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MEASURED AND PREDICTED LONG-TERM DISTRIBUTIONS OF TROPOSPHERIC TRANSMISSION LOSS

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A. G. LONGLEY

R. K. REASONER

V. L. FULLER

INSTITUTE FOR TELECOMMUNICATION SCIENCES
Boulder, Colorado 80302

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MEASURED AND PREDICTED LONG-TERM DISTRIBUTIONS OF TROPOSPHERIC TRANSMISSION LOSS

A. G. Longley, R. K. Reasoner, and V. L. Fuller

This report summarizes measurements of tropospheric transmission loss and its long-term variability for nearly 800 paths in various parts of the world. The measurements were made at frequencies from 40 MHz to 10 GHz over distances which range from 10 to 1000 km. Terrain profiles and cumulative distributions of both observed and predicted losses are plotted for more than 500 of these paths. A preliminary analysis of differences between observed and predicted values is included.

Key Words: Cumulative distributions, location variability, long-term variability, measurements, predictions, tropospheric propagation.

INTRODUCTION

This report summarizes transmission loss data which have been acquired over a period of years, and compares distributions of measured values with those calculated using methods described by Rice et al (1967) and Longley and Rice (1968). All measured values have been converted to basic transmission loss, defined as the system loss that would occur between loss-free isotropic antennas, free of polarization and multipath coupling losses. Basic transmission loss, expressed in decibels, is then the sum of the system loss and the path antenna gain. The latter may be appreciably less than the sum of the free space gains when high-gain antennas are used. A method developed by Hartman and Wilkerson (1959) was used to calculate loss in antenna gain. Rice et al (1967) show relationships between basic transmission loss, field strength and attenuation relative to free space.

Data for paths included in this report were obtained from many sources. In the United States a long-term program of measurements was carried out by the Central Radio Propagation Laboratory,* with assistance from the Federal Communication Commission, other agencies and several universities. A good deal of data from other countries was provided by Study Group V of the CCIR, and much was obtained by searching the scientific literature. About half of the radio data described here has been published previously but in only a few instances have path profiles been shown. We have made every effort to make all path information as complete and accurate as possible, but undoubtedly some errors and omissions occur.

Although the data coverage is large, we do not have path parameters and recorded data for many common carrier and military systems. The world-wide extent of such systems is indicated in a report by Gunther (1966), who lists and maps all tropospheric systems completed up to July, 1965.

MEASURED VALUES OF TRANSMISSION LOSS

For almost all paths the data represent distributions of hourly median values of transmission loss. In some cases they represent 15, 20, or 30 minute medians whose distributions can not be distinguished from those of hourly mediams, but for a few paths such as 2201 and 2202 in figure 2.5 instantaneous values were recorded. Their distributions represent a combination of both long-term and short-term variability. These differ from distributions of hourly medians chiefly in the large values that are not exceeded 99 per cent or more of the time. For path 2201 for example, the loss not exceeded 99.99 per cent of the time is about 20 dB greater than that not exceeded 99 per cent of the time. Such an increase is not characteristic of distributions of hourly median values.

* The Central Radio Propagation Laboratory was a predecessor of the Institute for Telecommunication Sciences.

Long-term variations caused by slow changes in atmospheric refraction, turbulence and stratification show diurnal, seasonal and regional differences. Such variations are discussed by Rice et al (1967) while Williamson et al (1960) show seasonal and year-to-year variability for a large number of transhorizon paths in the United States. In general, these show that transmission losses are greater and less variable in winter than in summer, with maximum losses occurring on winter afternoons.

In the present study, only period-of-record distributions are considered because for most of the paths individual hourly median values and dates and hours of recording are not available. In many cases, data were recorded for a year or more and the distributions represent all-year conditions, but paths with data for much shorter recording periods are included. The latter may be somewhat influenced by seasonal effects.

Information about the measurement paths is presented in tables 1 and 2, where the paths are arranged in order by path number. These path numbers are rather arbitrarily chosen path designators. Table 1 lists the locations of transmitting and receiving antenna terminals, their geographical coordinates when known, and the year and period of recording. Table 2 lists path information and transmission loss data. The column headings represent the following parameters:

F--radio frequency in MHz

D -- path length in km

DH -- terrain irregularity Δh in m

NS -- minimum monthly mean value of surface refractivity

HTG, HRG -- heights above ground in m of the transmitting and receiving antennas, respectively

H -- number of horizon obstacles

HLT, HLR -- heights in m of the horizon obstacles, above mean sea level

DLT, DLR -- distance in km of each horizon obstacle from its corresponding terminal

THETA -- the angular distance θ in mr

LB OBSERVED -- observed values of basic transmission loss not exceeded for 1, 10, 50, 90, and 99 percent of all hours

LBCR -- calculated reference value of basic transmission loss

TN 101 -- L_{bcr} calculated by methods of Rice et al (1967)

ESSA 70 -- L_{bcr} calculated by a modification of the Longley and Rice (1968) method described by Longley and Reasoner (1970)

All paths marked with an asterisk are shown in the figures which follow table 2.

PREDICTED VALUES OF TRANSMISSION LOSS

Tropospheric transmission loss depends on characteristics of the atmosphere and of terrain. The most important atmospheric parameter for predicting a long-term median reference value of transmission loss is the refractive index gradient near the earth's surface. The surface gradient largely determines the bending of a radio ray as it passes through the atmosphere. We allow for regional differences in average atmospheric conditions by defining an "effective earth's radius" as a function of the minimum monthly mean value of surface refractivity. Other atmospheric effects are allowed for by empirical adjustments to the calculated median which allow for differences in climate, and estimates of variability relative to the median defined for several climates by Rice et al (1967).

The effects of terrain are taken into account in the prediction methods, which are based on various terrain parameters. Long-term reference values of basic transmission loss L_{bcr} are calculated using the point-to-point methods described by Rice et al (1967), coded as TN 101, and a modification of the area prediction described by Longley and Rice (1968) and coded as ESSA 70. The latter method was modified to include an empirical estimate for line-of-sight paths (Longley and

Reasoner, 1970), and special calculations for paths over isolated obstacles. The method for calculating diffraction loss over irregular terrain was not otherwise changed.

The point-to-point prediction methods (Rice et al 1967) were developed and adjusted to agree with data from about 70 transhorizon paths in the United States which are included in this report. The Longley-Rice (1968) model was developed to summarize data from several thousand spot measurements made with mobile equipment in the United States. None of these data are included in the present report.

TERRAIN PROFILES AND CUMULATIVE DISTRIBUTIONS

Terrain profiles and measured and predicted cumulative distributions of basic transmission loss are plotted for paths whose terminal coordinates are known and where sufficient data are available to be considered representative of the values for a year. When coordinates are not known for both terminals we cannot plot a great circle terrain profile and these paths are omitted from the figures even though data for rather long periods may be available. The profiles are drawn using an effective earth's radius which depends on the minimum monthly mean value of surface refractivity.

Some of the differences between predicted and measured median values may be caused by terrain clutter, such as buildings and trees, which has not yet been included in the prediction models. Such surface clutter would increase transmission loss, especially at UHF and higher frequencies. Other differences may result from inaccurate or inadequate topographic maps used to draw terrain profiles, or from short measurement periods which may represent seasonal rather than yearly conditions. In general, somewhat less information is available to us for paths in countries other than the United States and errors in interpretation or inaccuracies in recording results may occur.

The data presented here were recorded in several countries with different climatic conditions. For all paths in the United States and in West Germany a continental temperate climate is assumed in the predicted variability. Predicted distributions for paths in the British Isles and from them to the European continent are for a maritime temperate climate, overland or oversea. Oversea values are used only for paths with both horizons on the sea. This is quite arbitrary as in several cases paths which are largely over water have one or both horizons on land. The climatic conditions in Japan differ markedly from those in the British Isles partly because the terrain is quite rugged and the prevailing winds have traversed a large land mass. For these reasons a continental rather than a maritime temperate climate is assumed in Japan.

The figures are grouped as follows: Part 1-line-of-sight paths, Part 2-diffraction paths, Part 3-forward scatter paths. Within each group the figures are arranged first by country and then by path length. Each path is identified by its path number, transmitter and receiver locations, path length and frequency. Further information can be obtained by referring to tables 1 and 2. In many instances, recordings were made between terminal locations at several frequencies and with several combinations of antenna heights. Such paths are grouped together with the terrain profile followed by observed and predicted distributions of basic transmission loss arranged in order of increasing frequency.

Part 1 Line-of-Sight Paths

Under average atmospheric conditions the terminals for 96 of the paths listed in tables 1 and 2 are within radio line of sight. Figures 1.1 through 1.38 show terrain profiles and distributions of values of basic transmission loss for about 80 paths in the United States, the United Kingdom, Japan and West Germany. They represent frequencies from 40 MHz to 10 GHz, recorded over 30 different terrain profiles that range from 10 to 180 km in length. The organization of path information

is illustrated by figures 1.1 and 1.2 for paths 187 to 191, which show the terrain profile from Clausen to Eglin Air Force Base, Florida, followed by observed and calculated distributions of hourly median values of basic transmission loss at frequencies of 40.5, 75.5, 165.2, 455 and 952 MHz. Referring to table 1, the period of recording for each of these paths was more than 770 hours, and table 2 shows that the antenna heights were similar. Thus figures 1.1 and 1.2 show the changes in level and distribution of basic transmission loss as frequencies are increased from 40 to 950 MHz over a short line-of-sight path.

The paths in this group are considered to be within radio line of sight even though many do not provide first Fresnel zone clearance under average atmospheric conditions. This is especially true at the lower frequencies. For instance in figures 1.1 and 1.2 first Fresnel zone clearance is provided at 455 and 952 MHz but not at the three lower frequencies. Several of the profiles show good clearance of the radio ray above terrain at one end of the path, but not at the other end. Under these conditions the calculated values coded TN 101, based on geometric optics, tend to underestimate the transmission loss. An empirical estimate coded as ESSA 70 shows considerably better agreement with measurements in these cases. This estimate, developed by Longley and Reasoner (1970), is based on terrain irregularity, frequency, effective antenna heights and path length. Considering all line-of-sight paths listed, the TN 101 values underestimate the loss by more than 10 dB, while the ESSA 70 values are much closer to those observed.

An interesting profile from the Orkney Islands to the Shetland Islands is shown in figure 1.23. Under "normal" atmospheric conditions, the terminals for paths 2168 and 2169 are within radio line of sight, but a decrease in surface refractivity or change in the refractive index profile could at times allow the sea surface to become a diffracting obstacle. For other measurements from these terminals with lower

antennas, paths 2170 and 2171, figure 2.56, the sea surface obstructs the direct ray path and the median value of transmission loss is increased by about 10 dB.

Part 2 Diffraction Paths

All paths for which diffraction is usually the dominant propagation mechanism are included in this group. These are paths over a single or double isolated obstacle and transhorizon paths of intermediate length where diffraction is the dominant mechanism at least half of the time. Longer paths, where propagation is largely by means of forward scatter, are considered in part 3. There is no clear-cut dividing line between transhorizon diffraction and scatter paths, but those where diffraction and scatter losses are approximately equal are included in Part 2.

Profiles and distributions of measured and predicted values of basic transmission loss for diffraction paths are shown in figures 2.1 to 2.80. They are divided into the following four groups: single isolated obstacle, double isolated obstacle, common horizon and transhorizon paths. The arrangement of figures is illustrated by paths 2116 to 2124, figures 2.9 and 2.10, which show transmission over a single-obstacle path from Sutton Coldfield to Green Hailey, England with several antenna height combinations at frequencies of 58.3, 180.4, 495 and 593.6 MHz. These show increased long-term median values of basic transmission loss and increased variability with increased frequency.

2.1 Single isolated-horizon paths

Diffraction loss over a single isolated obstacle is calculated using knife-edge diffraction theory with an allowance for the effects of terrain reflections as described by Rice et al (1967) section 7. In the computer method, ESSA 70, we assume terrain effects are negligible when the height of the antenna above average terrain exceeds half the width of a first Fresnel zone. For the TN 101 calculations Fresnel clearance is estimated by

inspection of the terrain profile. For a few paths, 319, 320, and 321 in figure 2.3, the additional attenuation caused by "rounding" of the mountain top is included in the TN 101 prediction but not in the ESSA 70 calculation.

Knife-edge diffraction paths usually show less long-term variability than others of the same length. For this special case variability is calculated as though the path consists of two line-of-sight paths in tandem. The separate distributions are then convoluted as described by Rice et al (1967) to obtain the total path distribution.

Only about half of the 70 single horizon paths listed in tables 1 and 2 are shown in the figures. Those shown in figures 2.1 to 2.14 are for frequencies from 50 MHz to 9 GHz recorded over 12 different profiles ranging from about 90 to more than 400 km in length.

2.2 Double isolated-horizon paths

Paths with more than one isolated horizon are considered as double knife-edge diffraction paths. Several methods suggested for approximating diffraction attenuation over more than one obstacle were studied by Wilkerson (1966). Of these a simple technique which is widely applicable is used here. The attenuation is calculated as though the path consists of two single knife-edge paths, one from the transmitter to the second ridge and the other from the first ridge to the receiver. The sum of these two values of attenuation is added to the free space loss to obtain the predicted basic transmission loss for the entire path. When the obstacles are close together as in figures 2.27 and 2.30 long-term variability is calculated in the same way as for a single knife-edge path. Otherwise it is calculated for the entire path in the usual way.

This group includes 22 paths shown in figures 2.15 to 2.30 at frequencies from 40 MHz to 7 GHz recorded over 15 terrain profiles which range from 60 to 260 km in length.

2.3 Common horizon paths

We treat paths with a single horizon not isolated from surrounding terrain as a special case of diffraction over irregular terrain. Paths are considered to have a common horizon when there is less than 0.1 km between the calculated transmitter and receiver horizons. With changes in the refractive index structure of the atmosphere, the terminals for such paths may be within radio line of sight at times or may become two-horizon paths at other times. A typical example is from Cheyenne Mtn summit to Haswell, Colorado, figures 2.33 and 2.34.

This group of 10 common horizon paths, shown in figures 2.31 to 2.36 include frequencies from 60 MHz to 4.4 GHz recorded over five different profiles.

2.4 Transhorizon diffraction paths

This group consists of transhorizon paths of intermediate length where diffraction is the dominant mechanism at least half of the time. Rather large differences between the TN 101 and ESSA 70 predictions are noted in some cases, with the latter usually showing less loss.

For paths in England and West Germany with both horizons on the sea, a maritime temperate climate oversea is assumed. At frequencies of 200 MHz , the small losses predicted for small percentages of the time are not observed (figures 2.56, 2.58, 2.60 and 2.63), but at 1898 MHz much less than the predicted loss is observed (figure 2.75). This effect is probably the result of superrefraction and ducting conditions.

This group of 62 transhorizon diffraction paths, shown in figures 2.37 to 2.80 includes frequencies from 58 MHz to 9 GHz recorded over 41 terrain profiles.

Part 3 Forward Scatter Paths

By far the largest group of paths for which we have long-term recordings are tropospheric scatter paths. Detailed path profiles and distributions of hourly median values of transmission loss are plotted for about 325 scatter paths in figures 3.1 to 3.201. The paths are ordered first by country and then by path length within each group. The figures include distributions of data for about 135 paths over 70 different terrain profiles in the United States, 78 paths within the British Isles, 40 between the British Isles and Continental Europe, and 70 in Western Europe and Japan.

For all U. S. paths, figures 3.1 to 3.71, we have used a continental temperate climate for the predicted distributions. In general, the slopes of predicted and measured distributions agree very closely even though the path locations range from the east to the west coast across the comparatively dry central part of the country. A few paths on the east coast (figures 3.48 and 3.71) show much less loss than that predicted for small percentages of time. These probably represent the occurrence of rather strong ducting conditions during the recording period. Such conditions are not common for any large percentage of time in the continental United States.

The paths in figures 3.1 to 3.71 range from about 120 to 1000 km in length with frequencies ranging from 60 to 4000 MHz. With some exceptions the predicted distributions show rather good agreement with the observed distributions.

Predicted distributions for paths within the British Isles, figures 3.72 to 3.131, are for a maritime temperate climate, based on curves for various frequency ranges shown in Rice et al (1967). In general the slopes of the distributions of measured and predicted values are in good agreement.

A group of paths from the European continent to the British Isles is of rather special interest. These are considered to be "oversea" paths only if both horizons are on the surface of the sea. An examination of figures 3. 132 through 3. 161 shows good agreement in both slope and level between measured and predicted distributions. A rather high incidence of trapping by ducts and/or reflections from elevated layers is indicated in the unusually small transmission losses that occur for small percentages of the time. This is particularly common on the longer paths and at the higher frequencies. For example the over sea paths from Scheveningen, Netherlands to Happisburgh, Flamborough Head and Newton-by-the-Sea, England (figures 3. 144 and 3. 150 to 3. 154) show more variability over the longer than the shorter paths at VHF, 94 and 187 MHz, and a great deal more variability at UHF than at VHF. Paths from England to West Germany, figures 3. 159 to 3. 161, with horizons on land show trapping effects even at VHF and should probably be considered as oversea rather than mixed land and sea paths.

A continental temperate climate was assumed in calculating distributions for 13 paths in West Germany. The calculated and measured distributions agree well in both slope and level with the exception of path 2367, figure 3. 170. This path from Berlin-Nikolassee to Helgoland extends into a coastal area and shows the effects of a maritime climate.

We used a continental temperate climate to predict transmission loss distributions for 93 paths in Japan, shown in figures 3. 172 to 3. 193. While, in general, the predicted distributions agree well with measured values there are notable exceptions particularly at frequencies above 1000 MHz over rather long paths that are largely over the sea. Typical of these are the paths shown in figures 3. 189 and 3. 191 where the distributions are much steeper than predicted. By contrast figures 3. 190 and 3. 193 show little variability for long overland paths even at 1317 and 2120 MHz.

A few paths in Canada, France and Italy are shown in figures 3.194 to 3.201. For, Italy, we assumed a maritime temperate climate while in Canada and France a continental temperate climate was used.

SUMMARY

Long-term distributions of hourly-median values of transmission loss are presented for a large number of paths located in several countries and ranging in length from about 10 to 1000 km. The data represent line-of-sight, diffraction and forward scatter propagation mechanisms, and in many cases, the effects of superrefraction and ducting.

We calculated long-term reference values of basic transmission loss for all paths where sufficient terrain information is available. The predictions were calculated using methods described by Rice et al (1967) coded as TN101 and by a modification of a computer method described by Longley and Rice (1968) coded as ESSA 70. Estimates of median values and long-term variability about the median were obtained from a series of curves for various climates (Rice et al 1967). These curves are empirical, based on data available when they were developed.

A series of 320 figures show terrain profiles and measured and calculated distributions of transmission loss for more than 500 of these paths where sufficient data and profile information are available. With some exceptions these show good agreement between measured and predicted values especially where forward scatter is the dominant mechanism. The differences ΔL between predicted and measured median values of basic transmission loss were calculated for all plotted paths where observed medians are available (475 paths). For several groups of paths the mean difference $\overline{\Delta L}$, and the standard deviation $\sigma_{\Delta L}$ of the differences are listed in table 3.

Table 3. Differences Between Predicted and Measured Long-Term Median Values of Basic Transmission Loss in Decibels

Type of Path	No. of Paths	TN 101		ESSA 70	
		$\overline{\Delta L}$	$\sigma_{\Delta L}$	$\overline{\Delta L}$	$\sigma_{\Delta L}$
Line of Sight, All Paths	77	-11.5	9.7	-0.5	8.3
f < 1000 MHz	47	-13.5	9.3	-2.0	7.8
f > 1000 MHz	30	- 8.8	9.9	1.9	8.6
Diffraction, All Paths	119	- 2.4	7.5	-3.8	8.0
Irregular terrain	73	- 3.2	7.4	-4.4	7.3
Isolated obstacle	46	- 1.0	7.5	-2.9	9.2
Scatter, All Paths	279	- 4.0	6.5	-4.6	6.7
United States	121	- 3.9	6.2	-4.7	6.5
United Kingdom	66	- 4.5	7.0	-4.3	7.2
North Sea	18	- 6.4	5.4	-6.4	5.4
Other	74	- 3.3	6.9	-4.2	7.0

$\overline{\Delta L}$ is the mean value of ΔL in each group where $\Delta L = L_{bm}$ (predicted) $- L_{bm}$(observed), and L_{bm} is a long-term median value.
$\sigma_{\Delta L}$ is the standard deviation of ΔL.

For these line-of-sight paths the empirical estimates calculated by ESSA 70 clearly show better agreement with measurements than the values calculated by TN101 methods. For all groups of diffraction and scatter paths differences between the methods of calculation are small and may be considered to be negligible.

The data in the present study include recordings made for periods as short as three weeks, while the predictions represent all-year medians. The rather large values of $\sigma_{\Delta L}$ undoubtedly reflect the widely differing periods of recording with seasonal differences, and inadequate information for some paths, as well as prediction error. An earlier study, based on data recorded for a year or more over well-documented scatter paths

in the United States, yielded an estimate of prediction error, $\sigma_c = 3.6$ dB. This value represents the results of an analysis of the effects of the length of the measurement period with a resulting adjustment (Barsis et al 1962).

For each group of paths we also obtained the differences between calculated reference values L_{bcr} and medians of measured values. In all groups closer agreement was obtained than that between calculated and measured median values shown in table 3. This suggests that the adjustment to the reference value, $V(0.5, d_e)$ described by Rice et al (1967), may be too great. Further statistical analysis will be the subject of a separate paper.

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TABLE 1. PROPAGATION PATH LOCATIONS AND PERIODS OF RECORDING

PATH	TRANSMITTER				RECEIVER				YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE		LOCATION	LATITUDE	LONGITUDE			RECORDING
1	FRESNO CALIF	36 50 49 N	119 50 18 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		51	499 HR
2	SACRAMENTO CALIF	38 38 09 N	121 33 11 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		53-54	2293 HR
3	PITTSBURGH PA	40 26 46 N	79 57 49 W		HUDSON OHIO	41 16 02 N	81 27 42 W		52-53	6262 HR
5	LINCOLN NEBR	40 49 17 N	96 39 43 W		GRAND ISLAND NEBR	40 55 37 N	98 26 00 W		51-52	4795 HR
6	SAN DIEGO CALIF	32 43 17 N	117 04 11 W		SANTA ANA CALIF	33 43 35 N	117 54 26 W		51-53	4865 HR
7	SEATTLE WASH	47 37 57 N	122 20 59 W		PORTLAND ORE	45 32 29 N	122 30 29 W		52-54	6577 HR
8	DALLAS TEXAS	32 46 46 N	96 43 34 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		50-53	23294 HR
9	LONGVIEW TEXAS	32 26 57 N	94 43 35 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		51-52	6451 HR
12	PORTLAND ORE	45 30 56 N	122 43 54 W		SEATTLE WASH	47 39 12 N	122 18 17 W		51-53	9315 HR
13	HOUSTON TEXAS	29 45 25 N	95 21 55 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		49-51	9702 HR
15	ABILENE TEXAS	32 17 13 N	99 44 20 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		50	332 HR
16	FRESNO CALIF	37 04 39 N	119 26 00 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		52	436 HR
17	CHICO CALIF	39 44 00 N	121 47 10 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		51	1205 HR
18	SHREVEPORT LA	32 42 18 N	93 52 54 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		51-53	13013 HR
19	ST LOUIS MO	38 37 40 N	90 11 17 W		URBANA ILL	40 06 39 N	88 13 11 W		51-52	9067 HR
20	HOUSTON TEXAS	29 45 31 N	95 21 49 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		51-52	8488 HR
21	SAN ANTONIO TEXAS	29 29 41 N	98 24 54 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		49	1089 HR
22	SAN ANTONIO TEXAS	29 29 41 N	98 24 54 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		49-50	1705 HR
23	SAN ANTONIO TEXAS	29 29 41 N	98 24 54 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		50	1245 HR
26	MOBILE ALA	30 46 26 N	88 07 08 W		POWDER SPRINGS GA	33 52 01 N	84 43 12 W		52-53	537 HR
28	ANDERSON S C	34 30 53 N	82 38 15 W		POWDER SPRINGS GA	33 52 01 N	84 43 12 W		51-52	6025 HR
29	COLUMBUS OHIO	39 58 21 N	83 01 08 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-53	18382 HR
31	COLUMBUS IND	39 11 05 N	85 57 17 W		URBANA ILL	40 06 39 N	88 13 41 W		50-52	11854 HR
32	TAMPA FLA	27 56 42 N	82 27 29 W		FORT LAUDERDALE FLA	26 06 17 N	80 16 52 W		52-53	6514 HR
33	DETROIT MICH	42 22 40 N	83 14 32 W		ALLEGAN MICH	42 36 23 N	85 57 07 W		52-53	1508 HR
34	READING PA	40 21 15 N	75 53 56 W		LAUREL MD	39 09 53 N	76 49 23 W		51-52	2344 HR
35	CHICAGO ILL	41 52 57 N	87 38 15 W		ALLEGAN MICH	42 36 22 N	85 57 07 W		51-52	2416 HR
36	EASTON PA	40 40 28 N	75 12 28 W		STATE COLLEGE PA	40 47 40 N	77 51 52 W		51-53	10875 HR
37	NEW YORK N Y	40 43 20 N	73 55 27 W		MILLIS MASS	42 11 08 N	71 20 10 W		52-53	3368 HR
38	DALLAS TEXAS	32 46 47 N	96 47 56 W		AUSTIN TEXAS	30 23 10 N	97 43 35 W		49-50	3145 HR
39	YOUNGSTOWN OHIO	41 01 22 N	80 38 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		52-53	4120 HR
41	OLEAN N Y	42 02 02 N	78 26 46 W		STATE COLLEGE PA	40 47 40 N	77 51 52 W		51-53	10187 HR
42	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-52	8302 HR
43	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		51	1982 HR
44	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-53	20800 HR
45	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		52	464 HR
46	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		51	2081 HR
47	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-53	19957 HR
48	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		51-53	5914 HR
49	COLUMBUS OHIO	39 52 29 N	82 58 46 W		HUDSON OHIO	41 16 02 N	81 27 42 W		51-53	5231 HR
51	ORLANDO FLA	28 34 28 N	81 27 48 W		FT LAUDERDALE FLA	26 06 17 N	80 16 54 W		52-53	4179 HR
52	PHILADELPHIA PA	39 57 00 N	75 09 16 W		LAUREL MD	39 09 55 N	76 49 23 W		51-52	8284 HR
53	PITTSBURGH PA	40 24 51 N	80 02 24 W		LAUREL MD	39 09 53 N	76 49 23 W		52-53	2723 HR
54	PITTSBURGH PA	40 24 51 N	80 02 24 W		STATE COLLEGE PA	40 47 40 N	77 51 52 W		51-53	11190 HR
55	DETROIT MICH	42 22 09 N	83 04 38 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-53	18541 HR
56	YOUNGSTOWN OHIO	41 03 30 N	80 38 42 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50-52	7217 HR
57	CHICAGO ILL	41 55 35 N	88 00 22 W		URBANA ILL	40 06 39 N	88 13 41 W		50-52	10699 HR
58	CLINGMANS PEAK N C	35 44 05 N	82 17 09 W		POWDER SPGS GA	33 52 01 N	84 43 12 W		52-53	6514 HR
59	GREENVILLE S C	34 56 29 N	82 24 40 W		POWDER SPGS GA	33 52 01 N	84 43 12 W		51	1820 HR
60	HARTFORD CONN	41 46 26 N	72 48 20 W		MILLIS MASS	42 11 08 N	71 20 10 W		51-52	7646 HR
61	ARLINGTON VA	38 53 45 N	77 08 03 W		STATE COLLEGE PA	40 47 40 N	77 51 52 W		51-52	5051 HR
62	WASHINGTON D C	38 57 00 N	77 04 45 W		STATE COLLEGE PA	40 47 40 N	77 51 52 W		52-53	7511 HR
63	COLUMBUS OHIO	40 02 51 N	83 03 41 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50	306 HR
64	COLUMBUS OHIO	40 02 51 N	83 03 41 W		HUDSON OHIO	41 16 02 N	81 27 42 W		50	152 HR
66	SACRAMENTO CALIF	38 35 57 N	121 26 54 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		53-54	1522 HR
71	PITTSBURGH PA	40 24 51 N	80 02 24 W		LAUREL MD	39 09 53 N	76 49 23 W		53	452 HR
90	ATLANTA GA	33 45 52 N	84 21 42 W		MANCHESTER TENN	35 34 36 N	86 04 40 W		51	855 HR
91	ATLANTA GA	33 45 52 N	84 21 42 W		ADAIRSVILLE GA	34 18 34 N	84 56 07 W		51	1288 HR
92	ATLANTA GA	33 45 52 N	84 21 42 W		FORSYTH GA	33 09 11 N	83 53 48 W		51	1212 HR
93	ATLANTA GA	33 45 52 N	84 21 42 W		LUMBER CITY GA				51	875 HR
94	ATLANTA GA	33 45 52 N	84 21 42 W		WAYCROSS GA				51	814 HR
95	ATLANTA GA	33 47 55 N	84 23 12 W		MANCHESTER TENN	35 34 36 N	86 04 40 W		51	253 HR
96	ATLANTA GA	33 47 55 N	84 23 12 W		ADAIRSVILLE GA	34 18 34 N	84 56 07 W		51	464 HR
97	ATLANTA GA	33 47 55 N	84 23 12 W		FORSYTH GA	33 09 11 N	83 53 48 W		51	448 HR
186	SCITUATE MASS				STEPHENVILLE CAN				58	201 HR
187	CLAUSEN SITE FLA	30 23 03 N	86 26 51 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	775 HR
188	CLAUSEN SITE FLA	30 23 03 N	86 26 51 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	775 HR
189	CLAUSEN SITE FLA	30 23 03 N	86 26 51 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	758 HR
190	CLAUSEN SITE FLA	30 23 03 N	86 26 51 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	772 HR
191	CLAUSEN SITE FLA	30 23 03 N	86 26 51 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	757 HR
192	COUPLAND TOWER FLA	30 35 29 N	86 39 10 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	771 HR
193	COUPLAND TOWER FLA	30 35 29 N	86 39 10 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	774 HR
194	COUPLAND TOWER FLA	30 35 29 N	86 39 10 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	774 HR
195	COUPLAND TOWER FLA	30 35 29 N	86 39 10 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	759 HR
196	COUPLAND TOWER FLA	30 35 29 N	86 39 10 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	773 HR
197	WAGNER SITE FLA	30 40 26 N	86 20 21 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	772 HR
198	WAGNER SITE FLA	30 40 26 N	86 20 21 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	763 HR
199	WAGNER SITE FLA	30 40 26 N	86 20 21 W		EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W		56-57	778 HR
200	SAN DIEGO CALIF	32 50 32 N	117 14 56 W		SANTA ANA CALIF	33 43 34 N	117 54 25 W		51-53	8412 HR
201	SAN FRANCISCO CALIF	37 45 18 N	122 27 07 W		LIVERMORE CALIF	37 43 43 N	121 45 13 W		51-52	5212 HR

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
202	OMAHA NEBR	41 15 26 N	95 57 02 W	GRAND ISLAND NEBR	40 55 36 N	98 26 00 W	51	928 HR
203	HOUSTON TEXAS	29 44 02 N	95 27 43 W	AUSTIN TEXAS	30 23 10 N	97 43 35 W	51-53	10558 HR
204	BIRMINGHAM ALA	33 29 24 N	86 47 56 W	POWDER SPGS GA	33 52 01 N	84 43 12 W	51-54	11331 HR
206	CHICAGO ILL	41 53 09 N	87 37 56 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	9304 HR
208	WILMINGTON DELA	39 48 58 N	75 31 50 W	LAUREL MD	39 09 50 N	76 49 21 W	53-54	2186 HR
209	COLUMBUS GA			POWDER SPRINGS GA			54-56	19 MO
210	CHICAGO ILL	41 52 57 N	87 38 15 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	9226 HR
211	DALLAS TEXAS	32 47 48 N	96 48 24 W	AUSTIN TEXAS	30 23 10 N	97 43 35 W	51-53	7897 HR
212	CHICAGO ILL	41 53 25 N	87 37 25 W	URBANA ILL	40 06 39 N	88 13 41 W	50-51	3139 HR
213	CHICAGO ILL	41 53 25 N	87 37 25 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	10787 HR
214	CHICAGO ILL	41 53 25 N	87 37 25 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	10777 HR
215	CHICAGO ILL	41 53 25 N	87 37 25 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	9831 HR
216	CHICAGO ILL	41 53 25 N	87 37 25 W	URBANA ILL	40 06 39 N	88 13 41 W	51-53	10152 HR
217	DETROIT MICH	42 23 41 N	83 08 58 W	ALLEGAN MICH	42 36 22 N	85 57 07 W	52-53	2864 HR
219	CHICAGO ILL	41 52 57 N	87 38 15 W	URBANA ILL	40 06 39 N	88 13 41 W	50-51	2711 HR
222	OMAHA NEBR	41 15 26 N	95 57 51 W	GRAND ISLAND NEBR	40 55 36 N	98 26 00 W	51	1096 HR
223	DETROIT MICH	42 21 28 N	83 03 56 W	HUDSON OHIO	41 16 02 N	81 27 42 W	50-53	18358 HR
226	YORK PA			LAUREL MD			53-55	2 YR
228	WILMINGTON DELA	39 48 58 N	75 31 51 W	LAUREL MD	39 09 53 N	76 49 23 W	53	232 HR
229	READING PA			LAUREL MD			53-54	9 MO
233	HOLYOKE MASS			MILLIS MASS			54-55	1 YR
234	SPRINGFIELD MASS			MILLIS MASS			53-54	15 MO
244	BIRMINGHAM ALA	33 29 24 N	86 47 56 W	POWDER SPGS GA	33 52 01 N	84 43 12 W	53-54	739 HR
250	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-54	9628 HR
252	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	52-54	11782 HR
254	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-54	9999 HR
256	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52-54	4683 HR
258	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	ANTHONY KANS	37 14 24 N	97 53 53 W	52-53	537 HR
260	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	FAYETTEVILLE ARK	36 06 25 N	94 06 25 W	52-53	120 HR
262	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	236 HR
264	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	ANTHONY KANS	37 14 24 N	97 53 53 W	53	266 HR
266	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	61	232 HR
267	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	61	183 HR
268	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	61	186 HR
270	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-53	5835 HR
272	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	52-53	6967 HR
274	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-53	6205 HR
276	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52-53	3153 HR
278	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	ANTHONY KANS	37 14 24 N	97 53 53 W	52	243 HR
279	HASWELL COLO	38 22 51 N	103 09 21 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	58	26 HR
280	HASWELL COLO	38 22 51 N	103 09 21 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	58	26 HR
290	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KENDRICK COLO	38 34 08 N	103 59 02 W	54	1024 HR
292	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	54	909 HR
294	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	HASWELL COLO	38 22 59 N	103 08 28 W	54	795 HR
296	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	548 HR
297	KARVAL COLO	38 37 55 N	103 34 19 W	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	63	76 HR
298	KARVAL COLO	38 37 55 N	103 34 19 W	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	63	147 HR
299	PIKES PEAK COLO	38 50 26 N	105 02 38 W	GUN BARREL HILL COLO	40 05 31 N	105 07 18 W	63	192 HR
300	PIKES PEAK COLO	38 50 26 N	105 02 38 W	GUN BARREL HILL COLO	40 05 31 N	105 07 18 W	63	315 HR
302	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	450 HR
303	BEULAH COLO	38 08 48 N	104 56 56 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	60	10 DA
305	BEULAH COLO	38 08 48 N	104 56 56 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	59-60	50 DA
307	BEULAH COLO	38 08 48 N	104 56 56 W	PIKES PEAK COLO	38 50 26 N	105 02 42 W	60	10 DA
308	BEULAH COLO	38 08 48 N	104 56 56 W	PIKES PEAK COLO	38 50 26 N	105 02 42 W	60	10 DA
310	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-54	7855 HR
311	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	54	599 HR
312	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	52-54	6132 HR
313	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	KARVAL COLO	38 37 55 N	103 34 19 W	54	405 HR
314	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-54	7007 HR
316	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52	1644 HR
317	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	53-54	675 HR
318	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	ANTHONY KANS	37 14 24 N	97 53 53 W	52	184 HR
319	BEULAH COLO	38 08 48 N	104 56 56 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	59-63	1307 HR
320	BEULAH COLO	38 08 48 N	104 56 56 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	59-63	1056 HR
321	BEULAH COLO	38 08 48 N	104 56 56 W	TABLE MESA COLO	40 08 54 N	105 13 53 W	63-64	163 HR
322	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	97 HR
323	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	51 HR
324	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	47 HR
325	CHEYENNE MTN S COLO	38 45 50 N	104 51 50 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	51 HR
330	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-54	5428 HR
332	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KARVAL COLO	38 37 55 N	103 34 19 W	52-54	6594 HR
334	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-54	4748 HR
336	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52-54	2095 HR
338	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	ANTHONY KANS	37 14 24 N	97 53 53 W	53	134 HR
342	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	440 HR
350	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-53	3268 HR
352	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KARVAL COLO	38 37 55 N	103 34 19 W	53	1244 HR
354	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-53	2932 HR
356	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52-53	862 HR
358	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	ANTHONY KANS	37 14 24 N	97 53 53 W	53	148 HR

