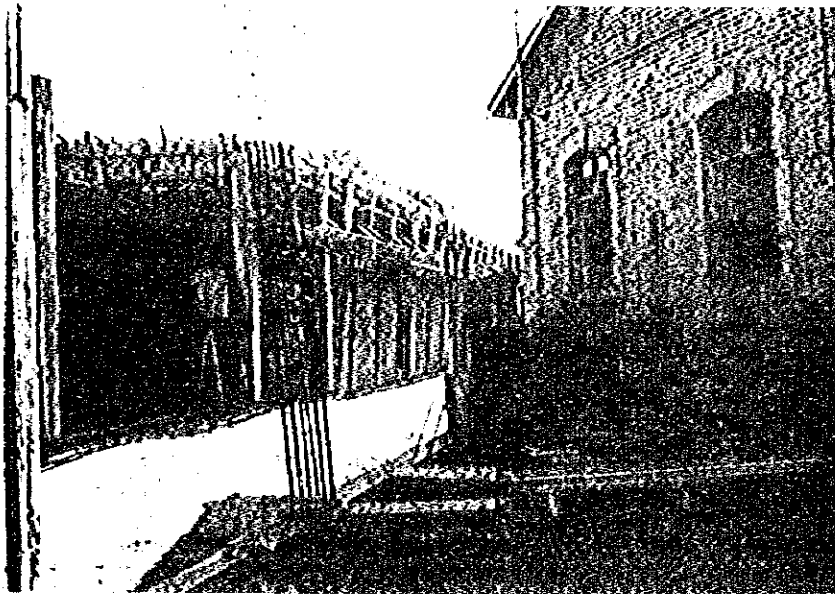
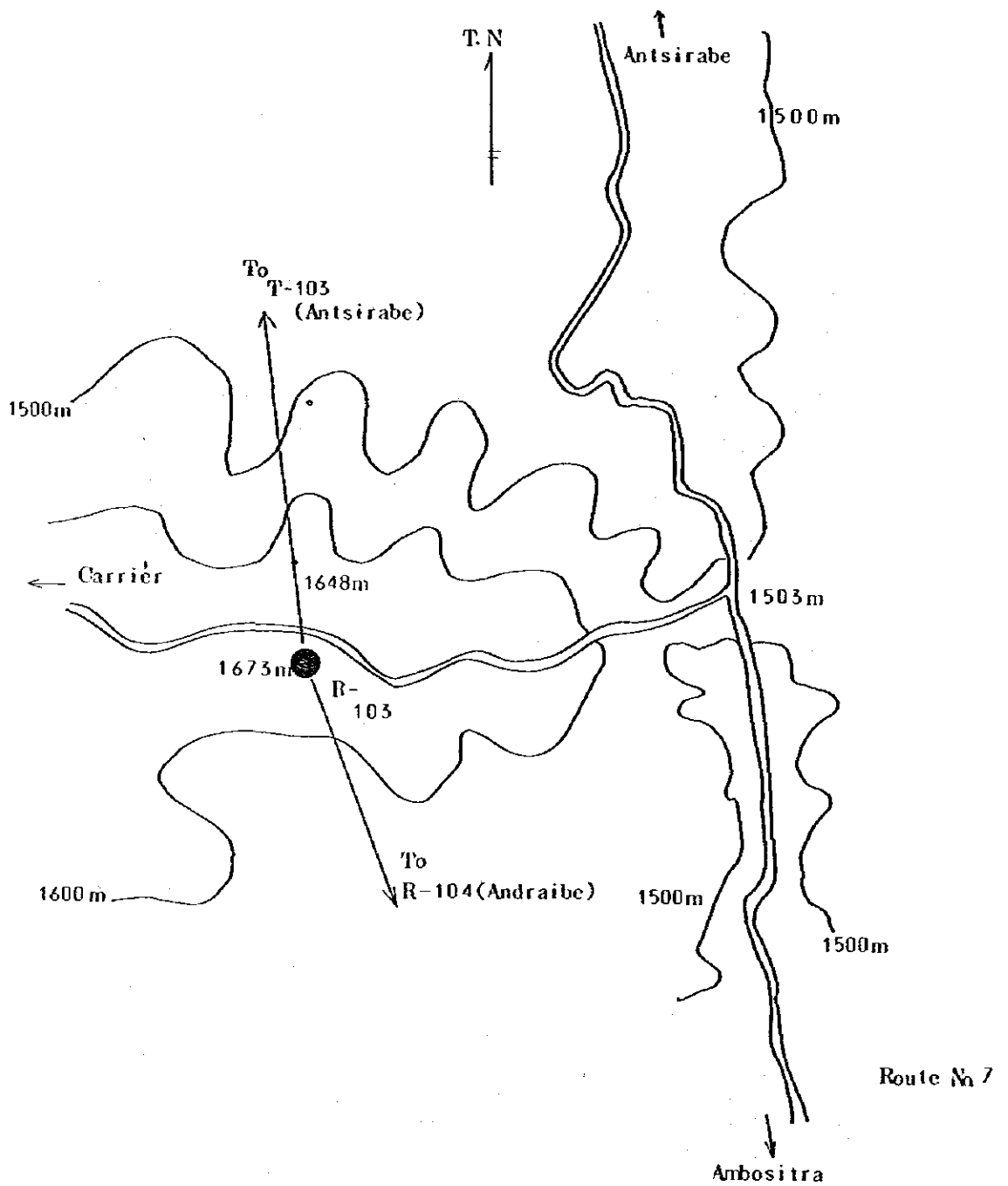


Attached DWG. 4-1-20 A Distant View of T-104 (Ivohitra)
from Suburbs of Antsirabe City



Attached DWG. 4-1-21 T-105 (Antsirabe) Station under
Construction



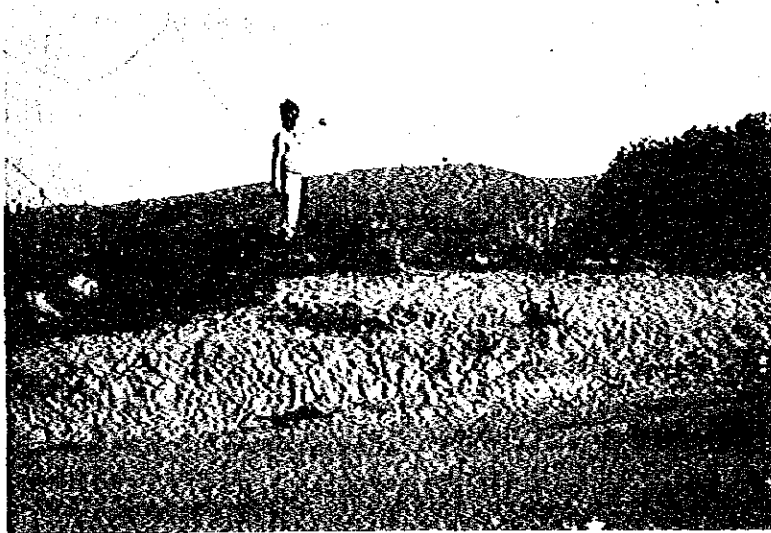
1) Site R-103

Small herb grows now.

2) Access Road

About 50 m

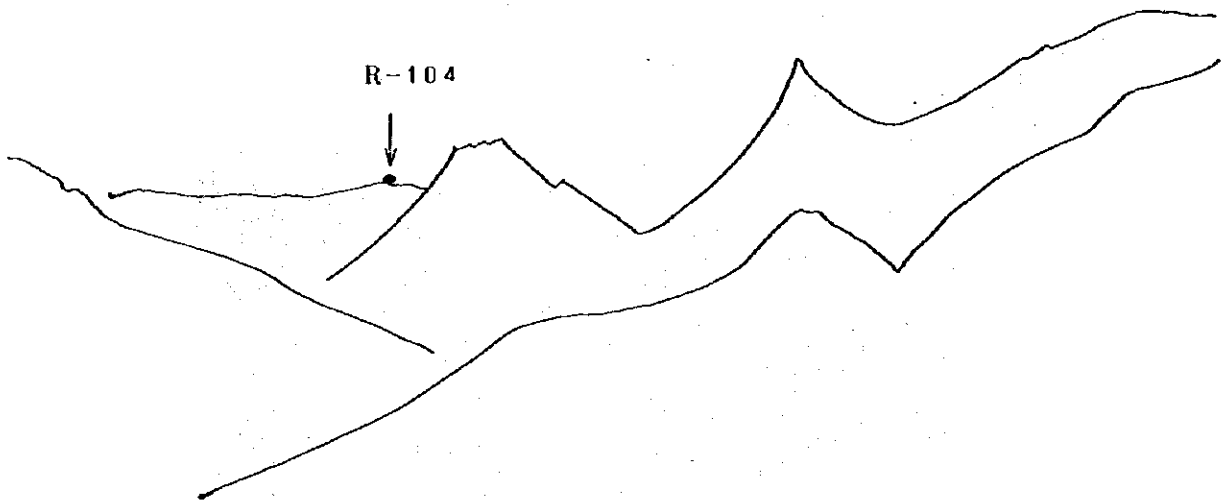
Attached DWG. 4-1-22 Guide Map of R-103 (Bezaika)



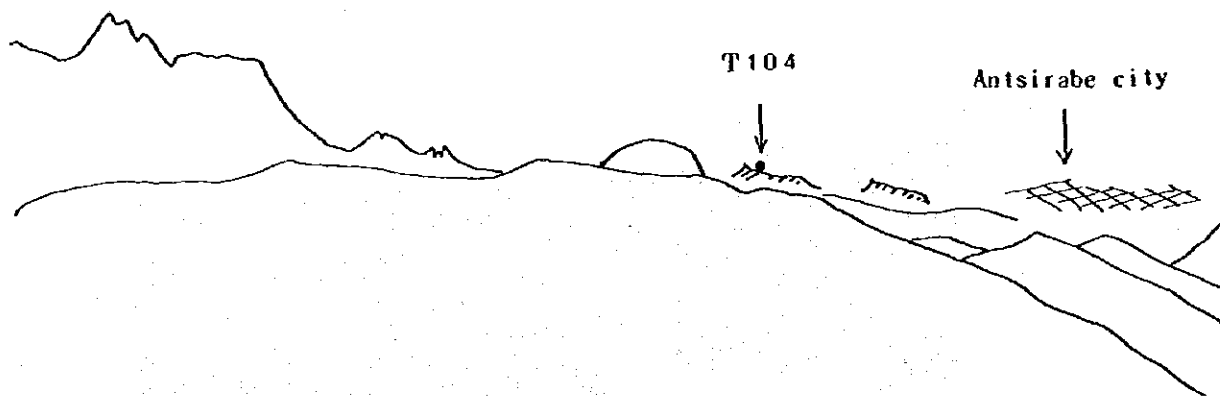
Attached DWG. 4-1-23 A Distant View of R-103 (Bezaika)
on the Way to R-103 from No.7
National Road



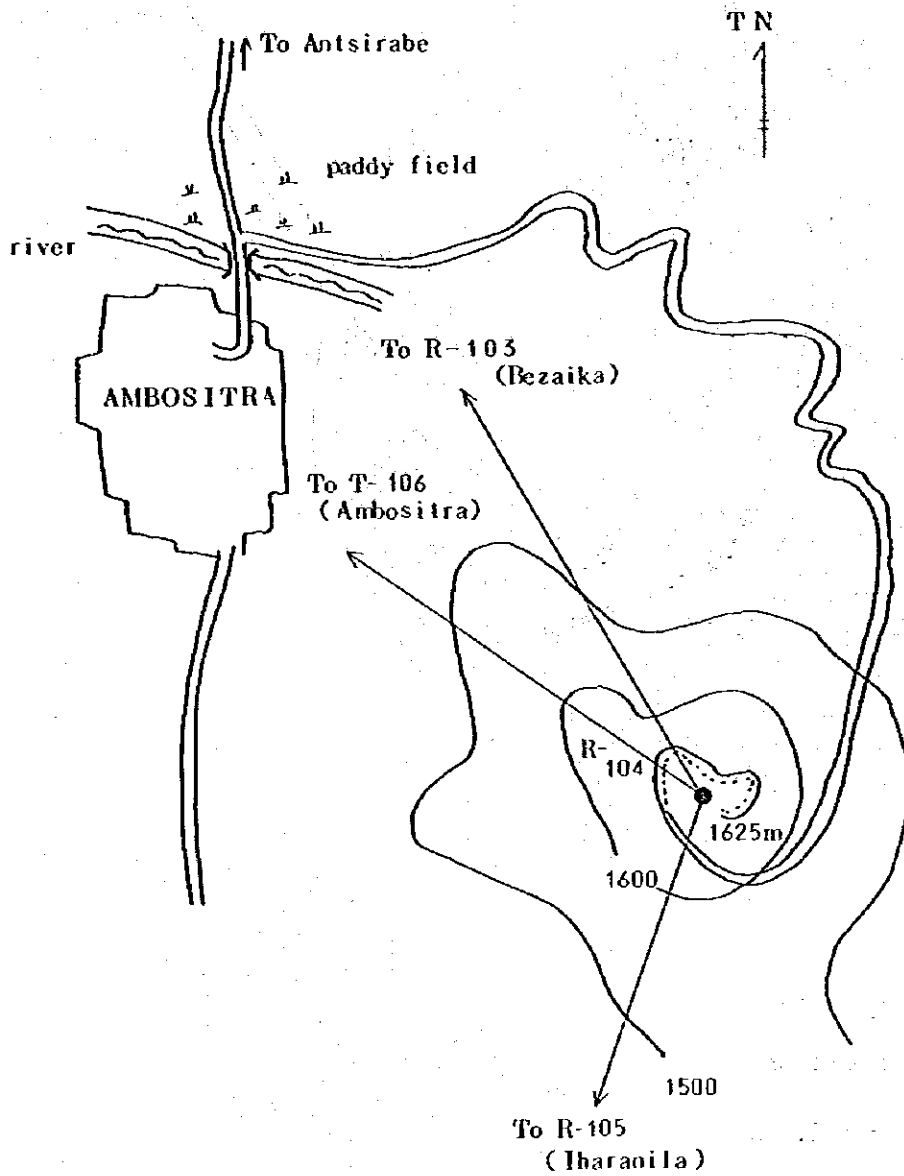
Attached DWG. 4-1-24 Site Snap of R-103 (Bezaika)
Existing road to a mine is passing by.



, Attached DWG. 4-1-25 A Distant View of R-104 (Andraibe)
from R-103 (Bezaika)



Attached DWG. 4-1-26 A Distant View of T-104 (Ivohitra)
from R-103 (Bezaika)



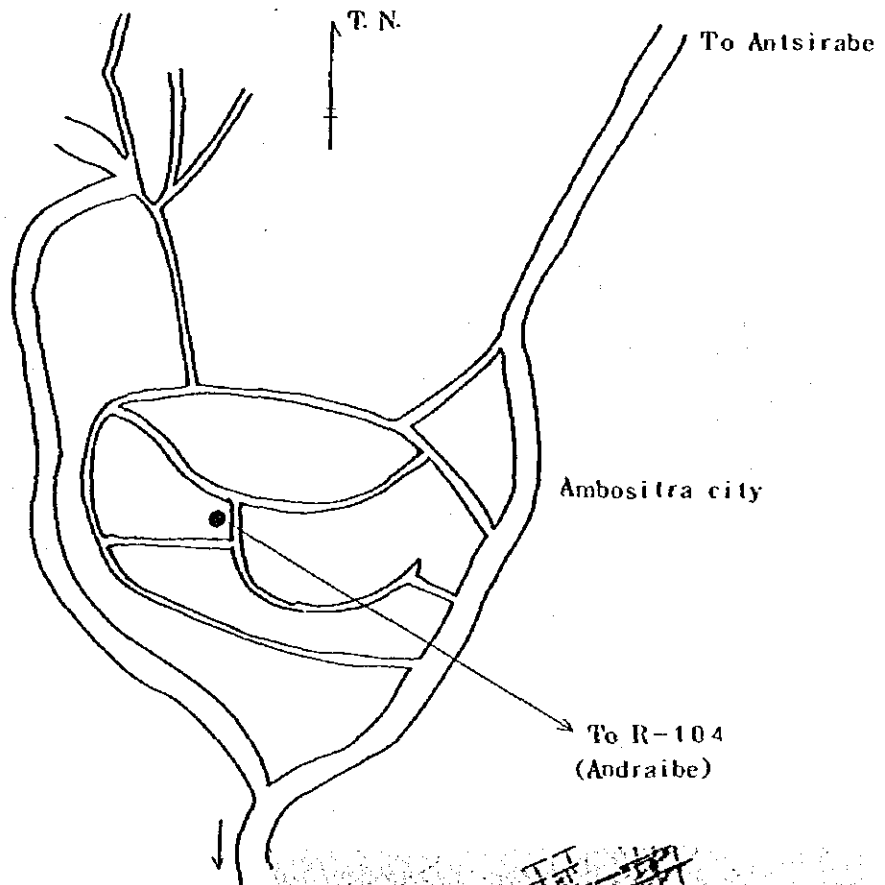
1) Site R-104

Trees surrounding proposed site in the direction of R-105 should be cut.

2) Access Road

Near the top of the mountain, slight correction will be necessary (1 km).

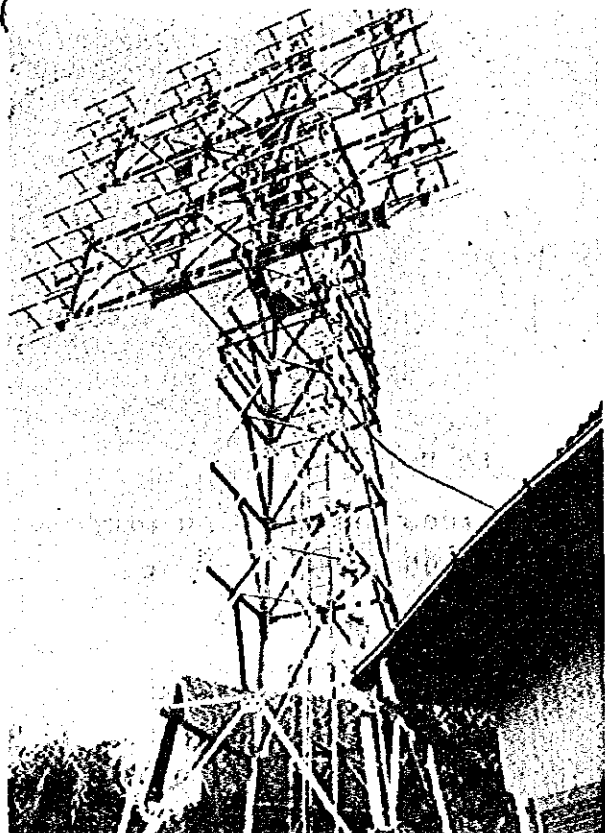
Attached DWG. 4-1-27 Guide Map of R-104 (Andraibe)



- 1) Site T-106
Existing
- 2) Access Road
Nil.

Attached DWG. 4-1-28

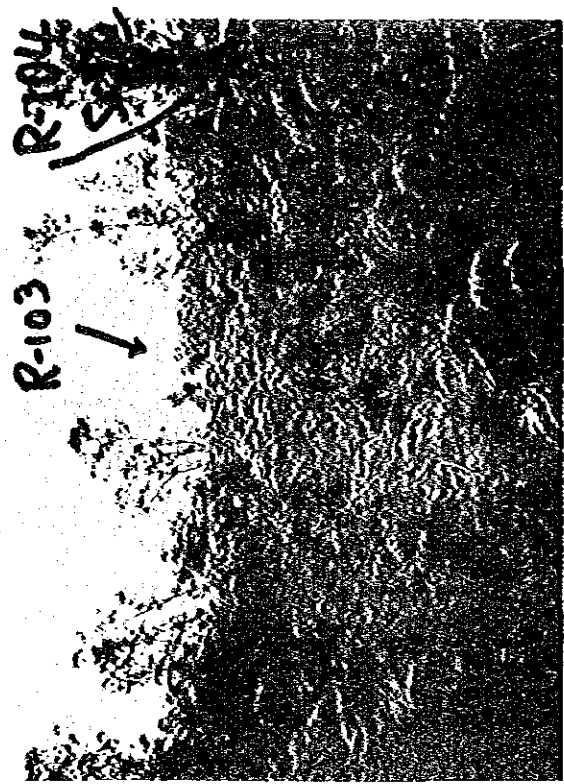
Guide Map of
T-106 (Ambositra)



Attached DWG. 4-1-29 Existing Ambositra
Radio Station

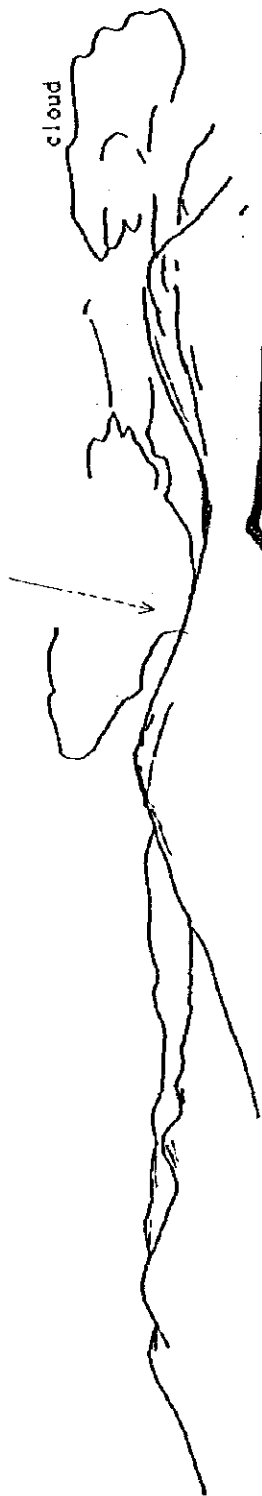


↘
Ambositra city

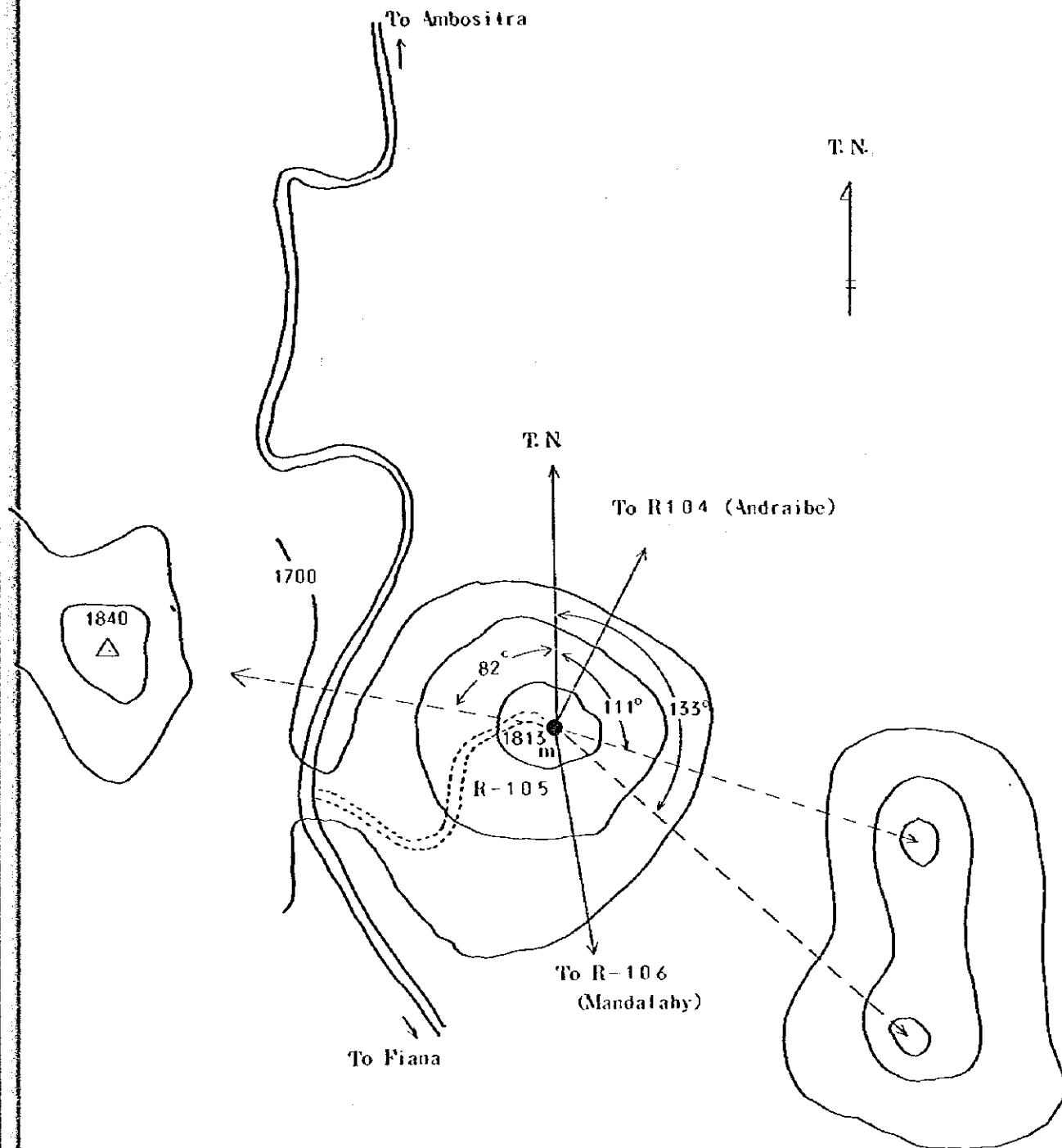


Attached DWG. 4-1-30 A Distant View of R-103 (Bezaika) from R-104 (Andraibe)

R-105 (Not visible)



Attached DWG. 4-1-31 A Distant View of R-105 (Iharanila) from R-104 (Andraibe)



1) Site R-105

Almost no forest.

