**2017 Users of Landsat Imagery Non-Response Survey**

Thank you for participating in this study of Landsat satellite imagery! This survey will take about 5 minutes to complete. To move through the survey, click only on the “Next” and “Back” buttons at the bottom of the page in the survey**.** When you have answered all of the questions and are satisfied with your responses, click on the “Submit” button at the end of the survey.

1. Have you used Landsat imagery in your work **in the past year**? *Please select only one answer.*

* Yes
* No*🡪END*

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1. What is the **primary** application for which you have used Landsat imagery in your work **in the past year**? *Please select only one. You will be able to select a secondary application in a subsequent question.*

* Agricultural forecasting
* Agricultural management/production/conservation
* Biodiversity conservation
* Climate science/change
* Coastal science/monitoring/management
* Cryospheric science (for example, sea ice, ice caps, glaciers, permafrost)
* Ecological/ecosystem science/monitoring
* Fish and wildlife science/management
* Fire science/management
* Forest science/management
* Geology/volcanology
* Land use/land cover change
* Range/grassland science/management
* Recreation science/management
* Water resources (for example, watershed management, water rights, hydrology)
* Energy (for example, oil, natural gas, coal)/metals/minerals exploration/extraction/development
* Alternative energy exploration/development (e.g., wind, solar, geothermal)
* Rural planning and development (for example, zoning, economic development, land use)
* Urban planning and development (for example, zoning, economic development, land use)
* Urbanization (for example, growth, sprawl)
* Engineering/construction/surveying
* Assessments and taxation
* Real estate/property management
* Art/media
* Cultural resource management/anthropology/archaeology
* Software development
* Telecommunications
* Transportation
* Utilities
* Education: K-12
* Education: university/college
* Technical training (for example, workshops, short courses)
* Emergency/disaster management
* Hazard insurance (for example, crop, flood, fire)
* Humanitarian aid
* Public health
* Defense/national security
* Environmental regulation
* Law enforcement
* Other application (*please specify*) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Which one of these environmental parameters have you derived most often from Landsat imagery for your ***primary*** application **in the past year**? *Please select only one.*

* Crop stage/crop yield
* Crop type
* Non-photosynthetic vegetation
* Active fires
* Burned area extent/severity
* Land cover/land use/vegetation type
* Canopy cover/biomass
* Vegetation index/phenology/leaf area index
* Vegetation condition/stress/vigor/disturbance
* Vegetation height/structure
* Land skin temperature
* Land surface elements/infrastructure (natural and man-made elements)
* Surface reflectance/albedo
* Bathymetry
* Lake/river water temperature
* Surface water extent
* Water quality/water chemistry
* Glacier/ice sheet extent
* Lake/river ice extent
* Snow cover extent
* Other parameter (*please specify*) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. When selecting imagery for your work, trade-offs between features often have to be made. With that in mind, we would like you to consider the four options below. The first option contains the features of Landsat 8 imagery, including the zero dollar price tag. The other three options represent potential imagery that you could purchase in the private market. These options have various improvements over Landsat 8 data, such as better spatial resolution or higher frequency of acquisition, but they also cost money. *While considering* ***your current project/organizational budget and the environmental parameters******you need to derive for your primary application****, please rank these options from most preferred (represented by 1) to least preferred (represented by 4), using each number once.*

NOTE FOR REVIEWERS: This matrix and the one for Q24 will be different for each respondent. While the Landsat 8 column will remain the same, the three hypothetical imagery options will consist of different combinations of the attributes seen here. Cost will also vary. The responses to these questions will be analyzed using a stated choice approach which enable a comparison of the importance of each attribute in selecting imagery.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Features of the imagery** | **Landsat 8** | **Option A** | **Option B** | **Option C** |
| Spatial resolution | 30 meters | 5 meters | 10 meters | 20 meters |
| Frequency of revisit (every [X] days – does not ensure a usable image at every revisit) | 16 days | 8 days | 5 days | 1 day |
| Spectral bands | Landsat 8 bands | Landsat 8 bands | Landsat 8 bands plus additional bands | Landsat 8 bands plus additional bands |
| Thermal band | Has two bands | Has one band | Has two bands | Has no thermal bands |
| Cost per image downloaded | $0 | $X where $X>0 | $Y where $Y>0 | $Z where $Z>0 |
| **Rank the options from 1 to 4, with 1 being the most preferred and 4 being least preferred.** | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ |

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1. If cost was not a consideration, which of these would be your preferred options? *While considering the environmental parameters you need to measure within your primary application, please rank these options from most preferred (represented by 1) to least preferred (represented by 4), using each number once.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Features of the imagery** | **Landsat 8** | **Option A** | **Option B** | **Option C** |
| Spatial resolution | 30 meters | 5 meters | 10 meters | 20 meters |
| Frequency of revisit (every [X] days – does not ensure a usable image at every revisit) | 16 days | 8 days | 5 days | 1 day |
| Spectral bands | Landsat 8 bands | Landsat 8 bands | Landsat 8 bands plus additional bands | Landsat 8 bands plus additional bands |
| Thermal band | Has two bands | Has one band | Has two bands | Has no thermal bands |
| **Rank the options from 1 to 4, with 1 being the most preferred and 4 being least preferred.** | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ |

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1. In what sector do you work? *Please select only one answer. If you work for more than one entity, select the sector in which you spend more of your time working.*

* Academic institution as faculty, staff, or student (e.g., university, college, technical/vocational) *🡪 Q7 (all other responses 🡪 Q8)*
* International government (e.g., United Nations, European Union)
* National/Federal government
* State/Provincial/Departmental government
* Local government (for example, county, city)
* Tribe/Nation/Indigenous government
* Private business
* Non-profit organization
* Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. What is your current role at your academic institution?

* Faculty or staff (e.g., professor, researcher, postdoctoral researcher)
* Graduate student
* Undergraduate student

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1. Thank you for completing this survey! The space below is provided for any additional comments you may have. Please click the Submit button when you are finished. *(Open-ended - limit 1500 characters)*