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
370	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KENDRICK COLO	38 34 08 N	103 59 02 W	54	531 HR
372	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	KARVAL COLO	38 37 55 N	103 34 19 W	54	483 HR
374	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	HASWELL COLO	38 22 59 N	103 08 28 W	54	593 HR
376	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	305 HR
382	CHEYENNE MTN B COLO	38 46 26 N	104 51 43 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	140 HR
385	FT CARSON COLO	38 41 46 N	104 49 48 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	60 HR
389	FT CARSON COLO	38 41 46 N	104 49 48 W	HASWELL COLO	38 22 59 N	103 08 28 W	54	48 HR
390	FT CARSON COLO	38 41 46 N	104 49 48 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52-54	312 HR
392	FT CARSON COLO	38 41 46 N	104 49 48 W	KARVAL COLO	38 37 55 N	103 34 19 W	52-54	247 HR
394	FT CARSON COLO	38 41 46 N	104 49 48 W	HASWELL COLO	38 22 59 N	103 08 28 W	52-54	320 HR
396	FT CARSON COLO	38 41 46 N	104 49 48 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52-53	108 HR
398	FT CARSON COLO	38 41 46 N	104 49 48 W	ANTHONY KANS	37 14 24 N	97 53 53 W	52-53	137 HR
400	FT CARSON COLO	38 41 46 N	104 49 48 W	FAYETTEVILLE ARK	36 06 25 N	94 06 25 W	52-53	62 HR
404	FT CARSON COLO	38 41 46 N	104 49 48 W	ANTHONY KANS	37 14 24 N	97 53 53 W	53	59 HR
410	PIKES PEAK COLO	38 50 20 N	105 02 31 W	KENDRICK COLO	38 34 08 N	103 59 02 W	52	65 HR
412	PIKES PEAK COLO	38 50 20 N	105 02 31 W	KARVAL COLO	38 37 55 N	103 34 19 W	52	33 HR
414	PIKES PEAK COLO	38 50 20 N	105 02 31 W	HASWELL COLO	38 22 59 N	103 08 28 W	52	65 HR
416	PIKES PEAK COLO	38 50 20 N	105 02 31 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	52	25 HR
418	PIKES PEAK COLO	38 50 20 N	105 02 31 W	ANTHONY KANS	37 14 24 N	97 53 53 W	52	50 HR
420	PIKES PEAK COLO	38 50 20 N	105 02 31 W	FAYETTEVILLE ARK	36 06 25 N	94 06 25 W	52	40 HR
425	PIKES PEAK COLO	38 50 20 N	105 02 31 W	SHERIDAN LAKE COLO	38 21 11 N	102 18 25 W	54	106 HR
429	PIKES PEAK COLO	38 50 20 N	105 02 31 W	GARDEN CITY KANS	37 49 50 N	100 51 22 W	54	117 HR
430	PIKES PEAK COLO	38 50 20 N	105 02 31 W	KENDRICK COLO	38 34 08 N	103 59 02 W	54	53 HR
431	PIKES PEAK COLO	38 50 20 N	105 02 31 W	KARVAL COLO	38 37 55 N	103 34 19 W	54	83 HR
432	PIKES PEAK COLO	38 50 20 N	105 02 31 W	HASWELL COLO	38 22 59 N	103 08 28 W	54	17 HR
435	GEORGIA TECH GA			LOST MTN GA			49	12 DA
436	GEORGIA TECH GA			LOST MTN GA			49	12 DA
437	GEORGIA TECH GA			LOST MTN GA			49	12 DA
438	GEORGIA TECH GA			LOST MTN GA			49	14 DA
439	GEORGIA TECH GA			LOST MTN GA			49	14 DA
440	GEORGIA TECH GA			LOST MTN GA			49	14 DA
441	GEORGIA TECH GA			POTTS MTN GA			48-49	12 DA
442	GEORGIA TECH GA			POTTS MTN GA			48-49	12 DA
444	GEORGIA TECH GA			RICH MTN GA			48	9 DA
445	GEORGIA TECH GA			RICH MTN GA			48	7 DA
446	GEORGIA TECH GA			RICH MTN GA			48	7 DA
447	GEORGIA TECH GA			MT OGLETHORPE GA			47-48	2000 HR
448	GEORGIA TECH GA			MT OGLETHORPE GA			47-48	1 YR
449	GEORGIA TECH GA			MT OGLETHORPE GA			47-48	1500 HR
450	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	MITCHELLVILLE IOWA	41 39 10 N	93 21 00 W	49-50	1172 HR
451	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	WAUKON IOWA	43 18 N	91 27 W	49	157 HR
452	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	50	518 HR
453	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	51	2071 HR
454	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	51	1990 HR
457	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52-53	3100 HR
458	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52-53	1164 HR
459	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52-53	1864 HR
460	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52	191 HR
461	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52-53	1057 HR
462	CEDAR RAPIDS IOWA	41 53 26 N	91 42 40 W	QUINCY ILL	39 58 22 N	91 19 54 W	52-53	2322 HR
466	BRIDGEPORT CONN			MILLIS MASS			50-52	2 YR
467	BRIDGEPORT CONN			PRINCETON N J			50-51	11 MO
475	GEORGIA TECH GA			TOLEN MTN GA			48-49	21 DA
476	GEORGIA TECH GA			TOLEN MTN GA			48-49	21 DA
477	GEORGIA TECH GA			TOLEN MTN GA			48	15 DA
480	LEXINGTON MASS	42 27 48 N	71 16 10 W	SYRACUSE N Y	43 00 41 N	76 07 15 W	57-58	4083 HR
514	NEW YORK N Y			PRINCETON N J			46-47	3000 HR
515	NEW YORK N Y			SOUTHAMPTON PA			46	2000 HR
516	NEW YORK N Y			LAUREL MD			46-47	3325 HR
519	NEW YORK N Y			PRINCETON N J			46	1100 HR
534	NEW YORK N Y			PRINCETON N J			46-47	3000 HR
535	NEW YORK N Y			SOUTHAMPTON PA			46	1950 HR
536	NEW YORK N Y			LAUREL MD			46-47	2500 HR
564	SALISBURY MD			LAUREL MD			55-56	18 MO
570	NORTH ADAMS MASS			MILLIS MASS			57-58	7 MO
572	CORPUS CHRISTI TEXAS			KINGSVILLE TEXAS			57	3 MO
576	COVEY HILL CAN	45 01 06 N	73 47 46 W	RIVERHEAD N Y	40 54 38 N	72 39 50 W	55-56	14 MO
577	FRESNO CALIF			LIVERMORE CALIF			55-56	11 MO
578	FRESNO CALIF			LIVERMORE CALIF			55-56	9 MO
581	SAN FRANCISCO CALIF			LIVERMORE CALIF			57-58	6 MO
583	WILKES-BARRE PA			LAUREL MD			55-56	2705 HR
585	WILKES-BARRE PA			LAUREL MD			55-56	6583 HR
586	ST PETERSBURG FLA			FT LAUDERDALE FLA			55-56	2080 HR
587	NEW BRITAIN CONN			MILLIS MASS			57-58	3500 HR
588	MOORESTOWN N J	39 58 30 N	74 54 36 W	ABERDEEN MD	39 29 22 N	76 08 08 W		279 HR
589	MOORESTOWN N J	39 58 30 N	74 54 36 W	STERLING VA	38 58 30 N	77 29 20 W		192 HR
590	MOORESTOWN N J	39 58 30 N	74 54 36 W	ABERDEEN MD	39 29 22 N	76 08 08 W	55-56	301 HR
591	MOORESTOWN N J	39 58 30 N	74 54 36 W	STERLING VA	38 58 30 N	77 29 20 W	55-56	262 HR
592	BRIDGEPORT CONN			RIVERHEAD N Y			50-51	21 MO
855	BAFFIN ISLAND CAN			W GREENLAND			58	400 HR

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
856	GREENLAND			GREENLAND			58	380 HR
857	W GREENLAND			INNER GREENLAND			58	400 HR
858	GREENLAND			GREENLAND			58	367 HR
859	GREENLAND			GREENLAND			58	400 HR
860	GREENLAND			GREENLAND			58	347 HR
861	GREENLAND			GREENLAND			58	400 HR
862	E GREENLAND			ICELAND			58	200 HR
863	YAKUTAT ALASKA			GUSTAVOIS ALASKA			48	1 MO
864	THULE GREENLAND	76 24 N	68 44 W	CAPE DYER CAN	66 40 N	61 21 W	57	488 HR
900	ROUND HILL MASS	41 32 24 N	70 55 51 W	WINSTON-SALEM N C	36 09 45 N	80 08 00 W	56	10 MO
903	ROUND HILL MASS	41 32 24 N	70 55 51 W	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	57	240 HR
904	ROUND HILL MASS	41 32 24 N	70 55 51 W	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	57	240 HR
907	RED BANK N J	40 20 22 N	74 05 38 W	ROUND HILL MASS	41 32 24 N	70 55 52 W	54-55	60 HR
908	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	ROUND HILL MASS	41 32 24 N	70 55 52 W	53-55	3200 HR
909	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	ROUND HILL MASS	41 32 24 N	70 55 52 W	53-55	2 YR
917	ROUND HILL MASS	41 32 24 N	70 55 52 W	REDBANK N J	40 20 22 N	74 05 38 W	54-55	130 HR
1026	PHILADELPHIA PA			NEW YORK N Y			56	1983 HR
1123	PHARSALIA N Y	42 34 04 N	75 45 37 W	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	56-57	4500 HR
1124A	PHARSALIA N Y	42 34 04 N	75 45 37 W	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	56-57	3000 HR
1124B	PHARSALIA N Y	42 34 04 N	75 45 37 W	CRAWFORDS HILL N J	40 23 31 N	74 11 13 W	56-57	3009 HR
1125	HOMESTEAD FLA	25 21 N	80 27 W	VARADERO CUBA	23 08 N	80 17 W	55	48 DA
1126	HOMESTEAD FLA	25 21 N	80 27 W	GUANABO (SITE B) CUBA	23 N	82 W	55	18 DA
1127	HOMESTEAD FLA	25 21 N	80 27 W	GUANABO (SITE A) CUBA	23 10 N	82 08 W	55	51 DA
1128	FLORIDA CITY FLA	25 19 N	80 24 W	GUANABO (SITE B) CUBA	23 N	82 W	55	12 DA
1129	HOMESTEAD FLA	25 21 N	80 27 W	CABANAS CUBA	22 59 N	82 24 W	55	16 DA
1130	FLORIDA CITY FLA	25 19 N	80 24 W	GUANABO (SITE B) CUBA	23 N	82 W	55	9 DA
1131	FLORIDA CITY FLA	25 19 35 N	80 24 20 W	GUANABO CUBA	23 09 49 N	82 09 22 W	55	1904 HR
1132	FLORIDA CITY FLA	25 19 30 N	80 24 16 W	GUANABO CUBA	23 09 49 N	82 09 19 W	57-58	7425 HR
1303	WALKERS LOOKOUT AUSTL	40 03 29 S	148 04 53 E	MT OBERON AUSTL	39 02 28 S	146 20 46 E	60	997 HR
1304	WALKERS LOOKOUT AUSTL	40 03 29 S	148 04 53 E	MT OBERON AUSTL	39 02 28 S	146 20 46 E	60	585 HR
1313	HAMILTON NEW ZEALAND	37 47 26 S	175 14 02 E	PAEROA NEW ZEALAND	37 23 01 S	175 40 57 E	60	1344 HR
1355	MONTEVIDEO UR	34 53 27 S	56 15 27 W	BUENOS AIRES ARG	34 46 58 S	58 10 12 W	56	3452 HR
1376	PORT ETIENNE MAUR	20 54 N	17 01 W	NOUAKCHOTT MAUR	18 09 N	15 58 W	58	317 HR
1377	PORT ETIENNE MAUR	20 54 N	17 01 W	NOUAKCHOTT MAUR	18 09 N	15 58 W	58-59	505 HR
1388	YAOUNDE CAMEROON			EDEA CAMEROON				
1396	M SILA ALGERIA	36 N	5 E	FME DUFOURG ALGERIA			58	1 MO
1397	YAOUNDE CAMEROON			EDEA CAMEROON				
1398	YAOUNDE CAMEROON			DOUALA CAMEROON				
1399	YAOUNDE CAMEROON			DOUALA CAMEROON				
1400	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	FORESTER FALLS CAN	45 40 15 N	76 48 41 W	54	48 HR
1401	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	FORESTER FALLS CAN	45 40 15 N	76 48 41 W	54	48 HR
1402	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	FORESTER FALLS CAN	45 40 15 N	76 48 41 W	54	48 HR
1403	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	FORESTER FALLS CAN	45 40 15 N	76 48 41 W	54	48 HR
1404	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	PETAWAWA CAN	45 54 55 N	77 33 14 W	54	48 HR
1405	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	PETAWAWA CAN	45 54 55 N	77 33 14 W	54	48 HR
1406	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	PETAWAWA CAN	45 54 55 N	77 33 14 W	54	48 HR
1407	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	PETAWAWA CAN	45 54 55 N	77 33 14 W	54	48 HR
1408	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	MATTAWA CAN	46 17 56 N	78 41 31 W	54	48 HR
1409	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	MATTAWA CAN	46 17 56 N	78 41 31 W	54	48 HR
1410	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	MATTAWA CAN	46 17 56 N	78 41 31 W	54	48 HR
1411	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	MATTAWA CAN	46 17 56 N	78 41 31 W	54	48 HR
1412	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	TILDEN LAKE CAN	46 35 38 N	79 38 30 W	54	48 HR
1413	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	TILDEN LAKE CAN	46 35 38 N	79 38 30 W	54	48 HR
1414	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	TILDEN LAKE CAN	46 35 38 N	79 38 30 W	54	48 HR
1416	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	SILVER LAKE CAN	46 45 42 N	80 18 00 W	54	48 HR
1417	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	SILVER LAKE CAN	46 45 42 N	80 18 00 W	54	48 HR
1437	NORTH BAY CAN	46 25 43 N	79 28 18 W	SHIRLEY BAY CAN	45 21 14 N	75 52 48 W	56	1 MO
1438	OTTAWA CAN	45 26 09 N	75 36 42 W	TORONTO CAN	43 42 44 N	79 14 04 W	55-56	11 MO
1439	OTTAWA CAN	45 26 09 N	75 36 42 W	TORONTO CAN	43 42 44 N	79 14 04 W	55	5 MO
1440	ST ANTHONY CAN	51 20 55 N	55 37 15 W	GANDER CAN	48 57 01 N	54 34 50 W	53-54	6241 HR
1441	ST ANTHONY CAN	51 20 55 N	55 37 15 W	GANDER CAN	48 57 01 N	54 34 50 W	53-54	5954 HR
1442	ST ANTHONY CAN	51 20 55 N	55 37 15 W	HARBOUR MAIN CAN	47 26 13 N	53 10 30 W	53-54	1298 HR
1536	FELDBERG/SCHWARZWALD*	47 52 25 N	8 0 23 E	SAVONA ITALY	44 14 58 N	8 16 48 E	64	26 DA
1537	SAVONA ITALY	44 14 58 N	8 16 48 E	COLTANO ITALY	43 39 33 N	10 24 52 E	64	22 DA
1550	SIDI SLIMANE AFRICA	34 15 22 N	6 21 35 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	160 HR
1551	SIDI SLIMANE AFRICA	34 15 22 N	6 21 35 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	196 HR
1552	SIDI SLIMANE AFRICA	34 15 22 N	6 21 35 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	145 HR
1553	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	330 HR
1554	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	337 HR
1555	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	378 HR
1556	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	49 HR
1557	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	MORON SPAIN	37 09 07 N	5 35 00 W	57	49 HR
1558	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	UTRERA SPAIN	37 10 25 N	5 52 00 W	57	24 HR
1559	SIDI SLIMANE AFRICA	34 14 38 N	6 03 26 W	UTRERA SPAIN	37 10 25 N	5 52 00 W	57	4 DA
1560	SA ROCA MENORCA			CAMPO SA SPINA**			54-55	1 YR
1563	SARDINIA			MENORCA				
1564	SIDI SLIMANE AFRICA			SAN PABLO SPAIN			58-59	7 MO
1567	ITALY	41 N	17 E	GREECE	38 N	20 E	58	1023 HR
1568	ITALY	41 N	17 E	GREECE	38 N	20 E	58	1035 HR
1574	BINIANCOLLA MENORCA			MARRUBIU SARDINIA			58	1 YR

*W GER **SARDINIA

TABLE 1. CONTINUED

PATH NO.	TRANSMITTER LOCATION	TRANSMITTER LATITUDE	TRANSMITTER LONGITUDE	RECEIVER LOCATION	RECEIVER LATITUDE	RECEIVER LONGITUDE	YEAR	LENGTH OF RECORDING
1582	CAMP DARBY ITALY			SAN GIULIANA ITALY			61	1 MO
1583	MT BURRONE ITALY			SAN GIULIANA ITALY			61	1 MO
1584	MT LIMBARA SARDINIA			PIANO DEI CORSI ITALY			61	505 HR
1585	MT LIMBARA SARDINIA			CORNO ALLESCALE ITALY			61	13 DA
1586	MT LIMBARA SARDINIA			STA AGUEDA MENORCA			61	27 DA
1587	MT LIMBARA SARDINIA			PUIG MAJOR MALLORCA			61	36 DA
1588	HUMOSA-MADRID SPAIN			PUIG MAJOR MALLORCA			61	36 DA
1589	CONTR NARDELLO ITALY			WHEELUS AFRICA			61	30 DA
1590	CONTR NARDELLO ITALY			WHEELUS AFRICA			61	31 DA
1592	TURKEY	36 40 00 N	35 22 01 E	TURKEY	37 53 30 N	39 57 55 E		2 MO
1593	SKLOPA GREECE			DARDISTA GREECE			63	5 MO
1594	PARNIS GREECE			CHIOS ISLAND GREECE			64-65	100 DA
1595	SIVRI GREECE			PILION GREECE			62-63	8 MO
1596	MARTINA FRANCA ITALY			KERKIRA ISLAND GREECE			63	1 MO
1597	MONTESARDO ITALY			MICHALACADES GREECE			63	10 MO
1600	WETHERSFIELD N Y			ITHACA N Y			54	613 HR
1601	WETHERSFIELD N Y			ITHACA N Y			54	407 HR
1602	BUFFALO N Y			ITHACA N Y			54	650 HR
1603	BUFFALO N Y			ITHACA N Y			54	316 HR
1604	FULTON N Y			ITHACA N Y			54-55	1340 HR
1605	FULTON N Y			ITHACA N Y			54-55	2516 HR
1606	ROCHESTER N Y	43 09 05 N	77 24 28 W	ITHACA N Y	42 29 24 N	76 27 11 W	59-61	2 YR
1609	ROCHESTER N Y	43 09 05 N	77 24 28 W	ITHACA N Y	42 29 24 N	76 27 11 W	59-61	2 YR
1610	ROCHESTER N Y	43 09 05 N	77 24 28 W	ITHACA N Y	42 29 24 N	76 27 11 W	59-61	2 YR
1700	WILLIAMS AFB ARIZ	33 18 22 N	111 40 31 W	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	58-59	10 MO
1701	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	WILLIAMS AFB ARIZ	33 18 22 N	111 40 31 W	58-59	10 MO
1702	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	ELOY ARIZ	32 44 10 N	111 32 40 W	59	306 HR
1703	ELOY ARIZ	32 44 10 N	111 32 40 W	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	59	626 HR
1704A	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1704B	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1704C	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1705A	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1705B	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1705C	BENSON ARIZ	31 57 33 N	110 25 50 W	ENCINO NEW MEX	34 37 21 N	105 23 41 W	58-59	7 MO
1708	BENSON ARIZ	31 57 33 N	110 25 50 W	SANTA ROSA NEW MEX	34 57 14 N	104 35 40 W	59	3 MO
1709	BENSON ARIZ	31 57 33 N	110 25 50 W	SANTA ROSA NEW MEX	34 57 14 N	104 35 40 W	59	5 MO
1710	BENSON ARIZ	31 57 33 N	110 25 50 W	SANTA ROSA NEW MEX	34 57 14 N	104 35 40 W	59	3 MO
1711	BENSON ARIZ	31 57 33 N	110 25 50 W	SANTA ROSA NEW MEX	34 57 14 N	104 35 40 W	59	3 MO
1712	ELOY ARIZ	32 44 10 N	111 32 40 W	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	59	262 HR
1713	BLACKTAIL CANYON ARIZ	31 33 42 N	110 25 20 W	ELOY ARIZ	32 44 10 N	111 32 40 W	59	248 HR
1715	FT HUACHUCA ARIZ	31 33 26 N	110 22 28 W	RED ROCK ARIZ	32 33 22 N	111 22 49 W	57	768 HR
1716	BENSON ARIZ	31 57 33 N	110 25 50 W	TELEGRAPH PASS ARIZ	32 40 23 N	114 18 20 W	57	500 HR
1717	BENSON ARIZ	31 57 33 N	110 25 50 W	BELEN NEW MEX	34 33 13 N	106 38 38 W	57	348 HR
1800	WAGNER SITE FLA	30 40 26 N	86 20 21 W	EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W	56-57	769 HR
1801	WAGNER SITE FLA	30 40 26 N	86 20 21 W	EGLIN MAIN BASE FLA	30 28 33 N	86 30 45 W	56-57	764 HR
1804	MILLSTONE HILL MASS	42 36 48 N	71 29 38 W	SAURATOWN MT N C	36 22 52 N	80 21 14 W	58	7 DA
1805	VERONA N Y	43 08 32 N	75 36 32 W	LIBERTY DAM MO	39 23 03 N	76 52 46 W	56-57	293 HR
1903	SANTA BARBARA CALIF	34 24 N	119 50 30 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58-59	
1904	SANTA BARBARA CALIF	34 24 N	119 50 30 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58-59	6 MO
1905	SANTA BARBARA CALIF	34 24 N	119 50 30 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58-59	
1906	SANTA BARBARA CALIF	34 24 N	119 50 30 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58	
1907	SANTA BARBARA CALIF	34 24 N	119 50 30 W	POINT LOMA CALIF	32 41 30 N	117 15 W	59	
1908	POINT MUGU CALIF	34 05 N	119 03 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58-59	
1909	POINT MUGU CALIF	34 05 N	119 03 W	POINT LOMA CALIF	32 41 30 N	117 15 W	58-59	
1978	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	65-67	27 MO
1979	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	MURSLEY ENG	51 57 12 N	0 48 05 W	65-67	27 MO
1980	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	MANNINGTREE ENG	51 55 25 N	1 05 20 E	65-67	27 MO
1981	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	BAWDSEY ENG	51 59 45 N	1 25 00 E	65-67	27 MO
1982	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	PETERBOROUGH ENG	52 30 26 N	0 20 30 W	65-67	27 MO
1983	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	TACOLNESTON ENG	52 31 03 N	1 08 25 E	65-67	27 MO
1984	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	MURSLEY ENG	51 57 12 N	0 48 05 W	55-56	1 YR
1985	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	HATFIELD ENG	51 44 55 N	0 14 20 W	66-67	1 YR
1986	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	BROOKMANS PARK ENG	51 43 46 N	0 10 38 W	66-67	1 YR
1987	SCHEVENINGEN NETH	52 06 N	4 16 E	HAPPISBURGH ENG	52 49 42 N	1 31 38 E	63-64	6255 HR
1988	SCHEVENINGEN NETH	52 06 N	4 16 E	TACOLNESTON ENG	52 31 03 N	1 08 25 E	63-64	6254 HR
1989	SCHEVENINGEN NETH	52 06 N	4 16 E	FELTWELL ENG	52 28 50 N	0 31 15 E	63-64	5849 HR
1990	SCHEVENINGEN NETH	52 06 N	4 16 E	MORBORNE HILL ENG	52 30 26 N	0 20 30 W	63-64	5630 HR
1991	SCHEVENINGEN NETH	52 06 N	4 16 E	SKEFFINGTON ENG	52 37 21 N	0 54 28 W	63-64	5459 HR
1992	STRUMBLEHEAD WALES			ABERDARON WALES			44	7 MO
1993	STRUMBLEHEAD WALES			ABERDARON WALES			44	7 MO
1994	STRUMBLEHEAD WALES			ABERDARON WALES			44	7 MO
1995	STRUMBLEHEAD WALES			ABERDARON WALES			44	7 MO
1996	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	BANBURY ENG	52 02 05 N	1 18 50 W	64-65	16 MO
1997	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	SHRIVENHAM ENG	51 35 35 N	1 39 20 W	65	11 MO
1998	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	STOW ON THE WOLD ENG	51 55 42 N	1 43 30 W	65	11 MO
1999	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	ALDEBURG ENG	52 08 56 N	1 36 08 E	64-65	1 YR
2000	ALEXANDRA PALACE ENG	51 35 30 N	0 07 41 W	LEEDS ENG	53 43 52 N	1 36 46 W	46-48	2 YR
2001	ALEXANDRA PALACE ENG	51 35 30 N	0 07 41 W	LARGO WARD SCOT	56 15 27 N	2 51 28 W	49-50	6 MO
2002	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	WREXHAM WALES	53 02 39 N	2 58 24 W	49-50	10 MO
2003	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	REDRUTH ENG	50 12 56 N	5 14 42 W	49-50	10 MO

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
2004	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	START POINT ENG	50 13 36 N	3 39 38 W	47	4 MO
2005	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	CHRISTCHURCH ENG	50 45 18 N	1 48 00 W	49-50	10 MO
2006	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	BARTLEY ENG	50 55 21 N	1 33 00 W	47	4 MO
2007	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	BAGLEY CROFT ENG	51 43 30 N	1 15 35 W	47	4 MO
2008	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	49-50	7209 HR
2009	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	CAMBRIDGE ENG	52 10 50 N	0 09 54 E	49-50	6747 HR
2010	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	GREAT BROMLEY ENG	51 53 45 N	1 03 25 E	49-50	7477 HR
2011	WROTHAM ENG	51 19 11 N	0 17 20 E	DORKET HEAD ENG	53 01 02 N	1 06 48 W	51-52	4404 HR
2012	WROTHAM ENG	51 19 11 N	0 17 20 E	PANNAL ASH ENG	53 59 18 N	1 36 59 W	51-52	3708 HR
2013	WROTHAM ENG	51 19 11 N	0 17 20 E	LARGO WARD SCOT	56 15 27 N	2 51 28 W	51-52	3974 HR
2014	WROTHAM ENG	51 19 11 N	0 17 20 E	RED MOSS SCOT	57 15 13 N	2 07 35 W	51-52	3744 HR
2015	WROTHAM ENG	51 19 11 N	0 17 20 E	PORTREATH ENG	50 15 48 N	5 16 33 W	51	9 MO
2016	WROTHAM ENG	51 19 11 N	0 17 20 E	REDRUTH ENG	50 12 56 N	5 14 42 W	51-52	867 HR
2017	WROTHAM ENG	51 19 11 N	0 17 20 E	HEDDON LAWS ENG	55 01 09 N	1 46 48 W	51-52	3976 HR
2018	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	LARGO WARD SCOT	56 15 27 N	2 51 28 W	51-52	3304 HR
2019	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	REDMOSS SCOT	57 15 13 N	2 07 35 W	51-52	14 MO
2020	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	PORTREATH ENG	50 15 48 N	5 16 33 W	51	9 MO
2021	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	REDRUTH ENG	50 12 56 N	5 14 42 W	51-52	822 HR
2022	WENVOE WALES	51 27 32 N	3 16 48 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	54	13 DA
2023	MELDRUM SCOT	57 23 10 N	2 23 56 W	SCOUSBURGH*	59 57 10 N	1 18 20 W	56	1 MO
2024	MELDRUM SCOT	57 23 10 N	2 23 56 W	NETHERBUTTON**	58 55 24 N	2 56 10 W	57	1 MO
2025	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	MURSLEY ENG	51 57 12 N	0 48 05 W	54-56	5243 HR
2026	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	54-56	7487 HR
2027	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	BEDDINGHAM ENG	50 50 02 N	0 04 15 E	54-56	7212 HR
2028	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	MURSLEY ENG	51 57 12 N	0 48 05 W	55-56	3143 HR
2029	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	55-56	4652 HR
2030	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	BEDDINGHAM ENG	50 50 02 N	0 04 15 E	55-56	2481 HR
2031	HOLME MOSS ENG	53 31 58 N	1 51 22 W	MURSLEY ENG	51 57 12 N	0 48 05 W	55-56	4146 HR
2032	HOLME MOSS ENG	53 31 58 N	1 51 22 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	55-56	4568 HR
2033	HOLME MOSS ENG	53 31 58 N	1 51 22 W	BEDDINGHAM ENG	50 50 02 N	0 04 15 E	55-56	3765 HR
2034	SCHEVENINGEN NETH	52 06 N	4 16 E	HAPPISBURGH ENG	52 49 42 N	1 31 38 E	54-55	5541 HR
2035	SCHEVENINGEN NETH	52 06 N	4 16 E	FLAMBOROUGH HEAD ENG	54 07 39 N	0 05 40 W	54-55	5589 HR
2036	SCHEVENINGEN NETH	52 06 N	4 16 E	NEWTON-BY-THE-SEA ENG	55 31 06 N	1 37 05 W	54-55	5541 HR
2037	SCHEVENINGEN NETH	52 06 N	4 16 E	BRIDGE OF DON SCOT	57 10 40 N	2 05 00 W	54-55	5936 HR
2038	SCHEVENINGEN NETH	52 06 N	4 16 E	LERWICK SHETLAND IS	60 08 11 N	1 10 46 W	54-55	5679 HR
2039	LILLE FRANCE	50 38 30 N	3 03 30 E	KINGSWOOD ENG	51 17 20 N	0 12 50 W	52-53	1129 HR
2040	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	OTTRINGHAM ENG	53 41 50 N	0 03 52 W	57-58	4253 HR
2041	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	DORKET HEAD ENG	53 01 02 N	1 06 48 W	57-58	3798 HR
2042	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	MURSLEY ENG	51 57 12 N	0 48 05 W	57-58	4210 HR
2043	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	57-58	3197 HR
2044	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	BEDDINGHAM ENG	50 50 02 N	0 04 15 E	57-58	4157 HR
2045	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	OTTRINGHAM ENG	53 41 50 N	0 03 52 W	57-58	6169 HR
2046	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	DORKET HEAD ENG	53 01 02 N	1 06 48 W	57-58	5884 HR
2047	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	MURSLEY ENG	51 57 12 N	0 48 05 W	57-58	5367 HR
2048	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	57	3545 HR
2049	PONTOP PIKE ENG	54 52 08 N	1 46 11 W	BEDDINGHAM ENG	50 50 02 N	0 04 15 E	57-58	6313 HR
2050	SCHEVENINGEN NETH	52 06 N	4 16 E	HAPPISBURGH ENG	52 49 42 N	1 31 38 E	57-58	6380 HR
2051	SCHEVENINGEN NETH	52 06 N	4 16 E	FLAMBOROUGH HEAD ENG	54 07 39 N	0 05 40 W	57-58	6819 HR
2052	SCHEVENINGEN NETH	52 06 N	4 16 E	NEWTON-BY-THE-SEA ENG	55 31 06 N	1 37 05 W	57-58	6010 HR
2053	SCHEVENINGEN NETH	52 06 N	4 16 E	BRIDGE OF DON SCOT	57 10 40 N	2 05 00 W	57-58	6752 HR
2054	SCHEVENINGEN NETH	52 06 N	4 16 E	LERWICK SHETLAND IS	60 08 11 N	1 10 46 W	57-58	6845 HR
2057	DAVENTRY ENG	52 14 32 N	1 09 24 W	TEDDINGTON ENG	51 25 24 N	0 19 54 W	48-49	6000 HR
2058	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	SLOUGH ENG	51 29 40 N	0 33 50 W	54-55	14 MO
2059	ALEXANDRA PALACE ENG	51 35 30 N	0 07 40 W	MALVERN ENG	52 05 57 N	2 18 40 W	46-48	25 DA
2060	ALEXANDRA PALACE ENG	51 35 30 N	0 07 40 W	CASTLETON WALES	51 33 12 N	3 04 14 W	47-50	1800 HR
2061	MOORSIDE EDGE ENG	53 38 01 N	1 53 35 W	TEDDINGTON ENG	51 25 24 N	0 19 54 W	47-48	17 MO
2063	START POINT ENG	50 13 36 N	3 39 38 W	WEMBLEY ENG	51 33 48 N	0 17 45 W	58-59	1436 HR
2064	START POINT ENG	50 13 36 N	3 39 38 W	WEMBLEY ENG	51 33 48 N	0 17 45 W	56-59	5114 HR
2067	START POINT ENG	50 13 36 N	3 39 38 W	WITNESHAM ENG	52 07 36 N	1 11 04 E	57-58	950 HR
2068	START POINT ENG	50 13 36 N	3 39 38 W	SLOUGH ENG	51 29 40 N	0 33 50 W	57-58	7 MO
2069	START POINT ENG	50 13 36 N	3 39 38 W	BLANDFORD ENG	50 53 09 N	2 09 12 W	58	3 MO
2071	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	SLOUGH ENG	51 29 40 N	0 33 50 W	52-53	4140 HR
2072	WENVOE WALES	51 27 32 N	3 16 48 W	SLOUGH ENG	51 29 40 N	0 33 50 W	52-53	824 HR
2073	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	REDRUTH ENG	50 12 56 N	5 14 42 W	51	1673 HR
2075	WINTER HILL ENG	53 37 44 N	2 30 55 W	DOUGLAS ISLE OF MAN	54 12 50 N	4 28 00 W	56	5 MO
2079	DOLLIS HILL ENG	51 33 40 N	0 14 20 W	GREEN HAILEY ENG	51 43 20 N	0 48 00 W	51	1 MO
2083	HOWTH HEAD IRE	53 22 21 N	6 04 04 W	PORTSDOWN ENG	50 51 30 N	1 07 16 W	58-59	277 HR
2084	NORWAY	60 N	6 E	SHETLAND IS	60 N	2 W	58	986 HR
2085	SCHEVENINGEN NETH	52 06 N	4 16 E	HAPPISBURGH ENG	52 49 42 N	1 31 38 E	61-62	1119 HR
2086	SCHEVENINGEN NETH	52 06 N	4 16 E	FLAMBOROUGH HEAD ENG	54 07 39 N	0 05 40 W	61-62	1123 HR
2087	SCHEVENINGEN NETH	52 06 N	4 16 E	NEWTON-BY-THE-SEA ENG	55 31 06 N	1 37 05 W	61-62	1059 HR
2088	SCHEVENINGEN NETH	52 06 N	4 16 E	BRIDGE OF DON SCOT	57 10 40 N	2 05 00 W	61-62	1124 HR
2089	SCHEVENINGEN NETH	52 06 N	4 16 E	LERWICK SHETLAND IS	60 08 11 N	1 10 46 W	61-62	1143 HR
2090	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2588 HR
2091	WROTHAM ENG	51 19 11 N	0 17 20 E	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2598 HR
2092	PETERBOROUGH ENG	52 30 26 N	0 20 30 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2524 HR
2093	PETERBOROUGH ENG	52 30 26 N	0 20 30 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	1859 HR
2094	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2617 HR
2095	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2578 HR
2096	WENVOE WALES	51 27 32 N	3 16 48 W	CAVERSHAM ENG	51 28 52 N	0 57 23 W	61	2594 HR

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TABLE 1. CONTINUED

PATH	TRANSMITTER						RECEIVER						YEAR	LENGTH OF
NO.	LOCATION	LATITUDE			LONGITUDE		LOCATION	LATITUDE			LONGITUDE			RECORDING
2097	WENVOE WALES	51	27	32 N	3	16 48 W	CAVERSHAM ENG	51	28	52 N	0	57 23 W	61	2563 HR
2098	BACKWELL ENG	51	24	18 N	2	44 W	SLOUGH ENG	51	29	40 N	0	33 50 W	56-58	22000 HR
2099	DUSSELDORF W GER	51	20	N	7	02 E	ALDEBURGH ENG	52	08	50 N	1	36 15 E	61-62	1500 HR
2100	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	DISHFORTH ENG	54	08	43 N	1	25 25 W	59-60	6695 HR
2101	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	MOORSIDE EDGE ENG	53	38	01 N	1	53 35 W	59-60	8815 HR
2102	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	DORKET HEAD ENG	53	01	02 N	1	06 48 W	59-60	8390 HR
2103	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	MURSLEY ENG	51	57	12 N	0	48 05 W	59-60	8497 HR
2104	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	KINGSWOOD ENG	51	17	20 N	0	12 50 W	59-60	8728 HR
2105	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	BEDDINGHAM ENG	50	50	02 N	0	04 15 E	59-60	8800 HR
2106	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	ABERDEEN SCOT	57	12	50 N	2	03 50 W	60	3200 HR
2107	MENDLESHAM ENG	52	14	03 N	1	06 32 E	PETERBOROUGH ENG	52	34	17 N	0	13 21 W	60-61	1 YR
2108	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	SLOUGH ENG	51	29	40 N	0	33 50 W	59-60	17 MO
2109	SCHEVENINGEN NETH	52	06	N	4	16 E	HAPPISBURGH ENG	52	49	42 N	1	31 38 E	59-61	9340 HR
2110	SCHEVENINGEN NETH	52	06	N	4	16 E	FLAMBOROUGH HEAD ENG	54	07	39 N	0	05 40 W	59-61	9603 HR
2111	SCHEVENINGEN NETH	52	06	N	4	16 E	NEWTON-BY-THE-SEA ENG	55	31	06 N	1	37 05 W	59-61	8862 HR
2112	SCHEVENINGEN NETH	52	06	N	4	16 E	BRIDGE OF DON SCOT	57	10	40 N	2	05 00 W	59-61	9783 HR
2113	SCHEVENINGEN NETH	52	06	N	4	16 E	LERWICK SHETLAND IS	60	08	11 N	1	10 46 W	59-61	9696 HR
2114	HOLME MOSS ENG	53	31	58 N	1	51 22 W	BANBURY ENG	52	02	05 N	1	18 50 W	58-59	6 MO
2115	SCHEVENINGEN NETH	52	06	N	4	16 E	PONTOP PIKE ENG	54	52	08 N	1	46 11 W	60-61	13 MO
2116	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	53	640 HR
2117	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	54-56	6373 HR
2118	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	54-55	3274 HR
2119	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	55-56	3117 HR
2120	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	SLOUGH ENG	51	29	40 N	0	33 50 W	55-56	4014 HR
2121	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	53	511 HR
2122	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	55-56	2868 HR
2123	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	DATCHET ENG	51	28	48 N	0	34 18 W	52-53	18 MO
2124	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	GREEN HAILEY ENG	51	43	10 N	0	47 06 W	55	1534 HR
2125	EMLEY MOOR ENG	53	36	45 N	1	39 45 W	BANBURY ENG	52	02	05 N	1	18 50 W	60	2100 HR
2126	ST HILARY DOWN WALES	51	27	25 N	3	24 15 W	BANBURY ENG	52	02	05 N	1	18 50 W	60	2100 HR
2127	ST HILARY DOWN WALES	51	27	25 N	3	24 15 W	CORK IRE	51	55	40 N	8	29 50 W	59-60	4200 HR
2128	HOUGHAM ENG	51	06	40 N	1	14 58 E	BANBURY ENG	52	02	05 N	1	18 50 W	60	2100 HR
2129	HOUGHAM ENG	51	06	40 N	1	14 58 E	JAYWICK ENG	51	46	50 N	1	07 20 E	60	2100 HR
2130	ROWRIDGE ENG	50	40	34 N	1	22 02 W	BANBURY ENG						58-59	11 MO
2131	ROWRIDGE ENG	50	40	34 N	1	22 02 W	STOKE FLEMING ENG	50	19	20 N	3	35 53 W	58-59	4000 HR
2132	LILLE FRANCE	50	38	30 N	3	03 30 E	STOKE FLEMING ENG	50	19	20 N	3	35 53 W	58-59	2200 HR
2133	LILLE FRANCE	50	38	30 N	3	03 30 E	ALDEBURGH ENG	52	08	50 N	1	36 15 E	58	8 MO
2134	THROCKING ENG	51	57	03 N	0	03 34 W	STANMORE ENG	51	37	51 N	0	19 15 W	61-62	9926 HR
2135	FISHGUARD WALES	52		N	5	W	PORTPATRICK SCOT	54	50	38 N	5	07 23 W	44-45	11 MO
2136	DOUGLAS ISLE OF MAN	54	08	25 N	4	29 32 W	HOLYHEAD WALES	53	18	33 N	4	41 13 W	57-58	3000 HR
2137	HOLME MOSS ENG	53	31	58 N	1	51 22 W	ARNCLIFFE WOOD ENG	54	23	20 N	1	17 30 W	59-60	2100 HR
2138	HOLME MOSS ENG	53	31	58 N	1	51 22 W	SLOUGH ENG	51	29	40 N	0	33 50 W	52	4020 HR
2139	CUXHAVEN W GER	53	50	N	8	39 E	SLOUGH ENG	51	29	40 N	0	33 50 W	61	23 HR
2140	BLAEN PLWYF WALES	52	21	36 N	4	06 00 W	HOLYHEAD WALES	53	18	33 N	4	41 13 W	57-58	3000 HR
2141	BLAEN PLWYF WALES	52	21	36 N	4	06 00 W	DUBLIN IRE	53	17	34 N	6	11 49 W	59-60	4200 HR
2142	NETHERBUTTON*	58	55	24 N	2	56 10 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	60-61	3300 HR
2143	LES PLATONS+	49	14	49 N	2	06 04 W	STOKE FLEMING ENG	50	19	20 N	3	35 53 W	59-60	2500 HR
2144	LES PLATONS+	49	14	49 N	2	06 04 W	LESWIDDEN ENG	50	07	00 N	5	38 44 W	59-60	5600 HR
2145	NO HESSARY TOR ENG	50	32	59 N	4	00 26 W	BANBURY ENG	52	02	05 N	1	18 50 W	60-61	3500 HR
2146	NO HESSARY TOR ENG	50	32	59 N	4	00 26 W	CORK IRE	51	55	40 N	8	29 50 W	59-60	4200 HR
2147	CAEN FRANCE	48	58	N	0	37 W	TOLSFORD HILL ENG	51	06	05 N	1	04 40 E	59-60	3500 HR
2148	BERGEN NORWAY	60	24	42 N	5	21 50 E	SCOUSBURGH**	59	57	10 N	1	18 20 W	56-58	16000 HR
2150	DIVIS IRE	54	37	00 N	6	00 30 W	LESWIDDEN ENG	50	07	00 N	5	38 44 W	59-60	5400 HR
2151	WINTER HILL ENG	53	37	44 N	2	30 55 W	DOUGLAS ISLE OF MAN	54	12	50 N	4	28 00 W	56-57	4200 HR
2152	WINTER HILL ENG	53	37	44 N	2	30 55 W	BANBURY ENG	52	02	05 N	1	18 50 W	56-57	2100 HR
2153	WINTER HILL ENG	53	37	44 N	2	30 55 W	BALLYWALTER IRE	54	32	25 N	5	29 00 W	58-59	9 MO
2154	WINTER HILL ENG	53	37	44 N	2	30 55 W	DUNDRUM IRE	54	15	31 N	5	50 26 W	58-59	4200 HR
2155	WINTER HILL ENG	53	37	44 N	2	30 55 W	NEWTOWNARDS IRE	54	35	19 N	5	41 W	58	10 MO
2156	WINTER HILL ENG	53	37	44 N	2	30 55 W	BALDOCK ENG	52	00	12 N	0	07 42 W	57-58	4200 HR
2157	WINTER HILL ENG	53	37	44 N	2	30 55 W	DUBLIN IRE	53	17	34 N	6	11 49 W	59-60	4200 HR
2158	CHILLERTON DOWN ENG	50	38	55 N	1	19 40 W	STOKE FLEMING ENG	50	19	20 N	3	35 53 W	59-60	6000 HR
2159	CHILLERTON DOWN ENG	50	38	55 N	1	19 40 W	LESWIDDEN ENG	50	07	00 N	5	38 44 W	60	2800 HR
2160	PARIS FRANCE	48	58	45 N	2	11 30 E	TOLSFORD HILL ENG	51	06	05 N	1	04 40 E	59-60	3000 HR
2161	CRYSTAL PALACE ENG	51	25	20 N	0	04 17 W	OXFORD ENG	51	45	20 N	1	15 25 W	57-58	800 HR
2162	CRYSTAL PALACE ENG	51	25	20 N	0	04 17 W	BANBURY ENG	52	02	05 N	1	18 50 W	58	270 HR
2163	CRYSTAL PALACE ENG	51	25	20 N	0	04 17 W	STOKE FLEMING ENG	50	19	20 N	3	35 53 W	58	7 MO
2164	CRYSTAL PALACE ENG	51	25	20 N	0	04 17 W	DARLINGTON ENG	54	28	52 N	1	37 11 W	58	6 MO
2165	BALLYGOMARTIN IRE	54	30	N	6	W	STRANRAER (SITE A)++	54	50	N	5	W		14 DA
2166	BALLYGOMARTIN IRE	54	30	N	6	W	STRANRAER (SITE B)++	54	50	45 N	4	55 W	51	15 DA
2167	WIDEFORD HILL*	58	59	20 N	3	01 20 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	59	3000 HR
2168	SANDAY ORKNEY IS	59	13	16 N	2	39 06 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	57-58	8400 HR
2169	SANDAY ORKNEY IS	59	13	16 N	2	39 06 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	57-58	8400 HR
2170	SANDAY ORKNEY IS	59	13	16 N	2	39 06 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	57-58	7700 HR
2171	SANDAY ORKNEY IS	59	13	16 N	2	39 06 W	SCOUSBURGH**	59	57	10 N	1	18 20 W	57-60	10500 HR
2172	CROYDON ENG	51	24	35 N	0	05 15 W	BANBURY ENG	52	02	05 N	1	18 50 W	56-57	1800 HR
2173	SUTTON COLDFIELD ENG	52	35	59 N	1	49 57 W	CASTLETON WALES	51	33	12 N	3	04 14 W	49-51	6800 HR
2174	WROTHAM ENG	51	19	11 N	0	17 20 E	CASTLETON WALES	51	33	12 N	3	04 14 W	50	4 MO
2175	LOPIK NETH	52	01	N	5	03 E	WICKHAMBROOK ENG	52	11	25 N	0	33 01 E	61-62	6 MO
2177	FISHGUARD WALES	52	00	N	5	00 W	PORTPATRICK SCOT	54	50	N	5	10 W	44-45	11 MO
2178	LILLE FRANCE	50	38	30 N	3	03 30 E	BANBURY ENG	52	02	05 N	1	18 50 W	55-58	6000 HR