2) Access Road

The road to be constructed newly will be 1.5 km long.

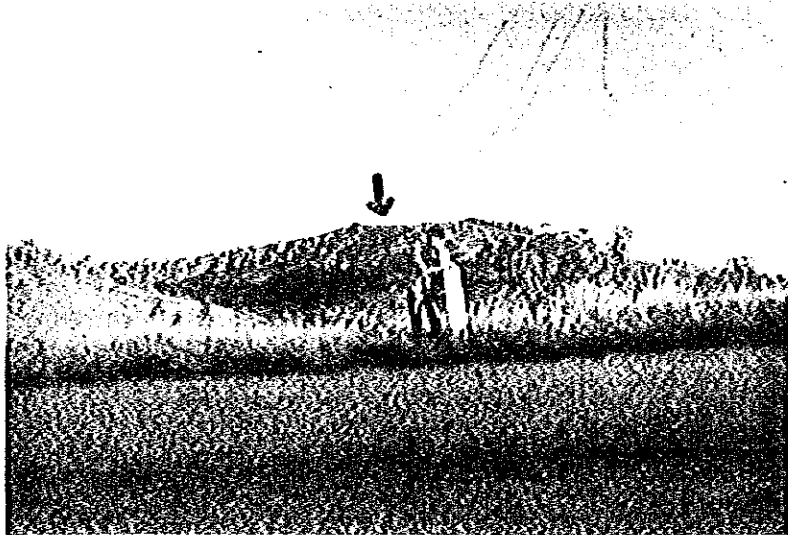
3) Note

The 1/100,000 map published in 1966 may be slightly different from actual topographic features.

Attached DWG. 4-1-32 Guide Map of R-105 (Iharanila)

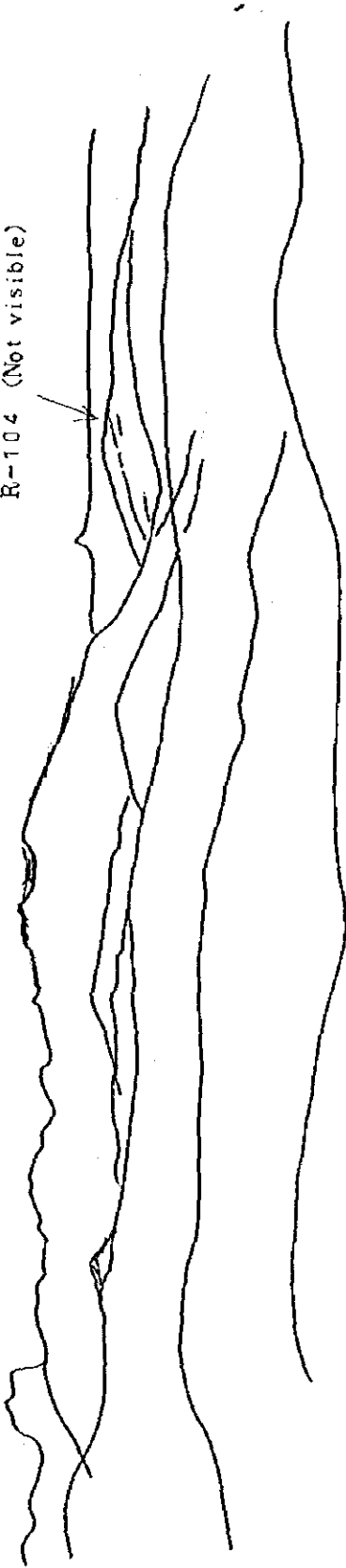


Attached DWG. 4-1-33 Site Snap of R-105 (Iharanila)

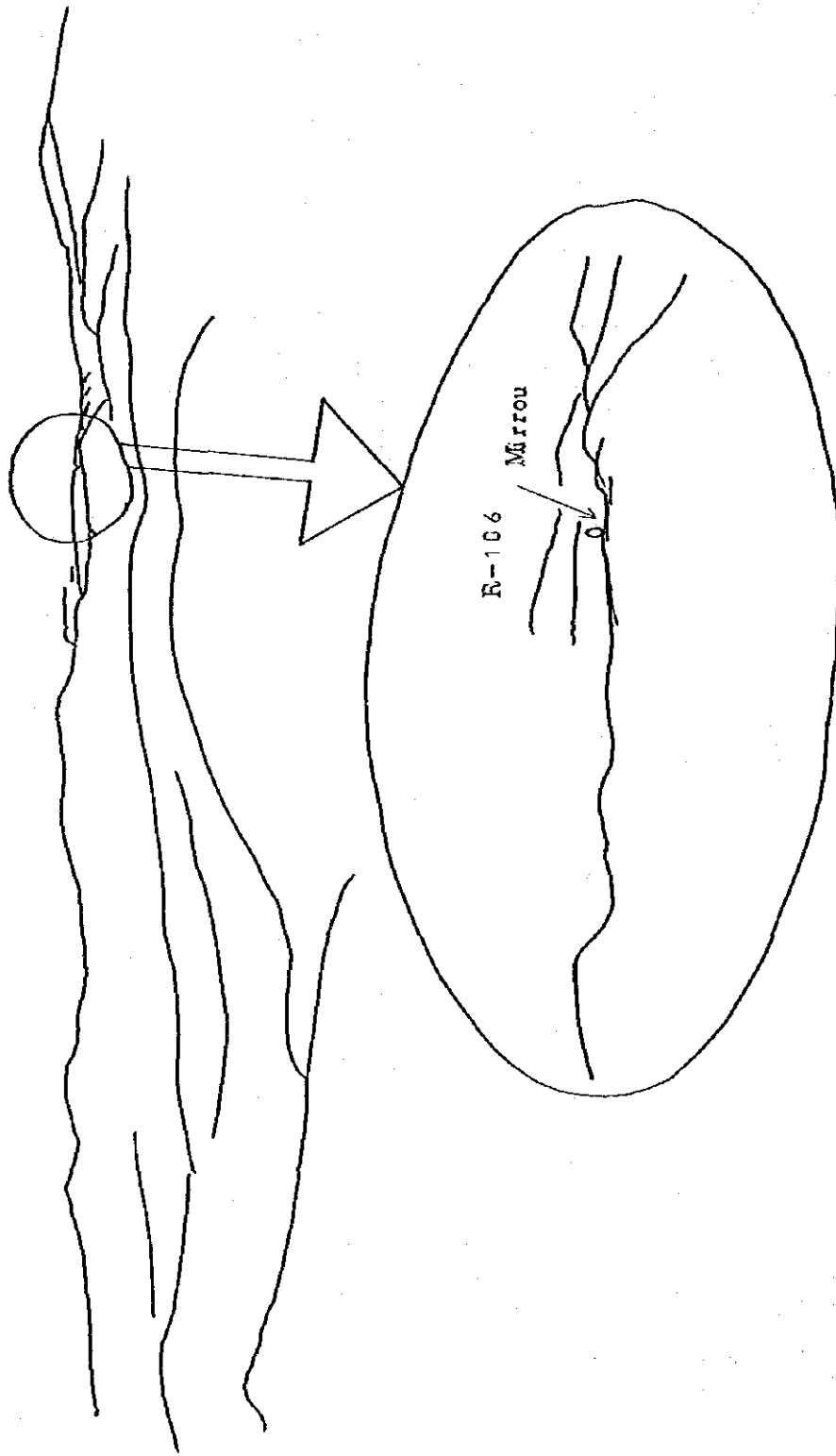


Attached DWG. 4-1-34 A Distant View of R-105 (Iharanila)
from No.7 National Road

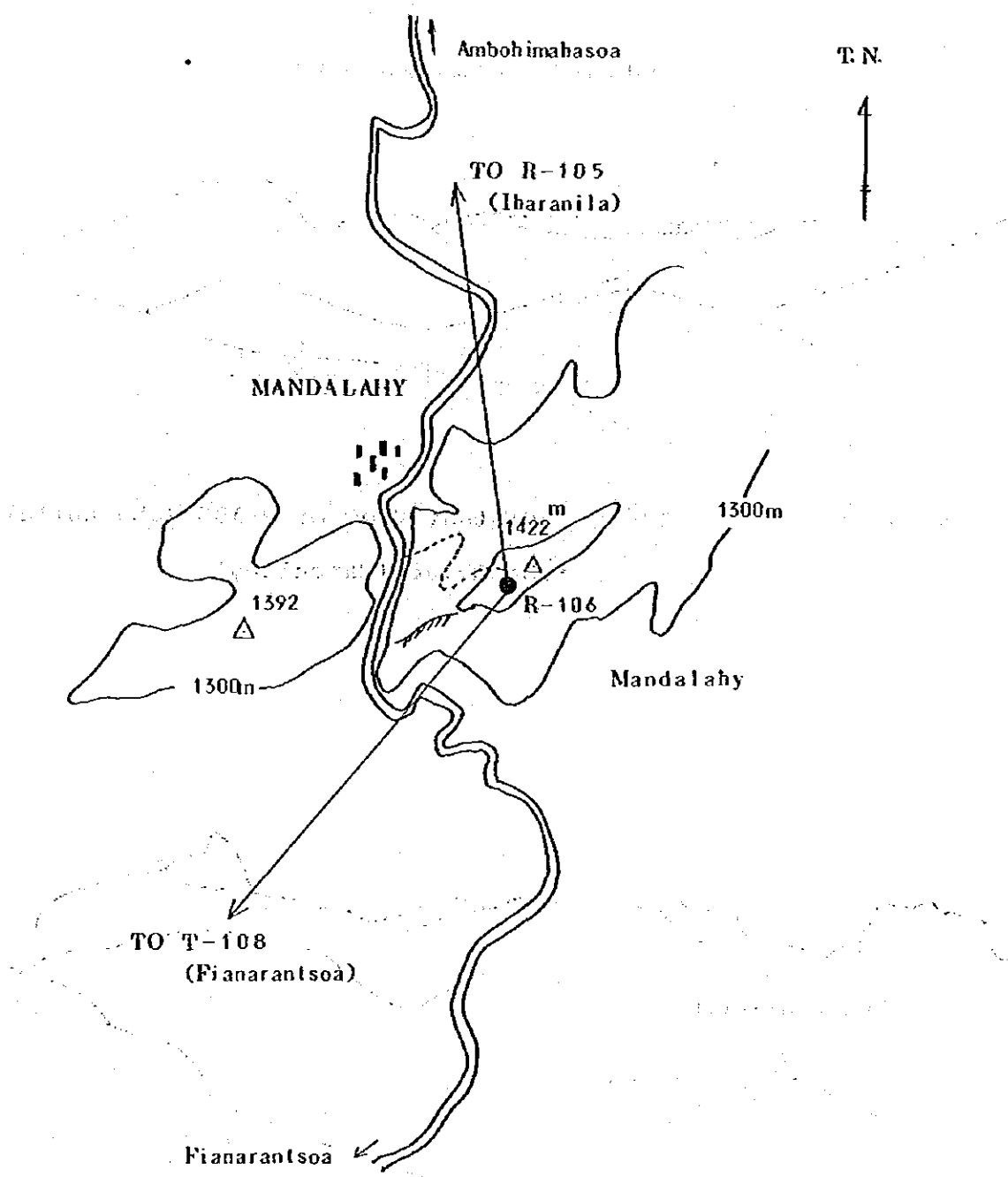
R-104 (Not visible)



Attached DWG. 4-1-35 A Distant View of R-104 (Andraibe) from R-105 (Iharanila)



Attached DWG. 4-1-36 A Distant View of R-106 (Maudalahy) from R-105 (Iharanila)

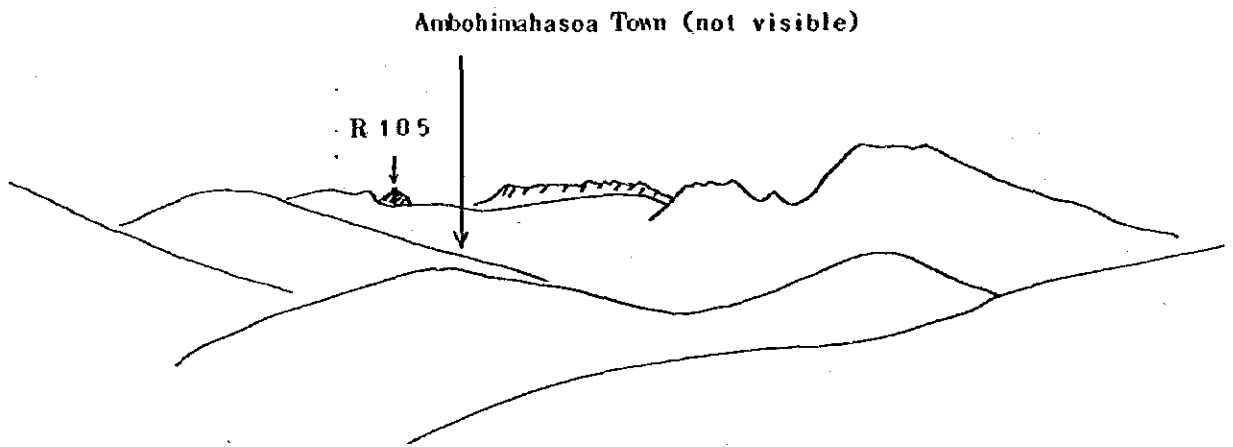


1) Site R-106

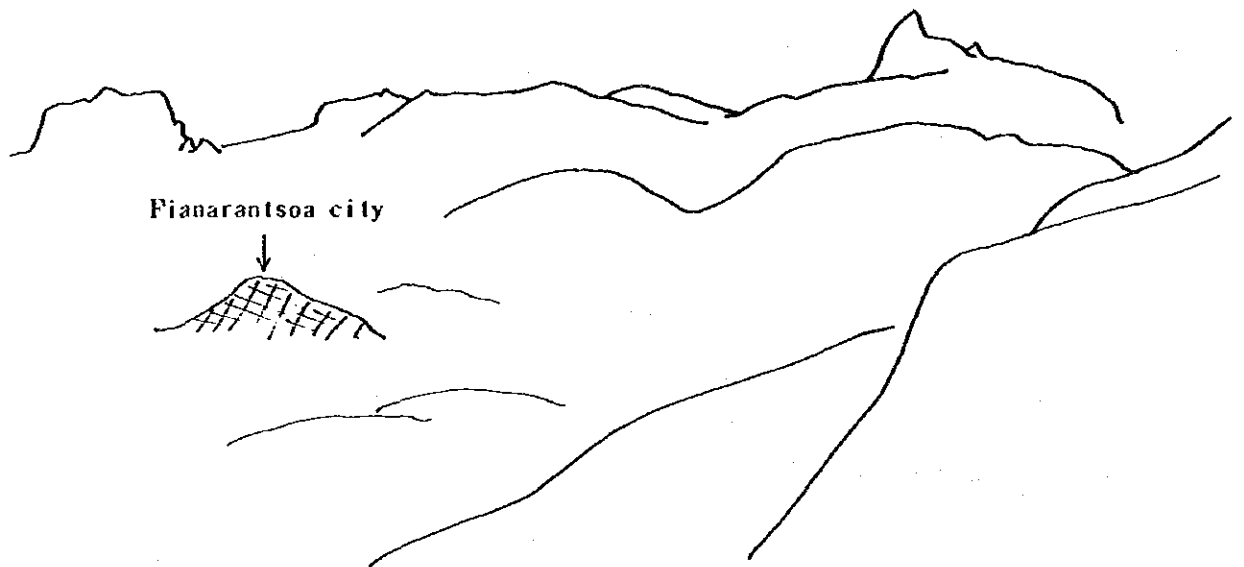
2) Access Road

A newly constructed road of about 1 km length will be required.

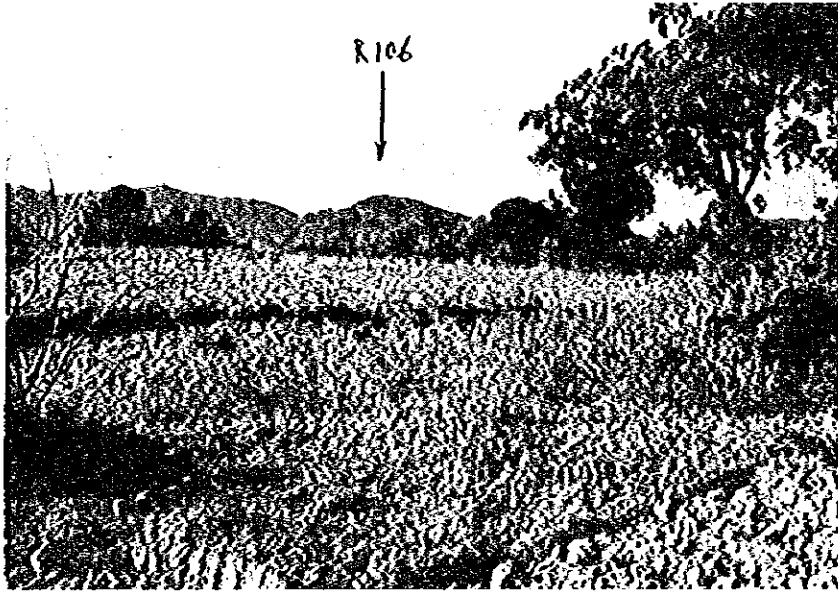
Attached DWG. 4-1-37 Guide Map of R-106 (Mandalahy)



Attached DWG. 4-1-38 A Distant View of R-105 (Iharanila)
from R-106 (Mandalahy)



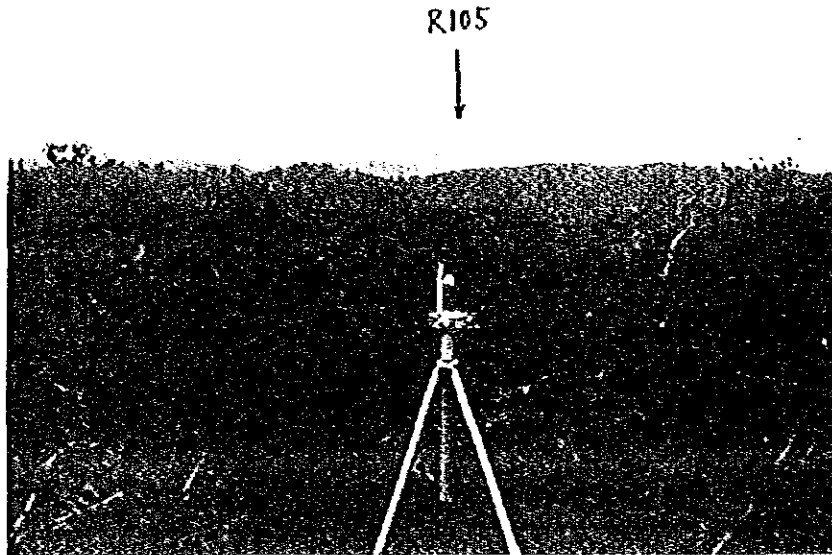
Attached DWG. 4-1-39 A Distant View of Fianarantsoa
from R-106 (Mandalahy)



