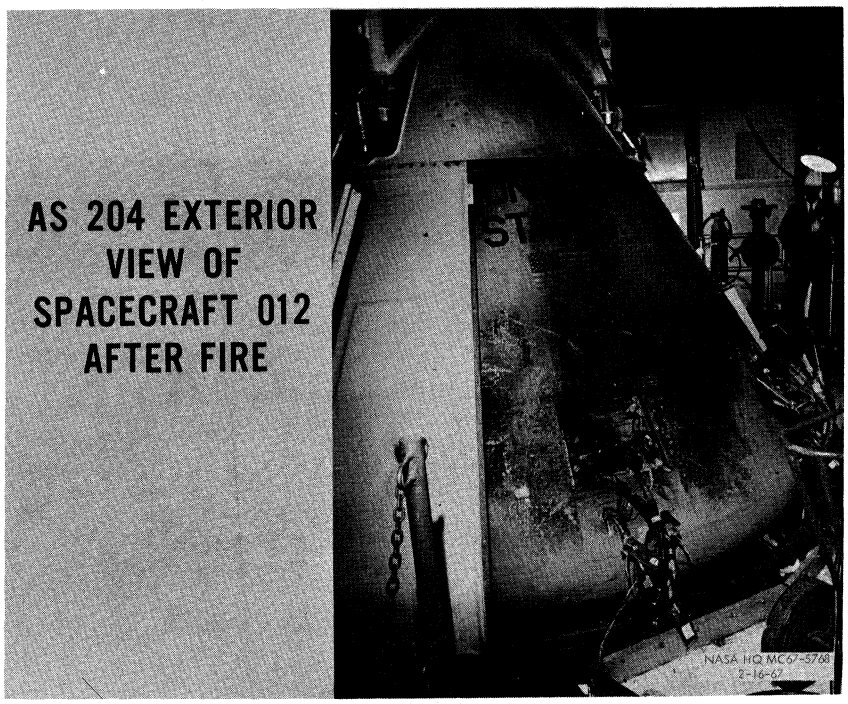

FIGURE 12

spacecraft and the control spacecraft was undertaken on a parallel, step-by-step basis.

In addition to analyses of recorded and physical data and equipment, the Board defined a series of investigative tasks and assigned them to 21 panels for execution. To date more than 1,500 individuals, from nine government agencies and departments in addition to NASA, from 31 industrial groups, and from several universities, have participated in this review and analysis.

Phases of fire

The Board has not identified the source of ignition. By the time it has completed its final report, it expects to have significantly narrowed the list of ignition sources that had a relatively high possibility of contributing to the initiation of a fire, but the possibility exists that no single source will ever be pinpointed.

Present evidence indicates that the fire had three distinct phases. The fire originated in the left, or command pilot side, in the front corner of the spacecraft, near the floor. It probably burned for several seconds without being noticed by the crew or recorded on instrumentation. Because it was below the couch level it was not visible at this stage. The fire spread and fed on nylon netting (installed to prevent objects from floating into equipment crevices while in zero g), Velcro fastening material (used to fasten equipment to the spacecraft interior), and the Environmental Control Unit insulation. The cabin pressure began to rise rapidly as the atmosphere became heated reaching an internal pressure estimated at 36 pounds per square inch, and the sealed cabin ruptured.

With the rupture of the cabin and the rush of flame and gas outside, the oxygen content of the cabin atmosphere was quickly reduced and the fire smoked heavily, laying a film of soot on many interior surfaces. This final phase of the fire was also characterized by continued localized burning. The environmental control system uses a water/glycol coolant that leaked from burnt or burst pipes. Both high and low pressure oxygen lines were connected with solder joints that