13 November 1956. Arrive 1030am Everything going.

Checked Batteries A cells 2.03v 2.03v 2.03v
Gravity 1215 1215 1220
Number 4 5 6

B batts 24½, 24, 24, 24, 24, 24, 147v total
Number 7 8 9 10 11 12

About 15mph wind from north. North down lead slack due to north wire being blown in south direction. Clouds passing by. Partly blue sky at times. Rain static in distance makes trace rough.

Ink down to 1/8". Filled to 5/16".

Check time with WWV. Clock 4 min fast. Corrected. Set regulator back a bit.

Returned system to normal + set attenuator at 6DB.

Quite a bit of rain static today, mostly in distance One instance about 1240pm local.

Left about 4pm.

16 Nov 1956 Arrive 2/0pm Everything going. Wet rainy day with showers & nearly continuous drizzle. Considerable atmospherics.

Checked Batteries

A cells.			1.96v	1.97v	1.97v		
Gravity			1150	1155	1160		
Number			4	5	6		
B batts	24½	24	24	24	24	24	145v Total
Number	7	8	9	10	11	12	

Clock very close to right. No correction or regulation

Examined D.C. Amplifier. All tubes lite OK

Filament Voltages	Input	Driver	Output
Tube Sockets	1.48v	1.31v	1.39v
Chassis end of cable	1.97v	1.92v	1.93v

Changed value of series dropping resistors, now at

Tube sockets	1.48v	1.41v	1.42v

Clipper cells were found to be charged up to 1.75 volts each. However internal resistance still fairly low as each would put out over 1.5 amps into Twinplex tester which has long leads. Cells left in circuit without change.

Interchanged position of B batts # 10 & # 7. Replaced A cells

Now	2.18v	2.17v	2.17v	These cells need not be changed
Gravity	1300	1300	1290	
Number	2	3	1	

Ink down to 3/32". Filled to 5/16"
Wound clock to tight 49 turns
Put 64 ft delay in north lead, Attenuator 6DB,
Cut off chart paper & took to town.

19 Nov. 1956 Arrive 1155am. Everything going.
Checked time against VIM. Clock OK to closest minute.

1205-10 Typical short sharp squall & cold front. Mostly
hissing noise with few squeals in background. Could be
held on scale by setting attenuator at 33DB or less.
Practically no rain.
1215-19 Same only weaker. Max of disturbance
while sure still shifting. Only a few drops toward
end of disturbance. During this period, it was just
overcast at zenith. However black clouds of
small dimensions were both to north & south.

Ink down to 3/32". Filled to 5/16"

Checked batteries. A cells 2.08v 2.07v 2.07v
Gravity 1250 1240 1240
Number 2 3 1
B Batts 23½ 23 23 23½ 23½ 23 141v total
Number 10 8 9 7 11 12

At 1 pm. VIS very weak. Interference prior 1 pm so couldn't
get the time. Again VIS was better on either antenna
separately than both together.

110-235 pm Phasing tests. Not very good day
as baseline rough due to rain squals in distance.
Mornings seem to be quieter than afternoons.
Put antennas to normal, attenuator 3DB.
Left about 245pm.

Time OK.

21 Nov. Arrive 1.15pm Everything going.
Zero seems to have drifted.

Checked Batteries A cells. 2.00V 1.99V 2.00V

	Gravity Number.	2	3	1	
B batts	23V 22V 13½V	23,	22½	22½	128 to
Number	10 8 9	7	11	12	

Replaced battery #9 by #13 giving 24 volts making a total of 140 V now.

Set attenuator at ODB. Antennas still normal.

Slight west wind less than 5 mph.
Tension in south down lead 6.7 lbs
" " north " " 7.0 "

Today planted two posts on east ridge and one post on west ridge.

Left about 4 pm.

Took #9 battery to town. On open circuit it recovered to 20 volts. Each cell was tested for gravity. None would float the hydrometer so all were much less than 1100, probably less than 1050. Put on charge at 1.5 amps for 24 hrs & 0.5 amps for 18 hrs. Gravity of all cells came up to 1290 to 1310. Set aside as a spare.

25 Nov. Arrive 330pm. Everything going

Checked Batteries	A cells		2.03v		2.04v		2.03v
	Gravity		1220		1220		1220
	Number		5		6		4
B batts	25	24½	24½	24½	25	24½	151v total
Number	3	6	5	2	4	1	

Zuk down to 1/8". Filled to 9/32"
Clock appears to be a bit fast, Stopped for 3 minutes at 4pm to bring nearer correct.

Zero had drifted, also gain had dropped. R.F. noise now only 0.1 divisions. This loss of gain caused apparent zero drift.
Setting attenuator from 6DB to 0DB caused R.F. noise to increase to 0.4 divisions
Replaced mixer tube. Now gives
R.F. noise attenuator 6DB 0.6 division
3DB 1.0 division
Put 96 ft Delay in north lead
Set attenuator at 3DB
Dark clouds coming up. Look like rain squals.
Left about 545pm.

28 Nov. Arrive 1120a. Everything going. Clock 2 min slow. Corrected it. This compensates for error in setting on 25/11/56. No change in regulator. V/M strong as usual at noon. R.F. noise 0,5 division. 6DB loss since 25/11/56

Checked batteries A cells. 1.96v 1.96v 1.97v
Gravity 1160 1150 1160
Number 5 6 4

B. batts 25v 24½v 24½v 24½v 24½v 24v 149v total
Number 3 6 5 2 4 1

Interchanged B batts #1 & #3

Replaced A cells. now 2.11v 2.10v 2.10v
Gravity 1270 1260 1260
Number 2 1 3

With new filament batteries R.F. noise up to 1.2 div.

Interchanged the 4-1C5s in driver with right hand 4-1C5s in output stage. Very slight change in zero setting.

Checked time at 1 pm against V/S. OK. Today V/S just as strong as V/M.

Put antennas to normal. Left attenuator 3DB. R.F. noise 1.2 divisions
Wound clock 47 turns to tight.
Sink down to 3/32". Filled to 1/4"

Today is end of boomerange.
Left 315 pm

1 Dec 56 Arrive 10 am. Everything going.

R.F. noise level 0.6 division
Checked time against VIS at 1 pm. Clock 1 min fast, corrected it.
Changed attenuator to 0 DB. now
R.F. noise level 1.0 division
Put 96 ft in south lead. Started run about 105 pm.

Put up 3rd long wire having lengths of 200, 400, 1100, 1100, 400, 200, 200 with 70 ft coiled west center east about east post.
Tension pulled up to 1000 lbs.

Also pulled up tension on old wires.
South wire was 650 lbs, pulled up 2 ft to 825 lbs.
North wire was 600 lbs, pulled up 3 ft to 850 lbs.
Now, down lead tension with 15 mph South wind
South 24½ lbs
North 30 approx

2nd down to 1/32", Filled to 1/4"

Left about 5 15 pm.

3rd Dec. Arrive 11am. Everything going.

checked time at 1pm against VIS which was moderate strength. Clock 1 min slow. Corrected it.

checked batteries A cells 2.00V 1.99V 1.99V
Gravity 1185 1175 1180
Number 2 1 3

B batts. 23½, 23½, 23, 23½, 24, 24, 144 total.
Number 1 6 5 2 4 3

107 – 117p ran on a station to show saturation characteristic.
Changed 1C5 tubes in driver back to positions in output stage they were prior to 28/11/56

122 – 132p ran on station to show saturation characteristic
This is much better. Left in this condition.