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TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
2179	WROTHAM ENG	51 19 11 N	0 17 20 E	DOUGLAS ISLE OF MAN	54 12 50 N	4 28 00 W	51-53	5500 HR
2180	ALEXANDRA PALACE ENG	51 35 30 N	0 07 40 W	DOUGLAS ISLE OF MAN	54 12 50 N	4 28 00 W	51	3600 HR
2181	WROTHAM ENG	51 19 11 N	0 17 20 E	DOUGLAS ISLE OF MAN	54 10 35 N	4 25 15 W	52-53	2200 HR
2182	COVERACK ENG	50 01 10 N	5 05 54 W	PORTSMOUTH ENG	50 48 N	1 05 W	57	29 DA
2183	GREAT BROMLEY ENG	51 53 45 N	1 03 25 E	SUTTON BANK ENG	54 13 30 N	1 12 43 W	56	1 MO
2184	GREAT BROMLEY ENG	51 53 45 N	1 03 25 E	GRANTHAM ENG	52 54 00 N	0 35 07 W	56	2 MO
2185	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	CASTLETON WALES	51 33 12 N	3 04 14 W	58	5 MO
2186	LOPIK NETH	52 01 N	5 03 E	ALDEBURGH ENG	52 08 50 N	1 36 15 E	60-62	8000 HR
2187	WROTHAM ENG	51 19 11 N	0 17 20 E	CASTLETON WALES	51 33 12 N	3 04 14 W	50	1200 HR
2188	GREAT BROMLEY ENG	51 53 45 N	1 03 25 E	CATTERICK ENG	54 20 39 N	1 41 18 W	57	6 MO
2189	DORTMUND W GER	51 30 55 N	7 27 24 E	WICKHAMBROOK ENG	52 11 25 N	0 33 01 E	61	1900 HR
2190	DORTMUND W GER	51 30 55 N	7 27 24 E	SLOUGH ENG	51 29 40 N	0 33 50 W	61	18 HR
2191	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	CASTLETON WALES	51 33 12 N	3 04 14 W	58	1000 HR
2192	HUISDUINEN NETH	52 57 N	4 44 E	WEST BECKHAM ENG	52 54 43 N	1 10 50 E	58-60	3500 HR
2193	BELOWDA ENG	50 25 35 N	4 51 25 W	WEST BECKHAM ENG	52 54 43 N	1 10 50 E	59-60	14 MO
2194	BELOWDA ENG	50 25 35 N	4 51 25 W	WIDLEY ENG	51 49 25 N	1 36 20 W	58-60	2 YR
2195	DUSSELDORF W GER	51 20 N	7 02 E	WICKHAMBROOK ENG	52 11 25 N	0 33 01 E	61-62	1 YR
2196	DUSSELDORF W GER	51 20 N	7 02 E	BANBURY ENG	52 02 05 N	1 18 50 W	62	6 MO
2197	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	62-63	1329 HR
2198	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	63	958 HR
2199	DORTMUND W GER	51 30 55 N	7 27 24 E	ALDEBURGH ENG	52 08 50 N	1 36 15 E	60-61	5000 HR
2200	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1454 HR
2201	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1418 HR
2202	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1441 HR
2203	ROWRIDGE ENG	50 40 34 N	1 22 02 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1473 HR
2204	WENVOE WALES	51 27 32 N	3 16 48 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1388 HR
2205	WENVOE WALES	51 27 32 N	3 16 48 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1403 HR
2206	NO HESSARY TOR ENG	50 32 59 N	4 00 26 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1436 HR
2207	NO HESSARY TOR ENG	50 32 59 N	4 00 26 W	MURSLEY ENG	51 57 12 N	0 48 05 W	61	1444 HR
2208	STOCKLAND HILL ENG	50 48 23 N	3 06 13 W	ALDERNEY CHANNEL IS	49 42 56 N	2 12 30 W	61-62	1790 HR
2209	CHILLERTON DOWN ENG	50 38 55 N	1 19 40 W	ALDERNEY CHANNEL IS	49 42 56 N	2 12 30 W	60-61	4550 HR
2212	MALVERN ENG	52 05 57 N	2 18 40 W	WEMBLEY ENG	51 33 48 N	0 17 45 W	61-62	3003 HR
2213	MALVERN ENG	52 05 57 N	2 18 40 W	WEMBLEY ENG	51 33 48 N	0 17 45 W	61-62	2763 HR
2214	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	62-63	1329 HR
2215	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	GREAT BADDOW ENG	51 42 21 N	0 30 16 E	62-63	1329 HR
2216	DORTMUND W GER	51 30 55 N	7 27 24 E	ALDEBURGH ENG	52 08 50 N	1 36 15 E	62	2 MO
2217	HOLME MOSS ENG	53 31 58 N	1 51 22 W	KINGSWOOD ENG	51 17 20 N	0 12 50 W	61-62	1633 HR
2218	HOLME MOSS ENG	53 31 58 N	1 51 22 W	REIGATE ENG	51 12 47 N	0 11 11 W	61-62	939 HR
2219	HOLME MOSS ENG	53 31 58 N	1 51 22 W	HOOKWOOD ENG	51 09 05 N	0 11 15 W	62	710 HR
2220	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	KINGSWOOD ENG	50 17 20 N	0 12 50 W	61-62	1737 HR
2221	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	REIGATE ENG	51 12 47 N	0 11 11 W	61-62	1029 HR
2222	SUTTON COLDFIELD ENG	52 35 59 N	1 49 57 W	HOOKWOOD ENG	51 09 05 N	0 11 15 W	62	684 HR
2223	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	GREAT BADDOW ENG	51 42 21 N	0 30 16 E	63	958 HR
2224	CRYSTAL PALACE ENG	51 25 20 N	0 04 17 W	GREAT BADDOW ENG	51 42 21 N	0 30 16 E	62-63	1329 HR
2228	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT HIEI JAPAN	35 04 33 N	135 50 24 E	62	20 DA
2229	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT HIEI JAPAN	35 04 33 N	135 50 24 E	62	20 DA
2230	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT KAZASI JAPAN	33 55 41 N	130 57 30 E	62-63	40 DA
2231	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT KAZASI JAPAN	33 55 41 N	130 57 30 E	62-63	40 DA
2232	NAZE JAPAN			OURA JAPAN			62-63	1 YR
2233	WAKKANAI JAPAN	45 25 05 N	141 39 23 E	CHITOSE JAPAN	42 50 05 N	141 42 08 E	63	2100 HR
2234	CHITOSE JAPAN	42 50 05 N	141 42 08 E	MISAWA JAPAN	40 41 26 N	141 21 57 E	63	2100 HR
2235	MISAWA JAPAN	40 41 26 N	141 21 57 E	SENDAI JAPAN	38 15 05 N	140 50 52 E	63	2000 HR
2236	SENDAI JAPAN	38 15 05 N	140 50 52 E	FUCHU JAPAN	35 40 41 N	139 29 58 E	63	2000 HR
2237	FUCHU JAPAN	35 40 41 N	139 29 58 E	ZAMA JAPAN	35 29 52 N	139 24 04 E	63	1200 HR
2238	DRAKE JAPAN	35 47 31 N	139 35 50 E	ZAMA JAPAN	35 29 52 N	139 24 04 E	62	880 HR
2239	ZAMA JAPAN	35 29 52 N	139 24 04 E	HAKONE JAPAN	35 11 08 N	139 03 27 E	63	2100 HR
2240	HAKONE JAPAN	35 11 08 N	139 03 27 E	ROKKO JAPAN	34 46 29 N	135 16 01 E	63	1800 HR
2241	ROKKO JAPAN	34 46 29 N	135 16 01 E	SOFU JAPAN	34 04 06 N	132 09 21 E	63	1800 HR
2242	SOFU JAPAN	34 04 06 N	132 09 21 E	IWAKUNI JAPAN	34 08 32 N	132 13 29 E	63	288 HR
2243	SOFU JAPAN	34 04 06 N	132 09 21 E	SEBURIYAMA JAPAN	33 25 17 N	130 22 46 E	63	800 HR
2244	SEBURIYAMA JAPAN	33 25 17 N	130 22 46 E	ITAZUKE JAPAN	33 34 57 N	130 26 35 E	62	700 HR
2245	ITAZUKE JAPAN	33 34 57 N	130 26 35 E	CHANGSAN JAPAN	35 11 27 N	129 08 48 E	63	1400 HR
2246	SEBURIYAMA JAPAN	33 25 17 N	130 22 46 E	CHIRAN JAPAN	31 20 31 N	130 29 25 E	62-63	1700 HR
2247	CHIRAN JAPAN	31 20 31 N	130 29 25 E	YAETAKE JAPAN	26 37 48 N	127 55 22 E	62-63	2500 HR
2250	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	ASAO JAPAN	37 53 09 N	138 24 41 E	57	25 DA
2251	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	ASAO JAPAN	37 53 09 N	138 24 41 E	57	25 DA
2252	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT KINPOKU JAPAN	38 06 03 N	138 21 11 E	57	5 DA
2253	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT KINPOKU JAPAN	38 06 03 N	138 21 11 E	57	5 DA
2254	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT MYOKEN JAPAN	38 04 56 N	138 20 00 E	57	5 DA
2255	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT MYOKEN JAPAN	38 04 56 N	138 20 00 E	57	5 DA
2256	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	NAKAOKI JAPAN	38 01 16 N	138 22 04 E	57	4 DA
2257	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	KAWAMARADA JAPAN	38 19 30 N	138 20 00 E	57	6 DA
2258	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	SHINPO JAPAN	38 01 45 N	138 23 00 E	57	4 DA
2259	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	KOGA JAPAN	36 11 14 N	139 42 20 E	61-62	655 HR
2260	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	KOGA JAPAN	36 11 14 N	139 42 20 E	61-62	889 HR
2261	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	UTSUNOMIYA JAPAN	36 33 24 N	139 49 47 E	61-62	4889 HR
2262	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	UTSUNOMIYA JAPAN	36 33 24 N	139 49 47 E	61-62	3675 HR
2263	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	KUROISO JAPAN	36 57 55 N	140 03 05 E	61-62	1564 HR
2264	TOKYO TOWER JAPAN	35 39 18 N	139 44 56 E	KUROISO JAPAN	36 57 55 N	140 03 05 E	61-62	1640 HR
2265	GINZA JAPAN	35 40 15 N	139 44 30 E	HACHIJO JAPAN	33 06 55 N	139 47 50 E	55	52 HR

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE		RECORDING
2266	TOKYO JAPAN	35 40 20 N	139 44 25 E	HACHIJO JAPAN	33 06 55 N	139 47 50 E	55-56	2163 HR
2267	TOKYO JAPAN	35 40 20 N	139 44 25 E	HACHIJO JAPAN	33 06 55 N	139 47 50 E	55-56	1129 HR
2268	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	60	339 HR
2269	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	60	364 HR
2270	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	60	334 HR
2271	KOKUBUNJI JAPAN	35 42 25 N	139 29 31 E	SENDAI JAPAN	38 16 51 N	140 49 35 E	60-62	11520 HR
2272	KOKUBUNJI JAPAN	35 42 25 N	139 29 31 E	SENDAI JAPAN	38 16 51 N	140 49 35 E	60-62	10746 HR
2273	KOKUBUNJI JAPAN	35 42 25 N	139 29 31 E	SENDAI JAPAN	38 16 51 N	140 49 35 E	60-62	11280 HR
2277	INAMI JAPAN	33 48 11 N	135 13 32 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	57-58	1778 HR
2278	INAMI JAPAN	33 48 11 N	135 13 32 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	57-58	1725 HR
2279	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	57-58	1787 HR
2280	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	57-58	1744 HR
2281	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	MUROTOMISAKI JAPAN	33 14 38 N	134 10 39 E	57-58	1668 HR
2282	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	WAKAYAMA JAPAN	34 12 55 N	135 10 39 E	57-58	1 YR
2283	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	WAKAYAMA JAPAN	34 12 55 N	135 10 39 E	57-58	7 MO
2284	ASATO JAPAN	28 20 19 N	129 31 39 E	OURA JAPAN			56	19 DA
2285	ASATO JAPAN	28 20 19 N	129 31 39 E	OURA JAPAN			57	21 DA
2286	ASATO JAPAN	28 20 19 N	129 31 39 E	OURA JAPAN			57	21 DA
2287	ASATO JAPAN	28 20 19 N	129 31 39 E	OURA JAPAN			56	9 DA
2288	ASATO JAPAN	28 20 19 N	129 31 39 E	OURA JAPAN			57	21 DA
2289	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	57	21 DA
2290	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	56	23 DA
2291	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	57	35 DA
2292	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	57	7 DA
2293	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	56	73 HR
2294	ASATO JAPAN	28 20 19 N	129 31 39 E	IBUSUKI JAPAN	31 14 24 N	130 38 51 E	57	96 HR
2295	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	INAMI JAPAN	33 48 11 N	135 13 32 E	57-58	1573 HR
2296	MIYAZAKI JAPAN	31 48 00 N	131 27 56 E	INAMI JAPAN	33 48 11 N	135 13 32 E	57-58	1674 HR
2297	KAZASHIYAMA JAPAN	33 55 41 N	130 57 30 E	OSAKA JAPAN	34 40 56 N	135 30 39 E	57-58	6511 HR
2300	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	FURUKAWA JAPAN	38 34 22 N	140 57 51 E	58-59	8 MO
2301	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	FURUKAWA JAPAN	38 34 22 N	140 57 51 E	59	2 MO
2302	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	NIHONMATSU JAPAN	37 35 35 N	140 25 02 E	58-59	8 MO
2303	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	NIHONMATSU JAPAN	37 35 35 N	140 25 02 E	59	2 MO
2304	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	FURUKAWA JAPAN	38 34 22 N	140 57 51 E	58-59	10 MO
2305	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	NIHONMATSU JAPAN	37 35 35 N	140 25 02 E	58-59	10 MO
2306	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	FURUKAWA JAPAN	38 34 22 N	140 57 51 E	58-59	10 MO
2307	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	NIHONMATSU JAPAN	37 35 35 N	140 25 02 E	59	7 MO
2308	INUBO JAPAN	35 42 08 N	140 51 28 E	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	56	80 DA
2309	INUBO JAPAN	35 42 08 N	140 51 28 E	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	56	5 MO
2310	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT IKOMA JAPAN	34 40 32 N	135 40 58 E	56-57	6 MO
2311	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	MT IKOMA JAPAN	34 40 32 N	135 40 58 E	56-57	6 MO
2314	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	58	66 DA
2315	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	57	15 DA
2316	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	57	30 DA
2317	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	57	15 DA
2318	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	57	8 DA
2320	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	58	42 DA
2338	YUI JAPAN			TANO JAPAN			60	1 MO
2339	YUI JAPAN			TANO JAPAN			60	1 MO
2340	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	57	15 DA
2341	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	58	24 DA
2349	KOKUBUNJI JAPAN	35 42 24 N	139 29 18 E	HIRAISO JAPAN	36 21 46 N	140 37 29 E	58	67 DA
2350	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-60	6772 HR
2351	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-60	7042 HR
2352	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	58-60	8623 HR
2353	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	58-59	3880 HR
2354	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59	4897 HR
2355	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	58-59	6932 HR
2356	BIELSTEIN W GER	51 54 29 N	8 49 18 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	57-58	7733 HR
2357	CROYDON ENG	51 24 35 N	0 05 15 W	DARMSTADT W GER	49 51 54 N	8 37 33 E	57-58	2581 HR
2358	FELDBERG W GER	50 13 59 N	8 27 33 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	58-60	14360 HR
2360	HOCHBLAUEN W GER	47 46 19 N	7 42 06 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-60	6247 HR
2361	HOCHBLAUEN W GER	47 46 19 N	7 42 06 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-60	4137 HR
2362	HOCHBLAUEN W GER	47 46 19 N	7 42 06 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	60	504 HR
2363	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	57-58	2100 HR
2364	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-60	6087 HR
2365	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-61	9986 HR
2366	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	59-61	13978 HR
2367	BERLIN-NIKOLASSEE*	52 26 51 N	13 10 11 E	HELGOLAND W GER	54 10 47 N	7 53 16 E	58	720 HR
2368	BERLIN-NIKOLASSEE*	52 26 51 N	13 10 11 E	LOHBRUGGE W GER	53 30 04 N	10 11 29 E	58	956 HR
2369	HELGOLAND W GER	54 10 47 N	7 53 16 E	SAHLENBURG W GER	53 52 N	8 37 E	57-58	12712 HR
2370	MELLUM PLATE W GER	53 46 15 N	8 06 E	BREMERHAVEN W GER	53 34 20 N	8 33 E	56-58	11540 HR
2371	NORWICH ENG	52 31 03 N	1 08 E	KREFELD W GER	51 25 20 N	6 28 39 E	59-61	14377 HR
2372	WEDDEWARDEN W GER	53 36 06 N	8 32 06 E	HELGOLAND W GER	54 10 47 N	7 53 16 E	57	976 HR
2373	WEDDEWARDEN W GER	53 36 06 N	8 32 06 E	HELGOLAND W GER	54 10 47 N	7 53 16 E	57-58	3447 HR
2374	BIELSTEIN W GER	51 54 28 N	8 49 15 E	VERDEN W GER	53 00 06 N	9 16 22 E	59-60	9 MO
2375	BIELSTEIN W GER	51 54 28 N	8 49 15 E	HAMBURG W GER	53 36 40 N	9 59 13 E	58-59	16 MO
2376	BIELSTEIN W GER	51 54 28 N	8 49 15 E	KIEL W GER	54 20 04 N	10 04 10 E	58-60	18 MO
2377	BIELSTEIN W GER	51 54 28 N	8 49 15 E	FLENSBURG W GER	54 47 28 N	9 27 11 E	58-60	15 MO
2378	BADEN-BADEN W GER	48 45 51 N	8 16 52 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	58	1317 HR

*W GER

TABLE 1. CONTINUED

PATH	TRANSMITTER			RECEIVER			YEAR	LENGTH OF RECORDING	
NO.	LOCATION	LATITUDE	LONGITUDE	LOCATION	LATITUDE	LONGITUDE			
2380	PIANO DEI CORSI ITALY			FELDBERG W GER			61	1	MO
2381	HELGOLAND W GER	54 10 47 N	7 53 16 E	SAHLENBURG W GER	53 52 N	8 37 E	56-58	793	DA
2382	WEDDEWARDEN W GER	53 36 06 N	8 32 06 E	HELGOLAND W GER	54 10 47 N	7 53 16 E	57-58	3754	HR
2383	WEDDEWARDEN W GER	53 36 06 N	8 32 06 E	HELGOLAND W GER	54 10 47 N	7 53 16 E	57-59	8055	HR
2384	HOCHBLAUEN W GER	47 46 19 N	7 42 06 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	60	1	MO
2387	WENVOE WALES	51 27 32 N	3 16 48 W	KREFELD W GER	51 25 30 N	6 28 30 E	62-64	12146	HR
2388	LOHBRUGGE W GER	53 30 04 N	10 11 29 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	64	2281	HR
2389	FELDBERG/TAUNUS W GER	50 14 32 N	8 29 47 E	DONNERSBERG W GER	49 37 31 N	7 55 11 E	64	24	DA
2390	DONNERSBERG W GER	49 37 31 N	7 55 11 E	HEIDELBERG W GER	49 23 14 N	8 36 29 E	64	16	DA
2391	DONNERSBERG W GER	49 37 31 N	7 55 11 E	FELDBERG/SCHWARZWALD*	47 52 25 N	8 0 23 E	64	22	DA
2392	RADEBEUL W GER			KOLBERG W GER			64-67		
2393	FICHTELBERG W GER			KOLBERG W GER			64-67		
2394	PRAGUE CZECHOSLOVAKIA			KOLBERG W GER			64-67		
2401	FLENSBURG W GER	54 47 28 N	9 27 11 E	NORDERNEY W GER	53 42 36 N	7 09 37 E	54-55	1437	HR
2402	WEINBIET W GER	49 22 37 N	8 07 20 E	KAISERSLAUTERN W GER	49 26 52 N	7 46 35 E	54	7	MO
2403	WEINBIET W GER	49 22 37 N	8 07 20 E	TUBINGEN W GER	48 31 17 N	9 03 41 E	54	7	MO
2404	FLENSBURG W GER	54 47 28 N	9 27 11 E	WITTSMOOR W GER	53 37 43 N	9 43 37 E	54-55	10	MO
2405	FELDBERG W GER	50 13 59 N	8 27 33 E	KARLSRUHE W GER	49 00 38 N	8 24 48 E	54-55	14	MO
2406	HAMBURG W GER	53 31 16 N	10 06 19 E	MEIERWIK W GER	54 49 13 N	9 31 E	54	6	MO
2407	HOHENPEISSENBERG*	47 48 07 N	11 00 50 E	TUBINGEN W GER	48 31 17 N	9 03 41 E	54	7	MO
2409	BREMEN W GER	53 06 32 N	8 52 40 E	LINDAU W GER	51 39 11 N	10 07 29 E	54-55	1	YR
2410	FLENSBURG W GER	54 47 28 N	9 27 11 E	NORDERNEY W GER	53 42 36 N	7 09 37 E	54-55	11	MO
2411	BIELSTEIN W GER	51 54 29 N	8 49 18 E	WITTSMOOR W GER	53 37 43 N	9 43 37 E	54-55	16	MO
2412	OSTERLOOG W GER	53 38 10 N	7 11 59 E	MEIERWIK W GER	54 49 13 N	9 31 00 E	54	6	MO
2413	WEINBIET W GER	49 22 37 N	8 07 20 E	KARLSRUHE W GER	49 00 38 N	8 24 48 E	54	8	MO
2414	HANNOVER W GER	52 19 27 N	9 44 28 E	SCHLESWIG W GER	54 31 42 N	9 33 00 E	54-55	9	MO
2415	HEIDELBERG W GER	49 24 15 N	8 43 43 E	AACHEN W GER	50 46 45 N	6 04 43 E	54	6	MO
2416	FELDBERG W GER	50 13 59 N	8 27 33 E	FREIBURG W GER	47 57 28 N	7 51 50 E	54-55	14	MO
2417	GRUNTEN W GER	47 33 15 N	10 19 06 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	54-55	15	MO
2418	HOHER MEIBNER W GER	51 12 09 N	9 51 E	NORDERNEY W GER	53 42 36 N	7 09 37 E	54-55	16	MO
2419	WROTHAM ENG	51 19 11 N	0 17 20 E	KREFELD W GER	51 25 20 N	6 28 39 E	55-57	7103	HR
2421	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	FREIBURG W GER	47 57 28 N	7 51 50 E			
2422	BIELSTEIN W GER	51 54 28 N	8 49 15 E	LINDAU W GER	51 39 11 N	10 07 29 E			
2423	MUNSTER W GER	51 57 56 N	7 21 39 E	AACHEN W GER	50 46 45 N	6 04 43 E	54-55	14	MO
2428	BIELSTEIN W GER	51 54 28 N	8 49 15 E	AACHEN W GER	50 46 45 N	6 04 43 E	52	3	MO
2429	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	AACHEN W GER	50 46 45 N	6 04 43 E	52	3	MO
2440	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	56-57	4276	HR
2441	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	57-58	4855	HR
2442	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	60-61	8318	HR
2443	HORNISGRINDE W GER	48 36 49 N	8 12 12 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	56-57	6	MO
2444	HAMBACH W GER	49 20 03 N	8 07 28 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	62-67	30240	HR
2445	HAMBACH W GER	49 20 03 N	8 07 28 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	64-67	21855	HR
2446	HAMBACH W GER	49 20 03 N	8 07 28 E	DARMSTADT W GER	49 51 54 N	8 37 33 E	63-67	27714	HR
2475	SAIGON VIET	10 44 58 N	106 37 47 E	BANGKOK THAI	13 33 40 N	100 38 47 E	63	5352	HR
2476	PHILLIPINES	15 23 58 N	120 32 09 E	TAIWAN	22 38 26 N	120 15 18 E	59	366	HR
2603	AJACCIO CORSICA			MONACO FR					
2632	LANNION FR	48 44 05 N	3 26 45 W	CONCHES FR	48 55 26 N	0 58 15 E	62	1319	HR
2633	LANNION FR	48 44 05 N	3 26 45 W	CONCHES FR	48 55 26 N	0 58 15 E	62	1319	HR
2634	LANNION FR	48 44 05 N	3 26 45 W	CONCHES FR	48 55 26 N	0 58 15 E	62	874	HR
2635	LANNION FR	48 44 05 N	3 26 45 W	CONCHES FR	48 55 26 N	0 58 15 E	62	874	HR
2636	LANNION FR	48 44 05 N	3 26 45 W	VILLEDIEU FR	48 50 54 N	1 16 41 W	63	2	MO
2637	LANNION FR	48 44 05 N	3 26 45 W	VILLEDIEU FR	48 50 54 N	1 16 41 W	63	2	MO
2638	LANNION FR	48 44 05 N	3 26 45 W	LAFERTE SOUS JOUARRE**	48 57 18 N	3 07 30 E	63		
2639	LANNION FR	48 44 05 N	3 26 45 W	LAFERTE SOUS JOUARRE**	48 57 18 N	3 07 30 E	63		
2644	LE HAVRE FR			VIERVILLE FR			65	1312	HR
2645	LE HAVRE FR			VIERVILLE FR			65	1312	HR
2646	LAHERLIERE FR			NOYERS ST MARTIN FR					
2647	MARSEILLES FR	43 23 N	5 26 E	LEUCATE FR	42 55 N	3 03 E	68-69	9	MO
2648	MARSEILLES FR	43 23 N	5 26 E	LEUCATE FR	42 55 N	3 03 E	68-69	9	MO
2649	BASTIA CORSICA	42 41 N	9 24 E	LEUCATE FR	42 55 N	3 03 E	68-69	9	MO
2650	BASTIA CORSICA	42 41 N	9 24 E	LEUCATE FR	42 55 N	3 03 E	68-69	9	MO
2651	PUNTA BADDE URBARA+	40 09 N	8 30 E	LEUCATE FR	42 55 N	3 03 E	68-69	11	MO
2705	ST VINCENT W IND	13 09 N	61 11 W	BARBADOS W IND	13 11 42 N	59 35 18 W	62-63	6241	HR
2800	MT CARMEL ISRAEL			MT OLYMPUS CYPRUS			51	2400	HR
2801	MT CARMEL ISRAEL			MT OLYMPUS CYPRUS			51	2400	HR

*W GER **FR +SARDINIA

TABLE 2. PROPAGATION PATH PARAMETERS, BASIC TRANSMISSION LOSS, AND PREDICTED REFERENCE VALUES

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
1*	101.9	196.0	247	305	110.6	9.1	2	63	46.0	607	12.8	50.72	171.8	175.6	180.1	182.3		188.1	188.3
2*	96.1	102.2	119	305	125.0	9.1	1	384	98.2	384	4.0	61.99	133.6	138.4	145.6	151.1	157.6	154.4	154.4
3*	92.9	155.8	83	300	164.6	9.1	2	402	52.0	351	7.2	12.63	155.5	166.4	176.1	183.3	188.3	169.9	169.4
5*	102.9	149.8	45	289	100.3	13.7	2	471	29.0	576	18.5	14.69	150.0	161.2	171.3	180.3	185.3	170.9	171.0
6*	94.1	136.0	147	310	126.8	9.1	2	280	107.2	348	16.3	28.81	133.5	142.1	154.9	163.5	168.4	156.8	156.8
7*	98.1	232.9	788	279	42.7	9.1	2	1097	106.1	1301	65.9	45.35	164.2	168.6	172.9	177.3	180.9	184.9	184.9
8*	104.5	281.7	84	306	158.5	9.8	2	213	39.5	276	8.8	30.93	165.8	171.8	182.0	189.6	193.8	183.8	183.7
9*	105.9	365.5	90	311	91.4	9.8	2	171	34.2	253	9.8	40.36	175.9	184.6	189.9	195.1	195.9	188.7	188.1
12*	101.1	240.0	544	301	169.2	28.7	2	823	79.0	122	2.6	50.98	175.0	179.8	184.9	190.8	194.4	186.9	187.3
13*	102.9	238.0	44	317	104.2	9.8	2	48	43.3	198	52.1	19.07	157.2	166.6	176.6	183.4	191.6	170.1	170.2
15*	96.9	284.7	145	296	121.9	9.8	2	701	17.5	293	6.2	35.74	173.0	178.4	184.3	189.7	191.1	187.8	187.7
16*	93.7	217.7	471	304	49.7	9.1	2	457	199.3	463	11.1	34.88	150.0	153.0	158.5	164.5	170.5	158.0	158.0
17*	101.1	222.6	124	305	94.5	9.1	2	348	57.6	435	4.8	81.20	167.7	176.5	184.7			195.9	197.5
18*	94.5	446.3	71	313	137.2	9.8	2	121	39.7	250	10.0	48.55	176.9	184.9	191.5	195.2	198.8	193.3	192.6
19*	93.7	236.4	32	305	175.0	27.4	2	197	62.5	232	8.0	19.70	156.9	164.9	173.9	182.2	187.8	173.3	173.5
20*	96.5	238.1	42	317	133.5	9.8	2	50	46.9	195	51.7	18.39	155.1	164.3	174.9	181.9	187.0	168.8	168.8
21*	101.5	119.0	102	306	159.7	6.7	2	348	38.3	264	7.5	13.00	151.5	159.7	168.1	172.4	175.4	167.3	163.7
22*	101.5	119.0	102	306	159.7	9.8	2	348	38.3	264	7.5	12.59	149.5	155.8	164.7	169.5	171.9	166.2	164.1
23*	101.5	119.0	102	306	124.0	9.8	2	348	38.3	264	7.5	13.52	152.0	159.6	167.8	171.6	173.4	167.2	165.0
26*	102.1	468.9	148	315	103.0	9.1	2	64	51.0	366	19.0	53.97	178.3	186.1	192.1			197.7	196.8
28*	101.1	204.9	72	305	127.4	9.1	2	274	37.8	341	18.1	20.21	153.9	163.8	174.1	183.3	201.3	178.3	178.3
29*	92.3	195.1	111	300	129.5	9.1	2	357	38.6	383	32.8	19.90	149.3	158.5	169.4	178.3	187.7	170.7	170.9
31*	93.7	220.6	60	305	101.8	27.4	2	293	11.3	212	26.4	20.96	160.9	169.9	178.9	186.2	191.3	172.7	172.7
32*	100.7	296.9	16	336	120.4	9.1	2	40	45.5	7	7.9	27.16	159.7	165.5	172.5	179.8	185.5	181.8	182.3
33*	101.9	224.3	73	304	110.6	9.1	2	293	25.6	232	3.5	28.97	174.0	180.1	188.0	192.1		183.6	183.6
34*	92.9	154.0	111	303	24.4	9.1	2	284	60.7	145	8.9	16.00	153.0	160.7	168.5	173.1	177.0	175.0	167.3
35*	94.7	160.7	18	306	203.6	9.1	2	177	59.5	220	27.2	10.36	149.6	159.8	169.6	179.2	182.7	167.3	167.4
36*	107.9	224.8	298	294	52.4	19.2	2	412	51.0	622	25.1	36.95	167.0	174.0	181.0	187.0	190.0	184.7	184.2
37*	107.5	270.5	119	309	113.4	9.1	2	34	23.7	147	23.8	28.83	170.7	178.7	189.8	195.8		184.9	185.0
38*	97.9	279.5	87	306	167.0	9.8	2	232	32.4	277	9.0	31.28	171.2	180.1	186.5	191.2	194.2	184.5	184.4
39*	105.1	73.7	72	300	121.9	9.1	2	366	47.5	366	18.1	4.03	139.3	144.8	147.2	148.8	150.8	142.8	142.5
41*	95.7	146.0	252	291	82.0	19.2	2	689	26.0	524	8.7	28.77	161.0	170.0	175.0	179.0	185.0	176.8	176.4
42*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	158.6	168.7	180.5	185.8	190.5	171.2	171.3
43*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	163.5	171.6	181.1	190.3	199.3	171.2	171.3
44*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	150.8	161.5	171.8	181.0	185.6	171.2	171.3
45*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	159.6	168.2	176.3	187.8	193.8	171.2	171.3
46*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	156.8	167.8	177.3	185.1	191.1	171.2	171.3
47*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	153.7	164.9	176.6	188.1	199.3	171.2	171.3
48*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	154.6	164.2	177.2	189.5	199.3	171.2	171.3
49*	98.7	201.1	107	300	189.0	9.1	2	357	32.7	396	33.4	19.51	160.6	173.0	185.9	199.3		171.2	171.3
51*	96.5	297.4	10	337	152.4	9.1	2	23	49.1	7	8.4	25.51	160.1	169.8	178.1	184.7	199.6	180.7	181.3
52*	93.3	167.8	59	307	155.4	9.1	2	81	36.2	38	39.8	10.73	144.2	157.3	169.6	178.2	209.8	160.9	161.5
53*	99.7	308.5	451	294	75.0	9.1	2	884	76.3	174	14.7	41.39	175.8	181.6	188.4			191.9	191.4
54*	99.7	188.9	256	297	75.0	19.2	2	408	25.3	445	5.5	31.45	160.3	167.3	174.3	183.3	187.3	180.1	180.1
55*	96.3	181.7	56	304	146.9	9.1	2	216	46.7	226	32.1	10.11	140.7	152.9	165.8	177.2	182.7	161.2	161.6
56*	98.9	72.4	78	300	149.4	9.1	2	369	53.3	369	18.5	3.06	136.8	141.7	145.4	149.4	154.4	135.9	139.5
57*	95.5	202.5	48	306	150.0	27.4	2	209	59.4	255	32.4	15.98	152.9	162.7	173.0	182.8	189.8	170.4	170.7
58*	106.9	304.1	598	282	55.5	9.1	2	1573	68.4	451	17.8	32.90	168.5	178.8	188.8	196.2	204.1	188.0	187.5
59*	94.9	243.4	95	302	49.4	9.1	2	305	88.5	360	19.4	20.71	158.2	166.1	176.2	184.8	191.3	178.4	178.6
60*	96.5	130.1	227	306	92.0	9.1	2	317	54.3	85	6.6	15.87	147.7	156.3	164.9	168.9	173.7	172.1	164.5
61*	96.3	219.9	304	292	106.7	19.2	2	525	88.8	627	6.6	62.12	168.0	174.0	181.0	188.0		189.3	190.1
62*	96.3	215.5	308	296	78.0	19.2	2	241	39.0	631	6.4	63.89	165.0	173.0	182.0	188.0		189.0	189.8
63*	94.7	191.4	126	299	67.4	9.1	2	415	46.1	390	32.6	20.93	167.2	172.8	178.7	182.7	183.8	172.1	172.1
64*	94.7	191.4	126	299	67.4	9.1	2	415	46.1	390	32.6	20.93	166.3	171.4	181.0	189.7	193.2	172.1	172.1
66*	107.9	100.3	134	308	62.5	9.1	2	332	88.7	357	4.0	56.24	153.1	158.6	165.1	169.8	173.7	168.4	168.4
71*	99.7	308.5	451	294	75.0	9.1	2	884	76.3	174	14.7	41.46	173.3	176.6	182.0	188.4		191.9	191.4
90*	59.8	255.2	255	324	323.7	9.1	2	433	57.9	597	26.9	30.24	164.0	174.8	183.9	191.9	195.6	180.2	180.2
91*	59.8	80.4	102	329	323.7	9.1	2	488	31.0	328	2.1	38.54	130.4	134.2	141.5	152.2	155.2	142.4	142.4
92*	59.8	80.4	51	334	323.7	9.1	1	207	76.8	207	3.6	1.15	130.7	134.8	137.9	143.4	152.4	128.8	133.8
93	59.8	257.5	60	340	323.7	9.1	2	229	62.8	55	6.4	17.38	159.9	166.7	177.4	186.1	192.3	172.5	173.4
94	59.8	362.1	60	341	323.7	9.1	2	229	62.8	37	12.9	28.26	167.4	175.6	185.9	194.7	198.4	179.7	181.4
95*	185.8	250.8	261	323	182.9	9.1	2	421	54.2	597	26.8	32.37	166.4	179.8	186.4	189.6		189.5	189.2
96*	185.8	76.0	107	328	182.9	9.1	2	518	26.6	328	2.1	44.42	147.8	161.3	166.3	174.8	180.8	160.8	160.8
97*	185.8	84.8	50	334	182.9	9.1	2	244	56.0	207	3.7	4.04	153.4	159.4	175.9	179.9		150.3	151.2
186	220.0	1185.0		312			2	0	20.0	0	21.6	154.56	262.5	264.5	266.5	268.0	269.5	258.2	
187*	40.5	11.9	15	330	43.6	46.6	0						88.0	92.4	94.4	96.0	97.4	93.2	100.9
188*	75.5	11.9	15	330	40.5	43.9	0						90.4	93.8	96.2	98.4	100.8	94.3	105.4
189*	165.2	11.9	15	330	37.5	41.1	0						98.4	99.4	101.1	103.7	109.3	95.9	111.1
190*	455.0	11.9	15	330	36.0	39.6	0						84.4	92.2	99.0	102.2	103.6	101.5	118.5
191*	952.0	11.9	15	330	35.1	38.1	0						114.9	120.6	128.2	135.1	139.0	112.8	123.8
192*	40.5	18.6	23	330	43.6	46.6	0						102.2	104.0	106.2	108.8	109.3	100.3	104.6
193*	75.5	18.6	23	330	40.5	43.9	0						101.8	104.0	105.8	107.6	109.4	101.3	109.2
194*	165.2	18.6	23	330	37.5	41.1	0						109.2	111.7	113.6	115.3	116.5	102.7	114.9
195*	455.0	18.6	23	330	36.0	39.6	0						107.8	113.8	117.2	119.8	121.4	109.1	122.2
196*	952.0	18.6	23	330	35.1	38.1	0						114.0	118.6	123.8	126.9	130.0	112.1	127.6
197*	40.5	27.5	53	330	42.4	46.6	0						112.4	114.2	116.0	117.8	119.0	116.1	106.8
198*	75.5	27.5	53	330	35.1	43.9	0						110.2	113.6	115.8	118.2	119.9	115.0	111.4
199*	165.2	27.5	53	330	32.0	41.1	0						108.0	111.3	114.6	117.4	119.0	114.5	117.1
200*	185.8	115.6	139	310	61.0	9.1	1	332	99.4	332	16.2	25.99	140.2	144.5	151.3	156.4	168.4	158.5	150.7
201*	179.8	61.6	277	305	161.8	9.1	2	561	40.4	287	3.5	42.06	136.6	141.6	148.1	153.3	156.8	162.1	162.1

