

# Block Diagram for 908 Digitizer Setup/Configuration

One Record-set per 908.

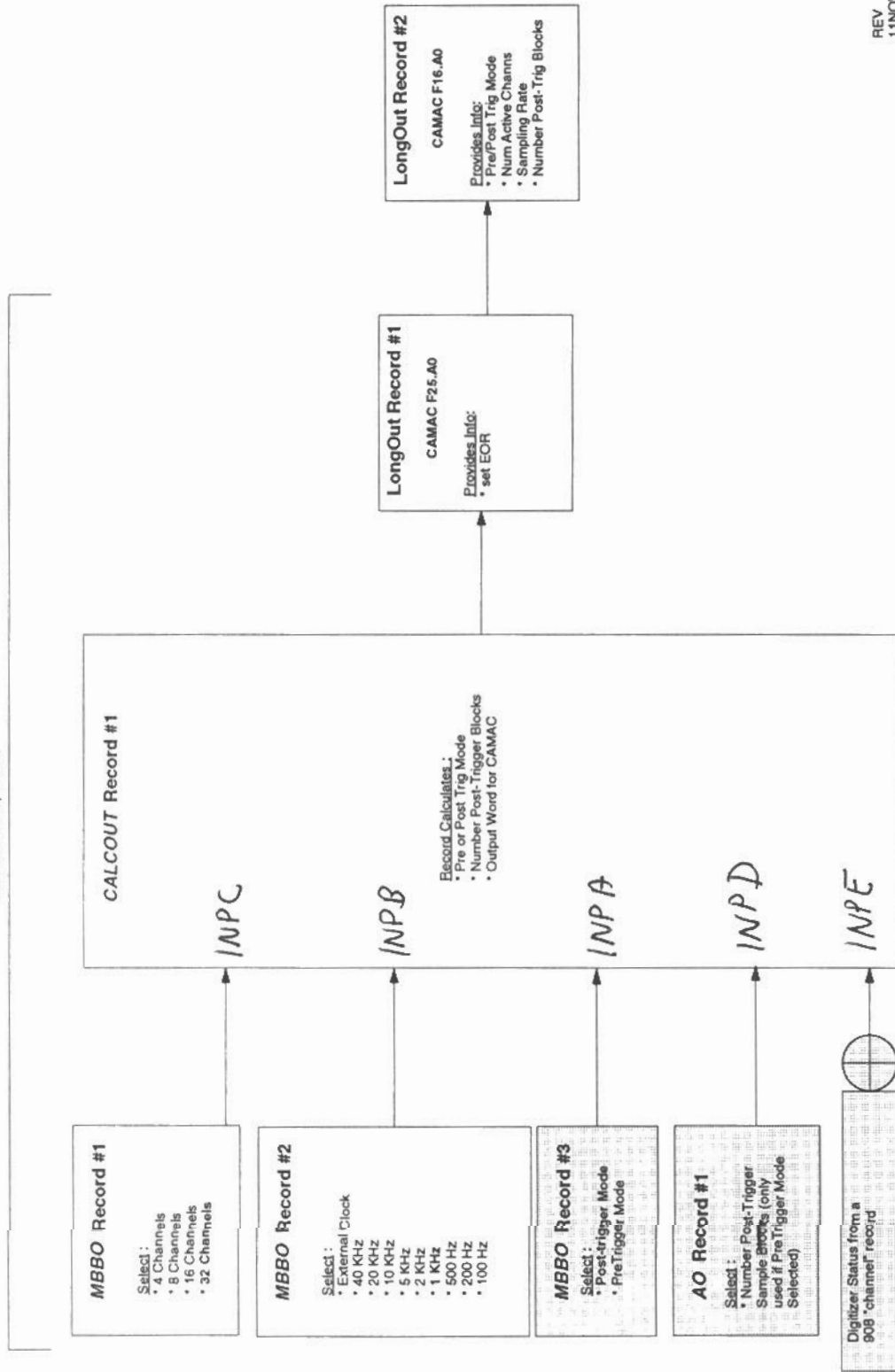


FIG 1B

TF Digitizers

OH Digitizers

PF1 Digitizers

PF2 Digitizers

TF1

Trigger Mode

Clock Rate

Number Channels

Post Trigger Samples

Operating Mode

Operating State

Clock Rate

Active Channels

Total Memory

Relative Time

Relative Event

Absolute Trigger Time

NOW

C=61 N=7

PostTrigger	<input checked="" type="checkbox"/>
1 KHz	<input checked="" type="checkbox"/>
8 Chan	<input checked="" type="checkbox"/>
0	

