Proposed Future CSMAC Work

Topic	Submitter	Chair Volunteer	Others Interested
Enforcement			
In order to accommodate the explosive growth in wireless networks of all types, wireless communications devices and systems must increasingly operate in closer proximity in frequency, space and time and, accordingly, the risk of disruptive and harmful interference is inevitably increased. In addition, increased sharing of spectrum between federal government and non-federal devices and systems creates new challenges in terms of institutional relationships and interagency processes for detecting, identifying, locating, mitigating and reporting interference sources. Clearly the value of shared spectrum to commercial entities depends upon the processes and resources spectrum managers have available to reduce the number of interference incidences and to resolve them quickly and effectively when the do arise. Similarly, the willingness of federal agencies to share larger amounts of spectrum in more dynamic ways depends upon their confidence that the applicable rules and regulations regarding such sharing will be enforced. The purpose of this proposed work would be **to** help the NTIA **develop new or revised strategies for responding more efficiently and effectively to the fundamental technological, operational and other trends that continue to create an increasingly complex interference and enforcement environment.** It is anticipated that, in carrying out this work, the CSMAC will coordinate with similar efforts under way in the FCC's Technological Advisory Committee (TAC). How to update the FCC's enforcement tools for new forms of sharing (e.g., coordination zones vs. exclusion zones); - How the FCC and NTIA will coordinate when both federal and non-federal users are involved; - What forms of mitigation measures will be used when an operator is found to be interfering (until resolution is reached.) - How can technical showings of compliance be made pre- and post-deployment in these new sharing scenarios to facilitate enforcement measures. What kinds of interference will carriers tolerate from federal systems as part of accepted sharing terms to avoid future "garage door" opener situations?	Hatfield	Crosby	Obuchowski

Transitional Sharing			
Transitional Sharing is the next step in the existing CSMAC work. We would study and recommend how to implement the future work described in all of the WGs (WG4 & WG5 at least). Topics would include: Derivation of IPC Interference analysis methodologies Coordination processes and procedures	Gibson	Gibson	
Use of general occupancy measurements (recommended combining with "Quantification of federal spectrum use")			
How must general occupancy measurements be performed to reflect federal spectrum use (particularly radars and intermittent operations) in a way that can support spectrum management decisions regarding relocation or sharing of spectrum? (See 6/14/13 PM Sec. 3(c))	NTIA	Gibson	
Quantification of federal spectrum use			
Recognizing the varied and in many cases mobile federal operations, how can agencies best quantify their actual spectrum use, and what metrics and other parameters would be reasonably necessary, to determine the extent to which spectrum assigned to the agency could potentially be made available for sharing with or release to commercial users, particularly in major metropolitan areas, without adversely affecting agencies' missions, especially those related to national security, law enforcement, and safety of life. (See 6/14/13 PM Sec. 3(a)) We could study the use of occupancy measurements in concert with databases to help quantify federal spectrum use. We could also investigate the feasibility of polls and surveys to help better characterize the database information. This is more or less how we conducted these measurements for the systems currently under study.	NTIA	Gibson, Crosby	
Spectrum management via databases			
For spectrum management via databases, some of the issues include: how to safeguard classified/sensitive data; what data to provide; how to leverage the 70-90 GHz data-sharing process; interference reporting, determination and avoidance; roles and responsibilities, etc. To make the work most productive, we would want to work with you to find a real problem that the NTIA wants to solve where we think real-time databases could help and then attack that problem rather than work open ended.	NTIA	Gibson, Crosby, Alder	
Providing government greater flexibility and options through access to non-federal bands			
Federal agencies and particularly the Department of Defense need significant amounts of spectrum for large	NTIA		

training exercises, however, the United States cannot afford to obligate so much spectrum all the time for such exercises. What approaches to authorization, coordination would facilitate access to spectrum for training? Should DOD expect to pay license holders for that access? Should DOD expect to pay for access even where the license holder does not provide coverage?			
Paying for costs of spectrum sharing when there is no auction			
The CSEA recognizes that agencies need funds to relocate systems. The Tax Relief Act update to the CSEA acknowledged and provided for costs related to sharing spectrum but still requires that the sharing be related to auctioned spectrum. However, the unlicensed device community is also looking for spectrum access and agencies will have to absorb study costs and potentially operational costs if they have to alter their equipment to live with new unlicensed devices. Should agencies be compensated for costs associated with sharing with non-auction services such as unlicensed devices and if so, how should they be compensated?	NTIA		