962-52-1233 **Bernardo M Abrego** (`abrego@math.rutgers.edu`), Department of Mathematics, Hill Center, Rutgers University, 110 Frelinghuysen Road, Piscataway, NJ 08854, and **Silvia Fernandez*** (`sfernand@math.rutgers.edu`), Department of Mathematics, Hill Center, Rutgers University, 110 Frelinghuysen Road, Piscataway, NJ 08854. *Unit chords of a convex body.* Preliminary report.

For every convex body C with boundary ∂C we consider the set U_C of unit segments whose endpoints belong to ∂C (we call these segments unit chords). We show that under certain geometric conditions on C, there is a function $f : U_C \to \partial C$ assigning to each chord in U_C one of its endpoints, and with the property that each point in ∂C is the image of at most six chords. As a consequence, any n points in ∂C determine at most $6n$ unit distances. (Received October 02, 2000)