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Oleg Friedman* (oleg.friedman@touro.edu), Department of Mathematics, Lander College for Men / Touro, 75-31 150th Street, Kew Gardens Hills, NY 11367, and **Alexander A Katz** (katza@stjohns.edu), Dep. of Math&CS, SJC, St. John's University, 8000 Utopia Parkway, SJH-334-G, Queens, NY 11439. *Equivalent definitions of real locally C*-algebras.*

We establish the following main result in the sequel: For a complete real lmc *-algebra A the following conditions are equivalent:

- 1) A is a strongly regular real lmc *-algebra.
- 2) A is a projective limit of a projective family of real C*-algebras equipped with projective topology.
- 3) A is topologically real *- isomorphic and homeomorphic to a closed *-subalgebra of real admissible operators $L(\mathbf{H}^R)$, where \mathbf{H}^R is a real locally Hilbert space.
- 4) A is topologically real *- isomorphic and homeomorphic to a closed real *-subalgebra of admissible operators $L(\mathbf{H}^C)$, where \mathbf{H}^C is a locally Hilbert space.
- 5) Let $B = A + iA$ be a complexification of A . There exists a topology τ_B on B , such that
 - a) $\tau_B|_A = \tau_A$ (A naturally embedded in B).
 - b) (B, τ_B) is complex locally C*-algebra. (Received September 18, 2019)