

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Commission Seeks Public Comment on)	ET Docket No. 02-135
Spectrum Policy Task Force Report)	
)	
)	

REPLY COMMENTS OF JACKSON STATE UNIVERSITY

I. INTRODUCTION

Jackson State University (JSU), Jackson, MS, commends the FCC for pursuing such a historic undertaking in the recommendations of the Spectrum Management Task Force (“SMTF”). Building a spectrum allocation model that combines both market forces and public interest represents a bold vision of the future. Building a model that recognizes that technology evolution and adoption occur faster than a regulatory body can adjust, but ensures an appropriate level of oversight for public safety is in place, is commendable.

Clearly, an undertaking such as the SMTF’s is not without its risks and opponents. JSU realizes that such a landmark undertaking will (and already has) generated a tremendous amount of debate, both for and against. Many will see this change as detrimental to their welfare; as impacting on their ability to compete, and/or as harmful to the public. Others will see this new model as an opportunity to launch new enterprises and/or a means to help build and grow communities. JSU lies squarely within the later grouping.

II. JSU'S INTEREST

JSU has a long and successful history developing and supporting applications that maximize the public benefit of spectrum allocation policies. JSU is a leader in developing satellite-based geomatics/remote sensing applications which provides such benefits to crop planning, urban and suburban development, and flood control. JSU is also an advocate for leveraging technology to raise the economic profile of underserved groups. JSU recently launched its eCity initiative, aimed at leveraging technology to change the economic reality of this area via programs aimed at health care, education, housing and job/wealth creation. As JSU pursues its academic and community development goals, the current and recommended spectrum allocation models present benefits and challenges. However, JSU wishes to comment not only on the content of the task force recommendations, but on the tools necessary to transition to a new spectrum allocation model.

III. DISCUSSION

A. A Fundamental Change in Spectrum Management is Forthcoming.

By organizing the SMTF, the Chairman has recognized a need for fundamental change in the manner in which spectrum is allocated in the US. Although it is impossible at this early stage to ascertain precisely what the new spectrum policy will become, it is clear that a new spectrum management model will evolve over the next several years. It is also clear that much opposition will arise as incumbents and others that feel threatened will use all possible challenges to slow, alter and/or suppress this new model.

Regardless of the final form of the SMTF recommendations, an unchangeable outcome of the task force's work is that a fundamental shift will occur in the FCC's role

(from unilateral decision maker to defining fundamental rules by which the market decides the best use of spectrum). In addition to the changes dictated by the eventual outcome of the SMTF's efforts, two other forces are driving a new managerial model at the FCC. It is clear that under Chairman Powell's leadership, the FCC is looking to outsource several functions previously performed by the Commission. The second force comes from the Bush Administration's desire to have agencies like the FCC derive more revenue from the industries they regulate and less from the federal budget. Both of these forces will lead the FCC to transform into a government agency that resembles a nimble service provider rather than an "all-knowing" regulatory body. Given these three factors, the "new FCC" will require new capacity/capabilities and relationships with industry players that are not in place today.

B. The New Spectrum Policy Calls for a National Research Center

Given the expected opposition and the need for support of key industry players, these new relationships will also require a consensus to make such a significant change in policy successful. In the "command-and-control" model, the FCC dictated spectrum use unilaterally, whereas the SMTF recommendations require collaborative partnerships with and delegation of certain decisions to industry players. Given this backdrop, a compelling case can be made for the creation of a national research center (the "Center") that combines the resources of private enterprises, other government agencies and academia to provide short-term and long-term capacity/capabilities for the FCC to address the policy/societal, economic/commerce and technology issues impacting spectrum management.

The Center would serve as an independent intermediary or “buffer” between the FCC, industry, other academic institutions, and other US and international agencies in defining the most effective and efficient utilization of current and future wireless communication systems. The Center would seek to develop the resources necessary for the FCC to manage the policy/societal (laws, policy, cultural impact), economic/commerce (market dynamics for traditional and emerging industries) and technology (current and next generation applications) issues impacting short- and long-term spectrum management.

C. There are Number of Tasks that the National Research Center Can Best Perform

A key premise of the SMTF’s recommendations is the concept of “tolerable interference.” One of the key tasks for this center would be working in collaboration with industry to establish an “interference good seal of approval” as well as define allowable levels of interference (“interference temperature”). The Center would also serve as a public/private laboratory to quantify and test interference levels while developing interference migration paths for legacy technologies. In addition, the Center could:

- Serve as a think tank in the development for public policy/laws and research cultural impact/assessment of wide-scale wireless deployment.
- Form and manage trade groups for the determination of spectrum use in common areas and/or shared exclusive areas.
- Assist in the formation of the economic models required to define the “value” of legacy and next generation applications.

- Develop standards and testing methodologies for “smart receivers.”
- Address the needs of the public safety community and other US government and international agencies.

The Center, with resources from academia and industry, could also serve as a means to generate fee-based services to the industry. An academic environment provides the best answer for the wide range of activities addressed by the Center. An academic environment provides the Center a cost-effective, independent platform that can address fast-paced technology development with public policy goals.

D. JSU is Uniquely Positioned to Facilitate the Coming Change in Spectrum Policy

JSU has the resources, partnerships and history to be the home for the Center. JSU has several successful high-tech collaborations with government agencies and private enterprises, a leading urban planning program, a well-recognized business school, a computer science program that graduates more Blacks than any program in the US and world-class programs in visualization and geomatics/remote sensing. Equally important, JSU has established several key partnerships with leading US and international institutions of higher learning. The Sen. Trent Lott Geo-Spatial and High Performance Visualization Center Initiative (HPVCI) Center for Spatial Data Analysis and Research Applications (CSDRA) is an outgrowth of a partnership between University of Southern Mississippi, the University of Mississippi, Mississippi State and the US Army. The Department of Defense High Performance Computing Modernization Program (HPCMP)–Bioremediation Education, Science, and Technology Center is a collaboration with Lawrence Berkley National Lab and others. The High-Performance Computing

Modernization program is a collaboration of several DoD research labs and institutions including Ohio State, Univ of Texas – Austin, Syracuse, and Clark Atlanta University. JSU has also developed relationships with key institutions in Russia, India, and Africa.

E. The center would be located at JSU’s MS eCenter Complex.¹

JSU also has unique qualifications due to its geography. Leading wireless firms SkyTel, SunCom, Cellular South and Wireless One and their founders call Mississippi home. JSU has been at the center of efforts by Mississippi’s public and private leadership to harness this unusual depth of wireless talent into economic development efforts based on cluster theory. JSU is proving to be a key player in the development of Mississippi’s wireless cluster. The combination of the requisite skills, unique position in the Mississippi wireless cluster and the emerging needs of the FCC dictate the need for JSU launching and leading a National Center for Spectrum Management.

¹ The MS eCenter is a \$20 million, state-of-the-art technology center that was a former Allstate Insurance facility donated to JSU as part of the largest donation ever to a predominately Black college. The MS eCenter currently houses a number of academic, research and commercial high-technology ventures.

IV. CONCLUSION

The FCC has determined that a new philosophy is needed to ensure spectral allocation is based on market needs, but many of the concepts currently proposed will require capacity/capabilities not currently possessed by the FCC. The Center can deliver those skills to the FCC, and JSU is the partner the FCC needs to make the Center a successful reality.

Respectfully Submitted
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