



CARIGEO

Caribbean Geospatial
Development Initiative

GEO-EMPOWERING THE CARIBBEAN



NATIONAL LAND AGENCY, JAMAICA

A Technology Driven Journey 2001 to 2020

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CEO/Commissioner of Lands

www.nla.gov.jm

Functions of the NLA

A land administration Agency formed in April 2001, comprising:

- Land Titles
- Surveys and Mapping
- Land Valuation
- Estate Management

- 1. Transformative Role-** converting manual processes to digital:
 - ✓ digital maintenance of spatial parcel records

- 2. Enabling Role-** implementation of business processes related to land information:
 - ✓ making it easier to provide certain services

Role of Geospatial Technologies

3. Enabling Role- cont'd.

- ✓ facilitating greater confidence in management of land records

4. Integrating Role- integrating the Divisions around the common thread- **land** and eliminating data divide:

- ✓ partial integration of Land Titles, Surveys and Mapping and Land Valuation: work in progress

Role of Geospatial Technologies

5. **Creating Role-** creating new products and services to aid income generation:

- ✓ facilitating links between data held in different repositories in the Agency to create products, such as, customised maps, web maps, etc.

NLA's INVESTMENT IN GEOSPATIAL TECHNOLOGY

- ❖ Signatory to GOJ's **Enterprise Licence Agreement (ELA)** with ESRI: allows access to a variety of GIS applications and tools

- ❖ **Continuously Operating Reference System (CORS):**
 - 13 sites across the island
 - linked to the regional reference system
 - facilitates greater efficiency in surveying and can be applied in other areas, *for example*, to monitor sea level rises

NLA's INVESTMENT IN GEOSPATIAL TECHNOLOGY

❖ Aerial Mapping

Unmanned Aerial Systems (Drones) which facilitate:

- 3D- Mapping
- inspections of property for land valuation
- topographic surveys can be easily generated

