Meeting: 1000, Albuquerque, New Mexico, SS 2A, Special Session on Several Complex Variables and CR Geometry

1000-32-123 **P. S. Harrington*** (pharring@usd.edu), Department of Mathematical Sciences, 414 E. Clark Street, Vermillion, SD 57069. *Compact Solution Operators for $\overline{\partial}_b$.*

I will present a sufficient condition for the existence of a compact solution operator to the $\overline{\partial}_b$-complex on a real hypersurface. This condition arises from considering strictly pseudoconvex perturbations of the hypersurface, and works even when the hypersurface is only C^2-smooth. A slightly stronger condition is sufficient for compactness on Lipschitz hypersurfaces with strictly plurisubharmonic defining functions. (Received August 20, 2004)