

LOG NO: 0219	RD.
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GEOPHYSICAL SURVEYS

**CALLAGHAN CLAIMS
AND
NORTHAIR MINES OPTION**

**VANCOUVER MINING DIVISION
BRITISH COLUMBIA**

NTS 92J/3

SUB-RECORDER RECEIVED
FEB 17 1988
M.R. # \$
VANCOUVER, B.C.

**Owners: KIDD CREEK MINES LTD.
NORTHAIR MINES LTD.**

Operator: KIDD CREEK MINES LTD.

FILMED

November 27, 1987.

**Grant A. Hendrickson, P.Geoph.
GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,092
PART 5 OF 7

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INTRODUCTION

This report reviews the geophysical work carried out by Delta Geoscience Ltd. on the Northair Mines option and Callaghan claims during the period August 19 to September 13, 1987. Kidd Creek Mines Ltd, a wholly owned subsidiary of Falconbridge Limited, owns the Callaghan claims and has the option to acquire the Northair Mines claims. The Callaghan claims are adjacent to and immediately west of the Northair Mines option. Kidd Creek Mines Ltd. is the operator.

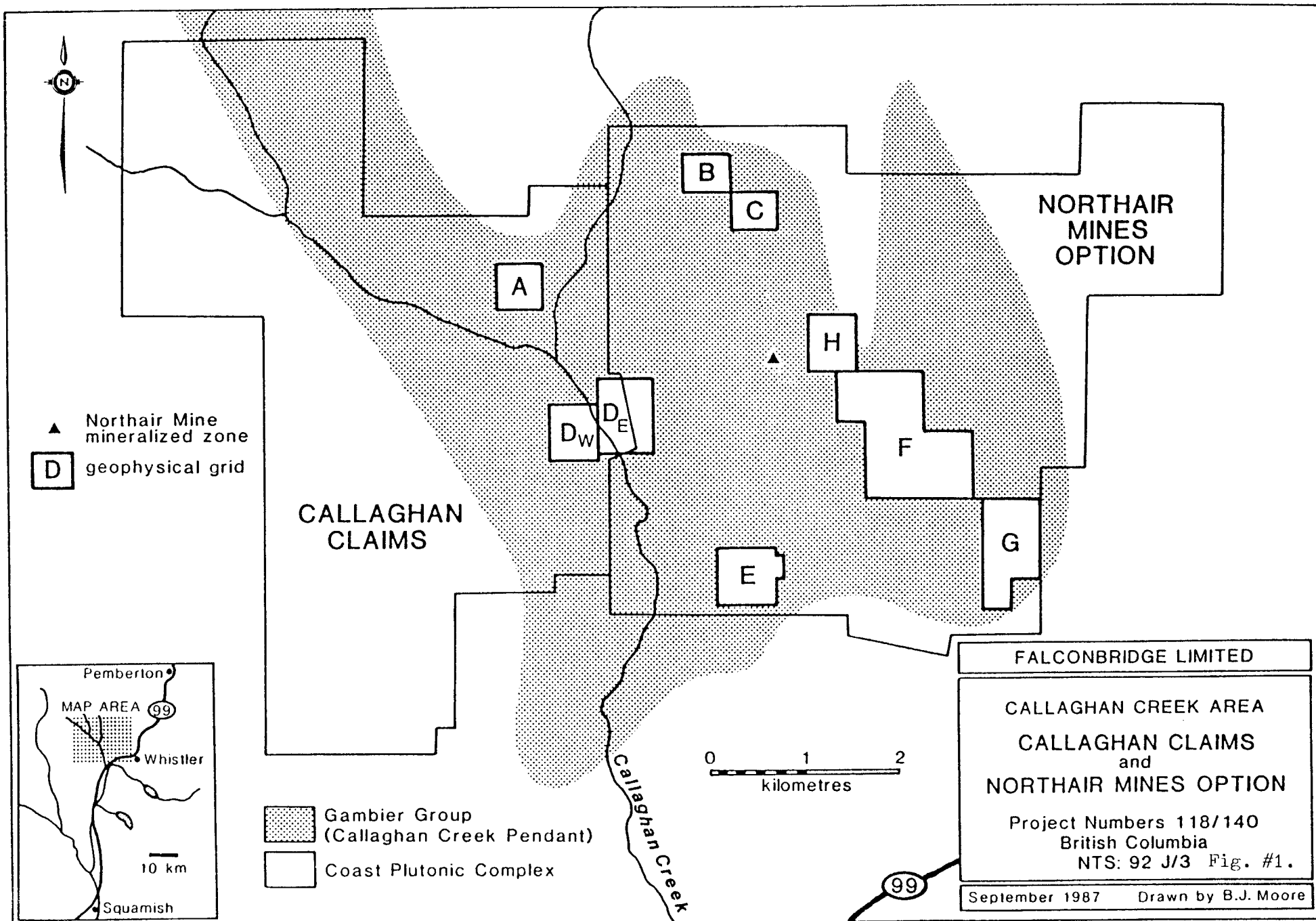
The project was initiated to explore the Gambier Volcanic rocks of southern British Columbia, near the town of Whistler, (NTS 92J/3). In the survey area, the Gambier Group exists as a large pendant (the Callaghan Creek Pendant) within the Coast Plutonic Complex. The exploration target is volcanogenic massive sulphide deposits.

Falconbridge Limited contracted the geophysical program to Delta Geoscience Ltd. G. Hendrickson, the author of this report and Senior Geophysicist for Delta Geoscience Ltd., planned and supervised the geophysical work in consultation with Nils von Fersen, the Senior Project Geologist for Falconbridge Limited.

The ground geophysical program was follow-up to a Dighem airborne electromagnetic and magnetic survey flown in April of 1987. Seven areas were picked from the airborne data for ground examination. Two other areas were added to the list based on re-examination of existing data obtained from Northair Mines, the previous operator. In all, 9 grids, A, B, C, D-EAST, D-WEST, E, F, G and H received detailed ground geophysical surveys.

Approximately 50 kilometres each of VLF/MAG/GRAD/I.P./RESISTIVITY surveys were completed. Surveys have been designed to have good lateral resolution, good signal to noise response and to allow for mobility in the field.

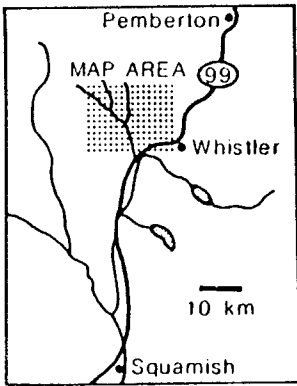
The decision to use Induced Polarization and V.L.F. as a follow-up tool was based on the fact that several of the airborne targets picked for follow-up were very weak conductors and it was considered unlikely that conventional ground E.M. surveys (MAXMIN) could properly evaluate them. The stronger airborne E.M. anomalies could alternatively have been evaluated by Maxmin horizontal loop surveys, although perhaps with not as much detail.



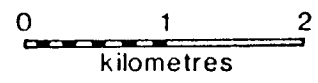
▲ Northair Mine mineralized zone
 [D] geophysical grid

CALLAGHAN CLAIMS

NORTHAIR MINES OPTION



[Stippled Box] Gambier Group (Callaghan Creek Pendant)
 [White Box] Coast Plutonic Complex



FALCONBRIDGE LIMITED
 CALLAGHAN CREEK AREA
 CALLAGHAN CLAIMS
 and
 NORTHAIR MINES OPTION
 Project Numbers 118/140
 British Columbia
 NTS: 92 J/3 Fig. #1.
 September 1987 Drawn by B.J. Moore

PERSONNEL - Delta Geoscience Ltd.

Grant Hendrickson	- Senior Geophysicist/Supervisor
Scott Cosman	- Junior Geophysicist/Crew Chief
Eric Hards	- Junior Geophysicist
Robert Wilson-Smith	- Junior Geophysicist
Dean Truant	- Junior Geophysicist
Tim Tokarsky	- 4th Year Geophysicist Student
Rick Ofner	- Technician
Greg Martin	- Technician

EQUIPMENT

- 1 - Scintrex I.P.R.10 Induced Polarization Receiver
- 1 - Scintrex 250 watt Induced Polarization Transmitter
- 3 - King Portable V.H.F. Radios
- 1 - Scintrex I.G.S.II System, configured as a VLF/MAG/
GRADIOMETER
- 1 - Scintrex MP-3 Base Station Magnetometer
- 1 - Toshiba T3100 Computer
- 1 - Fujitsu DL2400 Printer

DATA PRESENTATION

Stacked profile plans of the filtered V.L.F., Magnetics, Gradiometer, Resistivity and Chargeability have been prepared at a scale of 1:2000.

The Chargeability, Resistivity, Magnetics and V.L.F. data is also presented in a contoured plan format, at a scale of 1:2000.

Profiles aid in interpretation, whereas contoured plans give a good spatial view of the data.

Figure numbers are given with the grid letter to facilitate differentiating between grids and will follow the format below. Profile data is always presented increasing to the right from a base level (value at the line position).

- Fig. #1 - Location Map.
- Fig. #2A - Chargeability Contour Plan.
- Fig. #3A - Resistivity Contour Plan.
- Fig. #4A - Magnetic Contour Plan.
- Fig. #5A - Filtered V.L.F. Contour Plan.
- Fig. #6A - Filtered V.L.F. Profiles.
- Fig. #7A - Chargeability Profiles.
- Fig. #8A - Resistivity Profiles.
- Fig. #9A - Magnetic Profiles.
- Fig. #10A - Gradiometer Profiles.

Chargeability, Resistivity and V.L.F. contour plans were not created for Grids B and H, due to the lack of any strong continuous anomalies.

Separate profile sections of the V.L.F. data are also given with the Fraser and Hjelt filtered values posted below the profiles. The scale of these sections is 1:2500. This data is appended to the back of this report.

SURVEY PROCEDURE

Falconbridge Limited ensured that the line cutting contractor had cut and accurately chained all the grid lines prior to the arrival of the Delta Geoscience Ltd. crew. Station interval was set at 20 metres horizontal, thus the chaining crews had to correct for the slope. Lines were spaced 100 metres apart.

Surveys as mentioned earlier were designed to have good lateral resolution, good signal to noise response and good mobility in the field, to help solve four main problems:

- a) spatial position and strength of sulphide zones.
- b) spatial position of structures.
- c) to give a good indication of the lithology present under the overburden.
- d) cost effective surveying in rough terrain.

It was expected that the Induced Polarization would respond primarily to sulphide zones and only weakly to lithology. The Resistivity survey was expected to respond primarily to the lithology and only moderately to sulphide zones. The V.L.F. survey was expected to respond equally well to both sulphides and/or structures. The Magnetics were expected to respond primarily to the lithology and any near surface pyrrhotite/magnetite mineralization.

Induced Polarization and Resistivity:

The Schlumberger electrode configuration was chosen for this survey. Current electrode separation, AB, was set at 220 metres. Potential electrode separation, MN, was set at 20 metres. This array gives excellent horizontal resolution, with the prime depth of investigation at the 30 to 50 metre depth range. The array gives better signal to noise response, when compared to other arrays for the same depth of investigation - an important consideration when using a battery-powered 250 watt portable transmitter. Some general information on dip is also obtained by using the Schlumberger array.

V.L.F.:

The magnetic and V.L.F. surveys were performed simultaneously. V.L.F. measurements were taken every 20 metres along grid lines. The Seattle V.L.F. station, NLK, transmitting at 24.8 khz was chosen as the transmitter. This station is approximately on strike with the expected strike of the geology, thus provided good electromagnetic coupling and excellent primary field strength for any conformable conductors.

The Hawaii V.L.F. station. 23.4 khz, was used as an alternate transmitter to the Seattle station for a few days when there was a prolonged shutdown of the Seattle station. The reader should remember that a few of the lines on F grid were read with Hawaii. The orientation of the Hawaii station with the general strike of the geology was poor. Note that for optimum electromagnetic coupling, the conductor should strike toward the transmitter.

Three components of the V.L.F. electromagnetic field were measured: the horizontal field strength, vertical in-phase and vertical quadrature. All of the vertical in-phase V.L.F. data was subsequently filtered using the Fraser and Hjelt filters. This filtering helps to understand the spatial position of conductors, both along strike and downdip. These filtering techniques are referenced at the back of this report.

An important parameter of V.L.F. surveying should be noted - the skin depth. Skin depth is a useful parameter for describing the depth of penetration of V.L.F. signals. A good conductor buried at one skin depth will produce a signal at the surface with an amplitude equal to approximately 10% of the incident field. Detection of this weak signal would be difficult in the presence of any noise. Skin depth decreases with an increase in frequency and decrease of the resistivity of the bedrock and/or overburden. For the average apparent resistivity encountered in these surveys (approximately 1200 ohm-m), the skin depth is approximately 125 metres.

Magnetics:

As mentioned earlier, measurements of the total magnetic field strength were taken every 10 metres along grid lines, simultaneously with the V.L.F. survey. Accuracy of the portable magnetometer readings is ± 1 nanotesla. An aluminium staff was used to keep the sensors approximately 2.5 and 3.0 metres above the ground.

Magnetic field measurements were corrected for any diurnal variations, through the use of the MP-3 base station magnetometer located at the old Northair Mines field office. This office is at the Minesite. The base station was approximately 30 metres south of the office. A base station standard of 56,300 nanotesla was assumed for this project. All grids are referenced to this site.

Gradiometer Survey:

The magnetic gradiometer survey is a useful adjunct to magnetic surveying. The gradiometer acts like a filter, in that it enhances local near surface anomalies at the expense of long wavelength regional anomalies. The rate of fall-off of the magnetic field with height is much higher for local sources than for regional sources and therefore a higher gradient (rate of change) can be recorded over local sources using sensors 0.5 metre vertically apart.

Concentration of near surface magnetite (both within the bedrock and overburden) has created noise for the Gradiometer and thus lessens its effectiveness.

A useful feature of the gradiometer data is that it allows a simple calculation to be made for the depth of an anomaly (assuming a dipole field):

$$d = \frac{-3 \text{ (total field anomaly) (in nanotesla)}}{\text{Gradient Anomaly (in nanotesla/metre)}}$$

The gradiometer can also help to accurately distinguish the contact area between rocks of different magnetic susceptibility.

DISCUSSION OF THE DATA

Grid A:

Grid A was established to test some relatively strong airborne EM anomalies north of Callaghan Creek.

The resistivity and V.L.F. surveys have shown that a large, very conductive, zone exists within the centre of the grid. This conductor folds to the northeast.

Strong chargeability anomalies correlate well with the conductivity. These anomalies are excellent prospects for sulphide zones.

Magnetic anomalies flank, but are not coincident with the chargeability or conductivity.

This is an interesting anomaly that clearly deserves more work provided the geology is supportive.

The anomalies subcrop, however there may be too much overburden to expect any success from trenching. Dip, although steep, appears variable line to line.

Grid B:

Grid B was established to evaluate weak airborne responses that correlated with a magnetic response.

Several modest chargeability responses were noted, however the most significant is at 0+30W, L.4+00N, where there is a prominent resistivity low and magnetic high directly related to the I.P. response. The V.L.F. indicates this anomaly lies at the north end of a structure. This response could be from a near surface vein. The magnetics suggest the response may be related to a deeper seated feature.

If there is any encouragement from the geology and geochemistry, this anomaly should be studied further.

Dip appears near vertical.

Grid C:

Grid C is interesting in that it was established to better evaluate the indications of a deep bedrock conductor in data collected by the previous operator. No conductor was picked up by the airborne survey, however examination of the flight lines suggested the area of interest lay between flight lines.

The 1987 ground surveys have shown that Grid C has an excellent near surface bedrock conductor or conductors that correlate directly with chargeability anomalies. The data on L.4+00N indicates several stacked sulphide horizons may be present. This hypothesis should be tested by surveying lines 3+50N and 4+50N. In addition, the grid should be extended north.

The feature presented by the chargeability and resistivity data suggest a deep trough to have been present in the depositional surface. Another possibility is that the anomaly represents a feeder zone to the strong chargeability/V.L.F. anomaly that runs along the west edge of the grid.

This is an excellent target for massive sulphide mineralization.

The partial correlation of the chargeability and V.L.F. anomalies with the magnetics, suggests the mineral pyrrhotite will be present in minor amounts.

Dip appears steep but variable in direction. Targets are shallow, but likely too deep for successful trenching.

Grid D-West:

This grid was established to evaluate weak indications from the airborne data of a bedrock conductor associated with a strong magnetic response.

The strong magnetic response from the west side of the grid is likely due to the much younger Garibaldi basalts common in the survey area. These basalts are flat lying and thick enough to frequently mask the underlying Gambier group.

Several north/south trending V.L.F. conductors (structures) cross the grid.

The chargeability data is quite flat over most of this grid.

The only feature of interest is the modest chargeability and V.L.F. response at 0+10E, L.5+00N that is directly coincident with a strong magnetic response. The magnetic response dips approximately 50° to the west. Depth to the top of this magnetic anomaly is in the order of 30 metres, which may account for the modest I.P. response. If there is any further encouragement from the geology, this anomaly deserves further work, particularly extending the grid to the north.

Grid D-East:

This grid was put in to test relatively strong airborne electromagnetic anomalies east of Callaghan Creek.

Ground surveys have revealed a strong bedrock conductor centered at approximately 0+50E, 5+50N. This is a complex conductor, the complexity may be due to folding.

Strong chargeability anomalies correlate well with the low resistivity, which is encouraging. Chargeability anomalies are open to the west of lines 5+00N and 6+00N.

There is no appreciable magnetic response from the low resistivity zones.

This conductive zone is not formational looking, perhaps an important difference from the typical formational looking conductor normally caused by pyritic, graphitic argillites.

Provided the geology is encouraging, this anomaly is a good bet for massive sulphide mineralization.

Again, the targets are not deep, however trenching may not succeed in getting through the overburden. Dip appears near vertical, but variable in direction from line to line.

Grid E:

This grid was put in to test the strongest airborne electromagnetic response. The airborne anomaly had good amplitude, however was very narrow.

Several strong chargeability anomalies were detected. The chargeability anomalies on the west side of this grid correlate better with resistivity lows and it is clear that the grid should be extended to the northwest. The airborne anomaly was caused by one of these resistivity lows.

The strong and good strike length chargeability anomaly in the centre of the grid correlates well with a strong magnetic response - a fact that suggests the mineral pyrrhotite is present.

The resistivity and chargeability data clearly show that a distinct change in rock type occurs on the south side of the grid. The higher resistivities and lower chargeabilities suggest an intrusive rock. Some of the local high resistivity anomalies occurring in the centre of the grid may be apophysis of this proposed intrusive.

Anomalies are near surface and have a near vertical dip.

Several targets are presented, however a correlation with the geology may point out the single best drill target.

Grid F:

This grid is by far the largest grid and was put in to evaluate several weak airborne electromagnetic responses east of the Northair mineralized horizons.

The strong chargeability anomalies located in the northwest and southwest corners of the grid are good targets for sulphide mineralization. There is some formational look to these targets, however multiple horizons are present, some with a restricted strike length. Clearly, the grid should be expanded to the northwest and southwest, if the geology is encouraging.

The correlation of V.L.F. conductors with resistivity lows is good. These conductors and chargeability anomalies also correlate well with moderate strength magnetic anomalies - a fact that indicates the mineral pyrrhotite is present. Note, that these magnetic anomalies are negative, i.e. a magnetic reversal, thus remanent magnetism is quite strong.

