Maria Dolores Acosta (dacosta@ugr.es; current e-mail address: macosta1@memphis.edu), Department of Mathematical Analysis, University of Granada, 18071 Granada, Spain, ***On boundaries on some algebras of holomorphic functions.***

ABSTRACT. If K is a compact and Hausdorff topological space and $\mathcal{A} \subset \mathcal{C}(K)$ is a unital and separating subalgebra, Šilov proved that there is a minimal closed subset $M \subset K$ satisfying that $\|f\| = \max_{m \in M} |f(m)|$ for every $f \in \mathcal{A}$. For a complex Banach space X, let $\mathcal{A}_u(B_X)$ be the Banach space of all the complex valued functions which are bounded and uniformly continuous on the closed unit ball of X and whose restriction to the open unit ball is holomorphic, endowed with its usual sup norm. A subset $F \subset B_X$ is called a boundary for the algebra $\mathcal{A}_u(B_X)$ if

$$\|f\| = \sup_{x \in F} |f(x)|, \quad \forall f \in \mathcal{A}_u(B_X) \ .$$

There are a certain number of results due (independently) to Globevnik, Aron, Choi, Lourenço and Paques, Moraes and Romero that give either sufficient or necessary conditions on a set of the unit ball to be a boundary for some classical complex Banach spaces. Here we present some new results along this line obtained in a joint work with L. Lourenço.