Survey Technique

Application of gravity theory to the measurement of temporal changes in water mass in cosmopolitan areas. The relative displacement is determined using a geodetic technique that involves comparing changes in the gravitational potential of the Earth in a reference frame in which water mass changes occur. The changes are related to the movement of water masses relative to a reference frame that is fixed with respect to the Earth. The changes in the gravitational potential are measured using sensitive instruments that are capable of detecting small changes in the gravitational field. The results are then analyzed to determine the temporal changes in water masses.

Results

Temporal changes in water mass are measured using a geodetic technique that involves comparing changes in the gravitational potential of the Earth in a reference frame in which water mass changes occur. The changes are related to the movement of water masses relative to a reference frame that is fixed with respect to the Earth. The changes in the gravitational potential are measured using sensitive instruments that are capable of detecting small changes in the gravitational field. The results are then analyzed to determine the temporal changes in water masses.

Gravity-Station Networks

Three networks of gravity stations were constructed in the Lower Colorado River basin by the National Oceanic and Atmospheric Administration (NOAA) using the Gravity Survey System (GSS). These networks are used to monitor changes in the gravitational field of the Earth due to changes in water mass distribution. The networks consist of a series of gravity stations located at specific points in the basin, and the measurements are taken at regular intervals to monitor changes over time.

Gravity stations are constructed by placing a set of sensitive instruments at specific locations in the basin, and the measurements are taken at regular intervals to monitor changes over time. The data collected from these instruments are then analyzed to determine the temporal changes in water masses.