The apparent strike of anomalies must be considered in light of the substantial topography changes within this grid and the apparent dip.

Minor chargeability anomalies and V.L.F. conductors in the southeast corner of the grid likely are due to structures and minor sulphide zones, perhaps veins. The high resistivities in the extreme southeast corner of the grid are likely due to intrusive rock.

Grid G:

This grid was established to evaluate several very weak airborne electromagnetic responses.

A modest chargeability anomaly that correlates well with a V.L.F. conductor and magnetic horizon, has been detected on the east side of the grid at approximately 10+00E.

This anomaly also correlates with a resistivity low at 9+70E, L.6+00N. Other minor chargeability anomalies were detected immediately west of this zone. The significance of these weak anomalies is questionable, however they should be related to the geology and geochemistry prior to writing them off.

The resistivity suggests the grid is within the Gambier rocks.

Overburden thickness is minimal. Dip appears to be steeply to the east.

An east-west trending fault likely crosses the grid from 6+00E, 7+00N to 12+00E, 5+00N. Offsets in the magnetic data appear to be approximately 50 metres.

Grid H:

This grid was established to evaluate an area of interesting geology. There were no conductors detected in this area by the airborne survey.

Weak chargeability responses at L.0, 1+00W and L.1+00S, 1+20E, were detected, however these were one line responses respectively. Both anomalies coincide with V.L.F. conductors (likely structural lineaments). There is no magnetic correlation with the weak chargeability responses.

The magnetic data indicates the northeast corner of the grid has a much lower magnetic susceptibility, which may reflect more felsic volcanic rock. Magnetite rich mafic volcanic flows are likely present in the southwest corner of the grid.

CONCLUSION AND RECOMMENDATIONS

The ground geophysical surveys have confirmed the results of the airborne electromagnetic survey and have provided additional information related to the geological setting of each grid. This data can be used to improve and extend the geological mapping into overburden covered areas by comparison with the responses over outcropping areas. Offsets in the contour patterns likely represent cross faults. The resistivity data, in particular, has accurately delineated the shape of the stronger conductors.

The new interpretation of the Grid C anomaly should dramatically improve the evaluation of this target.

Good to moderate strength bedrock conductors coincident with chargeability highs, were located on Grids A, C, D-East, E and F. These conductors are good prospects for sulphide mineralization, however a correlation with the geology may downgrade some of these targets. It is not possible to distinguish geophysically between sulphide and graphitic conductors and since they are frequently intercalated, it would be a dangerous exercise.

A study of the Hjelt filtered sections at the back of this report will provide further insight into the dip of conductors.

Some of the grids should be expanded to pursue prospective horizons only partially evaluated by the present surveys.



Grant A. Hendrickson, P.Geoph.

REFERENCES

Fraser, D.C., 1969: Contouring of VLF-EM data: Geophysics
34. 958-967.

Karous, M., and Hjelt, S.E., 1983: Linear Filtering of
V.L.F. Dip-Angle Measurements: Geophysical Prospecting.

STATEMENT OF QUALIFICATION

Grant A. Hendrickson

- B.Science, U.B.C. 1971, Geophysics option.
- For the past 17 years, I have been actively involved in mineral exploration projects throughout Canada and the United States.
- I am a registered Professional Geophysicist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- I am an active member of the S.E.G., E.A.E.G., and B.C.G.S.



Grant A. Hendrickson, P.Geoph.

STATEMENT OF EXPENDITURE

GEOPHYSICS

Delta Geoscience Ltd.
642 English Bluff Rd.
Delta, B.C.

IP, VLF, MAG 40.4 km @ \$738.59/km..... \$29,839.03

LINECUTTING

Bill Chase Linecutting
152nd North Bluff
White Rock, B.C.

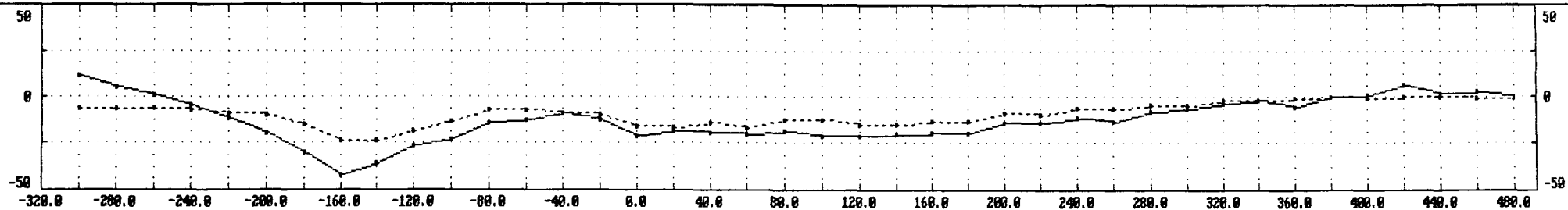
Linecutting, 26.3km @ \$350.20/km..... \$ 9,210.26

TOTAL EXPENDITURE.... \$39,049.29

NORTHAIR, CALLAGHAN AREA, D-WEST GRID, ULF DATA (24.8 KHZ)

LINE 100N.

Q%	-6.0	-6.0	-6.0	-7.0	-9.0	-10.0	-15.0	-24.0	-24.0	-18.0	-13.0	-7.0	-7.0	-9.0	-10.0	-16.0	-17.0	-14.0	-17.0	-12.0	-12.0	-15.0	-15.0	-13.0	-13.0	-9.0	-10.0	-6.0	-6.0	-4.0	-4.0	-2.0	-2.0	-1.0	0.0	-1.0	0.0	0.0	-1.0	-1.0
I%	12.0	5.0	1.0	-4.0	-11.0	-19.0	-30.0	-42.0	-36.0	-26.0	-23.0	-14.0	-12.0	-9.0	-12.0	-21.0	-18.0	-19.0	-20.0	-18.0	-21.0	-21.0	-20.0	-19.0	-19.0	-14.0	-14.0	-11.0	-13.0	-8.0	-6.0	-3.0	-2.0	-5.0	0.0	1.0	6.0	2.0	3.0	0.0
FRFT	20.0	21.0	27.0	34.0	42.0	29.0	-10.0	-29.0	-25.0	-23.0	-16.0	-5.0	12.0	18.0	4.0	0.0	1.0	0.0	4.0	2.0	-3.0	-3.0	-6.0	-10.0	-8.0	-4.0	-4.0	-10.0	-12.0	-9.0	-2.0	0.0	-8.0	-12.0	-7.0	2.0	5.0			

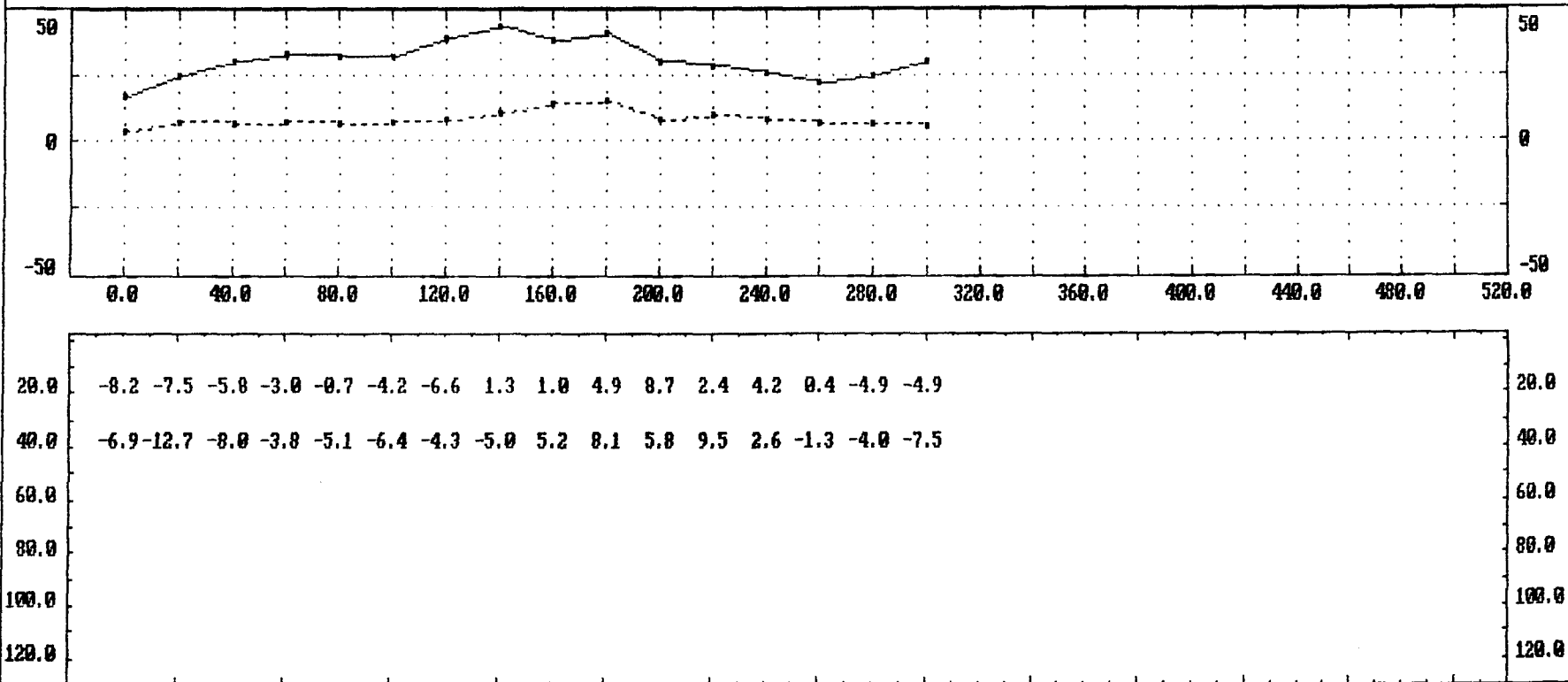


20.0	7.5	7.2	7.4	9.6	11.4	12.2	13.7	4.2	-9.1	-7.5	-8.7	-7.6	-2.7	-0.9	6.9	3.6	-0.7	2.2	-0.7	0.6	1.7	-0.7	-1.4	-0.9	-3.5	-3.0	-2.5	-1.5	-2.3	-4.7	-2.0	-3.4	0.6	-2.1	-3.4	-3.5	-0.9	1.8	1.1	3.6
40.0	7.5	14.4	14.2	13.2	18.1	22.7	15.1	4.8	-2.7	-13.4	-11.7	-8.3	-6.1	1.9	2.0	4.9	3.7	-1.9	1.9	1.8	0.1	-0.2	-1.3	-4.6	-4.3	-5.3	-4.5	-4.1	-5.5	-6.0	-7.9	-2.6	-4.0	-2.8	-5.1	-4.2	-1.7	1.1	4.8	3.3
60.0	4.5	10.8	10.2	21.8	24.7	20.2	13.7	9.0	0.2	-7.8	-16.6	-11.2	-0.5	-0.5	3.7	3.7	2.4	2.5	-1.9	-0.2	-0.7	-0.6	-2.6	-4.3	-6.4	-4.9	-7.1	-9.0	-7.0	-8.0	-4.0	-8.2	-5.6	-7.5	-2.8	-3.0	-2.8	0.8	2.9	7.2
80.0	2.4	10.6	20.7	32.3	25.8	16.8	13.0	4.7	1.0	-4.2	-8.1	-8.9	-7.5	-2.1	0.4	4.3	6.3	6.3	2.6	-4.9	-3.0	-4.9	-5.4	-4.4	-5.4	-7.6	-8.2	-10.0	-9.6	-5.3	-8.0	-6.7	-10.9	-6.0	-5.3	-1.9	-0.1	-0.5	3.3	5.1
100.0	4.3	14.1	24.5	24.8	22.3	17.4	8.9	5.6	1.2	-0.7	0.1	-6.8	-12.4	-7.3	-2.3	1.0	5.7	6.6	7.1	3.9	-5.0	-5.3	-8.4	-7.7	-7.6	-9.3	-9.7	-9.5	-6.7	-9.9	-8.3	-10.7	-6.9	-8.6	-3.9	-2.2	0.5	2.1	1.8	5.4
120.0	6.8	16.9	17.1	14.4	16.2	14.4	10.3	4.5	4.0	6.2	1.1	-3.0	-7.9	-14.8	-9.0	-2.1	-0.6	5.2	6.0	5.4	2.9	-4.8	-2.4	-6.8	-9.3	-11.3	-12.5	-9.3	-11.3	-10.2	-12.7	-7.4	-8.0	-5.5	-5.2	-1.5	0.6	3.3	4.7	3.9

NORTHAIR, CALLAGHAN AREA, D-EAST GRID, VLF DATA (24.8 KHZ)

LINE 0.

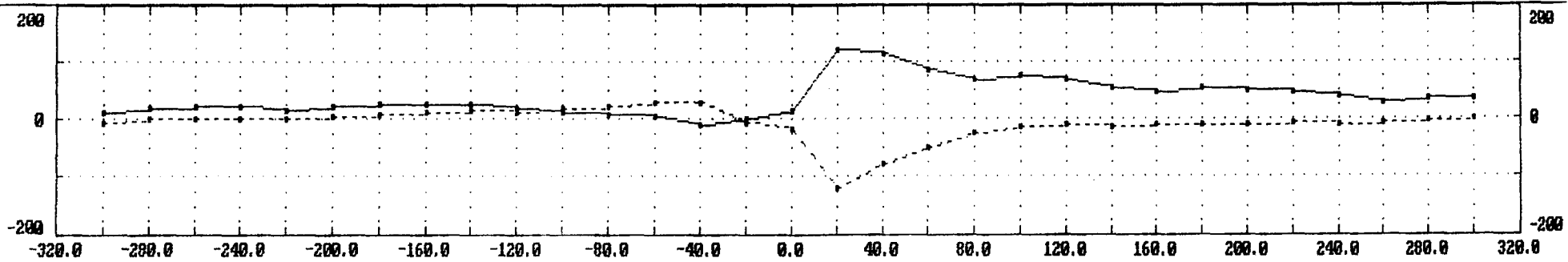
Q%	4.0	7.0	6.0	7.0	6.0	7.0	8.0	11.0	14.0	15.0	8.0	10.0	8.0	6.0	6.0	5.0
I%	17.0	25.0	30.0	33.0	32.0	32.0	39.0	43.0	38.0	41.0	30.0	28.0	26.0	22.0	25.0	30.0
FRELT	-21.0	-10.0	-1.0	-6.0	-18.0	-10.0	3.0	10.0	21.0	17.0	10.0	7.0	-7.0			



NORTHAIR, CALLAGHAN AREA, E GRID, VLF DATA (24.8 KHZ)

LINE 0.

Q%	-5.0	-1.0	1.0	1.0	0.0	4.0	6.0	11.0	13.0	10.0	17.0	20.0	27.0	27.0	-5.0	-18.0	120.0	-76.0	-48.0	-24.0	-14.0	-9.0	-12.0	-11.0	-10.0	-9.0	-5.0	-10.0	-6.0	-2.0	-1.0
I%	11.0	19.0	21.0	23.0	14.0	20.0	24.0	26.0	24.0	18.0	10.0	8.0	4.0	-10.0	-1.0	14.0	120.0	115.0	84.0	69.0	74.0	68.0	55.0	48.0	52.0	50.0	46.0	39.0	29.0	37.0	37.0
FRFLT	-14.0	3.0	10.0	-7.0	-16.0	-6.0	8.0	22.0	24.0	16.0	24.0	23.0	-19.0	145.0	222.0	-65.0	82.0	56.0	11.0	20.0	39.0	23.0	1.0	4.0	17.0	28.0	19.0	-6.0			



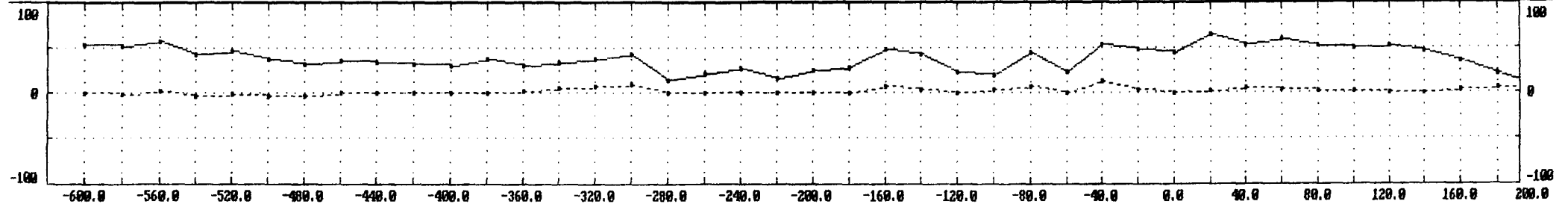
20.0	-7.4	-4.9	-3.5	2.7	1.1	-5.7	-2.3	0.3	4.9	8.8	8.1	4.3	9.9	-8.1	-17.5	-68.7	-59.7	15.8	17.6	9.5	5.7	12.7	11.9	3.5	1.3	5.5	5.9	10.3	1.8	-3.8	-0.1	
40.0	-5.3	-9.3	-1.2	0.4	-0.8	-1.9	-5.5	3.2	9.5	9.2	-1.1	5.3	5.7	-2.0	-65.8	-71.6	-48.1	-30.3	24.2	22.3	7.5	5.4	19.4	16.3	7.2	6.4	15.4	9.6	5.7	0.6	-5.0	
60.0	-1.5	1.5	-4.8	-4.4	-0.3	0.7	2.6	-10.6	-5.7	3.2	21.4	14.2	1.2	-63.4	-59.9	-44.8	-44.1	-42.0	-29.6	38.1	37.4	16.1	0.4	7.0	10.8	20.8	11.6	10.9	8.5	6.5	1.2	
80.0	8.7	3.4	-3.2	-9.0	-16.4	-9.0	0.1	4.5	6.6	17.2	13.3	5.2	-54.5	-54.7	-42.2	-34.6	-39.1	-43.6	-30.6	-18.5	38.1	37.0	20.4	14.8	16.5	7.5	2.9	0.8	12.9	11.0	5.8	
100.0	7.3	-8.9	-12.8	-12.4	-9.9	-2.5	9.8	14.0	21.6	10.0	4.6	-53.5	-50.3	-34.0	-29.5	-36.8	-34.3	-29.7	-34.0	-31.4	-20.8	41.3	42.9	31.7	17.6	18.6	8.2	0.2	-3.9	-0.5	-1.0	
120.0																																

POWERLINE ON THE GROUND

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (24.8 KHZ)

LINE 000N.