Investment in Geospatial Technologies



3 Dimension Cadastre



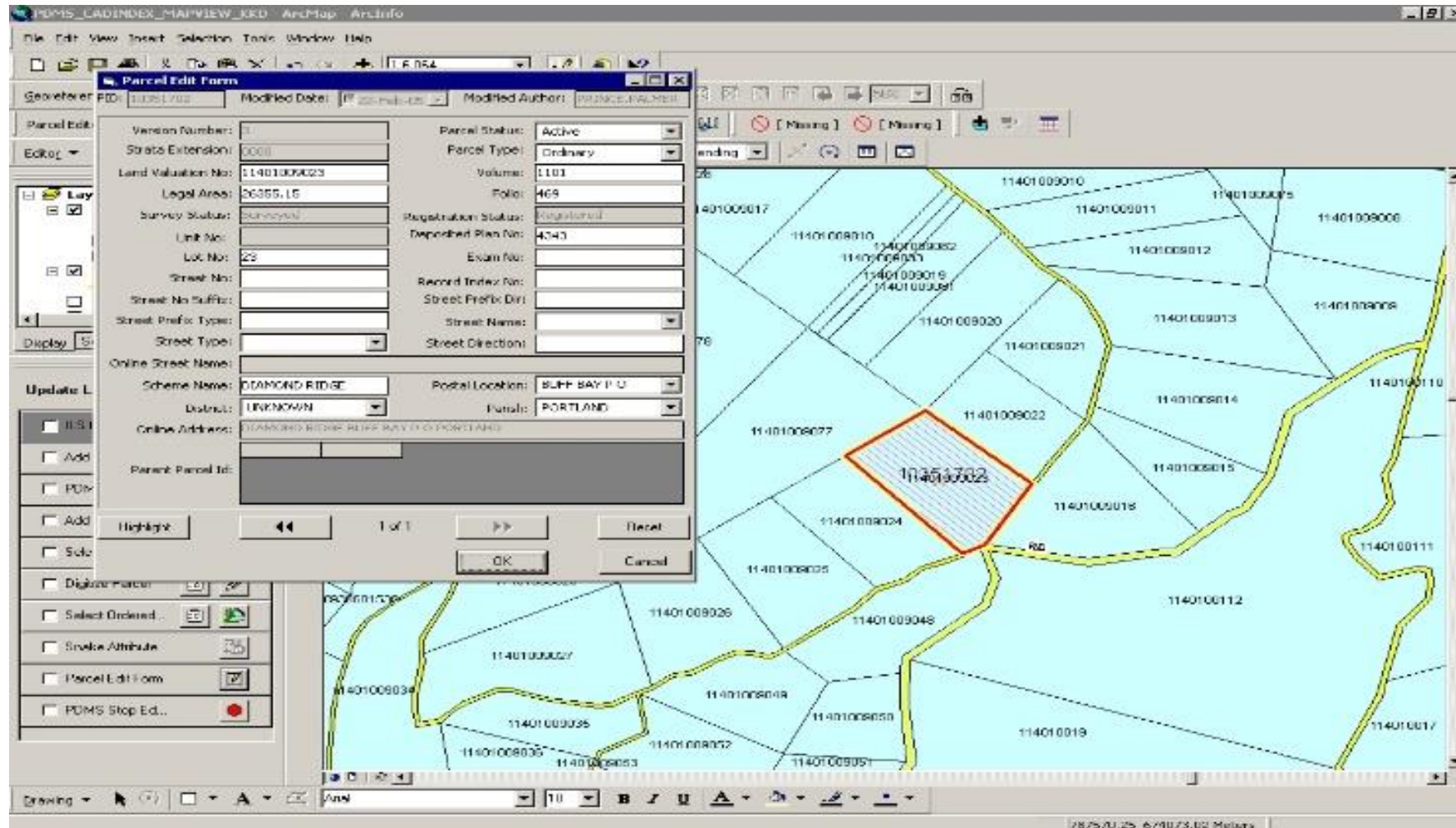
Virtual Reference Network

NLA's INVESTMENT IN GEOSPATIAL TECHNOLOGY

- ❖ Customized applications to facilitate specific business processes:
 - **Parcel Data Management System (PDMS):** digital maintenance of parcel records, incorporating both spatial and textual data



Parcel Data Management System





NLA's INVESTMENT IN GEOSPATIAL TECHNOLOGY

- ***eLandjamaica***: internet-based application that allows users to spatially identify land parcels using the interactive mapping component
 - multiple search options
 - many documents available for purchase, *for example*, a Certificate of Title



Investment in Geospatial Technologies

eLandjamaica powered by the National Land Agency HOME ABOUT US PRODUCTS FAQs TUTORIALS CONTACT US [Empty cart](#) Guest | Login

PARCEL INFORMATION

Land Valuation	03103011049
Title Reference	1200/120
Size (Sqmt)	809.12
Street Address	55 Main Street
Scheme Address	St. Ann's Bay
Location	St Anns Bay P O
Parish	St Ann
X,Y Coordinate	728443,698346

Would you like to purchase related documents? [BUY](#)

DOCUMENT INFORMATION

Document Type	Document No.	Price	Select
Valuation Roll Report	03103011049	\$300	<input checked="" type="checkbox"/>
Title	1200/120	\$600	<input type="checkbox"/>

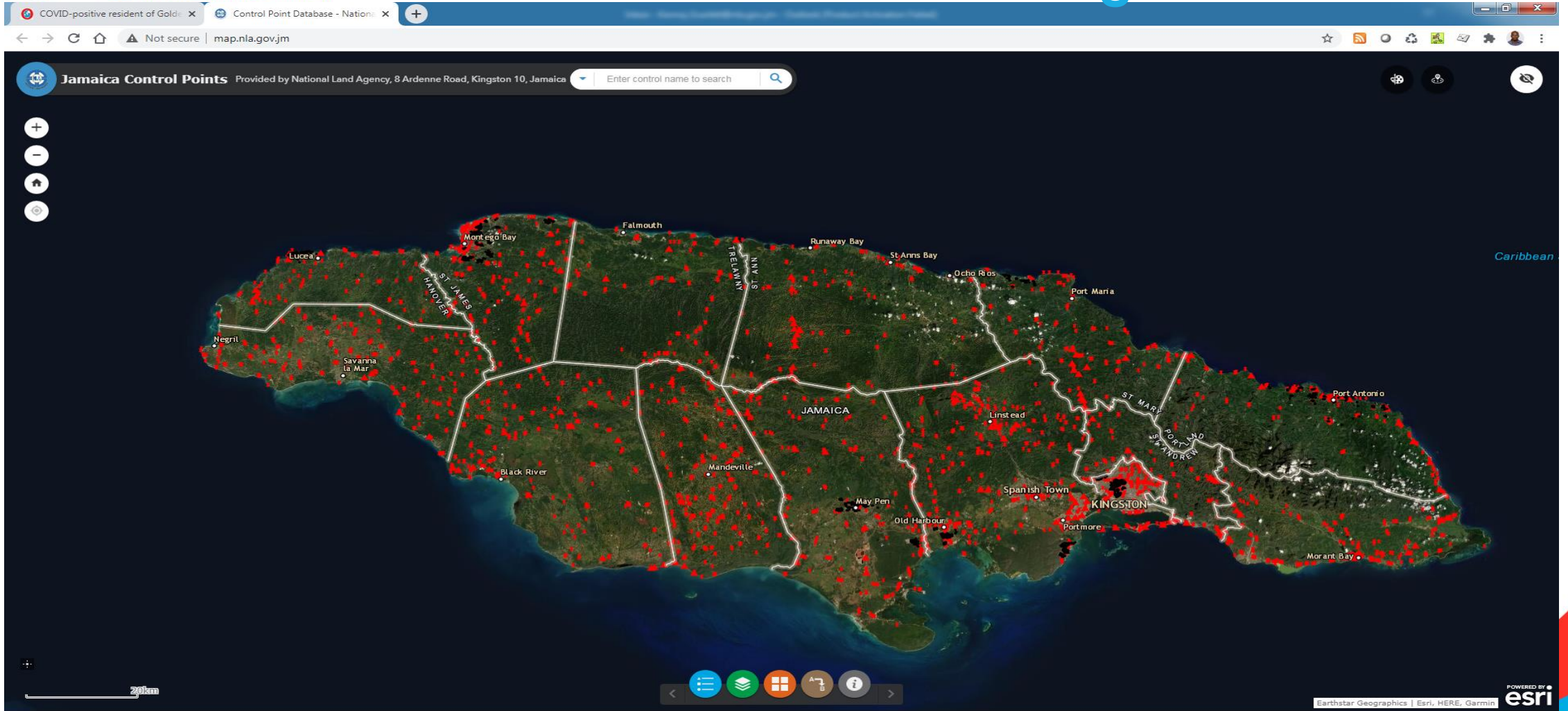
[Add Selected To Cart](#) [Close Document List](#)

