

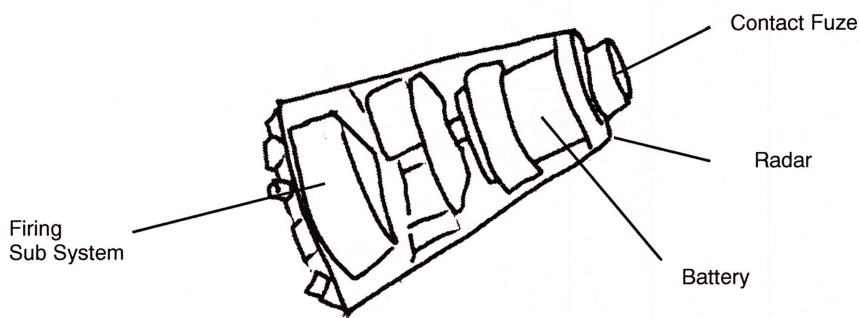
MC2912 AF&F (W76-0)

The MC2912 is the AF&F system currently deployed on US W76-0 warheads and probably also on UK Trident RBs. There appear to be concerns about some components of this system. Particular attention was paid to the AF&F during dual revalidation of the W76. In the course of the review 19 AF&F systems were disassembled and tested. A series of computer models of the MC2912 have been produced with increasing levels of detail.

MC4700 AF&F (W76-1)

The MC4700 is a new AF&F designed for the W76-1. It will modernise the system so that it is comparable with the AF&F in the W88 warhead. Computer support for the new design has been at the forefront of simulation work within the nuclear establishment and has been the focus of the High Performance Electrical Modelling and Simulation (HPEMS) effort.

Conceptual Model of MC4700 AF&F



The sections below describe components of both the MC2912 and the MC4700 AF&F systems.

Programmer

At the heart of the AF&F is a programming module. This controls the components of the warhead. The diagram is from a DOE paper. It is titled "Joint DOE/DoD Stockpile to Target Sequence". It shows the sequence of actions carried out by the AF&F system in a Trident warhead, possibly the W88. The W76-1 is likely to use a similar sequence.

