Technical Specification Group, Radio Access Network
Meeting #4, Miami, 17-19 June 1999

TSGR#4(99)3

Source: **Golden Bridge Technology**

Title: **CPICH for acquisition purposes**

Document for: **discussion/decision**

Agenda Item:

Abstract

GBT would like to propose the following change to the text R199-677 document "Impact of OHG harmonization recommendation on UTRA/FDD and UTRA/TDD," so that the possibility of using the CPICH for acquisition purposes is not eliminated. Various modulating sequences could be used to serve as the second step in the acquisition process. The modulated CPICH channel could also be used to establish quick frame reference without going through the three step process as well.

Proposed change to Tdoc R199-677

Current text:

"Common Pilot Channel (CPICH)

The CPICH is a new unmodulated (SF=256) down-link physical channel used by the terminal equipment to perform searching and identification (3rd step) as well as channel tracking and channel estimation. The frame structure of the CPICH is illustrated in Figure 2. The CPICH is transmitted continuously (100% duty cycle).
The base station always transmits one CPICH using a unique pre-defined OVSF. The base station may transmit additional CPICH to be used in support of transmit antenna diversity techniques or spot beams. Note that the current scrambling principle and synchronization procedure remain unchanged (i.e. different codes for different cell). In particular the 3rd step of synchronization procedure (determination of long code) is preserved."

Proposed change"

"Common Pilot Channel (CPICH)

The CPICH is a new **modulated** (SF=256) down-link physical channel used by the terminal equipment to perform searching and identification (3rd step) as well as channel tracking and channel estimation and **possibly to aid acquisition**. The frame structure of the CPICH is illustrated in Figure 2. The CPICH is transmitted continuously (100% duty cycle).
The base station always transmits one CPICH using a unique pre-defined OVSF. The base station may transmit additional CPICH to be used in support of transmit antenna diversity techniques or spot beams. Note that the current scrambling principle and synchronization procedure remain unchanged (i.e. different codes for different cell). In particular the 3rd step of synchronization procedure (determination of long code) is preserved."