# Minutes of the IEEE P802.11 PHY Group Meeting
# Orlando, Wednesday July 13 1994

FH PHY Report

The FH group have approved the minutes of the Oshawa meeting. Major discussions on CCA have taken place, the principle of scrambling was accepted, as was a polynomial for such scrambling.

CCA has been adopted under the conditions that any 802.11 compliant signal greater than -85dBm will cause a channel busy signal to be passed to the MAC, with a 90%[tbc] probability of detection for preamble in [16]us, and with a 70%] probability of detection for random data.figures [] are tbc.

DSSS PHY report.

The DSSS group have specified a vector space mask. Work has progressed on CCA, and a system has been produced based on a threshold energy detection level combined with carrier sense and timing.

IR PHY report

Many items were needed to be discussed, and little progress has been made.

CCA report to MAC

It was asked if the FH group would accept a "time out" on CCA. It was stated that this was implementation dependent, and it was not ruled out in the decisions so far made at the FH group.

It was pointed out that there was a finite probability of the CCA failing. It was stated that the FH time of 16us for CC detection was provisional. The DSSS probability of detection with a 10*-3 probability of false alarm at an input of -67dBm is 10us.

The IR PHY CCA response time will be about 12us.

Multiple Rate Issues.

Major discussions accurred in the MAC/PHY Interface group. A suggestion was made that the PHY groups were looking for leadership from the MAC group as to what they wanted done at the PHY level. It was said that there had been some confusion at the FH High Speed group, and a motion was being prepared to define the PLCP field such that multiple rates could be accepted. This appears in doc.94/050 (all revs). The merging of some concepts in doc 94/157 could be useful. MAC-PHY Interface primitives and LME hooks are required.

Bit Ordering.

The choice is MSB or LSB first. On a Straw Poll, MSB first is desired by 7,LSB by 2 and 17 don't care.

Various arguments were advanced for both approaches.

Conformance Testing

It was stated that each PHY will produce a common air interface. Testing will be done by taking a conformant transmission distorted in a conformant channel model, and applying it to the receiver, which will provide a given performance level.

It was reported that some recommendations have been prepared by NTIA regarding the test conditions, using a Geometric Objects Test Channel. Questions were raised about the accuracy and applicability of such models.

Proposal to adjourn by Peter Chadwick, seconded Dean Kawaguchi, carried by acclamation.