

WJF

S U P P O R T I N G T E R M I N A L
N E T W O R K S

RESPONSIBILITIES -

OURS

THE CUSTOMERS

(A) OUR RESPONSIBILITY IS TO FIX A DEFINED
FAULT IN OUR EQUIPMENT.

(B) THE CUSTOMERS RESPONSIBILITY IS TO
DEFINE THE FAULT.

(A)

WE HAVE

CONFIDENCE TEST

DATA COMM TESTERS

DTM 1000

CARD SWAP ABILITY

INVENTORY UNITS

BRANCH SPECIALISTS EX DCTF

WE ARE ALSO INVESTIGATING WHAT FURTHER TOOLS/
TESTERS MAY ASSIST US.

WE WILL SCHEDULE REGULAR SEMINARS DESIGNED TO
IMPROVE AND FURTHER DEVELOP BRANCH SPECIALISTS.

(B)

THE CUSTOMER MUST HAVE SOME NETWORK CONTROL.

IF THE FAULT CANNOT BE DEFINED WE SHOULD
CHARGE FOR F.E. TIME TO DO THIS FOR THE
CUSTOMER.

THERE ARE ONLY TWO BASIC TYPES OF FAULT -

ON-LINE

OFF-LINE

OFF-LINE FAULTS ARE OBVIOUS AND EASILY DEFINED.

ON-LINE FAULTS MAY BE QUITE OBSCURE

E.G. TERMINAL

MODEM

TELEPHONE LINE

CENTRAL SITE

TC4000 980 ANALYSIS FOR MARCH 76 - FEBRUARY 77.

	<u>OFF</u>	<u>ON</u>
TOTAL REPORTS	83 (65%)	45 (35%)
B's FAILURE	98%	55%
OTHER	2%	45%
AVE TIME	2.1 HRS (174.3)	2.6 HRS (117)

WE COULD HAVE SAVED 52.65 HRS OR 18% OF TOTAL MAINT. TIME

C H A L L E N G E

NETWORK CONTROL -
CENTRAL SYSTEM -
THE NETWORK -

CHALLENGE ACCEPT FULL RESPONSIBILITY TO DEFINE AREA OF FAULT

- TERMINAL (BURROUGHS)
(OR)
(~~DEC~~)

- MODEM (BURROUGHS)
(OR)
(RACAL)

- LINES (POST OFFICE)

- CENTRAL SYSTEM (BURROUGHS)
(OR)
(RACAL)
(OR)
(POST OFFICE)
(OR)
(OEM)

CHALLENGE WILL PURCHASE ANY ADDITIONAL EQUIPMENT REQUIRED.

NETWORK AS NOW DESIGNED WILL REMAIN FIXED FOR SHORT INITIAL PERIOD.

NETWORK NOT EXPECTED TO BE UNDER PRESSURE UNTIL JUNE 1977. HOWEVER, SOME REGIONAL CENTRES MAY BE UNDER SIGNIFICANT PRESSURE WELL BEFORE THEN.

- THE LEARNING CURVE WILL BE ACCEPTED.

CHALLENGE HAVE PRODUCED A "PACKAGE" FOR THEIR BRANCHES.

CONSISTS OF - PROCEDURES
 - CHECK LIST
 - TRAINING

WE WILL SEND COPIES TO ALL BRANCH F.E. MANAGERS.

MAKE SURE YOUR TERMINAL F.E's. ARE FAMILIAR WITH DETAILS.

IF WE UNDERSTAND THE "SYSTEM" WE CAN SAVE OURSELVES FROM EXCESSIVE LOST TIME.

NETWORK CONTROL - (IN BRIEF)

- ALL CALLS TO B's WILL ORIGINATE FROM N.C.
- USUALLY CALLS WILL BE RELAYED THROUGH THE CHALLENGE BRANCH TO THE B's BRANCH.
- N.C. WILL ENSURE ANY NECESSARY DATA WILL BE AVAILABLE BEFORE F.E. ARRIVES.
- N.C. WILL ALSO ADVISE W.L.A. BRANCH AND WILL EXPECT U.A.R. TO BE MAINTAINED FOR FULL NETWORK (SALES).
- N.C. WILLHAVE FULL STATUS OF NETWORK AVAILABLE AT ALL TIMES.

