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### **Diode Pumped Alkali Laser for Defense**

RANDALL KNIZE, US Air Force Academy

This talk will review the renewed interest in laser directed energy weapons for military applications. Current research is focused on solid state, fiber and gas lasers. A relatively new gas laser is the diode pumped alkali laser (DPAL). Gas lasers have one advantage for high powers since the gain medium can be flowed to prevent excessive heating. The DPAL CW laser operates using either cesium, rubidium or potassium vapor and converts the output of many incoherent diode lasers into a high power coherent beam. The history and recent results in diode pumped alkali lasers will be reviewed. It is possible that the 21st century might see the actual application of the Buck Rodgers ray gun.