Post Trigger Complete  
1 KHz 8  
327680

Set Digitizer Now  
Trigger Digitizer  
Set EOR/Stop

C=61 N=8  
Chan 1

-0.200000  
T(0)  
-0.200000  
Load 404

C=61 N=13

PostTrigger	<input checked="" type="checkbox"/>
1 KHz	<input checked="" type="checkbox"/>
8 Chan	<input checked="" type="checkbox"/>
0	

Post Trigger Complete  
1 KHz 8  
327680

Set Digitizer Now  
Trigger Digitizer  
Set EOR/Stop

C=61 N=8  
Chan 8

-0.200000  
T(0)  
-0.200000  
Load 404

C=8 N=7

PostTrigger	<input checked="" type="checkbox"/>
1 KHz	<input checked="" type="checkbox"/>
8 Chan	<input checked="" type="checkbox"/>
0	

Post Trigger Complete  
1 KHz 8  
327680

Set Digitizer Now  
Trigger Digitizer  
Set EOR/Stop

C=8 N=1  
Chan 1

-0.200000  
T(0)  
-0.200000  
Load 404

C=8 N=17

PostTrigger	<input checked="" type="checkbox"/>
1 KHz	<input checked="" type="checkbox"/>
8 Chan	<input checked="" type="checkbox"/>
0	

