Why Galaxy Education, Consciousness & Awareness is Important for the 21st Century:

1. Education – for primary, secondary higher, and highest education: Knowledge, understanding of humanity’s place in the Universe – our Milky Way Galaxy occupies a mid-position domain between Solar System finiteness and Cosmos infinity

2. Astrophysics / Astronomy – Galaxy studies internationally are of increasing interest and value; study of our local stellar neighborhood for familiarity; center / central 10 parsecs with supermassive black hole is most dynamic region of Milky Way

3. History of Human Civilization / Archaeoastronomy

4. NASA, World Space Agencies – 21st Century Program and Policy Development Advance through Galaxy understanding

5. Galacticity – may be as important for the 21st Century, as is Relativity to 20th
Multiwavelength Milky Way
Near-IR; COBE / DIRBE; 1989-93

Optical; Dr. Axel Mellinger; 1997-99

Multi-spectral: Visible, Near-IR
SMART-1 / AMIE Camera; 2003-06
DIRBE 1.25, 2.2, 3.5 μm Composite

Near-IR; COBE / DIRBE; 1989-93
Wide-Field Radio Image of the Galactic Center

$\lambda = 90$ cm

(Kassim, LaRosa, Lazio, & Hyman 1999)

Radio; Naval Research Lab / Namir Kassim
Artists’ Rendering, 2008
Robert Hurt / Spitzer Science Center-Caltech / NASA
Instrumentation

• Candidate Instrument – AMIE Camera

• UV / Vis / NIR CCD Imaging Array of 1024 x 1024 pixels

• Field of View – 5.3° x 5.3° = 738 parsecs on a side (0.72 pc / pixel)

• Mass = 2 kg