

Hello. I am doing a calc on the happy tree friends series. This series is much more powerful than you might originally expect and this is best shown with this episode. [“Ski ya don’t want to be ya”](#) basically flaky gets stuck up a mountain. She steps on a board with a nail (oh yeah this series can be kinda gory so turn back if you're queasy) slid down the mountain and had her foot be torn from the nail which caused her to scream and it caused an avalanche. So flaky stepping on the board again slid down the mountain but was cut by a fence. Disco bear answered the door when flaky knocked on it before being turned into cubes. Then the avalanche came in and destroyed the house. Disco bear survived this and was more startled than damaged.

You might think “how is an avalanche in any way impressive?” well the thing is that this is not any normal avalanche. This is an avalanche coming from a very high mountain. A mountain so high that satellites orbit just above the peak! (1:52). In order to have satellites be seen in orbit the mountain must have reached the exosphere which is 6200 miles up. That is multiple times higher than Mount Everest which is only a measly 6 miles. Its peak to sea level is double Mount Chimborazo's distance from the earth's center. So yeah, massive and the avalanche traveled down this mountain in a surprisingly short amount of time. It took only (2:34 to 3:34) a single minute to travel down the mountain. Which when calculated

6200 miles/60 seconds = 166299 meters per second or 103.33 miles per second

For those who don't know, that is 372 thousand miles per hour or 564 times the speed of sound, Which is massively hypersonic. That's a fast avalanche! Now finally onto the mass which I found out to be 1 million tons through this [source](#). So using that and using the kinetic energy formula

1,000,000 tons x 372,000 mph = 3,304,889,757 tons of tnt, 3.3 gigatons of tnt

That's mountain level htf! This can likely be higher because this is using the normal weight of an avalanche so this can be even higher. Remember, disco bear was more surprised by this avalanche than actually damaged and this is no outlier either! Lumpy launched cuddles into space in [“blast from the past”](#) (3:28). I calculated that feat to be worth 38 megatons although that was old and I am not sure of that number. Again htf characters like giggles can survive falls from orbit in an [official htf app](#). So yeah, these friends are crazy!

New High End

I am doing a new high end for the calc. You see satellites can orbit as far as the earth's [geostationary orbit](#). Which is 35786 kilometers or 22236 miles up. This would make the mountain much taller than before. So using the time we used before this comes out to...

22236 miles/60 = 596423 meters per second or 370.6 miles per second

That is 1.3 million miles per hour or 1740 times the speed of sound. Now adding that.

1,000,000 tons x 1,334,160 mph = 1.779e20 joules, 42.52 gigatons of tnt

That is island level. A big boost.