Evolution of the coast line from Sidi Bou Said to La Goulette (Western coast of the Tunis gulf, Tunisia) by using airborne remote sensing

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The majority of the littorals in the world suffer from marine erosion. The gulf of Tunis, in particular the littoral fringe located between Sidi Bou Saïd and La Goulette, had not escaped from the degradation, for several decades, because of many natural and human effects. The different evolutionary stages of the coastal geomorphology are given by using the geometrical correction of the air photographs of different missions (1962, 1974, 1988 and 2000). The superposition of the coast lines resulting from the mosaics of these missions made possible the determination of the stability state of the zone situated between Sidi Bou and La Goulette. In fact, in 1974, the erosion touched the zone between Salammbô and La Goulette. The situation was worsened by the storm of January 1981 which destroyed the totality of the beaches and caused many material damages. Several works of protection were installed between Salammbô and La Goulette since 1985 to decrease the erosion. These works were very effective in the protection. They trapped and accumulated the sediments in transit to create vast and fattened beaches. However, the zone located between Salammbô and Sidi Bou suffers currently from erosion.

Key-Words: Erosion, gulf of Tunis, Sidi Bou Saïd, Salammbô, La Goulette, coastal geomorphology, airborne remote sensing, air photographs