

The Great Crater

& The Events of its Formation

During AC1006 the Master summoned an Asteroid to destroy the Republic of Darokin. This meteorite would have most certainly destroyed Darokin and its ally nations whether it had hit Darokin or deflected into Southern Glantri.

POOR WIZARDS ALMANAC AC1010

The Poor Wizards Almanac AC1010 describes the Great Crater as *'over twenty miles in diameter'* and the Asteroid as *'a Meteorite'*. This means we can determine a whole lot of stuff about what happened. For starters, our Asteroid is an Iron Meteorite. At this size crater an Iron meteorite travelling at seventeen kilometres per second (the average speed for Asteroids), impacting at an angle of thirty eight degrees (it should be forty five degrees but our immortals deflected it) would need to be six thousand feet in diameter.

The crater is bordered by the Principality of Black Hill close enough to be considered an extension of the broken lands. This is basically just setting detail as to the impact location but it tells us it hits in sedimentary earth as opposed to the rock of the mountains just south.



THE ASTEROID VS. THE GROUND

The Asteroid is an Iron Meteorite of six thousand feet in diameter impacting at an angle of thirty eight degrees into sediment vaporising the ground to four miles deep producing a final crater that is twenty one miles in diameter and

two thousand eight hundred feet deep while a fireball that burns the sky above it. The impact also creates an earthquake.

THE FIREBALL

The asteroid impact generates a massive amount of thermal radiation in the form of a nineteen mile radius fireball. This can be seen well above the Silver Sierras, the mountainous Broken Lands, and any other particularly tall hill inside two hundred miles by those beyond.

Every living thing out to over two hundred and fifty miles from the centre take third degree burns over their entire body. This drops away to first degree burns out at three hundred miles from centre.

This is a pretty bad injury and for most people and animals these burns will kill. In D&D terms its 3d6 damage from third degree burns reducing to 1d6 for first degree burns simply because the air got very hot for a moment. Basically it kills all normal humans, livestock, and wildlife out to two hundred and fifty miles – adventurers and monsters are a tougher breed so they will probably survive the injury and suffer for a long time with terrible burns or resort to clerical healing. The Thermal Radiation ignites trees and wooden buildings, paper, and even grass out into the Ethengarian Khanates. Beyond the Wendarian Ranges in the far north of Glantri, or the Cruth Mountains shielding the Five Shires south of Darokin the fireball is no longer visible and the thermal radiation has dropped away. If you are looking at this fireball from a distance between a survivable two hundred and fifty miles and three hundred miles you would likely be blinded for life only realising after that damage was done as it cooked your retinas and burned your skin. Ships sailing Lake Amsorak ignite and burn.

THE QUAKE

The earthquake generated by the impact is eight point six in magnitude. While the quake reduces even the best designed buildings to its foundations close to the centre of impact, the damage drops away cracking walls and rattling buildings at four hundred miles from the epicentre.

EJECTA

A huge volume of rock is thrown up by the impact. The size of the rock falling from the sky is smaller the further we are from the centre of impact.

- At twelve miles from centre boulders one thousand feet in diameter are dropping to the ground forming the rim.
- At twenty miles from centre boulders two hundred and twenty feet in diameter are dropping to the ground.
- At twenty eight miles from centre boulders eighty feet in diameter are dropping to the ground.
- At thirty six miles from centre boulders thirty eight feet in diameter are dropping to the ground.
- At forty four miles from centre boulders twenty feet in diameter are dropping to the ground.
- At sixty miles from centre boulders eight feet in diameter are dropping to the ground.
- At one hundred miles from centre boulders one and a half feet in diameter are dropping to the ground.
- At two hundred miles from centre rocks two and a half inches in diameter are dropping to the ground.
- Out to three hundred miles gravel is raining from the sky.

In map terms this is pretty rough country around the Crater. It can be considered Broken lands from the Crater rim out to forty four miles and after that its Boulder Strewn out beyond sixty miles. That's over the Silver Sierras and down the far side with even large rocks dropping in Lake Amsorak.

THE WIND BLAST

The explosion at the centre generates a pressure wave.

- At twelve miles from the centre this shock wave is nine thousand two hundred miles per hour travelling outward.
- At twenty miles the wind is five thousand one hundred and ten miles per hour.
- At twenty eight miles per hour the wind speed has dropped to three thousand four hundred and sixty miles an hour.
- At thirty six miles the wind speed is two thousand five hundred and eighty miles an hour.

· At forty four miles the wind speed has reduced to two thousand and thirty miles an hour.

· At Sixty miles the wind speed is now only one thousand three hundred and ninety miles an hour.

· At eighty four miles the wind speed is eight hundred and ninety six miles an hour.

· At one hundred miles the wind speed has dropped to seven hundred and four miles per hour.

· At two hundred miles the wind speed drops to two hundred and forty four miles an hour.

· At two hundred and fifty miles the wind speed has dropped to one hundred and seventy miles an hour.

