Abstract Submitted
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**Development of the Zebra load region for increased capability plasma diagnostics and improved Leopard laser access**[1] ALEXEY ASTANOVITSKIY, R. PRESURA, UNR, V.V. IVANOV, A. HABOUB, UNR, C. PLACHATY, J.M. KINDEL, UNR, 1 TEAM — A new geometry for the load area in the Zebra (1MA pulse generator) is developed. It will form the basis for future experiments requiring Leopard (1057nm, 50TW laser) to Zebra coupling and give extended capability to z-pinch diagnostics. This required the development of a new current return, which allows laser access and installation of the OD 4" parabolic mirror for the x-ray radiography, isochoric heating and magnetized plasma experiments, and accommodates wire-array z-pinch loads, to which the laser may then be coupled. In addition, this configuration allows diagnostics access close to the plasma, leading to a significant increase of the spatial resolution for imaging of z-pinches, as well as the photon flux in imaging and spectroscopy of laser produced plasmas. These diagnostics will allow coupling of the Leopard beam for x-ray laser probing of the pinch plasma and we will test point-projection x-ray backlighting of the pinch plasma.

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