Put 192 ft in north lead.
Zyls down to 1/16". Filled to 7/32".
Checked sensitivity, attenuator 0DB
R.F. noise 0.9 division

Ran on normal for half an hour.
Put 192 ft in South lead.

Left about 430pm.

Today we put up second building.

5 Dec. Arrive 230pm, Everything gone to.

Took foto of south down leg silening against a blue sky. Used red filter + XX6/6 film one each, 1/25 sec f5.6; 10 sec f22, 20 sec f22, 5 sec f36 15 sec f36.

Checked sensitivity, R.F. noise = 0.5 div, attenuator 0DB,

Checked batteries A cells.	1.93 V	1.92 V	1.92 V
Gravity	1135	1130	1130
Number	2	1	3

B batts	23 1/2	23	23	22 1/2	23	23 1/2	19 V
Gravity	1190	1140	1140	1120	1160	1190	
	1140	1160	1160	1120	1160	1200	
Number.	1	6	5	2	4	3	

Changed all batts Now A cells. 2.11 V 2.12 V 2.11 V

These cells need water next charging { Gravity 1280 1290 1280
Number 4 6 5

B batts	24 1/2	25	25	25	25	25	155 V to
Gravity	1260	1310	1275	1310	1290	1300	
	1270	1300	1290	1300	1290	1310	
Number.	13	12	11	10	8	7	

Wound clock 57 turns to tight
2nds down to 1/8", filled to 9/32"
Checked sensitivity R.F. noise = 1.2 div. attenuator 3DB

Cut off chart & took to town
Left about 5 pm.

8th Dec. Arrive 230pm. Everything going.

Checked batteries A cells.	2.03V	2.04V	2.03V
Gravity	1220	1220	1220
Number	4	6	5

B batts 24½ 24½ 24½ 24½ 24½ 24½ 151V total.
Number. 13 12 11 10 8 7

Tubs down to 1/32", filled to 9/32"

R.F. noise 1.0 division, attenuator 3DB.
Antennas normal.

Left about 420pm.

9 Dec 1956. Arrive 315pm Clock stopped. Roll of chart paper came to end. The end of paper is fastened to roll by sticking tape. This stops clock about 2pm. Changed to new roll chart paper.

Started at 345p on antennas with 128 ft north lead. This is best time at which pen goes up. Nib on cam adjusted by eye, so it may be off a couple of minutes. R.F. noise 0.7 division with attenuator 3DB. Changed attenuator to ODB. Now R.F noise 1.0 division.

At 401 pm corrected cam on clock so time marks after 4 pm should be nearly correct.

Rolled up chart & took to town. Ink down to 5/32". Filled to 9/32".

Left 435 pm.

12 Dec 1956 Arrive 1035 am. Everything going.
Time correct to a minute or so.
R.F. noise 0.7 division. Attenuator 0.DB
Antennas on 128 ft mostly.

Checked Batteries, A cells.	1.93 v	1.92 v	1.93 v
Gravity	1140	1130	1140
Number:	4	6	5

B Batts	24½	24½	24	24	24½	24½	147½ total
Number	13	12	11	10	8	7	

Replaced A cells. Now,	2.08 v	2.07 v	2.06 v
Gravity	1270	1270	1260
Number.	2	1	3

Interchanged position of Batts # 13 & # 10
Now R.F. noise 1.2 divisions with 3DB attenuator
Put antennas normal. Start recording 1035 am.
Atmospherics very weak today. Sound in phones nearly a pure hiss with occasional weak rode.
Near calm today. Bright & sunny.

Checked time at noon from VIM which came through strongly. Clock 2 min slow. Corrected it.
Wound clock to tight 55 turns
Sink down to practically zero. Filled to 9/32"
Relay batts 13.0 v open 12.7 v closed circuit.
Checked time at 1 pm against VIS which came through at moderate strength about 18DB below VIM.
Clock correct.
123 pm a sparking noise came on, intermittent and not 50 cycles. Much worse to south than normal.

Put antennas to normal

15 Dec 1956 Arrive 1040am Everything going.

Checked batteries A cells, 2.04v 2.03v 2.03v
Gravity 1225 1215 1215
Number. 2 1 3

B batts 24½ 24 24 24 24 24½ 145V
Number 10 12 11 13 8 7 total

100pm. Checked time against VIS which was very weak. Clock one min fast. Corrected it.

Ink down to 1/16", Filled to 1/4".

630p. Sensitivity 0.7 divisions R.F. noise Att 3D
Changed attenuator to 0DB. Now. R.F. noise 1.1 divisions.
Antennas normal.
Increased vibrator voltage a bit.
Left 645pm.

18 Dec. 1956 Arrive 955am. Everything going.

Checked Batteries A cells. 1.98v 1.97v 1.97v
Gravity 1170 1160 1160
Number 2 1 3

B Batts	24	23½	23	23½	23½	23½	142v total
Gravity	1190	1155	1120	1150	1140	1165	
	1190	1145	1130	1150	1150	1180	
Number	10	12	11	13	8	7	

Sensitivity R.F. noise. 0.4 division attenuator 0DB

Changed all Batteries, Now
A cells. 2.11v 2.11v 2.10v
Gravity 1270 1265 1260
Number 6 4 5

B Batts	25½	25½	25½	25½	25½	25½	158v total
Gravity	1310	1310	1305	1310	1305	1295	
	1310	1310	1310	1310	1310	1295	
Number	5	2	4	3	6	1	

Sensitivity noise R.F. noise 1.7 divisions, attenuator 0DB
Ink down to 1/32", Filled to 7/32".
Clock 2 minutes slow by VIM at noon. Counted it.
Wound clock, 48 turns to tight.
Removed chart and tools to town.
Checked time against VIS at 1pm. OK. VIS moderate
Sensitivity 0.8 div. with attenuator 3DB.
Put antennas to normal.
Left about 2pm.

21 Dec 1956 Arrive 950 am. Everything going
On way across from Kempton there was a sharp
cold front and rain squall. This lasted only
a few minutes and sun came out again. The
strong precipitation static was recorded just
before my arrival.

Checked batteries A cells. 2.03v 2.02v 2.02
Gravity 1220 1210 1210
Number. 6 4 5

B batts 25 25 24½ 25 25 24½ 152v
Number. 5 2 4 3 6 1

Noon checked time against VIM. Clock 1 min fast
Corrected it. VIM very strong.
Note the peculiar interference coming on for a few
seconds every 2 min approx from 330 - 710 am.
1209 - 1211p Rain static with scratches. Fade drop
1217 - 1221p Same only stronger.
Relay battery 12.7v closed, 12.9v open
Atmospherics becoming worse in afternoon.
440 ~. checked sensitivity. R.F. noise 0.3 division
with attenuator at 3DB. This is condition all
data taken today.
Changed attenuator to 0DB. Now R.F. noise 0.
Put antennas to normal

Left about 6pm.