.....MAINTAIN PERFORMANCE LOG OF ALL

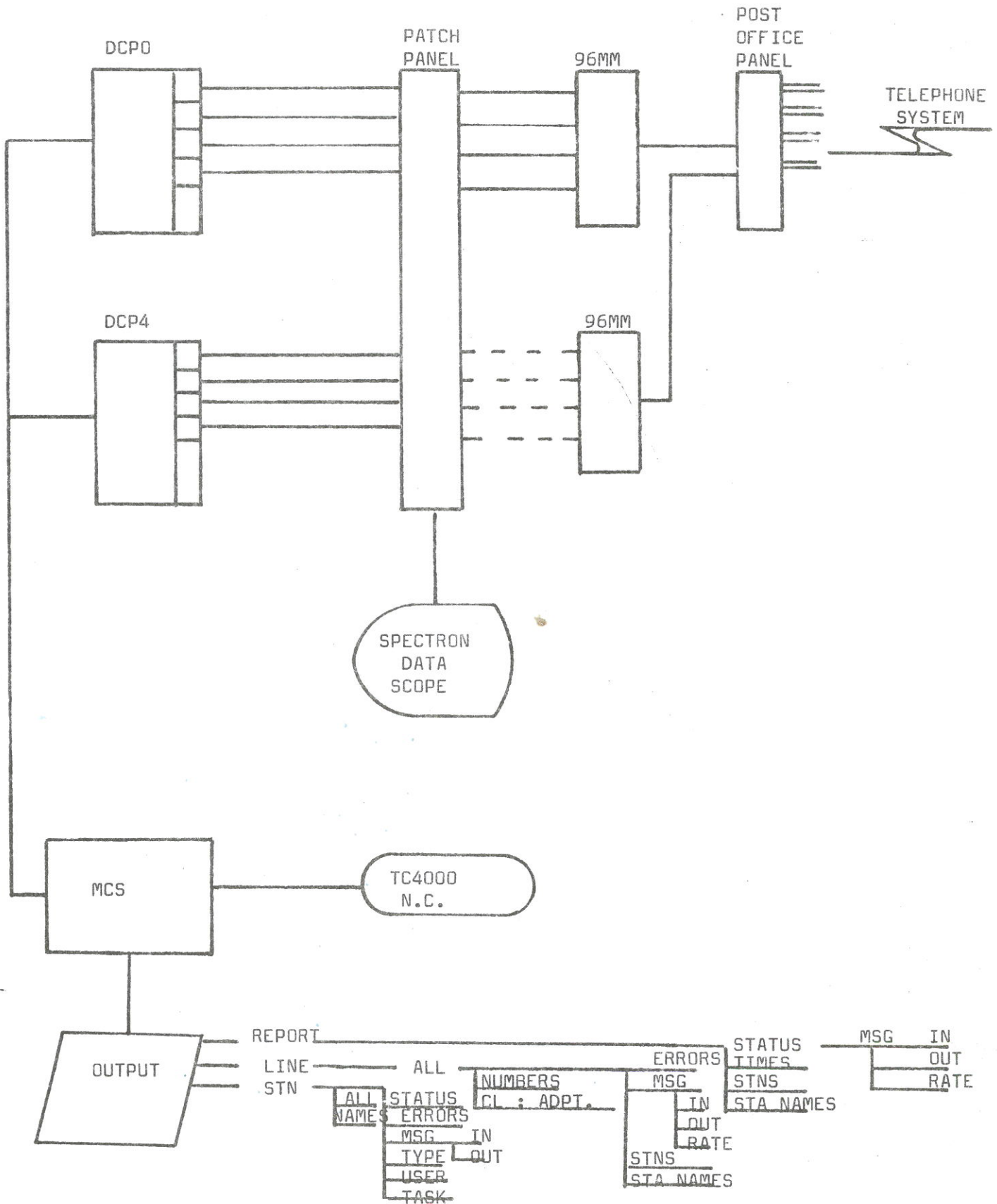
..TERMINALS

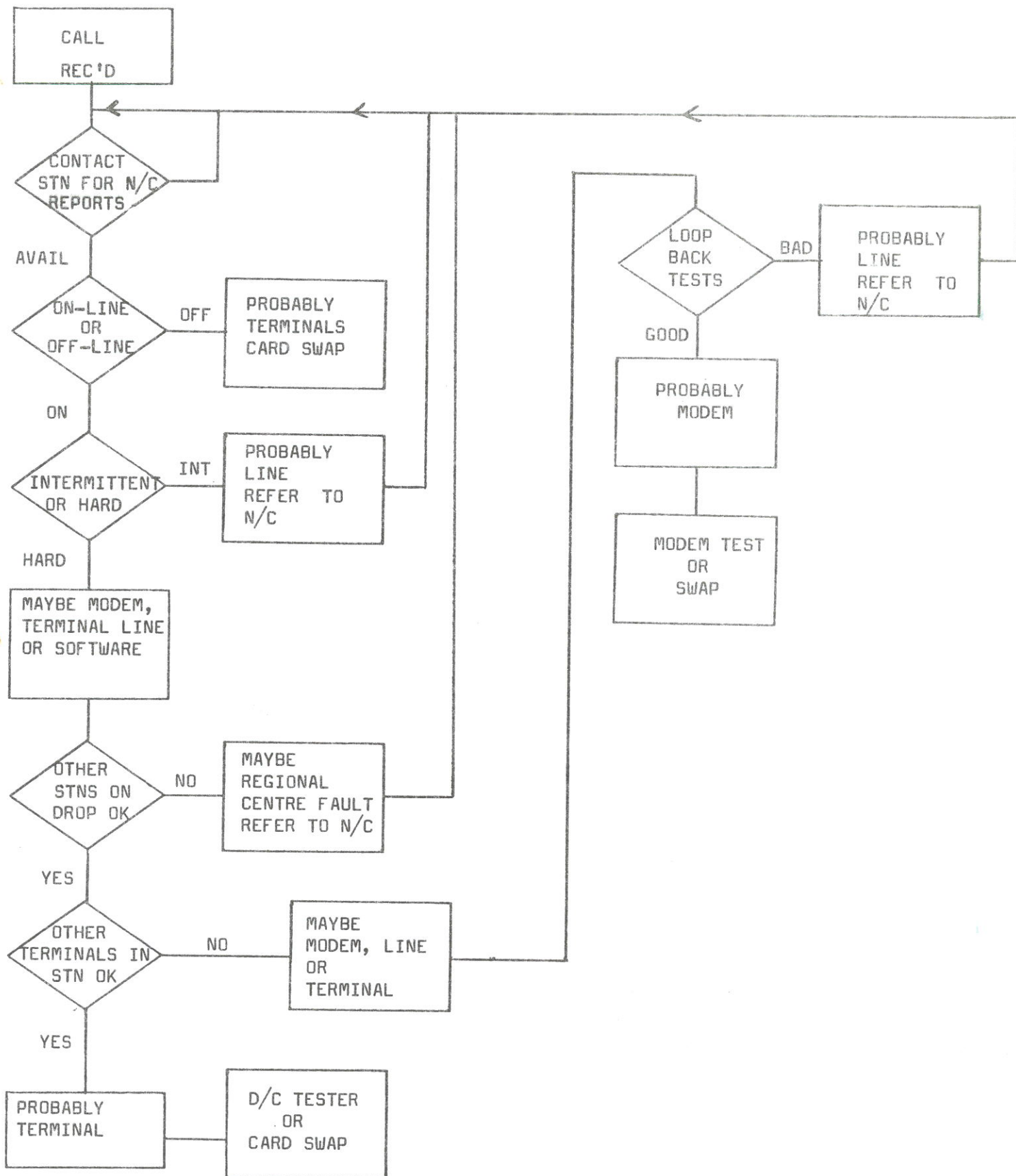
..MODEMS

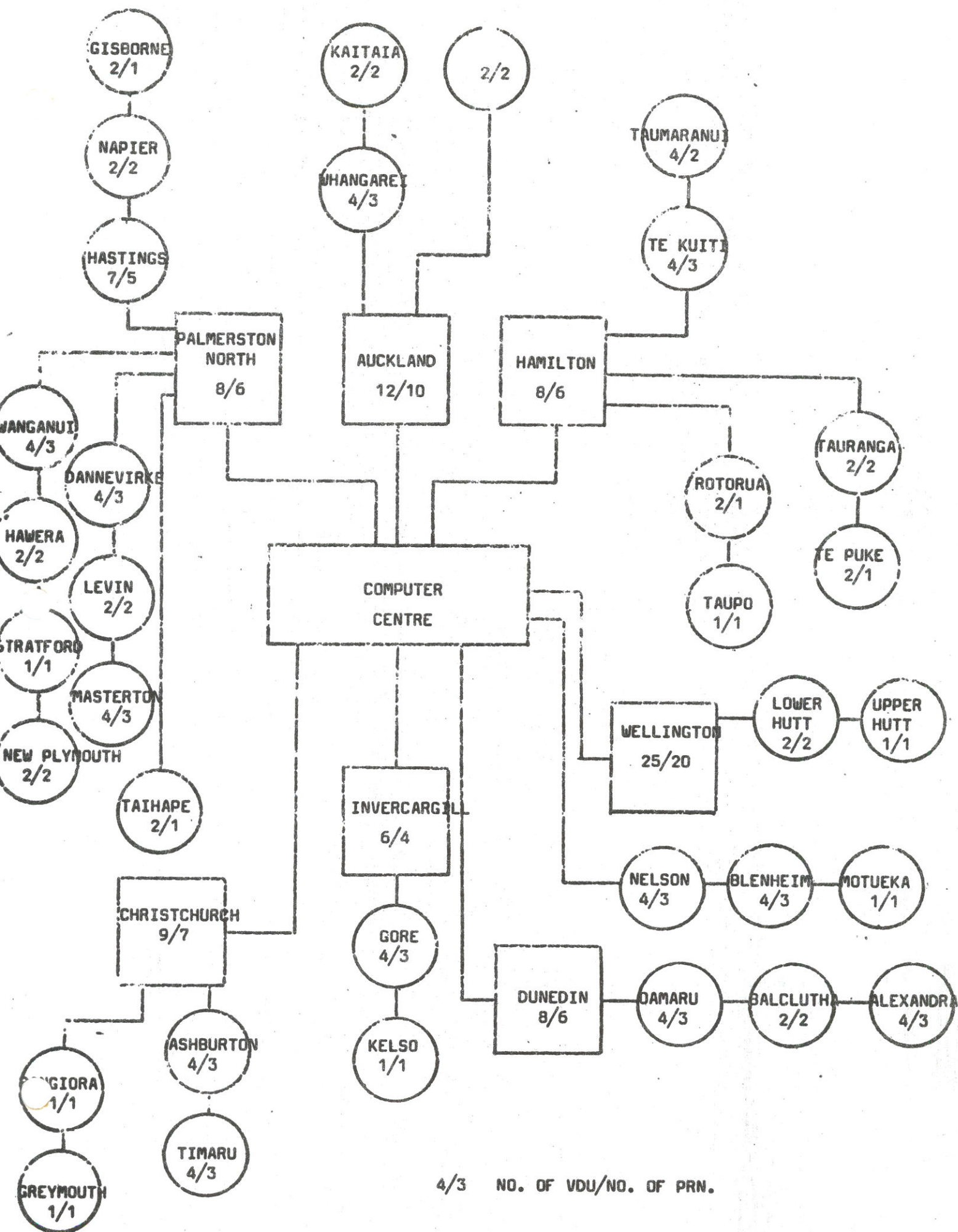
..LINES

.....MONITOR FAILURE RATES OF EVERY TERMINAL AND LINE.

CHALLENGE CENTREAL SITE







New Zealand Transformers Ltd.

TRANSFORMER TEST CERTIFICATE

The following transformers have been tested in accordance with BS171:1970.

Customer:

BURROUGHS LIMITED

Your Order No. ...21274.....

Works Job No. ...12029.....

.....50..... KVA3..... Phase50..... Hz
 Prim. Volts400..... Amps72.....
 Sec. Volts400..... Amps72.....
 Tappings on Prim... at ...+2.5% -2.5%.....

Vector Group ...Dy11.....

Connection ...Delta.....

Connection ...Star.....

Voltage Ratio. 410, 400, 390 / 400-230

Serial No. 25713

No load loss at rated volts 217

Magnetising Current (Sec.) A 1.02 B 0.67 C 1.0

Full load loss at 75°C 722

Impedance % at 75°C 3.82

Resistance at 20 °C, Prim. A-B 0.030 B-C 0.042 C-A 0.040

Sec. A-N 0.00168 B-N 0.00164 C-N 0.00166

watts

amps

watts

ohms

ohms

Pressure tests at 50Hz - ...2500... Volts. H.V. to L.V. and Earth for 1 minute.
 ...2500... Volts. L.V. to Earth for 1 minute.

Induced Voltage test -800..... Volts applied to Sec. at 400Hz for 15 secs.