Post Trigger Complete  
1 KHz 8  
327680

Set Digitizer Now  
Trigger Digitizer  
Set EOR/Stop

C=8 N=1  
Chan 2

-0.200000  
T(0)  
-0.200000  
Load 404

**FIGURE 2**

# 908 Control Database

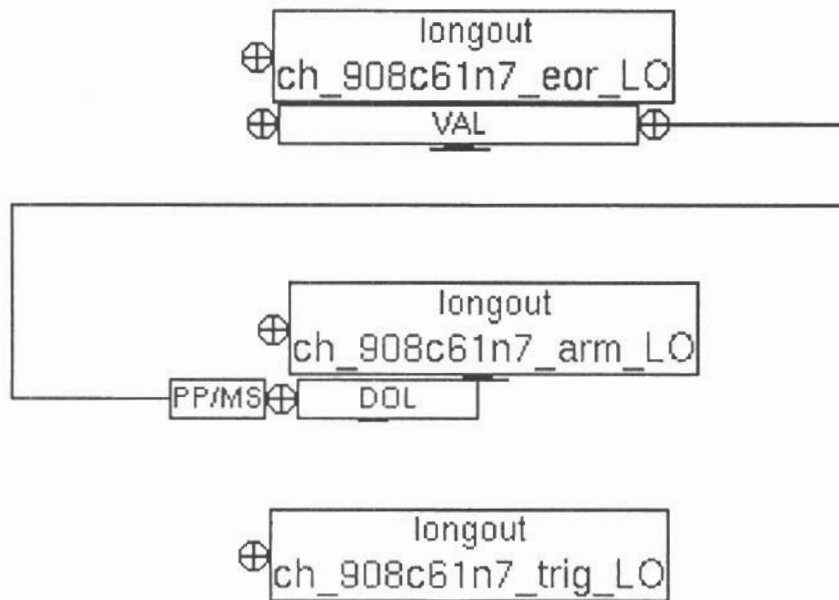


FIG. 3

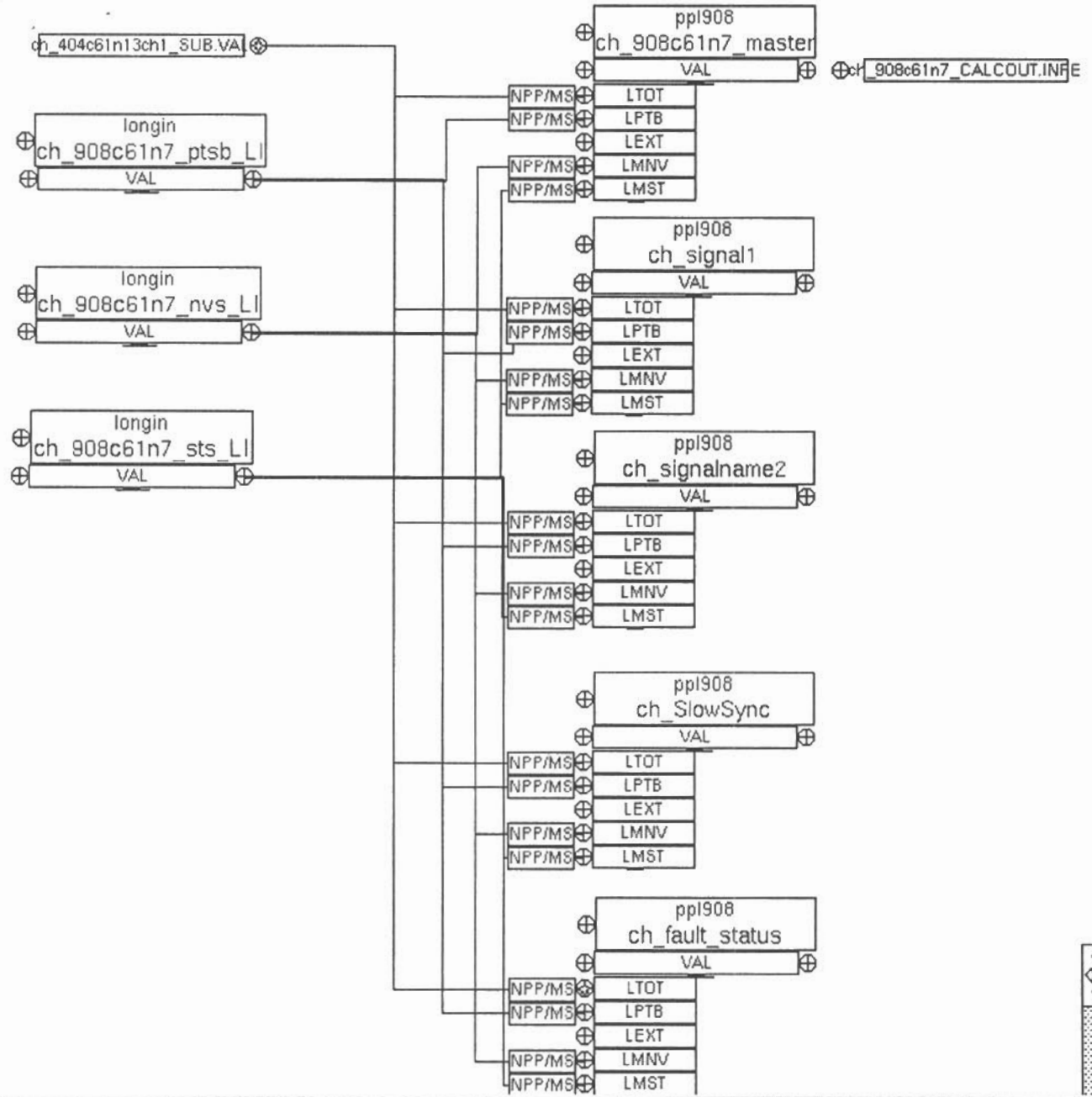


FIG 4

# APPENDIX A

1/3

Listing of a .db (database record) file showing non-default record fields for a 908 Configuration record set.

