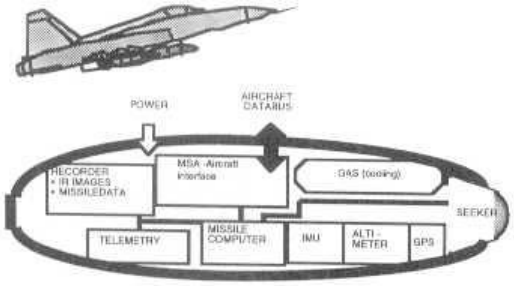

Figure 4.2 POD flights

4.3 Technical evaluation firings

When the whole missile system (launcher with missile and MSA) is ready for technical evaluation firings, some of these tests will be done without an actual weapon platform, but rather from a fixed installation. To perform these evaluation test firings, NSM will get its stimuli from a weapon platform simulator built into SIMEN. In these tests there will be a weapon platform simulator together with an actual launcher with the missile to be fired, an actual missile system administrator and the real test environments.

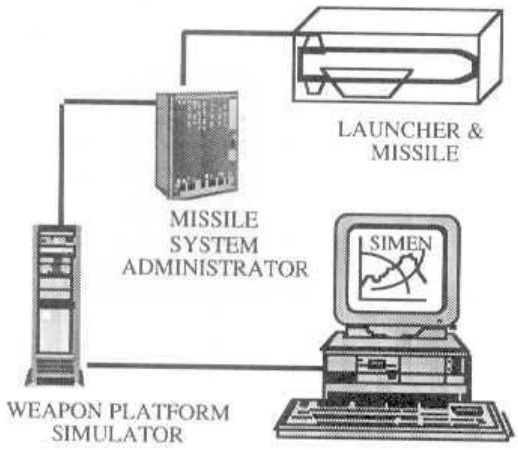

Figure 4.3 Weapon platform simulator

Test firings from a simulator mounted on a dummy weapon platform will serve as part of the final verification of the missile system. But before we reach this point in the program, a huge number of simulations for test and verification of sub-functions of the system will have been done with other parts of SIMEN.

4. DEVELOPMENT METHODS

SIMEN will be the main development and test tool for NSM. This will require development methods which are at least as good as the standards for the missile system components. Integrated teams will help us develop models which coincide with the real behaviour of the system. In addition, the system will be updated with new data from other tools and tests. SIMEN will be put under configuration control so that every version is reproducible.

5. CONCLUSION

Throughout the project, the focus and use of SIMEN will change from purely numerical design simulations to fire-control unit simulations used for verification of the missile system at test firings. SIMEN will also be an important tool in connection with possible mid-life updates of missile system components.

SIMEN will be well modularised, and, with minor changes, it can be used to simulate any other system with similar characteristics (e.g., new missile systems, operator trainer). This will give us a head start for future development programs in KONGSBERG GRUPPEN ASA.
But first SIMEN will be a very important tool to ensure the success for the NSM project!