

REMSAT – Real Time Emergency Management Via Satellite

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Development of Internet GIS System for Disaster Management

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By using Geographic Information System (GIS), people easily can get the map information from a computer. Some advantages of GIS technique also are useful for Disaster Management. As an example, if a disaster happened in a certain area, by producing a buffer from that area, it is possible to estimate the surroundings of the population that has been affected. Regarding the logistics for the disaster, the shortest distance by road between warehouse and the victims can be calculated, avoiding a dangerous area.

But, there also are some disadvantages with the use of GIS: 1) it is expensive to buy the software; 2) there is no standardization of both the programs and data; and 3) there are operational difficulties with the software. The ideal system should facilitate to access the database, analyze and calculate information with certain GIS functions from anywhere via Internet.

The Asian Disaster Reduction Center (ADRC) has been developing such a system, which we call "VENTEN". This system is the platform for any data that are available and also includes some functions of GIS, such as overlaying, buffering, and networking. At present, VENTEN contains the databases for 22 Asian Countries, including Russia, which are members of the ADRC. In the future, we would like to develop it world wide, and ultimately, it will be not be used only for disaster management, but in many fields.

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