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THE CAPABILITY OF THE ULTRAVIOLET IMAGING TELESCOPE FOR
OBSERVING INTERSTELLAR DUST

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The Ultraviolet Imaging Telescope was designed to be able to obtain deep images of nearby galaxies with a single frame. This ability makes it ideal for many imaging problems of the interstellar dust. The instrument has a forty arc-minute field of view with two arc-second resolution. It has 11 ultraviolet filters and a grating which is used as a grism for full field spectroscopy. In a thirty minute exposure (one orbital night) the limiting magnitude for hot objects is $V = 25$, or a UV mag of 22 for point sources and a UV mag of 26 for extended sources. Programs are planned for the observation of dust in reflection nebulae, HII regions, planetaries, dark nebulae, the diffuse galactic light, and dust in other galaxies are planned. The UIT has been integrated into the Astro Spacelab Payload and is scheduled to be launched on the Columbia in Nov. 1989.