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
202*	65.8	211.8	52	290	159.7	9.1	2	472	75.3	572	27.8	18.18	160.0	169.7	179.5	182.6		170.8	170.8
203*	59.8	229.9	45	316	161.2	9.8	2	57	50.0	233	4.2	16.91	158.9	162.9	172.9	180.3	184.5	168.1	168.2
204*	215.8	197.2	132	305	161.8	9.1	2	610	100.6	390	22.0	20.92	163.7	173.2	181.6	195.8	207.2	185.2	185.1
206*	71.8	203.4	36	305	198.7	27.4	2	241	52.4	246	28.5	16.37	149.6	159.4	170.9	180.3	191.4	168.3	168.6
208*	209.8	132.6	75	308	102.4	9.1	2	46	47.7	111	1.0	7.14	137.2	152.8	168.8	172.3		173.1	171.8
209	560.0	158.0		332			2	305	32.6	367	12.7	18.96	167.5	181.6	189.8			189.5	
210*	179.8	203.0	36	305	192.6	27.4	2	239	51.4	247	28.5	16.42	150.0	164.0	175.2	184.1	187.3	176.7	176.8
211*	185.8	281.1	93	306	114.9	9.8	2	239	33.5	277	8.5	33.24	181.3	188.3	194.7	200.7		190.2	189.8
212*	191.8	204.1	36	305	185.9	21.9	2	245	54.1	245	28.2	16.96	165.6	177.5	188.5	196.0	200.5	178.4	178.5
213*	191.8	204.1	36	305	185.9	21.9	2	245	54.1	245	28.2	16.96	151.1	166.1	177.8	187.8	193.8	178.4	178.5
214*	191.8	204.1	36	305	185.9	29.9	2	245	54.1	245	28.2	16.68	145.6	162.0	174.5	185.5	191.6	177.3	177.5
215*	191.8	204.1	36	305	185.9	37.5	2	245	54.1	246	28.9	16.41	143.4	160.6	174.3	184.0	190.3	176.7	176.7
216*	191.8	204.1	36	305	185.9	21.9	2	245	54.1	245	28.2	16.96	152.0	166.5	177.9	186.3	191.3	178.4	178.5
217*	59.8	231.6	86	304	148.7	9.1	2	317	36.5	232	3.0	29.63	167.8	175.7	183.3	184.9		181.0	180.8
219*	81.8	203.0	34	305	182.3	33.5	2	239	51.5	247	28.5	16.40	140.3	151.8	164.9	174.3	182.4	168.4	168.8
222*	87.8	210.7	60	289	150.9	9.1	2	472	75.0	569	25.2	18.11	165.3	173.2	181.3	182.0	188.0	179.1	179.2
223*	179.8	180.1	57	304	146.3	9.1	2	220	45.1	223	32.3	9.99	137.0	153.9	170.3	184.3	190.5	167.8	168.0
226	649.8	86.6		327			2	280	24.1	152	6.1	10.88	164.4	183.1	210.6			181.8	
228*	209.8	132.6	77	309	102.4	9.1	2	49	47.9	112	1.0	5.54	136.0	153.4	168.0	170.7	172.3	171.4	171.4
229	757.8	159.5		327			2	274	87.7	146	5.3	11.20	182.2	191.4	196.5			187.2	
233	721.8	108.6		324			2	287	53.9	122	10.0	13.04	175.1	187.7	202.0			186.3	
234	757.8	113.8		324			2	302	44.6	128	13.7	14.73	178.0	195.0	213.0			188.5	
244*	215.8	197.2	132	305	161.8	9.1	2	610	100.6	390	22.0	20.92	163.7	171.2	178.8	184.4	188.8	185.2	185.1
250*	100.0	79.6	116	248	16.8	5.8	0						125.2	128.9	131.4	134.6	137.1	115.1	126.9
252*	100.0	113.0	187	250	16.8	5.8	0						126.8	131.4	135.0	137.7	139.7	127.2	130.8
254*	100.0	156.0	114	251	16.8	5.8	1	1487	113.0	1487	43.0	2.77	135.1	144.7	152.5	157.5	160.3	152.3	142.4
256*	100.0	365.6	134	263	16.8	5.8	2	1478	112.2	890	4.9	29.74	178.7	186.3	196.3	204.6	212.1	194.5	194.3
258*	100.0	634.6	171	272	16.8	11.9	2	1497	109.8	433	8.0	64.60	191.6	198.7	215.7	220.3	230.4	209.3	209.1
260*	100.0	995.9	384	276	16.8	11.6	2	1487	110.8	396	16.6	110.16	215.7	224.1	228.2	232.4	235.9	227.6	225.6
262*	100.0	227.5	128	255	16.8	9.8	2	1495	117.6	1295	46.0	9.05	125.7	139.8	163.4	175.1	185.5	165.1	152.1
264*	100.0	634.6	171	272	16.8	11.9	2	1497	109.8	433	8.0	64.60	212.4	214.0	216.8	219.6	225.6	209.3	209.1
266*	1040.1	113.0	187	250	3.0	2.6	0							134.6	142.1	147.5		130.4	148.8
267*	9250.0	113.0	187	250	3.0	2.6	0						147.5	149.4	153.9	159.5		154.5	164.5
268*	9350.0	113.0	187	250	3.0	2.6	0						146.9	149.9	152.7	157.8		152.7	164.5
270*	192.8	79.6	116	248	32.0	5.5	0						127.2	130.7	133.2	135.7	138.7	115.6	131.6
272*	192.8	113.0	187	250	32.0	5.5	0						129.1	133.1	137.4	140.6	144.5	116.0	135.6
274*	192.8	156.0	114	251	32.0	5.5	1	1487	113.0	1487	43.0	2.65	142.8	148.6	157.2	163.0	169.6	152.2	148.5
276*	192.8	365.6	134	263	32.0	5.5	2	1478	112.2	890	4.9	29.68	175.6	186.7	194.4	200.2	207.8	199.5	198.9
278*	192.8	634.6	171	272	32.0	11.9	2	1497	109.8	433	8.0	64.45	192.3	198.3	206.8	212.3	216.4	214.8	214.4
279	409.9	265.7	402	252	3.7	10.7	2	1373	10.9	1649	25.8	34.60	201.4	204.4	210.4	214.8	219.5	209.6	206.2
280	1040.1	265.7	402	252	8.5	10.7	2	1373	10.9	1649	25.8	34.16	215.5	216.6	220.3	228.3	230.2	216.9	214.1
290*	230.0	79.6	116	248	32.0	5.5	0						118.8	122.2	128.6	130.4	131.6	115.9	132.9
292*	230.0	113.0	187	250	32.0	5.5	0						119.6	124.0	135.1	137.7	139.0	120.6	136.8
294*	230.0	156.0	114	251	32.0	5.5	1	1487	113.0	1487	43.0	2.65	130.9	141.3	153.7	157.8	159.6	153.0	149.9
296*	230.0	365.6	134	263	32.0	5.5	2	1478	112.2	890	4.9	29.68	175.8	186.2	194.4	204.2	207.0	200.9	200.2
297	751.0	113.0	187	250	2.7	1.5	0						131.0	132.0	135.0	140.0	143.0	144.5	146.4
298*	9361.3	113.0	187	250	2.7	1.5	0						149.0	151.5	154.0	163.0	167.0	152.0	164.5
299*	751.0	139.1	518	249	1.5	2.7	0						124.0	125.0	127.5	130.5	132.5	132.0	148.7
300*	9361.3	139.1	518	249	1.5	2.7	0						154.0	156.5	158.5	161.0	163.5	155.0	166.8
302*	230.0	227.5	128	255	32.0	9.8	2	1495	117.6	1295	46.0	8.92	121.5	135.2	164.4	176.3	179.3	175.3	165.7
303	100.0	223.6	1422	241	12.4	13.7	1	4292	77.5	4292	146.1	62.95			165.3			159.0	162.2
305	751.0	223.6	1422	241	7.3	16.5	1	4292	77.5	4292	146.1	63.00			191.6			191.9	179.9
307	100.0	77.5	1130	236	12.4	6.0	0								128.2				122.5
308	751.0	77.5	1130	236	7.3	6.0	0								132.0				137.8
310*	1046.0	79.6	116	248	3.0	13.1	0						126.9	128.9	131.4	133.4	136.1	126.9	142.4
311*	1046.0	113.0	187	250	3.0	1.5	0						143.7	147.3	150.1	153.0	156.8	130.9	149.7
312*	1046.0	113.0	187	250	3.0	13.1	0						127.8	131.0	134.5	139.3	144.7	130.8	146.4
313*	1046.0	113.0	187	250	3.0	4.3	0						137.0	138.5	141.0	143.8	148.4	129.9	148.1
314*	1046.0	156.0	114	251	3.0	13.1	1	1487	113.0	1487	43.0	2.72	132.0	150.7	164.5	174.1	178.8	154.0	160.3
316*	1046.0	365.6	134	263	3.0	13.1	2	1478	112.2	896	9.6	28.44	191.0	201.0	208.9	215.0	221.7	214.5	212.6
317*	1046.0	365.6	134	263	3.0	2.7	2	1478	112.2	881	1.6	30.55	209.6	217.4	223.2	228.1	231.9	218.6	216.9
318*	1046.0	634.6	171	272	3.0	2.7	2	1497	109.8	433	8.0	66.01	214.3	218.6	225.5	232.4	235.9	237.6	236.1
319*	751.0	223.6	1422	241	7.0	8.3	1	4292	77.5	4292	146.1	63.06	190.0	192.5	197.3	201.0	204.0	191.8	179.9
320*	751.0	223.6	1422	241	7.0	20.0	1	4292	77.5	4292	146.1	62.98	183.5	187.5	191.5	195.2	198.5	191.8	179.9
321*	9200.1	223.6	1422	241	2.5	3.6	1	4292	77.5	4292	146.1	63.15		225.5	228.7	233.1	238.1	244.8	212.6
322	1046.0	227.5	128	255	3.0	9.8	2	1495	117.6	1295	46.0	9.16	132.2	161.7	179.4	185.9	195.4	195.2	187.4
323	1046.0	365.6	134	263	3.0	7.9	2	1478	112.2	890	4.9	29.45	179.7	200.2	203.9	209.7	214.3	215.4	213.7
324	1046.0	365.6	134	263	3.0	10.1	2	1478	112.2	890	4.9	28.99		197.4	205.2	211.1		214.9	213.1
325	1046.0	365.6	134	263	3.0	2.7	2	1478	112.2	881	1.6	30.55	178.2	200.2	207.8	211.1	212.5	218.6	216.9
330*	92.0	79.7	102	245	9.1	11.3	2	1739	57.0	1646	5.5	2.40	125.9	130.5	133.7	135.2	136.8	138.4	131.9
332*	92.0	113.3	163	241	9.1	11.3	1	1829	56.8	1829	56.5	3.88	129.7	138.6	143.5	146.0	148.4	144.4	138.6
334*	92.0	156.1	115	248	9.1	11.3	2	1730	59.0	1478	44.1	7.03	141.0	153.5	162.1	168.7	178.7	167.4	150.0
336*	92.0	365.7	136	259	9.1	11.3	2	1744	56.5	893	4.9	34.38	179.7	185.8	200.0	205.1	211.0	191.9	191.4
338*	92.0	634.7	171	268	9.1	11.9	2	1745	61.0	433	8.1	70.52	199.9	211.9	215.2	217.6	220.0	211.4	210.2
342*	92.0	227.5	131	251	9.1	9.8	2	1795	56.5	1295	46.0	14.53	141.0	152.5	169.9	185.2	194.0	172.8	162.5
350*	210.4	79.7	102	245	15.2	11.0	2	1739	57.0	1646	5.5	2.34	132.6	136.1	139.6	141.9	143.2	144.7	140.3
352*	210.4	113.3	163	241	15.2	11.0	1	1829	56.8	1829	56.5	3.77	138.1	144.2	149.8	154.1	158.8	147.2	146.5
354*	210.4	156.1	115	248	15.2	11.0	2	1730	59.0	1478	44.1	6.94	152.6	161.8	172.4	179.0	184.8	175.6	160.0
356*	210.4	365.7	136	259	15.2	11.0	2	1744	56.5	893	4.9	34.33	194.6	200.4	210.0	214.9	217.6	199.3	198.4
358*	210.4	634.7	171	268	15.2	11.9	2	1745	61.0	433	8.1	70.41	217.9	219.7	223.4	227.0	231.7	218.7	217.1

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
370*	236.0	79.7	102	245	15.2	11.0	2	1739	57.0	1646	5.5	2.34	123.3	129.4	137.5	142.5	143.7	142.8	141.5
372*	236.0	113.3	163	241	15.2	11.0	1	1829	56.8	1829	56.5	3.77	116.0	129.2	141.8	152.7	154.2	148.1	147.6
374*	236.0	156.1	115	248	15.2	11.0	2	1730	59.0	1478	44.1	6.94	130.3	147.6	166.4	177.4	182.5	176.7	161.3
376*	236.0	365.7	136	259	15.2	11.0	2	1744	56.5	893	4.9	34.33	174.5	181.9	186.5	190.5	194.0	200.4	199.5
382*	236.0	227.5	131	251	15.2	9.8	2	1795	56.5	1295	46.0	14.43	135.6	149.9	169.2	182.2	186.7	183.1	180.9
385	1046.0	360.8	111	259	10.7	2.7	2	1692	56.5	881	1.6	40.83	205.5	209.4	212.8	216.5	221.3	223.3	221.0
389	1046.0	150.9	106	249	10.7	13.1	2	1686	56.0	1454	39.9	12.35		184.9	191.1	194.7		198.8	195.6
390*	100.0	75.0	99	245	12.2	5.8	2	1692	57.0	1663	10.9	6.41	142.6	150.1	152.5	153.9	155.4	152.0	141.5
392*	100.0	109.4	155	244	12.2	5.8	2	1780	51.5	1650	33.0	9.23	141.9	152.8	158.1	160.5	163.5	166.3	151.6
394*	100.0	150.9	106	249	12.2	5.8	2	1686	56.0	1454	39.9	12.51	159.1	169.1	180.4	186.8	190.2	181.4	163.6
396*	100.0	360.8	111	259	12.2	5.8	2	1692	56.5	890	4.9	40.12	183.2	188.1	202.6	208.0	211.7	198.7	198.0
398*	100.0	630.0	136	268	12.2	11.9	2	1692	55.5	433	8.0	75.74	193.5	206.3	214.2	218.9	223.0	213.2	212.1
400	100.0	991.2	363	274	12.2	11.6	2	1692	56.0	396	16.4	122.10	224.9	227.8	231.8	235.0	249.1	232.4	229.2
404	100.0	630.0	136	268	12.2	11.9	2	1692	55.5	433	8.0	75.74	215.2	217.4	218.8	221.4	223.0	213.2	212.1
410	100.0	96.6	974	248	12.2	5.8	0						123.4	124.9	126.4	127.9	128.8	113.2	126.9
412	100.0	129.6	493	250	12.2	5.8	0							126.8	128.7	130.2		109.7	131.8
414	100.0	172.8	470	257	12.2	5.8	0						133.6	135.6	138.6	140.6	141.1	118.5	137.4
416	100.0	382.7	263	265	12.2	5.8	2	1356	186.0	893	4.9	22.68		183.4	187.4	193.9		192.2	178.5
418	100.0	651.6	221	276	12.2	11.9	2	1356	185.0	433	8.1	55.80	183.1	194.5	200.2	207.0	211.7	206.0	206.4
420	100.0	1012.9	373	279	12.2	11.6	2	1356	187.2	396	16.9	101.14		220.6	224.7	227.6		223.9	223.2
425*	1046.0	244.3	301	260	10.7	9.8	2	1326	189.6	1295	44.8	1.12	133.2	141.0	154.6	168.7		158.4	163.3
429*	1046.0	382.7	263	265	10.7	2.7	2	1356	186.0	893	4.9	23.32	201.5	206.4	212.1	221.5		215.9	213.9
430	1046.0	96.6	974	248	12.2	13.1	0						138.5	139.1	142.8	147.2	148.8	129.7	142.5
431	1046.0	129.6	493	250	12.2	13.1	0						125.6	129.4	132.3	135.3	136.5	133.2	147.4
432	1046.0	172.8	470	257	12.2	13.1	0							153.7	162.0	164.6		138.1	153.0
435	9404.0	34.1	88	306	18.3	4.0	1	318	1.7	318	32.4	0.76	140.7	142.2	144.9	152.4	154.3	150.8	169.7
436	2860.0	34.1	88	306	18.3	4.0	1	318	1.7	318	32.4	0.76	131.8	132.5	134.2	136.4	137.0	145.3	154.3
437	1310.0	34.1	88	306	18.3	4.0	1	318	1.7	318	32.4	0.76			125.2			139.3	145.5
438	9404.0	34.3	88	306	18.3	4.0	0								143.2				147.8
439	2860.0	34.3	88	306	18.3	4.0	0								132.7				139.3
440	1310.0	34.3	88	306	18.3	4.0	0								124.4				133.7
441	9404.0	75.2	93	305	18.3	4.0	1	343	14.5	343	60.7	2.64			168.2			161.0	185.1
442	2860.0	75.2	93	305	18.3	4.0	1	343	14.5	343	60.7	2.64			146.2			150.6	167.4
444	9404.0	76.0	76	305	18.3	4.0	1	346	14.3	346	61.7	1.99	158.8	161.9	166.8	179.5	182.5	161.3	184.0
445	2860.0	76.0	76	305	18.3	4.0	1	346	14.3	346	61.7	1.99	144.5	146.3	148.8	156.8	157.8	151.0	165.2
446	1310.0	76.0	76	305	18.3	4.0	1	346	14.3	346	61.7	1.99	142.8	143.6	147.9	156.6	157.7	144.3	155.3
447*	9404.0	80.5	125	296	18.3	4.0	0						143.5	146.7	150.3	156.2	165.2	150.0	157.6
448*	2860.0	80.5	125	296	18.3	4.0	0						135.4	137.6	142.0	148.0	153.6	140.6	149.1
449*	1310.0	80.5	125	296	18.3	4.0	0						127.7	130.3	134.4	139.2	144.3	131.6	143.5
450*	412.0	138.8	68	302	12.5	3.0	2	276	13.1	290	9.8	13.44	167.2	179.5	190.5	199.6	211.6	183.0	181.2
451	410.0	158.1	60	301	12.5	3.0	2	280	14.3	369	22.9	15.13	167.4	177.7	191.6	201.4	204.6	193.6	193.1
452*	412.0	215.4	41	303	12.5	3.0	2	252	17.7	229	0.3	23.72	178.4	187.7	192.1	196.0	204.8	198.4	197.8
453*	418.0	215.4	41	303	12.5	3.0	2	252	17.7	229	0.3	23.72	172.8	182.1	192.2	201.7	209.9	198.5	197.9
454*	418.0	215.4	41	303	12.5	3.0	2	252	17.7	229	0.3	23.72	163.3	177.3	186.6	196.0	201.8	198.5	197.9
457*	418.0	215.4	41	303	11.9	9.1	2	252	17.7	208	28.0	19.63	155.0	173.6	186.3	195.8	203.8	188.8	188.5
458*	418.0	215.4	41	303	11.9	50.3	2	252	17.7	222	42.0	18.48	162.1	176.0	187.8	196.8	201.8	187.8	187.5
459*	418.0	215.4	41	303	11.9	111.3	2	252	17.7	222	42.0	17.02	154.6	171.0	185.1	195.0	200.0	186.6	186.4
460*	418.0	215.4	41	303	11.9	141.7	2	252	17.7	222	42.0	16.30	134.8	151.1	176.5	186.1	190.1	186.1	185.8
461*	418.0	215.4	41	303	11.9	172.2	2	252	17.7	213	60.6	15.64	156.2	174.7	184.3	194.6	200.0	185.4	185.3
462*	418.0	215.4	41	303	11.9	202.7	2	252	17.7	213	60.6	15.13	150.0	165.9	182.4	192.8	200.5	185.0	184.8
466	534.8	186.7		327			2	152	39.3	137	22.1		179.3	194.9	212.2			191.4	
467	534.8	157.7		331			2	31	31.9	76	14.6		174.6	184.5	196.6			184.3	
475	9404.0	76.4	90	305	18.3	4.0	1	352	14.2	352	62.2	1.41	152.4	154.6	159.0	172.7	174.8	162.0	183.8
476	2860.0	76.4	90	305	18.3	4.0	1	352	14.2	352	62.2	1.41	137.1	139.3	142.5	150.0	150.8	151.2	164.7
477	1310.0	76.4	90	305	18.3	4.0	1	352	14.2	352	62.2	1.41	134.5	136.1	140.7	150.9	151.7	144.8	154.1
480*	915.0	402.0	334	302	21.3	13.7	2	293	45.0	415	17.5	58.40	207.0	215.0	226.0	235.0	241.0	224.1	221.9
514	106.5	73.2		309	173.7		2	49	37.0	39	8.0		127.9	132.8	136.9	140.0	143.7	132.0	
515	106.5	109.4		308	173.7		2	91	61.1	84	19.3		134.8	144.3	153.9	161.9	171.0	159.6	
516	106.5	299.3		306	173.7		2	122	61.1	152	9.7		170.7	184.1	202.3			183.9	
519	700.0	73.2		310	277.1		1	39	65.2	39	8.0		137.9	145.4	152.8	157.3	160.2	143.7	
534	47.1	73.2		309	173.7		2	49	37.0	39	8.0		131.2	139.2	142.1	146.4	151.1	131.1	
535	47.1	109.4		308	173.7		2	91	61.1	84	19.3		141.3	147.6	154.8	162.3	169.2	153.9	
536	47.1	299.3		306	173.7		2	122	61.1	152	9.7		157.3	166.6	178.9	191.3		179.5	
564	487.8	137.0		336			2	18	55.2	67	15.4		149.6	166.6	184.1			173.8	
570	505.8	158.7		323			2	360	108.6	134	10.6		159.7	170.0	175.5			183.7	
572	523.8	61.3		341			1	15	45.9	15	15.4		138.2	147.6	157.6			139.1	
576*	468.0	465.7	407	299	15.2	17.3	2	649	31.4	55	7.6	69.69		223.9	231.0	235.8	239.9	221.4	219.2
577	535.8	246.7		306			2	640	228.2	155	1.3		176.1	182.8	190.6			217.7	
578	673.8	219.3		303			2	470	200.2	469	18.4		182.8	188.3	194.4			159.2	
581	583.8	61.5		308			2	549	40.3	280	3.6		181.6	185.7	192.1			196.3	
583	595.8	238.0		321			2	585	34.8	159	7.8		190.4	199.0	208.4			197.5	
585	559.8	241.4		320			2	610	21.4	159	9.1		185.7	198.3	207.3			195.3	
586	619.8	301.9		363			2	37	49.4	0	18.3		174.8	190.7	202.7			194.7	
587	571.8	135.5		325			2	284	57.9	140	15.1		162.1	180.4	191.4			186.3	
588*	391.5	118.1	32	310	11.9	11.9	2	27	10.8	70	21.7	12.90		162.3	183.4	194.3		180.2	180.5
589*	391.5	248.1	80	309	11.9	11.9	2	27	10.8	116	14.4	27.73	172.6	183.1	192.9	201.1		195.1	194.5
590*	2820.0	118.1	32	310	11.9	11.9	2	27	10.8	70	21.7	12.90	176.9	193.9	214.0	222.4	229.4	203.6	203.0
591*	2820.0	248.1	80	309	11.9	11.9	2	27	10.8	116	14.4	27.73	209.3	219.1	228.3	236.3	245.2	219.8	218.2
592	534.8	53.1	5	298	123.4	9.1	1	42	43.0	42	10.1	2.35	132.0	136.0	138.0	141.0	145.0	140.5	151.4
855	504.0	375.5	0	320	14.0	14.0	2	0	109.1	0	157.2	11.80	146.5	155.8	175.5	191.7	201.9	184.7	184.6

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
856	900.0	103.9		304			2	430	76.6	430	27.2		150.5	151.7	153.3	155.0	156.6	169.0	
857	900.0	292.2		268	14.0	14.0	2	1038	56.3	2022	14.5		176.0	187.5	199.0	207.0	212.0	202.5	
858	905.0	208.8		242			2	2134	14.7	2570	14.7		153.2	173.4	201.0	209.7	216.6	206.1	
859	905.0	183.5		244	14.0	14.0	2	2416	14.7	2125	14.7		144.2	177.7	200.2	214.2	219.5	203.1	
860	910.0	339.2		256			2	1196	150.8	2579	14.5		200.2	205.3	212.7	220.3	224.3	213.9	
861	910.0	312.2		259	14.0	14.0	2	1097	140.0	2425	14.5		193.4	198.3	208.1	218.6	221.7	212.1	
862	1046.0	650.3	0	307	7.0	7.0	2	0	84.6	456	5.5	90.11	228.3	231.8	237.1	240.5	245.1	243.2	241.2
863	38.0	257.5		274	15.2	15.2	2	2499	131.2	1829	82.1				149.0			194.2	
864	412.9	1112.1	0	313	7.9	8.2	2	0	118.3	0	111.5	113.27	255.7	259.7	261.1	262.2	263.3	249.8	248.6
900*	412.9	996.3	99	327	19.2	16.2	2	0	24.6	280	16.9	122.31	222.7	247.1	256.7	260.9	265.0	250.9	245.0
903*	417.0	302.3	22	312	98.9	22.9	2	0	44.4	2	49.0	24.26	142.2	176.8	194.1	202.3	210.1	192.7	192.3
904*	2290.0	302.3	22	312	98.9	22.9	2	0	44.4	2	49.0	24.26	165.0	196.2	214.9	223.2	228.3	216.0	214.5
907	399.5	297.9	12	311	8.5	2.7	2	34	7.0	11	5.6	30.85		168.0	196.0	208.0	215.0	197.1	196.4
908	3670.0	302.3	22	312	9.1	2.7	2	2	49.0	11	5.6	28.17			231.5			225.0	223.0
909	400.0	302.3	22	312	9.1	2.7	2	2	49.0	11	5.6	28.17			205.0			195.8	195.2
917*	385.5	297.9	12	311	2.7	8.5	2	11	5.6	34	7.0	30.85	193.0	198.0	207.0	216.0	220.0	196.6	196.0
1026	3710.0	128.7		310	100.6	120.4	2	34	37.7	41	32.8			177.4	207.6	223.7		198.0	
1123*	460.0	275.1	179	298	9.2	9.7	2	579	55.0	274	58.5	28.67		189.5	196.0	206.5		197.5	196.7
1124A*	4110.0	275.1	179	298	9.2	9.7	2	579	55.0	274	58.5	28.67		218.0	226.5	234.5		227.4	225.2
1124B*	4110.0	275.1	179	298	9.2	9.7	2	579	55.0	274	58.5	28.67		216.1	224.9	236.6		227.4	225.2
1125	800.0	262.0	0	352	8.2	4.0	2	0	86.7	0	23.0	21.08	163.0	184.9	193.3	198.4	201.7	195.7	195.6
1126	800.0	296.0	0	351	8.2	10.1	2	0	27.0	0	56.5	25.01	185.4	190.6	194.5	197.1		198.2	198.4
1127	800.0	296.0	0	352	8.2	10.1	2	0	27.0	0	30.1	26.87	165.7	184.7	194.5	201.4	209.4	199.5	199.5
1128	800.0	291.0	0	351	8.2	17.4	2	0	27.0	0	59.5	24.27	184.1	190.3	193.7	197.2		197.9	197.8
1129	800.0	333.0	10	350	8.2	17.4	2	0	27.0	91	8.0	32.60	182.4	195.6	202.0	207.9	214.0	204.6	203.7
1130	800.0	291.0	0	351	8.2	4.6	2	0	27.0	0	54.1	24.67	168.7	189.2	195.1	198.9	203.3	198.1	198.0
1131	800.0	298.1	0	350			2	0	19.0	0	14.3	28.19	170.8	188.8	195.8	202.8	208.8	198.5	200.5
1132	880.0	298.0	0	350			2	0	32.3	0	13.8	26.55	156.0	182.0	193.0	201.0	208.0	201.6	200.9
1303	954.3	187.1	98	317	7.6	12.2	2	160	33.3	0	96.0	0.57		145.5	156.5	164.5	170.0	151.6	150.7
1304	1908.5	187.1	98	317	10.7	12.2	2	160	33.3	0	96.0	0.48	138.3	148.6	168.7	173.7	183.5	158.0	156.8
1313	158.8	60.3		322			1	88	31.3	88	29.0		123.5	125.9	128.9	130.1		134.2	
1355	891.0	175.3	0	336	6.0	12.0	2	0	49.0	0	16.0	12.06	141.0	154.0	187.0	197.0	200.0	188.7	188.3
1376	102.0	330.0	0	332			2	0	13.5	0	19.0	33.15		159.8	173.3	185.4	193.7	188.6	188.9
1377	432.0	323.5	0	332			2	0	13.5	0	19.0	32.43		166.3	193.5	213.8		199.5	198.2
1388	134.0	150.0	100	359	2.0	60.0	2	825	41.0	275	7.5	23.99			152.5			173.3	173.2
1396	170.0	128.0		307	18.0	18.0	2	820	92.0	750	24.0		163.8	169.4	174.4	177.6	180.2	184.1	
1397	432.0	150.0	100	359	2.0	60.0	2	825	41.0	275	7.5	23.99			170.6			185.4	185.1
1398	432.0	200.0	50	362	2.0	15.2	2	950	8.3	13	21.0	11.09		186.7	191.1	195.1	198.0	179.9	179.2
1399	134.0	200.0	50	362	2.0	15.2	2	950	8.3	13	21.0	11.09		164.0	168.5	173.0	176.8	172.2	171.9
1400	49.0	80.9	59	305	21.3	7.3	2	107	19.6	145	27.8	7.52			167.6			152.8	146.6
1401	90.7	80.9	59	305	18.3	7.3	2	107	19.6	145	27.8	7.67			153.6			157.6	150.9
1402	173.1	80.9	59	305	18.3	7.3	2	107	19.6	145	27.8	7.67			161.2			163.3	156.0
1403	492.0	80.9	59	305	18.3	7.3	2	107	19.6	145	27.8	7.67			178.4			174.2	167.2
1404	49.0	144.7	52	304	21.3	7.3	2	107	19.8	226	2.3	41.11			191.2			183.4	182.3
1405	90.7	144.7	52	304	18.3	7.3	2	107	19.8	226	2.3	41.26			170.7			186.1	185.5
1406	173.1	144.7	52	304	18.3	7.3	2	107	19.8	226	2.3	41.26			193.8			190.0	189.8
1407	492.0	144.7	52	304	18.3	7.3	2	107	19.8	226	2.3	41.26			203.6			199.7	199.9
1408	49.0	242.5	96	303	21.3	7.3	2	102	19.8	291	13.8	30.28			188.0			186.9	187.4
1409	90.7	242.5	96	303	18.3	7.3	2	102	19.8	291	13.8	30.43			182.4			188.4	188.8
1410	173.1	242.5	96	303	18.3	7.3	2	102	19.8	291	13.8	30.43			202.2			191.1	191.3
1411	492.0	242.5	96	303	18.3	7.3	2	102	19.8	291	13.8	30.43			215.1			199.9	199.5
1412	49.0	322.6	96	302	21.3	7.3	2	102	19.8	352	4.4	48.08			204.9			195.2	195.7
1413	90.7	322.6	96	302	18.3	7.3	2	102	19.8	352	4.4	48.23			195.8			196.8	197.4
1414	173.1	322.6	96	302	18.3	7.3	2	102	19.8	352	4.4	48.23			210.3			200.1	200.3
1416	49.0	376.2	124	303	21.3	7.3	2	107	19.6	271	0.3	80.99			210.8			205.0	205.1
1417	90.7	376.2	124	303	18.3	7.3	2	107	19.6	271	0.3	81.15			215.9			207.1	207.4
1437*	45.9	303.4	172	301	18.3	18.3	2	401	12.7	110	16.1	37.81	180.3	185.5	191.4	196.4	200.5	184.1	184.4
1438*	2720.0	345.7	185	306	25.9	1.8	2	114	23.7	290	63.2	38.21	216.4	220.4	230.9	239.4		228.4	226.1
1439*	2720.0	345.7	185	306	25.9	9.1	2	114	23.7	290	63.2	38.08	215.9	220.9	225.9	230.9		228.4	226.0
1440*	505.0	277.1	50	312	5.2	5.2	2	0	44.4	76	35.5	22.74	180.3	189.3	202.3	213.3	223.3	193.7	193.2
1441*	4090.0	277.1	50	312	5.2	5.2	2	0	44.4	76	35.5	22.74	214.5	227.5	237.5	246.5	253.5	222.4	220.5
1442*	505.0	470.1	107	320	5.2	14.3	2	0	44.7	183	26.4	49.97	185.0	204.0	213.0	221.0	228.0	213.3	211.7
1536*	4600.0	404.1	1818	330	7.0	7.0	1	3956	148.2	3956	255.9	50.47	211.8	218.0	224.0	229.6	234.7	209.4	209.4
1537*	4459.0	183.2	115	320	8.0	7.0	2	0	135.2	0	11.9	4.10	183.0	188.0	196.0	207.0	213.0	196.8	194.4
1550	100.0	316.2	150	308	15.2	15.2	2	85	47.5	230	24.5	39.19	185.8	190.8	194.0	197.3	199.0	197.2	191.1
1551	100.0	316.2	150	308	15.2	30.5	2	85	47.5	230	24.5	38.57	183.0	188.3	192.5	197.4	202.1	187.0	188.3
1552	1046.0	316.2	150	308	7.9	7.9	2	8	12.1	130	5.5	40.48	212.0	218.5	221.1	227.0	230.0	214.7	214.1
1553	100.0	326.2	150	308	15.2	15.2	2	171	70.3	601	61.2	40.14	177.7	180.7	185.8	219.9	231.1	190.0	191.9
1554	100.0	326.2	150	308	15.2	30.5	2	171	70.3	601	61.2	39.89	173.4	177.0	182.4	198.8	202.1	188.3	189.2
155	1046.0	326.2	150	308	7.9	7.9	2	171	70.3	601	61.2	40.37	203.2	206.9	212.5	219.9	231.1	213.8	214.6
1556	100.0	326.2	150	308	42.7	15.2	2	171	70.3	601	61.2	39.71		180.4	183.5	189.8		186.9	188.7
1557	100.0	326.2	150	308	42.7	30.5	2	171	70.3	601	61.2	39.46		176.5	180.5	187.0		184.0	186.0
1558	100.0	314.8	55	308	15.2	9.1	2	90	46.2	165	38.8	36.81		186.7	189.8	193.5		191.9	193.0
1559	100.0	326.2	120	308	15.2	9.1	2	200	67.0	175	36.7	38.14		177.5	183.9	190.5		193.0	194.0
1560	238.0	385.0	0	301	10.0	10.0	2	0	59.7	0	131.0	22.88			196.5	213.0	233.5	186.6	186.7
1563	94.3	365.3	0	318			2	0	31.1	0	28.3	35.15			182.9			182.9	182.7
1564	860.0	350.2		318	10.7	10.7	2	180	65.9	79	8.3			194.7	212.0	219.8	225.0	213.6	
1567	875.0	385.0		320			2	0	154.3	0	132.8		149.0	156.0	179.5	202.0	205.0	191.7	
1568	875.0	385.0		320			2	0	154.3	0	59.4		148.0	155.0	197.0	209.5	213.5	191.1	
1574	828.5	380.0	0	317			2	0	36.3	0	35.0	35.22		154.2	202.2	218.7	225.7	209.2	209.4

