Section 1

Video: Using imagery in GIS

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Time	Caption
0:00	♪ [music] ♪
0:07	Hi, everyone.
0:09	Today we're going to talk about the use of imagery in GIS.
0:11	The integration of imagery has been an important part of the ArcGIS system
0:15	for years now, and there are many reasons for that.
0:18	Imagery and remotely sensed data are
0:20	a critical part of a complete GIS system.
0:22	Imagery can assist in making important business decisions because you have
0:25	an accurate and up-to-date idea of what's happening on the ground.
0:29	Using imagery in your GIS system can keep boots off the ground
0:32	and allow organizations to monitor assets remotely.
0:35	Imagery can tell a story to anyone, even someone without GIS knowledge,
0:39	through lifelike visuals that represent what the real world looks like.
0:43	Drone, aerial, satellite, elevation,
0:46	and other types of remotely sensed data can all be used
0:48	to assist your organization with making better decisions.
0:52	But how can imagery and remotely sensed data
0:54	be combined with traditional GIS workflows?
0:57	One way is through the use of basemaps.
0:59	Basemaps, typically already georeferenced, orthorectified,
1:03	and mosaicked to allow for accurate measurements
1:06	are optimized to be streamed quickly over the web.
1:09	They act as a visually appealing backdrop

1:11	and can add clear context and real-world visuals
1:14	to any map or vector dataset.
1:16	Another way of using imagery and remotely sensed data in GIS
1:19	is by running analysis on that data in the ArcGIS system.
1:23	You can identify and monitor changes, such as disturbed earth, construction,
1:27	new structures and roads, and removed features.
1:31	Apply deep learning and AI to imagery to automatically detect
1:34	roads, buildings, cars, land cover, human settlements, and more.
1:39	Or if you have imagery of your assets and infrastructure,
1:42	apply image processing and analysis to evaluate
1:45	the conditions of those assets.
1:47	You can also use imagery and remotely sensed data to examine
1:49	and extract information about vegetation coverage.
1:52	Use imagery and remotely sensed data to make sure your vector data
1:55	is accurate and up to date within your GIS system.
1:58	And, in the event of an emergency, quickly evaluate on-the-ground
2:02	conditions during hurricanes, tornadoes, earthquakes, fires,
2:06	flooding, explosions, and security events.
2:09	As you can see, using imagery and remotely sensed data is
2:12	an extremely important and beneficial addition to your GIS system.
2:16	It will allow you to be more efficient and make better decisions.