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牧区积雪监测中卫星资料应用的研究现状

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摘要：

牧区雪灾严重制约着牧区生产力的发展。卫星资料在雪灾监测中，起到控制雪灾和灾前预警的作用。牧区积雪监测中常用卫星资料NOAA/AVHRR在晴空条件下，具有大范围积雪动态变化监测的优势；TM资料则易于区分雪和云，同时适用于小范围积雪动态监测与精确定位；被动微波遥感数据SMMR、SSM/I和AMSR E在获取雪深及雪层内部稳定方面效果显著；MODIS数据具有数据免费、较高空间分辨率等特点。多种卫星资料还在去云、混合像元处理、积雪深度、积雪面积监测和积雪监测模型建立中起到基础数据的作用，为雪灾的准确监测提供重要依据。

关键词： 牧区;积雪监测；卫星资料

Research progress of satellite data utilization for snow monitoring in pastoral areas

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Abstract:

Snowstorm is seriously restricting the development of animal productivity in pastoral areas. Satellite data play an important role for early warning the snowstorm. NOAA/AVHRR have the advantage for monitoring the dynamics of snow in clear air conditions at large scale. TM data are easy to identify snow and cloud and proper for small scale monitoring of snow and precise positioning. Passive microwave remote sensing data, such as SMMR, SSM/I and AMSRE, have the advantage to probe the snow depth and snow internal stability. MODIS data are free and higher spatial resolution. Satellite data play a basic role in eliminating the clouds, processing the mixing pixel, monitoring the snow depth and snow covered area and establishing the snow monitoring model.

Keywords: pastoral areas snows monitoring satellite data sources

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