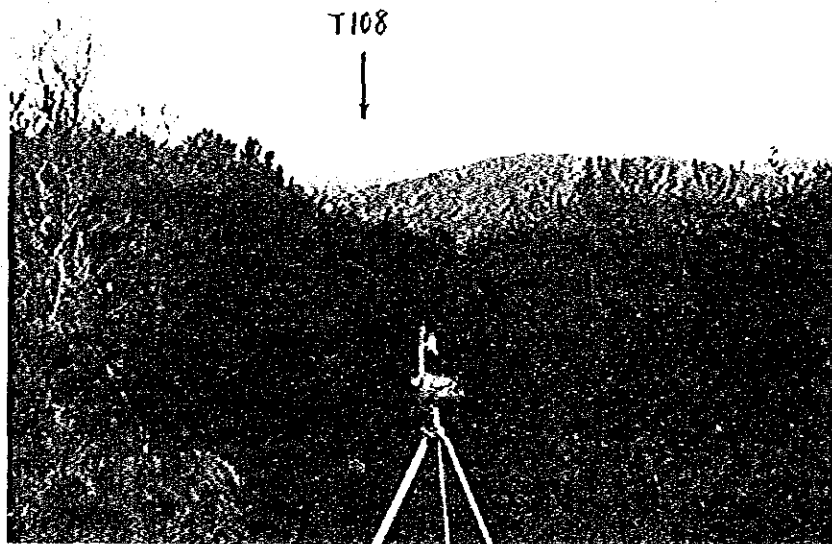
Attached DWG. 4-1-40 A Distant View of R-106 (Mandalahy)



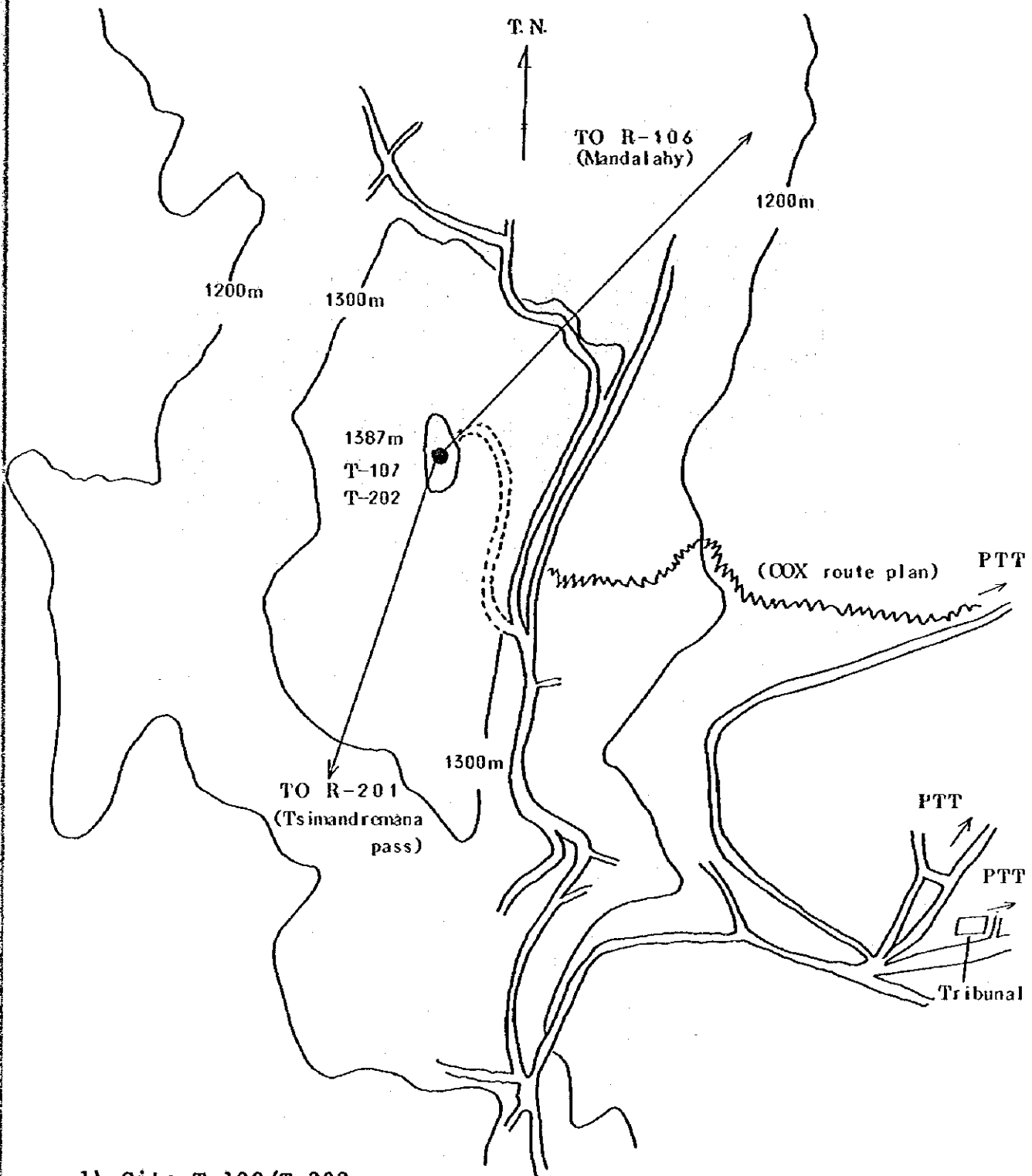
Attached DWG. 4-1-41 Site Snap of R-106 (Mandalahy)



Attached DWG. 4-1-42 A Distant View of R-105 (Iharanila)
from R-106 (Mandalahy)



Attached DWG. 4-1-43 A Distant View of T-108 (Fianarantsoa)
from R-106 (Mandalahy)



1) Site T-108/T-202

At Kianjasoa Hill
in Fianarantsoa City

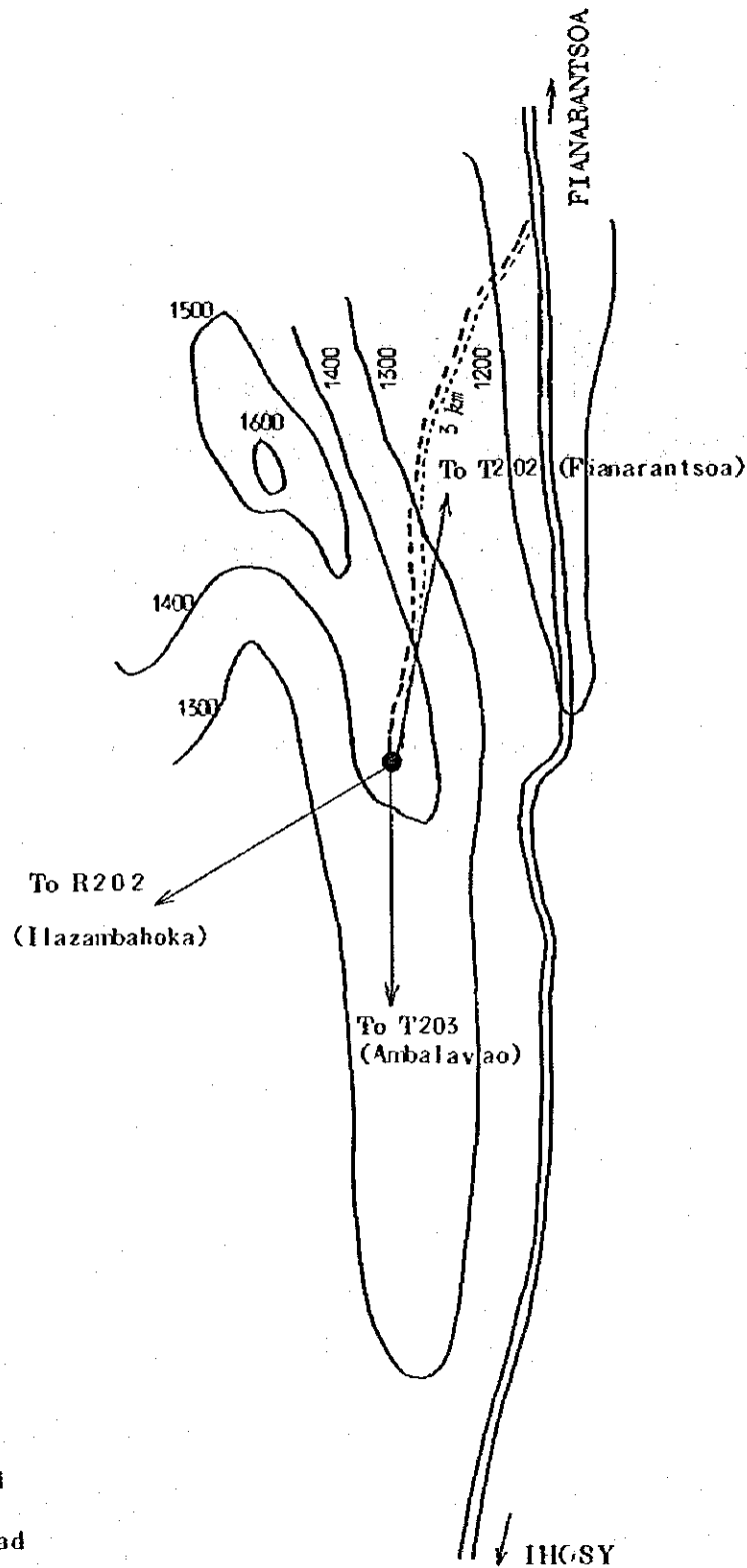
2) Access Road

A road of less than 1 km will be required.

Attached DWG. 4-1-44 Guide Map of T-108/T-202 (Fianarantsoa)



Attached DWG. 4-1-45 A Distant View of T-108 (Fianarantsoa)
from Center of Fianarantsoa City

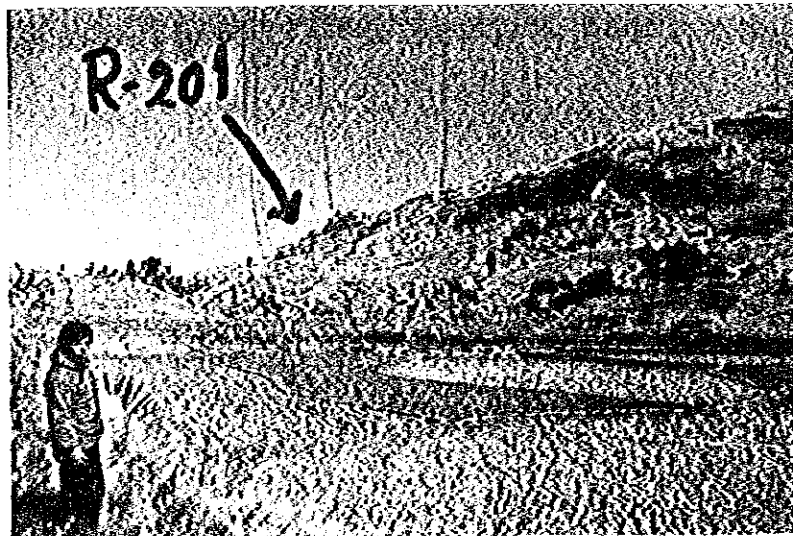


A newly constructed road of about 3 km length will be required.

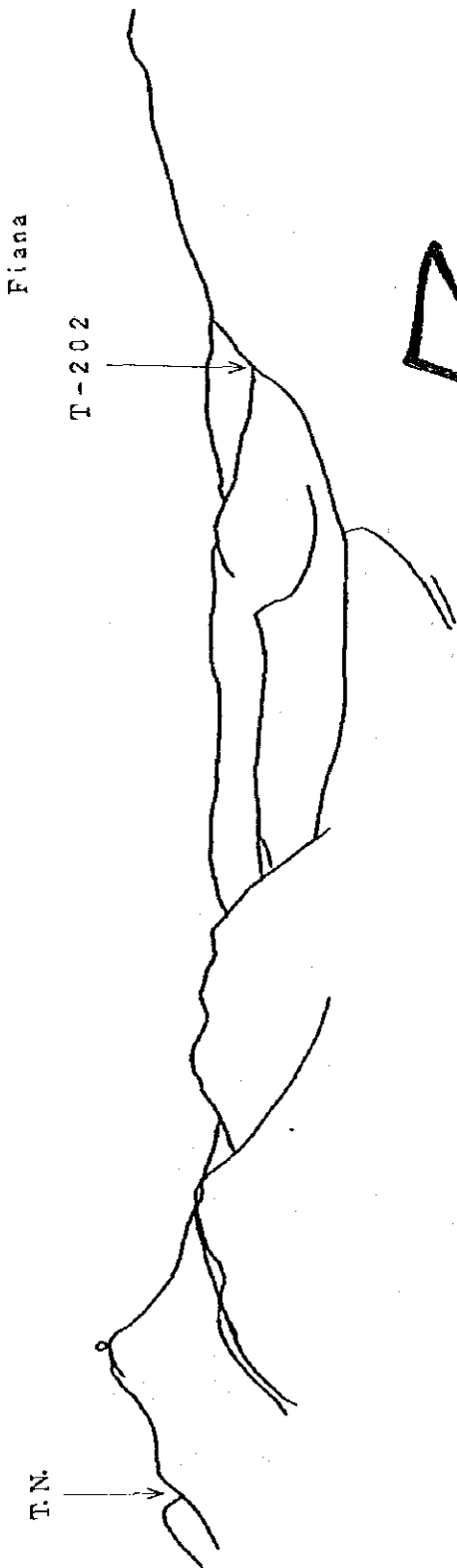
Attached DWG. 4-1-46 Guide Map of R-201 (Tsimanbramana Pass)



Attached DWG. 4-1-47 Site Snap of R-201 (Tsimandremana Pass).

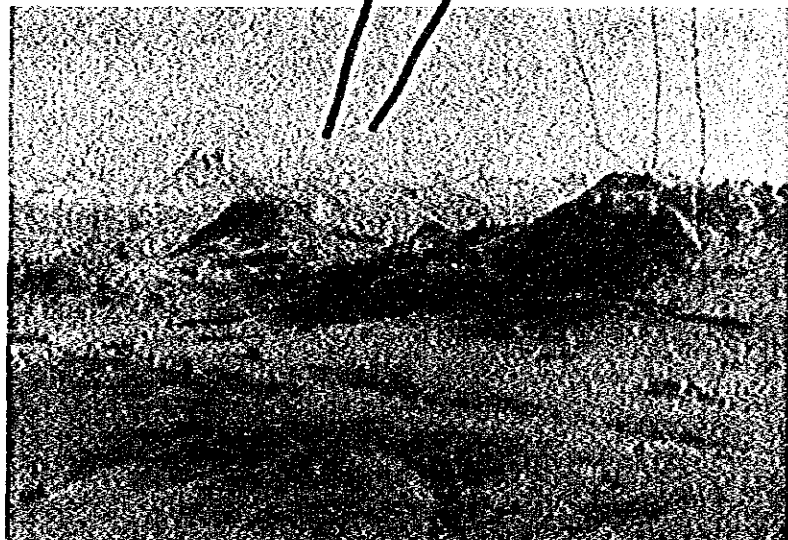
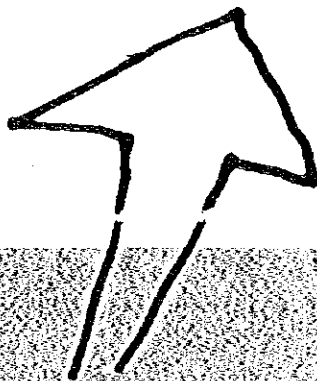
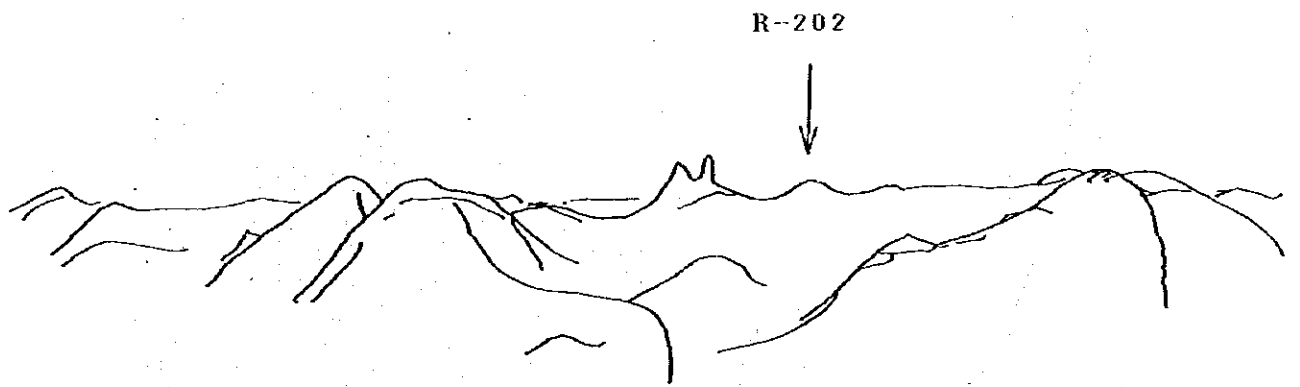


Attached DWG. 4-1-48 A Distant View of R-201 (Tsimandremana Pass)
from No.7 National Road

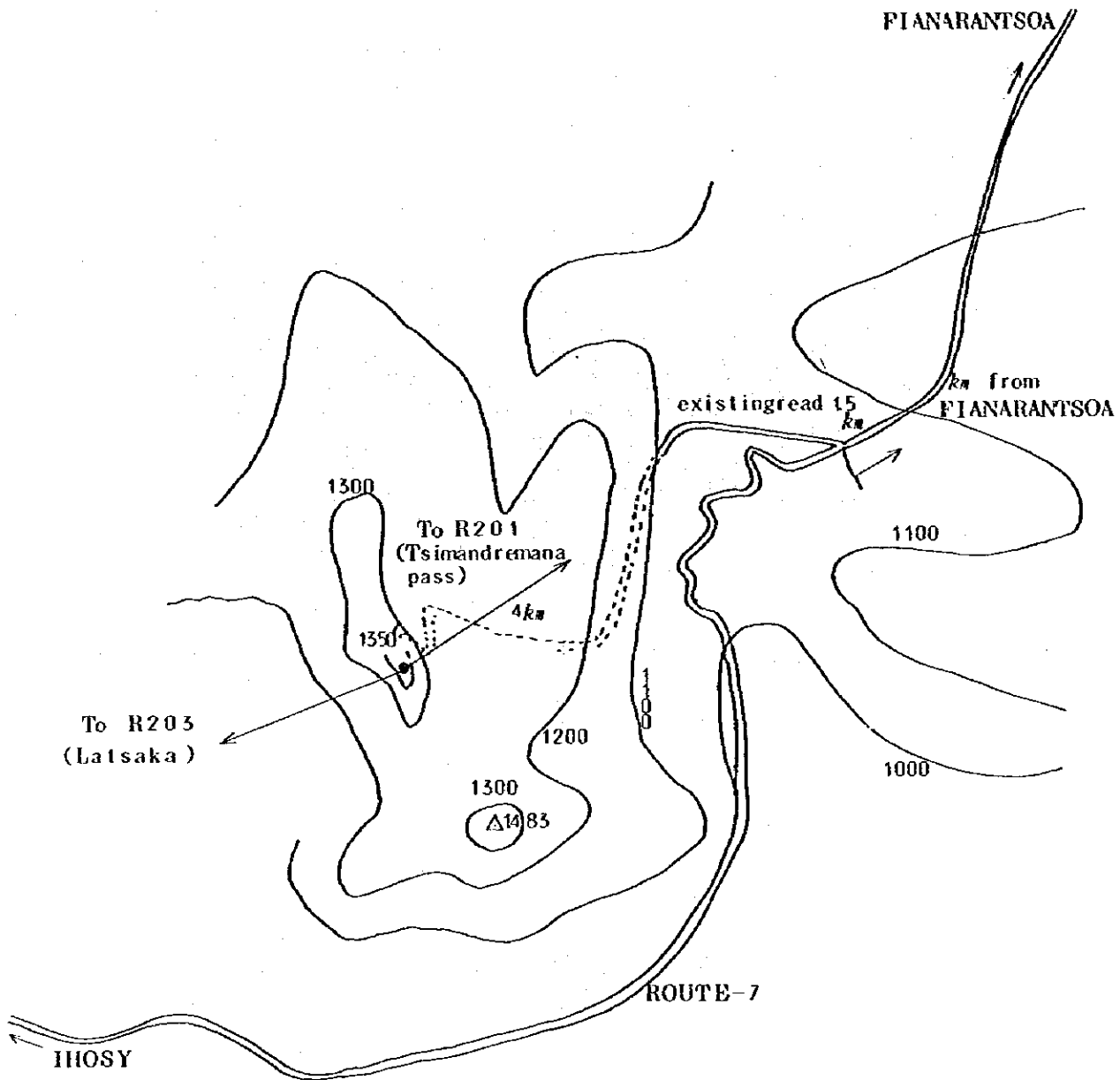


Attached DWG. 4-1-49

A Distant View of T-202
 (Fianarantsoa) from R-201
 (Tsimandremana Pass)



Attached DWG. 4-1-50 A Distant View of R-202 (Ilazambahoka)
from R-201 (Tsimandremana Pass)



1) Site

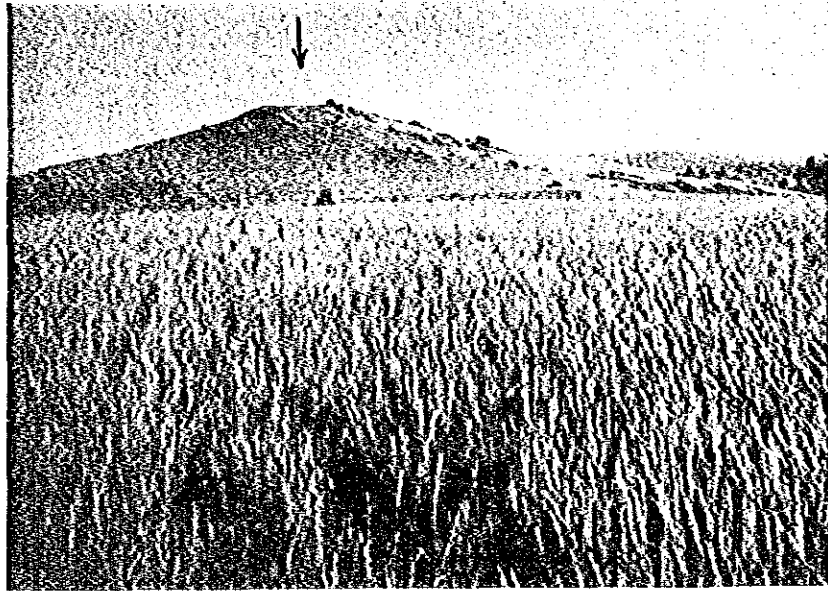
A little rocky, but wide at the top.

