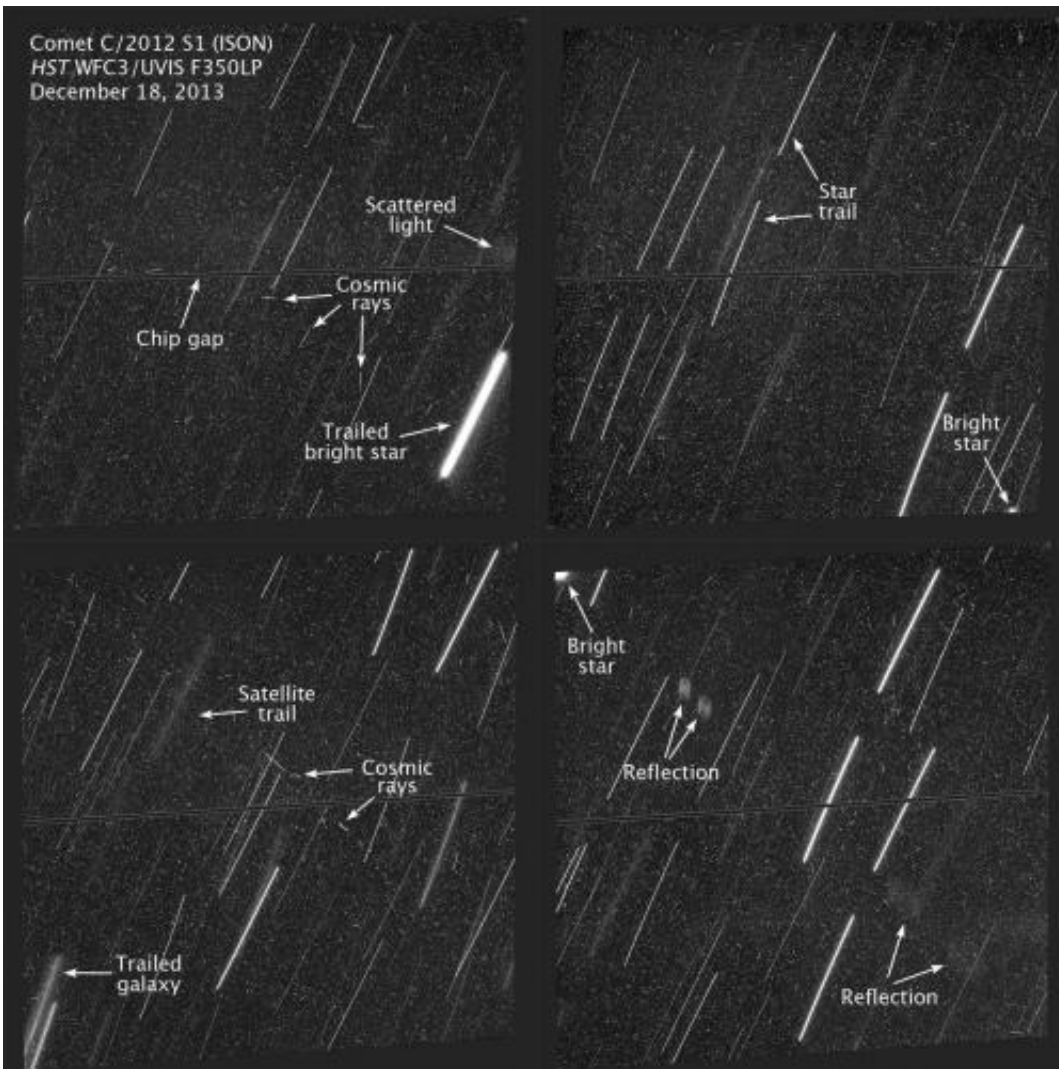


Hubble looks but finds no trace of comet ISON

December 23 2013, by Bob King

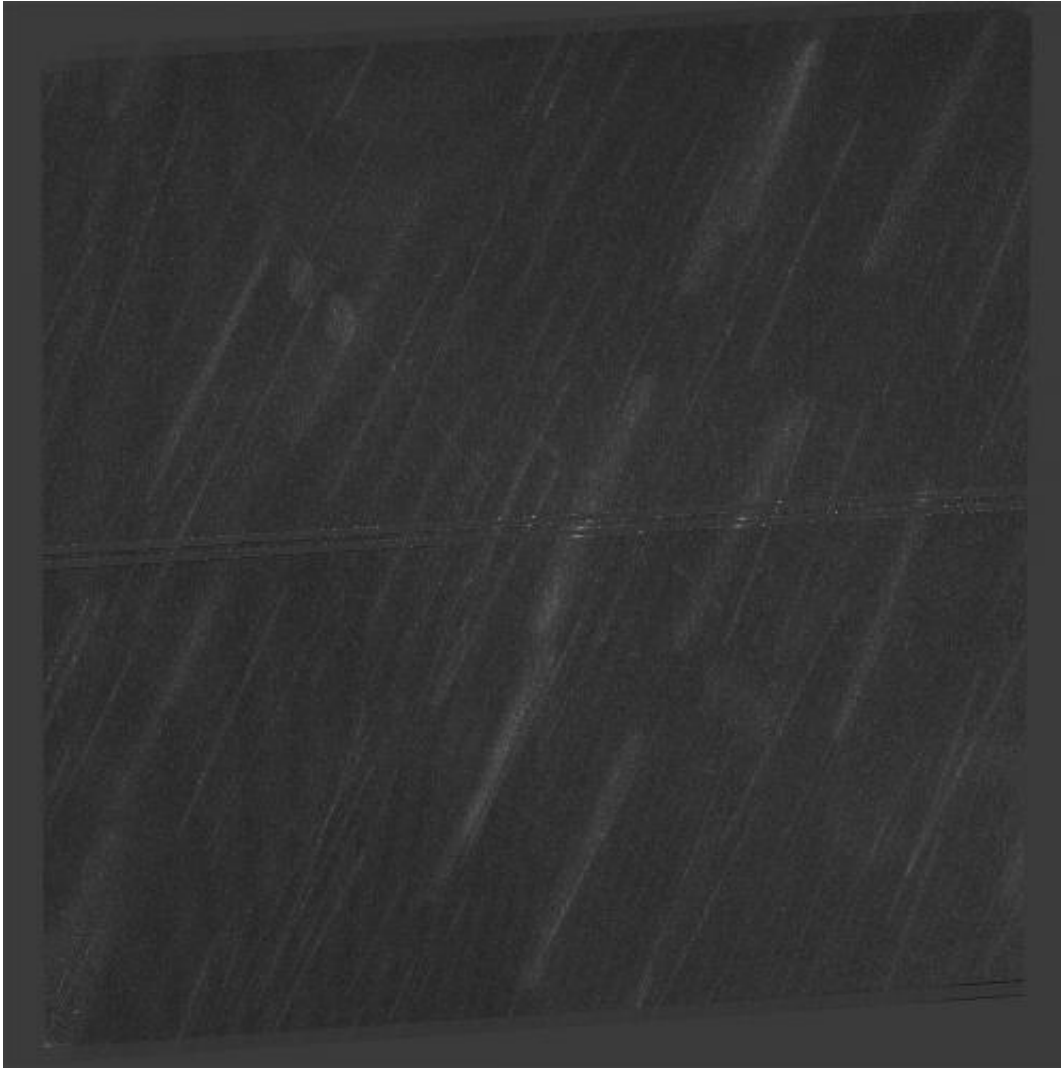


Each of the four panels is a combination of two separate exposures made by the Hubble Space Telescope as it tracked Comet ISON's position. Had the comet been in any of these frames, it would have appeared as a small fuzzy glow or stellar point(s) in the center. Credit: NASA/ESA