12NOV98 PS

```
grecord(longout,"ch_908c61n7_smpl_LO") {
    field(DESC,"post trig samples")
    field(ASG,"OPEN")
    field(EGU,"samples")
    field(HOPR,"1000")
}
grecord(mbbo,"ch_908c61n7_chan_MBBO") {
    field(DESC,"Digitizer NChan Select")
    field(ASG,"OPEN")
    field(DTYP,"Raw Soft Channel")
    field(NOBT,"2")
    field(ONVL,"1")
    field(TWVL,"2")
    field(THVL,"3")
    field(ZRST,"32 Chan")
    field(ONST,"16 Chan")
    field(TWST," 8 Chan")
    field(THST," 4 Chan")
    field(SHFT,"5")
}
grecord(mbbo,"ch_908c61n7_clk_MBBO") {
    field(DESC,"Digitizer Clk Select")
    field(ASG,"OPEN")
    field(DTYP,"Raw Soft Channel")
    field(NOBT,"4")
    field(ONVL,"1")
    field(TWVL,"2")
    field(THVL,"3")
    field(FRVL,"4")
    field(FVVL,"5")
    field(SXVL,"6")
    field(SVVL,"7")
    field(EIVL,"8")
    field(NIVL,"9")
    field(ZRST,"Ext. Clk")
    field(ONST,"40 KHz")
    field(TWST,"20 KHz")
    field(THST,"10 KHz")
    field(FRST," 5 KHz")
    field(FVST," 2 KHz")
    field(SXST," 1 KHz")
    field(SVST,"500 Hz")
    field(EIST,"200 Hz")
    field(NIST,"100 Hz")
    field(UNSV,"MINOR")
    field(SHFT,"1")
    field(IVOV,"6")
}
```

```

grecord(mbbo,"ch_908c61n7_mode_MBBO") {
    field(DESC,"Digitizer Mode")
    field(ASG,"OPEN")
    field(DTYP,"Raw Soft Channel")
    field(NOBT,"1")
    field(ONVL,"1")
    field(ZRST,"PostTrigger")
    field(ONST,"PreTrig")
    field(UNSV,"MINOR")
}
grecord(calcout,"ch_908c61n7_CALCOUT") {
    field(DESC,"Build 908 Cmd Word")
    field(ASG,"OPEN")
    field(CALC,"((E>>3)&3)=2)?0:1")
    field(INPA,"ch_908c61n7_mode_MBBO.VAL NPP MS")
    field(INPB,"ch_908c61n7_clk_MBBO.VAL NPP MS")
    field(INPC,"ch_908c61n7_chan_MBBO.VAL NPP MS")
    field(INPD,"ch_908c61n7_smpl_LO.VAL NPP MS")
    field(INPE,"ch_908c61n7_mstr.MSTS NPP MS")
    field(INPF,"2")
    field(OUT,"ch_908c61n7_eorlink_LO.VAL PP MS")
    field(OOPT,"When Non-zero")
    field(DOPT,"Use OCAL")
    field(OCAL,"A+B+C+((D>>4)*A)<<8)")
    field(HOPR,"16777215")
}
grecord(longout,"ch_908c61n7_eorlink_LO") {
    field(DESC,"set eor 908 now")
    field(ASG,"OPEN")
    field(DTYP,"Camac")
    field(FLNK,"ch_908c61n7_set_LO.VAL")
    field(OUT,"#B1 C61 N7 A0 F25 @")
}
grecord(longout,"ch_908c61n7_set_LO") {
    field(DESC,"CAMAC pgm cmd for 908")
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A0 F16 @0xffffffff")
    field(DOL,"ch_908c61n7_CALCOUT.VAL NPP MS")
    field(OMSL,"closed_loop")
    field(HOPR,"16777215")
}
grecord(bo,"ch_908c61n7_setnow_BO") {
    field(DESC,"set 908 now")
    field(ASG,"OPEN")
    field(FLNK,"ch_908c61n7_CALCOUT.VAL")
    field(HIGH,".05")
}

```

Listing of a .db (database record) file showing non-default record fields for a 908 Control record set.

12NOV98 PS

```
grecord(longout,"ch_908c61n7_eor_LO") {
    field(DESC,"set eor 908 now")
    field(ASG,"OPEN")
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A0 F25 @")
}
grecord(longout,"ch_908c61n7_arm_LO") {
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A0 F26 @")
    field(DOL,"ch_908c61n7_eor_LO.VAL PP MS")
    field(OMSL,"closed_loop")
}
grecord(longout,"ch_908c61n7_trig_LO") {
    field(DESC,"trigger 908 now")
    field(ASG,"OPEN")
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A2 F25 @")
}
```

# APPENDIX B

V1

Listing of a .db (database record) file showing non-default record fields for a 908 Control record set.