24 Dec 1956 Arrive 1150am Everything going.
Set very weak.
R.F. noise 0.1 division with attenuator at ODB.

Checked time against WIM at noon. WIM came thru strong. Clock two min slow. Corrected it.
Ink down to 1/32", Filled to 9/32".
Checked Batteries A cells. 1.96V 1.95V 1.95V
Gravity 1155 1150 1155
Number 6 4 5
B batts. 25 24½ 24½ 24½ 24½ 24 149V total
Number 5 2 4 3 6 1
Interchanged position of B batts #5 & #1
Charged A cells. now. 2.10V 2.11V 2.11V
Gravity 1270 1275 1270
Number 3 2 1
Now R.F. noise 0.7 division with attenuator ODB.

Tested several 1N5GT tubes in mixer and oscillator.
Decided the present tube in oscillator very weak.
Put tube removed 25/11/56 in oscillator. Left present tube in mixer. Now R.F. noise 2.3 divisions.
When metal case put on the R.F. noise increased to 3.2 div.

430-630p. Spikes are a rough sparking noise of about 150-200 cps. Comes on for ½ minute or less. Sometimes only 10 sec. Probably a device with commutator type motor has gone bad somewhere. It would appear to be off to north. Perhaps Kempton

Calibrated south antenna using tuning box A from 154-200KC. Resistance about 50 ohms; very fortunate.
Wound clock 50 turns to tight.
Set antennas normal, attenuator to 6DB. R.F. noise 1.2 div.

27 Dec 56 Arrive 955am, Everything goi

R.F. noise 0.3 division attenuator 6DB.
Changed attenuator to 0DB, now R.F. noise 1.2 di
about 1015 am.
1 pm. check clock against VIS, about 2 mins slow.
Corrected it.

Checked batteries	A cells.		2.04v		2.03v		2.03
	Gravity		1220		1225		1220
	Number		3		2		1
B. batts	24	24½	24½	24	24½	24½	1
Number	1	2	4	3	6	5	

Sub down to 1/16"; Filled to 5/16"

Left 5pm.

29/12/56. Arrive 1000a. Everything going.

Checked batteries

A cells.	2.00V	2.00V	2.00V				
Gravity	1185	1190	1185				
Number	3	2	1				
B batts	24	24	24	24	24	24½	145V total
Number	1	2	4	3	6	5	

Sunk down to 1/8", filled to 7/32".

1120-22a small rain squall from north. Rather smooth fringing with faint screeches and squeals.

Checked time at noon from VIM. Clock 1 min fast. Corrected it.

1211-13p. Stronger rain squall.

Couldn't hear VIS at 1pm. Absorption quite great.

Left about 140pm.

31 Dec 1956 Arrive 1020am Everything

R.F. noise 0.3 division with attenuator at 0

checked Batteries. A cells. 1.95V 1.93V 1.94V

Gravity	1130.	1120.	1130	
Number	3	2	1	

B batts	24	24	23½	23½	24	24	14
Gravity	1116	1155	1150	1250	1170	1150	
	1116	1150	1150.	1250	1150	1280	
Number	1	2	4	3	6	5	

Changed all batteries. A cells. 2.11V 2.10V 2.11V

Now. Gravity	1255	1250	1255
Number	6	5	4

B batts	25.5	25.5	25.5	25.5	25.5	25.5	15
	1300	1300	1280	1300	1300	1300	
Gravity	1300	1300	1300	1280	1300	1300	
Number	12	13	11	8	10	7	

2 rk down to 1/16", filled to 1/4"

Clock 2 min slow by check against good watch 4 pm. Corrected it.

Wound clock to tight 56 turns

Cut off chart and took to town.

Put 192 ft delay in north lead.

R.F. noise 1.1 divisions with attenuator at 3DB.

Left about 435pm.

3 January 1957 Arrive 945am. Everything going.

Upon checked time against VIM. Clock 1 minute fast. Corrected it.

Ink drum to zero. Ran Log at 404pm.
Filled to 7/32".

R.F. noise 0.3 division, attenuator 3DB.
Set attenuator 0DB. Now R.F. noise 0.7 division
Put 128 ft delay in North lead.

Left 425pm.

4 Jan 57 Arrive 940am. Everything going

Some black storm clouds going by to south
R.F. noise 0.5 division, attenuator 0DB.
Pulled out both osc and mixer tubes.
Put tube removal 29/10/56 in osc
Put new heterodyne tube in mixer
Now R.F. noise 2.7 divisions without case. } atten
" " " 3.0 " with case } 0
Set attenuator 3DB, R.F. noise 1.4 divisions.
Antennas normal 1125am.
Forgot to fill in.
Left 1pm.

5 Jan 1957, Arrive 350 pm
Zyk well dry. Filled to 1/4",
Atmospherics quite bad. Long rumbles and scratches
R.F. noise 1.3 divisions, attenuator 3DB.
425 pm Turned off to measure south antenna
with iron in loading coils.
Left attenuator at 3DB.
Put 128 ft North load, Back on 645 pm
Atmospherics beginning to get bad,
Left about 7 pm

7 Jan 57 Arrive 955am. Pen not writing because of air bubble in ink. Fixed it by blowing more ink thru pen.

1 PM checked clock against VIS which was of moderate strength. Clock 3 min slow. Corrected it.
R.F. noise 0.8 divisions, attenuator 3DB.

Check batteries A Cells.			1.95V	1.92V	1.93V		
			Gravity	1150	1125	1135	
			Number	6	5	4	
B batts	25	24½	24½	24	24½	24½	148V
Number.	12	13	11	8	10	7	total

Changed A cells. now			2.11V	2.11V	2.12V		
			Gravity	1265	1270	1280	
			Number	3	1	2	
Inter changed positions of batts #12 & #8, also replaced #8 with #9, now.							
B batts	24½	24½	24½	25	24½	24½	148½V
Number	9	13	11	12	10	7	total.

Now. R.F. noise 1.3 divisions, attenuator 6DB

Atmosphere bad today. Probably a number of rain squalls all over region.

Wound clock to tight 56 turns
Let down to 3/16", ~~Filled to~~ Let run.
Took off chart and brought it to town.
Set antennas to 128 ft North.

8 Jan 1957 Arrive 945 am Everything going.

A new kind of interference is present this morning. It comes on about every seven minutes. It doesn't have much sound. Only a faint scratching noise. Sounds rather like a faint rough carrier. Lasts only 5 seconds or so.
That code station with 500 cps modulation near to 529 KC (about 516 KC) is VMWK. Today he was working VIM. Apparently VIM had trouble receiving him as he was sending very slowly. 1020 am.

Intake down to 3/32"; Filled to 7/32".

Left about 515 pm

9 Jan 1957 Arrive 950am. Everything going.

Left 5pm

10 Jan 1957 Arrive 1210pm Everything going.
Ink down to 1/32", Filled to 9/32".
Atmospherics bad today.

Left 515pm.

11 Jan 1957 Arrive 945am Everything going.
Antennas 128 N. ± 1 & #2 antennas
130pm. Attenuator 6DB, R.F. noise 0.5 division
Shut down 140 pm
Moved everything to new building.
240 pm attenuator 6DB R.F. noise 0.5 division
Antennas normal #3 & #4 antennas
New building.
Note how north & south seem to be reversed.
add 1/8" to ink.
Put antennas to normal.