QX	0.0	-1.0	2.0	-3.0	-2.0	-3.0	-3.0	0.0	0.0	0.0	0.0	1.0	2.0	5.0	7.0	9.0	0.0	0.0	1.0	0.0	0.0	0.0	7.0	3.0	0.0	3.0	8.0	1.0	12.0	3.0	0.0	2.0	6.0	4.0	2.0	2.0	1.0	1.0	4.0	5.0	3.0
IX	53.0	52.0	56.0	43.0	46.0	37.0	32.0	35.0	34.0	32.0	30.0	37.0	30.0	34.0	38.0	43.0	14.0	21.0	27.0	16.0	25.0	29.0	47.0	43.0	24.0	20.0	45.0	23.0	54.0	47.0	44.0	63.0	53.0	58.0	52.0	50.0	51.0	46.0	36.0	22.0	7.0
FRFLI	6.0	19.0	16.0	20.0	16.0	0.0	1.0	7.0	-1.0	-5.0	3.0	-5.0	-17.0	15.0	46.0	9.0	-0.0	7.0	-11.0	-35.0	-36.0	9.0	46.0	2.0	-24.0	-12.0	-33.0	-14.0	-6.0	-25.0	-4.0	6.0	9.0	9.0	5.0	19.0	39.0	53.0	47.0	24.0	

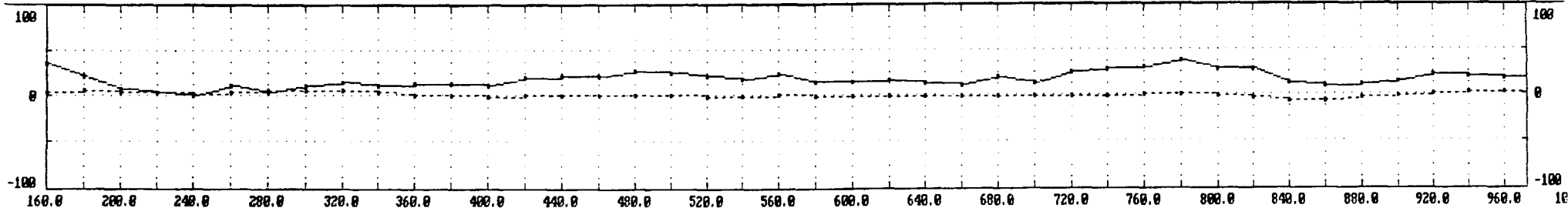


20.0	2.4	-1.6	6.4	6.9	3.7	9.6	1.5	0.2	1.6	2.6	-2.9	-0.3	1.0	-2.5	-4.4	13.0	13.5	-7.6	4.9	-1.8	-8.4	-10.4	-8.3	10.3	13.4	-13.7	-0.3	-5.5	-17.9	7.2	-12.6	-4.2	3.0	-0.9	6.1	1.6	5.0	11.4	15.6	18.9
40.0	-0.3	6.9	4.4	9.3	14.7	5.1	7.5	4.3	2.0	-1.3	5.9	1.0	-5.2	-2.1	9.7	6.4	4.1	14.2	-5.0	-3.1	-11.3	-13.2	-2.5	2.8	1.1	7.5	-19.9	-16.9	1.8	-20.9	-1.8	-7.2	-3.7	7.3	5.4	8.7	10.6	17.9	26.7	26.1
60.0	5.1	4.6	9.7	12.4	9.7	12.6	5.7	11.9	2.3	3.8	2.3	0.0	-5.0	7.8	7.8	2.3	12.6	6.5	8.4	-21.8	-12.9	-0.9	-2.8	-11.2	2.8	-5.0	-3.6	-12.0	-26.9	-5.2	-17.3	6.7	1.8	-1.6	7.8	11.2	19.0	26.2	26.6	28.5
80.0	2.8	8.1	11.2	10.2	12.6	12.8	15.8	6.1	9.3	2.2	-4.5	-4.9	12.9	9.0	3.7	14.3	1.4	1.1	-5.4	-3.7	-6.1	-1.3	-12.0	-4.1	-16.1	-9.1	3.4	-7.1	-14.0	-18.6	-1.9	-15.8	2.8	1.6	5.3	25.5	24.1	28.9	30.4	19.8
100.0	5.3	12.2	10.2	11.2	14.5	14.3	7.8	12.6	3.9	4.6	-2.1	9.3	10.2	3.8	8.4	2.7	4.1	-9.9	-5.4	8.1	12.4	-17.8	-0.9	-13.9	-15.5	-7.9	-13.5	1.1	-5.4	-11.9	-14.5	-4.8	-14.6	9.7	13.3	21.7	32.3	31.0	26.6	24.7
120.0	8.7	9.2	9.9	11.7	10.1	7.8	13.3	10.3	8.3	0.8	16.7	8.2	1.5	7.3	4.1	-0.1	-9.0	-2.3	4.3	10.1	-0.8	14.9	-17.2	-10.5	-5.1	-23.1	-12.8	-15.3	-1.6	-2.3	-14.8	-12.7	6.7	1.9	23.6	22.1	23.5	28.3	25.8	27.9

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8 KHZ)

LINE 808N.

Q% 4.0 5.0 3.0 3.0 2.0 4.0 5.0 5.0 5.0 4.0 1.0 0.0 -1.0 0.0 0.0 1.0 0.0 0.0 -1.0 -1.0 0.0 -1.0 -2.0 -1.0 -2.0 -2.0 -1.0 -2.0 -1.0 -1.0 0.0 0.0 -1.0 -3.0 -6.0 -6.0 -4.0 -1.0 1.0 2.0 2.0 2.0
 I% 36.0 22.0 7.0 4.0 1.0 10.0 4.0 10.0 14.0 11.0 12.0 12.0 10.0 19.0 22.0 22.0 26.0 25.0 21.0 17.0 24.0 15.0 15.0 16.0 12.0 10.0 20.0 13.0 25.0 29.0 30.0 37.0 28.0 29.0 13.0 9.0 11.0 15.0 22.0 19.0 17.0 18.0 2
 FREQ 53.0 47.0 24.0 0.0 -9.0 -3.0 -10.0 -11.0 1.0 1.0 1.0 -5.0 -19.0 -15.0 -7.0 -7.0 2.0 13.0 5.0 -1.0 11.0 8.0 2.0 9.0 -2.0 -11.0 -8.0 -21.0 -21.0 -13.0 -6.0 10.0 23.0 35.0 22.0 -4.0 -17.0 -15.0 1.0 6.0 -4.0 -6.0

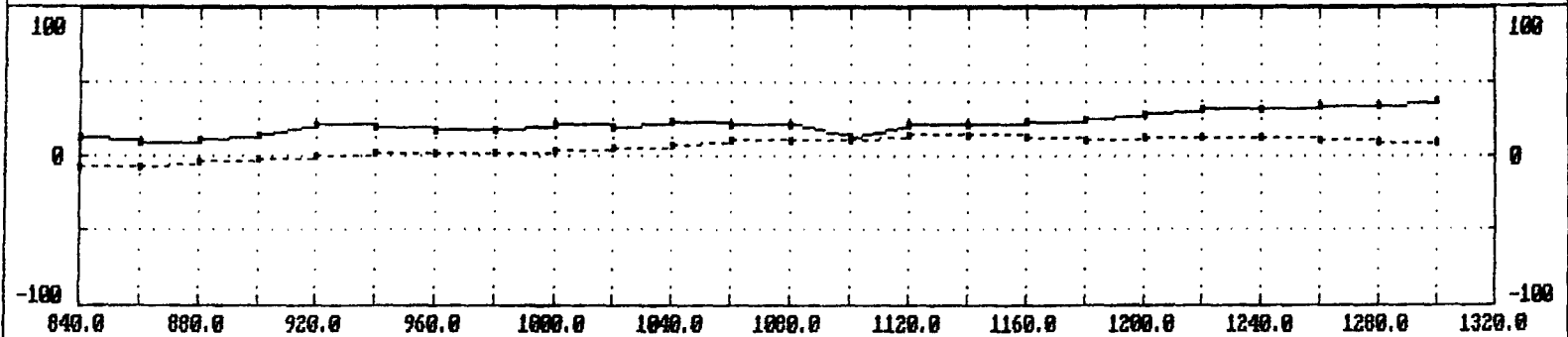


20.0	6	18.9	11.7	5.9	-2.3	-2.0	0.1	-6.7	-0.3	0.6	-1.7	0.0	-4.5	-7.6	-2.1	-3.0	-1.5	2.3	5.1	-1.2	1.7	5.9	-0.6	1.8	3.9	-5.7	-2.2	-3.5	-11.1	-2.2	-5.9	2.3	5.5	0.7	12.5	0.9	-1.0	-6.0	-2.0	1.9	0.2	20.0
40.0	7	26.1	20.7	8.6	4.4	-0.5	-4.3	0.2	-5.5	-2.4	0.0	-5.3	-6.6	-5.5	-9.5	-3.5	1.1	2.2	0.5	6.2	2.7	0.6	6.8	2.2	-3.7	0.5	-6.8	-10.0	-4.5	-11.6	-2.0	-0.7	0.5	14.3	9.9	7.9	-4.9	-4.4	-2.3	-0.3	-0.2	40.0
60.0	6	28.5	23.2	20.0	8.4	-2.9	-2.6	-3.8	1.9	-0.8	-3.1	-5.3	-6.3	-8.9	-7.3	-6.8	1.3	-1.5	3.8	4.3	3.2	2.5	2.0	1.9	0.9	-3.1	-5.4	-8.3	-15.1	-4.7	-9.4	6.8	11.1	10.0	11.0	2.4	4.3	-3.0	-3.7	-5.7	-0.2	60.0
80.0	4	19.8	27.2	20.0	11.7	8.2	-1.3	-1.7	-2.8	-1.3	-5.6	-2.9	-2.9	-6.3	-5.7	-3.4	-10.4	0.2	1.7	0.7	7.3	7.2	0.9	3.4	-0.5	-7.2	-8.9	-11.9	-8.0	-9.9	4.2	2.2	8.3	7.7	3.9	10.0	5.1	4.5	-5.8	-8.3	-7.6	80.0
100.0	6	24.7	19.9	20.6	18.4	14.4	7.3	-0.2	-5.4	-9.3	-2.5	-9.5	-4.2	-0.6	-1.0	-6.1	-2.3	-4.8	-0.2	5.4	7.9	4.1	7.3	-2.5	-8.1	-4.6	-13.8	-9.1	-7.2	-0.5	0.2	5.6	0.5	1.9	5.7	8.0	9.8	1.9	3.7	-0.1	-9.6	100.0
120.0	8	27.9	21.8	23.3	21.7	17.2	16.1	0.6	-6.6	-8.7	-14.2	-6.7	-8.6	-2.5	-2.4	0.4	3.6	2.7	3.0	7.4	0.4	4.6	-1.0	-3.2	-6.8	-12.4	-3.2	-9.1	-0.4	3.4	-0.5	-3.0	-1.3	-3.3	4.6	5.3	3.9	9.1	2.0	3.0	-7.2	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (24.8 KHZ)

LINE 800N.

QZ	-6.0	-6.0	-4.0	-1.0	1.0	2.0	2.0	2.0	4.0	6.0	8.0	10.0	11.0	10.0	14.0	14.0	12.0	11.0	13.0	12.0	12.0	10.0	9.0	9.0
IX	13.0	9.0	11.0	15.0	22.0	19.0	17.0	18.0	22.0	19.0	23.0	21.0	22.0	13.0	21.0	22.0	23.0	25.0	29.0	32.0	32.0	34.0	34.0	37.0
FRFLI	22.0	-4.0	-17.0	-15.0	1.0	6.0	-4.0	-6.0	-2.0	-3.0	-1.0	9.0	9.0	-8.0	-11.0	-5.0	-9.0	-13.0	-10.0	-5.0	-4.0	-5.0		

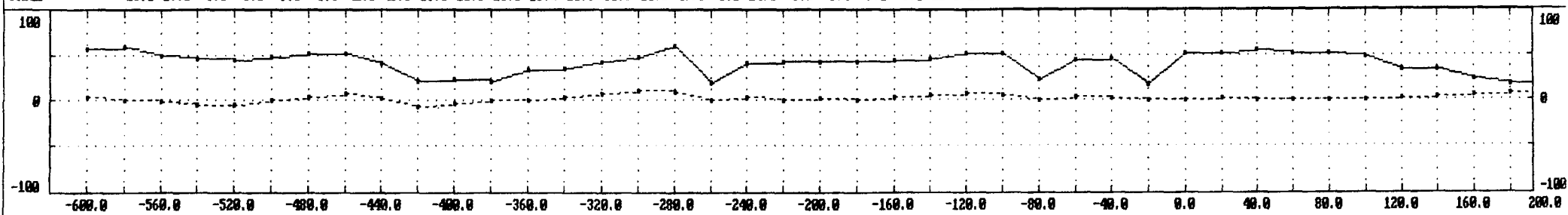


20.0	5	0.9	-1.8	-6.0	-2.8	1.9	0.2	-2.9	-0.4	-0.9	-0.6	0.3	4.1	0.6	-5.4	-1.1	-3.1	-3.9	-4.6	-2.3	-2.1	-1.8	-2.2	-3.4	20.0
40.0	9	7.9	-4.9	-4.4	-2.3	-0.3	-0.2	-0.1	-4.4	-2.8	0.1	3.0	0.0	-1.6	-1.2	-7.6	-5.0	-6.0	-6.0	-7.0	-4.1	-4.2	-5.4	-5.4	40.0
60.0	0	2.4	4.3	-3.0	-3.7	-5.7	-0.2	0.2	-0.1	-4.0	0.5	-1.2	-2.9	-0.4	-3.5	-5.3	-12.3	-7.3	-8.3	-6.9	-8.2	-7.0	-7.4	-7.8	60.0
80.0	9	10.8	5.1	4.5	-5.8	-8.3	-7.6	-4.1	0.4	4.6	-1.8	-2.1	-2.6	-5.7	-5.6	-8.0	-7.1	-13.5	-9.5	-10.5	-10.7	-10.4	-9.4	-9.0	80.0
100.0	7	8.0	9.8	1.9	3.7	-8.1	-9.6	-8.3	-1.3	-0.7	-1.8	-3.2	-3.3	-4.5	-8.2	-7.5	-10.1	-9.5	-16.2	-11.9	-13.0	-13.6	-13.5	-11.5	100.0
120.0	6	5.3	3.9	9.1	2.0	3.0	-7.2	-4.6	-8.6	-7.6	-2.9	-6.5	-7.7	-8.3	-6.1	-8.6	-7.7	-10.3	-12.4	-19.0	-15.7	-15.6	-15.7	-15.9	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (24.8 KHZ)

LINE 900N.

Q%	4.0	1.0	-2.0	-5.0	-5.0	0.0	4.0	7.0	2.0	-6.0	-3.0	0.0	0.0	4.0	7.0	11.0	9.0	0.0	3.0	1.0	2.0	0.0	4.0	6.0	7.0	6.0	1.0	4.0	2.0	0.0	1.0	2.0	1.0	0.0	0.0	1.0	2.0	4.0	6.0	7.0	6.0
I%	56.0	58.0	50.0	46.0	45.0	40.0	51.0	51.0	40.0	21.0	24.0	21.0	34.0	36.0	42.0	48.0	60.0	20.0	41.0	42.0	43.0	43.0	45.0	46.0	51.0	51.0	23.0	44.0	46.0	17.0	51.0	52.0	55.0	51.0	51.0	40.0	33.0	33.0	24.0	17.0	18.0
FFFLZ	18.0	17.0	3.0	-8.0	-9.0	0.0	41.0	46.0	16.0	-10.0	-25.0	-23.0	-20.0	-30.0	10.0	47.0	-3.0	-24.0	-3.0	-3.0	-5.0	-9.0	-11.0	23.0	35.0	-16.0	4.0	22.0	-40.0	-39.0	-3.0	5.0	7.0	21.0	33.0	24.0	25.0	22.0	16.0	21.0	

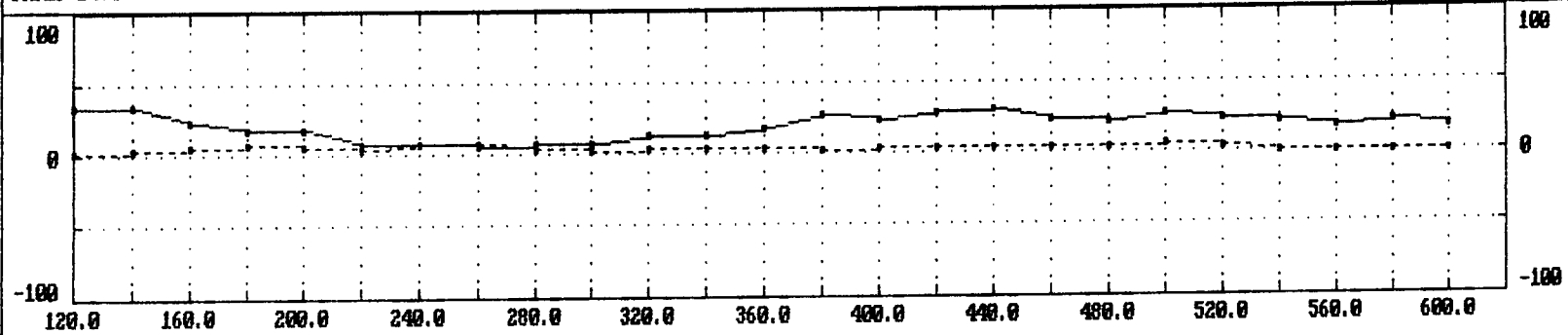


20.0	0.6	3.0	7.1	2.7	-0.3	-2.1	0.6	6.7	10.0	0.9	1.2	-4.9	-10.1	-6.6	-5.1	-11.0	15.0	10.2	-12.8	1.8	-3.0	-1.9	-2.1	-0.9	-4.2	15.5	6.6	-14.9	16.7	-5.6	-19.0	-0.7	-2.6	3.0	2.3	12.2	10.3	6.6	12.3	4.5
40.0	2.6	6.4	7.0	0.5	1.0	-1.2	3.5	15.9	15.3	15.9	1.3	-5.7	-7.9	-14.3	-13.9	8.0	-1.0	1.2	0.0	-14.6	-0.0	0.0	-4.1	-4.1	11.5	-1.4	1.9	18.6	-16.1	-4.7	-1.6	-17.0	-0.9	5.9	13.6	9.1	17.5	19.6	10.7	16.5
60.0	6.5	8.1	7.5	2.2	3.4	4.4	13.3	10.1	18.6	11.2	10.9	-2.1	-15.4	-20.7	0.9	-2.6	-2.1	2.6	1.5	7.1	-15.3	-7.6	-7.5	9.7	-0.3	0.9	14.1	1.3	0.7	-15.9	-2.3	-1.1	-13.4	13.0	13.7	18.4	20.3	19.1	20.7	15.5
80.0	3.3	1.7	1.0	1.6	6.1	22.2	14.3	14.1	7.3	5.6	5.6	2.7	-10.8	1.0	-7.1	-11.9	-4.5	1.0	-1.7	2.4	4.2	-21.6	7.9	-3.6	-1.9	16.7	-0.9	0.1	1.5	0.7	-13.5	-0.2	9.0	-7.9	17.5	20.0	21.9	26.6	22.3	23.4
100.0	-2.5	-4.2	2.1	7.6	20.0	17.3	20.9	6.7	4.6	0.3	-1.0	-3.0	10.1	0.5	-7.2	-10.0	-13.4	-7.1	-5.0	-5.9	-0.1	24.4	-10.4	-0.3	15.0	-3.9	-5.2	-2.1	-0.6	2.1	4.4	-2.9	4.7	12.4	-1.0	17.9	26.2	26.6	26.4	28.3
120.0	-4.6	-3.2	4.6	17.1	17.3	17.9	10.1	10.3	5.5	-2.2	-9.5	17.0	4.9	4.3	-3.6	-12.2	-11.2	-14.8	-7.2	-5.0	14.2	7.0	12.2	7.5	-1.2	-1.1	-4.4	-4.9	-4.7	-1.0	9.8	0.9	-0.0	15.1	16.9	3.3	24.7	26.5	28.9	25.9

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8 KHZ)

LINE 900N.

