

LIS Images

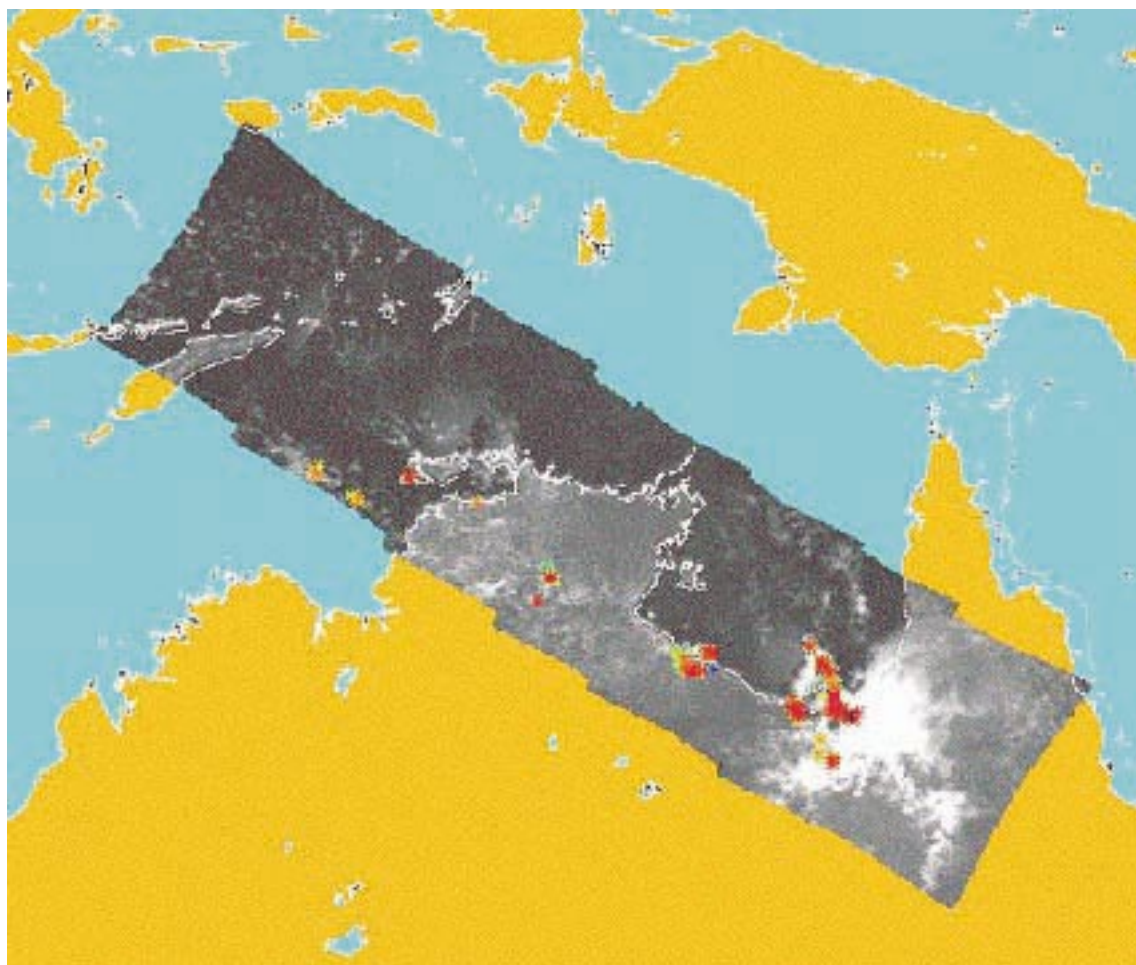


Fig.1 First Image from LIS

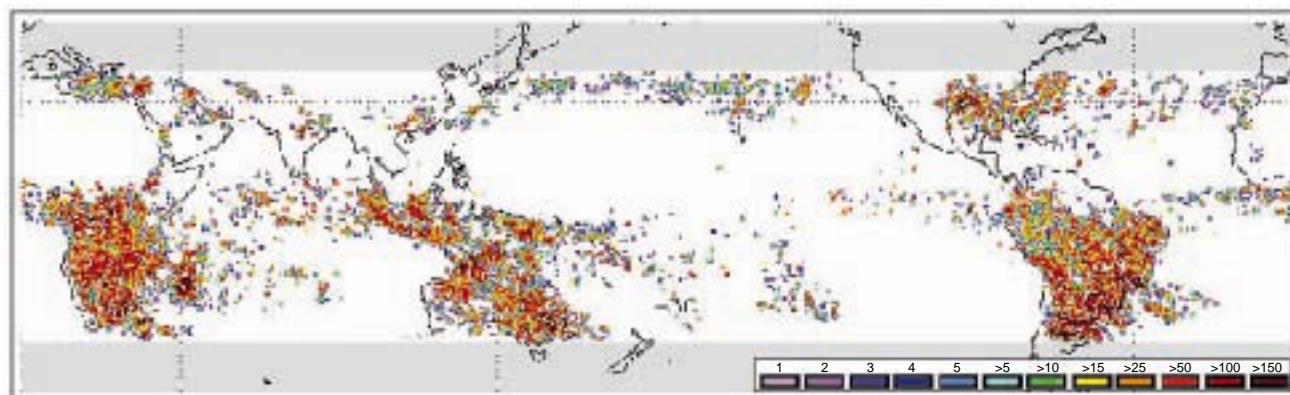


Fig.2 Total Number of Lightning Flashes (January 1998)



LIS Images

Lightning observed by LIS

This image depicts lightning observed by the Lightning Imaging Sensor (LIS) over Darwin, North Australia, with orange, yellow and blue dots. This was the beginning of the monsoon season in this area, so there was much lightning. Lightning was observed over the Bathurst Island, Northern Territory, and the coast of the gulf of Carpentaria, where the famous Hector (the nickname of a large thundercloud, the cloud height of which sometimes reaches up to 20km) is found. The lightning over the coast of the gulf of Carpentaria was the most active. Lightning flashed mainly over the inland and the ocean coast. It seems that the inland lightning originates from the heat thunderstorm and the coastal lightning originates from the generation of thunderclouds due to the convergence of the sea and land breezes.

Total Number of Lightning Flashes in January 1998

Lightning was concentrated over the inland in the southern hemisphere (the African continent, the Australia continent and the south America continent) in January when it was midsummer in the southern hemisphere. Lightning was not observed over the ocean in the southern hemisphere even though it was also midsummer. Lightning over the ocean was observed like a line only over the equator; these areas correspond to the Inter Tropical Convergence Zone (ITCZ). Although lightning in the northern hemisphere where it was winter, was not so active, there were some lightning flashes near Japan and the east coast of North America where winter lightning is sometimes generated. The winter lightning is "single lightning" because of its weak activity and short duration. LIS observed this kind of lightning.