Left 510pm

12 Jan Arrive 945am Everything going.
100pm Checked time against WIS which was
quite weak. Clock correct to a few seconds.
Some interference.
Check B batteries, Ink at 3/16"

B batts	24½	23	23	24	23½	24	142½ V
Number	9	13	11	12	10	7	total.

R.F. noise 0.5 division, Attenuator 6DB.

13 Jan Arrived 3pm. Everything going.

Ink down to 3/32". Filled to 5/16".
Wound clock to tight 47 turns.
Left antennas normal, attenuator 6DB.

Left about 330pm.

15 Jan Arrive 945am. Everything going.

R.F. noise. 0.3 division, attenuator 6DB, antennas normal

Clock batteries	A cells.			1.93v	1.91v	1.92v		
	Gravity			1120	1105	1125		
	Number			3	1	2		
B batts	24	22½	22	23	22½	21	138v	
Gravity	1180	1090	1080	1165	1140	1140		
	1215	1100	1095	1155	1145	1155	total	
Number	9	13	11	12	10	7	6 all 0.15 1120 grav	

Changed all batteries

A Cells.	2.10.	2.11	2.10				
Gravity	1265	1265	1260				
Number	4	6	5				
B batts	25	25	25	24½	25	24½	154 volts
Gravity	1310	1300	1305	1300	1305	1300	
	1315	1315	1310	1250	1305	1305	total.
Number.	3	5	6	1	2	4	

Now R.F. noise, 1.3 divisions, attenuator 6DB.
Noon. Checked clock against VIM who was strong.
Clock 1 min slow. Corrected it.
Reset attenuator at 9DB. Now R.F. noise 0.8 divisions
Ink down to 7/32", Filled to 5/16"

Left 540 pm

17 Jan 57 Arrive 950am. Everything going.

R.F. noise 0.3 division, Attenuator 9DB.
Antennas normal. #4 tuner box leads straight
#3 tuner box leads crossed.
Changed to antennas reversed. #3 #4 tuner box leads
both straight.
Sulf down to 3/16". Filled to 5/16".

Left about 430pm

19 Jan 57 Arrive 950am. Everything going.
Rain showers fine early morning.
N gen checked time against VIM, very strong.
clock 2 mins slow. Corrected it
Wound clock 48 turns to tight.

330pm check sensitivities
R.F. noise 0.2 division attenuator 9DB.
Antennas Reversed. Tuner boxes #3 #4 leads both straight
Changed Antennas to Normal, #3 tuner box leads crossed.
Put 128 ft North lead.
Set attenuator at 6DB, R.F. noise 0.4 division.

Checked batteries	A cells.			2.01V	2.00	2.00	
	Gravity			1195	1190	1190	
	Number			4	6	5	
B batts	25	24½	24½	24	24½	24½	150½V
Number	3	5	6	1	2	4	

Sulf down to 3/16", Filled to 5/16"

Left 510 pm

22 Jan 1957 Arrive Dam Everything going.

R.F. noise 0.2 division, attenuator 6DB.

Check batteries · A cells 1.94v 1.91v 1.92v
Gravity 1140 1120 1130
Number 4 6 5

B batts 25 24 24½ 23½ 24 24 147½v
Number 3 5 6 1 2 4 total

Interchanged positions of #3 & #1 B batts, Replaced A cells. Now. A cells. 2.11v 2.12 2.11
Gravity 1270 1280 1270
Number 1 2 3

Now. R.F. noise 0.8 division, attenuator 6DB.

Near calm conditions
Tension on ±4 down lead 11½ lbs.
" " ±3 " " 10 "
" " ±2 " " 15½ "
" " ±1 " " 13 "

Noon check time against VIM, which was strong. Clock 1 min fast, corrected it. at 1PM VIS also quite strong today.

145p - 155p Morse chatter from BC station at 590KC, 2nd down to 5/32", Filled to 5/16".
Cut off chart roll and took to town.

Left 635 pm.

22 Jan 1957 Arrive Dam. Everything going.

R.F. noise 0.2 division, attenuator 6DB.

Check batteries

A cells	1.94v	1.91v	1.92v				
Gravity	1140	1120	1130				
Number	4	6	5				
B batts	25	24	24½	23½	24	24	147½v
Number	3	5	6	1	2	4	total

Interchanged positions of #3 + #1 B batts, Replaced A cells. Now. A cells. 2.11v 2.12 2.11

Gravity	1270	1280	1270
Number	1	2	3

Now, R.F. noise 0.8 division, attenuator 6DB.

Near calm conditions

Tension on #4 down load 11½ lbs.
" " #3 " " 10 "
" " #2 " " 15½ "
" " #1 " " 13 "

Noon check time against VIM, which was strong. Clock 1 min fast, corrected it. at 1PM VIS also quite strong today.

145p - 155p Morse chatter from BC stn at 590KC, 2nds down to 5/32", Filled to 5/16".
Cut off chart roll and took to town.

Left 635pm.

25 Jan 1957 Arrive 935 am. Equipment packed on 23rd. The 3E6 in R.F. amplifier had burned out. No replacement or even a 1LN5 on premises. Went back to town about 1030a. Returned at 1245p. Put in another 3E6. Now sensitivity .03 clear R.F. noise with attenuator at 12DB.

The tube removed was original tube. It operated June-Sept 1955, Sept-Dec 56 + Jan 57 for a total of about 9 months or approx 6000 hours.

Just missed tape from WIS at 100pm. clock nearly right to a minute or so.

120-150pm. Rain squall + cold front from south west. Very black to south.

307-335p another more severe rain squall.

345 put in to use new large square tip ink well. Put 1/8" ink into it. Seems a bit sluggish. Also cleaned tip of pen which had a blob of dry ink on it! Removed blob. This made pen run smoother and vibrate uniformly.

Clock batteries A cells. 2.05 2.04 2.04

Gravity 1230 1230 1225

Number 1 2 3

B batts	23½	24	24	24½	24	24	145.0
Number	1	5	6	3	2	4	Total.

Wound clock 49 turns to tight

These cold fronts quite severe. People breath could easily be seen at 345pm & 550pm

Left about 705p. Returned 735pm to do phasing tests. Rain squalls so bad decided to leave.

Put 196 ft. delay in North lead. Left atten. at 12DB.

28 Jan 57 Groups 1030a Everything going. Gain set for too low at 21DB on attenuator as of this morning. R.F. noise 0.1 div when atten 12DB + 0.9 division with attenuator at 3DB.

1055-1100a. Listened for VIP on 500KC could hear it.
Noon: Checked time on VIM. clock 1 minute slow. corrected it.
Tank down to 5/32", Filled to 5/16".
Check Batteries, A cells 1.98V 1.97 1.97
Gravity 1165 1165 1160
Number 1 2 3

B batts	23	23	23	24	23	23	141V total.
Gravity							
Number	1	5	6	3	2	4	

1pm VIS not on because of holiday
145p tuned to station at 45 on dial
Note saturation curve.
200p Replaced four 1C5 in driver with new Philips tubes
Note saturation curve.
212P Replaced six 1C5 in output stage with new RCA tubes
Necessary to turn DC full scale set control back about 45°. Note saturation curve.
222p Put original four 1C5 back in driver
Note saturation curve.
232p Replaced the four 1C5 in driver with new Philips tubes. Note saturation curve.
Apparently all ten 1C5 are worn out. These tubes ran March & April 1955, also Sept-Dec 56 & Jan 57 for a total of 7 months or about 4700 hours. All still operable but weak due to low emission.
As of today, all ten 1C5 tubes are new.