Valuation Number	Title reference	Street Address	Scheme Address	Location	Parish	Approx. Area (SQMT)	X Coordinate	Y Coordinate	Actions	Download
03103011049	1200/120	55 MAIN STREET	ST. ANN'S BAY	ST ANNS BAY P O	ST ANN	809.12	728443	698346	View Parcel	Download

Application of Geospatial Technologies

1. **Creation of a digital cadastral map:** the NLA currently has a digital cadastral index map and is now preparing a digital cad map where the position of parcels will be represented at survey level accuracy
2. Publishing of **survey control points** online islandwide

Application of Geospatial Technologies



Control Points

Application of Geospatial Technologies

3. Collecting data and creating “**large scale township maps**”:
 - ✓ digital mapping of topographic and planimetric features for major townships in the island
 - ✓ 1:4000 scale
 - ✓ using GIS tools and GPS devices

Application of Geospatial Technologies

4. Utilization of **GIS tools in property assessments**:
 - ✓ integrating and linking property valuation records to spatial data
 - ✓ visualisation of valuation data in a spatial context

5. **Geospatial data publication** services via web maps

Improvements in Business Processes

- ❑ Total digital transformation of the Cartography and Photogrammetry functions of the Agency: all operations in these areas are now carried out using geospatial tools.
- ❑ Transformation of data collection methods: application of geospatial tools in different divisions



Product Development and Services

1. *eLandjamaica*
2. Customised Mapping Services: *“if you can see it, we can map it”*
3. JAMPROP: online access to property sales data
4. **NLA GIS Portal**: allows for web mapping and hosting services
5. Print-on-Demand Map Service

Income Generation 2017 to 2020

The Agency's investments in geospatial technology has yielded extra income over the years from the following:

❖ <i>eLandjamaica:</i>	US\$576,000.00
❖ JAMPROP:	US\$58,000.00
❖ Customized Mapping:	US\$63,000.00
❖ NLA GIS Portal:	US\$8,300.00

Contribution to the Land Market

- ❖ Ease of accessibility / availability of land information
- ❖ Increased efficiency in service delivery
- ❖ Increased ease of doing business with the Agency
- ❖ Increased confidence/transparency in the records
- ❖ Increased online presence

The Future.....more to come

- ❖ Digital Submission and Examination of Survey Plans
- ❖ Electronic Titling

❖ Why geospatial technologies?

- Because we are an aspirational society
- Help us to know: **What, Where, When** and **Why**
- Allow us to better manage resources, leverage the power of location and improve decision-making

CONCLUSION

- ❖ Irrespective of where we are on the continuum of technological development, as a region, it is important that we start building our spatial intelligence by increasing the use of geospatial technology.
- ❖ It is only by leveraging this technology and appreciating its impact, that we will reap the benefits from the improvements it can yield to benefit our nations.



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Thank you!

DATE: October 30, 2020