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22 March, 1983

MEMORANDUM FOR THE RECORD

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FROM : [redacted] Chief Remote Computer Facilities

SUBJECT : IDM 500 Maintenance Course.

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On 13 March 1983, [redacted] and myself traveled to Los Gatos California to attend the IDM 500 Maintenance Course. This course is designed mainly for field engineers and maintenance personnel and taught by Britton Lee product support engineers. Although the instruction was at times very technical, we were able to gain quite a lot of hands on experience and knowledge. This knowledge along with the excellent handouts on the IDM 500 has helped put the hardware in a perspective that is understandable. We are now much better prepared to write the operating procedures we will need to begin running the IDM 500.

The Britton Lee instructors made very little mention of running the IDM as a back end processor to a large mainframe system. When we questioned them on this subject we realized that their knowledge of such things as the Auscom Interface was very limited. The course material concentrated on the hardware and firmware of the IDM 500 with attached disk and tape drives.

The course agenda began with a brief description of the IDM 500 and how the company got started. We were then given a tour of the Britton Lee manufacturing plant that included viewing the creation of an IDM 500 from beginning to quality assurance testing and shipping. The afternoon session covered Disk Configuration, Format Routines, System Booting and IDM Commands. This session which carried through the second day, proved to be the most informative instruction of the course. It cleared up some gray areas and allowed us to view the IDM as a standalone CPU capable of storing and retrieving data from both memory and disk. After completing each classroom session, we were given hands on time with the IDM to practice what we had covered. We were allowed to take the IDM apart and put it back together, including connecting the disk and tape drives and the system console. These hands on exercises helped put everything we covered in the classroom in the proper perspective.

The remainder of the agenda covered Theory of operation of each board followed by trouble-shooting and diagnostics work shops. The material in these session was of the OHMS and RESISTORS variety and for the most part over our heads. The work shops were valuable because enabled us to actually load the diagnostics from disk, tape and floppy disk and view the IDM console response. Britton Lee admits that their diagnostics are still in development. They have completed a very user friendly version of the Tape Controller Diagnostics which we were allowed to try out. The Disk Controller Diagnostics should be completed in Revision 27. These diagnostics enable the operator to

follow a series of prompts and look for standard responses from the IDM. If an improper response is received you are alerted that this is the problem area. The diagnostics are designed to trace bad areas on the various boards which makes them more applicable to shops that will repair their own boards.

To summarize the IDM 500 Maintenance Course, I would say that we gained sufficient knowledge and experience to make it worth the time and expense. I would recommend this course in it's present form to the Operations Division System Technicians simply because if nothing else they will come away with a good understanding of how the IDM works. This knowledge will put them in a much better position to make decisions concerning the IDM. It will also qualify them to talk to support personnel with confidence about steps to correct IDM problems. I would also recommend this course to the Engineering Division personnel who will be involved in configuring and maintaining the IDM 500. A condensed version of this course leaving out the very technical material would be good for the Operators. The basis knowledge needed to effectively run the IDM 500 could be gained from such a course.

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[Redacted Signature]

Chief, Remote Computer Facilities Branch

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[Redacted Signature]

Computer Technician, CAMS2 Computer Facility

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[Redacted Signature]

(25 March 1983)