

FIG PART7

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LX capacity in natural disaster area and disaster survey case in Jeju area



**Korea Land and
Geospatial InformatiX Corporation**

Reporting order

- 1 General Information of LX**
- 2 Competence of LX on Natural disaster area**
- 3 Examples of disaster survey in Jeju**
- 4 Conclusion**

1 General Information of LX

Foundation and Mission · Major services

● Evidence

「National Space Information Act」 Article 12

● Mission of the organization

Contribute to national development through cadastral surveys and by supporting the establishment of a national spatial data system and research and development in a spatial data cadastre system.

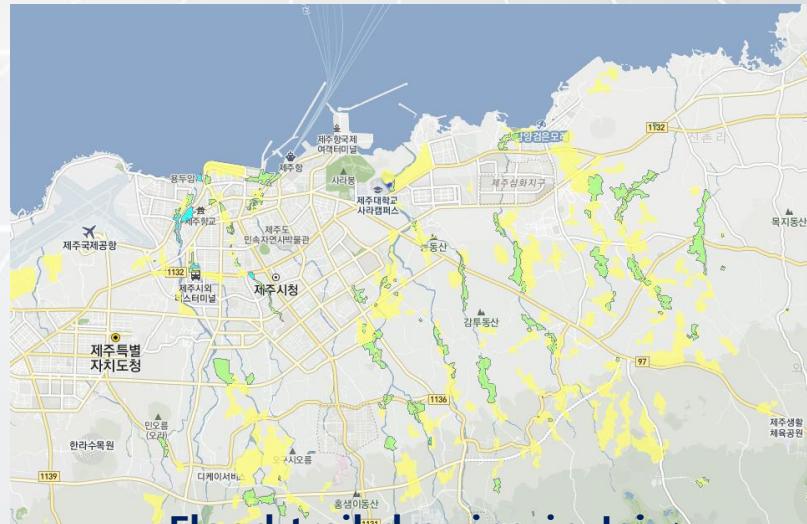
- Project on **support for construction of spatial information system**
- **Research** on spatial information and cadastral system, **technology development, standardization and education business**
- **Introduction of foreign technology** on spatial information and cadastral system, **international exchange cooperation and overseas advancement project**
- **Cadastral survey** based on 「the Act on the Construction and Management of Spatial Information」
- **Cadastral Resurvey Project** according to 「Special Law on cadastral resurvey」

2 Competence of LX on Natural disaster area

Institution authorized by the state and the law • Expertise

Institution authorized by the state and the law

- Consign management of "National Space Information Portal"
- National spatial information quality management specialist institution(October 16, 2007)
- Survey of flood traces and flood traces As a dedicated organization



<Flood trail drawing in Jeju>

1. LX national information base map





It is a map that matches the positions of continuous cadastral maps and aerial photographs(orthographic images).

It can be used in a variety of fields such as site selection, trade analysis, real estate information, tourism, and safety.

We keep it up to date and accurate.

2. UAV Utilization Land Information Monitoring System

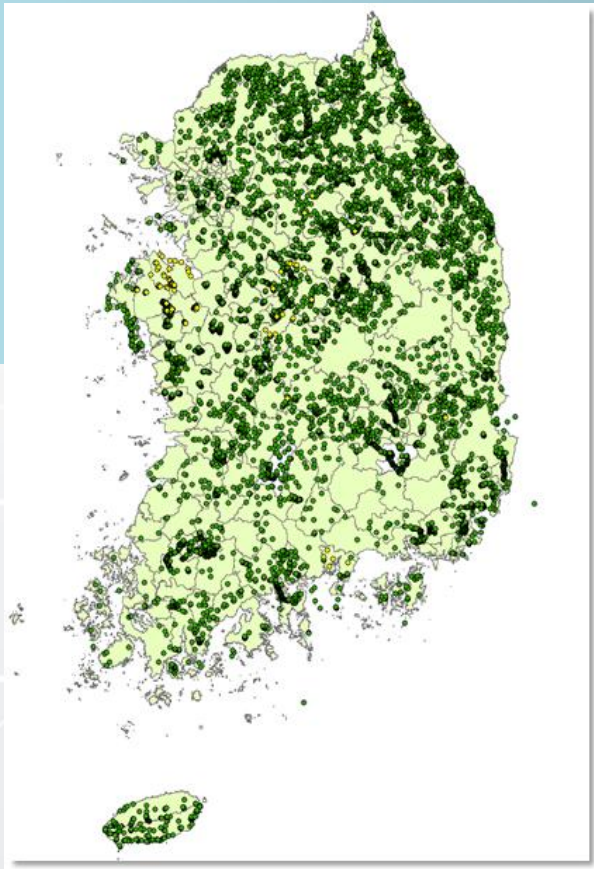
- Currently owned "UAV"

