

SEASONAL AND LONG TERM DYNAMICS OF BRAGANÇA COASTAL PLAIN, AMAZON REGION, BRAZIL.

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The Bragança coastal plain in the northeast of the Pará state, is characterized by diverse sedimentary environments dominated by macro-tidal regime. In order to understand its coastal landforms and their seasonal and long term dynamics, a survey involving multirate satellite data of TM Landsat and SAR/Radarsat was carried out during the months of August/1985, October/1988, July/1990, Dezember/1991 and September/1998. This covered an area of about 50 km along the coast from Quatipuru to Bragança. Coastal sedimentary environments were mapped and their dynamics were studied through satellite imageries, collateral data and field observations. The research revealed that the coastal area presents several estuarine and tidal channels which support an extensive mudflat covered by mangrove forest. The coastal plain is also marked by inactive cliffs of Tertiary deposits, salt marsh, cheniers, coastal dunes, beaches, spits, tidal-shoals, estuarine bar mouths and ebb-tidal delta. The multirate data have indicated that there is no major seasonal changes, except a few modifications in the morphology of spit, ebb-tidal deltas and estuarine bar mouths. However, long term changes have occurred along tidal flats (mangroves), coastal dunes and beaches. These long term changes caused the shoreline recession and accretion in restricted areas linked to the variation of estuaries outflow, tidal currents, wave action, composition of landforms and their interactions. It is concluded that the coastal area has not been affected by significant accretionary or erosional processes during the last two decades and were only identified restricted areas where there occurred progradation or retrogradation of coastline.