Q%	2.0	4.0	6.0	7.0	6.0	4.0	7.0	7.0	3.0	2.0	3.0	3.0	3.0	2.0	3.0	4.0	4.0	3.0	3.0	6.0	4.0	1.0	0.0	1.0	1.0
I%	33.0	33.0	24.0	17.0	18.0	7.0	7.0	5.0	7.0	7.0	13.0	12.0	17.0	26.0	24.0	28.0	30.0	23.0	21.0	26.0	24.0	22.0	18.0	22.0	18.0
FRFLT	24.0	25.0	22.0	16.0	21.0	13.0	2.0	-2.0	-8.0	-11.0	-9.0	-18.0	-21.0	-9.0	-8.0	-1.0	14.0	6.0	-6.0	1.0	10.0	6.0	0.0		

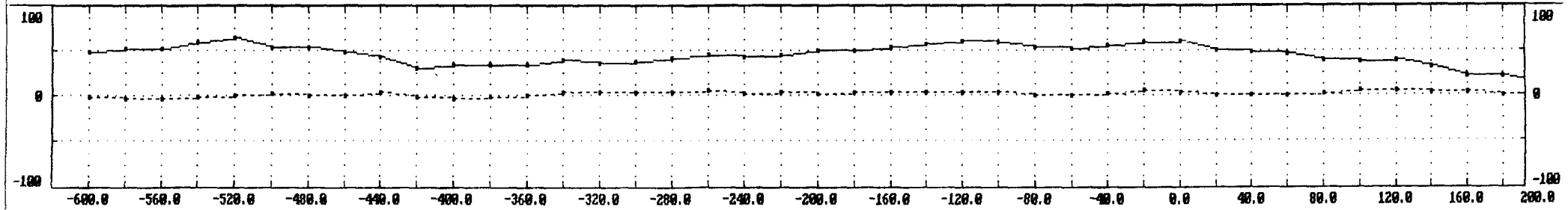


20.0	3	6.6	12.3	4.5	7.5	7.2	1.5	0.5	-1.3	-4.0	-4.4	-2.9	-9.3	-4.7	-1.5	-4.0	2.6	4.9	-1.4	-0.5	2.2	3.4	0.6	0.6	3.7	20.0
40.0	5	19.6	10.7	16.5	11.9	8.9	7.2	0.4	-3.4	-3.9	-5.8	-10.9	-6.2	-10.2	-8.6	1.0	1.6	-0.1	2.9	1.2	1.9	3.3	4.8	3.5	1.9	40.0
60.0	3	19.1	20.7	15.5	16.1	10.6	7.0	4.5	-0.3	-3.7	-10.4	-8.6	-11.5	-8.3	-6.7	-2.5	-0.9	-0.3	2.7	6.2	0.1	1.6	6.0	5.9	6.1	60.0
80.0	9	26.6	22.3	23.4	14.0	12.5	7.6	4.3	3.5	-8.3	-6.3	-9.7	-11.0	-6.4	-3.0	-6.5	-2.7	2.4	3.2	3.1	6.4	2.8	3.2	6.5	6.6	80.0
100.0	2	26.6	26.4	28.3	24.0	9.7	12.6	5.1	-7.3	-1.3	-8.7	-9.5	-6.7	-3.6	-6.9	-3.3	-2.6	1.7	3.7	5.0	6.6	8.5	4.9	4.3	8.0	100.0
120.0	7	26.5	28.9	25.9	23.1	23.0	10.6	5.9	-1.0	-4.8	-5.3	-9.9	-4.6	-8.3	-5.2	-4.0	1.6	-0.8	2.8	8.8	7.4	9.7	11.4	7.2	6.6	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (24.8 KHZ)

LINE 1000N.

Q%	-2.0	-4.0	-4.0	-2.0	1.0	2.0	0.0	1.0	3.0	-2.0	-4.0	-2.0	1.0	4.0	3.0	3.0	3.0	5.0	2.0	3.0	2.0	3.0	4.0	3.0	4.0	3.0	0.0	0.0	2.0	6.0	3.0	0.0	0.0	1.0	2.0	5.0	6.0	4.0	3.0	0.0	0.0	
I%	47.0	52.0	51.0	58.0	64.0	54.0	54.0	47.0	43.0	30.0	33.0	34.0	34.0	39.0	35.0	38.0	41.0	44.0	42.0	45.0	50.0	50.0	54.0	57.0	60.0	58.0	54.0	52.0	55.0	59.0	60.0	50.0	40.0	46.0	39.0	38.0	39.0	32.0	22.0	21.0	14.0	1
FRFLT	-10.0	-19.0	-9.0	14.0	17.0	18.0	28.0	27.0	6.0	-5.0	-6.0	-6.0	0.0	-5.0	-12.0	-7.0	-2.0	-9.0	-13.0	-9.0	-11.0	-13.0	-7.0	5.0	12.0	5.0	-8.0	-12.0	4.0	21.0	16.0	13.0	17.0	8.0	6.0	23.0	20.0	19.0	15.0	5.0		

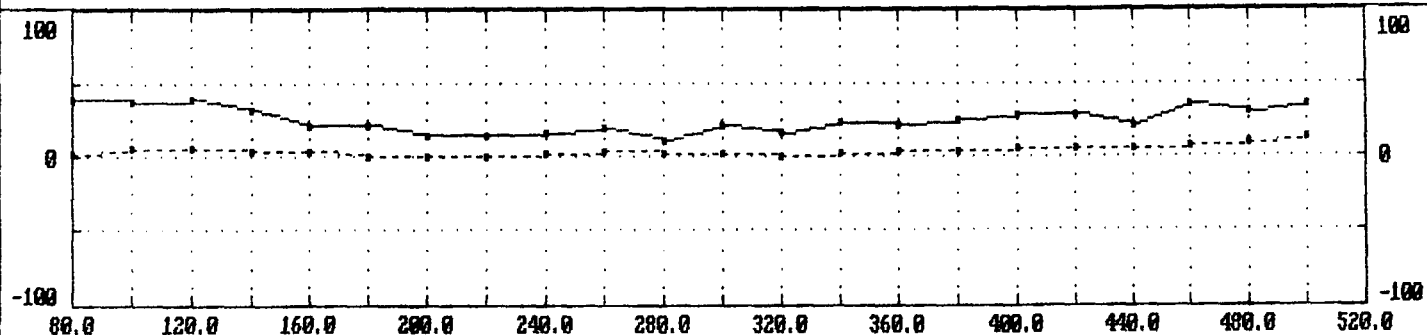


20.0	-5.2	-3.1	-3.4	-7.9	2.9	5.8	5.5	7.9	10.3	6.9	-2.0	0.8	-3.5	-1.1	0.0	-3.9	-3.6	-1.7	-1.3	-5.5	-3.4	-3.4	-4.7	-3.3	-0.8	3.0	2.9	-0.5	-2.8	-2.3	5.2	7.6	3.1	6.5	5.8	1.0	4.9	11.1	7.1	5.8
40.0	-1.0	-6.8	-8.0	1.1	-0.5	5.9	12.0	13.4	11.6	0.4	6.3	-4.6	0.0	-1.2	-4.1	-4.2	-5.1	-5.6	-6.6	-4.2	-7.5	-7.3	-6.3	-5.6	-1.5	2.0	3.4	-0.6	-2.5	2.4	5.2	9.1	14.1	8.3	7.0	10.7	12.0	10.8	16.4	11.5
60.0	-0.6	-6.7	-3.4	-2.4	3.8	5.8	16.2	17.2	10.2	10.5	3.8	4.0	-4.4	-3.6	-5.5	-3.9	-3.2	-8.2	-7.4	-8.4	-8.7	-11.9	-7.6	-2.7	-0.9	-0.1	-0.6	0.1	4.9	5.1	5.1	11.5	14.3	14.4	11.7	16.3	14.6	16.2	15.0	15.3
80.0	-2.5	-0.2	-1.6	0.1	3.7	13.7	11.3	14.4	16.9	8.0	9.4	2.9	-1.0	-8.7	-5.4	-5.0	-7.1	-5.0	-10.0	-9.9	-9.9	-8.3	-5.9	-3.6	-2.9	-4.2	-2.2	5.2	8.8	8.7	9.2	8.4	10.2	15.5	23.0	17.8	20.4	19.1	12.9	11.5
100.0	4.6	2.4	4.0	4.7	9.4	9.1	11.4	10.5	11.0	16.4	9.1	7.1	1.7	-0.3	-10.2	-10.6	-8.8	-10.6	-8.2	-9.8	-8.0	-4.8	-2.1	-4.7	-6.7	-3.7	1.9	4.5	7.0	12.8	10.8	8.8	11.1	18.3	20.5	25.8	20.2	19.6	15.3	16.7
120.0	6.8	8.7	8.2	13.6	9.7	7.0	8.3	8.5	10.8	13.1	14.5	6.9	7.5	2.2	-3.2	-11.1	-11.5	-12.0	-13.4	-8.4	-7.4	-3.1	-2.4	-4.1	-5.9	-0.4	3.6	2.2	8.6	10.0	11.5	14.5	16.3	16.7	22.8	24.1	23.6	16.4	20.4	13.4

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8

LINE 1000N.

Q%	2.0	5.0	6.0	4.0	3.0	0.0	0.0	1.0	2.0	4.0	2.0	2.0	0.0	2.0	3.0	4.0	5.0	5.0	5.0	8.0	9.0	12.0
I%	39.0	38.0	39.0	32.0	22.0	21.0	14.0	14.0	16.0	19.0	11.0	21.0	16.0	23.0	22.0	25.0	29.0	28.0	21.0	36.0	31.0	36.0
FRELT	8.0	6.0	23.0	28.0	19.0	15.0	5.0	-7.0	0.0	3.0	-7.0	-7.0	-8.0	-8.0	-9.0	-10.0	5.0	0.0	-18.0	-18.0		

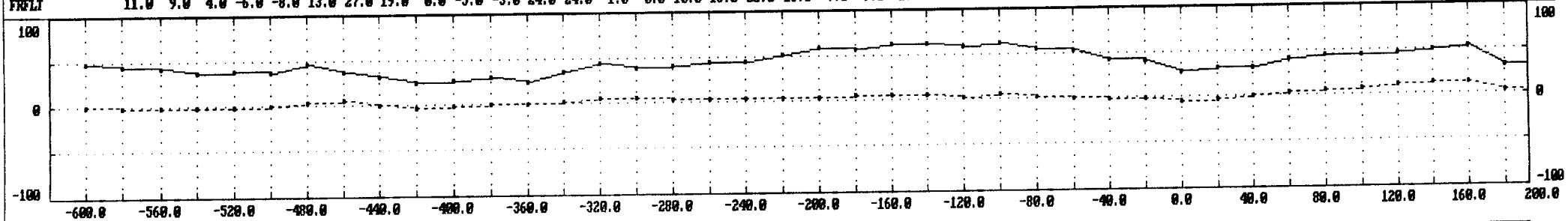


20.0	8	1.8	4.9	11.1	7.1	5.8	4.9	-0.1	-3.0	3.0	-2.0	-3.2	-1.1	-5.0	-1.1	-4.1	-3.1	4.2	-5.5	-6.2	-0.4	-6.8
40.0	0	10.7	12.0	10.8	16.4	11.5	4.1	2.0	3.1	-3.1	-0.2	-2.3	-6.1	-4.0	-8.2	-3.7	-1.4	-7.6	-3.2	-6.1	-12.4	-5.6
60.0	7	16.3	14.6	16.2	15.0	15.3	8.5	7.2	0.8	0.3	-4.4	-2.1	-3.4	-10.6	-5.3	-5.1	-9.2	-7.5	-8.2	-9.2	-10.7	-17.3
80.0	0	17.8	20.4	19.1	12.9	11.5	17.6	7.3	5.7	-0.3	-4.7	-5.6	-7.5	-5.3	-5.5	-9.2	-10.5	-9.8	-12.6	-13.5	-12.8	-15.4
100.0	5	25.8	20.2	19.6	15.3	16.7	10.0	13.1	4.4	0.3	-1.7	-7.8	-8.4	-3.3	-9.8	-12.3	-9.3	-14.0	-13.0	-16.7	-16.7	-17.8
120.0	8	24.1	23.6	16.4	20.4	13.4	11.7	7.8	8.6	3.3	-5.0	-5.2	-4.6	-12.7	-8.9	-10.8	-16.9	-13.4	-18.6	-16.7	-19.3	-20.6

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8 KHZ)

LINE 1100N.

Q%	0.0	-1.0	-2.0	-2.0	-1.0	0.0	4.0	5.0	0.0	-3.0	-2.0	0.0	1.0	2.0	5.0	5.0	3.0	3.0	4.0	3.0	4.0	5.0	6.0	5.0	2.0	5.0	2.0	1.0	-1.0	-2.0	-5.0	-3.0	0.0	3.0	6.0	8.0	10.0	12.0	12.0	3.0	2.0	
I%	47.0	44.0	42.0	38.0	39.0	37.0	46.0	38.0	32.0	25.0	26.0	31.0	25.0	35.0	45.0	39.0	40.0	44.0	45.0	52.0	59.0	56.0	62.0	62.0	58.0	62.0	55.0	54.0	43.0	40.0	28.0	32.0	32.0	40.0	44.0	45.0	46.0	50.0	53.0	32.0	29.0	4.1
FFFLT	11.0	9.0	4.0	-6.0	-8.0	13.0	27.0	19.0	0.0	-5.0	-3.0	-24.0	-24.0	1.0	0.0	-10.0	-13.0	-22.0	-18.0	-7.0	-9.0	-2.0	4.0	3.0	11.0	20.0	26.0	29.0	23.0	4.0	-12.0	-20.0	-17.0	-7.0	-7.0	-12.0	11.0	42.0	28.0	4.1		

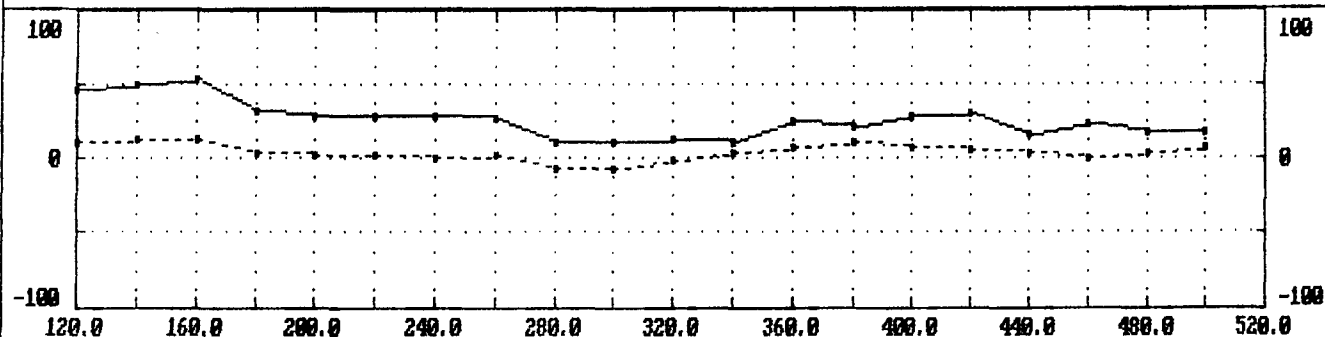


20.0	3.6	2.9	4.2	1.4	1.4	-2.9	0.4	8.5	6.7	5.1	-3.5	-0.2	-2.6	-12.2	-2.7	1.3	-4.5	-3.5	-5.1	-9.4	-3.1	-2.4	-4.4	3.0	-0.2	3.1	5.8	8.5	9.3	9.5	5.3	-2.3	-4.1	-7.8	-3.0	-2.7	-1.5	-3.2	10.8	13.9	20.0
40.0	1.6	6.3	5.4	5.2	-1.0	0.8	5.2	7.2	10.1	3.7	3.8	-6.3	-10.1	-4.8	-10.0	-7.0	-1.7	-9.2	-13.0	-8.1	-9.5	-6.1	0.8	-2.8	4.7	5.6	9.2	12.2	15.4	12.8	6.7	0.7	-8.6	-4.5	-5.0	-4.4	-5.3	7.2	10.9	14.2	40.0
60.0	4.3	4.9	6.8	0.5	2.5	4.1	6.5	7.5	4.1	12.0	0.9	-8.6	-9.7	-9.4	-8.2	-10.6	-9.9	-8.4	-10.5	-12.5	-10.4	-6.7	-5.1	3.3	0.0	9.1	10.6	15.8	16.0	12.5	9.6	2.1	0.5	-8.4	-7.3	-7.9	8.9	11.1	11.2	8.1	60.0
80.0	0.8	2.2	-2.1	5.0	6.4	9.0	7.9	1.9	5.6	-0.1	-0.8	-1.0	-4.4	-11.4	-11.0	-12.0	-17.9	-9.9	-6.0	-10.9	-9.0	-11.3	-8.4	-3.0	6.4	7.2	18.2	17.1	14.9	13.6	7.3	5.9	1.6	-3.0	-10.6	3.6	3.1	9.1	10.2	11.9	80.0
100.0	-2.0	-5.1	0.3	5.9	11.4	8.3	4.3	6.3	-1.4	-5.5	-2.8	2.7	-3.2	-5.5	-13.0	-15.1	-12.3	-18.8	-14.7	-6.9	-13.6	-8.4	-6.4	-0.7	6.0	17.4	14.1	16.8	13.7	10.2	10.6	6.2	3.7	-5.7	4.7	-0.5	2.4	3.8	10.8	22.2	100.0
120.0	-9.8	-3.8	1.2	6.8	7.4	6.5	8.9	1.7	-3.8	-2.6	-1.0	-3.9	2.0	-6.1	-13.4	-16.0	-19.7	-16.7	-19.5	-16.1	-6.7	-6.9	0.4	4.0	12.5	13.3	17.9	10.0	10.8	10.6	5.8	6.5	-0.1	10.6	7.4	5.9	0.3	4.5	15.0	18.8	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (2)

LINE 1100N.