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
1582	1965.0	209.0		317			2	970	39.0	1590	148.0		191.5	195.5	200.3	208.4	231.5	195.7	
1583	1965.0	227.0		314			1	1700	74.0	1700	153.0		184.8	189.2	194.7	200.9	205.0	190.4	
1584	1965.0	385.0		286			1	1650	170.0	1650	215.0		200.6	205.4	210.6	215.8	221.7	195.1	
1585	1964.0	388.0		299			1	700	228.0	700	160.0		172.5	182.8	193.7	202.7	208.7	188.1	
1586	1965.0	449.0		315			2	400	80.0	0	58.0		154.1	165.0	180.5	210.9	219.8	220.7	
1587	1965.0	554.0		315			2	400	80.0	0	155.0		173.3	186.5	206.8	231.2	240.3	222.5	
1588	872.0	520.0		284			2	931	6.0	1740	271.0		206.0	215.0	224.0			224.5	
1589	872.0	629.0	0	322			2	0	176.0	0	13.0	51.88	214.0	220.2	231.9			224.7	224.0
1590	1965.0	626.0	0	322			2	0	176.0	0	13.0	51.54	178.1	194.5	225.4			235.7	233.7
1592	860.0	429.8		268			2	2000	97.4	1250	14.5				245.0			237.6	
1593	1760.0	225.0	0	320			2	0	96.5	0	112.8	1.79	142.4	147.0	158.5	172.2	184.7	172.3	171.3
1594*	1760.0	212.0	50	294	90.0	4.0	0						130.1	136.8	146.2	154.7	167.8	143.9	160.3
1595	400.0	136.0		320			1	1640	132.0	1640	4.0			143.2	149.6	155.4	158.5	150.4	
1596	180.0	237.0	0	304			2	0	96.1	0	105.3	6.05	136.6	144.9	161.6	171.5	186.8	155.3	160.7
1597	411.0	142.0	0	309			2	0	45.2	0	96.7	-0.10	132.4	135.7	139.6	144.7	155.9	141.3	140.4
1600	2780.0	149.7	300	294	7.6	7.6	2	610	69.2	518	30.6	17.37	205.4	217.8	221.8	224.8	226.8	210.8	210.5
1601	9150.0	149.7	300	294	6.1	6.1	2	610	69.2	518	30.6	17.44	224.3	228.3	234.3	238.3	241.3	226.9	225.2
1602	2780.0	191.5	200	296	7.6	7.6	2	518	46.7	457	28.2	28.49	210.1	213.6	219.1	223.1	225.1	219.3	218.2
1603	9150.0	191.5	200	296	6.1	6.1	2	518	46.7	457	28.2	28.57	228.5	231.8	236.8	241.8	245.8	235.7	233.4
1604	9150.0	96.6	340	298	6.1	6.1	2	457	61.2	366	1.6	25.13	225.2	233.2	239.2	245.2	247.2	228.6	227.6
1605	2780.0	96.6	340	298	7.6	7.6	2	457	61.2	366	1.6	24.17	213.8	217.8	222.8	228.8	233.8	212.2	212.3
1606*	840.0	107.2	123	304	12.2	7.6	2	235	37.1	335	3.8	8.84		159.6	182.6	192.6		185.2	179.8
1609*	2800.0	107.2	123	304	12.2	7.6	2	235	37.1	335	3.8	8.84		179.1	194.6	203.6		199.0	199.0
1610*	9100.0	107.2	123	304	14.9	4.9	2	235	37.1	335	3.8	9.47		191.1	207.1	219.3		215.3	214.3
1700*	950.0	226.4	399	260	4.6	3.0	2	496	18.1	1487	40.2	26.86	192.3	197.3	203.6	212.6	220.1	209.9	208.7
1701*	880.0	226.4	399	260	3.0	4.6	2	1487	40.2	496	18.1	26.86	191.1	197.1	204.4	213.1	218.5	209.0	207.9
1702*	880.0	167.8	334	259	3.0	3.0	2	1744	46.9	991	56.3	26.83	180.7	198.6	205.2	210.8	214.3	207.9	211.7
1703*	950.0	167.8	334	259	3.0	3.0	2	991	56.3	1744	46.9	26.83	189.6	198.4	205.3	212.8	218.5	208.4	212.7
1704A*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	244.2	247.5	251.0	254.0	256.2	237.4	234.3
1704B*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	241.7	245.3	248.4	251.4	253.4	237.4	234.3
1704C*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	239.6	244.5	248.5	252.1	254.7	237.4	234.3
1705A*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	242.9	244.8	248.5	252.0	254.3	237.4	234.3
1705B*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	243.2	247.1	250.8	254.6	257.3	237.4	234.3
1705C*	810.0	554.0	785	240	9.1	21.3	2	1570	37.0	1923	13.5	80.14	241.1	247.7	251.0	254.0	258.2	237.4	234.3
1708*	810.0	635.8	827	255	9.1	3.0	2	1661	36.2	1798	62.3	92.98	246.0	249.0	252.4	255.8	258.7	244.5	241.5
1709*	810.0	635.8	827	255	9.1	3.0	2	1661	36.2	1798	62.3	92.98	240.2	246.2	250.8	254.8	257.4	244.5	241.5
1710*	810.0	635.8	827	255	9.1	3.0	2	1661	36.2	1798	62.3	92.98	246.3	249.1	252.5	256.0	259.2	244.5	241.5
1711*	810.0	635.8	827	255	9.1	3.0	2	1661	36.2	1798	62.3	92.98	245.2	248.8	252.4	256.1	259.1	244.5	241.5
1712*	2345.0	167.8	334	259	3.0	3.0	2	991	56.3	1744	46.9	26.83		207.4	218.8	230.0	239.5	218.7	224.5
1713*	1705.0	167.8	334	259	3.0	3.0	2	1744	46.9	991	56.3	26.83	197.5	205.0	214.2	223.7		215.1	220.3
1715*	880.0	145.9	276	253	22.9	18.3	2	1593	13.9	1021	30.9	31.61	181.8	188.9	195.8	201.8		207.4	206.9
1716*	810.0	373.2	235	271	5.8	3.0	2	1087	60.5	207	29.7	41.38	206.8	211.4	218.7	225.9	232.1	219.4	217.9
1717*	810.0	455.1	1050	238	5.8	7.3	2	1615	26.3	2499	109.6	72.51	228.0	233.0	240.0	246.9		232.5	230.4
1800*	455.0	27.5	53	330	30.5	39.6	0						114.3	118.6	122.8	126.4	131.6	123.2	124.4
1801*	952.0	27.5	53	330	29.3	38.1	0						119.9	127.7	135.8	139.3	142.1	135.6	129.7
1804	417.0	1028.4	211	301	22.9	22.9	2	145	6.8	488	99.5	132.12	245.2	247.6	252.7	261.2	270.1	254.1	250.0
1805*	960.0	430.5	245	301	1.5	24.4	2	392	11.9	201	5.0	81.83		238.0	248.7	252.0		237.4	234.5
1903	9365.0	305.8	0	320			2	0	15.6	0	27.7	29.76			218.2			238.8	235.6
1904	9365.0	305.8	0	320			2	0	15.6	0	27.7	29.76			231.5			238.8	235.6
1905	3406.0	305.8	0	320			2	0	15.6	0	27.7	29.76			210.0			224.2	222.4
1906	1365.0	305.8	0	320			2	0	15.6	0	27.7	29.76			210.0			211.6	210.6
1907	1250.0	305.8	0	320			2	0	15.6	0	27.7	29.76			194.9			~~210.6~~	209.5
1908	9365.0	231.7	0	320			2	0	15.6	0	27.7	21.36			226.9			231.1	228.5
1909	1365.0	231.7	0	320			2	0	15.6	0	27.7	21.36			207.6			204.9	203.9
1978*	573.3	61.9	53	315	194.0	11.0	0						153.0	154.0	155.0			129.6	134.9
1979*	573.3	77.8	92	314	194.0	9.1	2	201	55.5	198	19.3	4.61	144.0	147.5	149.5			141.6	141.6
1980*	573.3	97.8	71	319	194.0	9.1	2	76	57.0	49	24.8	2.96	141.5	156.0	162.0			160.7	162.4
1981*	573.3	120.9	55	319	194.0	13.0	2	91	40.4	15	7.4	5.69	173.5	192.5				176.2	175.7
1982*	573.3	122.2	88	317	194.0	9.1	2	127	57.2	61	7.6	7.00	163.5	179.0	187.0			179.8	179.3
1983*	573.3	147.7	63	318	194.0	9.1	2	88	54.0	64	26.5	8.15	156.5	177.5	189.5			178.8	178.4
1984*	495.0	100.7	92	313	225.5	9.1	1	216	60.3	216	40.4	4.05	136.8	143.8	148.3			150.4	150.4
1985*	629.3	144.5	84	316	225.5	10.0	2	183	60.8	127	6.9	13.58	168.4	178.9	183.9			188.1	187.3
1986*	629.3	149.1	81	315	225.5	12.0	2	168	58.1	183	25.3	10.10	158.9	170.9	182.9			183.0	182.3
1987*	560.0	203.2	0	318	47.2	9.1	2	0	32.6	0	20.7	17.07	131.8	161.3				189.2	189.0
1988*	560.0	218.4	17	317	47.2	9.1	2	0	32.6	41	13.7	18.07	158.8	183.3				189.9	189.9
1989*	560.0	259.3	31	317	47.2	9.1	2	0	32.6	34	10.1	26.24	172.3	188.8				198.1	197.5
1990*	560.0	317.8	37	318	47.2	9.1	2	0	32.6	2	30.3	28.64	165.8	190.3				199.2	198.7
1991*	560.0	357.5	54	314	47.2	9.1	2	0	32.5	178	9.4	32.54	163.8	191.3				203.5	202.3
1992	3260.0	92.0	0	316			0							161.6	165.6	175.6		138.5	155.1
1993	3260.0	92.0	0	323			2	0	54.0	0	22.3	1.77		171.6	186.6	198.6		173.3	174.6
1994	3260.0	92.0	0	323			2	0	21.9	0	66.8	0.38		168.6	174.6	182.6		156.9	158.3
1995	3260.0	92.0	0	323			2	0	21.9	0	22.3	5.38		176.6	195.6	208.6		191.3	191.7
1996*	567.3	109.7	103	315	198.1	9.1	2	230	57.0	145	6.2	11.87	165.4	168.4	175.4	183.4	190.4	168.2	168.2
1997*	567.3	111.7	87	316	198.1	9.1	2	171	69.8	152	7.4	12.78	184.4	192.4	200.9	211.4		184.9	184.9
1998*	567.3	127.6	85	313	198.1	9.1	1	245	64.7	245	62.9	6.66	171.9	179.4	183.4	187.4	194.4	165.9	149.9
1999*	567.3	141.1	57	319	198.1	11.0	2	95	56.1	15	3.5	9.34	169.4	177.9	189.4	199.4		181.5	181.5
2000	45.0	258.6	103	315	91.4	9.1	2	171	42.8	163	14.0	26.20	161.4	169.9				167.0	167.2
2001	45.0	549.8	177	311	91.4	9.1	2	154	38.1	384	43.8	66.47	189.4	194.4				190.8	190.8
2002	91.5	97.4	215	311	161.5	9.1	2	434	7.6	152	25.6	3.97	130.6	135.6				144.7	147.6
2003	91.5	445.0	308	314	161.5	9.1	2	434	9.6	91	34.4	39.88	186.6					183.7	185.2

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
2004	91.5	398.4	165	311	161.5	9.1	2	503	12.9	168	17.1	48.32	164.6					187.9	187.7
2005	91.5	320.6	222	311	161.5	9.1	2	555	10.9	46	0.7	78.49	185.6					199.8	200.7
2006	91.5	303.8	238	310	161.5	9.1	2	579	10.9	107	19.1	45.95	161.6	170.6				190.9	190.3
2007	91.5	216.8	217	308	161.5	18.3	2	622	19.5	149	24.6	31.29	144.6	148.6				179.2	178.3
2008	91.5	285.0	188	309	161.5	9.1	2	494	17.9	221	65.0	28.75	159.6	170.6				175.4	175.4
2009	91.5	213.1	143	314	161.5	9.1	2	366	28.6	21	8.7	17.04	153.6	164.6				174.1	174.2
2010	91.5	277.7	155	313	161.5	10.7	2	297	27.2	128	43.1	22.55	159.6	169.6				178.9	180.1
2011*	92.0	212.0	103	315	123.7	9.1	2	134	74.0	171	26.2	16.54	145.2	157.7	170.7			165.5	166.2
2012*	92.0	324.0	99	315	123.7	9.1	2	143	78.1	183	1.5	43.09	155.7	167.7	178.2			184.7	186.4
2013	92.0	587.8	196	311	123.7	9.1	2	143	74.2	415	50.5	66.94	186.7	196.2				200.4	199.5
2014	92.0	679.5	102	317	123.7	9.1	2	131	72.3	96	3.6	74.97	189.2	205.2				213.0	212.1
2015*	92.0	409.8	157	316	123.7	9.1	2	229	23.8	140	7.2	49.15	174.7	184.2	193.7			194.4	195.7
2016*	92.0	409.5	159	315	123.7	9.1	2	180	47.8	213	2.9	49.74	167.2	177.2	189.2			189.6	190.5
2017*	92.0	434.7	109	314	123.7	9.1	2	159	80.0	213	14.2	47.87	164.7	176.7	188.2			188.3	188.9
2018	58.3	412.9	405	303	224.0	9.1	2	547	71.6	459	47.7	50.55	171.2	182.7				183.4	184.0
2019	58.3	518.9	303	307	224.0	9.1	2	634	87.2	122	17.7	61.39	184.7					192.9	192.8
2020*	58.3	353.6	215	311	224.0	9.1	2	503	122.0	191	6.3	51.75	158.2	165.2	176.2			185.5	185.8
2021	58.3	356.2	212	310	224.0	9.1	2	549	127.3	207	38.3	33.33	155.2	162.7				173.7	174.6
2022	66.8	214.5	164	316	230.1	30.5	2	233	61.2	110	34.1	14.54	149.9	158.4				159.8	160.2
2023	93.1	293.2	86	316	88.4	26.5	2	216	24.9	0	68.9	19.55	144.3	148.8				168.9	169.4
2024	93.1	174.3	77	320	88.4	68.6	2	0	76.6	0	46.7	5.78	142.8	146.8				151.7	152.8
2025*	180.4	100.7	92	313	178.9	8.5	1	216	60.3	216	40.4	4.83	132.0	137.0	141.5	144.5	147.5	148.7	141.3
2026*	180.4	183.6	115	313	178.9	8.5	2	183	57.6	253	64.4	12.43	157.9	170.9	179.9	188.4	194.4	168.4	169.7
2027*	180.4	236.6	92	316	178.9	9.1	2	152	69.0	152	30.3	17.23	144.0	159.5	174.0	186.0	194.5	174.6	174.9
2028*	495.0	100.7	92	313	180.7	8.5	1	216	60.3	216	40.4	4.80	136.7	143.7	148.2	151.2	153.7	159.2	151.7
2029*	495.0	183.6	115	313	180.7	8.5	2	183	57.6	253	64.4	12.40	176.2	196.2				182.5	182.1
2030*	495.0	236.6	92	316	180.7	9.1	2	152	69.0	152	30.3	17.20	170.2	184.2				188.1	187.5
2031*	560.0	189.8	215	314	180.7	8.5	2	244	97.0	171	44.9	8.97	147.3	169.8	183.3			179.7	179.7
2032*	560.0	273.8	212	312	180.7	8.5	2	249	98.5	236	65.0	18.43	180.3	199.3				192.4	191.3
2033*	560.0	328.2	182	313	180.7	9.1	2	229	101.2	220	51.0	24.83	175.8	200.3				197.5	197.0
2034*	94.3	203.2	0	318	46.0	9.1	2	0	32.3	0	20.7	17.10	148.9	156.4	166.9	180.4		170.7	171.6
2035*	94.3	369.2	0	317	46.0	9.1	2	0	32.3	0	31.0	35.35	156.3	169.3	182.8			183.0	182.7
2036*	94.3	543.3	0	317	46.0	9.1	2	0	32.3	0	23.1	59.08	170.8					199.6	198.5
2037	94.3	698.3	0	317	46.0	9.1	2	0	32.3	0	17.9	80.58	184.4					212.5	211.0
2038*	94.3	957.0	0	318	46.0	9.1	2	0	32.3	0	42.0	114.15	185.8					226.6	223.6
2039	185.3	241.0	92	317	86.9	9.1	2	50	31.5	230	8.4	29.77	157.7	179.7				187.2	188.1
2040*	180.4	171.4	192	310	118.9	9.1	2	445	68.1	155	50.5	16.00	153.0	166.0	178.0	185.0	190.5	179.3	179.4
2041*	180.4	210.8	113	316	118.9	9.1	2	203	30.3	152	9.3	14.84	158.5	172.0	184.5	193.5		174.2	174.0
2042*	180.4	331.1	99	313	118.9	8.5	2	218	28.6	167	48.4	26.45	155.0	173.5	185.5	194.5		183.7	183.8
2043*	180.4	412.1	128	316	118.9	8.5	2	67	96.6	177	2.3	38.67	173.4	192.4				195.5	196.6
2044*	180.4	466.2	115	315	118.9	9.1	2	64	95.9	220	50.4	42.90	164.5	186.0	196.0			195.1	195.5
2045*	560.0	171.4	192	310	125.0	9.1	2	445	68.1	155	50.5	15.91	163.3	179.8	190.8			189.6	189.5
2046*	560.0	210.8	113	316	125.0	9.1	2	203	30.3	152	9.3	14.64	181.8	193.8	203.3			187.7	186.9
2047*	560.0	331.1	99	313	125.0	8.5	2	218	28.6	167	48.4	26.24	172.8	190.3	206.3			198.6	198.0
2048*	560.0	412.1	128	316	125.0	8.5	2	67	96.6	177	2.3	38.65	193.8	219.3				208.3	208.0
2049*	560.0	466.2	115	315	125.0	9.1	2	64	95.9	220	50.4	42.84	188.8	214.3				210.7	210.2
2050*	187.0	203.2	0	318	46.0	9.1	2	0	32.3	0	20.7	17.10	141.8	156.8	170.8	183.8	193.3	177.0	177.2
2051*	187.0	369.2	0	317	46.0	9.1	2	0	32.3	0	31.0	35.35	158.2	175.7	185.7	196.7		190.5	190.2
2052*	187.0	543.3	0	317	46.0	9.1	2	0	32.3	0	23.1	59.08	174.8	202.8				206.7	205.3
2053	187.0	698.3	0	317	46.0	9.1	2	0	32.3	0	17.9	80.58	183.9					219.3	217.2
2054*	187.0	957.0	0	318	46.0	9.1	2	0	32.3	0	42.0	114.15	195.7					235.6	232.0
2057*	90.9	107.5	84	313	150.0	18.0	1	245	61.8	245	45.7	9.27	136.5	146.5	151.9			153.3	145.7
2058*	180.0	150.8	76	315	211.2	26.8	2	171	66.6	171	20.1	15.40	150.5	162.5	169.5			173.0	173.8
2059	45.0	160.8	157	314	91.4	21.3	2	247	47.5	188	17.1	22.33			155.4			163.1	163.6
2060*	41.5	204.2	112	315	91.4	1.8	2	203	61.3	186	51.7	18.77	139.9	149.9	161.9	173.4	187.9	160.7	157.3
2061	91.5	268.0	182	311	161.5	18.0	2	494	18.2	104	22.7	31.86	186.6	196.6				180.5	180.5
2063*	9640.0	279.7	99	316	4.9	57.9	2	237	94.1	95	36.2	25.61	214.0	222.0	231.5	240.0	246.5	236.0	233.2
2064*	3480.0	279.7	99	316	4.9	57.9	2	237	94.1	95	36.2	25.61	204.5	212.4	219.6	227.2	232.1	221.5	219.9
2067*	3480.0	399.5	93	317	4.9	11.6	2	206	91.6	66	15.1	41.15	217.5	224.5	230.0	237.5		233.2	231.4
2068	3480.0	259.8	98	317	4.9	22.9	2	198	91.2	85	7.4	30.72			214.6			223.6	222.2
2069	3480.0	129.6	105	316	4.9	8.2	2	183	88.3	213	10.6	19.00			198.0			212.0	211.5
2071*	58.3	150.8	76	315	224.0	22.9	2	171	66.6	171	20.1	15.40	142.7	152.7	159.7			161.2	164.7
2072*	63.3	188.9	164	317	228.0	21.3	2	189	63.9	102	25.4	16.39	149.4	158.4	172.4			167.2	167.4
2073	58.3	356.2	212	310	224.0	9.1	2	549	127.3	207	38.3	33.33			176.2			173.7	174.6
2075*	191.0	143.9	84	306	106.7	9.1	0						125.0	132.5	140.0	147.0	153.0	119.3	136.0
2079	3930.0	42.8	90	316	35.4	27.4	0								143.4			141.3	143.3
2083*	203.5	439.6	330	320	14.9	19.8	2	0	56.8	120	32.5	42.47	187.7	201.2	212.7	220.2	224.2	195.9	195.8
2084	900.0	400.0	0	315			2	0	113.4	0	63.4	25.58	183.6	205.6	214.6	223.6	227.6	205.5	205.1
2085*	774.0	203.2	0	318	46.0	9.1	2	0	32.3	0	20.7	17.10	129.1	166.1	191.6			192.9	192.9
2086*	774.0	369.2	0	317	46.0	9.1	2	0	32.3	0	31.0	35.35	146.6	190.1				209.4	208.1
2087*	774.0	543.3	0	317	46.0	9.1	2	0	32.3	0	23.1	59.08	165.6					225.2	222.7
2088*	774.0	698.3	0	317	46.0	9.1	2	0	32.3	0	17.9	80.58	183.1					237.6	234.1
2089	774.0	957.0	0	318	46.0	9.1	2	0	32.3	0	42.0	114.15						255.2	250.5
2090*	41.5	61.9	53	315	144.2	13.7	0						115.7	118.2	119.7	121.2	122.7	106.5	116.0
2091*	89.1	88.6	113	318	123.4	13.7	1	88	66.7	88	21.9	1.09	125.9	129.4	131.9	133.9	136.4	135.5	137.5
2092*	63.3	121.8	82	315	128.0	13.7	2	155	60.2	162	12.7	14.84	142.4	152.9	161.4	165.4	170.4	164.8	163.8
2093*	90.1	121.8	82	315	100.0	13.7	2	155	60.2	162	12.7	15.30	145.0	156.0	166.0	172.5	177.5	168.6	168.3
2094*	58.3	138.3	93	314	224.0	13.7	2	201	60.7	201	12.2	17.51	139.7	149.7	156.2	160.7	167.7	165.6	167.9
2095*	88.3	138.3	93	314	196.6	13.7	2	201	60.7	201	12.2	17.96	139.3	149.8	156.3	162.3	168.3	170.2	171.6
2096*	63.3	161.6	130	316	230.1	13.7	2	201	63.7	134	13.4	14.90	140.4	151.4	160.9	168.4	178.4	164.4	165.4

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
2097*	89.9	161.6	130	316	203.0	13.7	2	201	63.7	134	13.4	15.32	141.4	151.9	161.9	170.4	177.4	167.6	168.3
2098*	1370.0	151.3	149	316	39.6	13.7	2	232	23.2	79	27.5	19.03	191.7	201.7	210.7	218.7	224.7	200.5	200.2
2099*	535.0	386.0	32	317	190.2	13.7	2	30	83.1	0	15.7	32.78	173.4	199.9	212.9			203.6	203.4
2100*	774.0	83.7	160	312	121.9	12.2	0						140.7	147.2	150.7			139.5	141.6
2101*	774.0	137.9	242	306	121.9	15.8	2	457	75.2	397	16.1	14.00	170.1	182.1	192.6			189.2	188.5
2102*	774.0	210.8	113	316	121.9	9.1	2	203	30.3	152	9.3	14.74	179.1	193.1				191.9	191.0
2103*	774.0	331.1	99	313	121.9	8.5	2	218	28.6	167	48.4	26.35	181.6	195.1				203.1	202.3
2104*	774.0	412.1	128	316	121.9	8.5	2	67	96.6	177	2.3	38.68	202.0					212.4	211.9
2105*	774.0	466.2	115	315	121.9	9.1	2	64	95.9	220	50.4	42.87	190.1					215.1	214.5
2106*	63.3	262.0	104	315	141.7	21.3	2	267	51.8	40	9.8	23.56	146.7	159.7	173.7	185.7	194.7	170.3	171.0
2107*	201.0	98.2	33	320	289.9	12.2	1	8	76.6	8	21.6	0.46	143.4	148.9	152.9			139.5	145.9
2108	774.0	384.4	108	318	124.7	9.8	2	79	95.3	76	6.4	42.63	215.1					212.9	212.9
2109*	560.0	203.2	0	318	46.0	9.1	2	0	32.3	0	20.7	17.10	133.3	163.3	188.8			189.2	189.0
2110*	560.0	369.2	0	317	46.0	9.1	2	0	32.3	0	31.0	35.35	138.3	182.3				205.0	203.9
2111*	560.0	543.3	0	317	46.0	9.1	2	0	32.3	0	23.1	59.08	156.3	201.3				220.7	218.5
2112*	560.0	698.3	0	317	46.0	9.1	2	0	32.3	0	17.9	80.58	173.3	214.3				233.2	229.9
2113*	560.0	957.0	0	318	46.0	9.1	2	0	32.3	0	42.0	114.15	173.2	224.2				250.7	246.3
2114*	48.3	170.8	223	308	224.6	21.3	2	581	17.1	159	10.0	11.08	162.0	168.0	174.5			160.6	162.8
2115*	560.0	505.7	110	312	45.7	8.5	2	0	32.0	291	86.1	51.43	182.3	207.3				216.0	215.0
2116*	58.3	121.5	72	315	224.9	22.9	1	175	69.5	175	52.0	2.37	121.7	125.7	129.7			134.5	134.5
2117*	58.3	121.5	72	315	224.9	3.0	1	175	69.5	175	52.0	2.76	130.7	135.7	138.7			135.3	135.3
2118*	180.4	121.5	72	315	210.9	3.0	1	175	69.5	175	52.0	2.96	127.5	132.5	136.5			138.0	138.0
2119*	180.4	121.5	72	315	181.1	3.0	1	175	69.5	175	52.0	3.39	127.5	136.5	140.5			138.6	138.6
2120*	180.4	150.8	76	315	181.1	26.8	2	171	66.6	171	20.1	15.85	149.5	162.5	170.5			173.5	174.1
2121*	593.6	121.5	72	315	181.1	22.9	1	175	69.5	175	52.0	3.00	130.8	142.8	149.8			143.7	143.7
2122*	495.0	121.5	72	315	181.1	4.9	1	175	69.5	175	52.0	3.35	139.3	148.3	151.3			142.2	142.2
2123*	58.3	151.8	73	314	224.9	21.3	2	155	73.7	229	29.8	14.57	142.7	152.7	159.7			156.9	164.8
2124*	495.0	121.5	72	315	210.9	4.9	1	175	69.5	175	52.0	2.92	139.3	148.3	151.3			141.3	141.3
2125*	196.3	177.3	182	311	121.9	29.3	2	427	30.9	155	16.3	20.22	153.2	166.2	176.2	190.2	201.2	178.5	178.5
2126*	196.2	158.1	178	313	214.0	29.3	2	290	99.4	220	14.6	16.56	156.3	170.3	178.3	192.3	203.3	175.1	175.7
2127*	196.3	356.3	39	320	214.0	12.2	2	107	58.9	91	29.1	32.22	169.2	178.2	189.2			188.2	188.5
2128*	196.0	205.4	127	317	214.9	29.3	2	107	65.0	145	6.4	16.38	158.6	169.1	179.1	189.6		175.5	175.8
2129*	196.3	75.1	76	315	214.9	9.1	0						139.2	143.2	147.2	151.2	154.2	120.9	130.8
2130	53.2	152.2	116	315	118.0	9.1	2	226	70.8	152	7.4	13.98	144.9	154.9	164.9	173.9		160.1	156.6
2131*	53.3	163.2	19	322	118.0	9.1	2	0	67.3	0	43.3	5.94	128.2	139.7	153.2	167.2	178.2	144.5	144.8
2132*	174.1	474.0	52	320	120.1	10.1	2	160	76.0	0	43.5	46.36	157.2	179.2	194.2	211.2		196.0	196.4
2133*	174.1	195.8	14	320	120.1	14.6	2	55	20.7	0	16.2	15.03	158.2	169.7	184.7			175.8	176.3
2134*	775.0	39.9	88	316	9.1	12.2	0						131.7	137.2	139.6	141.5	143.4	132.8	130.4
2135	86.0	315.0	0	322			2	0	56.0	0	45.4	24.11	156.6	164.6	174.1	183.1		171.4	171.9
2136*	63.3	93.5	6	319	85.0	9.1	0						117.5	121.5	128.0	135.5	139.5	109.1	126.8
2137*	48.3	102.3	153	303	224.6	6.1	0						123.1	126.1	132.1	140.1	144.1	101.3	119.1
2138*	48.3	243.4	217	315	224.6	26.8	2	247	98.0	95	8.7	22.33	144.0	154.0	168.0			170.0	169.1
2139	503.0	675.5	38	315	104.9	27.7	2	2	46.4	98	17.5	80.75	205.4					231.5	227.9
2140*	53.3	112.9	34	316	121.9	9.1	1	198	70.9	198	42.0	6.49	119.0	122.0	124.5	126.5	128.5	135.4	136.3
2141*	53.3	175.5	7	321	121.9	9.1	2	0	72.6	91	6.4	16.96	143.9	152.9	164.9	175.4		170.8	171.4
2142*	63.2	147.5	26	315	106.1	32.3	2	40	29.3	274	6.6	10.27	133.4	142.4	150.4	156.4	163.4	152.1	154.2
2143	58.3	169.0	0	324	38.1	9.1	2	0	55.5	0	43.2	7.84	124.3	134.3	146.3	158.8	168.8	149.8	152.2
2144	58.3	277.0	0	324	38.1	13.4	2	0	55.5	0	61.1	17.95	135.6	147.6	165.6	177.6	182.6	161.6	162.1
2145*	48.3	250.3	226	314	198.1	21.3	2	253	120.2	200	12.7	22.70	158.1	168.1	180.1	189.1		169.4	170.9
2146*	48.3	349.2	131	322	198.1	12.2	2	0	111.5	98	9.2	28.99	147.0	156.5	168.5	180.5		169.4	171.0
2147	41.3	267.0	0	322	442.0	14.3	2	0	95.6	0	57.9	12.72	137.8	148.8	162.8	175.8	187.8	152.7	153.6
2148*	42.0	373.9	10	318	68.9	17.4	2	0	98.2	0	67.9	23.66	133.1	153.1	173.1	187.6	197.6	163.0	163.7
2150*	41.5	501.8	90	312	173.7	9.1	2	640	50.7	0	60.0	52.79	159.7	173.7	182.7	189.7		182.3	182.1
2151*	191.3	143.9	84	306	122.8	10.1	0						123.5	130.0	138.0	146.0	151.0	116.5	136.0
2152*	191.2	195.2	157	313	122.8	29.3	2	326	61.6	191	14.2	17.54	162.8	173.3	186.8	202.3		176.2	177.1
2153*	191.3	219.3	72	305	122.8	9.1	2	503	146.4	472	68.1	19.20	154.0	161.5	167.5	173.0	179.0	165.0	165.0
2154*	191.3	229.5	36	321	122.8	9.1	2	0	101.3	6	12.4	12.93	158.0	171.0	182.0	189.0		176.0	176.8
2155*	191.3	233.3	85	313	121.9	9.1	1	472	147.1	472	86.2	17.72	176.0	184.0	190.0	194.0		183.2	175.4
2156*	191.2	242.3	297	312	122.8	6.1	2	430	60.7	82	33.2	19.66	158.7	167.7	178.7	188.7		178.8	178.5
2157*	191.3	247.6	43	322	122.8	9.1	2	0	101.4	0	31.2	12.98	148.0	161.0	175.0	188.0		172.1	172.7
2158*	201.0	165.3	10	322	213.4	10.1	2	0	82.1	0	43.5	4.48	122.8	142.8	162.8	175.8	187.8	155.1	157.6
2159*	201.3	312.9	116	318	213.4	9.1	2	61	80.6	229	30.3	26.04	163.9	174.4	183.9	193.4		183.6	183.9
2160*	174.1	249.4	153	314	217.9	13.1	2	230	44.5	0	57.5	17.00	156.2	167.2	179.7	191.2		174.1	174.5
2161*	650.0	90.2	124	315	224.0	6.1	2	248	65.7	128	7.9	12.52	149.3	150.8	154.3	163.3	169.8	157.3	157.3
2162*	650.0	109.7	103	315	224.0	31.4	2	230	57.0	145	6.2	7.82	156.0	160.0	167.5	175.5	181.5	157.1	157.1
2163*	650.0	276.9	82	316	224.0	10.1	2	213	74.3	143	4.7	33.48	192.6	201.6	216.6			202.7	202.3
2164*	650.0	356.2	78	317	224.0	21.3	2	155	57.6	75	3.5	31.59	205.6	218.1	233.1			203.6	203.8
2165	3930.0	64.0	0	315	4.0	4.0	0						135.6	136.1	137.7	149.0	155.0		151.7
2166	3930.0	64.0	0	317	4.0	4.0	0						135.5	136.5	138.5	144.6	151.3		154.2
2167*	168.0	145.1	6	320	21.3	9.1	2	0	64.4	0	66.9	1.56	125.1	136.1	150.1	158.1	166.1	140.2	139.4
2168*	187.0	111.6	15	315	57.9	41.1	0						129.8	132.8	136.8	141.8	147.8	113.9	137.0
2169*	187.0	111.6	15	315	57.9	32.3	0						131.8	133.8	136.8	141.8	146.8	114.0	137.0
2170*	187.0	111.6	15	315	57.9	9.1	2	0	43.4	0	66.6	0.19	133.8	135.8	139.8	144.8	150.8	135.7	136.7
2171*	180.0	111.6	15	315	25.0	9.1	2	0	36.2	0	66.6	1.01	136.5	139.5	144.5	150.5	157.5	139.8	137.9
2172*	191.2	109.7	119	315	56.1	29.3	2	221	60.3	143	6.1	10.16	143.1	149.1	157.1	168.1		160.0	160.0
2173*	58.3	144.2	123	313	224.0	13.7	2	262	25.9	241	42.2	10.50	147.2	152.7	158.7	164.7	169.2	155.9	155.3
2174*	94.0	235.2	170	317	131.1	16.8	2	95	70.5	175	51.3	17.29	134.3	150.3	167.8			166.8	167.5
2175*	625.0	309.1	54	316	137.2	12.2	2	1	52.9	123	4.3	26.60	176.3	194.3				200.0	199.5
2177	95.5	315.0	0	322			2	0	56.0	0	45.3	24.12	157.5	165.0	182.0			172.6	173.1
2178*	174.1	342.0	91	317	120.1	21.3	2	100	32.0	146	6.4	38.47	166.2	175.2	187.2	200.2		190.9	191.2

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LS OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
2179*	93.8	454.9	103	317	131.1	9.1	2	238	83.0	0	79.1	37.37	178.4	189.4	203.9	208.6	217.6	183.8	183.9
2180*	41.5	413.0	91	317	91.4	9.1	2	239	41.2	0	79.1	37.72	164.6	174.1	184.6			173.9	174.4
2181*	93.8	449.9	100	317	131.1	9.1	2	238	83.0	0	24.8	43.69	182.8	191.8	202.8	216.3	229.8	188.4	188.9
2182	203.5	298.5	60	320	60.0	120.1	2	0	46.2	183	68.2	25.56			181.7			183.0	183.2
2183	858.0	300.8	54	318	10.7	4.0	2	67	18.4	49	70.2	26.93			209.0			203.9	203.2
2184	858.0	158.2	88	317	10.7	3.0	2	128	43.3	66	15.8	12.58			189.0			190.1	190.2
2185*	650.0	209.0	169	314	334.1	44.8	2	230	106.7	183	50.2	13.76	181.6	189.6	199.1			188.4	187.3
2186*	625.0	236.8	9	318	137.2	13.7	2	1	53.0	0	15.7	19.16	148.3	177.3	192.3			193.7	193.4
2187*	93.8	235.2	170	317	130.5	1.8	2	95	70.5	175	51.3	17.59	132.9	149.4	168.9	188.4	203.4	167.5	167.5
2188	858.0	328.9	58	318	10.7	30.5	2	66	16.9	52	38.1	31.90			214.0			207.2	206.6
2189*	535.0	482.0	64	314	208.5	12.2	2	76	77.5	125	4.7	47.53	175.9	210.9	221.9			213.4	212.5
2190	535.0	557.0	37	316	208.5	23.8	2	50	66.5	34	12.6	57.90	214.9					219.7	218.1
2191*	650.0	209.0	169	316	224.0	10.7	2	149	85.2	183	50.2	15.48	181.6	189.6	199.1			189.9	188.8
2192*	950.0	239.1	17	320	24.4	27.4	2	0	21.2	91	5.5	21.38	146.5	181.5	207.5	220.5	231.5	199.7	199.3
2193	876.0	501.1	135	314	9.1	27.4	2	299	22.7	93	13.8	60.46	222.2	235.2				226.3	223.9
2194*	876.0	275.8	204	314	9.1	12.2	2	302	22.5	186	61.0	29.79	184.2	195.2	205.2			205.2	204.4
2195*	535.0	457.8	68	315	190.2	12.2	2	30	83.2	125	4.5	41.62	187.4	210.9	223.4			209.8	209.3
2196*	535.0	582.7	91	315	190.2	31.4	2	30	82.7	153	7.1	61.72	213.9					221.9	220.0
2197*	41.5	17.9	192	317	130.5	9.1	0						105.7	106.2	106.7	107.2	107.7	93.8	97.6
2198*	581.3	17.9	192	317	199.0	9.1	0						124.7	125.2	126.2	127.2	127.2	111.3	116.6
2199*	535.0	409.7	30	316	208.5	13.7	2	55	71.5	0	15.6	38.30	172.9	198.9	209.9			207.1	206.7
2200*	41.5	77.8	92	314	143.9	8.5	2	201	55.5	198	19.3	5.55	126.2	131.2	133.2	133.7	141.2	136.7	136.7
2201*	58.3	100.7	92	313	224.0	8.5	1	216	60.3	216	40.4	4.09	128.4	134.4	137.9	139.4	145.9	138.6	139.4
2202*	88.3	100.7	92	313	196.6	8.5	1	216	60.3	216	40.4	4.54	125.5	131.0	136.0	137.5	141.5	142.3	142.8
2203*	88.5	147.6	123	314	89.9	8.5	2	204	61.5	252	33.2	13.68	129.2	143.2	153.2	158.2	163.2	160.9	158.1
2204*	63.3	180.1	140	315	230.1	8.5	2	247	71.0	136	52.6	11.47	139.9	154.9	167.9	174.4		154.6	155.2
2205*	89.9	180.1	140	315	203.0	8.5	2	247	71.0	136	52.6	11.85	137.9	151.4	165.4	174.4	181.9	159.3	160.1
2206*	48.2	273.1	205	315	198.1	8.5	2	259	75.4	131	32.0	18.13	143.0	153.0	164.5	174.0	178.0	161.9	162.6
2207*	88.1	273.1	205	315	169.2	8.5	2	261	74.3	131	32.0	18.52	140.2	157.2	172.2	183.2		168.5	169.0
2208*	191.2	137.2	39	320	210.3	14.9	2	0	88.1	0	38.7	1.17	136.6	144.0	147.9	150.8	155.2	140.0	145.4
2209*	201.3	121.4	10	320	213.4	14.9	2	0	81.9	0	38.7	0.09	122.2	129.4	137.6	143.6	150.7	132.7	135.6
2212*	2627.0	151.3	155	314	24.4	59.1	2	291	31.9	113	3.1	26.95	205.8	210.8	217.9	225.3	233.1	214.0	213.3
2213*	2627.0	151.3	155	314	24.4	10.7	2	291	31.9	113	3.1	42.77	211.0	216.6	223.9	231.3	237.7	221.3	220.2
2214*	661.3	17.9	192	317	211.2	9.1	0						128.0	129.6	132.3	133.8	134.3	113.2	117.5
2215*	41.5	50.9	88	319	130.5	9	1	2	108	32.9	61	2.5	6.82	132.7	135.4	136.7	138.8	139.6	135.1	134.0
2216*	503.0	409.7	30	316	208.5	13.7	2	55	71.5	0	15.6	38.30	186.9	199.4	215.4			206.3	205.9
2217*	48.3	273.8	212	312	224.0	9.1	2	249	98.5	236	65.0	17.98	146.5	155.8	168.9			160.6	161.5
2218*	48.3	282.3	191	313	224.0	9.1	2	227	101.2	220	5.2	51.03	158.5	168.5	180.4			183.2	187.9
2219*	48.3	288.6	181	314	224.0	9.1	2	228	98.3	183	14.3	29.82	162.0	168.5	178.5			178.1	180.8
2220*	58.3	183.6	115	313	224.0	9.1	2	183	57.6	253	64.4	11.64	142.0	152.3	163.1			155.9	154.8
2221*	58.3	191.6	113	316	224.0	9.1	2	171	58.4	122	2.4	38.64	153.2	163.2	175.7			178.8	180.3
2222*	58.3	197.1	90	314	224.0	9.1	2	172	66.5	216	12.9	26.72	158.2	164.7	174.2			176.0	177.4
2223*	581.3	50.9	88	319	199.0	9.1	2	66	47.7	61	2.5	4.76	149.7	151.7	153.2	155.2	155.7	141.8	156.4
2224*	661.3	50.9	88	319	211.2	9.1	2	66	47.7	61	2.5	4.51	145.3	154.3	157.5	160.3	161.3	142.5	157.8
2228	600.0	338.7	1340	275	45.0	100.0	2	1090	43.2	1150	53.3	64.70	207.5	210.0	217.5	227.5	232.5	217.7	218.5
2229	2120.0	338.7	1340	275	45.0	100.0	2	1090	43.2	1150	53.3	64.70	224.6	229.2	234.7	243.7	250.7	235.1	235.0
2230*	600.0	804.5	791	317	45.0	3.0	2	770	29.6	560	64.4	126.52	252.0	253.9	255.6	257.7	259.0	251.0	246.6
2231*	2120.0	804.5	791	317	45.0	3.0	2	770	29.6	560	64.4	126.52	268.7	273.3	275.5	277.8	280.0	268.6	263.1
2232	2167.6	341.5	0	295	9.0	9.0	1	930	173.0	930	168.5	27.13	186.3	193.2	200.8	208.3	218.2	210.6	217.8
2233*	1773.4	287.2	335	293	11.0	11.0	2	204	2.6	720	73.7	38.71	201.9	208.1	215.5	222.3	227.4	221.8	219.9
2234*	1773.4	239.8	14	309	11.0	8.0	2	25	8.6	40	6.7	25.61	192.8	199.7	207.4	213.7	218.2	212.3	211.0
2235*	1773.4	274.5	239	298	8.0	11.0	2	360	34.3	295	73.4	37.30	205.7	209.5	214.9	229.4	235.4	219.2	218.7
2236*	1773.4	309.8	231	304	11.0	11.0	2	300	13.8	67	2.1	46.92	203.1	209.7	217.5	223.6	228.6	224.2	223.2
2237*	7273.4	21.9	135	301	18.2	21.3	2	144	4.7	128	9.3	19.56	169.7	173.2	177.4	181.2	184.7	178.2	178.2
2238*	7273.4	37.2	45	301	18.8	4.5	2	120	20.3	120	14.2	7.58	165.0	173.1	178.5	183.3	188.5	182.1	182.1
2239*	7273.4	46.6	549	301	3.9	3.9	0							142.5	144.1	146.7	149.5	143.1	148.4
2240*	1773.4	349.0	582	285	12.5	12.5	2	1080	60.0	500	76.0	29.33		200.9	209.3	217.0	223.3	218.7	217.5
2241*	1773.4	296.5	190	301	11.0	7.9	2	160	131.6	300	83.1	13.17		191.9	201.5	208.4	212.8	204.4	202.9
2242*	7273.4	10.3	582	301	14.9	4.5	1	585	1.0	585	9.3	78.30	176.7	178.9	181.3	184.0	186.5	167.1	167.1
2243*	7273.4	179.5	263	301	6.0	6.0	0								145.1	151.7	158.3	160.2	162.6
2244*	7273.4	18.8	697	301	15.2	3.9	0						131.8	134.9	139.0	143.8	148.0	135.2	138.6
2245*	1773.4	214.5	15	314	7.9	7.9	2	10	10.9	0	104.2	11.40			202.5	214.8	219.4	199.3	198.8
2246*	1773.4	230.8	289	301	11.0	11.0	2	500	144.6	500	8.2	23.58	183.4	190.8	204.2	211.0	216.4	211.4	209.9
2247*	1773.4	578.7	6	327	12.5	12.5	2	0	87.7	0	86.2	46.92	223.8	234.7	244.9	255.0	261.1	231.2	229.1
2250*	159.5	260.2	664	260	45.0	14.0	2	1660	136.4	1660	122.3	39.93	157.0	164.0	168.0	174.5	184.0	168.2	168.2
2251*	600.0	260.2	664	260	45.0	14.0	2	1660	136.4	1660	122.3	39.93	177.0	179.8	185.0	192.0	197.0	178.7	178.7
2252	159.5	284.3	786	260	45.0	5.0	1	1650	140.5	1650	143.8	32.10	150.0	153.0	158.5	164.0	170.5	165.9	171.4
2253	600.0	284.3	786	260	45.0	5.0	1	1650	140.5	1650	143.8	32.10	179.0	182.0	190.0	198.5	205.0	174.7	185.2
2254	159.5	283.0	680	265	45.0	5.0	2	1449	131.7	1550	143.5	31.80	161.5	164.0	167.0	171.0	179.0	169.9	169.9
2255	600.0	283.0	680	265	45.0	5.0	2	1449	131.7	1550	143.5	31.80	179.0	184.0	192.0	200.0	204.0	187.3	187.2
2256	159.5	275.6	675	278	45.0	5.0	2	1550	139.9	550	10.8	82.89	177.0	180.0	187.0	192.0	194.0	198.3	198.3
2257	159.5	274.8	559	274	45.0	30.0	2	1975	136.4	392	10.5	72.94	180.0	184.5	186.0	190.0	193.0	195.8	195.8
2258	159.5	275.9	763	276	45.0	5.0	2	1675	140.4	565	12.2	79.86	176.0	179.0	182.0	185.0	192.0	198.4	198.3
2259*	95.8	59.2	11	309	320.2	.0	0	0					120.9	122.9	128.2	129.9	130.7	117.9	126.7
2260*	209.8	59.2	11	309	297.6	10.0	0						124.5	130.0	134.1	137.0	139.2	118.6	132.3
2261*	95.8	100.3	51	302	320.2	10.0	0						126.6	131.2	135.0	138.0	142.5	109.3	130.8
2262*	209.8	100.3	51	302	297.6	10.0	0						127.5	133.4	138.7	142.4	145.6	121.6	136.4
2263*	95.8	147.9	96	303	320.2	3.0	2	207	119.9	230	19.9	4.12	136.6	145.8	152.5	157.4	161.2	142.3	148.5
2264*	209.8	147.9	96	303	297.6	3.0	2	207	119.9	230	19.9	4.31	135.5	142.7	150.9	155.7	158.2	146.8	155.2
2265	970.0	283.5	2	310	12.0	80.0	2	0	22.8	0	47.4	24.68	196.5	199.5	204.0	210.5	211.5	204.2	203.3

