The study of the Aluthge transform Te was introduced and studied by Aluthge in his study of phyponormal operators in 1990. Several researchers have since studied various properties of the transform for a single operator T. For instance, quite a lot has been researched on the numerical range of Te of an operator T. In contrast to this, nothing is known about the joint numerical range of Aluthge transform Te of an m-tuple operator T = (T1, ..., Tm). The main reason for this limitation is that the notion of Aluthge transform is still a new area of study. The focus of this paper is on the study of the properties of the joint numerical range of Aluthge transform for an m-tuple operator T = (T1, ..., Tm). Among other results, we show that the joint approximate point spectrum of Te is contained in the closure of the joint numerical range of of Te. This study is therefore helpful in the development of the research on numerical ranges and Aluthge transform.