

U.S. Square Kilometer Array Technology Development Project
TDP Newsletter #1
16 April 2008

Jim Cordes, Project Director
cordes@astro.cornell.edu

TDP Web page: <http://skatdp.astro.cornell.edu>
The web site currently is just a skeleton but it will be populated
with documents and meeting results very shortly.

Dear US SKA Consortium members:

This is the first of what I intend to be regular newsletters about the TDP that we will send out from the TDP Project Office here at Cornell. These will be brief and will alert you to events that take place between our twice-a-year Consortium meetings or telecons.

Lynn Baker, P.E. is the TDP Project Manager:
lab5@cornell.edu

It is my pleasure to announce that Lynn Baker has taken up the full-time position of Project Manager for the TDP starting in January of this year, Formerly he was with the National Astronomy and Ionosphere Center (1978-2007) and prior to that time he was with the National Cash Register Corporation. He holds a degree in Applied and Engineering Physics from Cornell ('72). At NAIC Lynn was involved with or led many key projects for the Arecibo telescope, including:

- * Numerous cryogenic, low noise receiver systems covering all of Arecibo's frequency bands. A dual channel S-band maser system for the planetary radar was the highlight of these systems.
- * He analyzed, designed and supervised the mini-gregorian system, a 1/4 scale demonstration model of the full gregorian system presently in operation, including cryogenic receivers and feed horns for the subreflectors.

- * He was part of the team that designed and constructed the full gregorian upgrade system for Arecibo, with primary responsibility for all aspects of the two subreflectors from initial design through final alignment. He designed and supervised fabrication and testing of several feed horns and cryogenic receivers for the gregorian system. He was deeply involved with the civil and mechanical engineering aspects of the dome and reflectors. He had sole responsibility for metrology and alignment of the reflectors (including the primary), horns and entire dome.
- * He was involved with a wide variety of other projects, including analog IF systems, LO distribution systems, analog filter banks, servo systems, laser metrology.
- * He was part of the team that measured and analyzed platform dynamics to improve the optical alignment of the gregorian dome.
- * He was project manager for the recent ALFA spectrometer project and the platform painting project.

Lynn has hit the road running by making visits to Caltech, JPL and UC Berkeley to make contact with TDP groups. He helped organize the recent Antennas Working Group meeting that just took place in San Francisco (see below). He went to the Perth Deep Surveys meeting this month and he will attend our Consortium meeting in Washington on 22 May.

 Antennas Working Group Meeting, San Francisco 13-14 March:

This meeting was organized by Jack Welch with help from Lynn Baker, Matt Fleming and myself. The purpose of the meeting was to survey antenna designs and manufacturing methods and to develop a plan of attack for the TDP in this area. Many ideas and arguments emerged from the lively discussion. A report is being written that will be placed on the TDP web site, along with the talks and the recorded aural presentations (Thanks to Jill Tarter for this).

 Calibration and Processing Group Meeting, Washington, DC 21 May 2008:

Athol Kemball is organizing a meeting of our other working group, the CPG. This meeting will be a follow-on to a meeting in Perth about calibration

and processing and is a regular meeting of the TDP's CPG. The meeting date is one day before our U.S. SKA Consortium meeting on 22 May.

TDP SKA Advisory Committee (SAC):

The SAC is a small, high-level advisory group that will advise me on TDP issues. It will meet face to face about once per year and will probably have more frequent telecons. The SAC membership is:

Sarah Church (Stanford)
Phil Diamond (Manchester)
Paul Goldsmith (JPL)
Peter Hall (Curtin University)
John Weber (NRAO)

observers:

USSKA Consortium Chair
SKA Project Director (Richard Schilizzi)
SSEC Chair (Ken Kellerman)

I am very grateful to these people for taking on this job.
I am now trying to identify a date for our first face to face meeting.