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
2266*	107.8	283.6	1	310	182.0	80.0	2	0	58.8	0	47.4	20.53	143.6	164.6	179.2	192.2	202.2	172.0	172.6
2267*	175.8	283.6	1	310	182.0	80.0	2	0	58.8	0	47.4	20.53	151.8	177.2	190.2	201.2	207.2	178.3	178.6
2268*	3000.0	300.8	0	306	5.0	85.0	2	0	18.5	0	56.3	26.35	200.9	205.3	208.4	215.5	222.1	221.6	219.8
2269*	3000.0	300.8	0	306	5.0	51.5	2	0	18.5	0	51.0	26.98	212.5	215.6	219.2	224.0	229.2	222.0	220.2
2270*	3000.0	300.8	0	306	5.0	7.0	2	0	18.5	0	42.8	27.93	207.9	217.1	221.2	230.0	241.0	222.5	220.7
2271*	159.5	309.3	264	304	51.0	18.0	2	15	51.4	265	9.8	32.87	166.1	180.1	195.1	207.1	214.1	186.4	185.9
2272*	599.0	309.3	264	304	28.0	15.0	2	14	35.9	265	9.8	33.86	186.6	195.6	208.6	218.6	225.6	204.1	203.2
2273*	2120.0	309.3	264	304	28.0	15.0	2	14	35.9	265	9.8	33.86	204.3	213.3	222.3	230.3	237.3	221.5	219.6
2277*	254.6	115.4	3	306	45.0	100.0	2	0	29.3	0	58.6	3.22	135.1	144.5	156.1	164.1	168.3	151.2	157.3
2278*	970.0	115.4	3	306	30.0	100.0	2	0	24.5	0	58.6	3.77	145.3	166.5	178.0	186.9	198.9	172.0	175.1
2279*	48.7	300.8	0	306	10.0	88.0	2	0	20.7	0	56.8	26.05	160.9	168.0	178.8	192.1	198.4	173.2	173.4
2280*	1310.0	300.8	0	306	5.0	85.0	2	0	18.5	0	56.3	26.35	172.6	195.3	208.0	217.0	222.3	210.2	209.1
2281*	2995.0	300.8	0	306	5.0	85.0	2	0	18.5	0	56.3	26.35	176.4	201.4	222.4	232.8	238.4	221.6	219.8
2282*	1310.0	438.1	345	304	5.0	5.0	2	0	18.5	860	88.2	54.92	194.0	208.0	221.2	235.5	245.8	228.2	227.0
2283*	2995.0	438.1	345	304	5.0	5.0	2	0	18.5	860	88.2	54.92	211.0	224.0	239.5	254.5	267.0	239.2	237.1
2284	48.7	341.5	0	295			1	930	168.5	930	173.0	27.30	143.0	151.0	160.5	168.0	177.0	159.6	166.7
2285	48.7	341.5	0	295			1	930	168.5	930	173.0	27.30	150.0	155.0	161.0	167.0	175.1	159.6	166.7
2286	209.0	341.5	0	295			1	930	168.5	930	173.0	27.30	155.0	158.5	162.5	167.0	170.0	162.0	167.4
2287	970.0	341.5	0	295			1	930	168.5	930	173.0	27.30	179.0	183.8	190.0	197.0	203.0	182.0	207.4
2288	970.0	341.5	0	295			1	930	168.5	930	173.0	27.30	186.0	189.0	193.0	201.0	209.0	182.0	207.4
2289*	48.7	339.2	25	322	10.0	185.0	2	320	0.6	0	59.5	49.33	160.0	167.0	177.0	188.0	196.4	186.7	188.0
2290*	48.7	339.2	25	322	10.0	185.0	2	320	0.6	0	59.5	49.33	156.0	164.5	176.0	185.0	193.0	186.7	188.0
2291*	209.0	339.2	25	322	10.0	185.0	2	320	0.6	0	59.5	49.33	169.0	179.0	190.5	201.5	211.0	198.8	199.5
2292	970.0	339.2	25	322	10.0	185.0	2	320	0.6	0	59.5	49.33	207.0	211.0	218.5	230.0		216.6	216.5
2293	970.0	339.2	25	322	5.0	185.0	2	320	0.6	0	59.5	57.89	146.5	155.9	192.5	201.0		221.0	220.5
2294	970.0	339.2	25	322	5.0	185.0	2	320	0.6	0	59.5	57.89	206.9	209.3	211.4	216.9	217.5	221.0	220.5
2295*	1310.0	416.2	1	306	5.0	30.0	2	0	18.5	0	24.5	44.47	193.3	203.1	214.7	227.9	238.7	222.5	221.4
2296*	2995.0	416.2	1	306	5.0	30.0	2	0	18.5	0	24.5	44.47	202.8	214.9	227.9	243.2	255.1	234.0	232.2
2297*	1317.0	427.2	227	314	3.0	37.0	2	540	84.8	525	110.2	45.92	203.0	208.8	218.6	230.0	234.7	222.8	222.1
2300*	159.5	344.0	267	308	80.0	10.0	2	19	56.1	360	38.6	41.12	184.6	190.6	200.2	210.1	214.3	194.0	195.0
2301*	159.5	344.0	267	308	49.0	10.0	2	13	45.7	360	38.6	41.79	176.7	183.8	191.2	199.2	206.0	194.0	195.2
2302*	159.5	225.2	172	302	80.0	5.5	2	21	56.2	470	45.0	20.86	159.5	173.0	185.7	194.8	201.4	177.1	177.4
2303*	159.5	225.2	172	302	49.0	5.5	2	17	50.9	470	45.0	21.45	152.8	163.5	175.0	182.5	188.7	177.6	177.8
2304*	600.0	344.0	267	308	47.0	3.0	2	13	45.7	80	8.0	42.26	194.0	199.3	207.7	218.3	225.6	211.7	212.1
2305*	600.0	225.2	172	302	47.0	3.0	2	17	50.9	470	45.0	21.54	179.7	187.3	196.3	205.8	213.3	194.8	194.2
2306*	2120.0	344.0	267	308	28.0	5.0	2	16	34.6	360	38.6	42.55	217.8	225.5	240.0	251.6	260.5	226.3	225.1
2307*	2120.0	225.2	172	302	28.0	3.0	2	16	34.5	470	45.0	22.05	197.0	205.8	214.3	221.7	228.0	212.2	211.0
2308*	153.0	123.9	46	308	5.0	10.0	2	62	10.7	48	25.0	9.63		160.3	173.6	184.9		166.1	159.0
2309*	159.5	123.9	46	308	5.0	10.0	2	62	10.7	48	25.0	9.63		164.7	179.0	190.3		166.3	159.5
2310*	159.5	364.9	1024	290	80.0	7.0	2	665	25.6	620	58.7	60.02	194.3	200.5	210.2	218.6	225.6	199.4	199.5
2311	600.0	364.9	1024	290	45.0	10.0	2	665	25.6	620	58.7	61.35			227.0			218.0	217.3
2314*	152.1	125.6	32	309	45.0	33.0	2	17	42.7	33	22.1	7.27	141.1	151.0	164.2	172.0	178.6	161.0	163.1
2315	159.5	125.6	32	309	45.0	8.0	2	17	42.7	32	19.9	8.48	155.4	166.4	178.4	188.4	190.4	166.7	164.8
2316*	600.0	125.6	32	309	45.0	8.0	2	17	42.7	32	19.9	8.48	139.7	150.5	175.1	190.2	195.0	179.6	180.2
2317	2980.0	125.6	32	309	15.0	6.0	2	20	29.4	32	19.9	9.38	193.9	206.9	221.4	225.9	231.4	200.7	200.4
2318	9375.0	125.6	32	309	15.0	7.0	2	20	29.4	32	19.9	9.33	188.8	199.8	218.8	224.8		215.8	214.7
2320*	600.0	125.6	32	309	45.0	8.0	2	17	42.7	32	19.9	8.48	154.0	165.6	180.0	185.4	191.7	179.6	180.2
2338	265.3	214.5	0	305			1	600	54.5	600	160.0	16.40	136.5	152.0	158.0	164.0	170.5	169.3	174.2
2339	970.0	214.5	0	305			1	600	54.5	600	160.0	16.40	147.0	161.0	167.0	171.0	180.5	179.7	196.0
2340	159.5	125.6	32	309	45.0	30.0	2	17	42.7	33	22.1	7.40	153.4	158.4	168.4	176.4	183.4	162.0	163.9
2341*	600.0	125.6	32	309	45.0	30.0	2	17	42.7	33	22.1	7.40	140.0	164.0	180.0	192.5	197.5	176.9	177.4
2349*	2980.0	125.6	32	309	15.0	6.0	2	20	29.4	32	19.9	9.38	189.3	203.2	212.2	220.1		200.7	200.4
2350*	400.0	125.1	47	291	8.0	21.0	0						139.7	145.7	153.7	158.7	163.7	121.4	143.5
2351*	400.0	125.1	47	291	8.0	41.5	0						122.7	132.7	138.7	144.7	150.7	126.3	143.0
2352*	6825.0	125.1	47	291	30.0	41.5	0						154.5	162.5	172.5	181.5	189.5	147.4	163.3
2353*	6825.0	125.1	47	291	30.0	21.0	0						164.5	170.5	179.5	191.5		148.1	163.8
2354*	6825.0	125.1	47	291	30.0	28.0	0						152.5	159.5	172.5	183.5	186.5	148.9	163.6
2355*	6825.0	125.1	47	291	30.0	41.0	0						156.3	160.4	169.4	177.8	181.4	156.5	163.3
2356*	90.7	227.9	247	297	92.0	21.9	2	563	66.1	472	52.2	27.61	160.2	168.2	178.2	184.2	193.2	177.9	178.2
2357*	191.3	639.9	333	306	54.0	44.0	2	168	32.2	485	55.7	80.80	195.7	220.7	225.7	229.7	232.7	216.6	215.4
2358*	9339.5	42.7	420	296	30.0	33.0	0						147.7	149.7	152.7	158.7	161.7	144.5	146.0
2360*	1850.0	242.1	194	294	60.0	40.5	2	585	68.9	97	32.7	12.27	180.6	197.6	206.6	211.6	218.6	203.3	202.0
2361*	516.0	242.1	194	294	60.0	38.0	2	585	68.9	97	32.7	12.35	163.4	178.4	193.4	199.4	206.4	187.0	185.5
2362*	516.0	242.1	194	294	60.0	34.0	2	585	68.9	97	32.7	12.47	177.4	183.4	192.4	202.4	206.4	186.9	185.6
2363*	516.0	142.6	289	289	15.0	37.5	0							133.9	141.2	147.3		123.8	142.9
2364*	547.0	142.6	289	289	18.0	36.0	0						134.5	138.5	142.5	146.5	150.5	124.5	143.4
2365*	4165.0	142.6	289	289	20.0	37.0	0						146.6	150.6	156.6	165.6	173.6	147.9	157.9
2366*	4165.0	142.6	289	289	19.0	21.5	0						160.6	164.6	169.6	175.6	179.6	168.1	158.7
2367*	241.0	401.6	20	312	135.0	43.0	2	60	50.1	0	32.3	38.01	167.0	187.0	196.0	202.0	207.0	195.2	195.6
2368*	241.0	232.1	28	309	135.0	57.5	2	91	60.6	81	16.0	20.41	167.0	178.0	192.0	204.0	211.0	181.7	181.8
2369*	160.6	59.2	4	313	60.0	10.0	2	0	36.6	7	10.3	0.74	128.2	138.2	143.2	145.2	148.2	139.8	139.8
2370*	164.0	37.1	0	312	34.1	24.7	0						121.7	125.7	129.7	133.7	137.7	123.6	124.7
2371*	94.1	387.2	29	317	101.0	19.0	2	15	41.7	21	38.9	34.44	164.6	173.6	183.6	192.6	197.6	181.8	181.9
2372*	6825.0	77.2	0	314	22.6	13.0	2	0	22.1	0	22.9	3.70	156.5	164.5	178.5	179.5		196.1	196.2
2373*	1898.0	77.2	0	314	22.6	13.0	2	0	22.1	0	22.9	3.70	128.7	155.7	182.7	190.7	198.7	180.0	180.9
2374*	499.3	125.7	107	308	70.0	27.0	2	299	22.8	70	37.3	3.68	151.1	159.4	168.1	174.3	180.3	168.8	166.3
2375*	499.3	205.4	113	306	70.0	35.0	2	280	25.7	120	22.9	17.63	162.8	180.6	194.4	202.3		190.0	188.9
2376*	499.3	282.9	83	308	70.0	28.0	2	321	21.1	61	12.0	25.01	177.1	190.3	199.3			196.1	195.4
2377*	499.3	323.9	71	308	70.0	65.0	2	250	38.1	12	34.3	25.39	178.3	192.3	198.3			196.9	196.2
2378*	6825.0	125.1	47	291	30.0	41.5	0						152.5	156.5	164.5	167.5	171.5	147.4	163.3

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

TABLE 2. CONTINUED

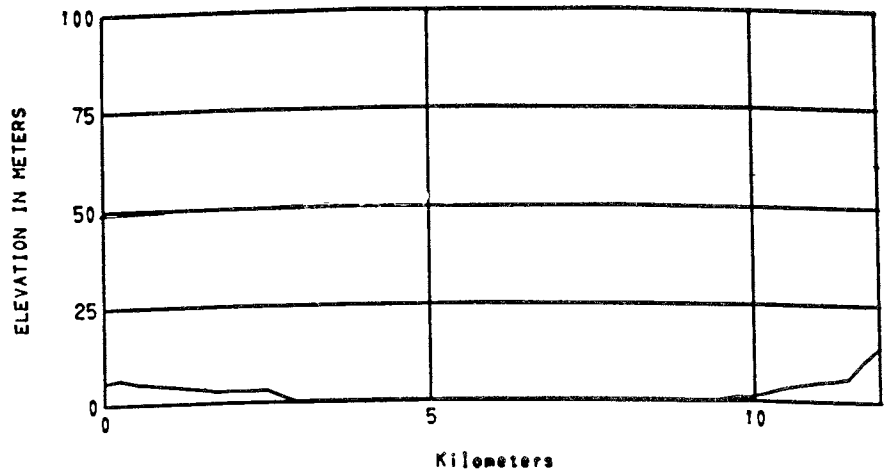
PATH NO.	F MHZ	D KM	DH M	NS	HTG M	HRG M	H	HLT M	DLT KM	HLR M	DLR KM	THETA MR	LB OBSERVED 1%	10%	50%	90%	99%	TN 101 LBCR	ESSA 70 LBCR
2380	1965.0	404.0		282			1	4030	256.0	4030	148.0		194.7	200.0	206.2	213.2	219.4	198.8	
2381*	160.6	59.2	4	313	57.0	10.0	2	0	35.9	7	10.3	0.82	128.5	138.5	142.5	145.5	148.5	140.1	140.2
2382*	1898.0	77.2	0	314	22.6	17.0	2	0	22.1	0	24.3	3.53	127.9	153.9	180.9	189.9	196.9	178.4	180.3
2383*	6825.0	77.2	0	314	27.6	16.0	2	0	24.[illegible]	0	24.0	3.36	152.1	164.1	182.1	188.1	203.1	194.8	194.3
2384	1950.0	242.1	194	294	60.0	34.0	2	585	68.9	97	32.7	12.47		202.8	209.7			203.6	202.2
2387	94.3	678.3	97	315	178.1	19.0	2	203	64.2	30	34.8	74.08			198.6			204.3	205.0
2388*	1715.4	419.1	249	307	15.0	40.5	2	125	32.3	200	34.0	49.92	216.6	223.6	231.6	242.6	252.6	229.6	227.0
2389*	4727.0	80.0	420	290	97.0	29.0	0						139.0	140.8	143.0	144.8	147.5	144.0	145.1
2390	4648.0	61.1	173	308	26.0	18.0	0						136.5	137.5	141.2	145.0	148.0	141.7	147.8
2391*	4417.0	194.8	427	330	10.7	20.0	1	530	39.2	530	155.6	0.31	153.2	162.2	170.3	173.9	182.0	164.8	160.8
2392	1100.0	125.0	80	309	2.5	1.5	2	200	27.0	100	21.0	9.22			187.7			187.1	178.4
2393	1100.0	208.0	400	309	1.5	1.5	1	150	160.5	150	47.5	6.22			177.2			153.6	168.0
2394	1100.0	240.0	200	302	4.0	4.0	2	590	67.0	150	60.0	24.72			213.4			205.3	204.7
2401*	100.0	192.0	17	313	96.0	38.0	2	21	34.6	0	27.3	13.66	141.4	148.1	159.0			166.6	167.1
2402	90.3	26.3	328	299	100.0	19.0	1	380	19.3	380	7.0	5.42			145.5			120.5	130.3
2403	90.3	117.5	252	295	100.0	17.0	2	540	75.9	420	1.4	57.17			169.0			182.8	179.1
2404	93.0	130.7	30	312	96.0	30.0	2	41	34.3	32	41.6	7.55			152.3			156.2	159.8
2405	88.5	136.1	142	295	48.0	20.0	0								143.2			116.1	131.1
2406	88.5	149.8	31	310	194.0	37.0	2	37	50.2	[illegible]	10.8	9.73			175.2			158.6	162.1
2407	89.7	165.9	272	287	26.0	15.0	2	680	54.0	760	18.7	31.48			165.9			180.7	178.9
2409	89.4	183.0	67	307	105.0	25.0	2	85	67.5	265	8.4	28.23			163.0			175.4	175.7
2410	93.0	192.0	17	313	96.0	44.0	2	21	34.0	0	29.2	13.45			168.6			165.4	165.9
2411	90.7	201.1	82	307	99.1	30.0	2	320	21.2	47	20.1	13.41			165.5			166.5	166.3
2412	93.3	200.7	17	313	124.0	37.0	2	0	46.5	41	12.0	15.46			176.1			167.8	168.4
2413	90.3	46.0	82	299	100.0	20.0	0								112.0			102.7	118.2
2414	93.0	245.9	44	311	103.0	20.0	2	80	50.6	50	43.0	21.10			175.2			171.8	172.0
2415	87.9	243.8	244	293	30.0	28.0	2	600	99.1	563	19.4	40.02			174.9			182.6	183.1
2416	88.5	256.9	236	292	48.0	19.0	2	155	121.8	620	1.7	152.92			173.6			202.2	209.0
2417	90.5	285.7	325	294	33.0	24.0	2	822	120.4	320	7.8	40.57			187.0			183.9	186.3
2418	89.7	333.8	172	308	118.0	44.0	2	341	71.1	6	27.3	24.71			175.6			175.6	175.9
2419*	93.7	431.3	39	317	123.7	18.3	2	46	76.4	30	35.9	37.99	169.5	179.5	189.5	198.5	203.5	184.5	184.8
2421	89.4	77.2	545	279	59.0	15.0	1	630	75.4	630	1.8	132.60			154.4			144.8	143.6
2422	99.0	94.4	282	304	57.0	25.0	2	500	54.0	200	1.5	30.17			160.3			148.6	148.6
2423	94.5	159.5	110	309	103.0	28.0	2	78	58.0	195	6.0	7.91			169.5			158.2	159.8
2428	92.9	228.8	146	307	85.0	28.0	2	222	81.6	210	4.8	17.52		166.7	173.2			169.1	169.7
2429	92.5	285.7	308	291	15.0	28.0	2	755	149.1	560	19.9	38.79		174.7	181.7			184.8	185.4
2440*	6825.0	142.6	289	289	17.0	39.0	0						151.1	154.1	158.1	174.1	180.1	146.3	161.4
2441*	516.0	142.6	289	289	15.0	44.0	0						126.9	134.9	140.9	146.9	150.9	125.1	142.7
2442*	547.0	142.6	289	289	18.0	37.5	0						137.0	141.0	146.0	150.0	151.0	124.8	143.4
2443*	6825.0	142.6	289	289	15.0	39.0	0							155.9	159.9	164.5		146.2	161.4
2444*	2492.7	69.3	60	305	14.0	1.0	0						142.2	146.2	150.2	157.2	165.2	136.7	147.7
2445*	4165.0	69.3	60	305	14.0	1.0	0						148.6	152.6	152.6	168.6	173.6	141.2	151.3
2446*	6679.0	69.3	60	305	14.0	1.0	0						137.7	143.7	147.7	152.7	157.7	146.3	154.7
2475	1800.0	721.5	20	361	12.2	12.2	2	15	1.3	477	85.6	86.34	235.0	242.6	250.4	266.0		251.0	245.3
2476	409.9	806.3	50	343	9.1	9.1	2	880	108.3	0	73.8	88.77	196.2	219.2	233.2	238.2	241.2	234.9	232.6
2603	430.0	230.0	0	320			2	0	16.4	0	16.4	22.36			178.5			191.8	191.4
2632*	2170.0	325.1	128	310	15.0	15.0	2	80	30.1	200	20.2	34.57		212.6	221.6	230.5	235.5	222.5	220.4
2633*	2170.0	325.1	128	310	15.0	15.0	2	80	30.1	200	20.2	34.57	204.8	211.4	219.8	228.4	233.6	222.5	220.4
2634*	2170.0	325.1	128	310	8.0	15.0	2	80	30.1[illegible]	200	20.2	34.82		215.2	223.1	231.3	236.0	222.7	220.5
2635*	2170.0	325.1	128	310	8.0	15.0	2	80	30.1	200	20.2	34.82	207.5	214.0	222.0	230.0	234.6	222.7	220.5
2636*	2170.0	159.9	102	312	15.0	15.0	2	80	30.1	130	11.1	9.03		194.6	202.7	208.9	213.6	197.1	196.1
2637*	2170.0	159.9	102	312	8.0	15.0	2	80	30.1	130	11.1	9.27	189.4	196.3	203.0	209.6	213.4	197.4	196.4
2638*	2170.0	483.1	168	311	8.0	15.0	2	80	30.1	140	9.4	57.79	222.4	229.2	235.1			237.6	234.6
2639*	217 .0	483.1	168	311	15.0	15.0	2	80	30.1	140	9.4	56.43	220.4	227.5	234.4	240.7		237.5	234.5
2644	159.0	79.5	0	318	30.0	20.0	2	0	44.9	0	18.7	1.79	121.5	128.3	137.1	141.2	144.5	144.4	144.9
2645	468.0	79.5	0	318	30.0	20.0	2	0	44.9	0	18.7	1.79		133.7	148.4	153.1	156.6	152.5	153.4
2646	3150.0	75.0		317	30.0	30.0	1	106	16.5	106	58.5		138.9	154.8	159.9	163.8	168.2	155.9	
2647	175.4	200.0	0	320		10.0	2	0	110.6	0	32.5	6.43	120.1	135.8	159.1	172.5		166.0	162.6
2648	493.8	200.0	0	320		10.0	2	0	110.6	0	32.5	6.43	129.5	140.6	172.2	182.0		183.4	173.9
2649	41.2	517.0	0	320		10.0	2	0	131.3	0	32.5	40.03	146.9	164.5	175.7			175.1	179.9
2650	679.3	517.0	0	320		10.0	2	0	131.3	0	32.5	40.03	148.7	169.6	206.0			212.8	212.8
2651	524.7	558.0	0	320		10.0	2	0	135.5	0	32.5	44.20	145.8	166.5	200.3			214.1	212.6
2705	80.3	179.0	0	365			2	0	86.8	0	89.0	0.32		147.6	152.6	158.6	163.6	130.5	123.6
2800	77.5	321.9	0	320	0.1	0.0	2	0	103.7	0	187.0	4.49		132.2	144.2	162.2		143.8	145.8
2801	174.0	321.9	0	320	0.1	0.0	2	0	103.7	0	187.0	4.49		136.0	149.0			153.7	156.0

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

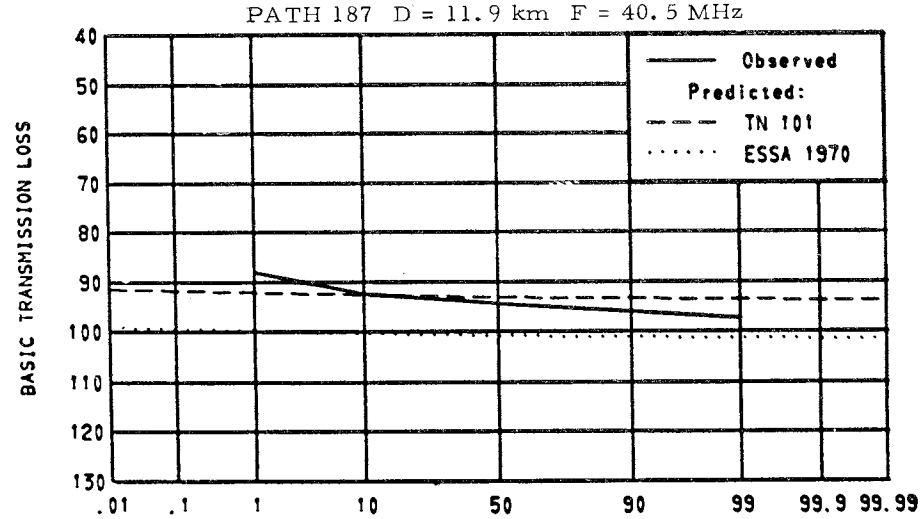
PART 1

Line of Sight Paths

PATH 187 TO 191 CLAUSEN SITE FLA - EGLIN MAIN BASE FLA



PATH 187 D = 11.9 km F = 40.5 MHz



PATH 188 D = 11.9 km F = 75.5 MHz

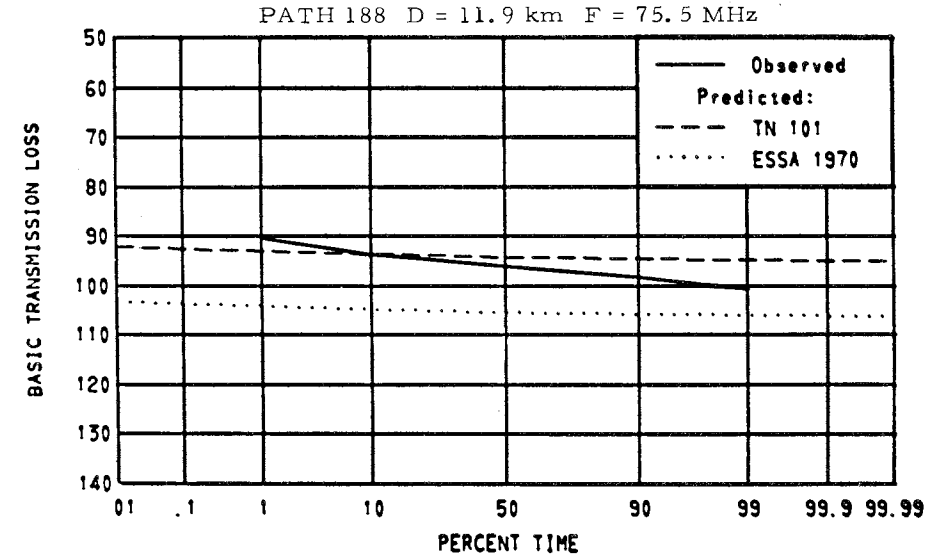


Figure 1.1 Paths 187 188

CLAUSEN SITE FLA - EGLIN MAIN BASE FLA

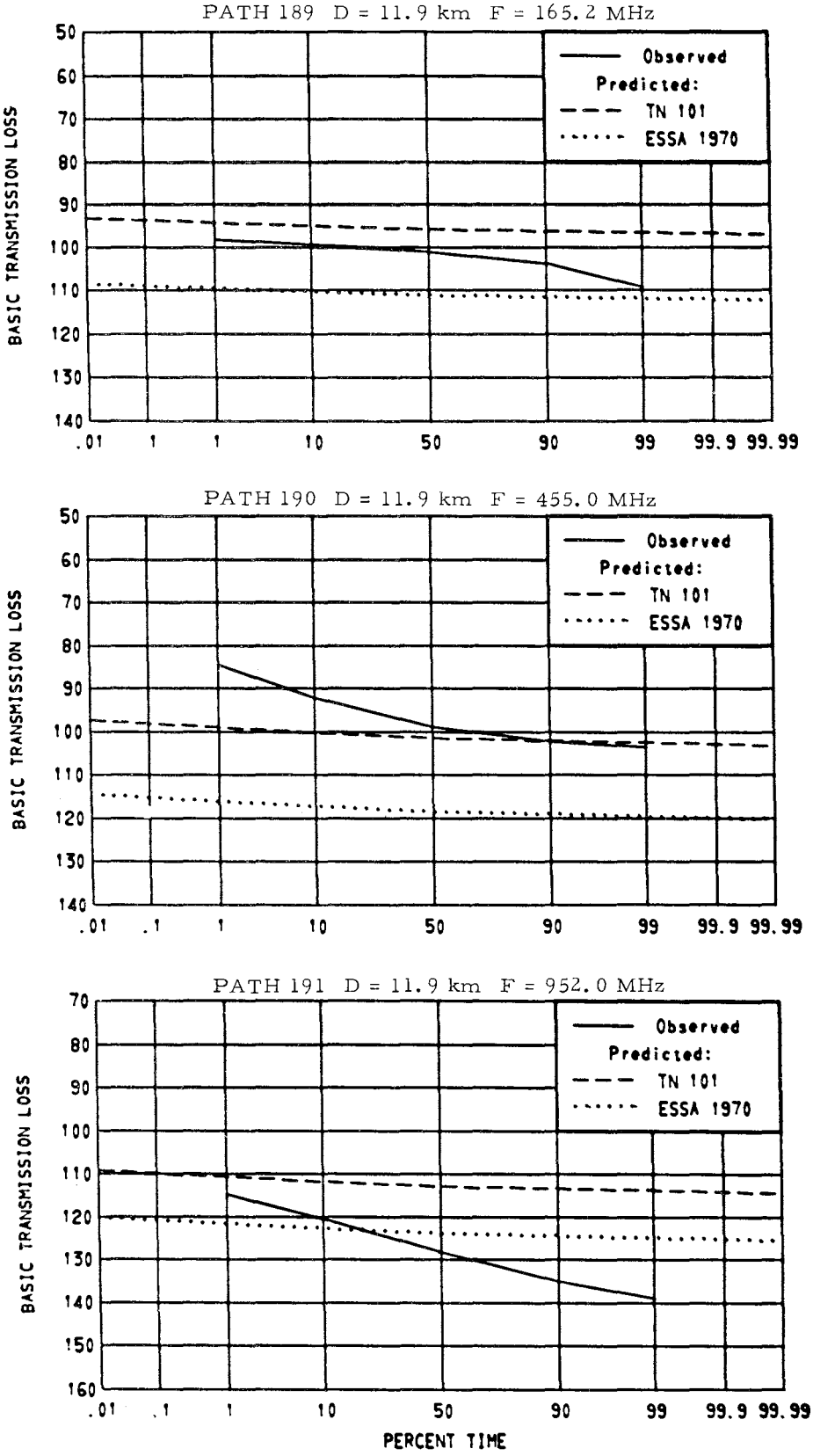
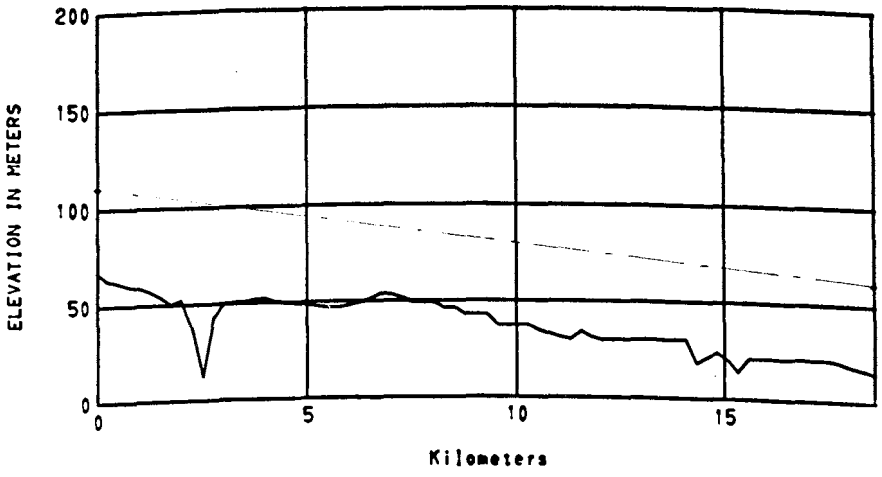
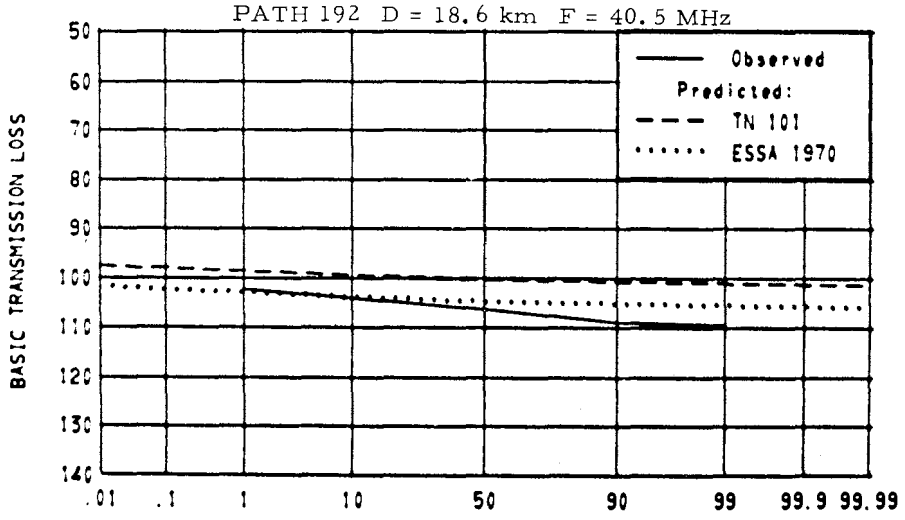


