

Cosmic Reflections:
A Musical Work to Celebrate and Commemorate the GLAST Mission

Information on the Musical Program

The following is a brief description of the music composed by Dr. Nolan Gasser for the launch of NASA's GLAST and the subsequent Scientific Meeting to be held in Washington D.C. in fall 2009, as well as a provisional program for the Kennedy Center concert. The complete musical component will be in two parts: the first is the 9-minute *GLAST Prelude* for brass quintet, which will be premiered (via recording) at the GLAST launch at the Kennedy Space Center, currently scheduled for May 16, 2008; this will "depict" via music and video the GLAST mission and act as a Prelude to the second, larger work. The second part will be entitled *Cosmic Reflections*, for orchestra and narrator, and will receive its live premier at the Kennedy Center in fall 2009. Like the *GLAST Prelude* *Cosmic Reflection* will be accompanied by state-of-the-art scientific video imaging provided by Goddard Space Center. A more detailed outline of each work is as follows:

GLAST Prelude, for brass quintet (recorded by the American Brass Quintet)

Aim: to musically (and visually) depict the nature and contextual history of the GLAST mission

Part 1: A powerful fanfare-like opening evoking the image of GLAST upon the Delta II rocket – with all the rumblings and excitement it yields as it readies for launch.

Part 2: Following a subtle transition, a brief musical portrait of the historical evolution leading up to the gamma-ray telescope and the GLAST mission:

Part 3: A brief musical portrait of GLAST: the Mission and its scientific expectations; the instruments aboard, and the nations involved (including a possible contrapuntal medley of participating national anthems):

Part 4: A rousing conclusion, culminating in the actual launch of GLAST and a sense of the dazzling discoveries it heralds.

Cosmic Reflections, for orchestra and narrator; approx. duration: 30 minutes

Aim: to musically, visually, and textually depict the History of the Universe, with particular focus on those cosmic events and phenomena that GLAST will elucidate (black holes, AGNs, pulsars, etc.). The work is conceived much as a quasi-theatrical tone poem, in the tradition of Prokofiev's *Peter and the Wolf*. The words of the narrator will clarify the overall narrative provided by the music and visuals – spoken at times *between* musical sections, and at other times *within* a musical section. The work will be in 3, historically based sections:

Part 1: From the Big Bang to the emission of the Cosmic Microwave Background (+380,000 years):

Part 2: Formation of Structures – from when the Universe starts becoming "clumpy" at Recombination to formation of our proto-Solar System (-4.6 billion years):

Part 3: From Mature formation of our Solar System to evolution of intelligent life on Earth (today):

Musical Program at Kennedy Center (provisional):

Gabrielli, <i>Canzone</i>	American Brass Quintet (ABQ)
Gasser, <i>GLAST Prelude</i>	ABQ
Gasser, <i>Cosmic Reflection</i>	Boston University Symphony, Narrator (TBD)
<i>(Intermission)</i>	
Dvorák, <i>New World Symphony</i>	Boston University Symphony

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