12NOV98 PS

```
grecord(longout,"ch_908c61n7_trig_LO") {
    field(DESC,"trigger 908 now")
    field(ASG,"OPEN")
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A2 F25 @")
}
grecord(longout,"ch_908c61n7_eor_LO") {
    field(DESC,"set eor 908 now")
    field(ASG,"OPEN")
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A0 F25 @")
}
grecord(longout,"ch_908c61n7_arm_LO") {
    field(DTYP,"Camac")
    field(OUT,"#B1 C61 N7 A0 F26 @")
    field(DOL,"ch_908c61n7_eor_LO.VAL PP MS")
    field(OMSL,"closed_loop")
}
```



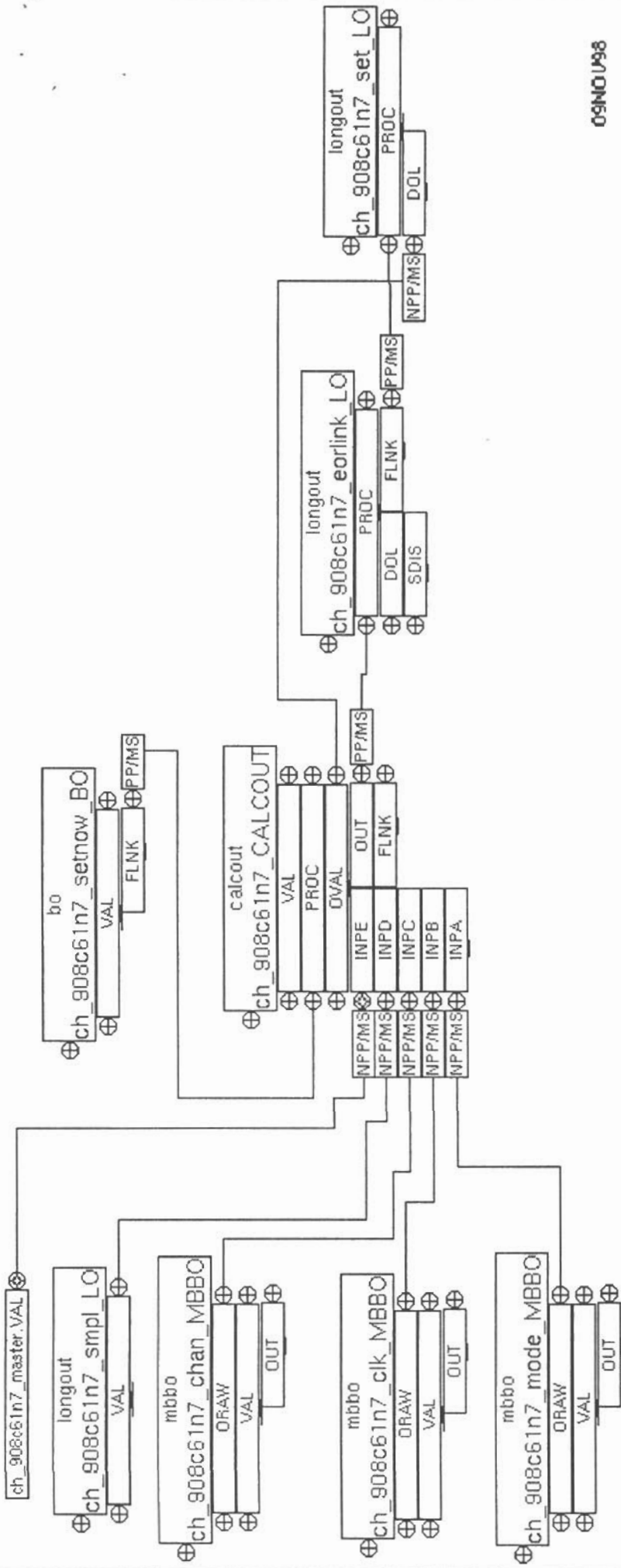
# APPENDIX C

112

```
grecord(longin,"ch_908c61n7_sts_LI") {
    field(DESC,"908 Status Register")
    field(SCAN,"2 second")
    field(DTYP,"Camac")
    field(INP,"#B1 C61 N7 A0 F0 @0xffffffff")
}
grecord(longin,"ch_908c61n7_ptsb_LI") {
    field(DESC,"Post Trigger Sample Blocks")
    field(SCAN,"2 second")
    field(DTYP,"Camac")
    field(INP,"#B1 C61 N7 A1 F0 @0xffffffff")
}
grecord(longin,"ch_908c61n7_nvs_LI") {
    field(DESC,"Number of Valid Samples")
    field(SCAN,"2 second")
    field(DTYP,"Camac")
    field(INP,"#B1 C61 N7 A2 F0 @0xffffffff")
}
grecord(stringin,"ch_909sig04_SI") {
    field(DESC,"Spec for sig name")
}
grecord(stringin,"ch_909sig03_SI") {
    field(DESC,"Spec for sig name")
}
grecord(stringin,"ch_909sig02_SI") {
    field(DESC,"Spec for sig name")
}
grecord(stringin,"ch_909sig01_SI") {
    field(DESC,"Spec for sig name")
}
grecord(camac,"ch_909src01_CAMAC") {
    field(DESC,"908 read bfr")
    field(B,"1")
    field(C,"60")
    field(N,"11")
    field(F,"2")
    field(TMOD,"Q Stop")
    field(NMAX,"2048")
}
grecord(pp1908,"ch_signalname2") {
    field(DESC,"Digitizer channel 2")
    field(ASG,"OPEN")
    field(LMST,"ch_908c61n7_sts_LI.VAL NPP MS")