2) Access Road

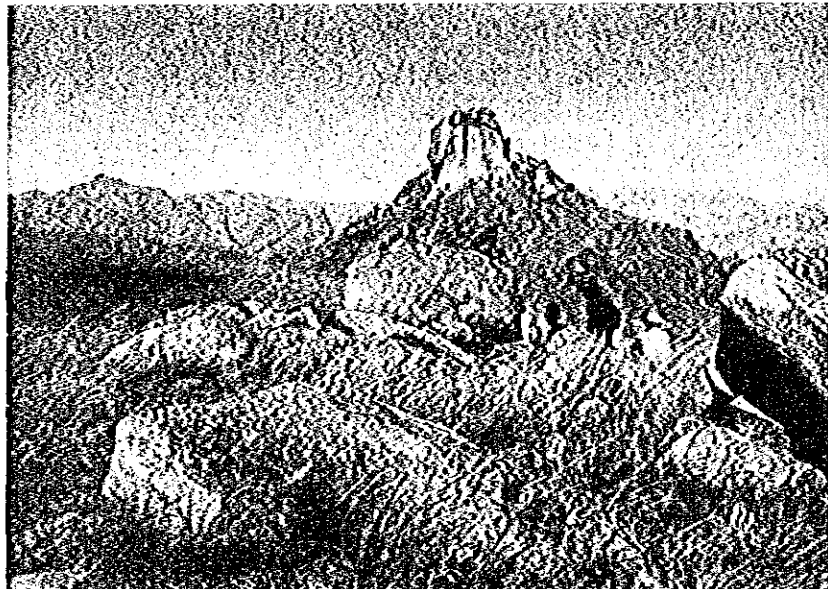
A little rocky near the top of the hill.

But other parts of the new road will be relatively easy to construct.

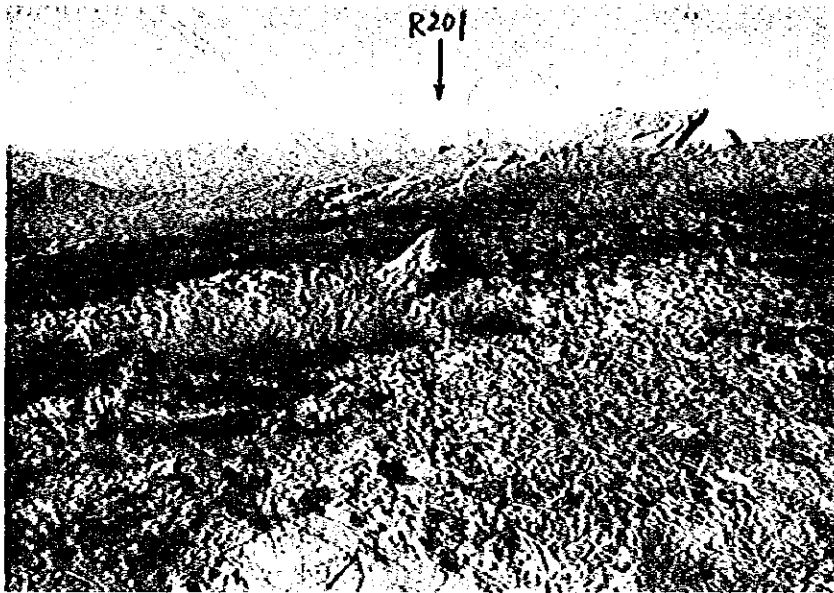
Attached DWG. 4-1-51 Guide Map of R-202 (Ilazambahoka)



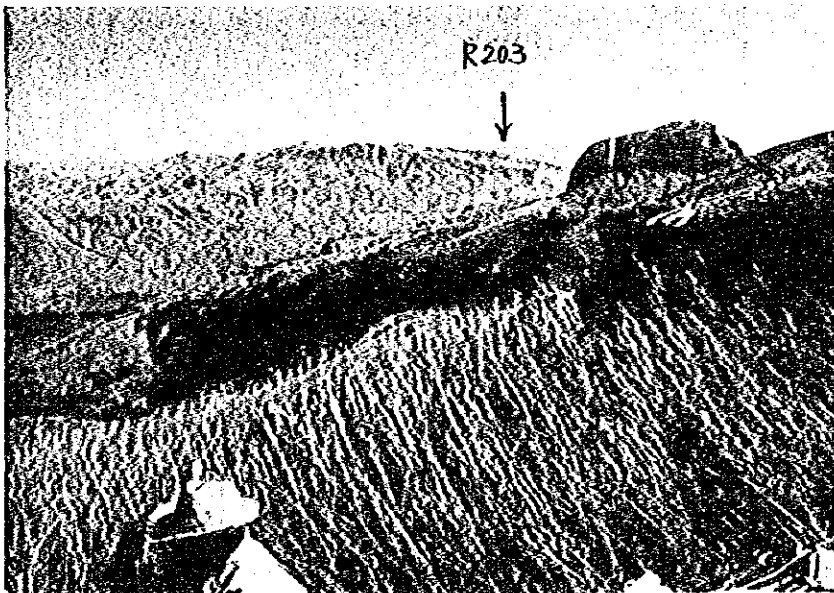
Attached DWG. 4-1-52 A Distant View of R-202 (Ilazambahoka)



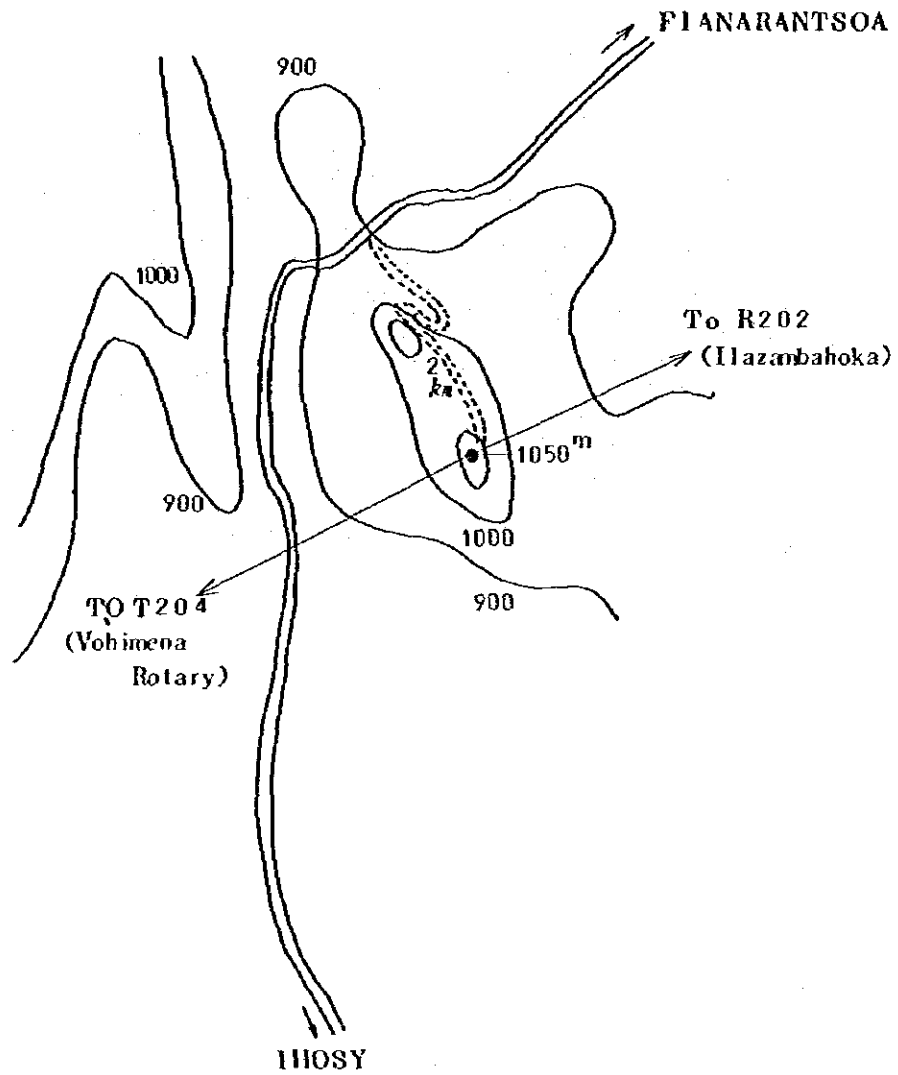
Attached DWG. 4-1-53 Site Snap of R-202 (Ilazambahoka)



Attached DWG. 4-1-54 A Distant View of R-201 (Tsimandremana Pass)
from R-202 (Ilazambahoka)



Attached DWG. 4-1-55 A Distant View of R-203 (Latsaka)
from R-202 (Ilazambahoka)



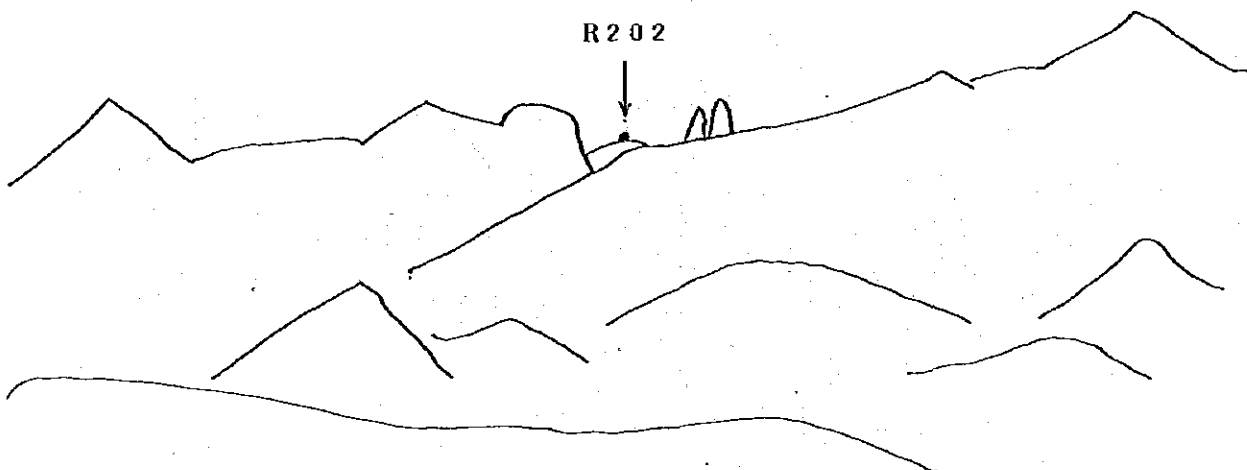
1) Site

A little rocky at the top.

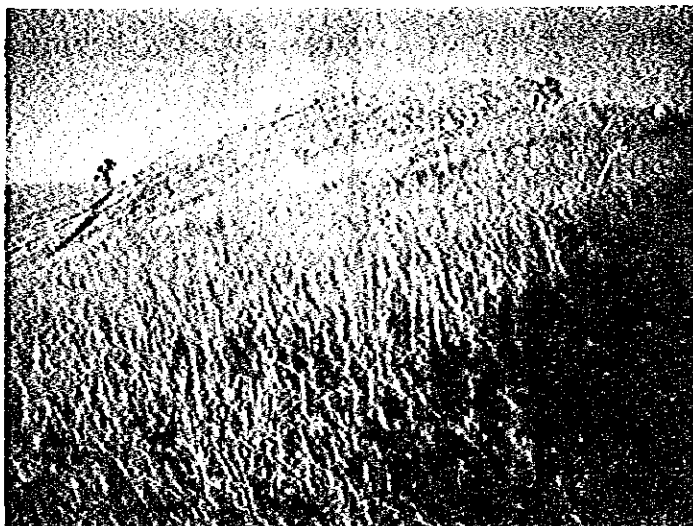
2) Access Road

A little rocky but not difficult to construct.

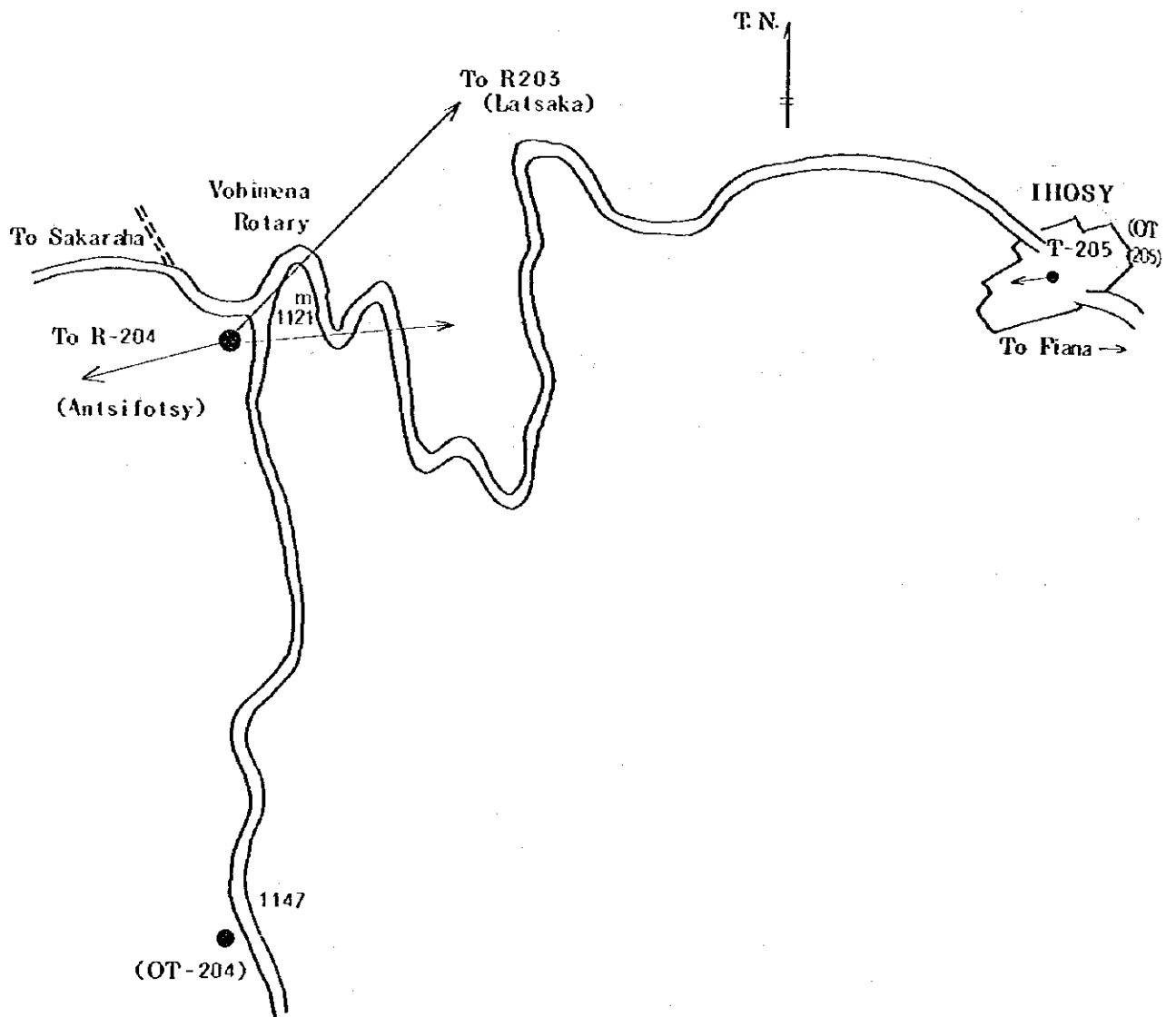
Attached DWG. 4-1-56 Guide Map of R-203 (Latsaka)



Attached DWW. 4-1-57 . A Distant View of R-202 (Ilazambahoka)
from R-203 (Latsaka)



Attached DWG. 4-1-58 . Site Snap of R-203 (Latsaka)



1) Site T-204

Located on the west side of Vohimena rotary.

2) Access Road

Facing the national road.

Attached DWG. 4-1-59 Guide Map of T-204/T-205 (Vohimena Rotary/Ihosy)

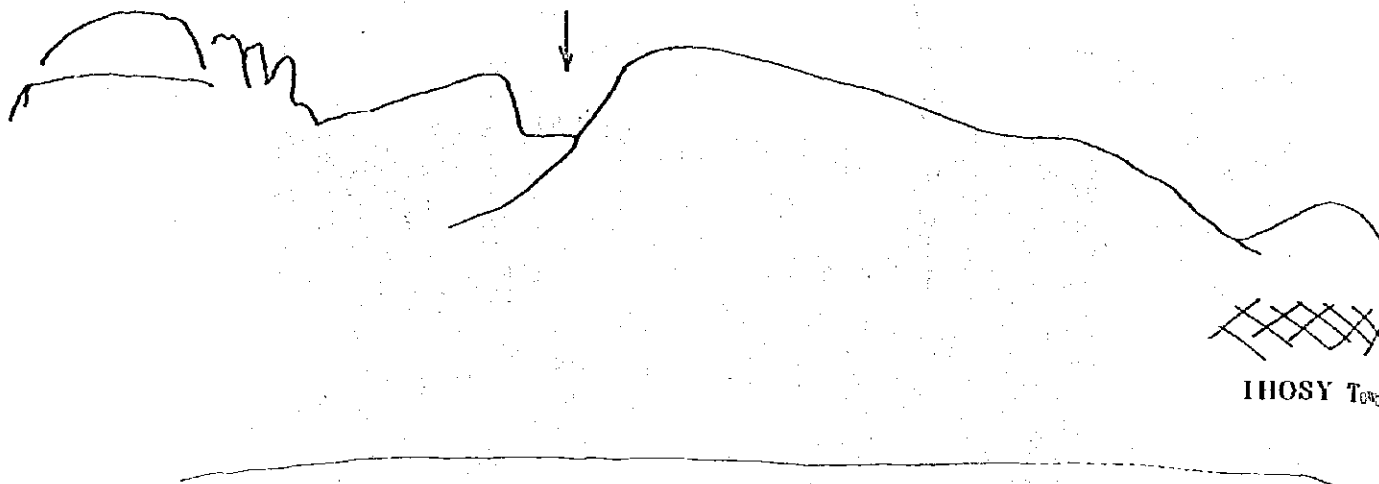


Attached DWG. 4-1-60 Site Snap of T-204 (Vohimena Rotary)



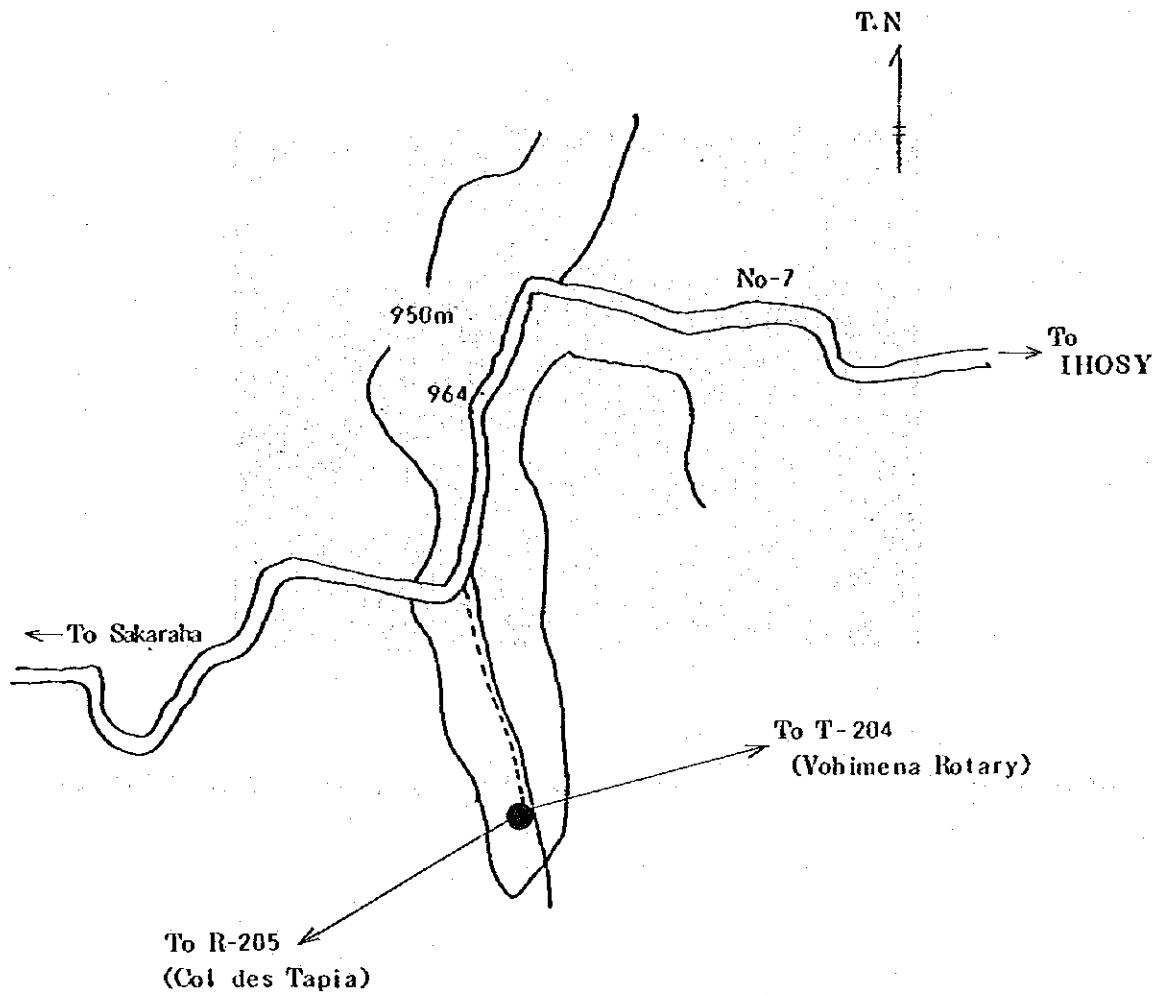
Attached DWG. 4-1-61 A Distant View of T-205 (Ihosa City)
from T-204 (Vohimena Rotary)

R 203 (not visible)



ROUTE-6-7

Attached DWG. 4-1-62 A Distant View of R-203 (Latsaka)
from T-204 (Vohimena Rotary)



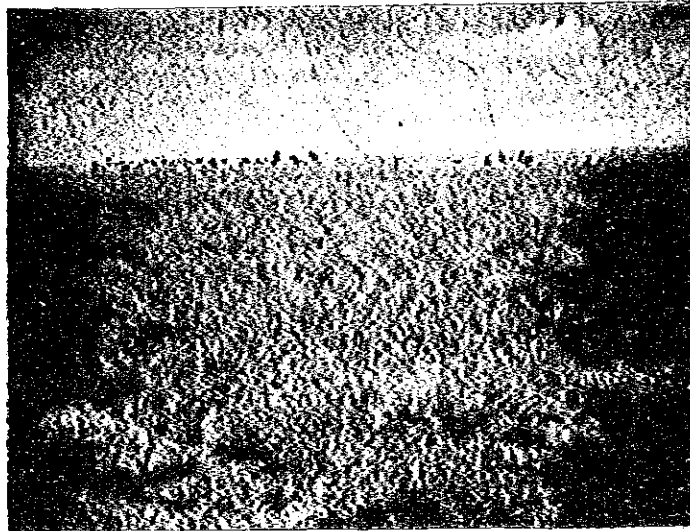
1) Site R-204

Almost flat land. No tree.

