



Suitable for guidance concerning places for ad hoc observations.

Technological advantages

Optimisation of acquisition plans

The scanning direction for each acquisition is optimised to reduce the overall travel time

Application to the calculation of acquisition sequencing

- to reduce the duration of the overall sequence
- to increase the number of acquisitions under time constraints (orbital motion, for example)

Summary of the invention

Method for searching for attitude guidance to optimise ad hoc acquisitions sequenced by a satellite operating according to the push-broom principle. It enables an increased number of acquisitions by a non-stationary agile satellite, with a limited agility in torque, and a momentum-wheel

Method to optimise the direction of scanning for acquisitions to determine an overall trajectory to anticipate the changes in attitude throughout the entire acquisition schedule, based on an external calculation of attitude manoeuvres in the shortest possible time to find the best possible overall sequence.

Potential applications

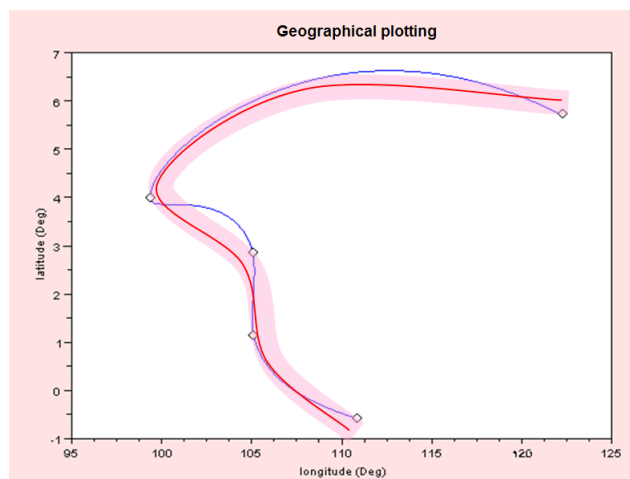
Non-stationary or geostationary Earth observation satellites

Space observation satellites

Machine-tools: laser-beam guidance, milling machines

TRL : 4

Patented invention available under licence



Caption:

- Curve plotted through all points
- Smoothed curve taking the swath into account
- Satellite swath

Commercial advantages

Greater profitability

Increased capacity for acquisition, typically on a pass by a non-stationary satellite

Greater responsiveness

Reduced acquisition times