Q% 10.0 12.0 12.0 3.0 2.0 2.0 0.0 2.0 -7.0 -6.0 -1.0 4.0 7.0 10.0 8.0 6.0 3.0 1.0 3.0 7.0
 I% 46.0 50.0 53.0 32.0 29.0 28.0 29.0 26.0 10.0 11.0 13.0 11.0 25.0 22.0 29.0 30.0 16.0 23.0 17.0 18.0
 FRELT-12.0 11.0 42.0 28.0 4.0 2.0 21.0 34.0 12.0 -3.0 -12.0 -23.0 -15.0 -12.0 5.0 20.0 6.0 4.0

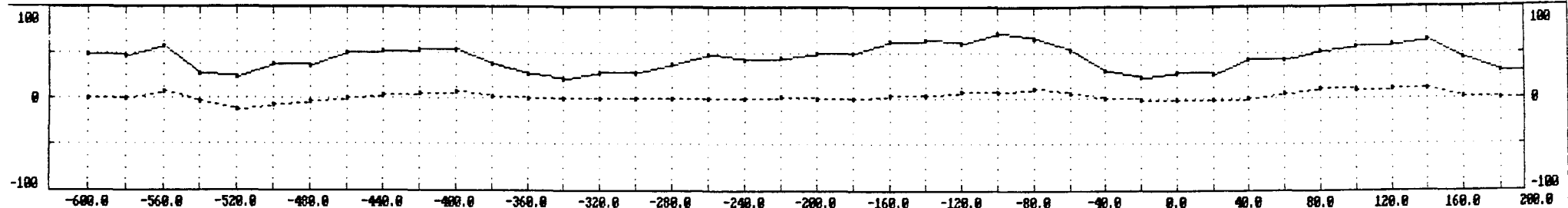


20.0	5	-3.2	10.8	13.9	3.3	4.0	2.1	11.3	9.2	-2.2	1.3	-8.0	-7.2	-1.4	-6.2	8.2	3.6	-0.1	4.2	-0.8	20.0
40.0	3	7.2	10.9	14.2	14.5	4.5	10.4	11.2	11.2	8.3	-7.1	-5.4	-7.4	-9.1	4.5	-0.8	5.9	5.9	-0.8	3.0	40.0
60.0	9	11.1	11.2	8.1	12.7	22.4	11.6	10.2	10.4	5.1	4.7	-7.3	-9.9	-0.9	-5.1	6.2	3.5	6.1	6.2	-1.1	60.0
80.0	1	9.1	10.2	11.9	22.5	22.6	22.7	12.3	1.9	4.1	0.6	-0.2	-1.0	-3.9	0.9	-2.8	5.9	4.3	8.4	9.0	80.0
100.0	4	3.8	10.8	22.2	23.6	22.2	24.7	17.4	6.4	-0.4	-1.2	7.0	2.1	-1.9	-1.6	-0.1	-0.7	7.9	5.2	9.0	100.0
120.0	3	4.5	15.0	18.8	20.4	22.7	15.4	19.6	16.6	3.7	8.6	3.7	6.4	4.3	-4.6	-1.8	0.1	-0.7	7.4	6.5	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8 KHZ)

LINE 1200N.

Q%	0.0	1.0	7.0	-4.0	-12.0	-6.0	-3.0	1.0	3.0	6.0	7.0	2.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	2.0	1.0	1.0	3.0	4.0	7.0	8.0	10.0	6.0	0.0	-1.0	-2.0	-1.0	1.0	6.0	10.0	9.0	10.0	10.0	2.0	0.0	0.0
I%	48.0	46.0	57.0	27.0	23.0	37.0	35.0	50.0	51.0	54.0	53.0	38.0	26.0	22.0	28.0	29.0	37.0	40.0	43.0	44.0	49.0	50.0	62.0	64.0	60.0	70.0	66.0	53.0	30.0	23.0	29.0	26.0	43.0	43.0	51.0	56.0	58.0	64.0	44.0	31.0	26.0
FFFLT	10.0	53.0	24.0	-22.0	-25.0	-29.0	-20.0	-6.0	14.0	43.0	43.0	14.0	-9.0	-16.0	-20.0	-25.0	-2.0	-2.0	-12.0	-19.0	-27.0	-12.0	-4.0	-12.0	11.0	53.0	66.0	31.0	-2.0	-17.0	-31.0	-25.0	-21.0	-20.0	-15.0	6.0	47.0	51.0	32.0	34.0	

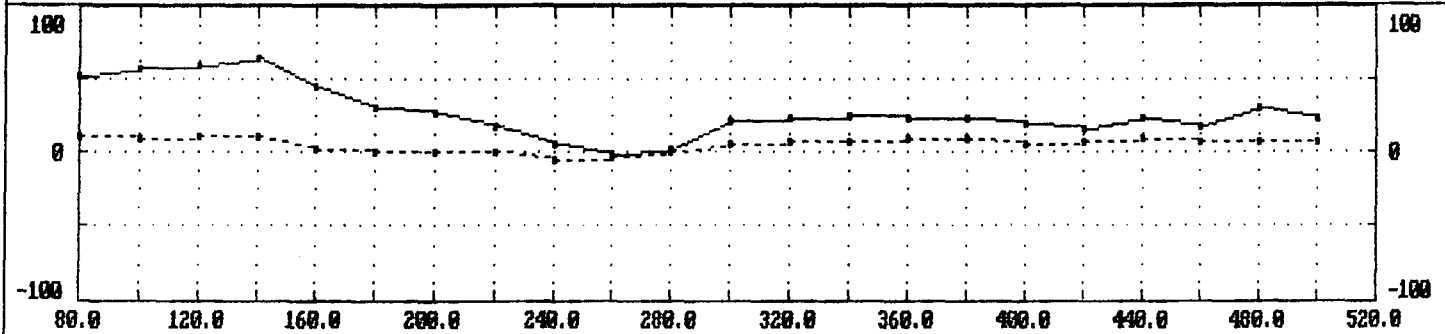


20.0	4.9	-3.9	10.5	19.9	-7.3	-4.8	-8.4	-11.0	-1.3	-0.9	10.4	15.6	10.1	0.0	-4.3	-5.2	-12.0	-4.6	0.8	-5.8	-3.9	-7.8	-9.9	0.6	-3.4	-0.8	11.9	20.6	19.1	1.3	0.1	-8.8	-11.6	-5.7	-10.3	-2.8	-3.7	8.9	20.6	12.6
40.0	-5.9	11.7	12.5	4.2	12.0	-11.2	-13.7	-6.4	-7.0	5.6	12.2	15.6	12.4	5.3	-6.6	-13.8	-8.0	-9.4	-8.2	-4.0	-13.2	-12.4	-4.1	-8.1	-1.9	6.4	15.5	24.8	20.9	14.4	-8.0	-10.4	-8.4	-12.2	-7.1	-10.9	5.3	15.2	19.5	25.2
60.0	8.0	12.6	7.8	9.1	0.0	4.2	-14.7	-17.1	-2.0	5.7	16.7	14.4	12.2	4.6	-8.5	-12.3	-13.9	-11.8	-9.7	-8.8	-5.2	-8.4	-15.4	-12.5	-3.9	15.5	21.8	15.4	22.0	12.9	7.4	-8.5	-15.0	-12.1	-14.3	5.6	8.6	13.0	19.3	28.4
80.0	12.3	6.4	8.3	0.3	-3.0	-7.1	0.6	-7.7	-2.9	8.1	1.7	11.4	8.2	1.7	6.3	-5.2	-13.1	-13.3	-17.7	-16.3	-11.9	-11.2	-12.6	-7.1	7.7	10.6	17.4	21.8	11.2	19.1	11.1	1.0	-12.9	-23.2	-8.1	-2.0	11.6	19.2	29.7	35.7
100.0	2.5	3.3	-5.5	-4.4	-4.4	-5.5	2.2	14.7	-0.3	-5.4	1.6	-3.2	0.7	8.5	10.6	6.1	-2.9	-18.6	-26.4	-22.6	-26.4	-19.3	-3.2	9.2	15.5	15.6	16.8	13.6	14.2	6.9	7.3	3.9	-7.1	-9.8	-5.9	1.9	6.0	23.1	29.0	30.6
120.0	-1.2	-8.5	-7.8	-8.1	-6.9	3.4	9.0	9.3	12.9	-3.0	-6.6	-4.0	-2.8	6.3	1.7	4.1	-4.9	-16.0	-20.4	-30.2	-20.5	-14.5	3.5	17.1	12.7	17.8	9.3	7.4	8.5	4.0	-0.9	0.5	10.5	12.0	1.4	4.1	12.1	14.6	22.9	13.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8

LINE 1200N.

Q% 10.0 9.0 10.0 10.0 2.0 0.0 0.0 0.0 -5.0 -4.0 0.0 5.0 8.0 8.0 9.0 9.0 6.0 7.0 9.0 7.0 7.0 8.0
 I% 51.0 56.0 58.0 64.0 44.0 31.0 26.0 17.0 6.0 -1.0 2.0 21.0 24.0 25.0 24.0 24.0 19.0 16.0 23.0 18.0 30.0 23.0
 FFFLI-20.0-15.0 6.0 47.0 51.0 32.0 34.0 38.0 22.0-18.0-44.0-26.0 -4.0 1.0 6.0 13.0 4.0 -6.0 -9.0-12.0

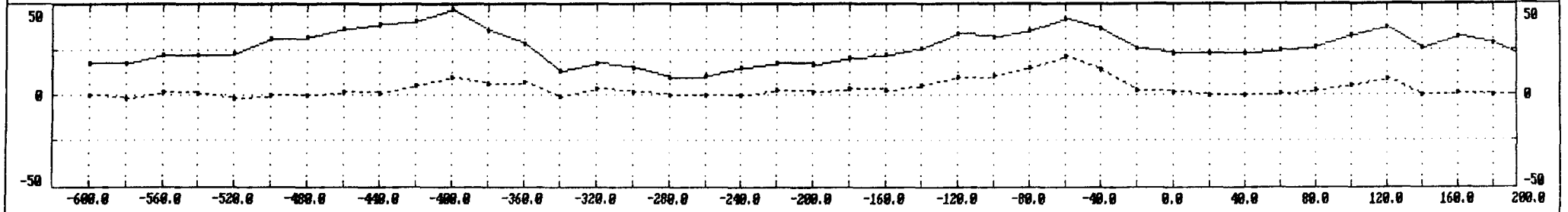


20.0	3	-2.8	-3.7	8.9	20.6	12.6	12.2	13.6	9.7	2.7	-12.1	-12.6	-3.5	-1.6	0.8	2.4	5.1	-3.2	-0.4	-3.9	-3.5	4.5	20.0
40.0	1	-10.9	5.3	15.2	19.5	25.2	20.8	18.6	15.8	1.5	-7.7	-12.6	-11.3	-0.8	1.6	2.4	-1.2	3.1	-6.0	-3.7	0.6	-1.8	40.0
60.0	3	5.6	8.6	13.0	19.3	28.4	35.1	24.2	6.4	1.6	-2.1	-8.1	-10.0	-7.3	5.1	2.4	4.7	-4.9	-1.8	-4.2	-3.6	0.8	60.0
80.0	1	-2.0	11.6	19.2	29.7	35.7	31.0	23.5	9.2	1.3	1.1	-4.5	-5.2	-6.5	-8.2	6.4	0.0	3.5	2.5	0.7	-3.2	-5.5	80.0
100.0	9	1.9	6.0	23.1	29.0	38.6	23.8	22.9	23.8	10.6	2.8	2.8	-1.0	-9.7	-9.6	-13.1	2.3	4.9	7.0	5.0	3.7	-0.6	100.0
120.0	4	4.1	12.1	14.6	22.9	13.0	18.8	21.4	23.1	27.3	17.4	10.5	1.0	-2.2	-14.6	-15.3	-10.5	1.1	4.1	5.9	6.4	7.7	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (23.4 KHZ)

LINE 1300N.

QZ	0.0	-2.0	2.0	1.0	-2.0	0.0	0.0	2.0	1.0	5.0	10.0	6.0	7.0	-1.0	4.0	2.0	0.0	0.0	0.0	3.0	2.0	4.0	3.0	5.0	10.0	11.0	15.0	21.0	14.0	3.0	2.0	0.0	0.0	1.0	3.0	5.0	9.0	0.0	1.0	0.0	0.0	-1.0
IX	18.0	18.0	22.0	22.0	23.0	31.0	32.0	36.0	39.0	41.0	47.0	35.0	28.0	13.0	18.0	15.0	10.0	11.0	15.0	18.0	17.0	20.0	22.0	26.0	34.0	32.0	35.0	42.0	36.0	26.0	23.0	23.0	23.0	25.0	27.0	33.0	37.0	26.0	32.0	28.0	18.0	0.0
FRFLI	-8.0	-5.0	-10.0	-18.0	-14.0	-12.0	-12.0	-13.0	-2.0	25.0	41.0	32.0	8.0	6.0	12.0	-1.0	-12.0	-9.0	-4.0	-7.0	-11.0	-18.0	-18.0	-7.0	-11.0	-11.0	15.0	29.0	16.0	3.0	-2.0	-6.0	-12.0	-18.0	-3.0	12.0	3.0	12.0	34.0	35.0	0.0	0.0

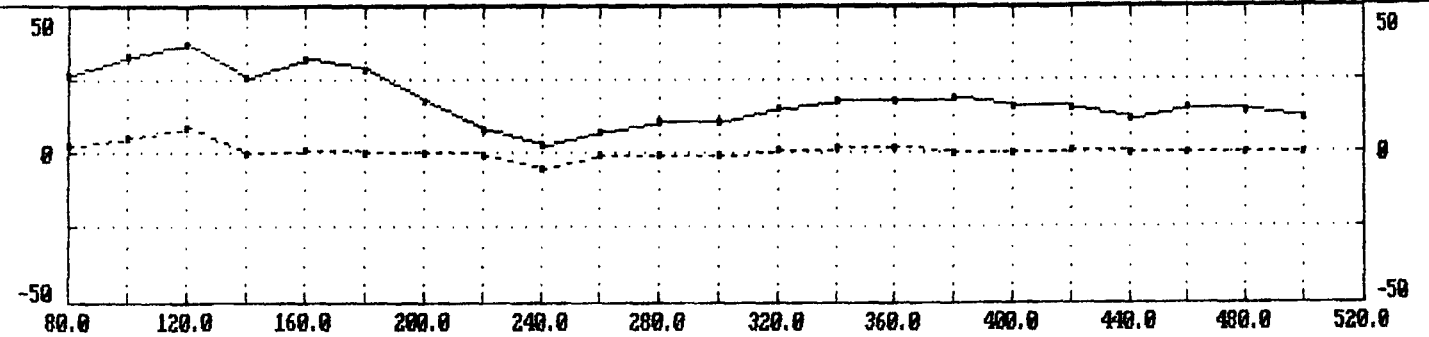


20.0	-0.8	-2.4	-3.4	-1.2	-6.3	-6.0	-3.8	-5.8	-2.3	-4.1	5.1	11.1	13.3	8.2	0.3	5.7	1.6	-2.5	-4.0	-1.0	-2.2	-4.3	-3.8	-7.9	-4.0	-1.0	-5.5	0.2	9.2	7.4	2.7	0.9	-1.6	-3.1	-4.0	-6.5	3.9	3.4	0.3	10.3	20.0
40.0	-3.0	-3.7	-3.8	-8.4	-7.3	-8.4	-8.5	-4.3	-7.7	0.2	6.7	16.5	16.3	11.3	10.5	2.3	3.6	-0.4	-4.3	-6.3	-4.2	-6.0	-11.0	-6.8	-7.0	-9.1	-1.7	2.7	5.6	9.5	6.5	0.6	-1.9	-4.2	-5.5	1.6	-1.1	3.4	10.5	10.0	40.0
60.0	-2.4	-4.1	-8.0	-7.1	-7.5	-8.2	-9.6	-12.9	-1.9	2.1	12.1	11.1	13.8	19.8	12.7	5.8	-3.9	0.4	-2.6	-4.5	-6.5	-8.6	-7.3	-9.7	-12.9	-9.3	-1.9	4.2	4.5	5.6	8.9	5.1	-2.3	-5.5	-0.2	-3.7	0.3	6.2	14.1	18.8	60.0
80.0	-0.2	-3.8	-5.4	-8.8	-9.7	-11.9	-13.2	-7.0	-2.9	9.6	7.0	10.6	14.3	14.8	16.0	6.9	4.5	-3.9	-2.0	-4.4	-11.4	-9.4	-8.9	-12.8	-10.8	-3.9	-1.3	1.2	6.5	4.6	6.3	6.3	-0.9	-0.5	-6.2	-4.1	3.0	10.0	14.9	17.0	80.0
100.0	-1.9	-3.5	-7.0	-10.0	-12.7	-15.5	-9.4	-3.4	4.7	1.8	7.9	11.0	11.7	11.9	12.6	16.4	8.1	3.6	-7.8	-10.3	-11.2	-15.2	-16.7	-10.4	-2.6	0.7	2.7	2.9	2.2	5.2	-0.1	-2.3	7.1	0.8	-2.6	1.7	7.7	10.8	10.2	10.6	100.0
120.0	-2.6	-6.8	-8.9	-11.3	-16.0	-10.4	-6.4	2.4	1.4	2.5	6.5	11.6	10.5	10.8	12.9	12.4	13.9	3.1	-5.8	-12.2	-11.5	-16.7	-15.3	-6.2	-1.0	0.9	0.3	1.0	0.9	-2.4	-1.4	2.1	1.5	7.3	9.5	9.2	10.4	8.8	6.2	7.2	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4)

LINE 1300N.

Q% 3.0 5.0 9.0 0.0 1.0 0.0 0.0 -1.0 -5.0 -1.0 -1.0 -1.0 1.0 2.0 2.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0
 I% 27.0 33.0 37.0 26.0 32.0 28.0 18.0 8.0 3.0 7.0 11.0 11.0 15.0 18.0 18.0 19.0 16.0 15.0 12.0 15.0 14.0 12.0
 FREL-18.0 -3.0 12.0 3.0 12.0 34.0 35.0 16.0 -7.0-12.0 -8.0-11.0-10.0 -4.0 1.0 6.0 8.0 4.0 -2.0 1.0

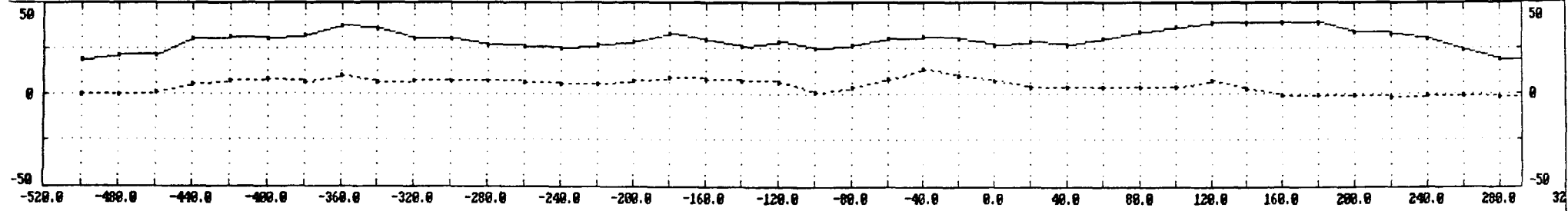


20.0	0	-6.5	3.9	3.4	0.3	10.3	11.4	9.3	1.9	-4.0	-2.6	-3.1	-4.7	-1.7	-0.9	1.3	2.2	2.4	0.6	-0.8	2.1	1.6	20.0
40.0	5	1.6	-1.1	3.4	10.5	10.0	16.0	12.4	4.9	-1.6	-5.1	-4.2	-2.5	-4.7	-1.6	1.4	3.3	2.0	1.3	2.1	1.1	3.5	40.0
60.0	2	-3.7	0.3	6.2	14.1	18.8	10.4	11.6	9.4	2.8	-4.7	-6.8	-5.7	-0.3	0.2	2.8	1.6	1.7	3.6	2.7	2.6	1.8	60.0
80.0	2	-4.1	3.0	10.0	14.9	17.0	16.7	9.2	9.8	5.7	-0.3	-5.3	-6.6	-2.9	2.0	-0.2	3.6	5.8	5.0	5.1	3.1	3.3	80.0
100.0	6	1.7	7.7	10.8	10.2	10.6	14.0	14.3	7.1	10.0	6.1	1.4	-3.8	-4.3	-3.8	-0.5	1.8	5.6	6.9	7.8	8.2	6.0	100.0
120.0	5	9.2	10.4	8.8	6.2	7.2	6.6	9.5	12.8	5.8	11.2	10.2	5.5	-3.1	-5.8	-1.8	0.6	1.6	5.1	8.5	9.7	9.4	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4 KHZ)

LINE 1400N.