· At three hundred miles from centre the wind speed has dropped to one hundred and twenty seven miles an hour.

Beyond this the wind speed is considered to be minimal in effect. At sixty miles the pressure wave can be considered to have turned even fortresses into dust. At one hundred miles an hour even stone fortresses are simply knocked down. Timber structures obliterated. At two hundred miles wooden structures are blown away. This destruction drops off at two hundred and fifty miles from epicentre where sturdy wooden buildings are blown over while ninety percent of forest trees are considered 'blown down'. This drops off significantly so that at three hundred miles only thirty percent of forest trees are knocked over and timber roofing removed. Darokin City, Alfhiem City, Glantri City. These places are obliterated and their debris blown away.

THE AFTERMATH

The destructive force of this Asteroid has a major drawback in that ninety percent of Glantri, Darokin, all of the Broken Lands, and a majority of Alfhiem would be destroyed and depopulated.

Basically there are likely to be no humanoids from the Broken Lands to even occupy the Great Crater. The ruins could be picked over by those interested in loot or rebuilding. But they would be peoples migrating in from the Sind or the Khanate or the Eastern Broken Lands. For the Glantrians, the survivors are pretty much restricted to the Vampire Prince ruled

Boldavians and any Wizards capable of Teleporting away before the destruction. These are not going to be able to save the populace population facing death and anyone without access to teleporting magic or even clerical healing is most likely dead.

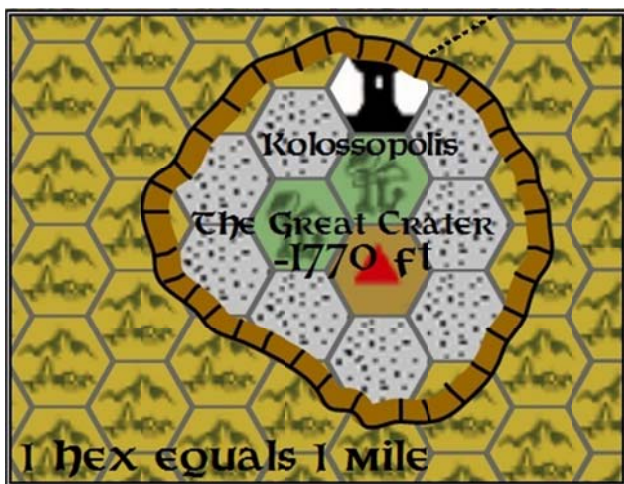
Keeps like Welon that have been severely damaged by the quake will be crushed and buried by boulders 'preserving' their deep dungeons. Huge Boulders thrown out of the crater come tumbling down the southern face of the Silver Sierras like an avalanche of stone filling the valley with a twenty mile long dam of rock and debris.

The Wind blast is erodes much of the Western half of Broken Lands changing the landscape. The Trolls, exposed in their subsided region of the lower broken lands burn alive.

In Alfhiem the Thermal Radiation ignited much of the forest and it was then fed by catastrophic winds that would have reduced the trees to ash. Only three Trees of Life will survive the destruction in that they are in the eastern most part of the Forest of Alfhiem beyond the limit of the thermal radiation likely to simply ignite them.

The Children of the Bear on the northern edge of the Atruaghin Plateau have a clear view of the Fireball rising above the Silver Sierras and will be horribly burned and if not killed outright by their injuries left blinded.

AN ALTERNATIVE GREAT CRATER



Given the destruction unleashed on the Known World Setting its likely that most Dungeon Masters will want something less destructive.

This is implied in the suggestion that the otherwise offensively huge Crater and its associated Asteroid somehow only destroy a few communities local to the region of southern Glantri to the west of the Broken Lands.

This Asteroid would be one thousand feet in diameter creating a crater four and a half miles in diameter and one thousand seven hundred and seventy feet deep with a fireball almost two miles in radius, and generating a quake of seven in magnitude.

The Thermal Radiation limits itself to third degree burns out at thirty six miles killing much of the livestock and populace in much of the Principality of Black Hill, with second degree burns at forty four miles the people of Eriadnei and Ellerovyn Keep in Erewan likely experienced a fifty percent population loss and twenty five percent population loss respectively due to second degree burns, with first degree burns at sixty miles injuring the populace at the village of Volnay dropping to minimal injury by sixty eight miles.

The Shockwave generates wind speeds of four thousand one hundred and twenty miles per hour four miles from the centre expanding outward to one thousand and ninety mile per hour winds at twelve miles radius. The pressure wave that topples the Towers of Nathrat and Soth-Kabre with five hundred and thirty seven mile an hour wind blast merely damages the Tower at Weyon with its two hundred and fourteen mile an hour wind. While ninety percent of trees out at forty four miles are knocked down while at fifty two miles out to sixty miles only thirty percent of trees are knocked down.

Out to four miles the landscape can be considered broken lands with boulders as large as eleven and a half feet in diameter and boulder strewn out to twenty miles.

By Sean Robert Meaney 2017