Figure 1.2 Paths 189 190 191

PATH 192 TO 196 COUPLAND TOWER FLA - EGLIN MAIN BASE FLA





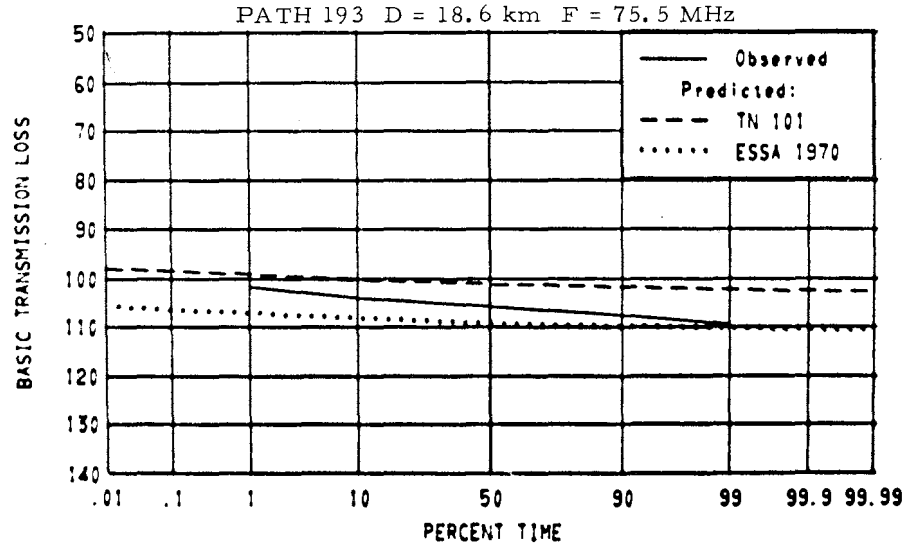


Figure 1.3 Paths 192 193

COUPLAND TOWER FLA - EGLIN MAIN BASE FLA

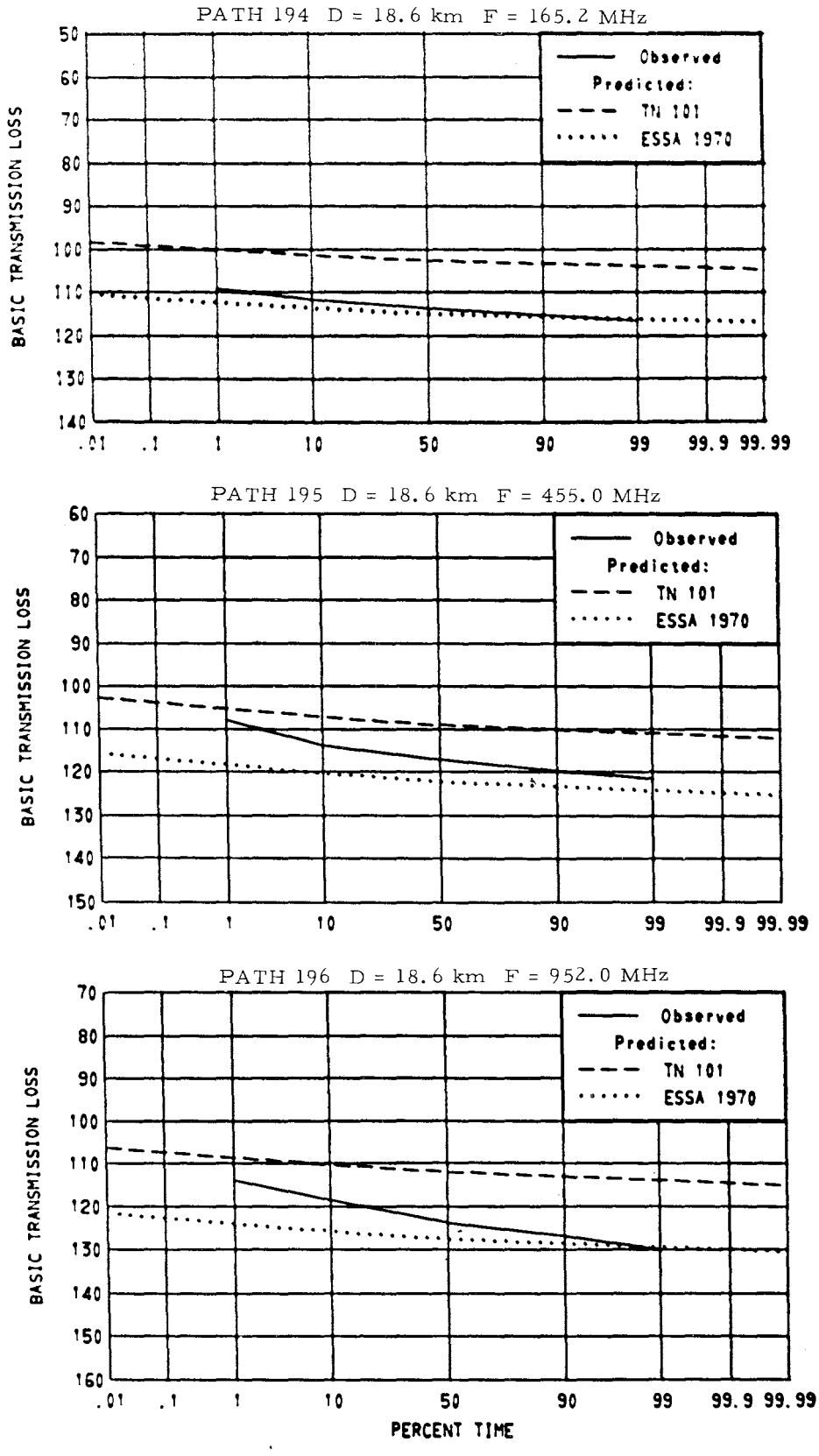
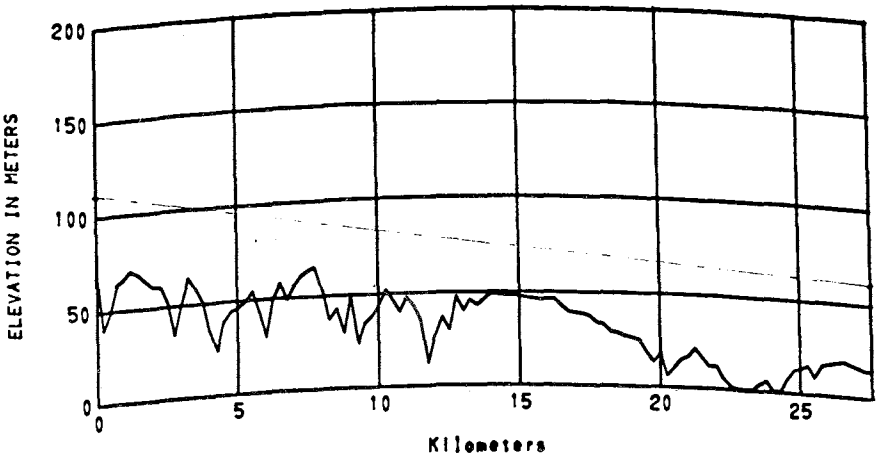
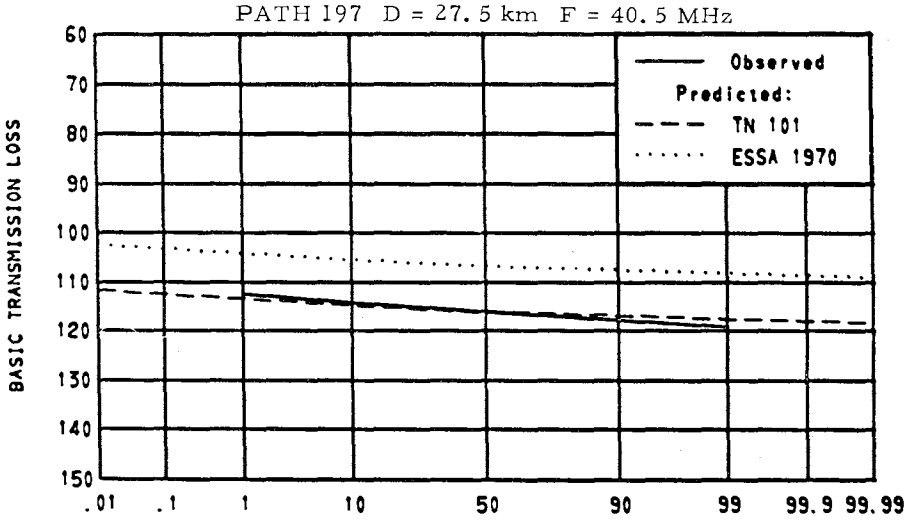


Figure 1.4 Paths 194 to 196

WAGNER SITE FLA - EGLIN MAIN BASE FLA
PATHS 197 TO 199, 1800 1801



PATH 197 D = 27.5 km F = 40.5 MHz



PATH 198 D = 27.5 km F = 75.5 MHz

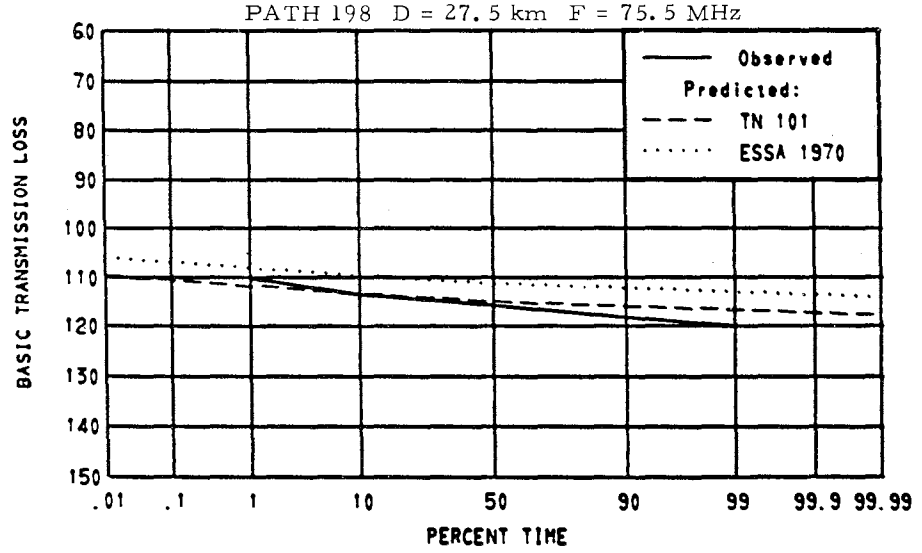


Figure 1.5 Paths 197 198

WAGNER SITE FLA - EGLIN MAIN BASE FLA

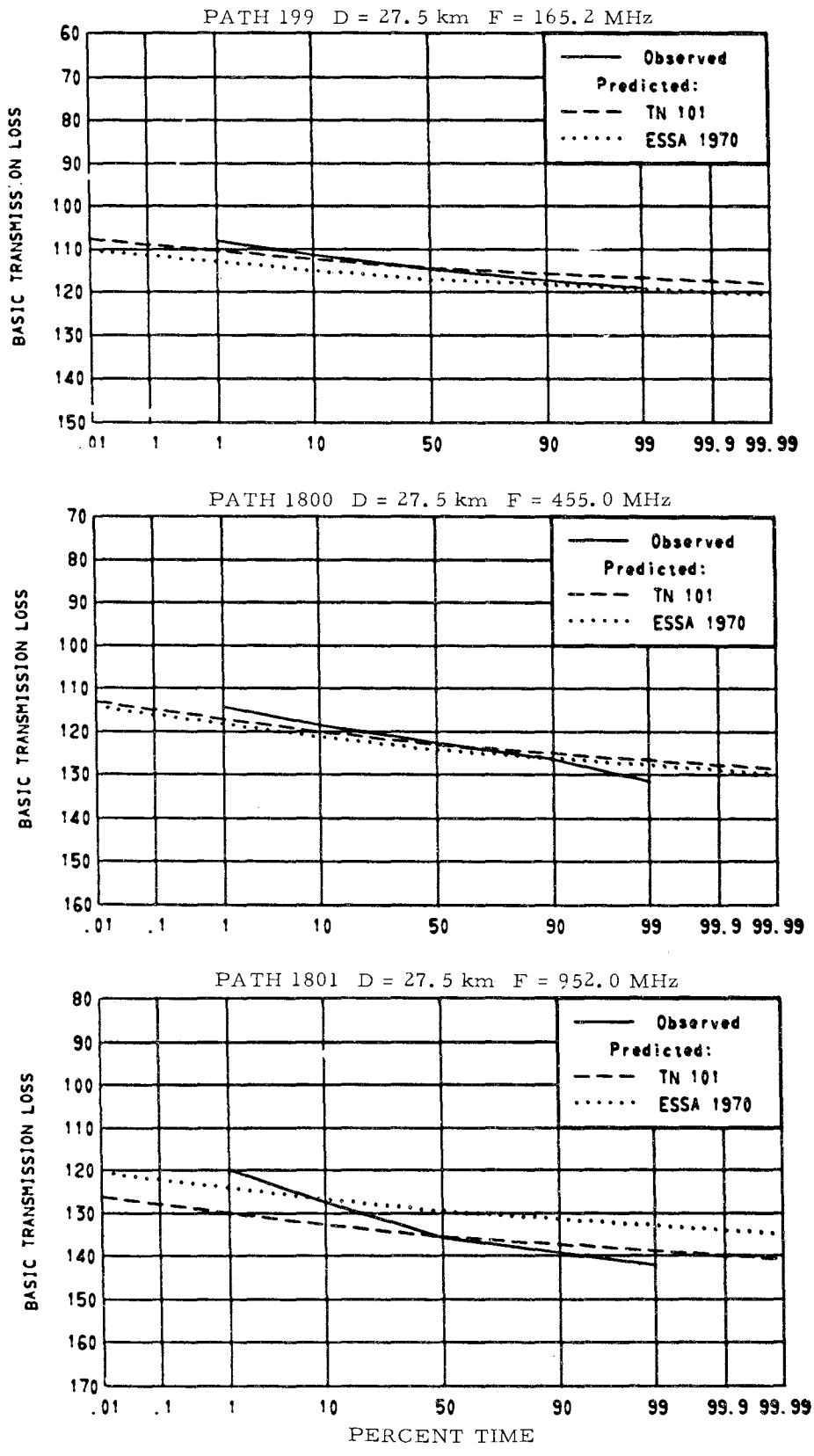
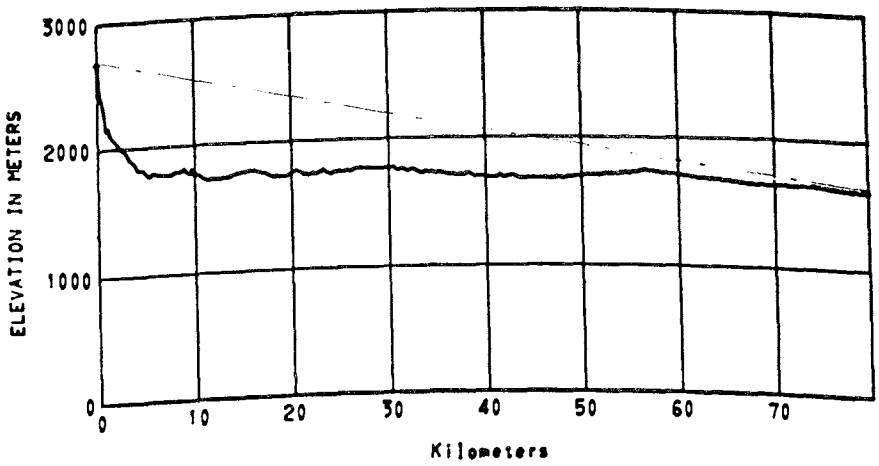
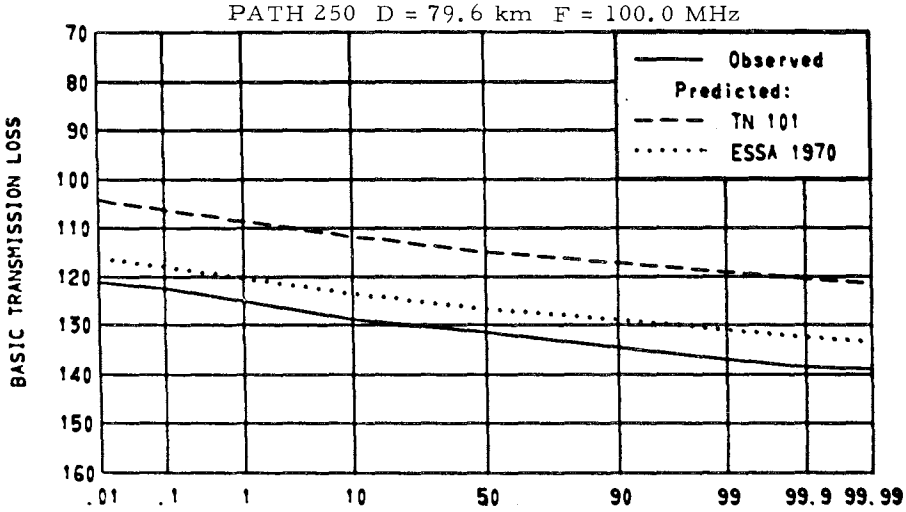


Figure 1.6 Paths 199 1800 1801

CHEYENNE MTN S COLO - KENDRICK COLO
PATHS 250 270 290 310



PATH 250 D = 79.6 km F = 100.0 MHz



PATH 270 D = 79.6 km F = 192.8 MHz

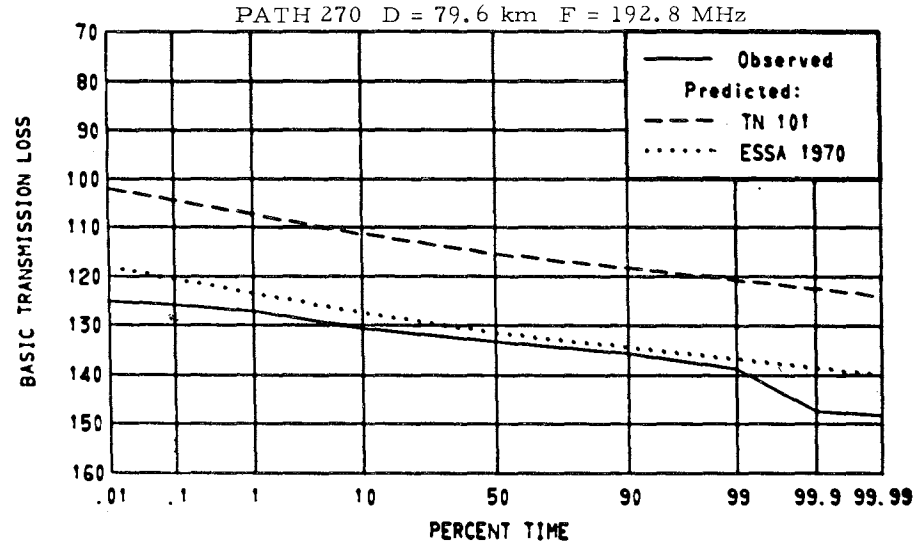


Figure 1.7 Paths 250 270

CHEYENNE MTN S COLO - KENDRICK COLO

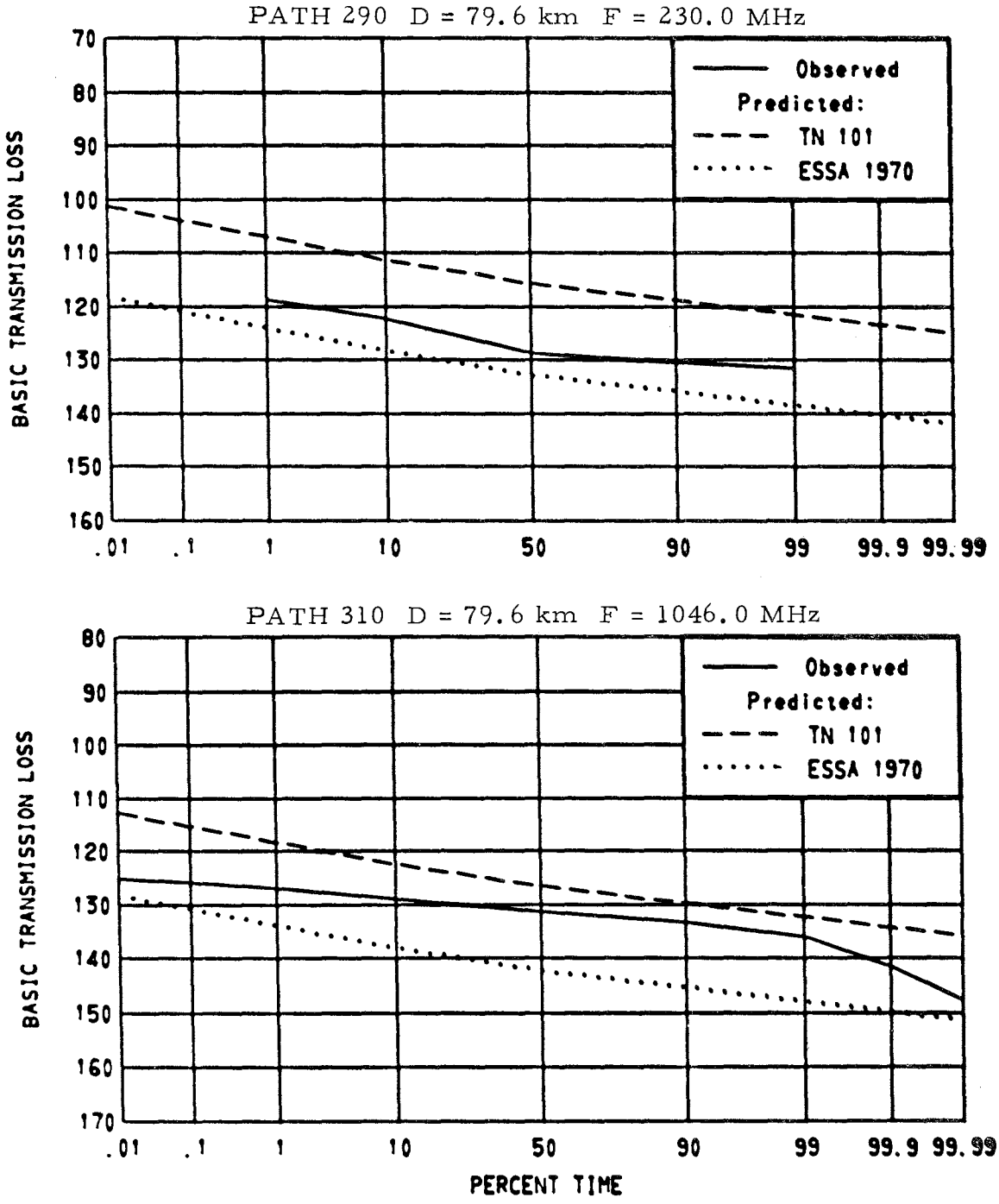


Figure 1.8 Paths 290 310

PATHS 447 TO 449 GEORGIA TECH GA - MT OGLETHORPE GA

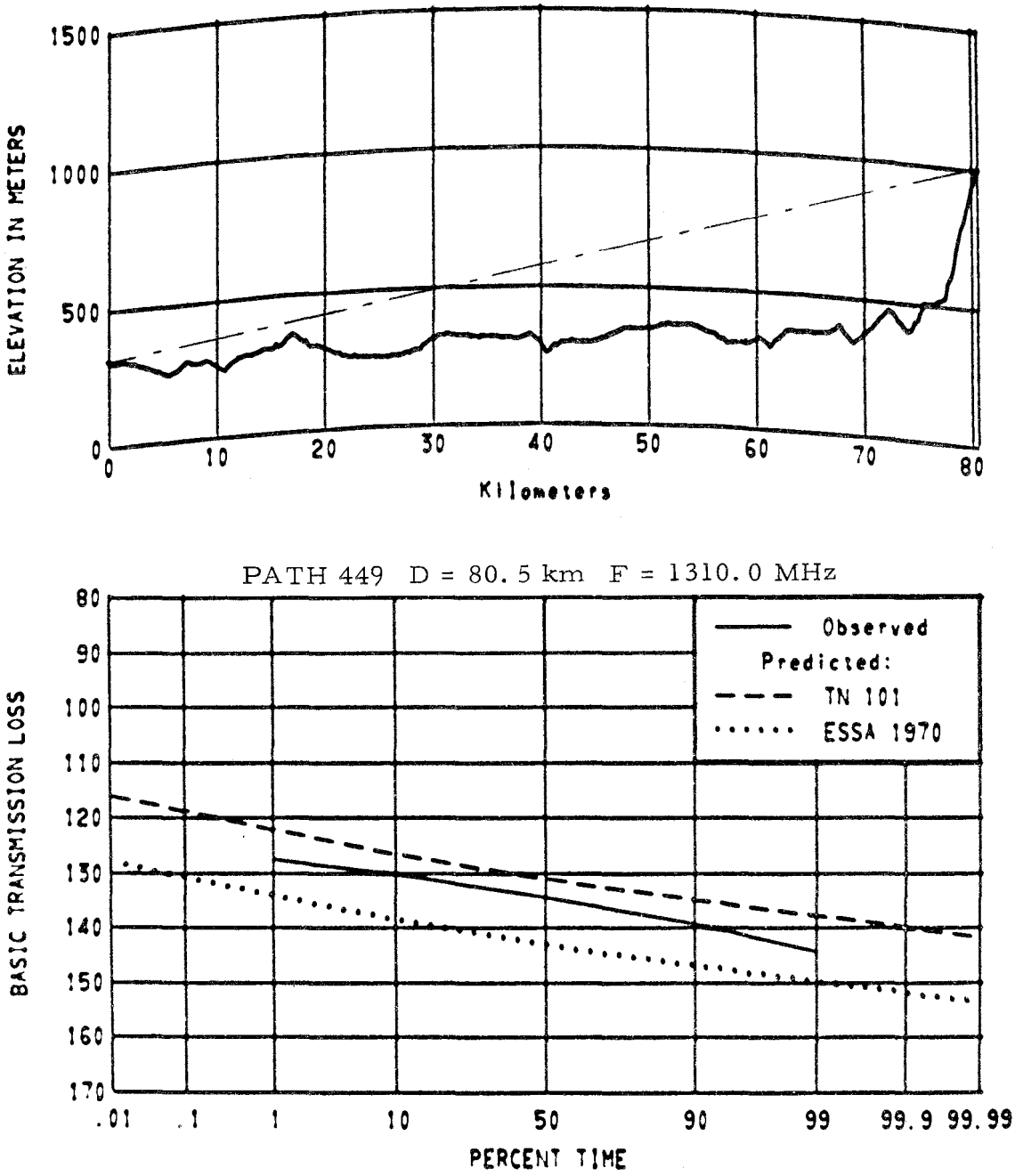


Figure 1.9 Path 449

GEORGIA TECH GA - MT OGLETHORPE GA

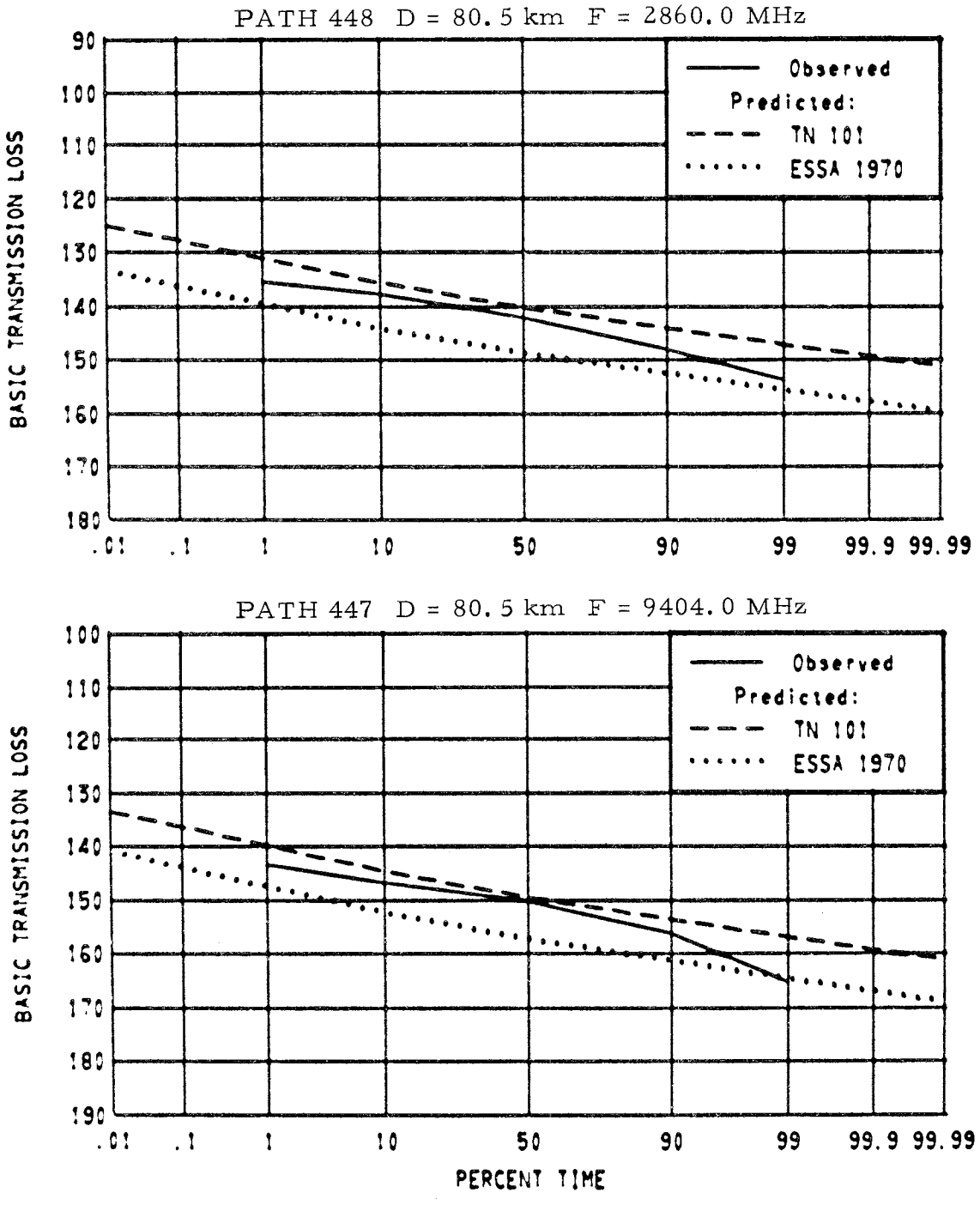
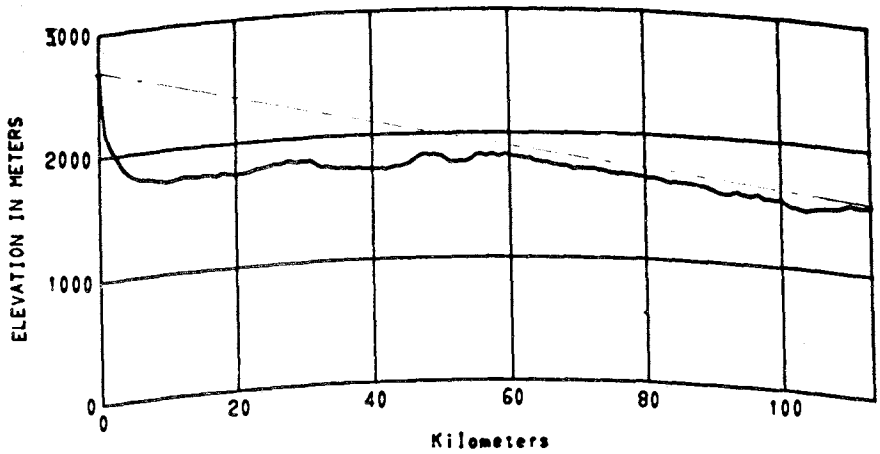
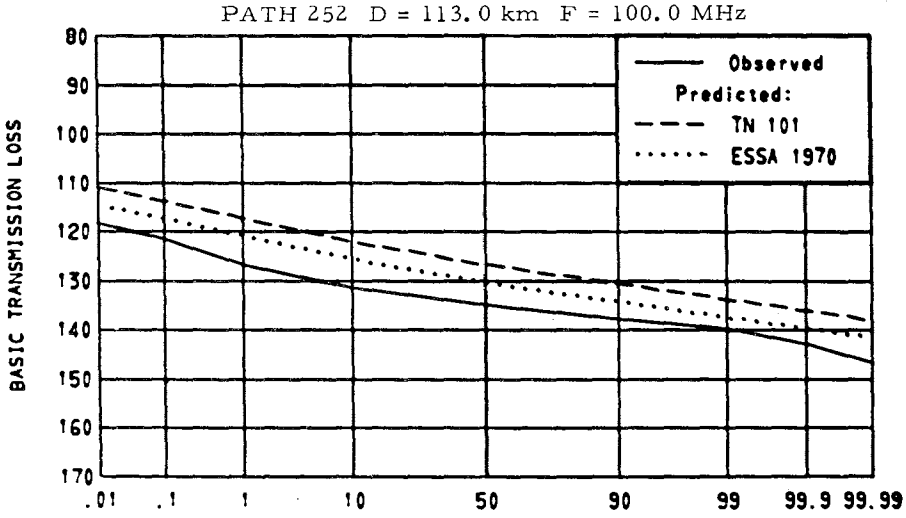


Figure 1.10 Paths 447 448

CHEYENNE MTN S COLO - KARVAL COLO
PATHS 252 266 TO 268,272 292 298 311 TO 313



PATH 252 D = 113.0 km F = 100.0 MHz



PATH 272 D = 113.0 km F = 192.8 MHz

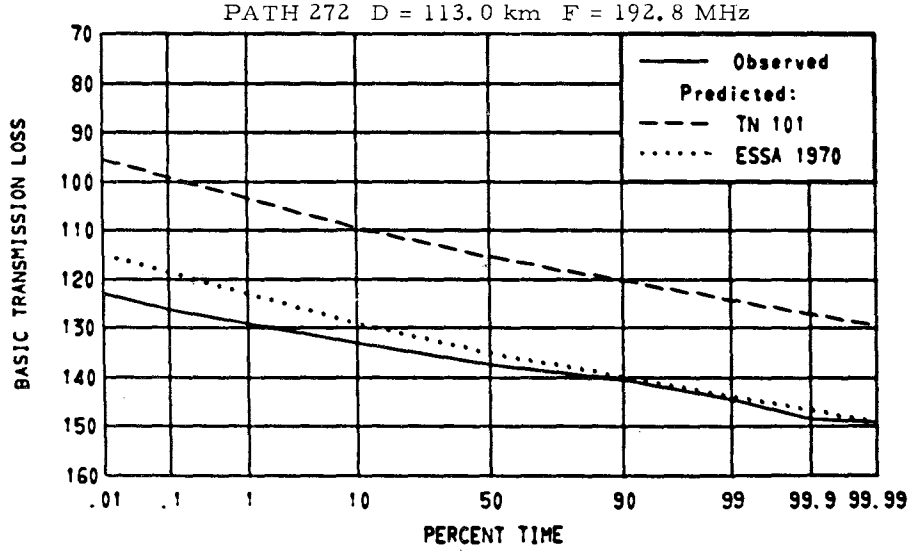


Figure 1.11 Paths 252 272

CHEYENNE MTN S COLO - KARVAL COLO

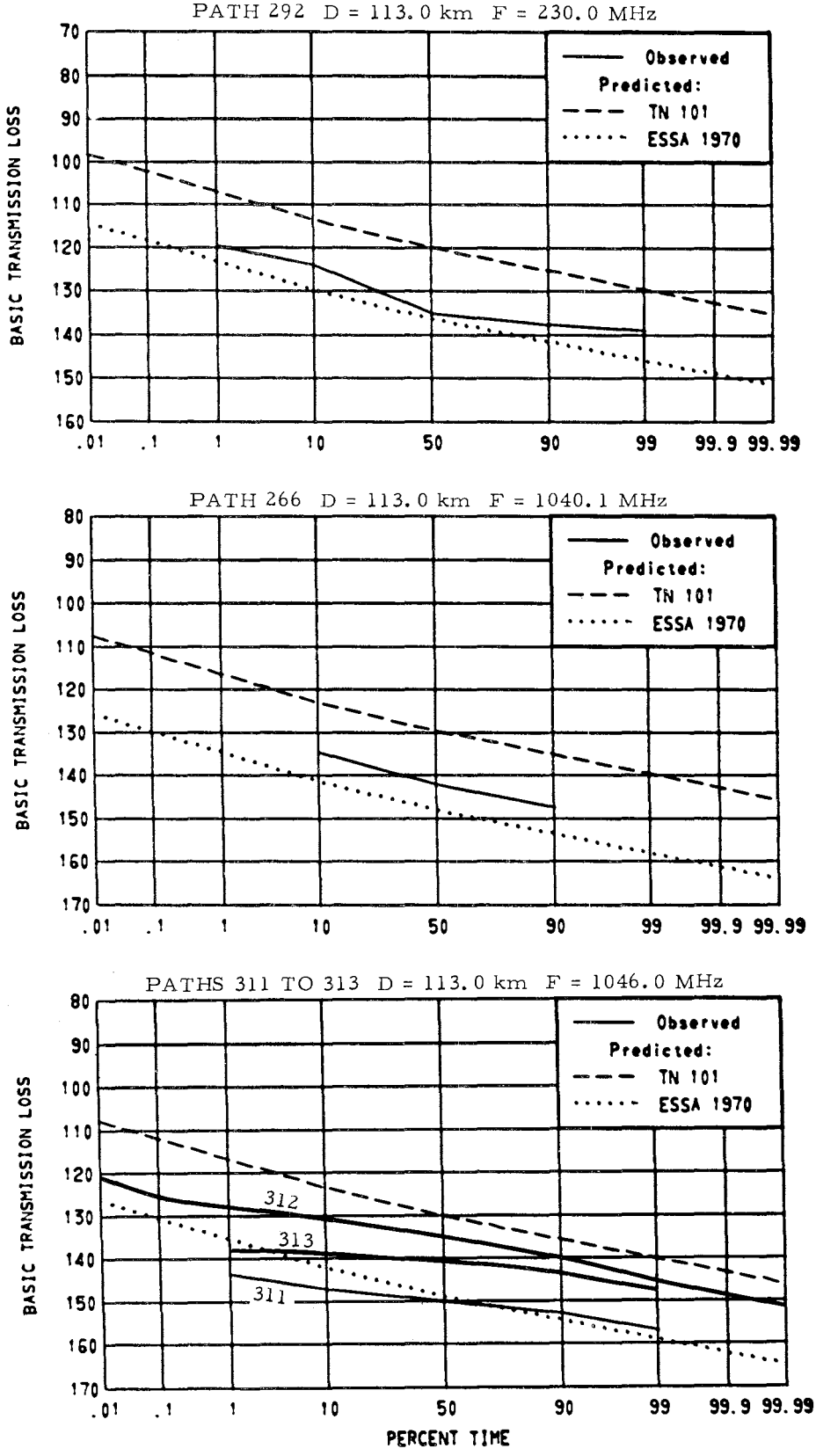


Figure 1.12 Paths 266 292 311 to 313

CHEYENNE MTN S COLO - KARVAL COLO

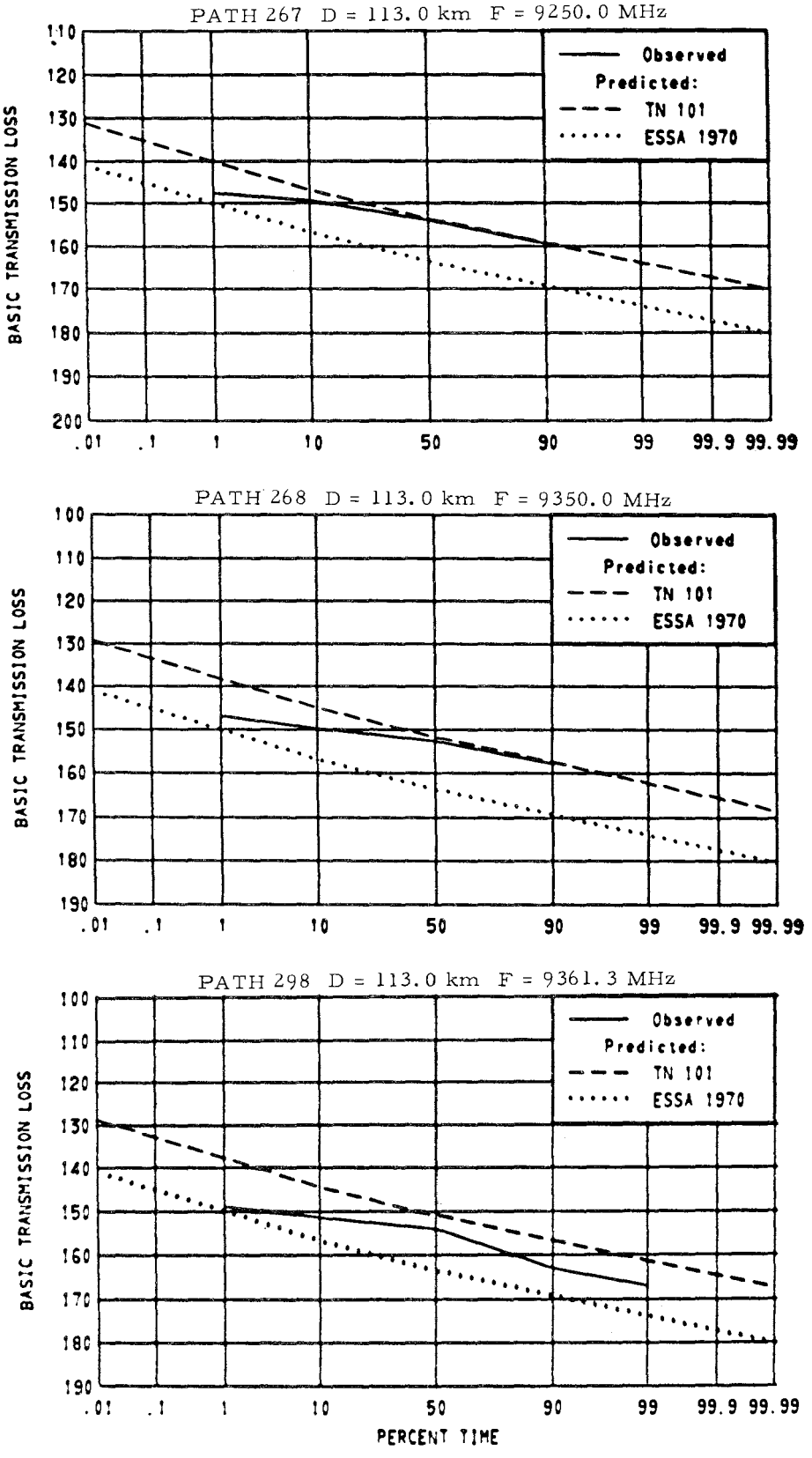
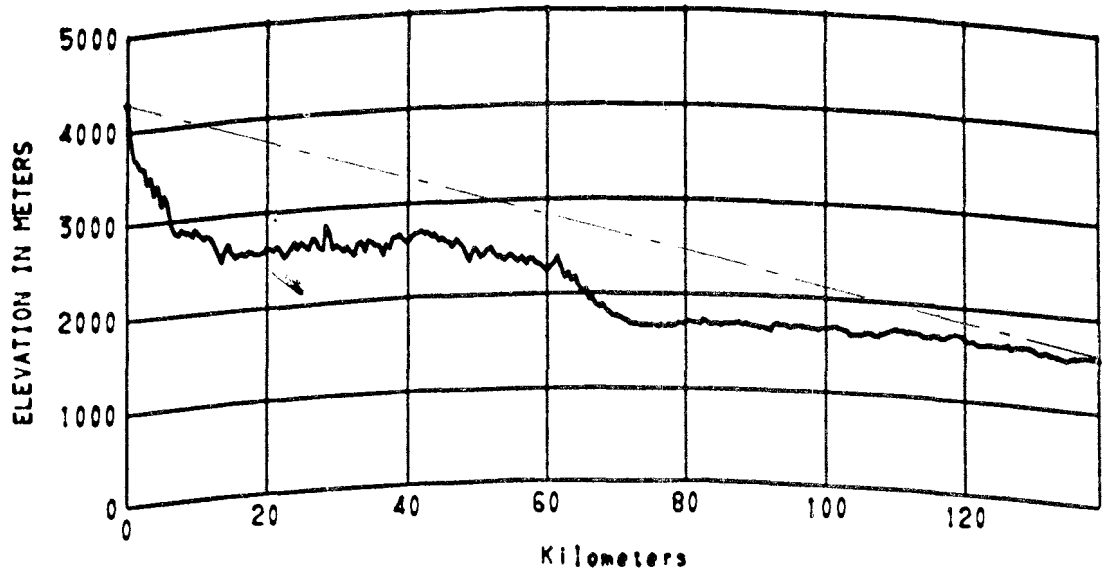


