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Sharon Brueggeman* (Sharon-Brueggeman@utc.edu). *Martinet Searches and Some Nonexistence Theorems*. Preliminary report.

I will discuss the progress of proving nonexistence results for various number fields made by several people during the past year. These fields would have been extensions of quadratic fields with nonsolvable Galois group and ramification set $\{p, \infty\}$ where p is a prime < 11 . Techniques include improved bounds on discriminants - both upper (J. Jones) and lower (myself and D. Doud) - as well as targeted Martinet searches (E. Driver). (Received September 20, 2006)