LX-@ (Large fixed wing)	LX-Hawk(Medium fixed wing)	LX-Swallow(Small rotorcraft)
		
Hold one(British)	Hold five(British)	Have 13 units(Made in China)

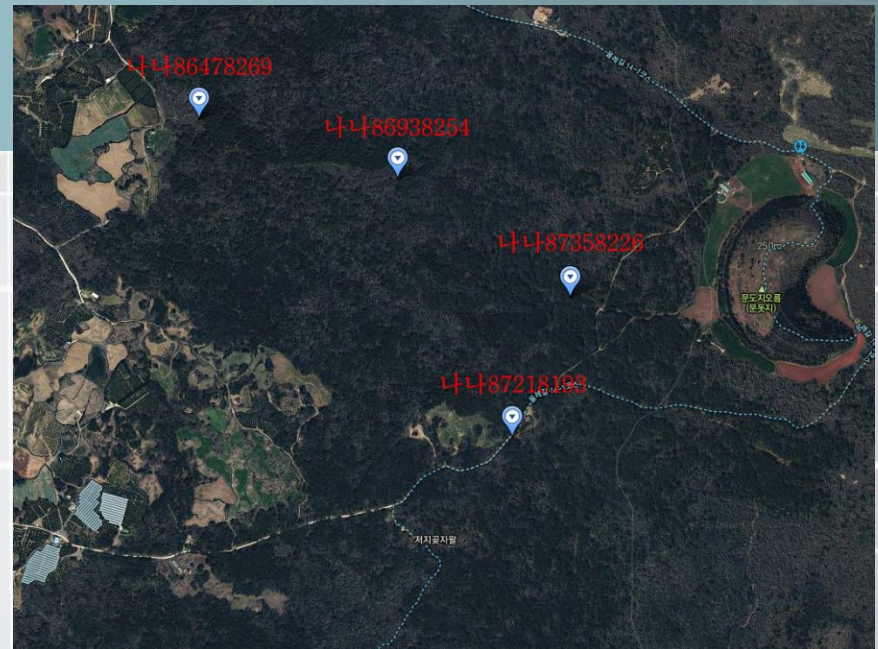
- Currently owned UAV-related professional pool

National qualification workforce	Flying Professionals	Total
25 people	26 people	51 people

3. Validation Authority of 「National Branch Number」



[National branch number construction status]



[Location map]

3 Examples of disaster survey in Jeju

Area-specific business · Speed 3.0 Survey Team · National branch number

Area-specific business

Promotion of local specialized business

- 1 Establishment of geographical spatial Information of Jeju-Japanese cave**
 - Preservation and safety diagnosis of military sites made in Japan
- 2 Jeju coastal area information construction**
 - Investigation of unregistered land and construction of system
- 3 Island Location Re-registration Spatial Information Business**
 - Accurately re-register the location of the attached island around Jeju Island and construct 3D spatial information
- 4 National branch number in case of disaster**
 - In case of an emergency, National branch number system for quick evacuation and rescue



Jeju is a place where natural disasters such as typhoons and floods occur frequently.

Speed 3.0 Survey Team

- **Jeju Regional Headquarters - 2 branches / 6 people**

(First investigation) Operating the Speed3.0 survey team, a process is available to obtain the initial data of the disaster site such as earthquake, flood, and heavy snow.



<Site photos, field sketches, damage range, damage investigation, etc.>

(Close investigation) After completing the investigation of the detail damages based on the first investigation, creates an outcome.



<Total station, LiDAR, UAV, 3D modeling technology based Close investigation>

☞ Based on these, we can quickly identify the damage.

☞ Use for disaster recovery

National branch number construction



Jeju Samdasoo Forest Road
National Branch Number`



Location map

National branch number construction

VRS observations



Jeju Island National Branch Number



4 Conclusion

LX prior to disaster area survey in JeJu.

UAV

Utilizing UAV technology to obtain the latest information on disaster areas.

Speed3.0

With disaster response team operation, we will quickly recover disaster site.

LX Land Alert

We are trying to use the application to inform the wind direction, the weather situation, and the flood forecast area.

National Branch Number

In the event of a disaster or emergency, we will provide you with a national branch number to quickly identify the location of the victim.



Thank you for your attention.

**LX will be ahead of Cadastre for
emergencies and disasters.**