MISTRAL STATUS REPORT

(November 20, 1995)

Installation

The installation of the spectrometer at Orsay is completed since June 1995. At that time, two new components were still under contruction: the reference ion source and the RF modulator.

The ion source

Nowadays, the 60 kV ion source system is running, providing a 3 nA beam of Ne^+ which is used for the setting-up of the trajectory. Some high voltage leakages are related to the outgasing of the discharge chamber materials, it is the cause of a limited duration of operation. To overcome this problem, a new discharge chamber is under machining.

Software

The software for the control of the electrostatic and magnetic parameters is ready to be used. The need to introduce an impedance transformer on each of the 64 channels is delaying the availibility of the system. The data acquisition software is ready to be tested, this will be done when the RF system will be running.

RF amplifier and modulator

The delivery of the 1 kW, 250 - 500 MHz power amplifier is sheduled before the end of November. The mechanical parts of the RF modulator "body" are ready to be assembled. The construction of the modulator "heads" designed to cover the full mass range is completed. The test of the RF system at low power should take place in December before the last electron bombardment welding. Next, the test at 1 kW of RF power will be carried out, probably at the end of January 1996.

Time table

The beam transmission and the mass resolving power should be optimized from February to April 1996.