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L. William Kazmierczak* (lkazmier@stevens.edu), 1321 Washington Street Apt. 5A, Hoboken, NJ 07030, and **Frank Boesch, Daniel Gross** and **Charles Suffel**. *A Forbidden Subgraph Condition on the Complement of a Graph that Ensures Minimum Diameter.*

In packet-switched computer networks, the path length between two nodes is proportional to the delay. Consequently, if such a network is modeled by a simple graph the graph should have a minimum diameter. In this talk, we will show that any connected graph having a specific complete bipartite-free complement has diameter at most three. It is also shown that this forbidden subgraph condition ensures a diameter of at most two for any almost regular graph. We conclude with the impact of these results on two vulnerability parameters, connectivity and component order connectivity. (Received February 26, 2007)