## Lessons Learned by Janice Obuchowski, CSMAC Member, December 13, 2013

During my involvement with the Commerce Spectrum Management Advisory Committee for almost seven years, our past work was primarily policy-oriented; however, the recently concluded cycle represented our first foray into the deeper specifics of technical analysis and evaluation. We had a very specific mandate, because NTIA directed this level of technical involvement. In the process we learned a great deal. We made important progress on the sharing/clearing issues before us and we also learned about what processes work and what resources are needed.

In May 2012, NTIA created a framework within the five Working Groups (WGs) to consider how to facilitate deployment of commercial wireless broadband at 1695-1710 MHz and 1755-1850 MHz. NTIA said that when coordinating with the FCC on steps related to an auction and reallocation of these bands, it would take into consideration the CSMAC recommendations emerging from the Working Group efforts. The five groups required a very substantial dedication of time and resources by national security users to support their analyses and recommendations.

The work of the groups was purposeful and productive, although it was characterized by some public characterizations that military and other Federal government users are relying on "worst case" technical analyses for harmful interference, and are unwilling or slow to share classified or sensitive information in an open forum with commercial wireless stakeholders. In the end there was agreement that relocation of some Federal systems will be required (e.g., law enforcement video surveillance operations). The WG reports could not make across the board recommendations that sharing within 1755-1780 MHz is possible. There was continual pressure by industry for Federal operations to be compressed into the upper 70 MHz (1780-1850 MHz) so that the lower 25 MHz sought by carriers for auction can be cleared for exclusive use.

Despite the disagreements, the exercise informed industry stakeholders just how complicated the world of US Government spectrum operations and management is. Platitudes about the ease of moving and/or sharing systems yielded to important levels of consensus.

## Conclusions:

The ground-breaking deal that is informed in part by this CSMAC round represents a forward-looking solution set that frees up a great deal of spectrum for commercial use. Nonetheless, the CSMAC cycle just completed must be viewed *in toto* as only a *qualified* success. The following points highlight the ways in which we can learn from the past eighteen months' experience and improve future CSMAC cycles.

(1) The CSMAC WGs were required to deal with two separate competencies – policy/economic-oriented and technically-oriented—both of which are mastered by few, but which regularly inform each other.

- (2) As part of CSMAC since 2006, I have concluded that it has been easier to operate with NTIA support systems. As far as the technical competency above goes, CSMAC cannot intelligently contribute unless we ensure the input of knowledgeable government commenters. That will be a constant going forward. We need to find a means to have such input available on a regular basis.
- (3) As CSMAC's work becomes more directly relevant to various industry actors' bottom lines, the recommendations we make have to become that much more specific and based on the best available guidance. Therefore we need to be able to draw on the best qualified experts from the private sector and the government as well.
- (4) Trust-building has been a pain-staking exercise throughout the CSMAC process to date. This will continue to be so. Characterizations of "footdragging" as part of this collaborative process are counterproductive. This effort has represented an unprecedented exchange of data on sharing scenarios, but sensitive and classified information requirements cannot be ignored. Technical analyses must address both issues of commercial access and mission effectiveness.
- (5) For that reason, we must institutionalize the cleared personnel process that was undertaken in the previous CSMAC cycle. The clearance procedures that were undertaken in the past year do not represent a complete solution going forward.
- (6) To the extent sharing is a crucial option to address the findings in the President's Executive Order, we need to understand the time needed to develop the tools, technologies, and support databases that will allow that to happen. The FCC should be encouraged to issue an NOI on these techniques. An adequate budget for government agencies must be anticipated.
- (7) Lastly, we must find more experts who have very strong government experience to round out the CSMAC membership. Individuals with NASA- and FAA-based experience, as well as more DoD experts, would bring a welcome counterbalance of opinion to a group which can accomplish much and of which much expertise is expected.

Thank you for the opportunity to provide my point of view on the past CSMAC round. The enormous effort that many participants made laid the groundwork for an approach that will be a landmark in the history of spectrum sharing and clearing.