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The GlueX Barrel Electromagnetic Calorimeter[1] ZISIS PAPANDREOU, GEORGE LOLOS, ANDREI SEMENOV, Department of Physics, University of Regina, GLUEX COLLABORATION — The goal of the GlueX experiment at Jefferson Lab is to search for exotic hybrid mesons as evidence of gluonic excitations, in an effort to understand confinement in QCD. A key subsystem of the GlueX detector is the electromagnetic barrel calorimeter (BCAL) located inside a 2-Tesla superconducting solenoid. BCAL is a "spaghetti calorimeter," consisting of layers of corrugated lead sheets, interleaved with planes of 1-mm-diameter, double-clad, Kuraray SCSF-78MJ scintillating fibres, bonded in the lead grooves using optical epoxy. The detector will consist of 48 modules and will be readout using nearly 4,000 large-area (1.26 cm^2 each) silicon photomultiplier arrays. BCAL construction is well under way at the University of Regina and test results will be shown.

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