The Chicxulub crater, first discovered by Antonio Camargo and Glen Penfield in the late 1970s, is thought to have been created around 66 million years ago when an asteroid crashed into the Yucatan Peninsula of southeastern Mexico. Even to this day, its effect on planet earth can still be observed by looking at the 100-mile-long chain of cenotes left in its wake that reside underneath the local rainforest. According to the New York Times "it struck with the same energy as 100 million atom bombs," wreaking havoc on not only Earth's climate, but the organisms inhabiting it as well. Research suggests that the initial impact of the devastating asteroid managed to create a tsunami possibly reaching a height as high as 300 feet (a stunning number considering most tsunamis stretch no higher than 10 feet).

Although all the stats from the latter paragraph are eye-popping, the incident is most well-known for being the leading theory of what caused the great Cretaceous era extinction. It is our best answer to the age-old question of "what killed the dinosaurs?" a species who had once held held domain over the planet for approximately 165 million years. There are several reasons as to why the impact caused such devastation, which include: the shockwaves produced throughout Earth, the massive tsunamis formed in the Gulf of Mexico, and debris that created multiple issues. The shockwaves of the crash made its impact felt worldwide by setting off earthquakes and volcanos that not only occurred in the Gulf of Mexico, but also ranged all over the planet's surface. As previously mentioned, the massive super-tsunamis did their part spreading chaos throughout the seas, reaching unprecedented heights. Last, but far from least impactful, was the huge amount of debris shot in all directions and sizes due to the collision. The impact was so powerful that larger debris was shot high up in the atmosphere (and some even off into space) where it, after time, fell back down to the surface creating what has been

described as “global firestorms.” Ironically, the hellish scene triggered by the large debris fails in comparison to the effects of the smaller sediment, which also made its way into Earth’s atmosphere. This dust quickly filled up the skies of our world, forming a thick layer that prevented sunlight from reaching photosynthetic organisms who rely on these sunbeams. Considering almost all flora survive off photosynthesis, and that they form the base of any food web, this spelled disaster for a majority of terrestrial animals roaming Earth’s surface at the time. Thankfully for humans such as ourselves, small mammals who resided under the surface were able to not only survive, but thrive in this new environment. Once an afterthought, our ancestors were now top-dog in a new world with virtually no predators left to stunt their spread up to the surface and beyond.

My research suggests that the height of the tsunami created by the impact would have been (at the lowest) in the range of 50-100 meters, and (at the most) 100-300 meters. A meteor of this size would have certainly would have had the potential to easily reach over 50 meters above sea level, but an estimate of one reaching 300 meters seems absurd. Due to this, if you are to take a number lying anywhere near middle of these approximations, then the wave definitely would have an excellent chance of being more than 300 feet (or about 100 meters) in height. It is also thought that the waves found their way over 100 kilometers across the terrestrial surface of the continents bordering the Gulf of Mexico. The main argument for this stems from sediment deposits found throughout Florida, Mexico, Texas, and other parts of the southeastern coastline of the United States that match those found in the Chicxulub crater. This hypothesis is very plausible with an impact large enough to be blamed for the extinction of the majority of life on Earth. It is, as well, suggested that the tsunami reached as far as the coasts of Africa and Europe

all the way across the Atlantic Ocean. This seems to be easily possible for a tsunami of such size that is undeterred by land, although direct effects on the coastlines would be far less devastating than those bordering the crater site.

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