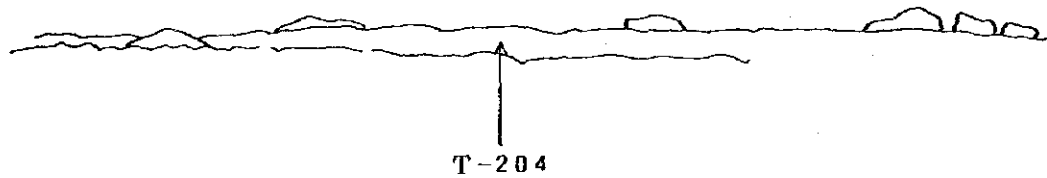
2) Access Road

Some correction of existing walking path will be necessary (0.5 km)

Attached DWG. 4-1-63 Guide Map of R-204 (Antsifotsy)

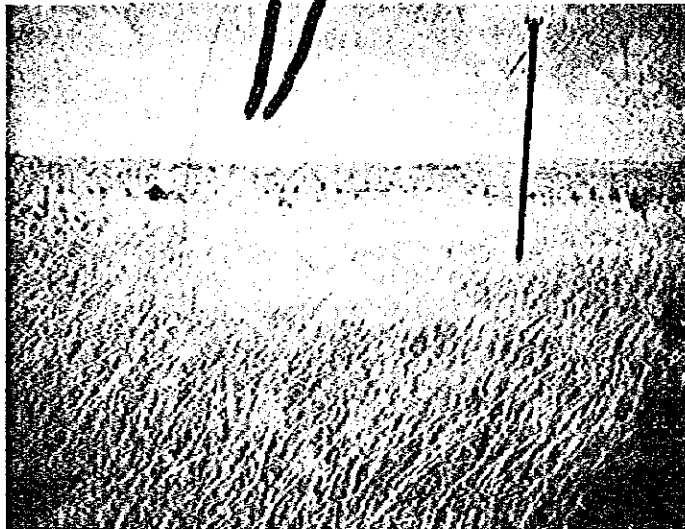
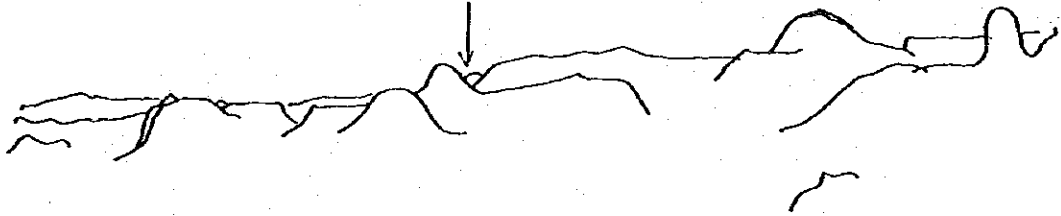


Attached DWG. 4-1-64 Proposed Site of R-204 (Antsifotsy)

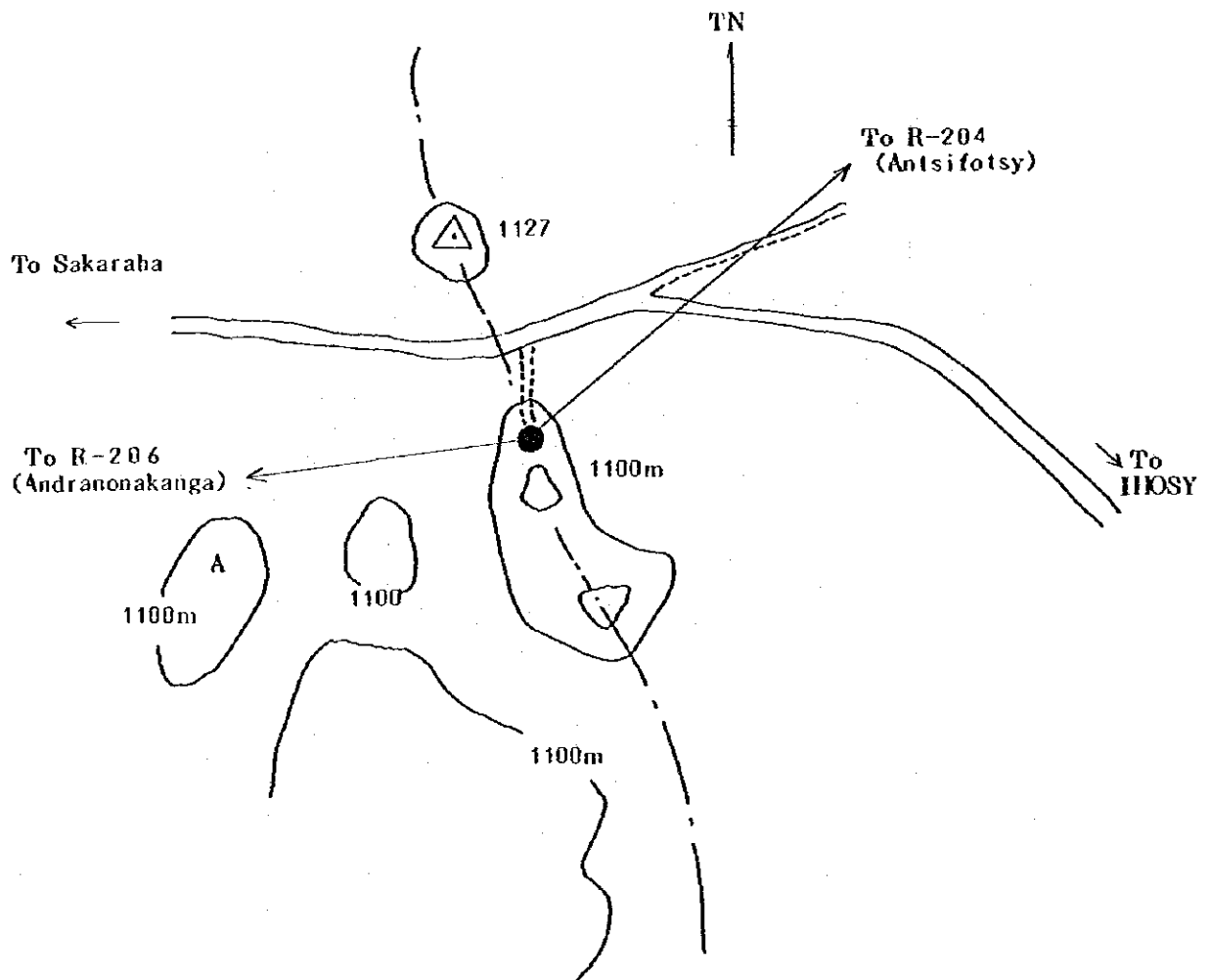


Attached DWG. 4-1-65 A Distant View of T-204 (Vohimena Rotary)
from R-204 (Antsifotsy)

R-205



Attached DWG. 4-1-66 A Distant View of R-205 (Col Des Tapia)
from R-204 (Antsifotsy)



1) Site R-205

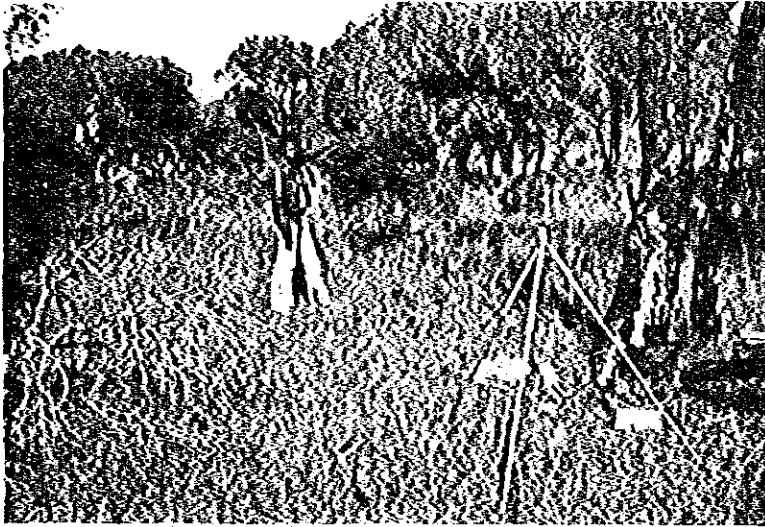
Some bushes should be cut.

Radio path will pass by foot of Mt. A.

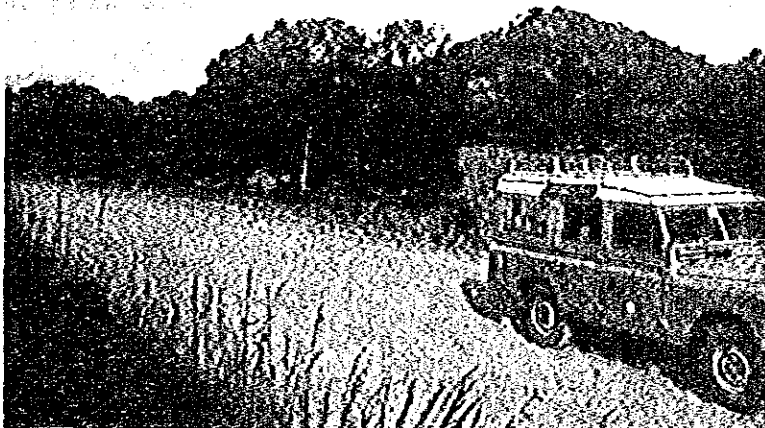
2) Access Road

The length of the newly constructed road will be 0.5 km.

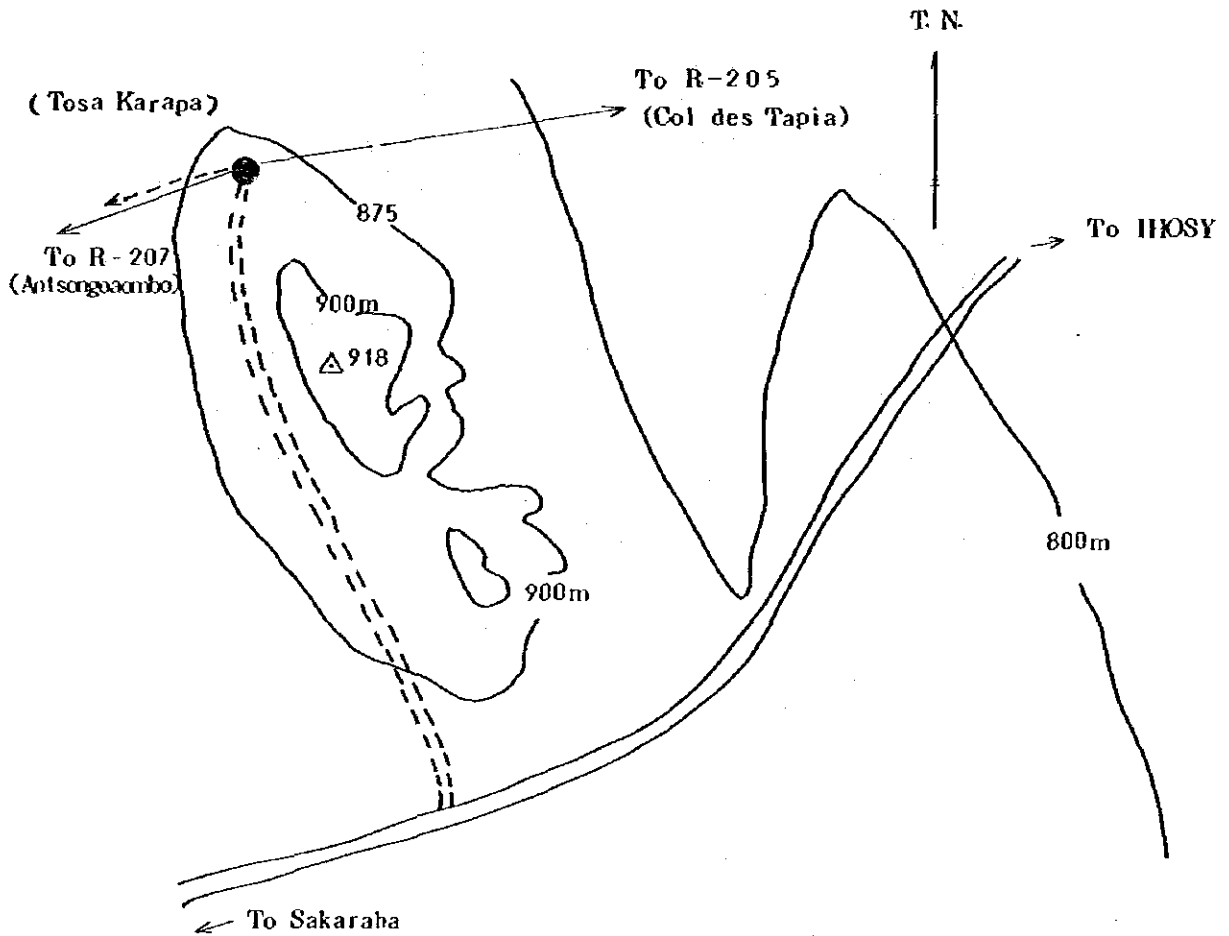
Attached DWG. 4-1-67 Guide Map of R-205 (Col Des Tapia)



Attached DWG. 4-1-68 Proposed Site of R-205 (Col Des Tapia)



Attached DWG. 4-1-69 A Distant View of R-205 (Col Des Tapia)
from the No.7 National Road



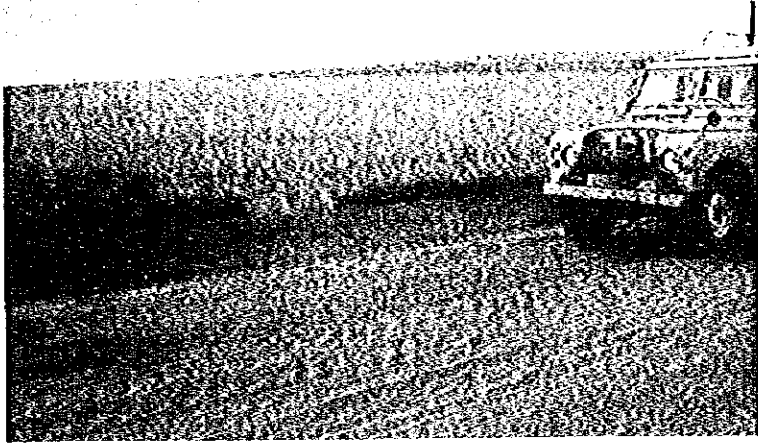
1) Site R-206

Herb field. Identification of site will not be so easy.
Because of no prominence in topographical features.

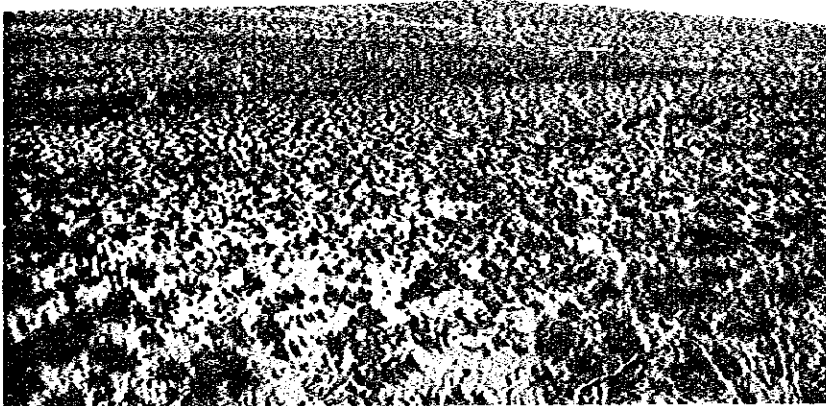
2) Access Road

The length of the road which will be easy to construct
will be 4 km.

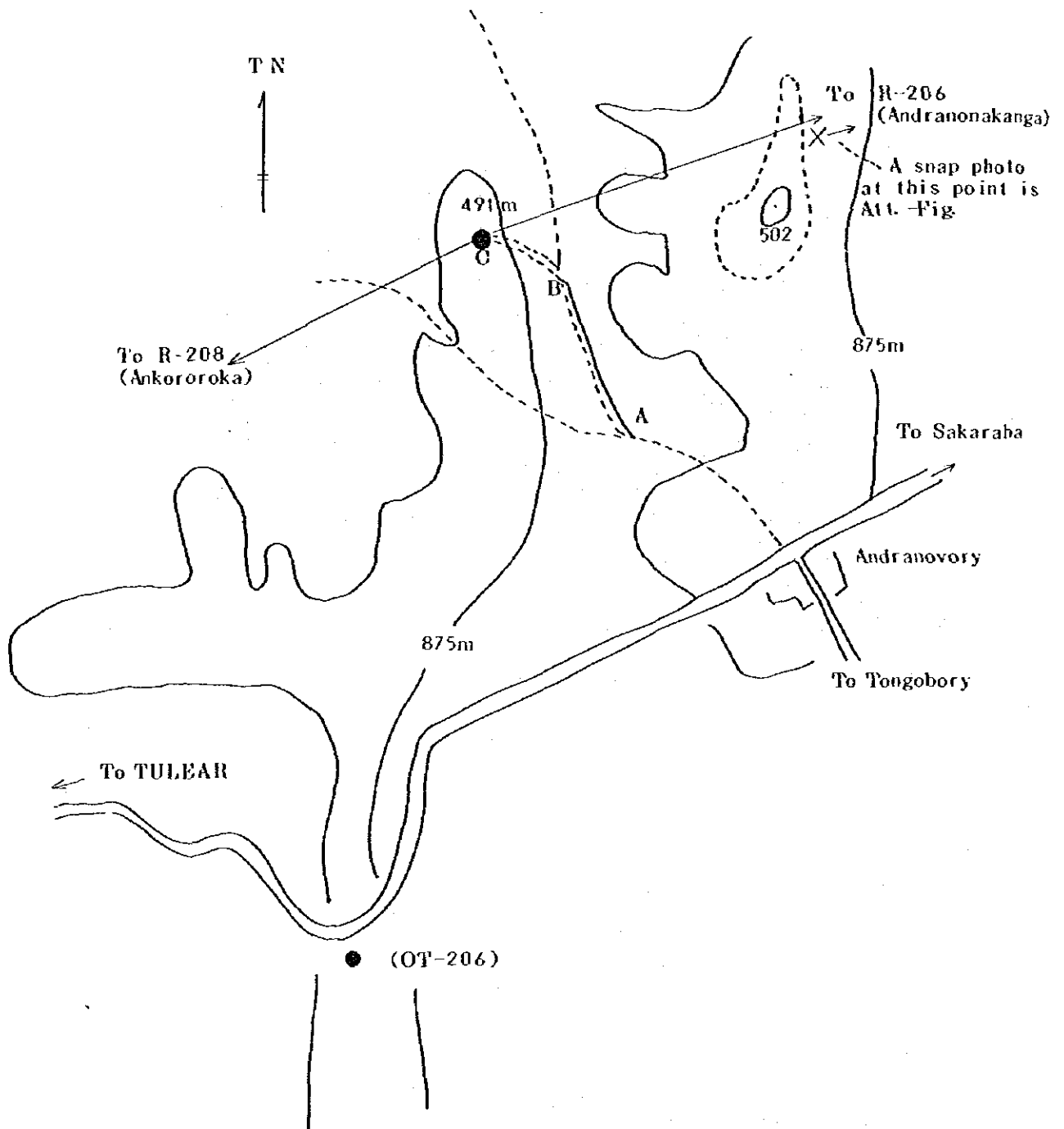
Attached DWG. 4-1-70 Guide Map of R-206 (Andranonakanga)



Attached DWG. 4-1-71 A Distant View of R-206 (Andranonakanga)
from No.7 National Road.



Attached DWG. 4-1-72 Site Snap of R-206 (Andranonakanga)



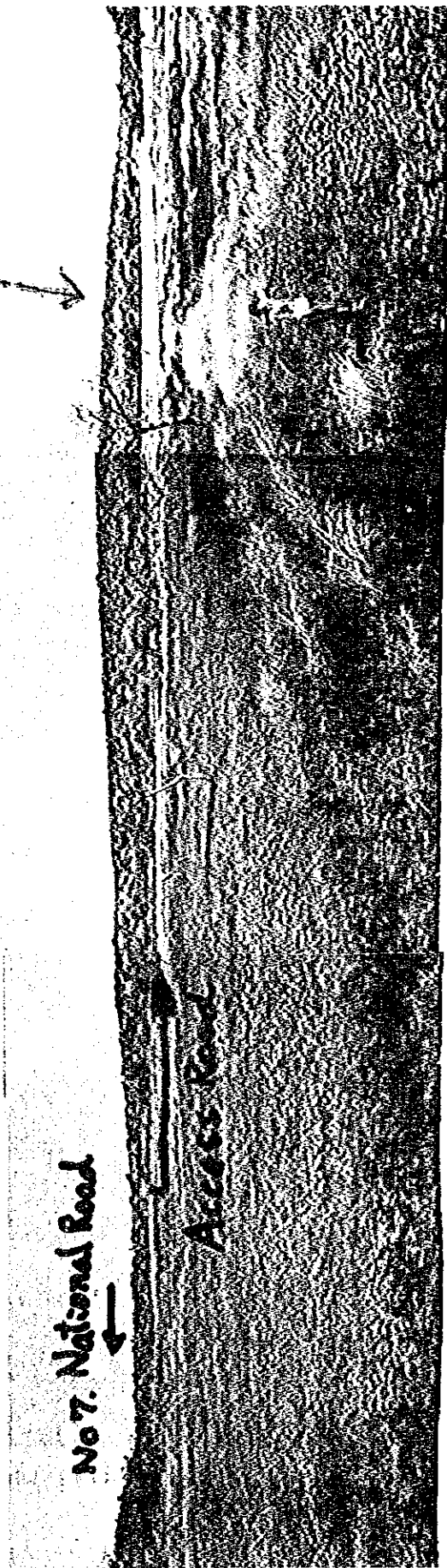
1) Site R-207

Trees at the site and along new road should be cut.