31 Jan 57 Arrive 1020a. Everything going but not very well.
R.F. noise 0.1 Division with attenuator 3DB

1025-1035 tried to get time from VIA but the code jitter fence very bad. Could hear VIS handling traffic at times however.
These A cells installed on 22nd (9 days) & B batts on 15th 06 days

Check batteries A cells.	1.89V	1.87V	1.88V.
Watched all B batts) Granite	1100	1085	1090
before recharging S Number	1	2	3

B batts	22½	23	22½	23½	22½	22½	138½
&	<1120	1105	1105	1160	<1120	1130	
Granite	<1130	1125	1125	1160	<1130	1125	total
Number	1	5	6	3	2	4	

The batteries should not be allowed to run this long.
Replaced all batts, new A cells 2.10V 2.10V 2.11V
Granite 1265 1270 1275
#6 cell 1280 Number 5 4 6

B batts	25V	25	25	25	25	25	154V
	1310	1295	1290	1315	1290	1305	
Granite	1310	1305	1300	1310	1310	1310	total
Number	7	13	11	12	9	10	

These batteries need water all did not get changing.
Noise R.F. noise 0.7 div + 9DB in attenuator

1055-1105 Can't get fix time from VIP. Couldn't hear even tho not code at times. VIS still good.
1145a Some kind of a spanking noise with 200 cps component

Noon. Checked time against VJM, very strong. Clock 2 min slow. Corrected it.
Would clock 47 turns to tight.
Sol. down to 1/8", Filled to 5/16".

31st continued.
118 pm the sparking noise went off momentarily.
126 pm Heavy noise like a vacuum cleaner.
129 pm This noise off.

158 p Made antennas reversed by uncrossing leads on ±3 tuner box.

455 - 645 p made more phasing tests. The energy certainly is coming from south.

Took out all delay & left antennas reverse connected, attenuator 9DB.

Left 645 pm

2 Feb 56 Arrive 945 am. Bright & sunny Everything going. Sparking noise still on but stated to be intermittent about arrival time. When off for a few seconds things are very quiet. Then a steep cold front came from west with some rain & very dark clouds. Very strong precip. static. The input gauge on receiver flashed over a couple of times a second for about five minutes at peak of disturbance. This flashing could be stopped by detuning about 20KC either way from resonance. The flashover voltage purely R.F. as no D.C. picked up by (Noon: checked time on WWV, Clock ½ min fast, Corrected it) antenna could possibly reach gang condenser. Thus the radio frequency field strength of precipitation static must have been tremendous as about 1000 volts are necessary to cause a spark to jump between condenser plates.

Apparently the storm which came from west put the source of the crashing noise out of commission six times between 949 & 953 am At 957 am the storm arrived in this valley. It continued to

After 1400pm a long slew of rain squalls. Some break thunder at times, but no lightning visible.
315-320pm Changed leads on #3 antenna tuner box back to crossed. This makes the antennas normal again.

Ink down to 5/32". Filled to 11/32".
R.F. noise 0.3 div. with atten. at 9DB.
R.F. " 0.5 " " " 6DB.

Put 25b delay in south lead. Set atten at 6DB.

Left about 1440pm.

5 Feb. Arrive 1110am. Everything going
R.F. noise 0.1 division, attenuator 6DB.
Change atten to 0DB. New. R.F. noise 0.6 div.

Check Batteries			A cells.	1.98V	1.97V	1.98V	
			Gravity	1180	1170	1180	
			Number	5	4	6	
B batts	25	24½	24½	24½	24½	24½	149½V
Number	7	13	11	12	9	10	Total

VLJR is stn at about 34 on dial. always hard keyed.
Nice & quiet today. The continuous sparking noise is good.
Noon checked time against VIM. Clock 1 min slow. Corrected
Ink down to 1/8". Filled to 5/16"
310-345 changed over from #3 #4 to #1 #2 antennas
545pm started all four antennas normal.
Attenuator 0DB.

Left about 6PM.

7 Feb 45 Arrive 950am. Everything going.
R.F. noise 0.2 divisions, attenuator 0DB.
Check all batteries A cells. 1.93V 1.92V 1.93V
Gravity 1130 1120 1130
Number. 5 4 6
B batts 25, 24½ 24½ 24½ 24½ 24½. 149V
Number. total.
Interchanged position of # 7 & # 12 B batteries
Changed A cells. Now 2.10V 2.10V 2.11V
Gravity 1275 1275 1280
Number. 1 3 2
Now R.F. noise 0.7 divisions with attenuator 6DB.

1025-1035 tried to hear VIA on 500 KC for time.
Not possible to hear even at times the code interference was absent. If VIA is present it is exceedingly weak. Could hear VIS rather weak, and VIM strong as usual.

During past two days the # 2 antenna has not been connected as found a bad joint in the receptacle to which it was plugged. Fixed it.

Missed time from VIM at noon,
at 1pm. got time from VIS, which was fairly strong.
Clock 3 min slow. Corrected it. Also set up speed regulator slightly.

Sink down to 3/16". Filled to 5/16".
Wound clock 56 turns to flight.
Cut off chart paper & took it to tower.
Went back to # 1 & # 2 antennas normal.
Attenuator 6DB.

11 Feb 1957 Arrive 1005 am Everything going
Set quite weak.
R.F. noise 0.1 division with attenuator 6 DB.
1025-1035 listened for time from WIA. Could not
detect. Interference bad at times.

Check all Batteries, A cells. 2.02v 2.01v 2.03v
Gravity 1210 1200 1215
Number. 1 3 2

B batts	24	23½	24	24½	24	24	144½ volts
Number	12	13	11	7	9	10	total

Changed attenuator to 0 DB. Now R.F. noise 0.6 div.
Link down to 3/32". Filed to 3/8"
Noon checked time from WIM. Clock 2 min fast. Corrected it.
Would skip ten times
During afternoon looked for source of noise in Kemptone
and made various tests. The only test which
gave any indication whatever was when
fuses were pulled at Greggs place 130-3, This
disconnected the spur running out to
Drysdale. The decrease was very slight
indicating only small radiation from this spur

Readjusting #3 + #4 antenna tuner boxes for zero
capacity reactance cut out the 80,000 Ω resistance
from each side antenna to ground. This helped
quite a bit. Now these boxes same as others
all four adjusted to #1 on capacity switch and #3
on inductance switch.
Now calm: #3 antenna down lead tension 3½ lbs
#4 " " " " 2½ lbs.
Put 512 ft delay #1 ant; 256 ft #2 ant, 0 ft #3 ant, +

13 Feb. Arrive 1015 am. Every time going R.F. noise 0.3 divisions, attenuator ODB. 1025-1035 Listened for time from VIA. Even tho interference small, could not hear time.

clock batteries	A cells.	1.98V	1.97	1.98			
	Gravity	1160	1155	1170			
	Number	1	3	2			
B batts	24v	23½	23	24	21½	23½	139½V total.
Gravity							
Number.	12	13	11	7	9	10	

{Decided to let run couple more days.} #10 still from negative end 0.1 volts 1115 gravity See 21/11/56 ↓ 7/1/57 ↓ 18/2/57

Sparking noise to south today. Much worse than the fainter one to north. See 12/12/56. Probably caused on 4.52 pm 12/2/57.

