Project	IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>	
Title	Report on Findings Related to Establishing a Liaison with 802.22	
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Re:	E-mail requesting investigating liaison relationship.	
Abstract	Description of the activities of 802.22 which may warrant a liaison.	
Purpose	Allow 802.16 to make an informed decision regarding a liaison with 802.22.	
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Report on Findings Related to Establishing a Liaison with 802.22

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Venue

802.22 met for the week of 19-22 May 2006 at the joint wireless groups' interim meeting in Jacksonville, Florida.

Background on 802.22

802.22 is a working group that is developing a standard for licensed exempt broadband wireless access in unused licensed spectrum in the band used for TV broadcast. Their primary difficulties surround detecting and avoiding interfering with the TV stations which are the primary licensed users of the band and detecting and avoiding licensed wireless microphones which are a secondary licensed user of the band.

Relevant Findings

There are two 802.22 documents that are particularly relevant. IEEEP802.22/D0.1 http://ieee802.org/22/private/2006_May/22-06-0068-00-0000_P802-22_D0-1.pdf "IEEE P802.22™/D0.1 Draft Standard for Wireless Regional Area Networks Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Policies and procedures for operation in the TV Bands," is their working document. It is on the 802.22 password protected portion of their website, but they honour the reciprocity between the 802 wireless groups, so the 802.16 username and password will work. The presentation IEEE802.22-06/0069r2 http://ieee802.org/22/Meeting_documents/2006_May/22-06-0069-01-0000_P802-22_D0-1_slides.ppt "Draft PHY/MAC Specification for IEEE 802.22," summarizes the contents of the working document.

As can be seen, 802.22is based upon 802.16 and needs to solve a number of the same issues that 802.16 must solve when operating in a licensed exempt fashion or in a non-exclusively licensed band. In particular, they must:

- Detect and avoid incumbents
- Detect other systems of like technology
- Possibly detect other systems of unlike technology

While the actions necessary for detection of some of the incumbents in particular are quite different from any requirements placed on basic 802.16 compliant systems, the actions taken and the messaging used to convey information between the BS and SS need not be overly different. Additionally, 802.22 is augmenting 802.16 in certain areas. It appears that it could be beneficial to entities interested in both traditional 802.16 and 802.22 if these problems were solved in a common or at least similar way.

It may be best for those interested in both groups to attend both groups. The chair of 802.22 was not overly open to a liaison with 802.16, and even though 802.22 is based on 802.16, numerous attendees of 802.22 expressed the opinion that there was no reason for them to do anything to maintain similarity between the two.