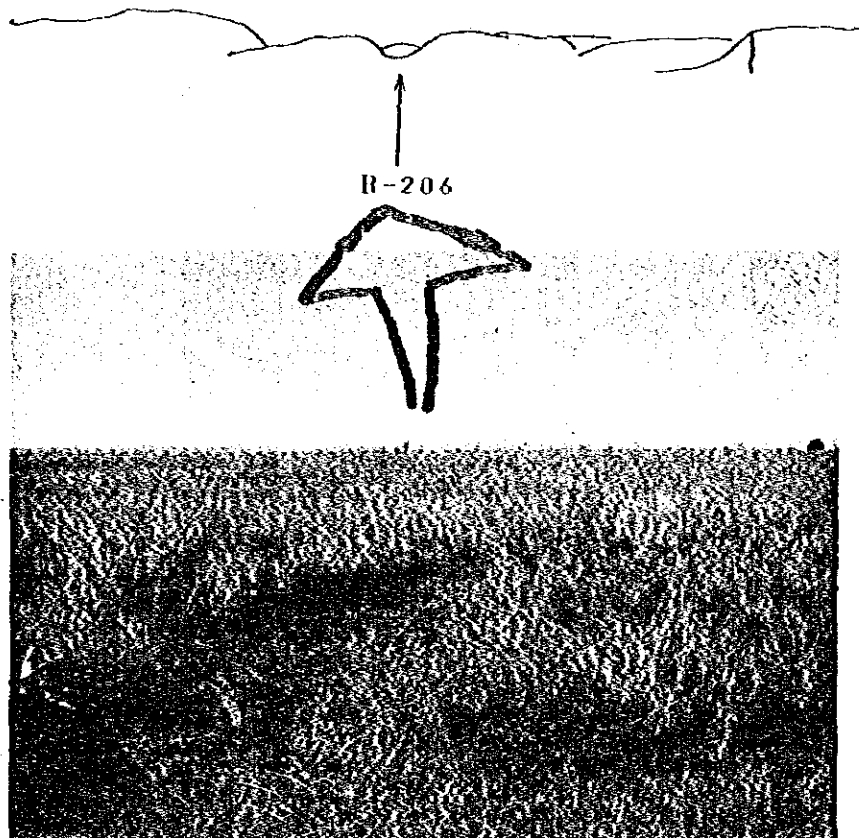
2) Access Road

The length of road to be constructed newly will be 1.5km(B~C).
Correction of existing road will be necessary over a distance of 1km (A~B).

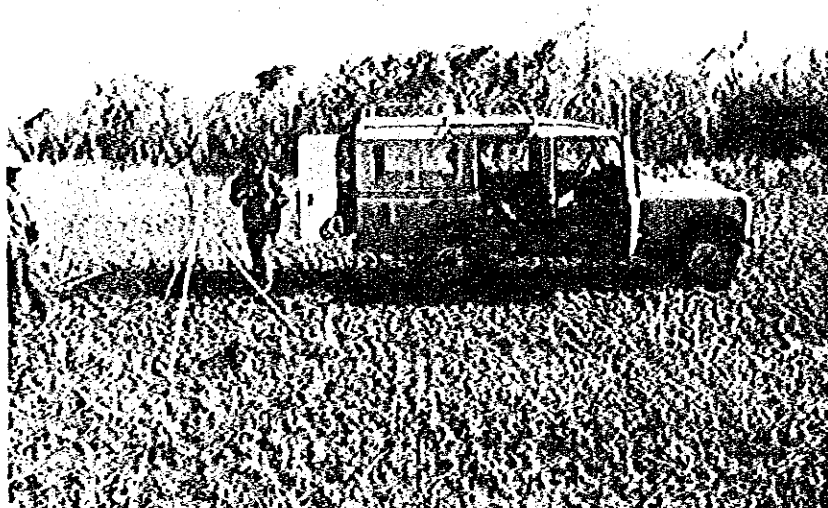
Attached DWG. 4-1-73 Guide Map of R-207 (Antsongoaombo)



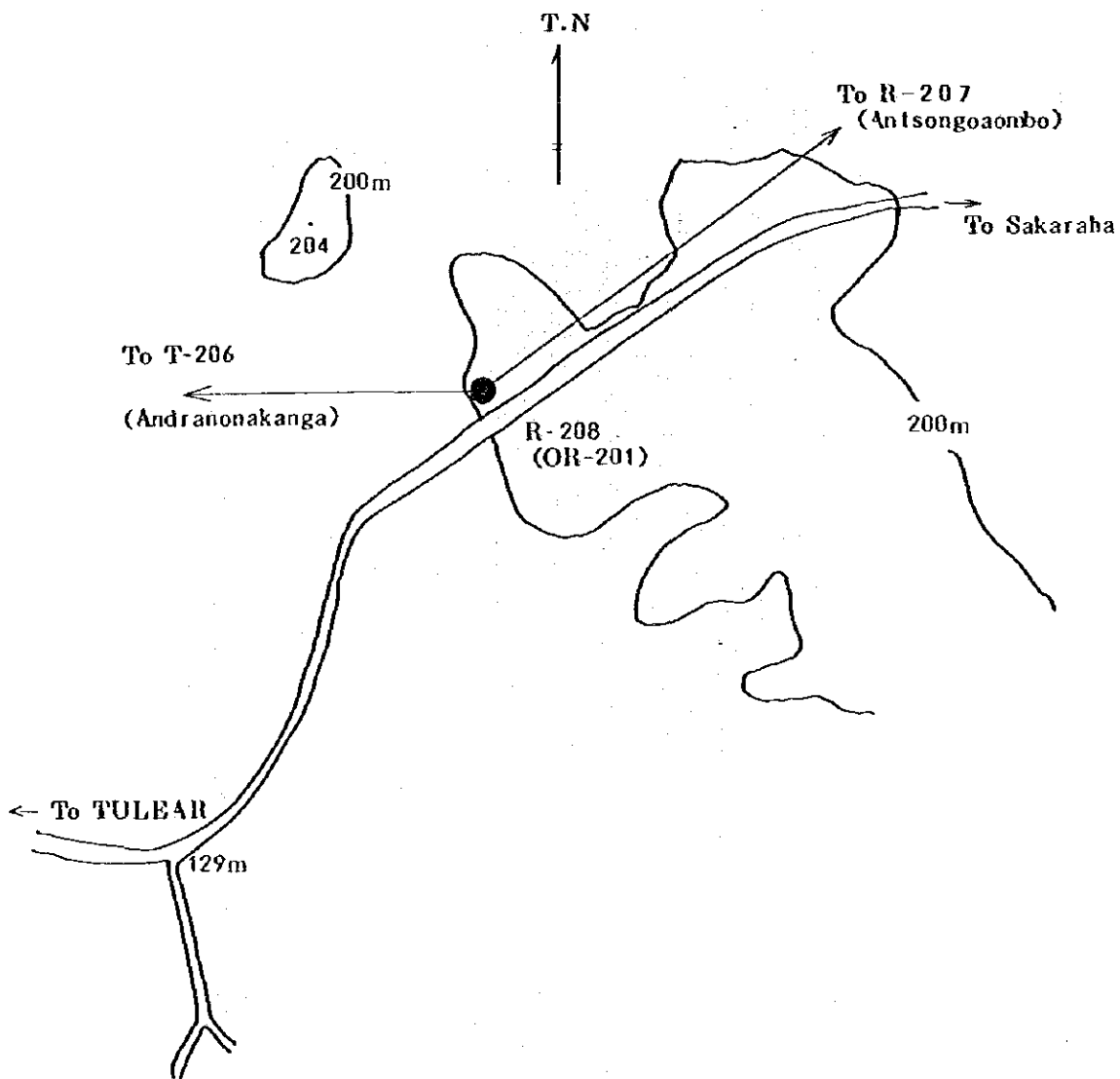
Attached DWG. 4-1-74 A Distant View of R-207 (Antsongoambo) from Basin Field
Behind here a small hill (502m in height) stands.



Attached DWG. 4-1-75 A Distant View of R-206 (Andranonakanga)
from the Field Near R-207 (Antsongoambo)



Attached DWG. 4-1-76 Bottom of Small Hill where Upper Photo
Was Taken
(Site R-207 is behind this small hill.)



1) Site R-208

Buses should be cut.

2) Access Road

Proposed site is facing National Road No.7.

Attached DWG. 4-1-77 Guide Map of R-208 (Ankororoka)



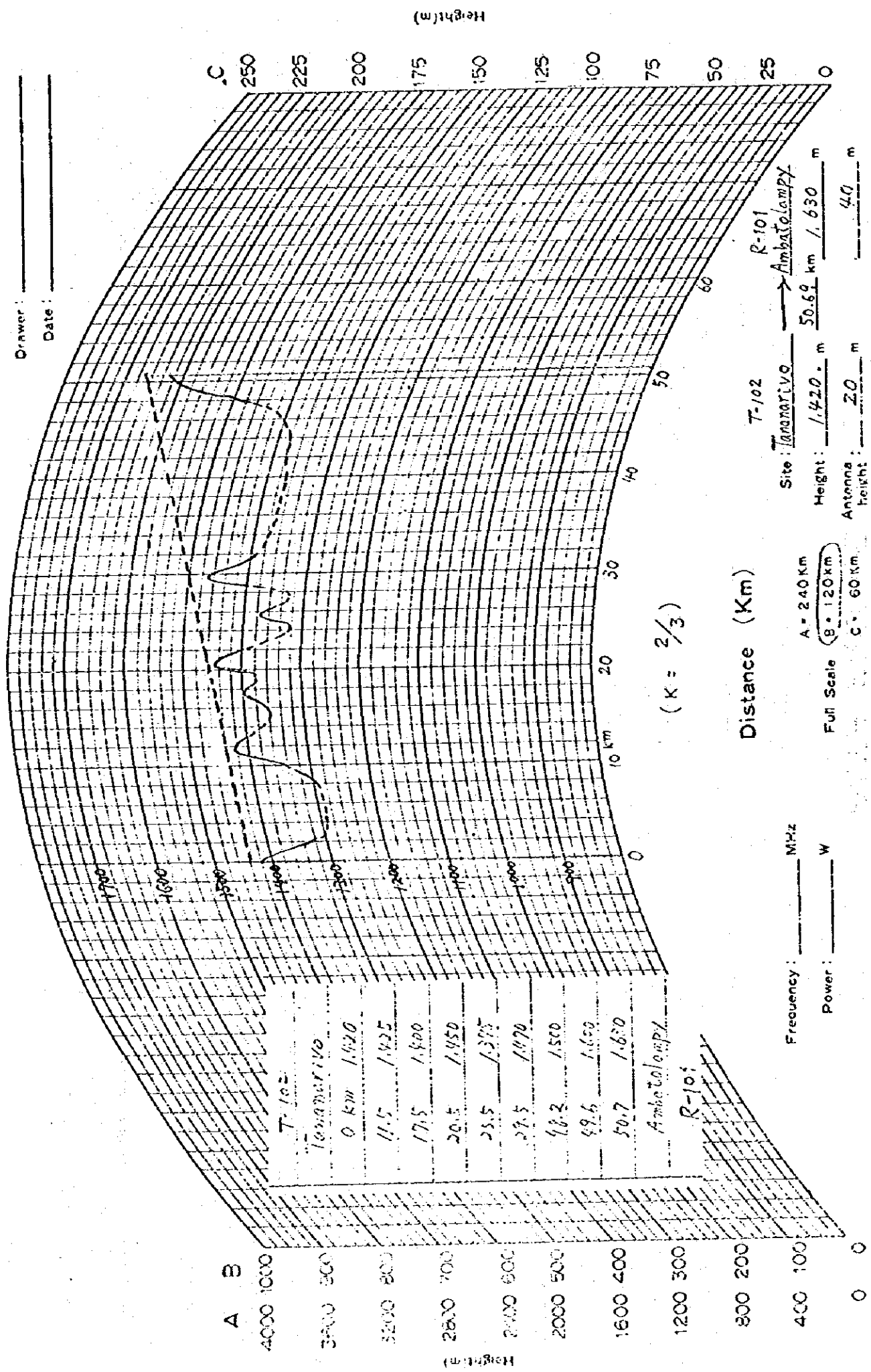
Attached DWG. 4-1-78 Site Snap of R-208 (Ankororoka) from No.7 National Road

Appendix 4-2

Path Profiles

PATH PROFILE

Name of Route: _____
 No.: (1)
 Drawer: _____
 Date: _____



$(K = \frac{2}{3})$

Distance (Km)

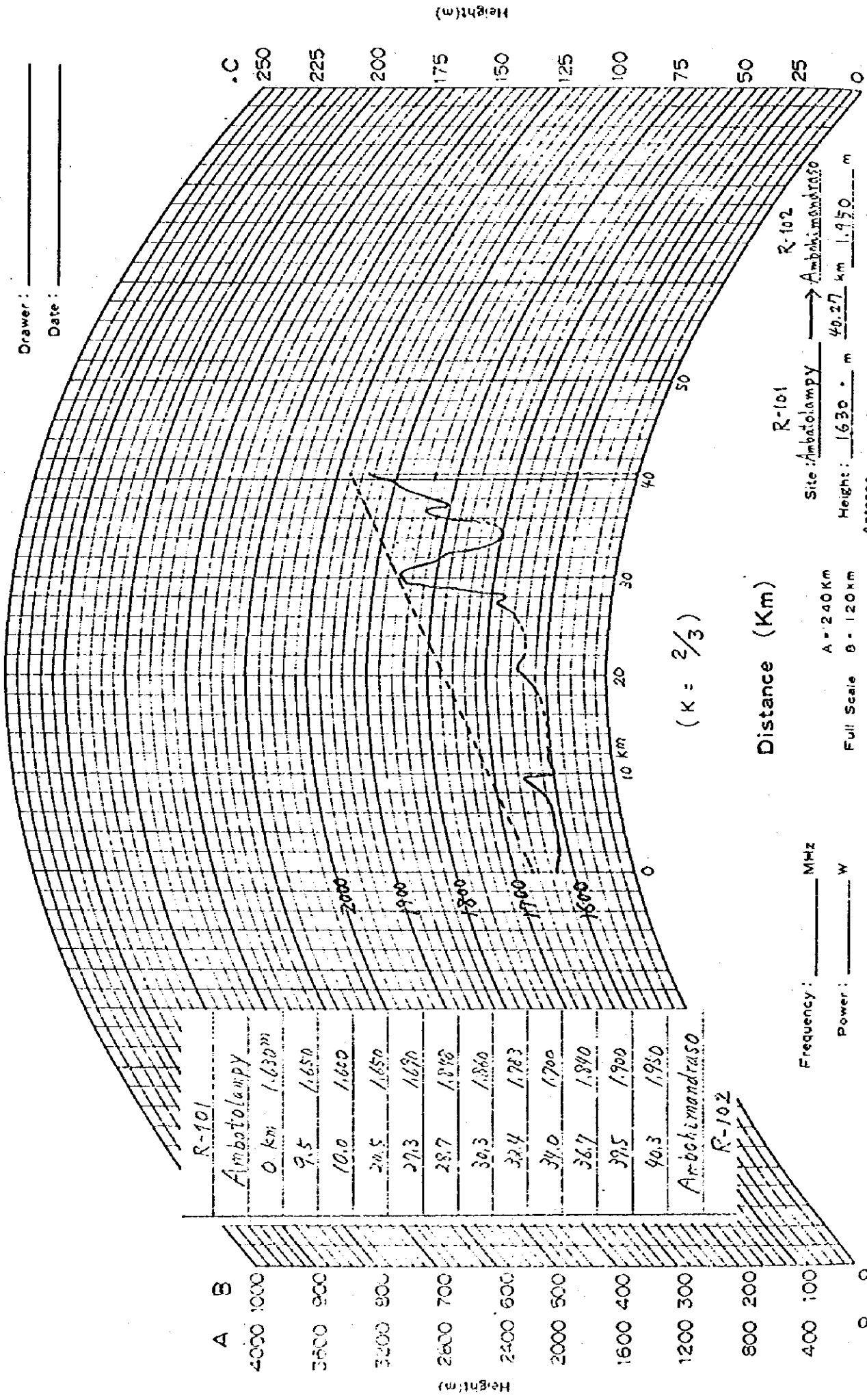
Site: Tanarivo → Ambato
 Height: 1,420 m / 630 m
 Antenna height: 20 m / 40 m

Full Scale (B = 120 Km)
 A = 240 Km
 C = 60 Km

Frequency: _____ MHz
 Power: _____ W

PATH PROFILE

Name of Route: _____
 No.: (2)
 Drawer: _____
 Date: _____



R-101	Ambotolampy
0 km	1.630m
9.5	1.650
10.0	1.600
20.5	1.650
27.3	1.690
28.7	1.818
30.3	1.860
32.4	1.783
34.0	1.700
36.7	1.840
39.5	1.900
40.3	1.950
Ambotolampy	R-102

Distance (Km)

(K = 2/3)

Site: Ambotolampy → Ambotolampy

Height: 1.630 m → 1.950 m

Antenna: 40 m → 30 m

Frequency: _____ MHz

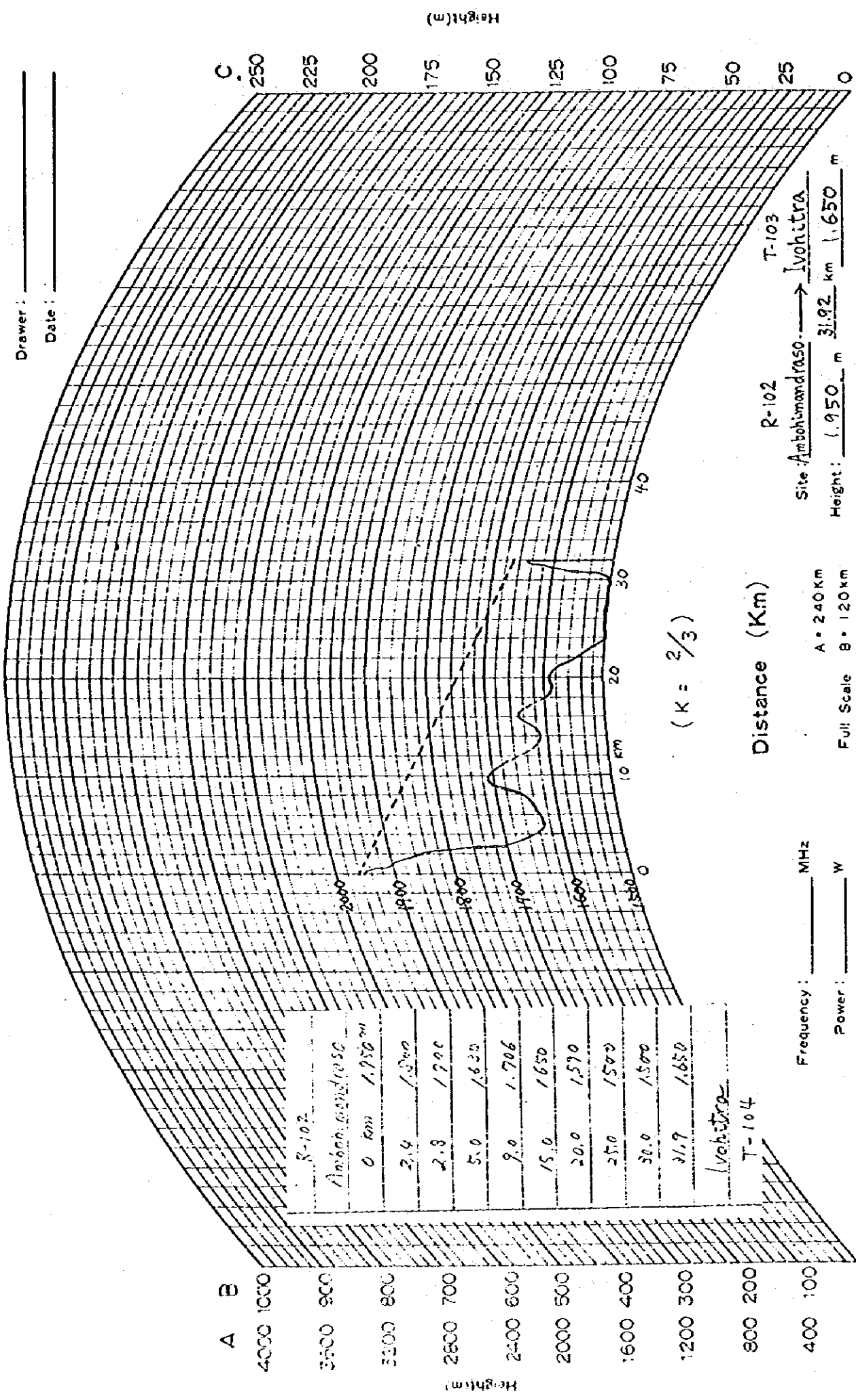
Power: _____ W

A = 240 Km

Full Scale B = 120 Km

C = 60 Km

Name of Route: _____
 No.: (3)
 Drawer: _____
 Date: _____



A - 76

$(K = \frac{2}{3})$

Distance (Km)

Site: Ambohimandraso → Ivohitra
 Height: 1950 m 31.92 km 1650 m
 Antenna height: 10 m 20 m

Frequency: _____ MHz
 Power: _____ W
 A = 240 Km Full Scale B = 120 km
 C = 60 Km