Replaced #9 B battery with #8 which has 24V giving a new total of 142 volts. Took #9 B battery to town. See 16/2/57

Noon clocked time against VIM. Clock about 10 sec fast. Recalibrated D.C. Amplifier 100K Ω input resistance.

Output ma.	Input Volts	ΔE volts	Output ma	Input Volts	ΔE volts
0	0	—	11	3.15	.25
1	0.33	.33	12	3.45	.3
2	0.62	.29	13	3.70	.25
3	0.91	.29	14	4.00	.3
4	1.21	.30	15	4.30	.3
5	1.49	.28	16	4.55	.25
6	1.79	.30	17	4.9	.35
7	2.10	.31	18	5.3	.4
8	2.40	.30	19	5.7	.4

13 Feb Continued.

Put tube removed 9/1/57 in beat osc,
Put beat osc tube in mixer
Put mixer tube in local oscillator.
} see blue sheet

Now: R.F. noise 0.4 div with attenuator 12DB.

2nd down to 9/32", Let alone

328 pm. Wiggled vibrator tube. Great increase in vibrator output. Must be bad socket contact. Turned down.

Climbed up to top of west ridge and over to north end. Took two sets of photos. One set f 5.6 at 1/25 sec with red filter, Other f 11 at 1/25 no filter. Also took two pairs of sets of east ridge from a place about half way between ends of #2 + #3 antennas. One pair f 6.3 at 1/50 with red filter. Other pair f 16 at 1/50 no filter.

It is 2.5 mi hike from north end of west ridge back to new shed.

With attenuator at 6DB. R.F. noise 1.2 divisions.
Use #2 & #3 antennas normal. #1 & #4 antennas unused.

Left about 615 pm.

15 Feb. Arrive 1005 am. Set operating but feed line on #2 antenna grounded as sheep apparently got tangled in horizontal part and pulled part out of position. Pushed part back so that feeder no longer drags on ground. The feeder apparently became grounded at 658 pm on 14th and was

15th continued.
R.F. noise 0.6 division with attenuator at 6DB.

This is a wet day as been raining since 5am at intervals.

Check batteries	A cells.			1.92V	1.91V	1.92V		
	Gravity			1110	1100	1115		
	Number			1	3	2		
B batts	24	22½	22	23½	23	23	139 Volts	
+	1170	<1160	<1140	1175	low	1140		
Gravity	<1160	<1130	<1120	1175	water	1140	total.	
Number	12	13	11	7	8	10	see 15/3/57	

These B batts must have water added before charging
Replaced all batts. Now A cells. 2.11V 2.12 2.10

	Gravity			1270	1280	1270		
	Number			4	6	5		
B batts	24½	25	25	25	25	25	152V	
+	1275	1290	1295	1305	1290	1295		
Gravity	1235	1295	1300	1305	1305	1305	total	
Number	1	4	2	3	5	6		

Now R.F. noise 3.0 division with attenuator at 6DB
" " " 1.0 " " " " 12DB

Mixed time at noon from VIM. at 1pm from VIS the clock was 2 min slow. Corrected it!
Wound clock 53 turns to tight

Brought control and test terminals of vibrator unit on front panel. Normal vibrator volts = 0.6 rms on 3V AC scale of Triumph tester.

15 Feb continued.

Made Calibration of Grid Dip meter
Using large solenoid coil. Beat Osc = 46.0.

Receiver Dial.	Grid Dip Dial	Freq KC.
20 6.2	2.0	
25	2.90	
28	3.40	
30	3.80	
31		
32	4.25	
33		
34	4.70	
35	4.95	
→ 36	5.20	
37	5.50	
38	5.80	
39		
40	6.45	
41		
42	7.20	45.2 = 590 KC
45	8.50	
46.8	10.0	

Cut off chart paper & took to tower
Only 8 ft left on old roll.
Put on new roll.
Ink down to 3/32". filled to 5/16"

Used #2 & #3 antennas, #1 & #4 faulty unused.
Set attenuator at 12 Db for 0.8 division R. to null
Put 96 ft delay in #3 ant.

18 Feb. Arrive 1005 am. Everything going.
R.F. noise 0.5 division, attenuator 12DB.
1025-35 listened for tune from VIA but couldn't hear it because of interference coming from VIS.

Check batteries.	A cells.		2.03V		2.04V		2.03V
	Gravity		1220		1225		1220
	Number		4		6		5
B batts	29½	24½	29½	24½	29½	24½	150V total
number.	1	4	2	3	5	6	

#3 feeder tension about 2 lbs. #4 feeder slack.
At noon clock 2 mins fast by VIH. Corrected it.
The dead cell in #9 B battery recovered to 1.5V on open circuit while on way to town. Charged at 1½ amps for 2 days. All cells came up to over 1300 even when full watered. Brought back to Kemptar and put on standby for space.

Set attenuator 9DB. Now R.F. noise 0.8 division.
Put 12B fiddlay in #2 antenna. Use #2 & #3.
Unused #1 & #4 antennas.

Left about 1215 pm. Returned 605 pm.
Sink down to 5/32". Filled to 5/16"
Left again about 650 pm.

19 Feb. Arrive 1010 am. Everything going.
1025-1032 listened for VIA. Couldn't hear tune. Very little interference. Could hear ships calling VIS but couldn't hear VIS replys.
Left 1035 am.

22 Feb Arrive 345pm, Everything going.
Very dark black clouds to south.

R.F. noise 0.5 division with attenuator at 7DB.

Fuel down to 3/16", Filled to 5/16".
Wound clock ten turns

Changed attenuator to 6DB. Now R.F. noise 1.0 div.
Changed dellar from 129S to 128N.
Note that there is much less capacity from north.
Left about 430pm. Few drops beginning to come down now.

23 Feb. Arrive 955am, Everything going.
R.F. noise 0.2 division with attenuator at 6DB
Pulled up, tension on #3 unit to 950# & #4 unit to 900#.
At noon checked time against WM. Clock 1/2 min slow.
Corrected it. Wound clock 5 1/4 turns to right.
Cut plbg chart paper and took to town.

Check batteries	A cells	1.89v	1.88v	1.89v			
add water to these prior to recharging	Gravity	1100	1090	1105			
	Number	4	6	5			
B batts	24 1/2	24	24	24	24	24	145 1/2 Volts
Number	1	4	2	3	5	6	total.

Changed A cells. Now. 2.10 v 2.10v 2.09v
Gravity 1280 1270 1280
Number 2 3 1

Now R.F. noise 0.7 division with attenuator 12DB.
Put 128 ft delay in Spindle, set atten at 12DB
Fuel down to 1/16", filled to 7/32".
Tension #3 down load 19 1/2 lbs; #4 down load 19 lbs.