Z	0.0	0.0	1.0	5.0	7.0	8.0	6.0	10.0	6.0	7.0	7.0	7.0	6.0	5.0	5.0	7.0	9.0	8.0	7.0	6.0	1.0	4.0	8.0	13.0	10.0	7.0	4.0	4.0	4.0	4.0	7.0	3.0	-1.0	-1.0	-1.0	-2.0	-1.0	-1.0	-2.0	-1.0	0	
X	19.0	21.0	21.0	30.0	31.0	30.0	32.0	37.0	35.0	30.0	30.0	27.0	26.0	25.0	27.0	28.0	33.0	29.0	26.0	28.0	25.0	27.0	30.0	31.0	30.0	27.0	28.0	27.0	30.0	34.0	36.0	39.0	39.0	39.0	39.0	34.0	33.0	30.0	24.0	19.0	19.0	20
WPLI	-11.0	-19.0	-10.0	-1.0	-8.0	-10.0	4.0	12.0	8.0	7.0	6.0	1.0	-4.0	-9.0	-7.0	6.0	8.0	2.0	2.0	-4.0	-9.0	-4.0	4.0	6.0	2.0	-2.0	-9.0	-13.0	-11.0	-8.0	-3.0	0.0	5.0	11.0	10.0	13.0	20.0	16.0	4.0	-2.0	0	

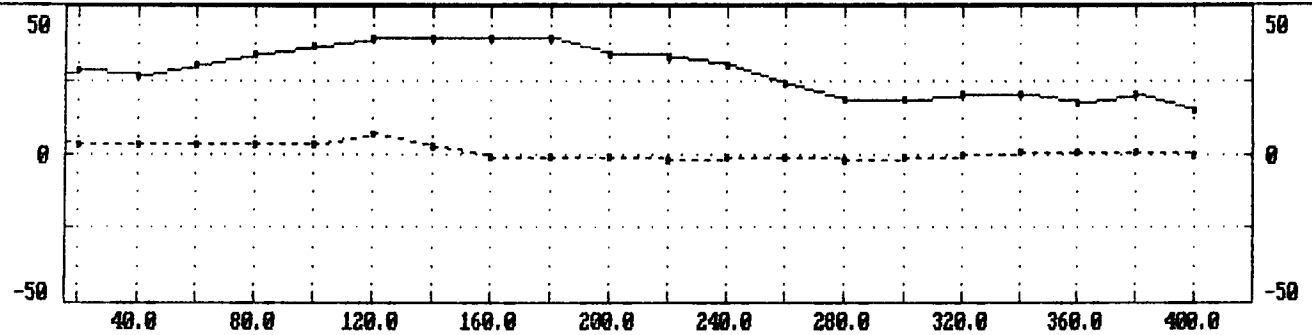


20.0	-3.3	-1.5	-5.7	-6.4	-1.0	-1.6	-3.7	-1.6	4.1	2.8	2.4	2.8	1.1	-0.8	-1.5	-3.1	-0.9	4.1	0.2	0.7	0.6	-3.0	-1.8	-0.3	2.1	0.9	-0.3	-1.3	-4.7	-3.8	-3.5	-2.3	0.2	0.0	3.4	4.4	3.4	6.2	6.8	3.5	20.0
40.0	-1.0	-8.1	-7.1	-4.7	-6.3	-4.5	-2.4	-0.6	0.2	5.5	4.6	2.4	2.2	0.3	-3.1	-1.9	0.5	-0.3	4.3	1.1	-2.5	-1.7	-2.4	-0.6	0.4	1.5	-1.1	-4.7	-4.9	-6.3	-4.7	-2.7	-1.1	3.4	3.8	5.3	8.9	9.4	8.7	7.1	40.0
60.0	-3.9	-5.7	-6.5	-6.5	-8.2	-7.5	-0.2	-0.6	0.8	2.5	6.1	4.0	1.1	-2.1	-1.8	0.0	-0.7	2.1	1.1	1.8	-1.8	-3.3	-1.0	-2.6	-0.5	0.0	-1.4	-3.4	-6.4	-5.9	-5.7	-3.8	0.9	2.2	5.3	8.4	11.5	11.7	9.1	8.7	60.0
80.0	-2.0	-3.2	-6.0	-10.6	-8.8	-4.6	-4.3	2.2	3.5	2.7	2.0	3.5	-0.4	-0.2	1.4	-0.6	0.4	-1.7	-2.2	-1.9	1.5	0.7	-1.5	0.5	-3.2	-3.8	-2.3	-3.2	-3.1	-5.6	-5.9	-3.6	-1.8	3.1	8.0	12.8	12.8	11.6	11.7	9.9	80.0
100.0	-0.1	-3.4	-7.4	-7.5	-6.3	-4.7	-1.9	-2.0	3.3	2.8	1.4	-0.6	4.5	4.0	-0.7	0.9	-2.1	-4.7	-4.6	-2.3	0.5	3.4	2.6	-0.3	-1.5	-4.7	-6.0	-4.4	-3.9	-4.9	-3.0	-1.2	-0.4	4.4	10.0	11.0	12.3	12.8	13.9	12.5	100.0
120.0	0.6	-4.0	-3.9	-2.8	-4.3	-4.5	-2.7	-0.7	-2.2	2.4	-0.1	1.2	3.3	4.1	4.5	-0.3	-2.1	-3.8	-3.4	-1.9	-0.6	2.2	3.4	-1.4	-4.0	-3.9	-6.5	-5.7	-4.1	-0.5	-0.3	-0.4	4.3	6.4	8.5	9.9	10.8	14.1	12.7	15.9	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (2)

LINE 1400N.

Q%	4.0	4.0	4.0	4.0	4.0	7.0	3.0	-1.0	-1.0	-1.0	-2.0	-1.0	-1.0	-2.0	-1.0	0.0	1.0	1.0	1.0	0.0
I%	28.0	27.0	30.0	34.0	36.0	39.0	39.0	39.0	39.0	34.0	33.0	30.0	24.0	19.0	19.0	20.0	20.0	18.0	20.0	15.0
FRFLT	-2.0	-9.0	-13.0	-11.0	-8.0	-3.0	0.0	5.0	11.0	10.0	13.0	20.0	16.0	4.0	-2.0	1.0	2.0	3.0		

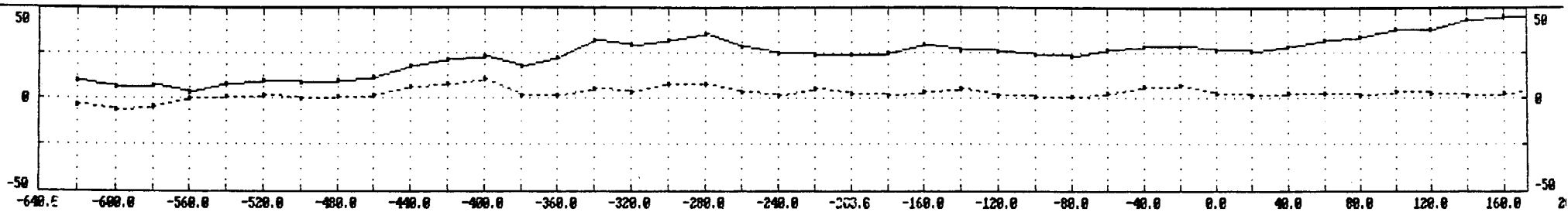


20.0	0.3	-1.3	-4.7	-3.8	-3.5	-2.3	0.2	0.0	3.4	4.4	3.4	6.2	6.8	3.5	0.4	-0.2	1.6	0.3	2.2	4.8	20.0
40.0	1.1	-4.7	-4.9	-6.3	-4.7	-2.7	-1.1	3.4	3.8	5.3	8.9	9.4	8.7	7.1	4.1	2.1	1.3	4.7	5.4	5.0	40.0
60.0	1.4	-3.4	-6.4	-5.9	-5.7	-3.8	0.9	2.2	5.3	8.4	11.5	11.7	9.1	8.7	8.5	4.4	4.6	6.1	7.8	9.3	60.0
80.0	2.3	-3.2	-3.1	-5.6	-5.9	-3.6	-1.8	3.1	8.0	12.8	12.8	11.6	11.7	9.9	8.6	10.2	8.3	7.4	8.8	10.9	80.0
100.0	5.0	-4.4	-3.9	-4.9	-3.0	-1.2	-0.4	4.4	10.0	11.0	12.3	12.8	13.9	12.5	12.2	12.9	12.4	10.7	9.6	11.4	100.0
120.0	5.5	-5.7	-4.1	-0.5	-0.3	-0.4	4.3	6.4	8.5	9.9	10.8	14.1	12.7	15.9	17.3	15.7	16.2	15.3	13.4	11.8	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4 KHZ)

LINE 1500N.

QZ	-3.0	-6.0	-4.0	0.0	1.0	2.0	0.0	1.0	2.0	6.0	8.0	11.0	2.0	2.0	5.0	4.0	8.0	8.0	4.0	2.0	5.0	3.0	2.0	4.0	5.0	2.0	1.0	1.0	3.0	6.0	7.0	3.0	2.0	3.0	3.0	2.0	4.0	3.0	2.0	3.0	5.0	
IX	10.0	6.0	7.0	4.0	8.0	10.0	9.0	10.0	12.0	18.0	21.0	23.0	18.0	22.0	32.0	29.0	32.0	35.0	28.0	25.0	24.0	24.0	25.0	29.0	27.0	26.0	24.0	23.0	27.0	28.0	28.0	27.0	26.0	28.0	32.0	34.0	38.0	38.0	43.0	45.0	46.0	4
FREQ	5.0	1.0	-7.0	-7.0	-1.0	-3.0	-11.0	-17.0	-14.0	-2.0	4.0	-13.0	-21.0	-7.0	-6.0	-2.0	14.0	14.0	5.0	0.0	-6.0	-7.0	1.0	6.0	6.0	0.0	-8.0	-6.0	0.0	3.0	1.0	-7.0	-12.0	-12.0	-10.0	-9.0	-12.0	-10.0	-6.0	6.1		

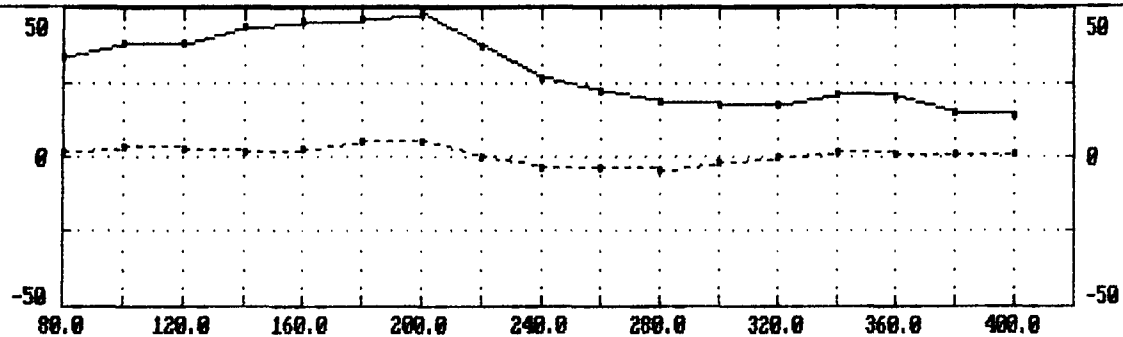


20.0	3.7	1.4	1.2	-0.2	-3.7	-0.7	-1.2	-2.5	-5.1	-5.2	-3.7	-0.1	0.1	-0.6	-4.3	-0.3	-3.9	2.0	5.6	2.3	1.0	-0.2	-2.7	-1.0	1.7	1.1	1.0	-1.7	-2.7	-0.5	0.0	0.6	-0.9	-4.0	-3.8	-4.5	-3.3	-3.6	-4.9	-1.0	20.0
40.0	1.0	4.0	0.4	-3.4	-2.1	-3.8	-2.2	-5.0	-8.7	-9.1	-4.5	-3.7	-6.9	-3.9	-0.7	-7.0	2.2	1.7	3.2	5.8	2.2	-2.2	-1.4	-0.5	0.7	3.4	0.0	-1.6	-3.0	-2.6	-0.1	-0.6	-3.5	-5.6	-7.8	-6.6	-5.9	-5.0	-3.8	-5.1	40.0
60.0	0.2	-0.9	-0.8	-0.5	-3.5	-4.9	-9.5	-8.6	-8.1	-5.4	-7.3	-11.5	-7.1	-7.0	-8.0	-7.1	-3.1	3.6	2.8	3.6	2.4	-0.8	-1.4	0.2	0.7	-1.0	0.8	-1.3	-1.5	-2.8	-4.3	-4.2	-4.2	-5.3	-5.2	-8.2	-8.6	-6.9	-7.1	0.7	60.0
80.0	-3.4	-3.3	-2.3	-1.1	-4.0	-9.6	-9.3	-11.9	-6.2	-6.7	-13.2	-11.1	-12.0	-10.8	-4.7	-1.9	-4.4	-2.5	2.2	-1.7	1.9	4.4	0.9	-0.1	-4.1	-4.3	-2.6	0.0	0.0	-1.6	-4.3	-5.4	-4.8	-3.8	-6.9	-8.7	-10.9	-11.1	-2.5	4.3	80.0
100.0	-6.8	-5.1	-5.0	-3.8	-5.0	-7.9	-11.0	-7.4	-12.1	-15.3	-12.1	-13.7	-14.5	-9.2	-4.4	-2.6	-1.8	-5.1	-5.5	0.9	-0.4	1.8	4.3	-2.2	-4.4	-4.5	-3.9	-2.3	0.9	-0.6	-2.2	-5.0	-6.0	-8.4	-9.3	-9.6	-11.1	-5.1	2.2	7.2	100.0
120.0	-7.9	-6.6	-5.8	-8.0	-8.3	-8.3	-6.9	-11.3	-16.1	-15.9	-15.6	-16.0	-12.4	-9.6	-7.8	-4.3	-3.4	-4.5	-6.8	-4.5	1.6	-0.2	-0.4	0.7	-1.7	-1.9	-1.5	-1.4	-2.8	-1.5	-5.9	-6.4	-9.0	-11.1	-9.0	-9.3	-3.3	1.7	3.9	7.0	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF I

LINE 1500N.

Q%	2.0	4.0	3.0	2.0	3.0	5.0	5.0	0.0	-3.0	-3.0	-4.0	-2.0	0.0	2.0	1.0	1.0	1.0
I%	34.0	38.0	38.0	43.0	45.0	46.0	48.0	37.0	27.0	22.0	19.0	18.0	18.0	21.0	20.0	15.0	14.0
FRFLI	-10.0	-9.0	-12.0	-10.0	-6.0	6.0	30.0	36.0	23.0	12.0	5.0	-2.0	-5.0	4.0	12.0		

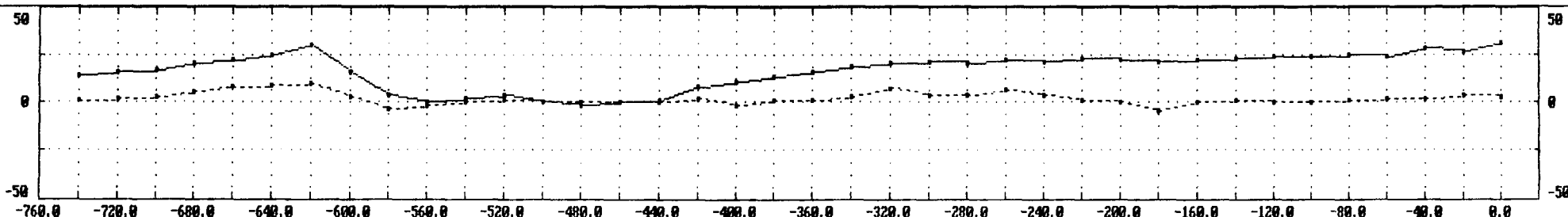


20.0	5	-3.3	-3.6	-4.9	-1.0	-0.9	6.1	13.0	9.6	6.4	3.3	1.2	-0.9	-0.8	3.8	3.7	2.7	20.0
40.0	6	-5.9	-5.0	-3.8	-5.1	3.9	10.6	13.7	16.5	12.0	6.6	2.8	2.6	4.1	4.0	6.6	7.1	40.0
60.0	2	-8.6	-6.9	-7.1	0.7	6.1	12.0	15.0	16.7	17.7	10.3	5.3	5.8	5.6	7.2	9.1	11.2	60.0
80.0	7	-10.9	-11.1	-2.5	4.3	10.2	12.1	15.2	16.2	14.9	16.9	13.7	8.9	7.8	7.4	9.4	11.6	80.0
100.0	6	-11.1	-5.1	2.2	7.2	9.8	12.7	12.7	14.2	15.9	19.2	20.7	15.8	11.5	10.4	10.3	11.4	100.0
120.0	3	-3.3	1.7	3.9	7.0	9.7	11.3	11.8	12.4	17.9	19.5	21.7	24.2	19.2	14.9	13.1	12.9	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4 KHZ)

LINE 1600N.

