you need to know exactly when it starts – ideally down to the day! What dataset would you choose to figure out when the leaves usually start turning orange in Acadia?

Perfect!	Maybe	Unsuitable	Sensor/Data Product Name
			Landsat Series
			Sentinel-2
			Landsat/Sentinel Harmonized Data
			MODIS
			PlanetScope

You work for the city of Los Angeles and are trying to figure out how allocate state-provided funds to build a new park. In an urban environment like L.A., access to “green space” such as grassy parks or urban forests has been shown to have positive effects on resident health and happiness. You want to build the new park in a neighborhood that doesn’t have much green space currently. Unfortunately, there isn’t a good centralized database of L.A. parks, so you’re going to have to map the existing green space yourself. What dataset would you use to map the currently existing urban green space in L.A.?

Perfect!	Maybe	Unsuitable	Sensor/Data Product Name
			Landsat Series
			Sentinel-2
			Landsat/Sentinel Harmonized Data
			MODIS
			PlanetScope