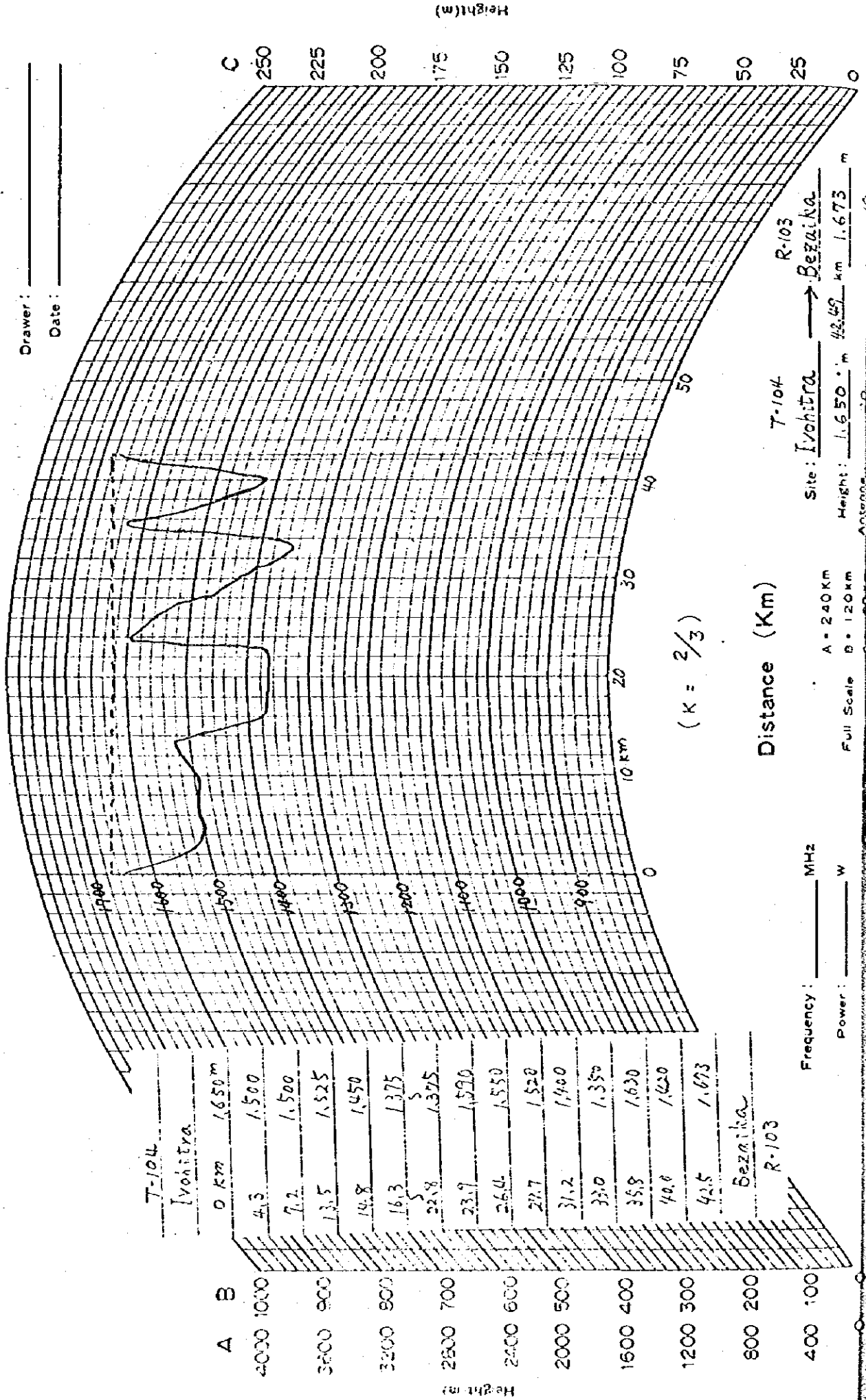
PATH PROFILE

Name of Route: _____

No.: (4)

Drawer: _____

Date: _____



T-104

Ivohitra

A	B	D Km	Height (m)
4000	1000	0	1650
3500	900	4.3	1500
3200	800	7.2	1500
2900	700	13.5	1525
2600	600	14.8	1450
2400	500	16.3	1375
2200	400	22.8	1375
2000	300	23.9	1590
1800	200	26.0	1550
1600	100	27.7	1520
1400	0	31.2	1400
1200	0	33.0	1350
1000	0	35.8	1630
800	0	40.8	1620
600	0	42.5	1673

Bezaika

R-103

Frequency: _____ MHz

Power: _____ W

Distance (Km)

A = 240 Km

B = 120 Km

Full Scale

T-104

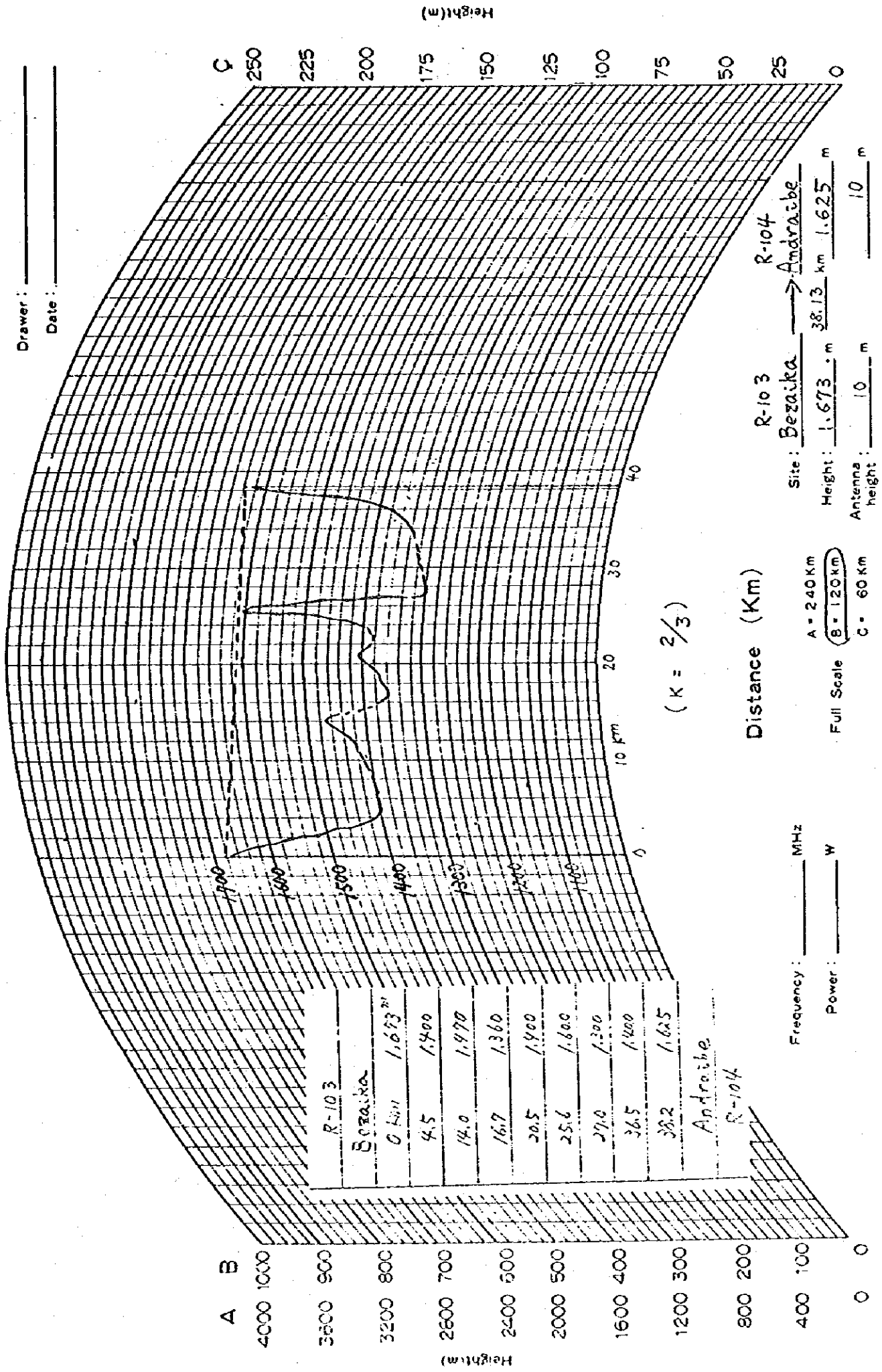
Site: Ivohitra → Bezaika

Height: 1.650 m 42.5 km 1.673 m

R-103

PATH PROFILE

Name of Route: _____
 No.: (5)
 Drawer: _____
 Date: _____



$(K = 2/3)$

Distance (Km)

Site: Bezaika → Andraicbe
 Height: 1.673 m → 38.13 km 1.625 m
 Antenna height: 10 m

Frequency: _____ MHz
 Power: _____ W

A = 240 Km
 Full Scale B = 120 Km
 C = 60 Km

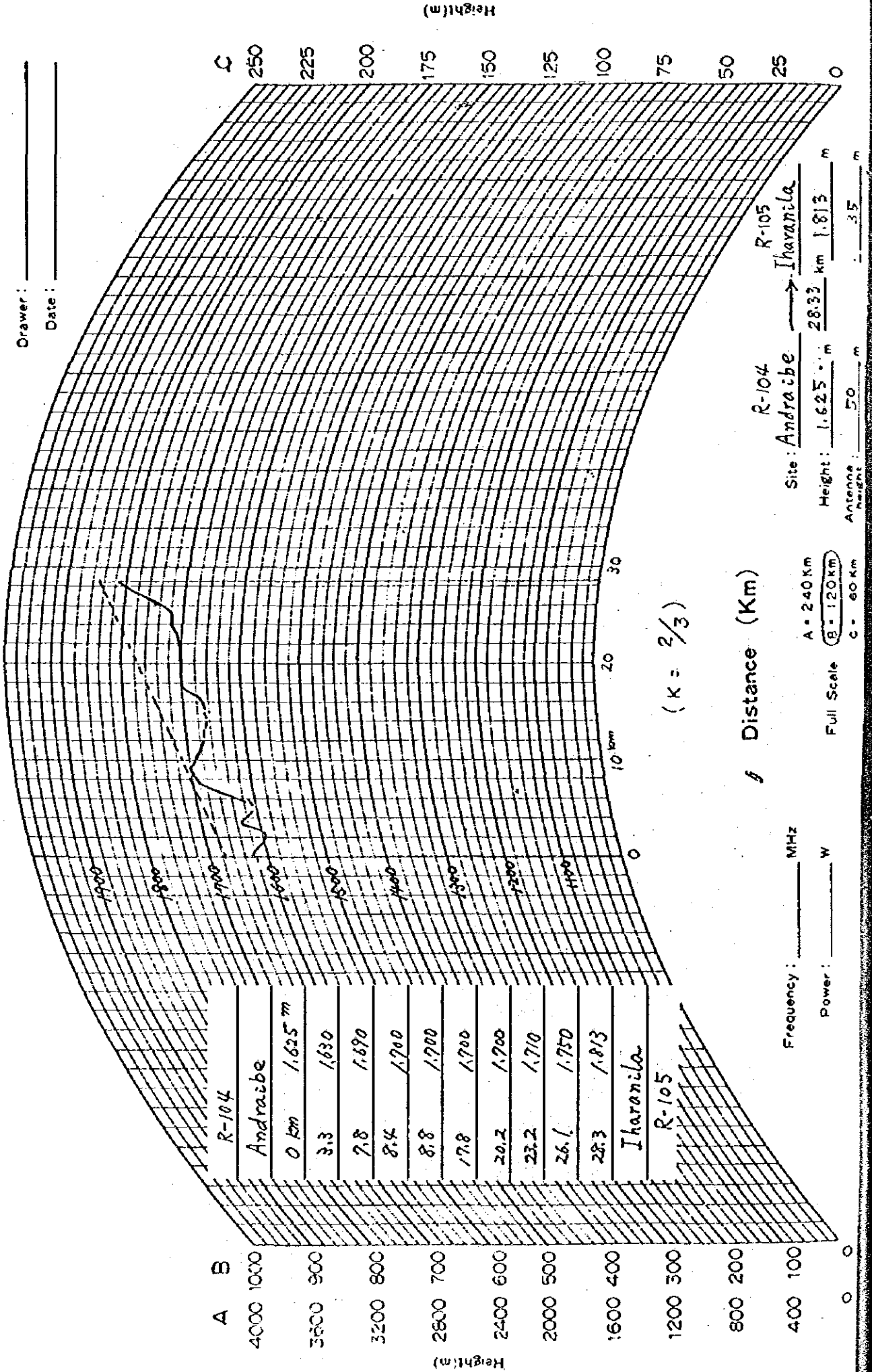
PATH PROFILE

Name of Route: _____

No.: (6)

Drawer: _____

Date: _____



A	B	R-104	R-105
4000	1000	Andraabe	Iharanila
3600	900	0 km 1,625 m	
3200	800	3.3 1,630	
2800	700	7.8 1,690	
2400	600	8.4 1,700	
2000	500	8.8 1,700	
1600	400	17.8 1,700	
1200	300	20.2 1,700	
800	200	23.2 1,710	
400	100	26.1 1,750	
0	0	28.3 1,813	

(K = 2/3)

Distance (Km)

Frequency: _____ MHz
Power: _____ W

A = 240 Km
Full Scale B = 120 Km
C = 60 Km

Site: Andraabe → Iharanila
Height: 1,625 m → 28.33 km 1,813 m
Antenna height: 50 m → 35 m

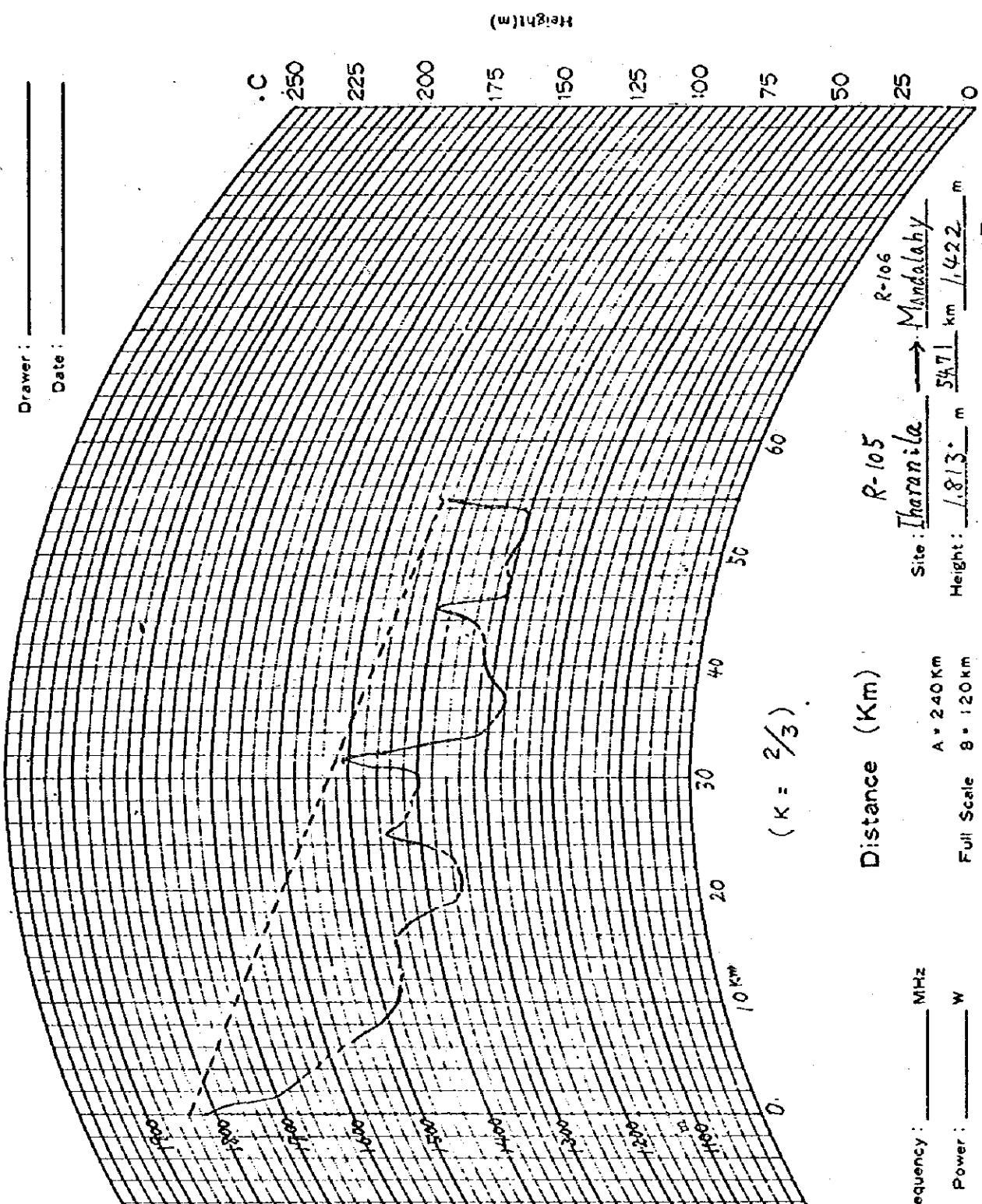
Name of Route:

No.:

(7)

Drawer:

Date:



R-105	Tharanila	0 km	1813 m
		3.0	1660
		10.0	1480
		15.3	1460
		20.0	1350
		25.0	1450
		30.2	1400
		31.5	1500
		33.6	1325
		36.7	1280
		38.8	1300
		45.0	1400
		46.0	1300
		51.2	1300
		53.6	1300
		54.7	1422
R-106	Mandalahy		

Distance (Km)

Frequency: _____ MHz

Power: _____ W

A = 240 Km

Full Scale B = 120 Km

C = 60 Km

R-105

R-106

Site: Tharanila → Mandalahy

Height: 1813 m

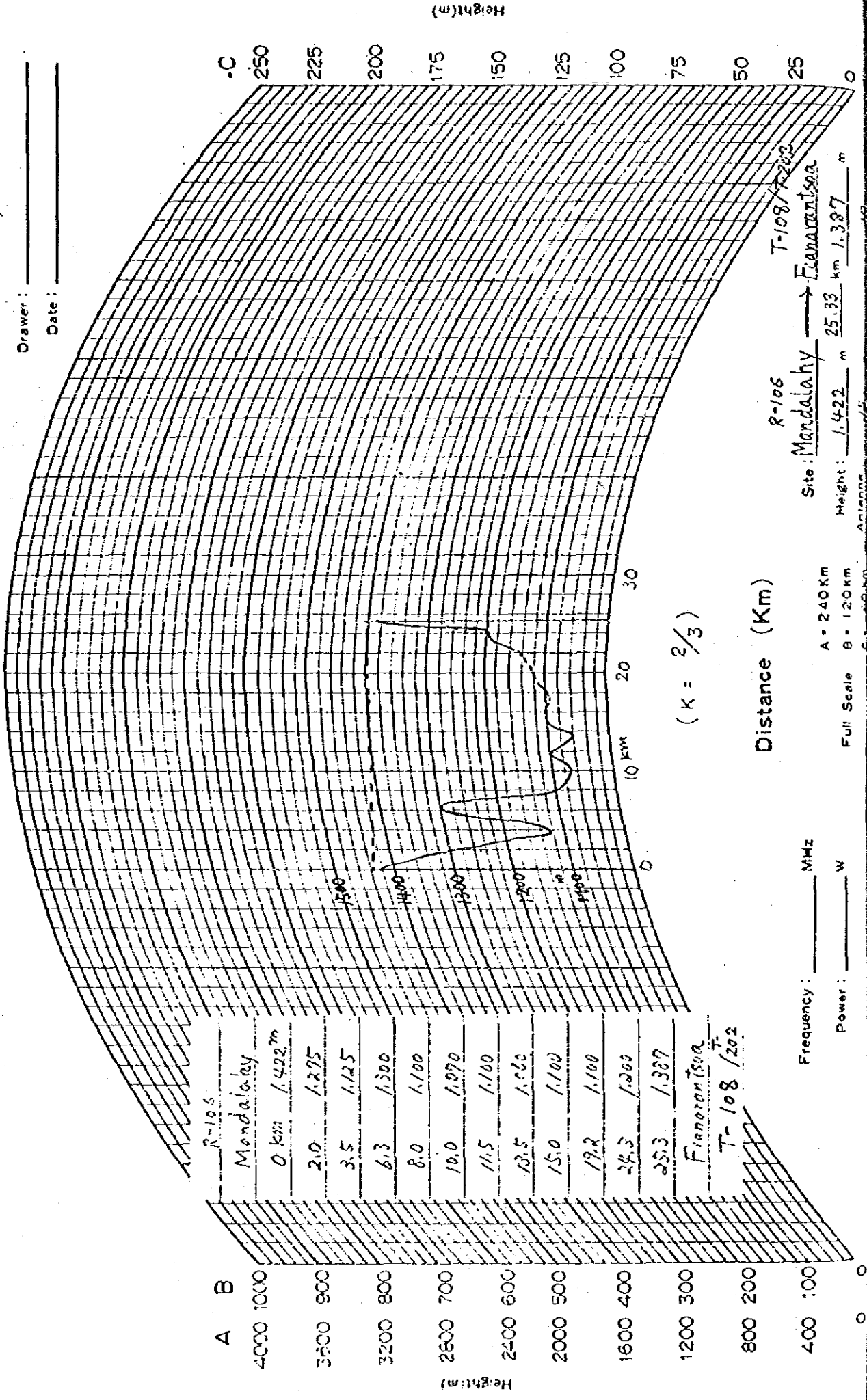
54.71 km 1422 m

Antenna height: 2.5 m

15 m

PATH PROFILE

Name of Route: _____
 No.: (8)
 Drawer: _____
 Date: _____



R-106	
Mondalaky	
0 km	1.422 m
2.0	1.275
3.5	1.125
6.3	1.300
8.0	1.100
10.0	1.070
11.5	1.100
13.5	1.060
15.0	1.100
19.2	1.100
24.3	1.200
25.3	1.327
Fianorantsoa	
T-108/202	

(K = 2/3)

Distance (Km)

