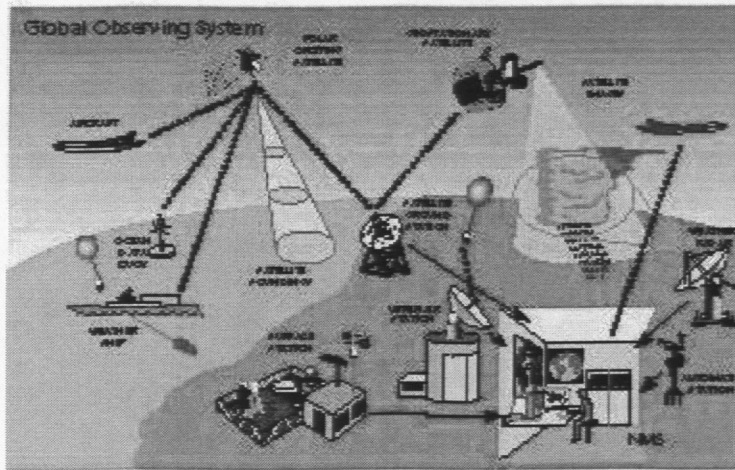
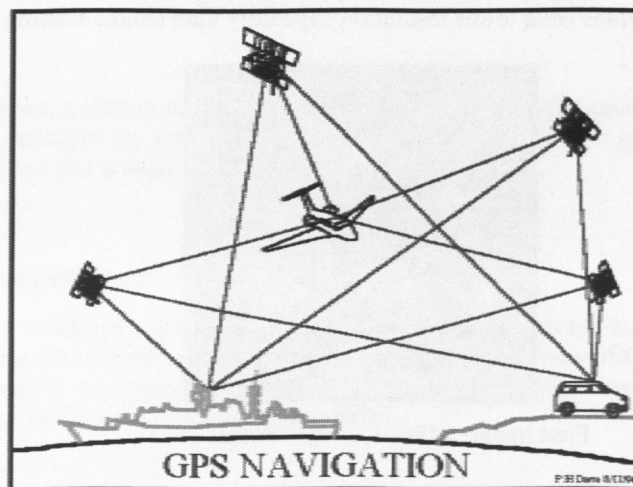


The ground architecture of such a system is extremely complex and exchanges a large amount of data.⁵²



II 1.3 Navigational Satellite Systems⁵³



There are two functional constellations of navigational satellites. These are:

- Global Positioning System (GPS)⁵⁴,
- The Global Orbiting Navigation Satellite System (GLONASS),

⁵² The backbone of the surface-based sub-system continues to be about 10,000 stations on land making observations at or near the Earth's surface, at least every three hours and often hourly, of meteorological parameters such as atmospheric pressure, wind speed and direction, air temperature and relative humidity. Some 4000 of these stations comprise the Regional Basic Synoptic Networks (RBSNs) drawn up by the six WMO Regional Associations. Data from these stations are exchanged globally in real time http://www.colorado.edu/geography/gcraft/notes/gps/gps_f.html.

⁵⁴ "The system gained fame during Desert Storm by providing unprecedented navigational accuracy for allied air and ground forces, but it is rapidly being integrated into a wide variety of civilian uses as well" according to Maj. Gen Robert S. Dickman, director of Space Programs in the Office of the Assistant Secretary of the Air Force for Acquisition. "GPS is a model for dual-use' systems...It's both a force multiplier for the war fighter and a boon to the civilian sector." http://www.colorado.edu/geography/gcraft/notes/gps/gps_f.html.