1011-05-190 **Henry H Glover*** (glover@math.ohio-state.edu), Math Dept, OSU, 231 W. 18th Ave., Columbus, OH 43210, and **Dragan Marušič** (dragan.marusic@guest.arnes.si), IMFM, University of Ljubljana and University, of Primorska, Koper, Ljubljana, Slovenia. *Hamilton paths in cubic Cayley graphs.*

Following a problem posed by Lovász in 1969, it is believed that every connected vertex-transitive graph has a Hamilton path. This is shown here to be true for cubic Cayley graphs arising from groups having a $(2, s, 3)$-presentation, that is, for groups $G = \langle a, b | a^2 = 1, b^s = 1, (ab)^3 = 1, \text{ etc.}\rangle$ generated by an involution a and an element b of order $s \geq 3$ such that their product ab has order 3. More precisely, it is shown that the Cayley graph $X = Cay(G, \{a, b, b^{-1}\})$ has a Hamilton cycle when $|G|$ (and thus s) is congruent to 2 modulo 4, and has a long cycle missing only two vertices (and thus necessarily a Hamilton path) when $|G|$ is congruent to 0 modulo 4. (Received August 26, 2005)