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Space Science at Los Alamos National Laboratory KARL SMITH, Los Alamos National Laboratory — The Space Science and Applications group (ISR-1) in the Intelligence and Space Research (ISR) division at the Los Alamos National Laboratory lead a number of space science missions for civilian and defenserelated programs. In support of these missions the group develops sensors capable of detecting nuclear emissions and measuring radiations in space including  $\gamma$ -ray, X-ray, charged-particle, and neutron detection. The group is involved in a number of stages of the lifetime of these sensors including mission concept and design, simulation and modeling, calibration, and data analysis. These missions support monitoring of the atmosphere and near-Earth space environment for nuclear detonations as well as monitoring of the local space environment including space-weather type events. Expertise in this area has been established over a long history of involvement with cutting-edge projects continuing back to the first space based monitoring mission Project Vela. The groups interests cut across a large range of topics including nonproliferation, space situational awareness, nuclear physics, material science, space physics, astrophysics, and planetary physics.

> Karl Smith Los Alamos National Laboratory

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