

ABSTRACT

“XIX Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS)”

Title of Abstract: Studying Earth Change with NASA’s Scientific Data Buy Program

Session:

Key words:

Author:

Julie A. Raine
Product Manager
Positive Systems, Inc.
Whitefish, Montana, USA

e: jraine@possys.com
phone) 406-862-7745
Fax) 406-862-7759

Abstract

This paper will review the work being performed around the world by commercial vendors for the United States’ National Aeronautical and Space Administration (NASA) Earth Science Enterprise (ESE) Program.

The Program:

The Scientific Data Buy (SDB) is a demonstration program developed in response to the US President's Space Policy, directing NASA to purchase remote sensing data from the private sector. Initiated in fiscal year 1997, the SDB was funded under the Earth Science Enterprise (ESE) Program to provide scientific data to the ESE science community.

The Goal:

The \$50 million program is an opportunity to advance global-systems research, to strengthen the World economy through development of remote sensing technologies, and to test a new way of doing business.

The Players:

NASA has contracted with the following Commercial Vendors for data collection services:

- * AstroVision
- * EarthSat, Inc.
- * EarthWatch, Inc.
- * Positive Systems, Inc.
- * Space Imaging - EOSAT

Types of Tasks:

Below is a sample of the various types of projects being studied under the SDB program:

1) “High Resolution, Multispectral, Aerial Remote Sensing Project for Crop Studies”:

The Red River Valley in North Dakota is one of the largest producers of sugar beets. A NASA Scientist has undertaken a study to address some of the critical factors that affect beet production in the region and provide crucial remote sensing derived information to the growers to assist in production planning.

The broad objectives of this project are,

- To study the utility of high resolution, multispectral data for early detection of crop stress.
- To establish an operational procedure for quick extraction of information on a farm level and making it available to the farmers in a timely manner.
- Extension and outreach of the technology to farmers.
- Work co-operation with other research organizations and farmer co-operatives in the region to promote the use of this technology.

2) The challenge of this task is to extend the uses of NASA science data sets to users in non-science communities.

As a NASA Earth Science Information Partner (ESIP) (NCC 5-309) and a NASA Affiliated Research Center (ARC), our mission is to develop remote sensing applications from the NASA and other data sets for use by state and local government resource managers, industry, and other science users. Our aim is to process and add value to these data so managers can extract required information for their daily management problems and decisions. Another challenge focuses on researching applications of high resolution, multispectral, and multitemporal imagery for arms control and treaty verification

Ongoing Activities:

Future activities and focuses within the SDB program will be reviewed for the remainder of the three year program.