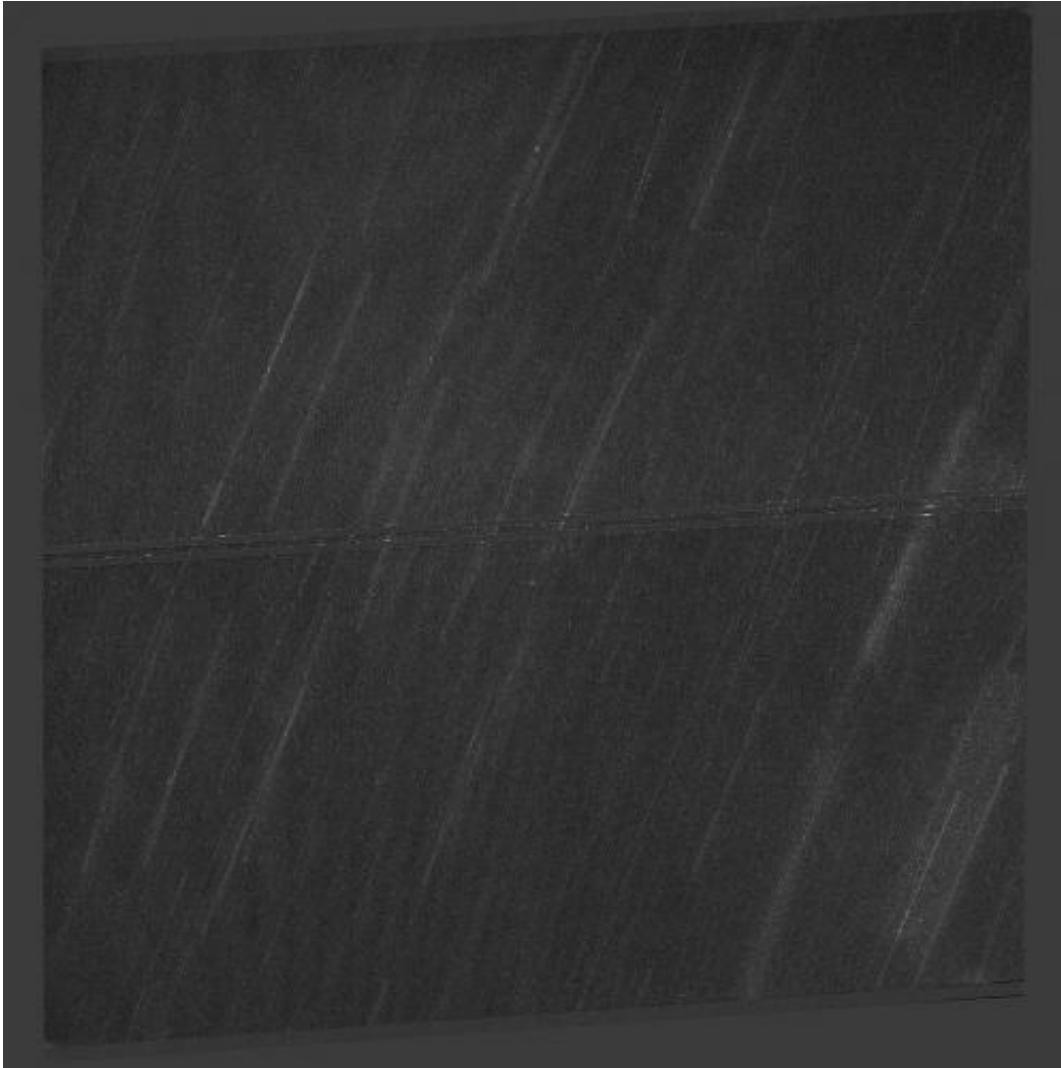
On December 18, the Hubble Space Telescope slewed to Comet ISON's expected position and found nothing down to the incredibly faint magnitude of 25. According to astronomer Hal Weaver, who planned the ISON search, that limit implies any remaining fragments would have to be smaller than about 500 feet (160 meters) in diameter.

Nothing is visible in any of the images in the photo panel except trailed stars and galaxies, reflections and the occasional zap of a [cosmic ray](#). After ISON was torn asunder by the sun, there existed the possibility that comet's remains would follow a slightly different orbit. To make sure he was covered, Weaver photographed two separate comet positions, stacking several exposures together.

"The images have been combined so that features not at the same place in the various images are suppressed. Any comet fragments would show up more clearly in this composite, though stars still show up as faint streaks", writes Zolt Lavay, author of the ISONblog at the Hubble site.



Comet ISON photographed at a second location. Again, nothing detected. Credit: NASA/ESA



Composite photo of one of two Comet ISON locations photographed by the Hubble Space Telescope. No trace of the comet is visible. Credit: NASA/ESA

Again, nothing shows up in these either. While no one can say that ISON has completely disappeared, we now know that at the very least it's broken into pieces too small for even Hubble to see. What was once a beautiful sight in binoculars has expanded into a vast cloud of gas and dust thinner than Ebenezer Scrooge's gruel.

Provided by [Universe Today](#)

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