By Jeff Albright, the wind greatest on 28th Feb, This is probably when wires came down

1st March 1957 Arrive 1120 am.
Electronic equipment going.
Big wind of past few days up to Triple blew 2 down, antennas #1, #3, & #4. Only #2 operating. This had least tension of the four.
R.F. noise 0.3 division with attenuator at 6DB.

Check batteries	A cells.	1.97v	1.96v	1.97v
	Gravity	1170	1155	1165
	Number	2	3	1

B batts	24v	23	22½	20½	23	23	137½v total.
Gravity							
Number	1	4	2	3	5	6	

all cells in battery #3 show 1.9v except cell #8 from negative end which shows -0.1 volt & Gravity 1090
Interchanged position of B batteries #1 & #2 } Now 14½v total.
Replaced battery #3 by #9, Took #3 to town. }
Now R.F. noise 0.5 division with attenuator 6DB
Changed attenuator to 3DB. Now. R.F. noise 1.0 division
Noon. Check time against VIM. Clock 1½ min. fast.
Corrected it.
Left 1240 pm.
Spent afternoon looking for power line noise
No avail according to chart.
Returned 530 pm.

Changed all batteries Now. A cells. 2.08 2.09 2.04

Gravity	1265	1265	1265
Number	4	6	5

B batts

Gravity	25	25	25	25	25	25	152 volts
Number	9	11	7	12	13	10	Total.

Now R.F. noise 0.5 division with attenuator at 12DB.
Use #2 antenna alone

Mild & Tassic the strongest wind was for a half hour near noon on 28th.

4th March. Arrive 950am. Everything going

Check batteries

A cells	2.02	2.02	2.02
Gravity	1215	1215	1220
Number	4	6	5

B batts	24.5	24.5	24.5	24.5	24.5	24.5	= 149V
Number	9	11	7	12	13	10	total.

Put #1 antenna backup. Now 700Ω tension, this gives about 3# in down lead by estimate.

R.F. noise 0.2 division with attenuator at 12DB. Change attenuator to 6DB. Now R.F. noise 0.7 division
Sub down to 3/32", Filled to 1/32".
Start operating with #1 & #2 antennas normal

Left about 650pm.

7 March Arrive 615pm. Everything going.
R.F. noise 0.1 division with attenuator at 6DB.
Change attenuator to 0DB. Now R.F. noise 0.9 division
Sub down to 3/16". Filled to 5/16".
Start 129 ft north delay.
Left 635pm.

9 March. Arrive 10 am. Set very weak.
R.F. noise less than 0.1 division, attenuator 0DB.

Check batteries A cells.	1.91V	1.89V	1.90V
Gravity	1110	1100	1110
Number	4	6	5

B batts 24½ 24 24 24 24 24½ 145½ volts

9 March Continued.

Charge A cells. Now. 2.11 2.11 2.11
Gravity 1290 1295 1285
Number. 1 2 3

Interchanged position of B batts #12 & #9
Now R.F. noise 1.2 divisions with attenuator at 6DB
" " 0.8 " " " 9DB
1115am. Code stn at 34 on dial VIH at Holant
Relay batteries 12.9v open 12.6v closed.
Noon checked time against VIM. Clock 2min. slow.
Corrected at. Wound 63 turns to tight. The
clock has run now since the 1st or for 8 days.
Today a very distinct sputter-dubble noise
can be heard at all times. Obviously power
line interference. There seems to be a bit more
on #2 than #1 antenna. However phasing test
clearly show the energy coming from the south
Cells down to 3/16". Filled to 5/16"
Cut off chart and took to town.
Put attenuator at 15DB. R.F. noise 0.4? divisions
Antennas Reversed. 256 ft delay in north lead
Left about 505pm.

12 March Arrive 1050am Near calm. Bottom of
down lead on #1 antenna very slack and shorting
at times. Cut off 4 ft at bottom. In a calm the
tension still only about one pound.
Gain set too low.
R.F. noise <0.1 divisions with attenuator at 15DB
" " 0.2 " " " " 6DB
" " 0.3 " " " " 3 "
" " 0.8 " " " " 0 DB
Checked batteries. A cells. 2.04v 2.04 2.04
Gravity 1220 1230 1220

12 March Continued.

Noon: checked time against VIM. Clock 2 min fast. Corrected it.

The background noise seems fairly smooth today. Apparently the objectionable interference to south has stopped. This leaves only the thing at Elderslie as a noise maker. Also the spikes on record are about absent. From the phasing tests it is clear that the background is from south but the spikes are from north.

Zinc down to 5/32" Filled to 5/16"

Put 32ft delay in North lead. attenuator at ODB.

Left about 620pm.

15 March 56. Arrive 1130am. Everything going.

R.F. noise 0.1 divisions, Attenuator ODB.

Check batteries	A cells.	1.98V	1.97V	1.97V			
These A batts are	Gravity	1170	1170	1165			
to be watered.	Number.	1	2	3			
B batts	23½	22½	23	21	23	23	138V total
Gravity	1170	1120	1135	1125	1140	1155	
	1165	1105	1140	1160	1140	1165	
Number	12	11	7	9	13	10	

Cell #10 from neg end 0.4 volts & gravity 1125

Change all batteries: New Acells.		2.10V	2.10V	2.10V			
	Gravity	1270	1275	1270			
	Number	6	5	4			
B batts	25V	25	25	24½	25	25	154V total.
Gravity		1295	1305	1290	1305	1310	
		1310	1300	1290	1315	1300	
Number	3	5	4	1	6	2	

Now. R.F. noise 0.9 divisions with attenuator at ODB

" " " 0.5 " " " " 3 "

15th march continued,
Before changing batteries.
Tested receiver with signal generator.
Input from generator 50 + 80 Ω output in parallel.
Input adjusted to give 10 divisions on output meter.
This corresponds to about 20 small divisions on chart. Input required 2,5 microvolts in this rather insensitive condition. The small drift downward on chart is caused by signal generator not being warmed up enough.

about 1210 pm a sharp cold front with rain + hail went by.
Changed to better tubes in both osc + mixer. Now:
R.F. noise 1.3 divisions with attenuator at 12 DB.
Remeasured Sensitivity as follows.

R.F. noise Divisions	Attenuator DB.	Microvolts for 10 divisions
0.1?	24	2,2
,1	21	1,6
.3	18	1,0
,7	15	0,75
1,1	12	.55
2,0	9	.35
3,5	6	Below
5,8	3	Signal
9,0	0	Generator

Ink down to 1/8". Filled to 5/16".
420 pm. Sounds quite smooth now. Free from 50 cycle

Put 256 ft delay in north lead with antenna.
Set attenuator at 15 DB
reversed

16 March 57. Arrive 1005am. Everything going.
Noon checked time, Clock 1 min fast, corrected it.
Put #3 antenna Back up.
Make as follows #1=0, #2=128N, #3=256N.
Set attenuator to 12DB. R.F. noise 1.1 division
Left about 445pm.

17 March. Arrive 1210pm. Everything going.
Examined equipment & showed to radio club.
Left 135pm.

March 18 Arrive 1030am. Everything going.
R.F. noise 0.8 division with attenuator at 12DB.
Sensitivity check 0.60 microvolt for 10 divisions.
check all batteries A cells.

