REPORT OF ASSISTANCE

TO: ~~Mr. A. B. Smith~~ W. L. Schultz - 751-2   March 9, 1962

BRANCH OFFICE: 252 Minneapolis, Minn.
                 135 Detroit (North), Mich.

MACH. TYPE/SERIAL(S): 1401-25075; 1405-10185; 1407-
                       10238 (Minn.)
                       1401-25117 (Det.)

DATE: From December 12, 1961 to December 21, 1961

PURPOSE OF TRIP: To field ~~merge~~ 1405 and 1407 and to activate
                 process overlap. Minneapolis
                 Activate process overlap. Detroit

PERSONNEL CONTACTED: POSITION AND OFFICE:

Mr. John Maske   CE Mgr.-District 12 Minn.
Mr. I. B. Knutson   CE Mgr.-BO 252   "
Mr. N. Goodwin   Field Mgr.-BO 252   "
Mr. V. H. Carlson   Mgr.-Dist. Ed. Center   "
Mr. R. T. Firtko   Sup. Eng. and Test
                             Center Coordinator   "
Mr. J. Booker   Regional Mgr. - Midwest Region
Mr. B. Peratt   DPCE Inst. - Rochester, Minn.
Mr. D. O. Dahlquist   Tech. Spec. - BO 252 Minn.
Mr. D. Gustofson   CE Mgr. BO 252
Mr. W. O. Nickols   CE Mgr.-BO 135 Detroit
Mr. I. Vaughn   Field Mgr.-BO 135 Detroit

SUMMARY:

I was sent to Minneapolis to install a 1405 and 1407 and to assist John
Pokoski in activating process overlap. We were then to proceed to
Detroit and activate process overlap on a system there.

Minneapolis: We installed the conversion bills and found the following
discrepancies.

    Cable 722982 - the Winchester connectors for the Romar attach-
    ment were missing.

March 9, 1962

The following cards were missing in the B/M:

02A8-C06-371275)
02A8-C05-371259)   1407
02A8-F02-371070)
02A8-D11-371274)   1405

Power on the 1407: We were unable to set A reg. zone bits-bad card 02A8 C13-371071.

Also, a transposition in the I.F.C. F13 was in F03B on 02A9.

Inhibit "C" bit up solid caused by a bad card in 02A8 - D09.

The down on 01B2-F06A to +6 volts. Tied -T set AI latch from Inquiry off. There wasn't mention of this down on any part of the conversion bill or on the tie-down list.

We made mechanical adjustments on the 1407.

Transposition on C2 of the 1405 cable - pins 82 and 65 transposed.

Bad card 1405 - 01A1-C26 didn't test for access busy.

Cable 722980 from 02A8 D24 to Ramac connector was laced off upside down-transposed in connector.

Tie down 01B6 - C01A - C06K was not on the down list. Must be removed with installation of Ramac.

1405 - C09 01A2 - bad. The read oscillator kept changing frequency.

Bad card 01A1 in the 1401 - D24 sense amp for "2" bit went bad.

Unload valve in compressor plugged with chips unable to close.

1405 safety valve out of adjustment released without sufficient air pressure.

The 1405 and 1407 installation is complete.

The DVL's for bringing process overlap up to the correct E.C. level were added.

Trouble with Edit during process overlap caused by DVL 5023. The reverse scan trigger was slow turning off. We removed DVL as it was only necessary when overlapping the 1419.

01B4-Punch scan C13 latch not being reset caused only 1 punch scan.

Wire from B24H-E13B was on E23D. We think the wire was a secondary wire put back on the wrong jos.

Failing to overlap Col. Bin. and P.F.R. - trouble caused by two missing cable wires. Overlap cycle was not being sent over to gates ØlB7 and ØZB8. Missing wire from ØlB1-E02H to ØZA9 AØ3C and missing wire from ØZA9-A12F to ØZB0-EO3K.

Having trouble with overlaping the complement add with recomplement tests. Caused by missing F/B which changed +U Delta Overlap cycle or overlap cycle to T line. We corrected the problem with the following:

ØlB4	DØ4G-01F1*	- Remove
	DØ4G-E16E	- Add
	A18C-E16D	- Add
	E16G-E16A	- Add
	E16A-D14F*	- Add

The logics were drawn with the above change but the machine was not wired as per logics. (Both systems has the above problem)

We turned the system over to the CE's on Monday, December 18, and left for Detroit.

Detroit:

The DVL's for process overlap were installed by E. Misulich and R. Dunbam, Dept. 456.

ØZB1 - Wiring error FØ5G - E17G was on D17G. This brought process up before we finished with a punch scan. The system failed during combined ops.

ØlB8 - Extra wire BØ9A to B17H a previous F/B said to add this wire when it should have been removed.

Complement add with recomplement also failed on this system. The error listed on the Minneapolis job was also on this system.

Indexing during overlap failed with storage address errors. The system lead 8K storage. During a indexing operation the AB latch in indexing was set by the read and punch scan control which threw a validity error and caused the storage address errors. We tied process into the set of the latch so that it could not be set during an overlap cycle. This eliminated the "AB" bits in the read and punch scans from setting the latch.

March 9, 1962

System was turned over to the CE's on Wednesday, December 20, 1961; and we returned to Endicott.

COMMENTS:

The Diagnostic Test Write-ups for the 1405 decks were not sent with the 1405.

When replacing the read oscillator Ø1A2 - CØ9 in the 1405 we found two different settings for it in the 1405 Reference Manual.

IBM 1405 Reference Manual (227-5641-0) page 6°26 states the gap should be 900 ± 100 *micro-second* page 54 under file clock oscillators state the gap should be 650 ± 100 *micro-second*.

We set the osc. for a 5 *microsecond* pulse and the file performed correctly. Something should be done to correct this situation however.

Bruce Maney (WCE)

B. Maney.
GP Tech.

BM/mam
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     Mr. W. T. Hardin - 400
     Mr. S. T. Jenkins - 751
     Mr. E. J. Richards - 859
Mr. Gaymon & Santoro - 738
     Mr. O. Smith - 391
     ~~Mr. W. L. Schultz~~ 391
     Mr. H. Yerrick - 854
     Mr. J. Pokoski - 210
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