

REMOTE SENSING IN FISHERIES

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- In the 1950's thermal infrared imaging systems were developed which provided a “heat picture” of objects or terrain. As with radars, thermal infrared systems are not dependent on light availability but, unlike radar, they are unable to “see” through clouds. In the same period, Side Looking Airborne Radar (SLAR) was developed to improve upon the relatively crude imagery produced by PPI radar. Both of these systems were originally designed for military use and did not become available for civilian application for several years.

- The launch of SPUTNIK-1 by the U.S.S.R. in 1957 marked the beginning of the “space age”. In 1959 the U.S. satellite EXPLORER-6 transmitted the first image of the earth as seen from space. The world's first meteorological satellite, TIROS-1, was launched in 1960; this was the forerunner of the more advanced weather satellites which are in place today. Manned space flights were particularly important in creating an awareness of the potential for resource mapping and monitoring from space. The first pictures of the earth, taken by hand-held cameras in space, provided an amazing amount of detail of land and water features over a large area. Later missions by the U.S.A. and the U.S.S.R. carried more sophisticated camera and scanning equipment, specifically for the acquisition of imagery for resource evaluation.





- While the manned missions were successful in demonstrating the value of space imagery, they were generally of short duration and did not provide uniform global coverage. These limitations were largely overcome by the development of earth resource satellites such as the U.S. LANDSAT series. Operating in a lower orbit than the meteorological satellites, LANDSAT, and later similar systems, provided greater spatial detail, although less frequent temporal coverage. Although the sensors were chosen primarily for land-based applications, they have proved to be useful for several coastal and marine studies.



- In addition to the operational satellites now in place, there have been a number of experimental systems launched which have further demonstrated the value of monitoring the marine environment from space. Prominent among these have been the NIMBUS-7 satellite which carried the Coastal Zone Colour Scanner (CZCS) and the short-lived SEASAT satellite which carried a number of specialized marine sensors. In recent years several nations in addition to the U.S.S.R. and the U.S.A. have launched their own remote sensing satellites.

