1077-11-1736 **Enrique Trevino*** (`etrevin1@swarthmore.edu`), 510 Elm Ave, Swarthmore, PA 19081. *On the maximum number of consecutive integers on which a character is constant.*

Let $\chi$ be a non-principal Dirichlet character to the prime modulus $p$. In 1963, Burgess showed that the maximum number of consecutive integers $H$ for which $\chi$ remains constant is $O(p^{1/4}\log p)$. This is the best known asymptotic upper bound on this quantity. Recently, McGown proved an explicit version of Burgess's theorem, namely that $H < 7.06\, p^{1/4}\log p$ for $p \geq 5 \cdot 10^{18}$. By improving an inequality of Burgess on character sums and using some ideas of Norton, we were able to improve the result to $H < 1.55\, p^{1/4}\log p$ whenever $p \geq 2.5 \cdot 10^{9}$, and $H < 3.64\, p^{1/4}\log p$ for all $p$. (Received September 20, 2011)