IN A GALAXY 130-MILLION LIGHT YEARS AWAY, NASA'S HUBBLE SPACE TELESCOPE GIVES US A CLOSE-UP LOOK AT WHAT CAUSED THE NEWLY-DISCOVERED PHENOMENA CALLED GRAVITATIONAL WAVES.

FIRST THEORIZED BY ALBERT EINSTEIN A CENTURY AGO, GRAVITATIONAL WAVES ARE EXPANDING RIPPLES IN THE FABRIC OF SPACE.

NOW HUBBLE HAS SPOTTED THE FADING AFTERGLOW OF A RARE EVENT THAT SCIENTISTS SAY CAUSED THESE RIPPLES.

TWO MASSIVE STELLAR REMNANTS CALLED NEUTRON STARS SMASHED TOGETHER, RATTLING SPACE AND CREATING A FIREBALL.

WHILE GROUND-BASED DETECTORS CAPTURED THE VIBRATION OF GRAVITATIONAL WAVES THEMSELVES, HUBBLE WAS ABLE TO MEASURE HOW THE TREMENDOUS HEAT OF THE EXPLOSION CREATED SUCH ELEMENTS AS GOLD AND PLUTONIUM FROM THE EJECTED NEUTRON STAR DEBRIS.