	1210	1216	1215
Gravity	2.03	2.03	2.03
Number	6	5	4

B batts

	25	25	24.5	24.5	25	24.5
Number	3	5	4	1	6	2

TOTAL 151 V.
Ink down to 1/8". Filled to 5/16"
Make plage tests.
Put back to #1=0 ft, #2=128 ft, #3=256 ft.
Left about 130pm.
See 15/2/57
#8 B batteries taken to town & charged. all electrolyte replaced by new solution 1270 gravities. Then charged

21 March 56 Arrive 1005 am. Everything going.
R.F. noise 0.4 divisions with attenuator at 12DB.
Sensitivity 0.9 μv for 10 divisions

Check all batteries.	A cells.	1.96v	1.97v	1.96v			
	Gravity	1165	1160	1160			
	Number	6	5	4			
B batts	25v	24½	24½	24	25	24½	149v total
Number	3	5	4	1	6	2	

Interchange position of B batts # 3 & #1.
Replace A cells. Now 2.12v 2.12v 2.12v
Gravity 1265 1265 1270
Number 2 3 1
Now. R.F. noise 1.0 divisions with attenuator at 12DB.
Sensitivity 0.64 μv for 10 divisions

Cut off chart paper & took to town. Only 10 ft left on roll so put on a new roll.

Near calm. Tension in #3 down lead 6.3 lbs
#2 " " 2.5 "
#1 " " 11.0 "
Cut 3½ ft from #2 down lead. Now tension 6.8 lbs.

Most of background comes from north. Probably from Ellendale

2 Wk down to 5/32". Filled to 1/32".
Noon checked time. Clock correct.
Wound clock 47 turns to tight
Background very rough today. Seems like some 50 ν coming in from north.
We now seem to be in about same condition as prior to Feb 12th. The objectionable noise which came on there for awhile disappeared after storm of 28th

25 March. Arrive 1130A. Everything going.
R.F. noise 0.4 division with attenuator at 12DB
Sensitivity 0.91 uv for 10 divisions
Cycle down to 1/32". Filled to 3/8"
Cycle tune at noon. Clock 2 min fast, corrected it.
Check batteries

	A cells						
	2.01V	2.00	2.00				
Gravity	1210	1195	1200				
Number	2	3	1				
B batts	24	24	24	22	24	24	142V
Number	1	5	4	3	6	2	total.

all cells on #3 show 2V or better except #8 from negative end which shows -0.1 volt under load. Reversed to volt on open circuit. Gravity 1160. Took to town for recharging. Replaced #3 by #8 B batt having 25V. Now 145V total.
Now R.F. noise 0.5 division with attenuator at 12DB.
Sensitivity 0.8 uv for 10 divisions.
Changed attenuator to 6DB. Now R.F. noise 1.5 divisions
Sensitivity 0.45 uv for 10 divisions.
Made phasing tests. Seems to be some kind of rain static weakly coming in from north judging by peaks on record. On #1 & #3 the noise sounds like a pump running with a hollow wheezing noise repeating every 2 seconds or so.
210pm Black clouds off to SW.
Continued attenuator at 6DB. Put antenna back to #1=0, #2=128, #3=255.
225pm Screeching noises at times. Sounds like rain static.

Left about 240p.

The aurora was slow as a green-yellow haze to south from Birdie, Observatory, First visible

29/3/57 Arrive 1140a. Everything going.
R.F. noise 0.6 division with attenuator at 6DB.
Sensitivity 0.76 μv for 10 divisions.

At noon at 1PM against V.S. 6 min slow. Converted it.
Wound .63 turns to tight.
Sink down to 5/32". Filled to 1/32".
Cut obby chart & took to town.
Checked all Batteries A cells. 1.91v 1.90 1.91v

Gravity	1115	1100	1110
Number	2	3	1

B batts	23½	23	23	24½	23½	23	141 volts
Gravity	1170	1130	1140	1225	1140	1170	
	1115	1150	1140	1220	1165	1145	total.
Number	1	5	4	8	6	2	

Changed all Batteries Now A Cells 2.11 2.10 2.10

Gravity	1280	1280	1285
Number	6	5	4

B batts	24½	25	25	25	25	25	152 volts
	1225	1295	1305	1270	1295	1285	
Gravity	1230	1295	1300	1280	1290	1290	total.
Number.	5	7	10	11	12	13	

Now. R.F noise 3.9 division with attenuator at 6DB
" " 0.8 " " " " 15DB.
Sensitivity 0.65 μv for 10 divisions.

Put attenuators to #1=0, #2=256, #3=512
Left attenuator at 15DB.

Left about 4-10p.

3/9

2 April 1957 Arrive 1145am. Set going but
upon arrive on horizontal part of #2 down lead
broken. This probably occurred at 310pm on 30/3/57
Apparently cattle rubbed on it until it broke as top
high for sheep. Antenna still operated as an "L" on last
half which gave very large output. At times the broke
end on tuner side would short. This would decommission
tuner box and reduce output. This uncertain condition
lasted to 1145am on 2/4/57. Repaired down lead

Noon, checked Time. Clock 1 min fast, Corrected it.
R.F. noise 0.2 division with attenuator at 15DB.
Sensitivity 1.2 μv for 10 divisions
Changed attenuator to 9DB. Now R.F. noise 0.8 divis
Sensitivity 0.67 μv for 10 divisions

Checked Batteries	A cells	2.01V	2.01	2.01			
	Grants	1210	1205	1205			
	Number	6	5	4			
B batts	29½	29½	25	29½	25	29½	149V tot
Number	8	7	10	11	12	13	

The rough stuff seems to be coming in from both south
and north today, a bit more from north. Sounds like
previous static far away. Good smooth records when
pointing straight up without side lobes.

Left attenuator at 9DB.
Put antennas to #1=0, #2=128, #3=256

Left about 440pm

3/4/57. #10 cell was taken out of #3 B batt and put

5 April 1957. Arrive 1130A. Everything going.
R.F. noise 0.3 division with attenuator at 9DB.
Sensitivity 0.97 μv for 10 divisions.

Check Batteries			
A cells.	1.93v	1.92	1.93
Gravity	1140	1130	1135
Number	6	5	4

B batts.	24	24	24	24	24	24	146v
Number.	8	7	10	11	12	13	total.

Noon: check time against VIM. Clock 5 mins slow.
Corrected it and advanced mag to a bit, Would
clock 56 turns to tight.
Jack down to 3/16". Filled to 3/8"

Charged A cells	Hour.	2.09v	2.09	2.09
	Gravity	1270	1275	1275
	Number.	3	2	1

Hour R.F. noise 1.4 division with attenuator at 9DB.
" " " 0.9 " " " " 12DB
R.F. sensitivity 0.60 μv for 10 divisions

From phasing tests it would appear that there are two sources of low angle background noise. The largest one seems to be at azith.

Took fotos of valley from road across side of cliff at south end. Three pairs looking NE, N & NW. Each pair one of 1/25 sec at f 11 no filter & 1/25 sec f 5.6 with red filter. Thickly overcast & not much like XX616 film.

Put attenuator to 12DB.
Delay lines, #1 out = 0, #2 out = 192 ft, #3 out = 384 ft.
Cut off chart paper and took to house.