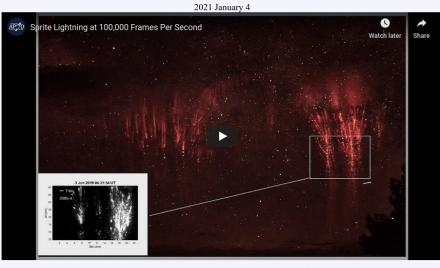
Astronomy Picture of the Day

Discover the cosmos! Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.



Sprite Lightning at 100,000 Frames Per Second Video Credit & Copyright: Matthew G McHarg, Jacob L Harley, <u>Thomas Ashcraft</u>, Hans Nielsen

Sprite Lightning

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Explanation: What causes <u>sprite lightning</u>? Mysterious bursts of light in the sky that momentarily <u>resemble</u> <u>gigantic jellyfish</u> have been <u>recorded</u> for over 30 years, but apart from a general association with positive cloud-to-ground lightning, their root cause remains unknown. Some thunderstorms have them -- most don't. Recently, however, <u>high speed videos</u> are better detailing how <u>sprites</u> actually develop. The <u>featured</u> <u>video</u>, captured in mid-2019, is fast enough -- at about 100,000 frames per second -- to <u>time-resolve</u> several sprite "bombs" dropping and developing into the multi-pronged streamers that <u>appear on still</u> <u>images</u>. Unfortunately, the <u>visual clues</u> provided by <u>videos like these</u> do not fully resolve the sprite origins <u>mystery</u>. High <u>speed vidoes</u> do <u>indicate to some researchers</u>, though, that sprites are more likely to occur when plasma irregularities exist in the <u>upper atmosphere</u>.

> https://apod.nasa.gov/apod/ap210104.html (paste the web address into your browser to view the video)

Today, as I opened the "Astronomy Picture of the Day" site I saw this video. This video was taken at the astounding speed of 100,000 frames per second; now *that is fast*. I thought, WOW, that is much, much faster than a wink of an eye. Curious, I did a bit of research and found out that when we wink (blink or twinkle) our eyes, we do at somewhere between one and two tenths of a second.

"in a blink of an eye kept" came to mind and I searched and found this passage in the New Testament...

1 Corinthians 15 (World English Bible)

⁵¹ Behold, I tell you a mystery. We will not all sleep, but we will all be changed,

⁵² in a moment, in the twinkling of an eye, at the last trumpet. For the trumpet will sound, and the dead will be raised incorruptible, and we will be changed.

⁵³ For this corruptible must put on incorruption, and this mortal must put on immortality.

⁵⁴ But when this corruptible will have put on incorruption, and this mortal will have put on immortality, then what is written will happen: "Death is swallowed up in victory."

⁵⁵ "Death, where is your sting? Hades, where is your victory?"

⁵⁶ The sting of death is sin, and the power of sin is the law.

⁵⁷ But thanks be to God, who gives us the victory through our Lord Jesus Christ.

⁵⁸ Therefore, my beloved brothers, be steadfast, immovable, always abounding in the Lord's work, because you know that your labor is not in vain in the Lord.

No one knows when Christ will return, no one. But, it will be fast, just as verse 52 above says. Paul emphasizes when Christ returns that we will be victorious, the dead will be raised and those of us who remain alive will be changed into immortality.

Truthfully, I really have a hard time conceptualizing 100,000 frames per second and for that matter even the one to two tenths of a second it takes to blink. However I can understand very, very fast; and that's all I really need to do.

In the meantime, I am comforted by the fact whatever work we do for the LORD *will not be in vain*. And that is enough to both encourage and brighten my day. I hope the same is true for everyone who reads this post!