

## 3 s application of technology in forest resource survey

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**Abstract:** pick up 3 s Technology, remote sensing technology (RS), Geographic Information System (GIS), Global Positioning System (GPS), as a in the area of remote sensing and information technology 3 High- tech , Is widely used in all aspects , has taken a huge role in forestry resource surveys, in particular , . This article is primarily for 3sThe technology does a simple introduction to the , with 3s Application of Technology in forestry Resource survey doing research .

**Keyword:** 3 s Technology ; Forestry Resources ; investigate

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Forestry surveys refer to Woodland , tree and forest-growing Move , Survey of plants and their environmental conditions for objects , The primary purpose of is The amount of forest resources in time , quality and growth , elimination dynamic Law and its relation to natural environment and economy , and in time Adjust forestry policy ,better protect national forestry resources . with scientific skills Progress , 3s technology widely used in forestry resources survey .

### 1. 3 s Continuous development and progress of technology

Global Positioning System (GPS) is the most widely used and applicable in the world today . navigation system , Geographic Information system is working with geo-spatial work Powerful Computer information system , Remote Sensing is not contacting objects , with remote Sensors mounted on the sensing platform collect electromagnetic information from the target and are by the to show the nature of the technology . In recent years ,3s Technology development vs . Progress, has a wider application in forest resource surveys .

3 s technology is increasingly used in forestry resource surveys , where GPS technology allows detailed positioning of forest resources , to have related people Better understand the state of forestry resources . RS in Ecological direct application Includes collecting data information sources , Eco-Survey and dynamic monitoring , To apply indirectly includes forecast forecasts and disaster risk level determination , such as land use and soil cover changes , Ecological environment change and biodiversity protection , eco-environmental disaster forecast , forest management and ecological recovery . and GIS Technology has the following advantages in the investigation of forestry resources : analysis multiple data in space scale , to explore the distribution of plant communities over time The pattern of changes . summary ,3s Technology in the investigation of forestry resources with More extensive , through 3s Evolving technology , to better tune Check our forestry resources , the distribution and species of forest resources in China have more For a detailed and thorough understanding of , at the same time , To make more forestry-friendly Development related forestry policy , to better protect our forestry resources .

### 2. 3 s application of Technology in forestry resource survey

#### 2.1 Monitoring forest resources

Aerospace Remote Sensing , Geographic Information System , fully of the satellite positioning System apply

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to better monitor our forestry resources , Our territory is vast, Geography Country Complex , at the same time , Rapid Economic development , surface changes frequently . to meet the pressing needs of the economy , Monitoring Geographic Information Department Create the proposition of creating geo-national monitoring .

Xinjiang is located in the Central Eurasian continent , is located in the northwest border of China , Total Face product 166.49 million km<sup>2</sup>. Forestry in Xinjiang Economic and social development has special status and role , is responsible for maintaining ecological security , developing the forestry industry , Build Set eco-Civilization 3 Grand Strategic task . important role for forestry resources in Xinjiang region The monitoring has a significant effect , Xinjiang Forestry resources are mainly from mountain natural forests , Oasis Plantation and Desert Valley Forest 3 Most composition . Territory-wide forestry area 1087.21 million HM<sup>2</sup> , Forest area 660.33 Multi-million HM<sup>2</sup> , Live Wood

The total amount of savings is 3.39 billion m<sup>3</sup> . so Xinjiang forestry resources are very rich , to Forest resources monitoring in Xinjiang is very necessary , through monitoring can Learn more about forestry resources in Xinjiang , better on Xinjiang Forestry Fund Source protection .

## **2.2 Disaster monitoring and control**

3 s Development of technology for natural disaster monitoring , Manage , parsing , decision The Policy provides new ways and means , greatly reduced natural disasters to forest losses from industry resources , A series of natural disasters such as debris flow and so on will cause significant damage to forestry resources , So take advantage of 3s technology against natural disasters harm monitoring and prevention is very necessary. , It can better protect the forest Industry Resources , Can reduce the damage caused by natural disasters to forestry resources .

Xinjiang is a natural disaster with multiple , The outbreak of natural disasters to Xinjiang's Forest resources bring huge losses . So in Xinjiang region use 3s technology toMonitoring and prevention of natural disasters can effectively protect forestry resources in Xinjiang region The source ,, has played a very important role in the investigation of forestry resources in Xinjiang .. Xinjiang outline shows Mountain clip two pots " landscape pattern , geomorphic type multiple , mountain rolling , Terrain High difference , New Tectonic movement strong , The climate and the natural environment are complex and changeable , Xinjiang becomes a natural disaster area . more vegetation in Xinjiang , Green area expands rapidly , but to desert Governance or slow , So desertification is also facing Xinjiang from the One of the disasters , The forestry resources in Xinjiang are mainly distributed in the Tarim Basin and the quasi-grid basin , the occurrence of natural disasters will bring about forestry resources in Xinjiang huge impact ,so use 3s technology to monitor and prevent the in Xinjiang region natural disasters , Better research on forestry resources in Xinjiang .

## **2.3 Forestry decision and management**

uses the 3 s technology enables better decision-making and management of forest resources , GPS not only to complete data management , and can create simple decisions policy , growth , Professional models such as prediction , simulates various management processes , You can choose the best management scenario by simulating comparisons , for forestry Resource management . can also be passed GIS and RS forest resources monitoring , Keep an eye on dynamic changes in forest resources ,constantly adjust to forest resources Management Policy , enable forest resources to be effectively protected .

with the development of science and technology , 3 s Technology gets more and more extensive with , [ 3 s Technology plays a huge role in forest resource surveys , to better facilitate investigation of forestry resources , Let related people to forest Industry resources For more thorough understanding , and management of forestry resources make the right decision , And ultimately promote the protection of forest resources . This article mainly introduces the continuous progress and development of the 3 sTechnology , also for 3 s Technology The application of the to the Forestry Resource survey has been done related to nonporous .

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