

**EE/CpE 423-424
WEEKLY STATUS REPORT**

Group #	09	Week ending:	11/02/03	Report #	07
Project Title:	GPS Mass Transit Tracker				
Group Leader:	Andrew Zimmer	Advisor:	Prof. McNair		
Sponsor/Client:					
Total number of person-hours spent on project by group during past week:				26	
Is project on schedule?		Yes	[x]	No	[]

Weekly status:
<p>This week we focused on the performance requirements of our communications link. It has become quite apparent that the 56Kbps transfer rate of the current transceiver is much more bandwidth than our system would require. We estimate each transceiver must transmit between 12 and 15 bits per second. Thus, more research is being conducted to find a transmission link with a much lower bandwidth. Hopefully, this will also lead to lower hardware costs as well.</p> <p>In evaluating the Coyote DataCom CDR-915, other questions were brought up about the dynamic ad-hoc network. These questions stemmed from two areas:</p> <ol style="list-style-type: none"> 1. How will the network determine when a transceiver needs to act as a repeater for another that is out of range? 2. Will a data buffer be required for each receiver? <p>Fortunately, we have a unique network where we can track the latitude/longitude and the transmission time. We will be discussing algorithms this week for how we can use this information in the most efficient way for our network. Also, we will probably need to utilize a microprocessor in conjunction with the transceiver to buffer and determine when a signal needs to be repeated. This will also provide a method for implementing the logic required to set up our network protocol and algorithms for transmission.</p>

Weekly report is due to Senior Design Coordinator by Noon Monday