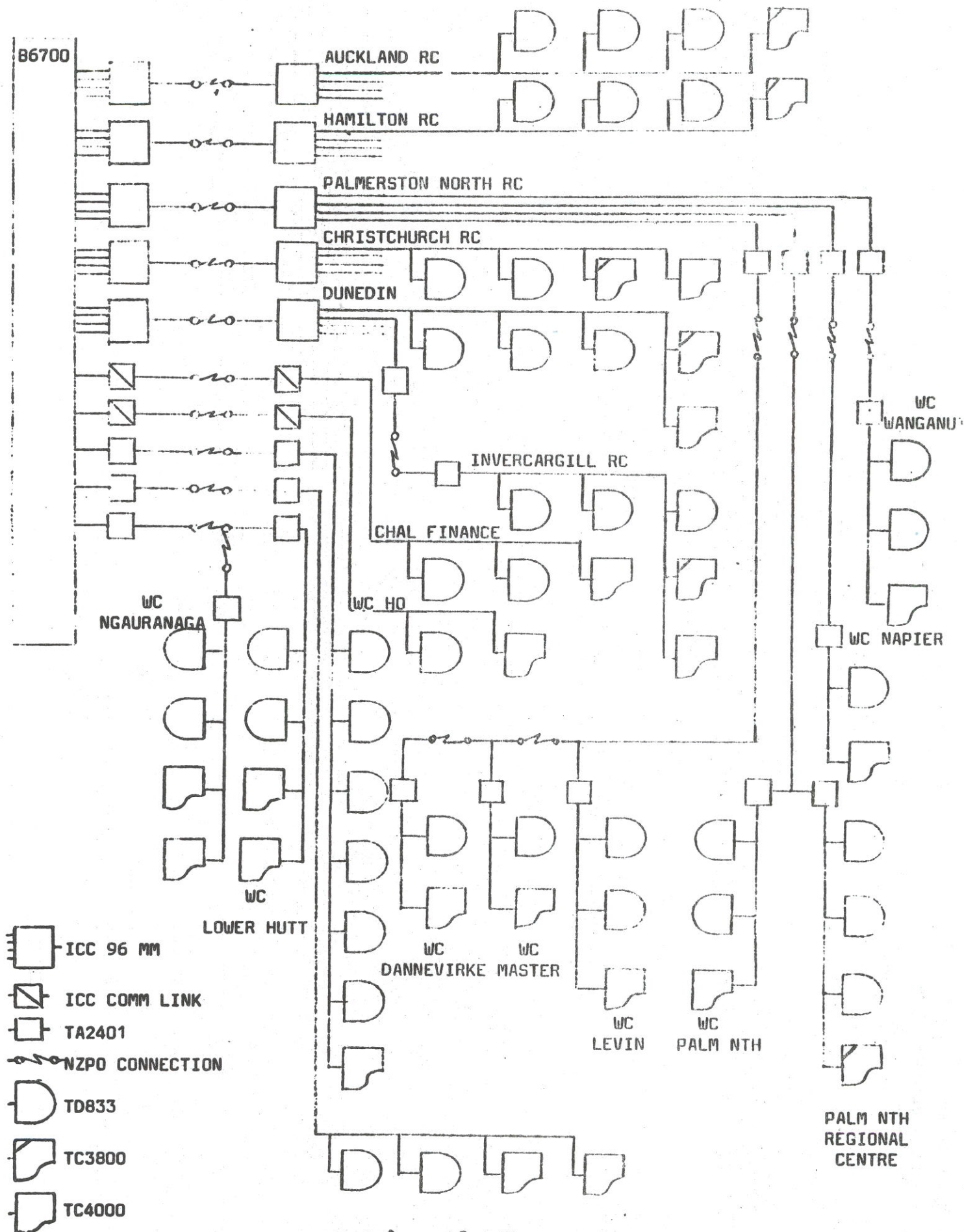
500V 'Megger' test - H.V. to Earth = Inf. megohms

H.V. to L.V. = Inf. megohms

L.V. to Earth = Inf. megohms

Remarks:

Rejection tested as specification MIL - T - 27B
 Clause 4.8.9.11 = 47 db



B. F. E. M. (O R D E S I G N A T E) A C T I O N L I S T

1. CHECK WITH FAILURE STATION FOR
 - (A) NETWORK CONTROLLERS FAULT DIAGNOSIS.
 - (B) STATUS REPORT OF TERMINAL ACTIVITY FOR OTHER STATION:
ON DROP.
 - (C) ERROR RATE REPORTS
I.E. HARD FAULT,
INTERMITTENT FAULT.
 - (D) RESULTS OF LOOP BACK TESTS.
 - (E) RESULTS OF CUSTOMER CONFIDENCE TEST.
2. FROM ABOVE REPORTS, DETERMINE WHAT IS PROBABLY NEEDED TO
EFFECT A FIX
I.E. MODEM
TERMINAL
CARDS
TESTERS
3. ONLY RESPOND TO CALL IF WE ARE SURE OF SUCCESS. BUT
4. IF WE DO ASSIST TO DIAGNOSE A NON-B's FAULT
 - (A) CHARGE FOR TIME
 - (B) ADVISE BRANCH MANAGER, W.L.A.
COPY H/O F.E.M./F.E.T.S. MANAGER.
5. IF OUR CHECK SHOWS IT'S NOT A B's FAILURE TELL THE CUSTOMER.