QZ	1.0	2.0	3.0	5.0	8.0	9.0	10.0	3.0	-3.0	-2.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	-2.0	1.0	1.0	3.0	7.0	4.0	4.0	6.0	4.0	1.0	0.0	-4.0	0.0	1.0	0.0	0.0	1.0	2.0	2.0	4.0	3.0
IX	14.0	16.0	17.0	20.0	22.0	25.0	30.0	16.0	4.0	0.0	2.0	4.0	0.0	-2.0	0.0	1.0	8.0	11.0	13.0	16.0	19.0	20.0	21.0	20.0	22.0	21.0	23.0	22.0	21.0	22.0	23.0	24.0	24.0	25.0	24.0	28.0	27.0	31.0
FRZLI	-7.0	-9.0	-10.0	-13.0	1.0	35.0	42.0	18.0	-2.0	-2.0	8.0	6.0	-3.0	-11.0	-18.0	-15.0	-10.0	-11.0	-10.0	-6.0	-2.0	-1.0	-2.0	-2.0	-2.0	1.0	2.0	-2.0	-4.0	-3.0	-2.0	-1.0	-3.0	-6.0	-6.0			

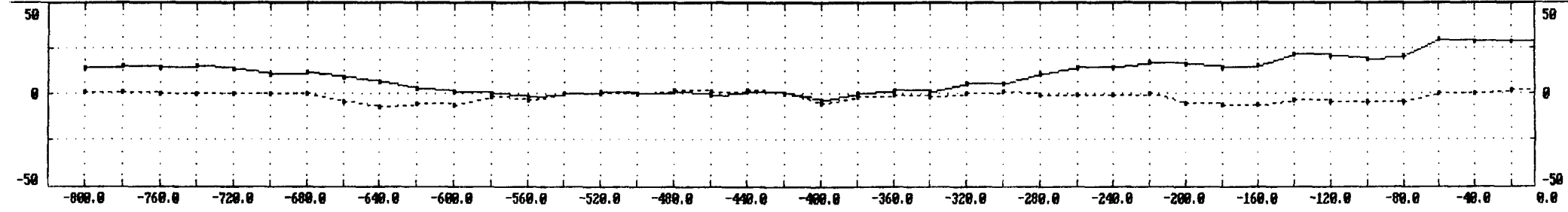


20.0	-2.4	-2.0	-3.1	-3.9	-2.0	-3.4	6.0	15.2	9.5	3.5	-0.6	1.4	3.1	-0.8	-1.9	-5.0	-6.7	-3.9	-4.1	-4.2	-2.7	-1.8	-0.3	-0.9	-0.6	-0.4	-0.8	1.1	-0.3	-1.1	-1.3	-0.7	-1.1	-0.2	-2.2	-2.3	-2.2	-4.5
40.0	-2.3	-3.5	-2.1	-3.2	-6.7	2.1	10.6	14.9	16.1	7.1	1.9	1.7	3.1	2.3	-5.4	-8.6	-8.1	-8.7	-7.2	-6.3	-6.0	-3.8	-2.4	-1.3	-2.0	-1.8	0.2	-0.8	-0.2	-1.7	-2.1	-2.3	-1.3	-3.1	-2.8	-4.5	-6.4	-5.5
60.0	0.9	-2.3	-6.1	-7.7	1.5	8.6	11.9	10.8	10.9	15.8	9.3	1.2	-1.6	-3.3	-2.5	-5.3	-9.5	-11.7	-11.6	-7.9	-5.5	-6.2	-4.7	-4.0	-3.0	-1.2	-2.6	-1.7	-3.0	-1.6	-3.0	-2.8	-4.8	-3.5	-5.4	-6.6	-7.6	-9.8
80.0	-0.4	-3.2	-7.2	-0.4	6.3	9.2	8.4	8.7	11.9	14.4	15.9	7.4	-3.2	-7.0	-7.3	-6.7	-9.5	-10.8	-9.8	-10.4	-8.7	-6.7	-6.5	-4.5	-2.9	-3.7	-3.9	-5.1	-3.7	-4.6	-2.9	-5.4	-5.3	-6.9	-7.8	-8.7	-9.8	-10.8
100.0	-0.9	-5.4	0.8	6.1	7.0	6.6	6.9	9.7	12.6	12.5	13.6	12.0	2.4	-5.8	-10.0	-10.7	-10.2	-12.1	-11.8	-11.2	-10.3	-6.9	-6.3	-5.9	-5.6	-4.3	-4.8	-4.9	-6.4	-4.8	-7.8	-5.5	-8.2	-9.9	-10.6	-11.0	-11.9	-13.2
120.0	-3.7	2.6	8.1	9.2	7.3	5.3	8.4	10.9	10.2	11.4	8.7	8.4	9.8	-0.2	-8.7	-12.0	-11.7	-10.8	-14.1	-14.0	-13.4	-11.9	-7.6	-6.3	-5.3	-5.5	-5.3	-5.8	-5.0	-7.9	-6.8	-10.1	-10.4	-12.3	-13.6	-14.1	-14.9	-15.4

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4 KHZ)

LINE 1700N.

YK	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.0	-7.0	-5.0	-6.0	-2.0	-3.0	0.0	0.0	0.0	2.0	1.0	2.0	0.0	-5.0	-2.0	-1.0	-2.0	0.0	1.0	-1.0	-1.0	-1.0	0.0	-5.0	-6.0	-6.0	-3.0	-4.0	-4.0	-4.0	0.0	0.0	2.0	3.0
IX	14.0	15.0	14.0	15.0	13.0	11.0	12.0	9.0	6.0	3.0	1.0	0.0	-2.0	0.0	1.0	0.0	1.0	-1.0	1.0	0.0	-3.0	0.0	2.0	1.0	5.0	5.0	11.0	14.0	14.0	17.0	16.0	14.0	15.0	21.0	20.0	19.0	20.0	29.0	20.0	20.0	30.0	
FFWT	0.0	1.0	5.0	5.0	3.0	8.0	12.0	11.0	8.0	6.0	3.0	-3.0	-3.0	0.0	1.0	1.0	-1.0	3.0	4.0	-5.0	-6.0	-4.0	-7.0	-10.0	-15.0	-12.0	-6.0	-5.0	1.0	4.0	-6.0	-12.0	-3.0	2.0	-10.0	-10.0	-7.0	-1.0				

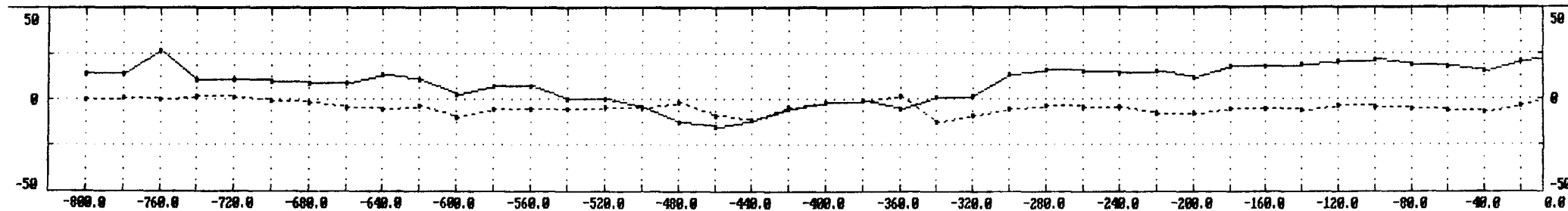


20.0	-0.8	0.2	0.2	0.5	2.7	1.0	1.9	4.1	3.8	3.7	2.1	2.0	0.3	-1.7	0.3	-0.4	0.6	0.4	-0.8	2.2	-0.1	-3.2	-0.6	-2.8	-3.1	-3.8	-6.1	-2.1	-2.3	-1.5	1.0	0.2	-3.9	-2.9	-0.1	-0.9	-5.9	-5.0	-0.1	-2.2
40.0	0.2	-0.3	1.3	3.1	2.0	4.1	4.8	5.1	6.6	5.9	5.1	2.4	0.8	0.7	-0.8	0.9	-0.2	-0.1	1.6	-1.0	-1.3	-1.6	-5.2	-3.8	-5.6	-7.7	-6.1	-8.1	-4.1	-0.9	-1.6	-4.4	-3.6	-3.5	-3.7	-5.1	-5.2	-6.4	-6.8	-1.6
60.0	0.8	1.7	2.6	2.2	4.1	5.1	7.3	7.2	6.9	8.3	5.9	3.8	2.6	0.6	1.0	-1.1	0.5	1.8	-0.7	-1.6	-2.3	-3.3	-3.5	-8.2	-9.1	-7.8	-10.0	-6.9	-6.9	-4.3	-5.9	-4.8	-3.2	-4.1	-10.3	-8.8	-5.1	-6.7	-7.5	-7.9
80.0	2.3	2.9	1.9	3.4	5.0	7.6	8.0	9.1	9.5	6.7	6.6	5.5	2.8	2.6	-0.3	-0.4	0.4	-0.5	-0.4	-0.2	-2.2	-4.2	-6.7	-9.0	-11.0	-11.2	-9.5	-9.0	-7.2	-10.5	-6.6	-4.5	-5.6	-8.7	-8.9	-10.3	-10.5	-7.8	-8.2	-8.9
100.0	3.2	2.3	3.8	5.2	6.9	8.4	9.3	9.5	9.1	7.0	6.2	5.7	4.9	2.0	0.9	1.7	0.0	-2.1	-0.7	-2.1	-2.7	-5.6	-9.5	-8.3	-11.0	-12.5	-9.9	-9.0	-12.9	-10.1	-9.4	-6.7	-10.4	-9.6	-8.3	-10.3	-12.0	-11.9	-9.2	-10.0
120.0	2.6	4.3	6.1	7.3	8.0	8.4	9.4	8.8	6.8	7.8	6.2	5.8	5.6	4.6	4.8	0.9	-1.1	-0.8	-4.3	-3.9	-6.5	-8.1	-7.9	-11.0	-9.1	-8.5	-11.3	-13.3	-11.9	-11.9	-10.5	-15.4	-11.2	-9.8	-11.0	-10.0	-11.1	-12.8	-13.4	-10.4

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (23.4 KHZ)

LINE 1800N.

Q% 0.0 1.0 0.0 2.0 1.0 -1.0 -2.0 -4.0 -5.0 -3.0 -10.0 -5.0 -5.0 -5.0 -4.0 -4.0 -2.0 -9.0 -11.0 -4.0 -2.0 -1.0 2.0 -12.0 -9.0 -5.0 -3.0 -4.0 -4.0 -8.0 -8.0 -5.0 -5.0 -6.0 -3.0 -4.0 -5.0 -6.0 -7.0 -3.0 0.0
 I% 14.0 14.0 27.0 11.0 11.0 10.0 9.0 9.0 13.0 11.0 3.0 7.0 7.0 0.0 0.0 -4.0 -12.0 -15.0 -11.0 -5.0 -2.0 -1.0 -5.0 1.0 2.0 13.0 16.0 15.0 14.0 15.0 12.0 18.0 18.0 19.0 20.0 21.0 19.0 18.0 15.0 20.0 23.0
 FREQI -10.0 19.0 17.0 3.0 3.0 -3.0 -6.0 8.0 14.0 0.0 3.0 14.0 11.0 16.0 23.0 10.0 -11.0 -19.0 -13.0 -1.0 1.0 -9.0 -19.0 -26.0 -16.0 0.0 2.0 2.0 -1.0 -9.0 -7.0 -3.0 -4.0 -1.0 4.0 7.0 2.0 -10.0

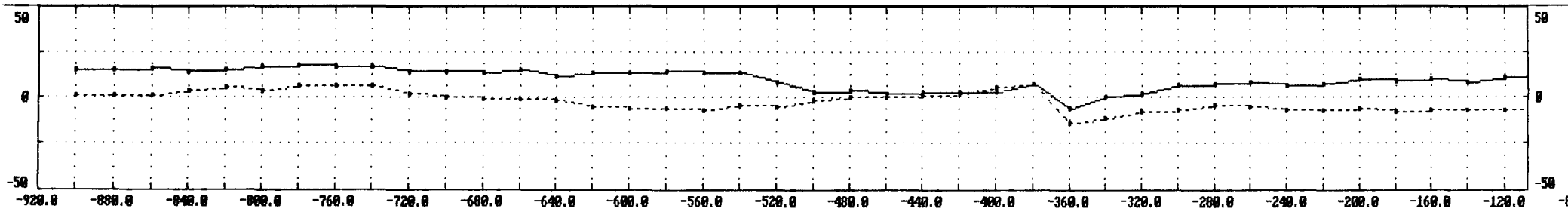


20.0	0.3	-7.1	1.7	9.3	0.0	2.4	0.7	-1.4	-1.2	5.7	2.8	-1.6	5.3	4.8	3.4	7.7	6.0	-0.4	-5.3	-4.9	-3.5	0.7	-2.7	-4.9	-7.1	-9.0	-1.8	0.2	-0.7	1.1	-1.9	-3.7	-0.7	-1.7	-1.1	0.8	1.3	1.9	-1.4	-5.0
40.0	-6.5	1.4	1.8	2.5	11.2	1.5	-1.8	0.6	5.9	2.1	5.2	8.0	2.2	6.1	11.4	8.9	6.5	1.1	-5.4	-8.9	-4.2	-3.7	-3.3	-9.7	-13.2	-9.3	-7.8	-2.2	0.6	-3.4	-3.7	-2.4	-4.1	-2.0	-1.3	-0.4	1.4	-0.4	-3.4	-5.5
60.0	3.4	3.2	2.6	3.9	4.1	9.3	1.6	6.3	2.9	2.8	5.6	8.8	8.5	9.2	12.4	10.1	1.9	0.5	-2.4	-4.3	-8.8	-6.7	-10.4	-10.2	-10.0	-12.6	-10.3	-7.5	-3.7	-1.7	-3.4	-5.9	-5.9	-6.3	-1.3	0.5	-1.8	-3.5	-4.4	-7.5
80.0	5.3	5.5	4.6	4.2	3.6	4.6	15.9	3.7	2.7	5.6	4.7	7.5	14.5	14.0	8.1	5.9	4.1	0.2	3.3	-3.3	-8.0	-15.6	-16.2	-11.3	-8.4	-8.8	-9.2	-10.5	-11.3	-6.4	-5.1	-5.9	-5.2	-4.7	-5.4	-4.3	-6.0	-5.9	-6.5	-8.0
100.0	7.7	8.3	7.6	3.5	3.0	7.8	4.9	12.4	6.9	7.1	7.5	11.0	11.6	12.9	8.2	3.2	4.5	8.0	-1.3	-1.8	-10.1	-16.1	-17.1	-13.1	-11.0	-8.4	-10.7	-13.1	-11.7	-12.1	-7.1	-5.3	-5.5	-4.4	-6.2	-10.1	-8.4	-10.3	-10.7	-11.7
120.0	10.4	8.4	4.8	4.6	0.0	4.0	5.0	8.1	15.2	8.5	12.8	14.1	11.4	7.9	7.7	6.6	4.1	2.8	2.5	-7.2	-7.5	-11.1	-14.8	-17.6	-14.2	-14.1	-12.4	-12.4	-15.6	-12.4	-11.0	-5.5	-2.4	-6.3	-9.3	-11.0	-13.9	-12.2	-13.7	-14.6

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (23.4 KHZ)

LINE 1900N.

1%	1.0	1.0	1.0	4.0	5.0	4.0	6.0	6.0	6.0	2.0	0.0	-1.0	-1.0	-2.0	-5.0	-6.0	-6.0	-7.0	-4.0	-5.0	-2.0	0.0	0.0	1.0	2.0	5.0	7.0	-14.0	-11.0	-8.0	-7.0	-4.0	-5.0	-7.0	-7.0	-6.0	-8.0	-7.0	-7.0	-7.0	-5.0	-3.0	
1%	15.0	15.0	16.0	14.0	15.0	17.0	18.0	17.0	17.0	14.0	14.0	13.0	15.0	12.0	13.0	13.0	14.0	13.0	13.0	8.0	3.0	4.0	2.0	3.0	3.0	3.0	7.0	-6.0	0.0	2.0	6.0	7.0	8.0	6.0	7.0	10.0	9.0	10.0	8.0	11.0	11.0	14.0	14.0
FREQ	0.0	2.0	-2.0	-6.0	-3.0	1.0	4.0	6.0	4.0	0.0	0.0	3.0	1.0	-2.0	-1.0	1.0	6.0	15.0	14.0	5.0	2.0	0.0	-1.0	-4.0	5.0	16.0	-1.0	-14.0	-11.0	-7.0	-1.0	2.0	-3.0	-6.0	-2.0	1.0	0.0	-4.0	-6.0	-5.0	-3.0	-3.0	

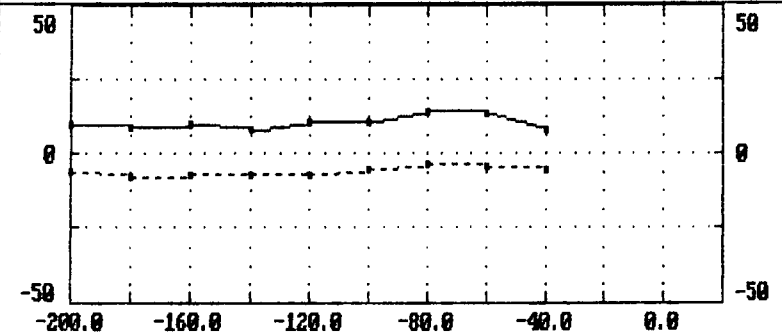


20.0	0.2	-0.6	0.4	0.4	-1.0	-1.6	0.1	0.5	1.9	1.0	1.0	-0.3	0.6	1.1	-0.6	-0.3	0.4	1.3	3.1	6.3	2.6	1.3	1.1	-1.0	1.3	-2.6	5.0	3.6	-5.0	-2.7	-3.6	-1.6	-0.2	0.4	-2.5	-0.9	-0.5	0.2	-0.9	-1.9	20.0
40.0	-0.9	0.5	0.0	-0.9	-0.9	-1.5	-1.2	1.9	2.5	2.1	0.9	1.3	0.9	0.9	1.9	0.2	0.5	3.4	6.7	5.4	6.1	4.2	1.1	0.9	-2.3	5.0	1.4	0.6	0.3	-7.0	-5.1	-2.0	-0.1	-2.9	-1.6	-3.2	-1.1	-0.2	-0.5	-2.1	40.0
60.0	0.8	0.2	-0.8	-1.7	-0.9	-0.5	0.2	0.5	2.3	1.8	3.5	3.3	1.3	0.8	0.6	2.1	3.0	6.0	6.4	7.6	6.4	5.4	2.5	-2.4	5.9	1.8	1.2	-1.2	-2.2	-0.7	-7.1	-4.4	-5.6	-1.7	-1.5	0.8	-3.3	-2.3	-2.0	-1.4	60.0
80.0	0.1	-0.9	-1.5	-1.0	-1.0	0.6	1.2	1.2	1.2	3.8	4.0	3.1	2.2	1.0	0.5	4.0	7.4	5.4	7.0	5.5	6.2	5.8	3.7	7.8	1.9	0.9	-2.1	-1.9	-2.1	-1.4	0.4	-8.5	-4.8	-3.8	-0.7	-1.0	-0.7	-3.5	-2.1	1.1	80.0
100.0	-1.0	-1.7	-0.9	-1.1	1.2	1.7	2.2	1.8	2.2	1.9	2.8	2.4	3.6	3.1	4.0	6.3	5.2	6.8	4.9	5.7	5.9	4.5	11.0	7.9	3.3	-1.6	-2.1	-3.3	-1.6	-1.3	-2.5	0.8	-6.9	-2.5	-3.5	-1.6	-2.8	-1.0	0.5	2.4	100.0
120.0	-1.5	-0.6	0.0	1.6	1.8	2.2	1.1	2.5	1.8	2.1	1.3	2.9	3.0	5.2	8.0	5.3	6.7	5.2	6.6	5.0	3.7	10.5	7.8	6.3	4.1	1.4	-1.9	-0.2	-1.7	-2.4	-1.5	-2.1	1.8	-7.2	-3.5	-4.1	-1.2	1.8	3.0	4.1	120.0

NORTHAIR, CALLAGHAN AREA,

LINE 1900N.

