To:	Industry Canada, FCC, NTIA, CITEL PCCIII, USJTG 4-7-8-9, MPT, Australia, China. (Head of delegations ITU-R WP7c)
Cc:	Jamshid Khun-Jush, Dr.-Ing., Chairman of ETSI Project Broadband Radio Access Networks [MMAC]

Date:	January 17,2001
Subject:	Liaison statement on sharing studies for EESS and RLAN systems in 5460 – 5570 MHz

This document is a position paper from the following working groups of the IEEE Project 802, the Local and Metropolitan Network Standards Committee:
[IEEE Working Group 802.11 for Wireless Local Area Networks, and]
[IEEE Working Group 802.15 for Wireless Personal Area Networks.]

1. Introduction

IEEE 802.11 has recognised the importance of the work ongoing within ITU-R to allocate spectrum within the 5GHz band to the mobile service in WRC 2003 for the use of RLAN's. As part of this work draft PDNR's have been prepared for sharing between the EESS and RLAN's in the 5250–5350 MHz.

Resolution 736 from WRC 2000, covers the allocations within the band 5150 –5725 MHz one of the resolves states the following request:

- *additional primary allocations for the Earth exploration-satellite service (active) and space research service (active) in the frequency range 5 460-5 570 MHz;*

It has been suggested that the same EESS characteristics and sharing scenarios be used when drafting new PDNR's for sharing between EESS and RLAN's in the 5460-5570 MHz. In the case of sharing with SAR's this will lead to the same restrictions as previously adopted in the 5250 – 5350 MHz.

IEEE 802 would like to request clarification on the characteristics and interference criteria that are expected to be used in the 5460-5570 MHz band. Below are some EESS characteristics on which IEEE 802 would like to have clarification.

2. EESS Parameters/Characteristics

- Which of the SAR's are to be used in the 5460-5570 MHz band?

- What is the Bandwidth of EESS in 5460- 5570 and what are their center frequencies?

- What is the minimum SNR required by the different EESS systems in 5460 – 5570 MHz?

- What is the maximum interfering signal before degradation of wanted signal, if you use X% of degraded SAR pixels to calculate signal degradation? If using this method, what would be the distribution of interference from RLAN networks?

- What is the significance of the processing gain used in previous sharing studies between EESS and different spaceborne services? Can this Processing Gain be used in the RLAN studies?

IEEE 802 would also be pleased to investigate the effect that Dynamic Channel Selection (IEEE 802.11's term for Dynamic Frequency Selection, DFS) will have on sharing between outdoor RLAN systems and EESS and is happy to consider any comments you might have on this matter.

With best regards,

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