    field(LMNV,"ch_908c61n7_nvs_LI.VAL NPP MS")
    field(LTOT,"ch_404c61n13ch1_SUB.VAL NPP MS")
    field(LPTB,"ch_908c61n7_ptsb_LI.VAL NPP MS")
    field(EGU,"volts/2")
    field(YCF2,"0.000625")
    field(KMAC,"#B1 C61 N7 CH2")
}
grecord(pp1908,"ch_signal1") {
    field(DESC,"Digitizer channel 1 ")
    field(ASG,"OPEN")
    field(LMST,"ch_908c61n7_sts_LI.VAL NPP MS")
    field(LMNV,"ch_908c61n7_nvs_LI.VAL NPP MS")
    field(LTOT,"ch_404c61n13ch1_SUB.VAL NPP MS")
}
```

```
    field(LPTB,"ch_908c61n7_ptsb_LI.VAL NPP MS")
    field(EGU,"volts")
    field(YCF2,"0.00125")
    field(KMAC,"#B1 C61 N7 CH01")
}
grecord(pp1908,"ch_fault_status") {
    field(DESC,"Digitizer channel 4")
    field(ASG,"OPEN")
    field(LMST,"ch_908c61n7_sts_LI.VAL NPP MS")
    field(LMNV,"ch_908c61n7_nvs_LI.VAL NPP MS")
    field(LTOT,"ch_404c61n13chl_SUB.VAL NPP MS")
    field(LPTB,"ch_908c61n7_ptsb_LI.VAL NPP MS")
    field(EGU,"volts")
    field(YCF2,"0.00125")
    field(KMAC,"#B1 C61 N7 CH04")
}
grecord(pp1908,"ch_SlowSync") {
    field(DESC,"Digitizer channel 3 ")
    field(ASG,"OPEN")
    field(LMST,"ch_908c61n7_sts_LI.VAL NPP MS")
    field(LMNV,"ch_908c61n7_nvs_LI.VAL NPP MS")
    field(LTOT,"ch_404c61n13chl_SUB.VAL NPP MS")
    field(LPTB,"ch_908c61n7_ptsb_LI.VAL NPP MS")
    field(EGU,"volts")
    field(YCF2,"0.00125")
    field(KMAC,"#B1 C61 N7 CH03")
}
grecord(pp1908,"ch_908c61n7_master") {
    field(DESC,"Digitizer channel 1 ")
    field(ASG,"OPEN")
    field(LMST,"ch_908c61n7_sts_LI.VAL NPP MS")
    field(LMNV,"ch_908c61n7_nvs_LI.VAL NPP MS")
    field(LTOT,"ch_404c61n13chl_SUB.VAL NPP MS")
    field(LPTB,"ch_908c61n7_ptsb_LI.VAL NPP MS")
    field(EGU,"volts")
    field(YCF2,"0.00125")
    field(KMAC,"#B1 C61 N7 CH01")
}
```

# 908 Configuration Record Set



09NOU98

FIG 1A