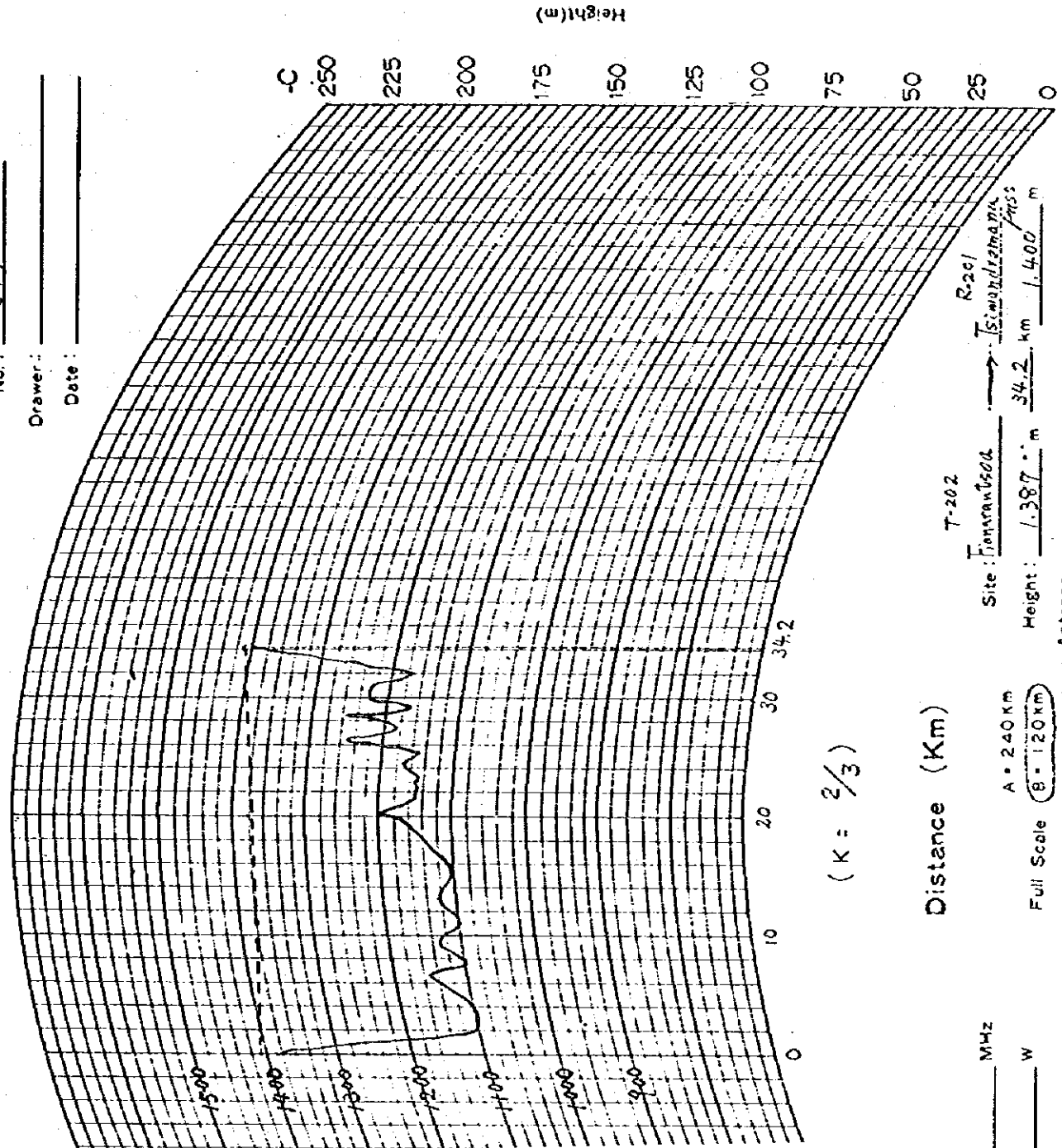
Frequency: _____ MHz
 Power: _____ W

A = 240 Km
 Full Scale B = 120 Km

R-106
 Site: Mondalaky → Fianorantsoa
 Height: 1.422 m
25.33 km 1.327 m

PATH PROFILE

Name of Route: _____
 No.: (9)
 Drawer: _____
 Date: _____



T-202	
Flamantsoa (Hill)	1387 m
0 km	1300
0.5	1100
1.9	1125
5.7	1250
6.6	1100
7.6	1130
8.5	1100
9.3	1100
10.9	1100
11.0	1100
12.0	1130
13.0	1100
16.0	1130
19.5	1170
20.3	1200
22.0	1150
23.0	1150
24.5	1170
25.5	1150
26.3	1250
26.5	1200
27.0	1230
27.5	1170
28.3	1250
29.0	1170
29.5	1200
30.0	1230
30.6	1230
31.0	1220
32.0	1170
32.5	1200
33.0	1270
33.5	1350
34.2	1400
Tsimandremana Pass (West)	

T-202
 Site: Fiamantsoa → Tsimandremana
 Height: 1387 m
 Antenna height: 20 m
 Range: 34.2 km
 Frequency: _____ MHz
 Power: _____ W

A = 240 Km
 Full Scale (8 - 120 Km)
 C = 60 Km

A B
 4000 1000
 3600 900
 3200 800
 2800 700
 2400 600
 2000 500
 1600 400
 1200 300
 800 200
 400 100
 0 0

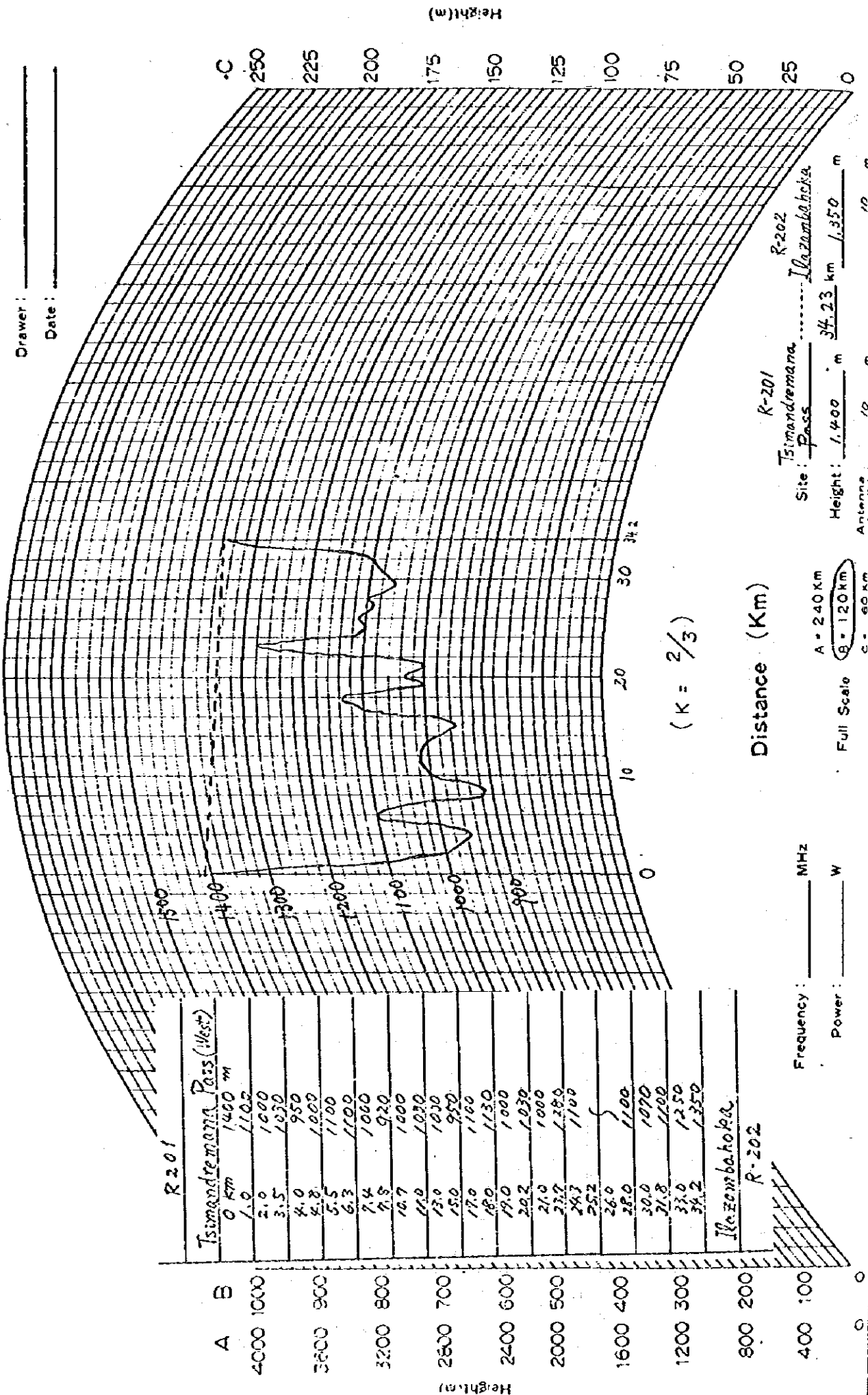
PATH PROFILE

Name of Route: _____

No.: (18)

Drawer: _____

Date: _____



A	B	Distance (Km)	Height (m)
R-201			
Tsimandremana Pass (West)			
	0 Km	1400 m	
	1.0	1102	
	2.0	1000	
	3.5	1030	
	4.0	950	
	4.8	1000	
	5.5	1100	
	6.3	1100	
	7.4	1000	
	7.9	920	
	10.7	1000	
	11.0	1030	
	13.0	1030	
	15.0	950	
	17.0	1160	
	18.0	1130	
	19.0	1000	
	20.2	1030	
	21.0	1000	
	23.7	1280	
	24.7	1100	
	25.2		
	26.0		
	28.0	1100	
	30.0	1070	
	31.8	1100	
	33.0	1250	
	34.2	1350	
Irazambahoka			
R-202			

$(K = 2/3)$

Distance (Km)

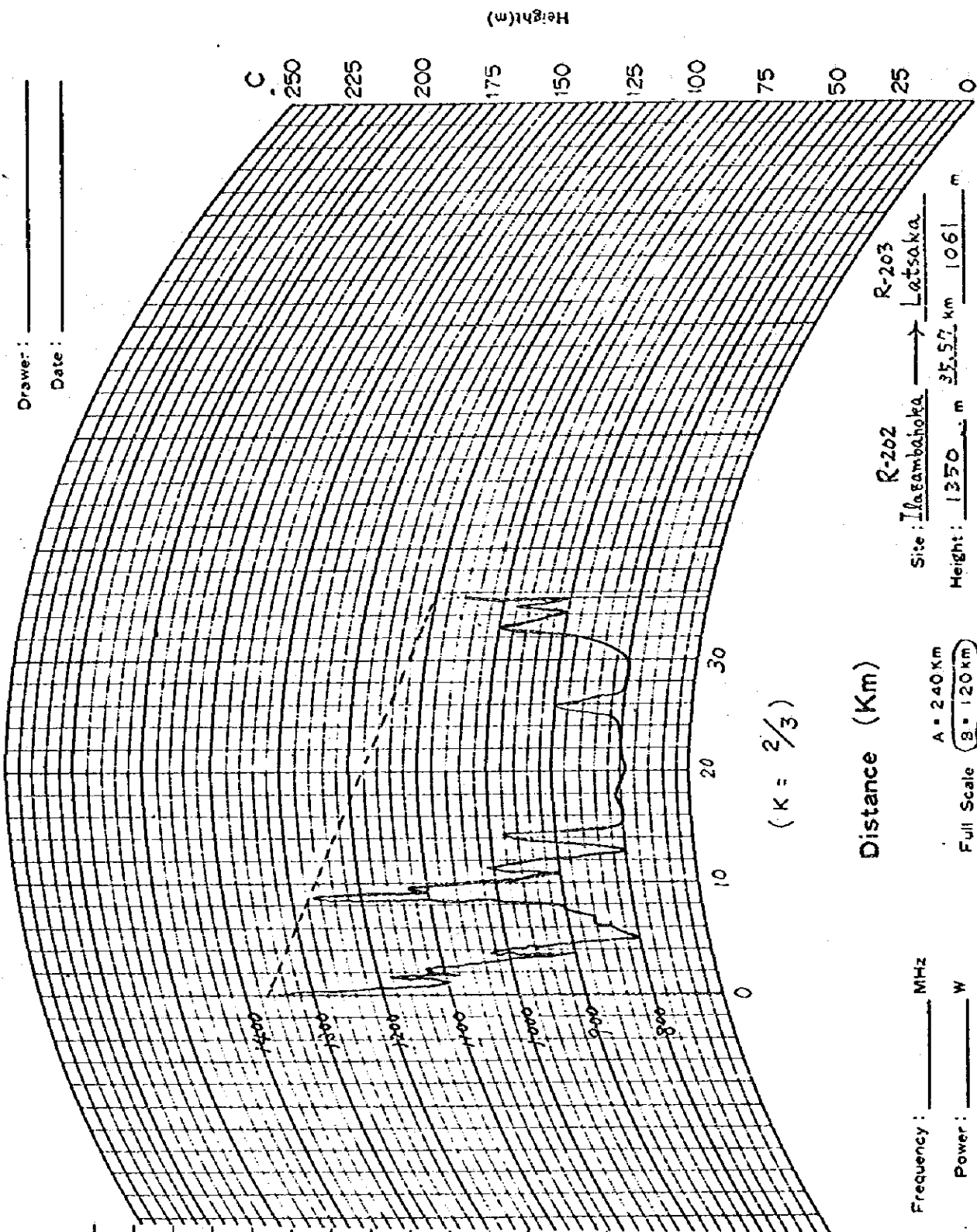
A = 240 Km
B = 120 Km
C = 60 Km

Frequency: _____ MHz
Power: _____ W

R-201
Tsimandremana
Site: Pass
Height: 1400 m
R-202
Irazambahoka
Height: 1350 m

Name of Route: _____
 No.: (11)
 Drawer: _____
 Date: _____

R-202	
Ilagambahoka	1350m
0 km	1100
1.5	1180
1.8	1090
2.1	1130
3.0	1000
3.5	900
3.8	1015
5.0	800
7.5	900
8.0	900
8.3	1000
8.5	1100
8.6	1270
8.8	1200
9.0	1100
9.7	1150
10.6	900
11.4	1010
12.5	800
14.2	900
15.5	800
}	
21.5	800
24.5	815
25.0	850
27.0	900
27.5	800
29.0	870
30.0	800
33.0	1000
33.5	750
34.0	900
34.5	980
35.4	900
35.6	1061
Latsaka	
R-203	



$(k = 2/3)$

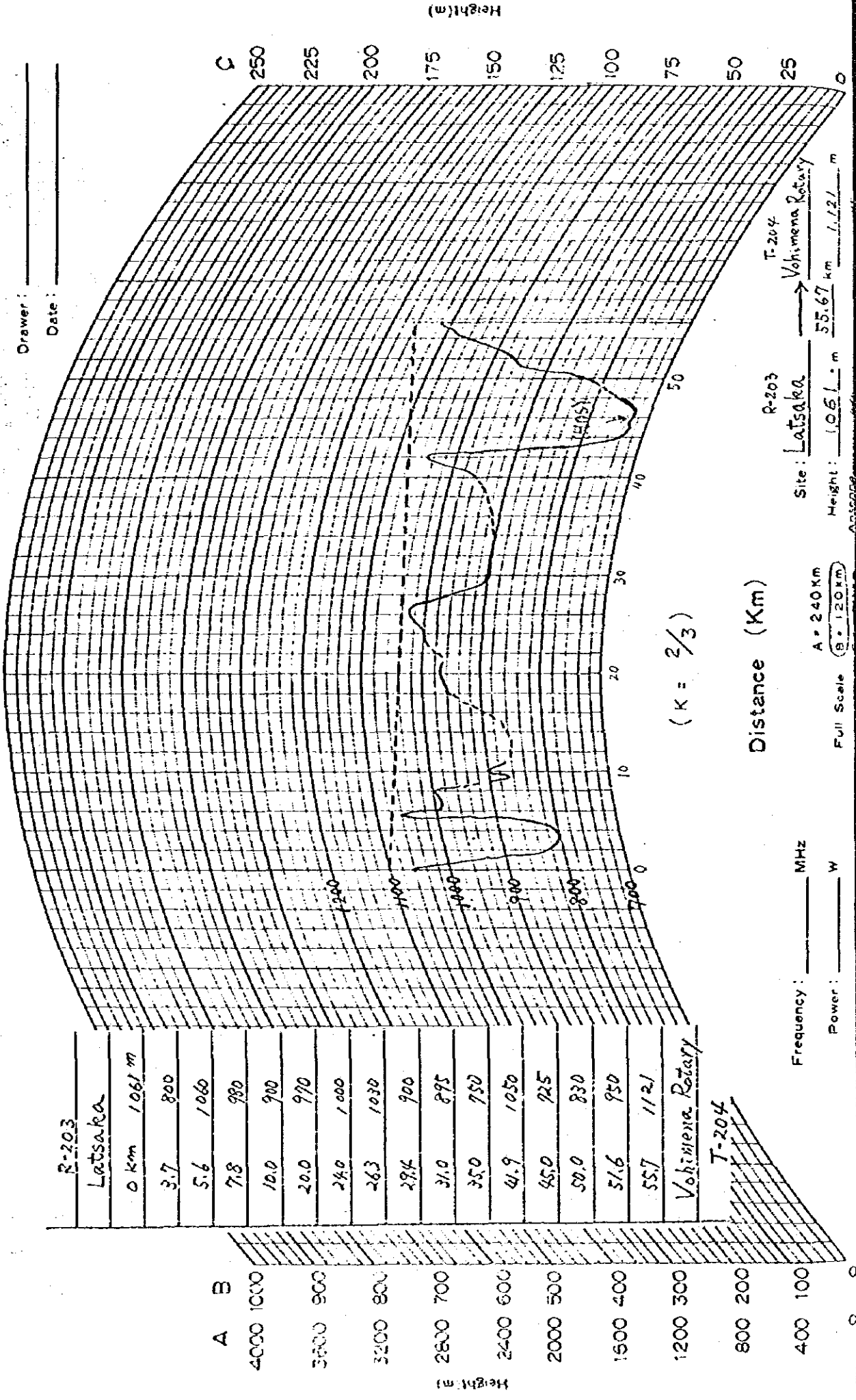
Distance (Km)

Site: Ilagambahoka → Latsaka
 Height: 1350 m → 35.57 km 1061 m
 Antenna height: 20 m → 40 m

Frequency: _____ MHz
 Power: _____ W
 A = 240 Km
 Full Scale B = 120 km
 C = 60 Km

PATH PROFILE

Name of Route: _____
 No.: (12)
 Drawer: _____
 Date: _____



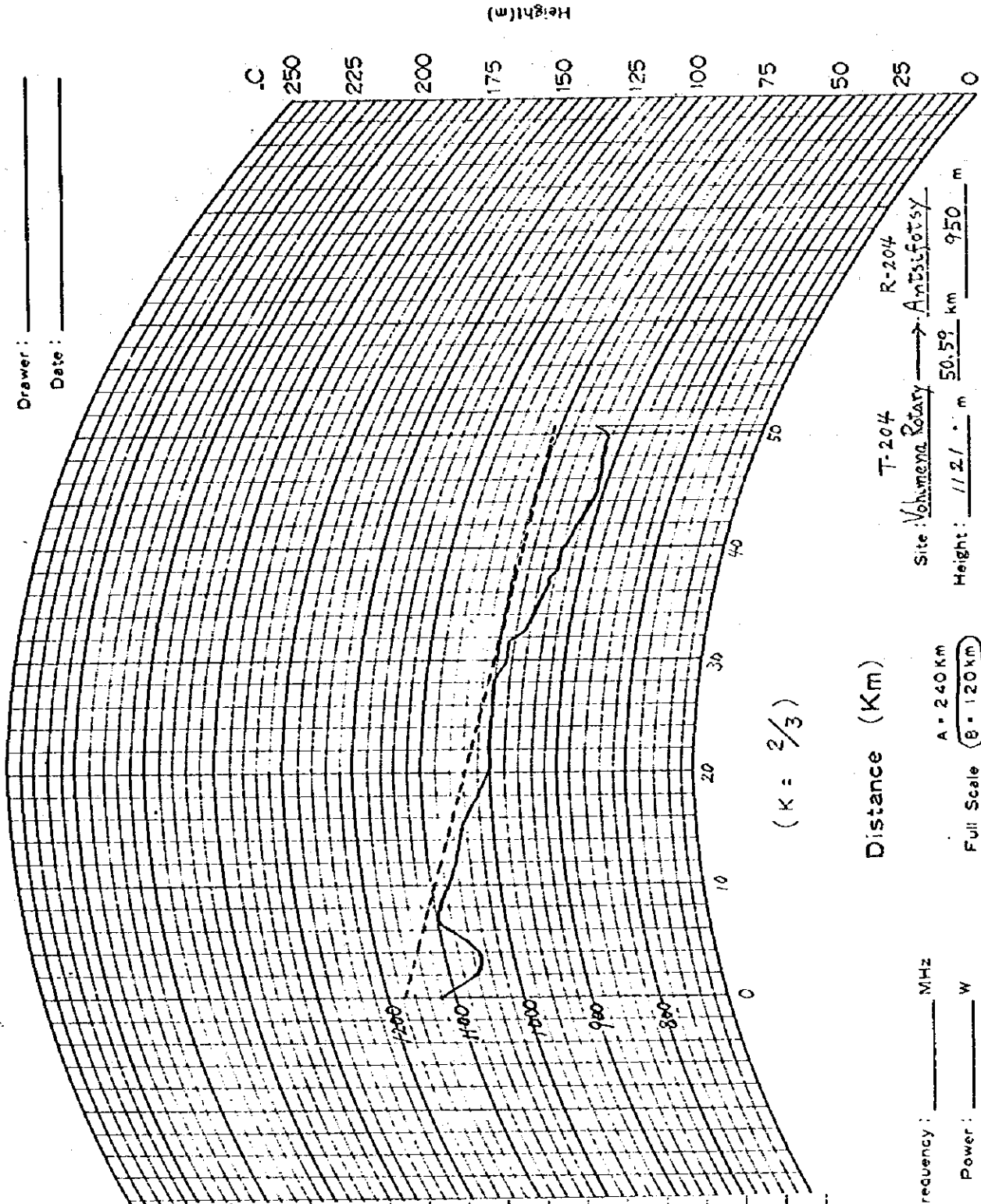
Distance (km)	Height (m)
0	800
3.7	800
5.6	1060
7.8	980
10.0	900
20.0	970
24.0	1000
26.3	1030
29.4	900
31.0	875
35.0	750
41.9	1050
45.0	725
50.0	830
51.6	950
55.7	1121

Site: Latsaka → Vohimena Rotary
 R-203
 Height: 1061 m
 Full Scale 120 km
 A = 240 Km
 B = 120 Km
 Frequency: _____ MHz
 Power: _____ W

$(K = \frac{2}{3})$

PATH PROFILE

Name of Route: _____
 No.: (13)
 Drawer: _____
 Date: _____



A	B	T-204	Vohimena Rotary
4000	1000	0 km	1121 km
3600	900	3.7	1050
3200	800	6.4	1100
2800	700	15.0	1044
2600	600	20.0	1000
2400	500	28.1	1000
2000	400	30.0	988
1600	300	31.8	988
1200	200	32.3	975
800	100	36.0	950
400	0	45.0	910
0	0	50.0	925
		50.6	950
			Antsifotsy
			R-204

Site: Vohimena Rotary → Antsifotsy
 Height: 1121 m 50.59 km 950 m
 Antenna height: 55 m 60 m

Distance (Km)
 A = 240 Km
 Full Scale (B = 120 km)
 C = 60 Km

Frequency: _____ MHz
 Power: _____ W