Q% -6.0 -8.0 -7.0 -7.0 -7.0 -5.0 -3.0 -4.0 -5.0
 I% 10.0 9.0 10.0 8.0 11.0 11.0 14.0 13.0 8.0
 FRFLI -2.0 1.0 0.0 -4.0 -6.0 -5.0 4.0

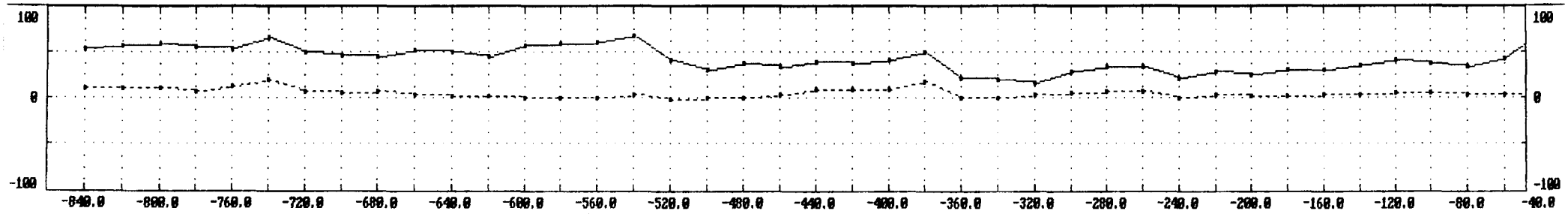


20.0	9	-0.5	0.2	-0.9	-1.9	-1.2	-1.1	3.8	4.5	20.0
40.0	2	-1.1	-0.2	-0.5	-2.1	-2.4	2.4	3.9	6.9	40.0
60.0	8	-3.3	-2.3	-2.0	-1.4	2.1	2.3	5.3	6.7	60.0
80.0	0	-0.7	-3.5	-2.1	1.1	2.5	4.8	5.4	8.5	80.0
100.0	6	-2.8	-1.0	0.5	2.4	5.2	6.4	7.0	8.0	100.0
120.0	1	-1.2	1.8	3.0	4.1	5.6	8.6	9.2	11.2	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, ULF DATA (24.8 KHZ)

LINE 2000N.

Q%	10.0	10.0	11.0	8.0	12.0	19.0	7.0	5.0	8.0	3.0	2.0	2.0	1.0	0.0	1.0	4.0	-1.0	1.0	1.0	4.0	9.0	9.0	9.0	18.0	0.0	1.0	4.0	5.0	7.0	8.0	1.0	3.0	2.0	2.0	3.0	3.0	5.0	5.0	3.0	3.0	8.0	
IX	53.0	56.0	59.0	55.0	54.0	65.0	49.0	46.0	45.0	51.0	49.0	45.0	56.0	58.0	60.0	67.0	40.0	31.0	37.0	33.0	39.0	37.0	40.0	50.0	22.0	19.0	16.0	28.0	33.0	33.0	22.0	28.0	25.0	31.0	31.0	36.0	40.0	38.0	34.0	42.0	67.0	4
FRFLI	-5.0	6.0	-5.0	-5.0	24.0	23.0	-1.0	-9.0	2.0	-1.0	-20.0	-17.0	-13.0	11.0	56.0	39.0	1.0	-4.0	-6.0	-5.0	-14.0	5.0	49.0	37.0	-3.0	-26.0	-22.0	6.0	16.0	2.0	-6.0	-9.0	-11.0	-14.0	-11.0	4.0	2.0	-37.0	-37.0	21.0		



20.0	-2.4	-3.2	-0.8	3.7	-5.2	3.7	10.5	1.9	-0.8	-3.0	2.8	-5.0	-8.3	0.0	-4.6	11.6	21.4	1.8	1.9	-0.8	-4.0	2.0	-6.9	11.4	16.9	2.8	-2.7	-8.7	-3.4	5.3	2.0	-1.6	-1.5	-4.7	-2.9	-5.6	-2.1	0.0	-1.7	-18.2	20.0
40.0	-2.4	-0.3	0.4	-5.0	5.5	5.4	4.2	7.1	0.0	-1.1	-4.1	0.8	-5.2	-12.2	8.9	15.9	12.8	17.3	2.8	-0.4	1.7	-6.3	9.0	9.6	14.6	12.6	-5.8	-8.5	-2.3	2.1	3.5	-0.3	-6.5	-5.6	-11.2	-4.4	-1.2	-3.4	-15.2	-4.1	40.0
60.0	0.8	0.2	-6.7	2.5	5.4	7.2	1.2	4.2	13.3	-1.6	-5.2	-8.4	-7.8	5.7	9.0	12.6	16.2	15.0	17.2	-0.7	-12.0	9.6	10.5	16.6	7.8	4.6	8.2	-0.7	-6.1	-5.4	-1.1	-0.5	-0.2	-11.3	-5.5	-5.9	-4.9	-18.6	-3.6	-0.4	60.0
80.0	1.9	-5.2	2.4	2.0	6.9	6.2	8.4	9.1	-0.1	4.3	-6.1	-13.0	5.1	13.3	10.6	9.7	10.3	13.2	12.0	10.4	10.8	7.3	11.4	1.4	4.1	4.3	12.4	15.1	-4.4	-8.2	-9.3	-5.4	-0.6	-0.2	-3.4	-4.0	-22.7	-7.6	-4.8	1.8	80.0
100.0	-3.7	6.6	8.8	7.7	3.8	5.7	8.1	2.7	-1.4	-0.5	2.1	8.1	10.0	6.2	10.1	6.1	5.4	11.4	6.2	22.6	28.3	13.4	0.7	1.8	-0.8	5.9	4.9	10.3	12.6	-1.7	-3.9	-11.2	-4.1	1.1	-1.9	-21.1	-5.8	-5.4	1.6	1.7	100.0
120.0	10.1	11.2	10.1	6.3	4.4	4.0	2.0	2.5	3.7	-3.9	10.2	22.0	8.8	8.2	4.1	8.7	6.1	-3.1	10.8	22.7	26.1	22.0	1.5	0.3	8.2	2.5	7.6	4.3	9.3	11.5	-5.4	-5.3	-4.7	-1.4	-15.4	-4.9	-6.3	-0.3	1.7	7.1	120.0

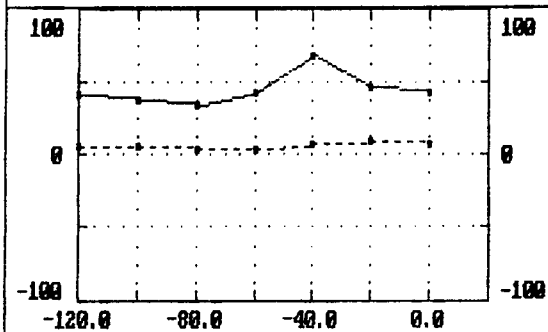
NORTHAIR, CALLAGHAN

LINE 2000N.

Q% 5.0 5.0 3.0 3.0 8.0 9.0 7.0

I% 40.0 38.0 34.0 42.0 67.0 46.0 42.0

FRFTL 4.0 2.0-37.0-37.0 21.0

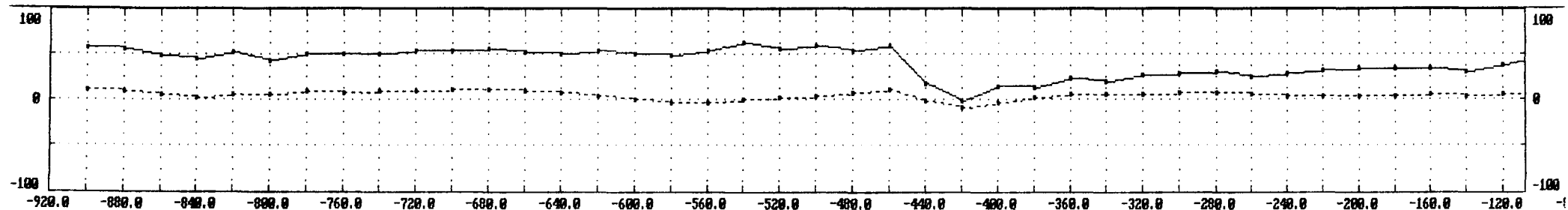


20.0	1	0.0	-1.7	-18.2	-1.7	13.9	4.4	20.0
40.0	2	-3.4	-15.2	-4.1	-4.1	3.9	21.5	40.0
60.0	9	-18.6	-3.6	-0.4	2.0	2.1	9.9	60.0
80.0	7	-7.6	-4.8	1.8	7.6	9.0	8.6	80.0
100.0	8	-5.4	1.6	1.7	7.7	12.2	15.4	100.0
120.0	3	-0.3	1.7	7.1	10.0	16.8	19.7	120.0

NORTHAIR, CALLAGHAN AREA, F GRID, VLF DATA (24.8 KHZ)

LINE 2100N.

Q%	10.0	9.0	5.0	2.0	5.0	5.0	9.0	8.0	9.0	9.0	10.0	10.0	9.0	7.0	4.0	0.0	-3.0	-3.0	0.0	2.0	4.0	7.0	11.0	-1.0	-8.0	-3.0	2.0	6.0	6.0	5.0	7.0	8.0	6.0	3.0	4.0	3.0	3.0	5.0	4.0	6.0	7.0	
I%	57.0	55.0	47.0	44.0	51.0	43.0	49.0	50.0	49.0	53.0	54.0	55.0	52.0	49.0	54.0	49.0	40.0	54.0	62.0	55.0	59.0	53.0	59.0	17.0	-2.0	14.0	13.0	24.0	20.0	26.0	20.0	31.0	25.0	20.0	32.0	34.0	33.0	34.0	30.0	37.0	46.0	4
FREQI	21.0	7.0	-3.0	3.0	-5.0	-7.0	-3.0	-0.0	-7.0	0.0	8.0	4.0	-2.0	6.0	1.0	-19.0	-15.0	2.0	5.0	2.0	36.0	97.0	64.0	-12.0	-25.0	-17.0	-9.0	-10.0	-13.0	-2.0	6.0	-4.0	-13.0	-7.0	-1.0	3.0	0.0	-19.0	-25.0	-9.0		

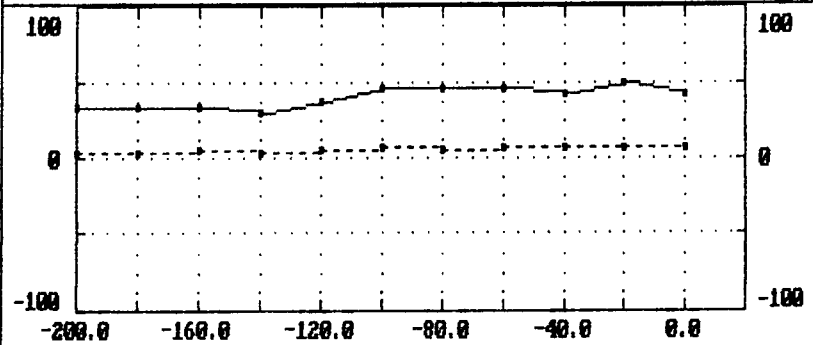


20.0	3.8	5.2	7.7	-2.1	1.2	1.3	-5.0	0.3	-2.6	-2.8	-0.8	0.4	3.8	-0.9	-0.1	2.6	-2.9	-8.0	-0.3	0.5	4.7	4.3	20.8	36.6	1.9	-4.0	-5.2	-6.3	-2.0	-5.3	-2.9	0.6	1.1	-4.3	-3.2	-0.7	-1.0	0.4	-2.1	-9.6	20.0
40.0	4.9	8.5	2.9	6.1	-1.3	-2.9	2.0	-4.3	-3.5	-3.0	-1.1	1.1	-1.4	2.9	1.7	-2.0	-4.6	0.7	-0.4	2.2	2.9	21.5	34.2	22.9	27.0	-3.1	-10.7	-3.4	-4.1	-4.8	-5.3	-2.6	-3.2	-2.5	-7.0	-5.1	0.5	-1.7	-0.9	-7.7	40.0
60.0	2.9	1.4	0.3	3.3	2.2	-2.0	-5.0	-1.1	-5.6	-1.9	0.4	-3.4	2.1	2.8	3.8	-0.4	0.6	-1.4	-2.5	-4.8	21.3	36.9	23.2	27.1	16.4	22.1	-5.0	-15.3	-9.0	-2.8	1.5	-4.2	-6.4	-6.9	-3.0	-5.3	-5.0	-9.3	-6.6	-7.3	60.0
80.0	-4.0	3.5	2.2	4.7	3.1	-0.9	-6.3	-8.0	-2.1	-3.4	-2.1	5.7	7.1	4.2	-0.4	0.1	-3.8	-2.0	-3.1	18.1	28.6	23.6	28.2	18.5	22.5	15.1	18.1	-7.9	-16.5	-8.2	-10.7	-3.1	-3.4	-1.5	2.7	-4.5	-14.0	-11.3	-9.2	-4.8	80.0
100.0	-2.1	-2.8	-1.6	0.5	1.8	-1.7	-2.6	-5.5	-0.6	2.3	-0.1	4.1	1.4	-5.1	-0.7	-1.6	1.4	-3.2	17.9	31.8	19.0	19.9	16.9	24.3	16.6	17.3	12.4	18.5	-7.3	-19.6	-11.3	-10.8	-4.8	-1.5	-1.1	-5.8	-4.6	-7.9	-7.9	-11.8	100.0
120.0	-10.0	-7.5	-4.6	-4.0	-2.7	3.9	5.9	4.5	-2.2	-2.4	3.0	-7.7	-9.5	-3.8	-5.2	1.4	-2.1	23.1	31.5	20.7	23.3	13.3	14.9	14.2	18.3	13.4	17.7	14.4	16.4	-8.3	-19.0	-10.5	-8.0	-6.1	-13.8	-7.2	-4.1	-1.8	-8.5	-4.1	120.0

NORTHAIR, CALLAGHAN AREA,

LINE 2100N.

Q%	3.0	3.0	5.0	4.0	6.0	7.0	6.0	7.0	8.0	8.0	8.0
I%	34.0	33.0	34.0	30.0	37.0	46.0	46.0	46.0	42.0	49.0	42.0
FRFLI	-1.0	3.0	0.0	-19.0	-25.0	-9.0	4.0	1.0	-3.0		

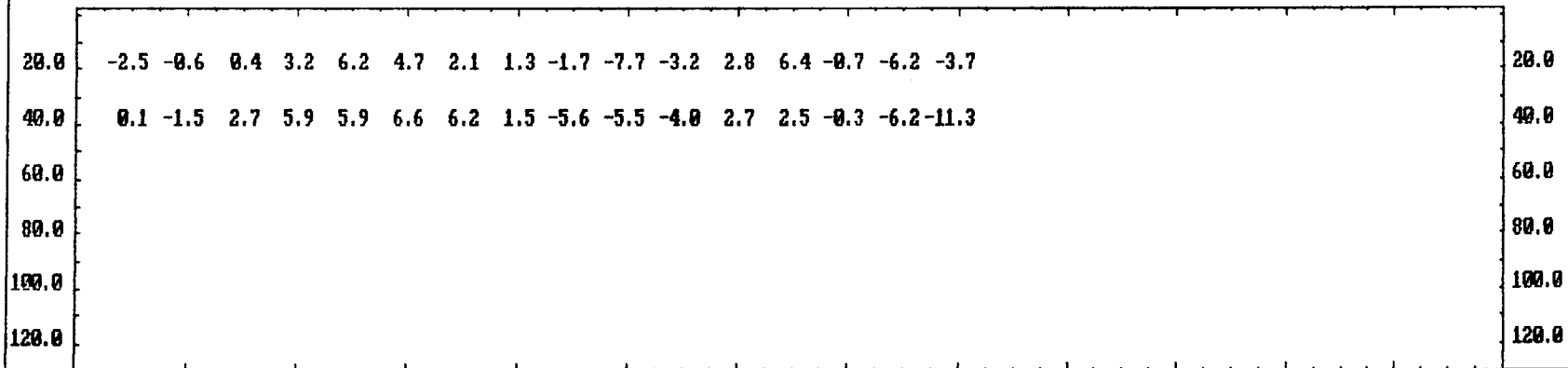
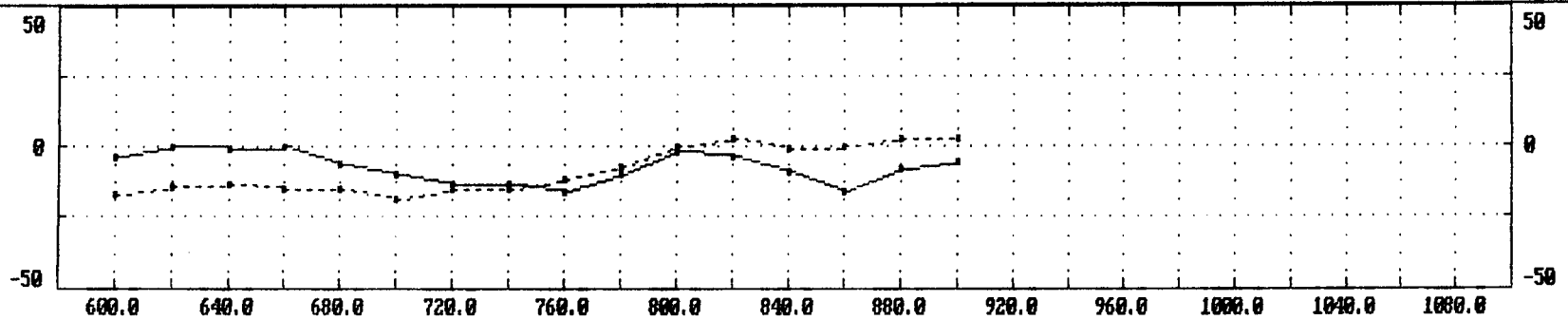


20.0	7	-1.0	0.4	-2.1	-9.6	-4.9	-1.6	1.9	-1.3	0.4	5.7	20.0
40.0	1	0.5	-1.7	-8.9	-7.7	-8.9	-2.8	-1.4	2.3	2.4	2.0	40.0
60.0	3	-5.8	-9.3	-6.6	-7.3	-4.4	-11.2	-2.9	3.6	5.1	5.7	60.0
80.0	5	-14.0	-11.3	-9.2	-4.8	-9.2	-4.2	-5.4	-0.2	5.4	6.8	80.0
100.0	8	-4.6	-7.9	-7.9	-11.8	-5.2	-4.9	-1.8	-3.5	1.9	8.2	100.0
120.0	2	-4.1	-1.8	-8.5	-4.1	0.1	-2.3	-3.8	-0.7	-1.6	4.4	120.0

NORTHAIR, CALLAGHAN AREA, G GRID, ULF DATA (24.8 KHZ)

LINE 200N.

Q%	-17.0	-14.0	-13.0	-15.0	-15.0	-18.0	-15.0	-15.0	-11.0	-7.0	0.0	3.0	-1.0	0.0	3.0	3.0
I%	-3.0	0.0	-1.0	0.0	-6.0	-10.0	-13.0	-13.0	-16.0	-10.0	-2.0	-3.0	-9.0	-16.0	-8.0	-5.0
FRFLI	-2.0	5.0	15.0	17.0	10.0	6.0	0.0	-17.0	-21.0	0.0	20.0	12.0	-12.0			



NORTHAIR, CALLAGHAN AREA, H GRID, VLF DATA (24.8 KHZ)

LINE 300S.

Q%	5.0	0.0	3.0	7.0	1.0	3.0	5.0	7.0	6.0	6.0	5.0	4.0	4.0	7.0	7.0	10.0
I%	44.0	34.0	37.0	43.0	34.0	39.0	44.0	40.0	49.0	50.0	40.0	49.0	40.0	56.0	56.0	57.0
FRFLI	-2.0	-6.0	7.0	-6.0	-19.0	-14.0	-7.0	-1.0	2.0	1.0	-7.0	-15.0	-9.0			

