GAMMA-RAY BURSTS ARE FLASHES OF GAMMA RAYS FROM COLLAPSING LARGE-MASS STARS IN DISTANT GALAXIES. THEY ARE THE MOST LUMINOUS ELECTROMAGNETIC EVENTS IN THE UNIVERSE SINCE THE BIG BANG. THEIR DURATION IS TYPICALLY A FEW SECONDS, BUT CAN RANGE FROM A FEW MILLISECONDS TO SEVERAL MINUTES. IN THIS SHORT TIME SPAN THEY RELEASE MORE ENERGY THAN OUR SUN WILL RELEASE IN ITS ENTIRE LIFETIME.

IF A NEAR-EARTH BURST WERE POINTED AT US, IT COULD SIGNIFICANTLY AFFECT THE EARTH AND SEVERELY DAMAGE THE BIOSPHERE. THE GAMMA-RAY RADIATION WOULD FAR EXCEED THE MOST INTENSE SOLAR FLARES. THE ABSORPTION OF RADIATION IN THE ATMOSPHERE WOULD CAUSE PHOTODISSOCIATION OF NITROGEN, GENERATING NITRIC OXIDE THAT WOULD ACT AS A CATALYST TO DESTROY OZONE. WE WOULD LIKELY FRY.