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Earth System Visualization Today

Today, I use geoscience visualization in my life by using my I-phone compass app, my GPS, and Google Earth on our home computer to hunt ducks and deer on our family property, which we call Cambell Swamp, in Franklin Parish Louisiana. These visualization technologies help me to locate timber and fields that are flooded in winter for ducks, travel lanes for deer, and prime spots to put my blinds and deer stands.

My grandfather, who is a wildlife biologist in the Migratory Bird Division of the U.S. Fish and Wildlife Service, partners with state wildlife agencies and other organizations, such as Ducks Unlimited, to manage wintering duck populations in the Mississippi River Valley using similar earth science visualizations. Two of the new technologies they use are called Landsat Satellite Imagery and Cropland Data Layer. The United States Geological Service and NASA work jointly to provide the Landsat Satellite Imagery. It is a visualization that represents the world's longest continuously acquired collection of space-based moderate resolution land data, such as water mass, forest areas, land swells, and regularly timed season aerial photos. The National Agricultural Statistic Service provides the Cropland Data Layer. It is a geospacial layer that identifies agriculture crops and landcover, such as corn, rice, beans and slough areas. The Migratory Bird Division and its partners use this information, along with other data to determine duck use days, required resting habitat, available food sources, and hunter bag limits to insure the future of duck resource in the Mississippi River area so that people like me now, and in the future, will be able to enjoy it.