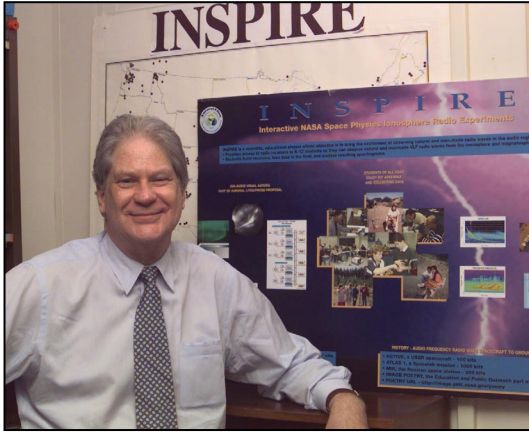


## PROFILES OF SCIENTISTS IN EDUCATION AND PUBLIC OUTREACH

*This profile is based on excerpts of an interview of Dr. Bill Taylor about his involvement in Education and Public Outreach (E/PO), specifically his participation in INSPIRE. Dr. Cherilynn Morrow (Space Science Institute – SSI) designed the interview questionnaire. SSI’s Christy Edwards and Preston Dyches edited the interview in November, 2002.*



### **Current Professional position:**

I'm a contracted Project Manager for the Space Science Data Operations Office at NASA/GSFC. I'm also Co-Investigator on the IMAGE Satellite Project, in which I have two roles: Director of POETRY (Public Outreach, Education, and Reaching Youth) and RPI (Radio Plasma Imager) scientist.

### **Description of Bill's featured E/PO role:**

I am President and Co-Founder of INSPIRE, a non-profit scientific and educational corporation whose objective is to bring the excitement of observing natural and manmade radio waves in the audio region to high school students. INSPIRE also is an innovative, unique opportunity for students to actively gather data that might be used in a basic research project.

My main roles in INSPIRE are to: Interface with NASA and other space organizations, including international ones; arrange for cooperative projects with organizations that have radio observing satellites; coordinate these projects and use the data collected, when possible in scientific studies; and provide articles to the INSPIRE Journal.

### **How he got involved this E/PO project:**

In the late 1980's I was asked to lead the U.S. effort in observations of audio frequency radio waves on the ground, which had never been done before at these frequencies. I concluded that the only way we could deploy a significant number of observers with receivers in the audio frequency range was to recruit students to observe as part of a school based program. A high school physics teacher and I decided to organize such a network of observers, and with a grant from TRW, we designed an audio frequency radio receiver, recruited

one hundred high schools in the U.S., and made observations. The success and especially the enthusiasm of the students and teachers stimulated us to form INSPIRE.

### **Comments on his time commitment:**

I spend approximately 10-15 hours per week on INSPIRE. I'm fortunate enough to have an employer who greatly values E/PO, gives grants to INSPIRE, and supports my volunteer efforts there. In addition, my government "boss," Jim Green -- who is also an INSPIRE volunteer and has a son who was an INSPIRE observer -- strongly supports E/PO in general. With this supportive environment, it is relatively easy to juggle my INSPIRE work and my professional life. It's reassuring that my employer and boss are flexible, knowing that I'll get my job done in addition to my E/PO work.

### **Challenges to his E/PO involvement:**

My biggest challenge is finding the time to do all I want to do. Acquiring my knowledge about education earlier would have been useful.

### **What he gets out of his participation:**

It's quite satisfying to know that I'm making a difference to teachers and students. I was also able to be on the ground floor when NASA realized the importance of E/PO and started to provide opportunities for funding and even employment for those interested in doing it.

### **The most important positive impact he has made:**

My position as a scientist and science manager working in the related area of plasma waves has allowed me to utilize resources of NASA and the scientific community to organize the INSPIRE project and to keep it going. This has enabled teachers to be motivated and students to enjoy the experience and learn from it.

### **Bill's words of wisdom about E/PO:**

Persevere – there will be lots of people trying to block your path. Also, be sure a teacher is involved from the beginning. Scientists don't always understand educational processes well, and don't know what will work and what won't. Many also don't remember what it's like to be a student, especially in grade school or high school.

### **More information about INSPIRE is available at:**

<http://image.gsfc.nasa.gov/poetry/inspire>