Figure 1.13 Paths 267 268 298

PATHS 299 300 PIKES PEAK COLO - GUN BARREL HILL COLO



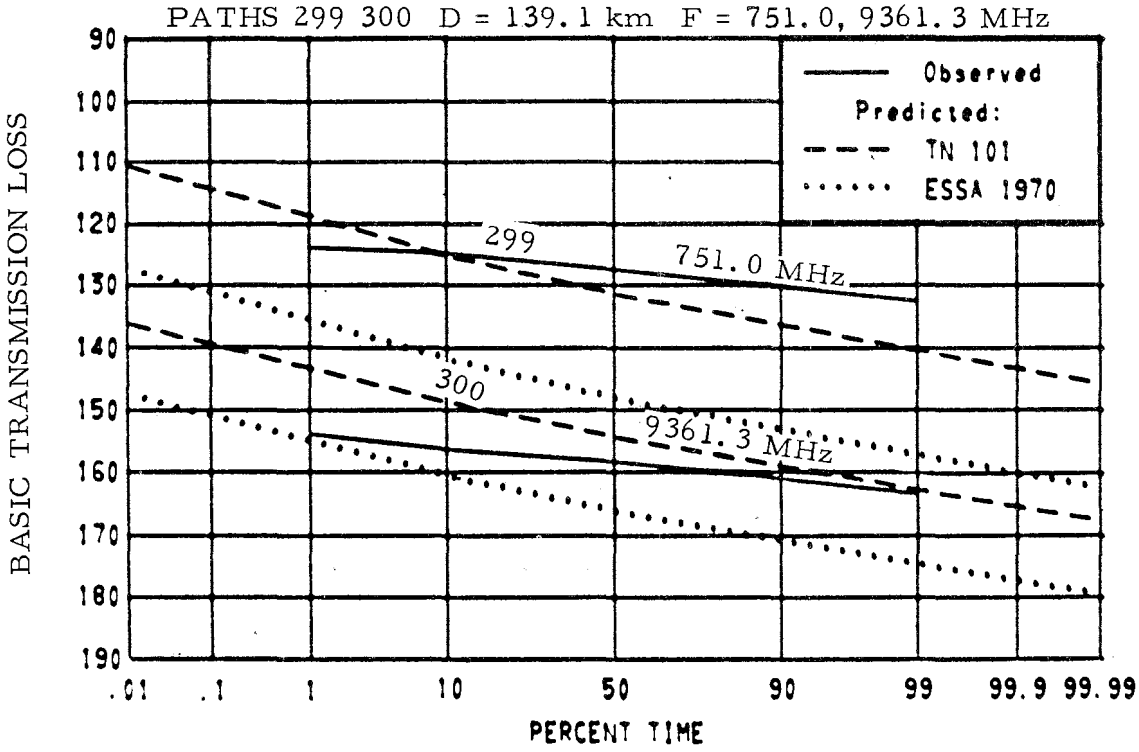


Figure 1.14 Paths 299 300

CRYSTAL PALACE ENG - KINGSWOOD ENG
PATHS 2197 2198 2214

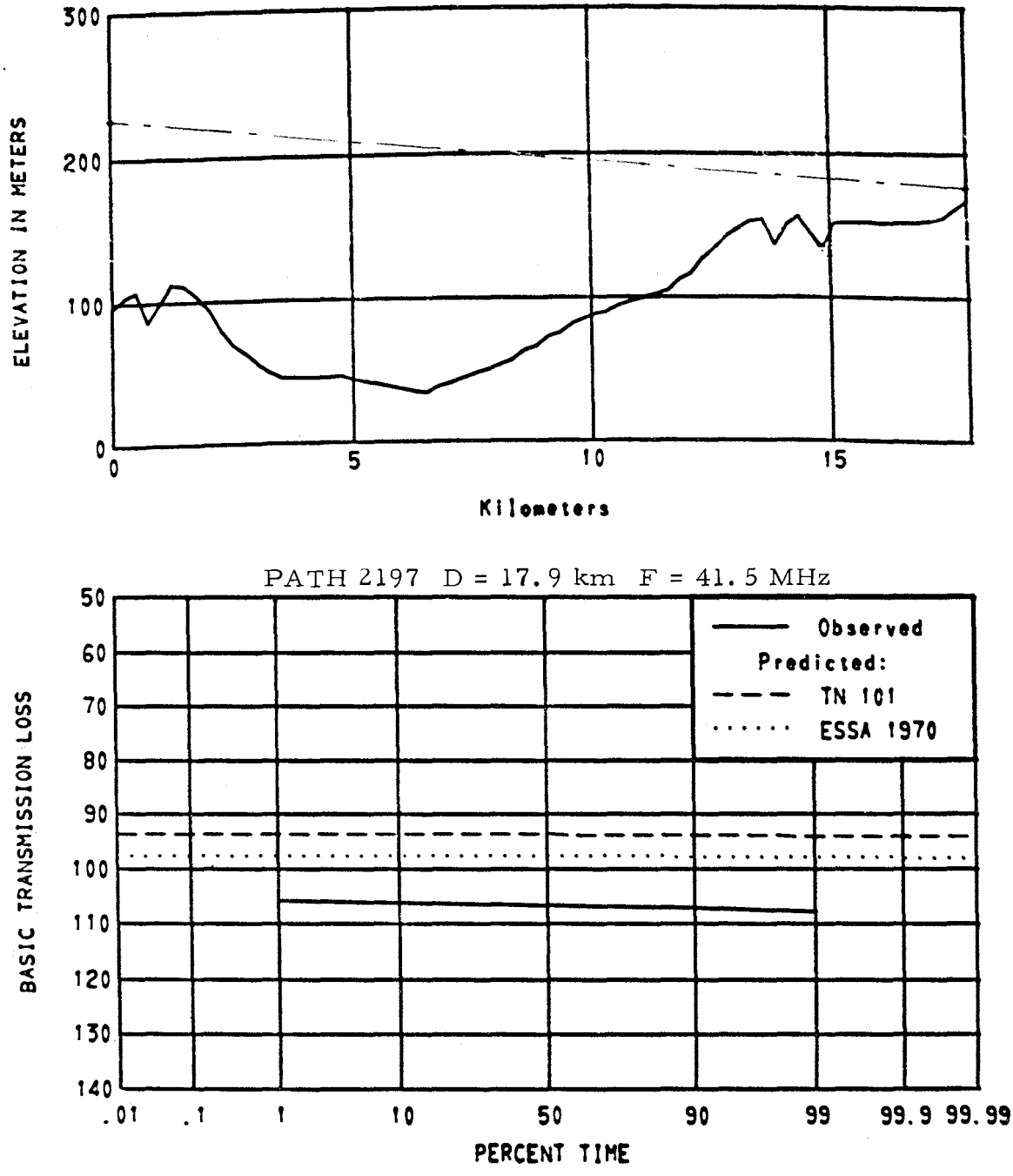


Figure 1.15 Path 2197

CRYSTAL PALACE ENG - KINGSWOOD ENG

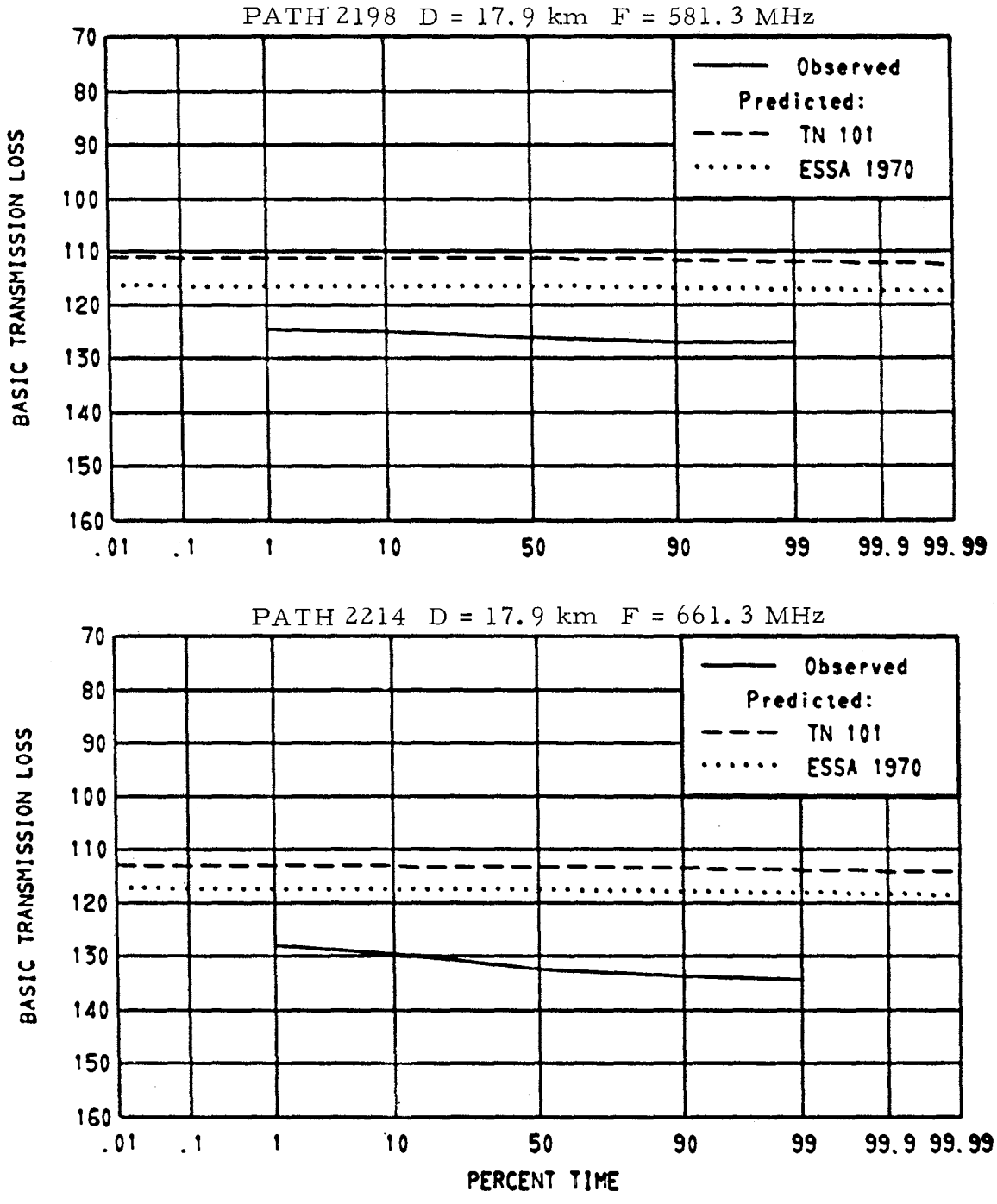


Figure 1.16 Paths 2198 2214

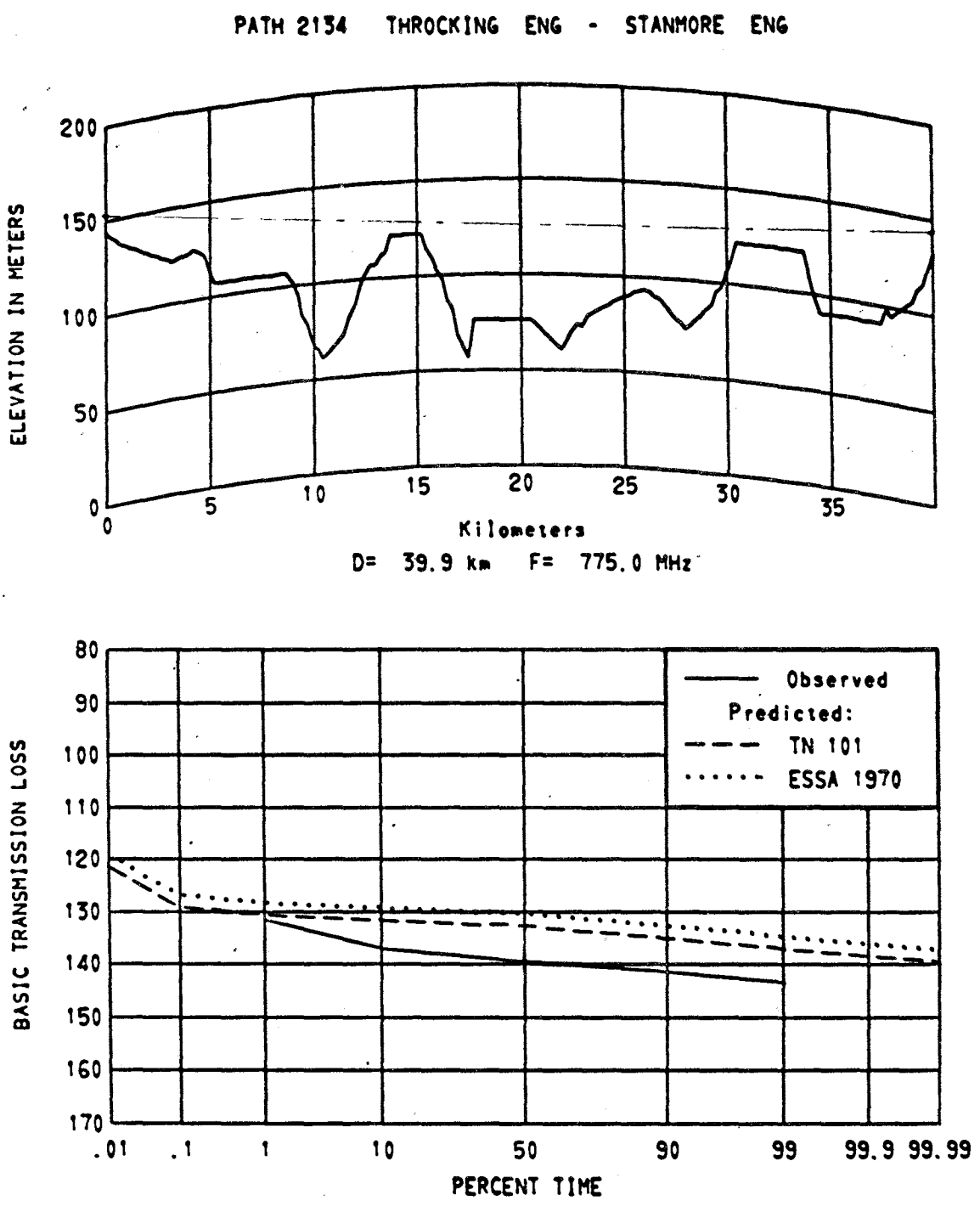
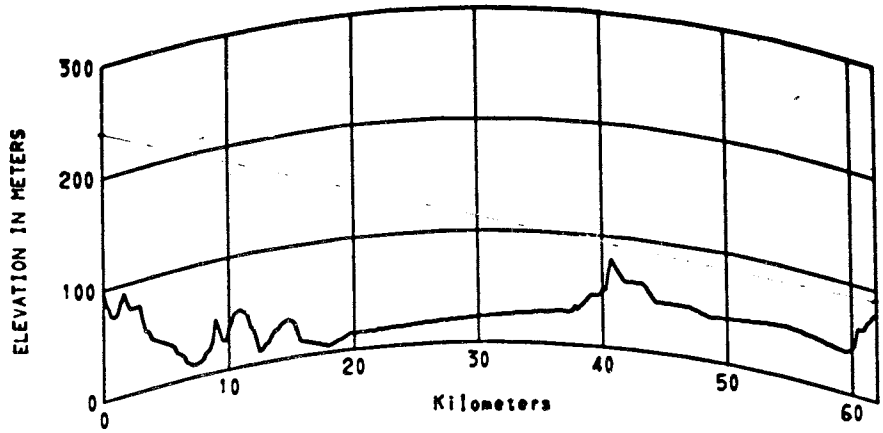
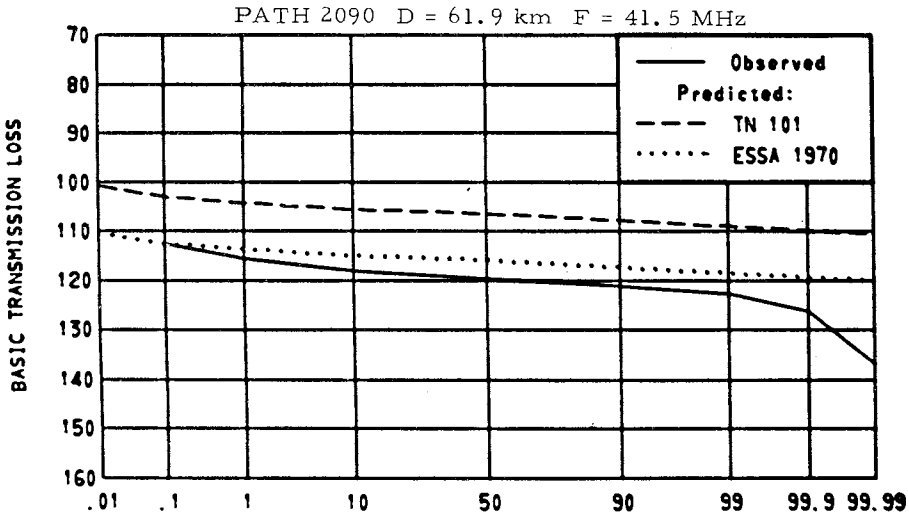


Figure 1.17 Path 2134

PATHS 1978 2090 CRYSTAL PALACE ENG - CAVERSHAM ENG





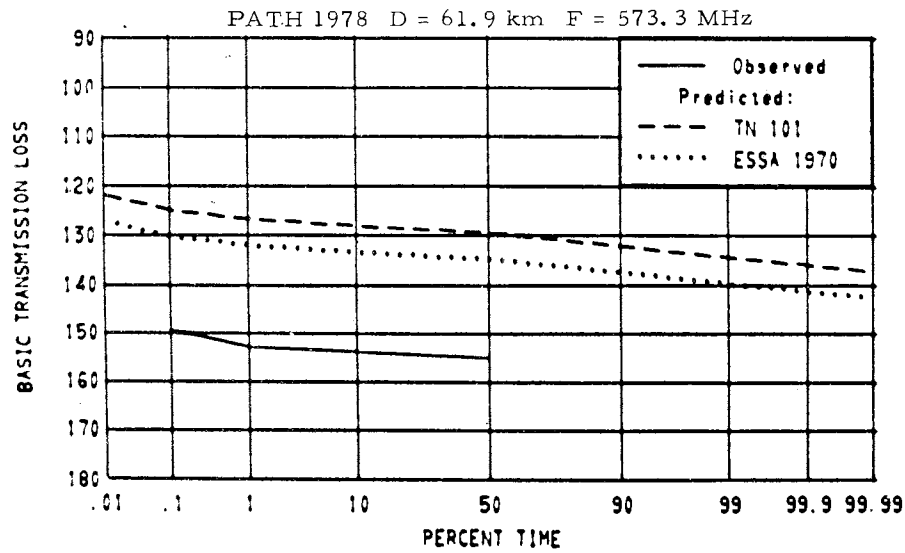


Figure 1.18 Paths 1978 2090

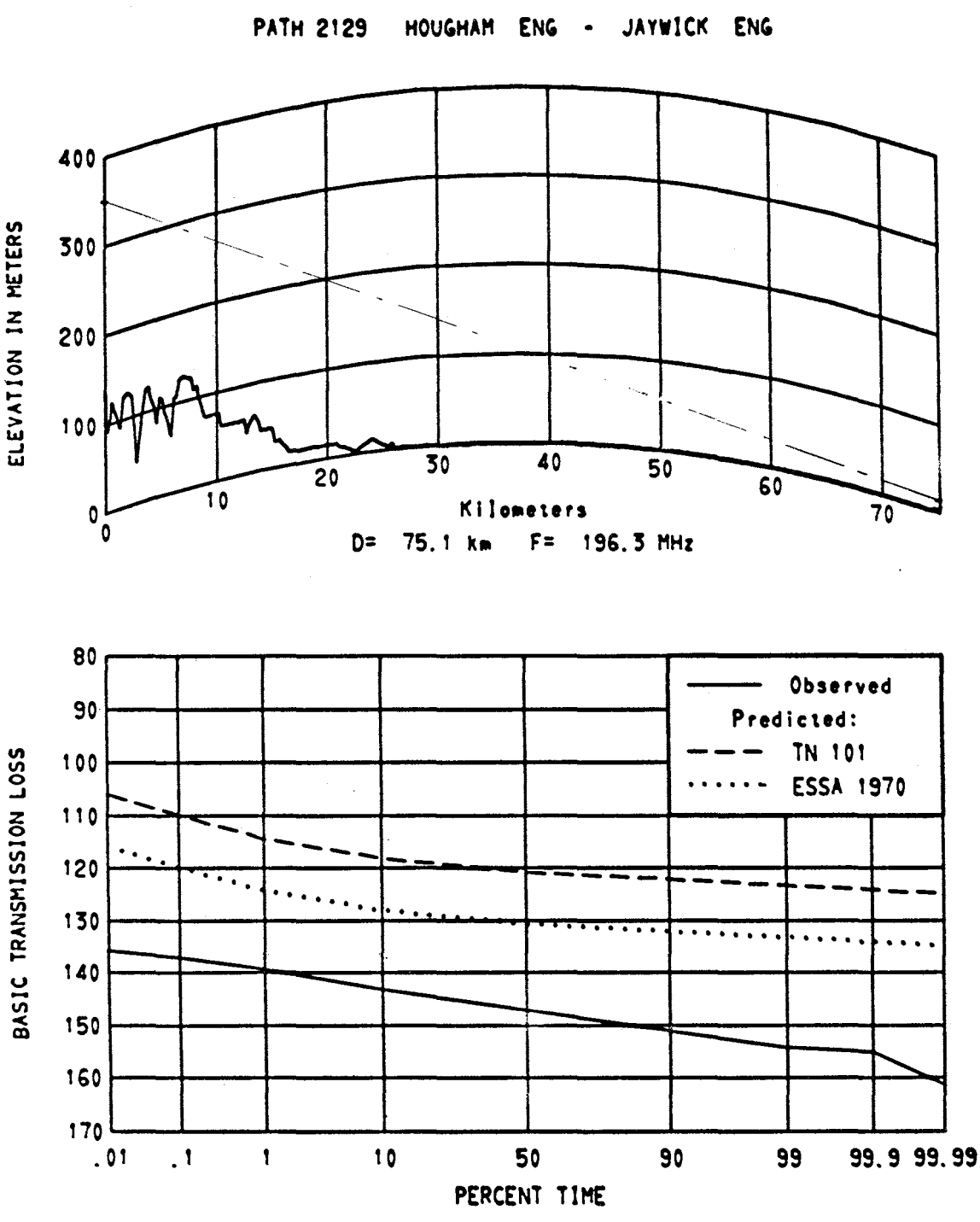


Figure 1.19 Path 2129

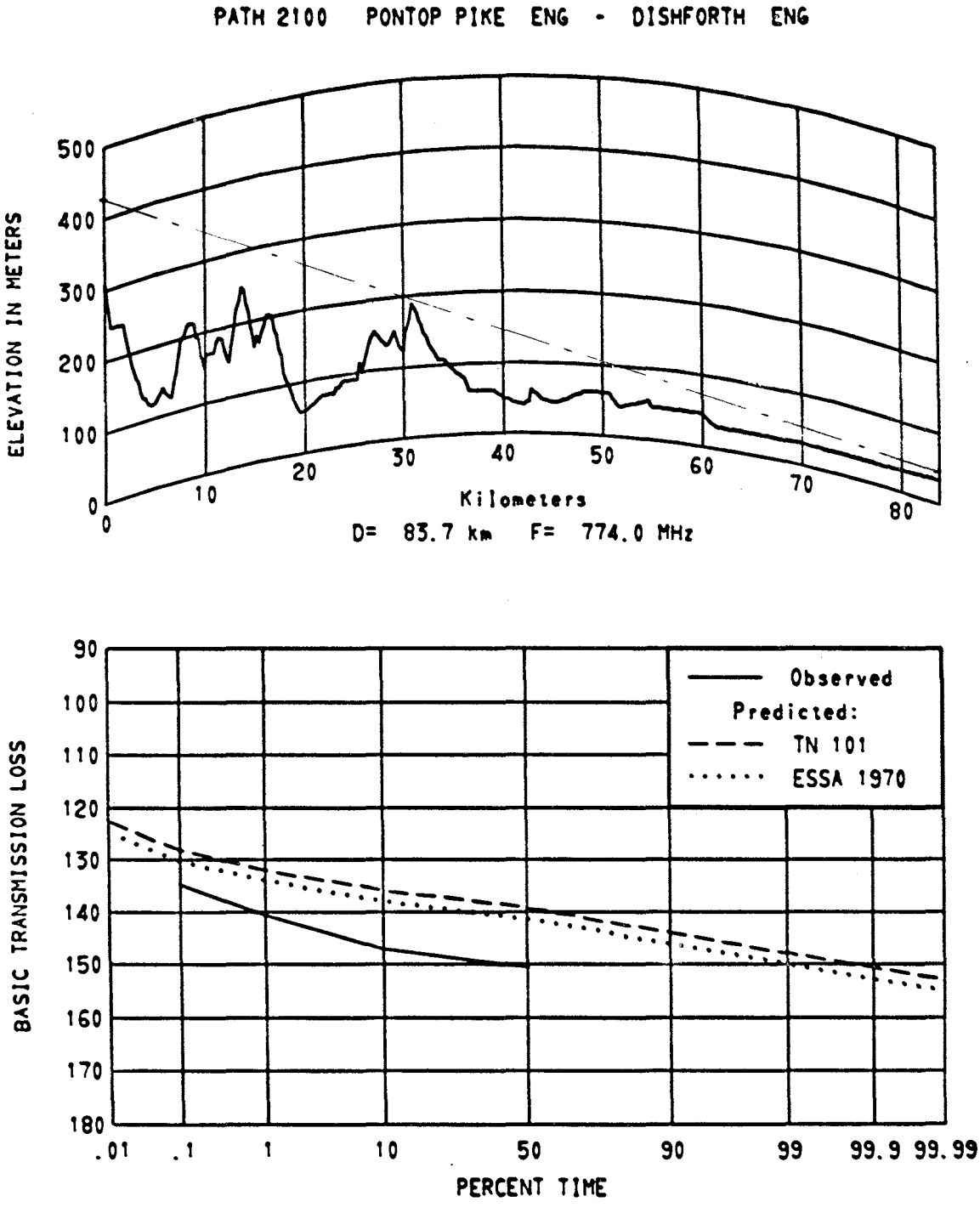


Figure 1.20 Path 2100

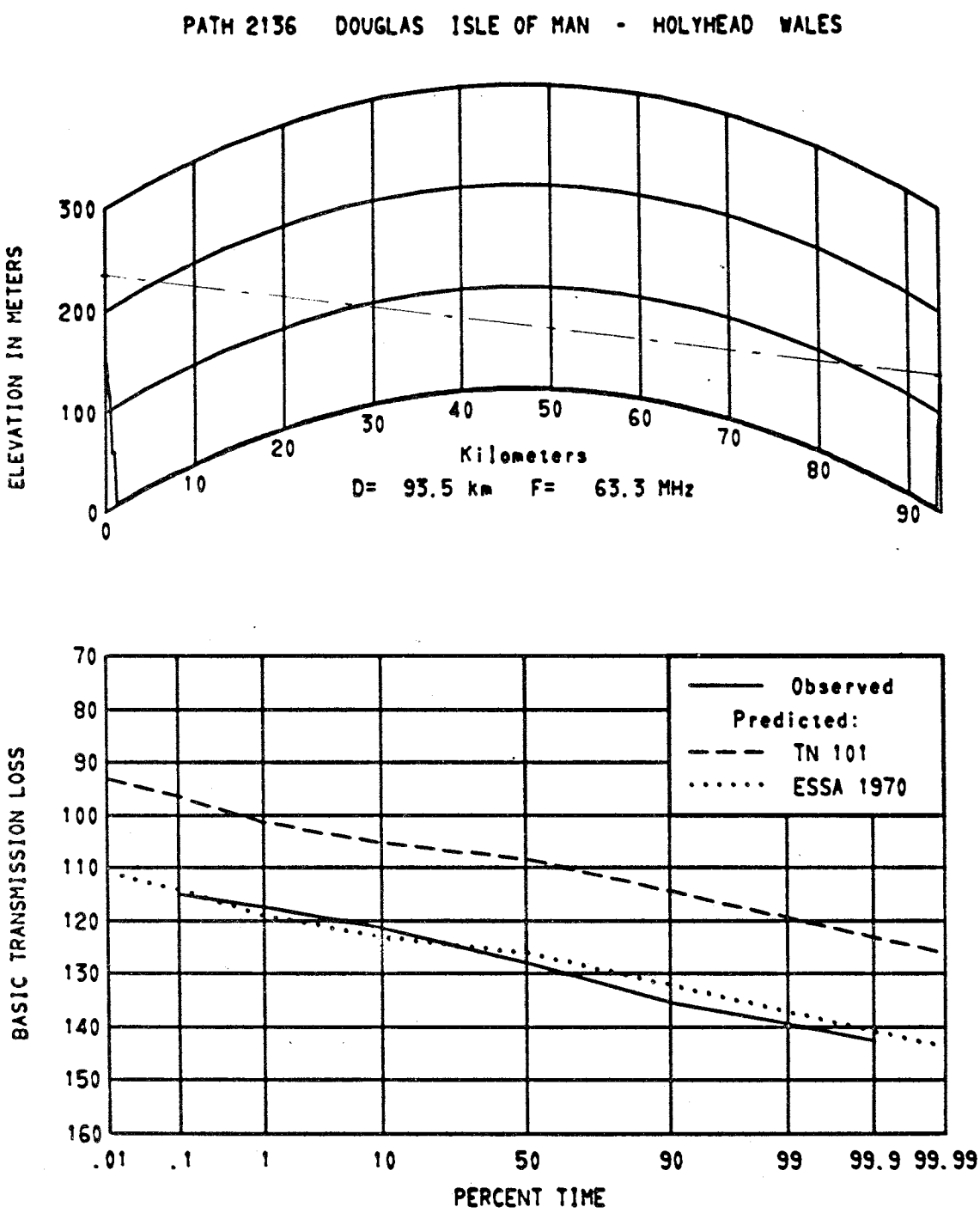


Figure 1.21 Path 2136

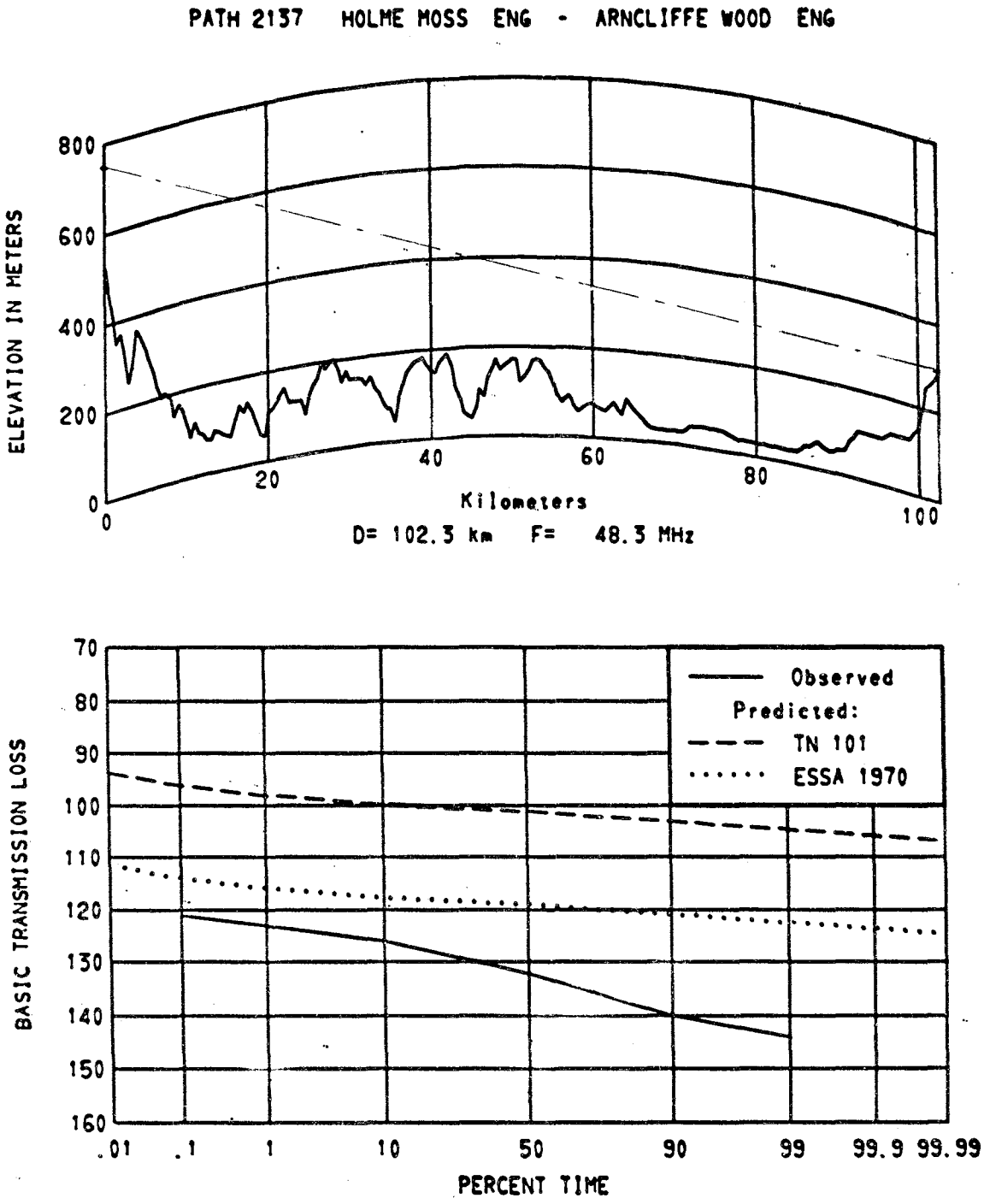
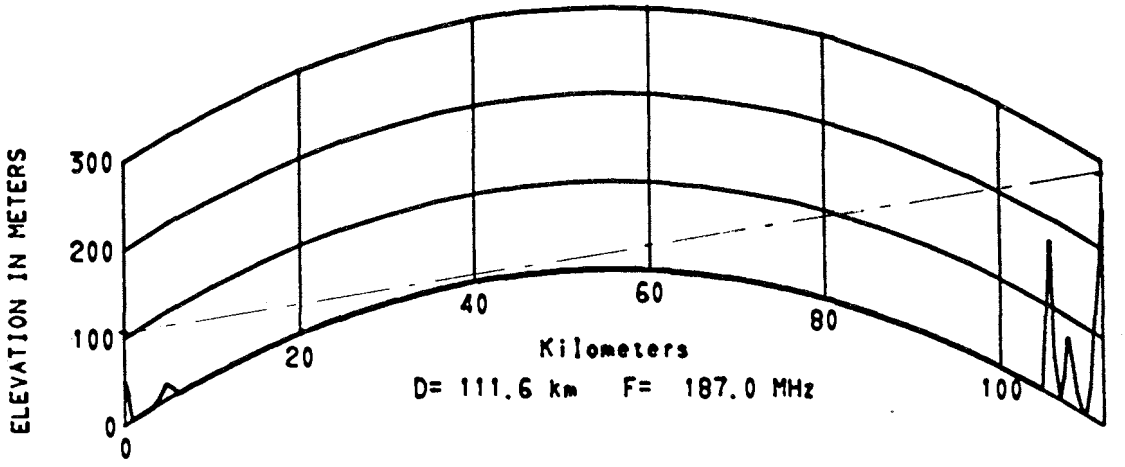


Figure 1.22 Path 2137

SANDAY ORKNEY IS - SCOUSBURGH SHETLAND IS
PATHS 2168 2169



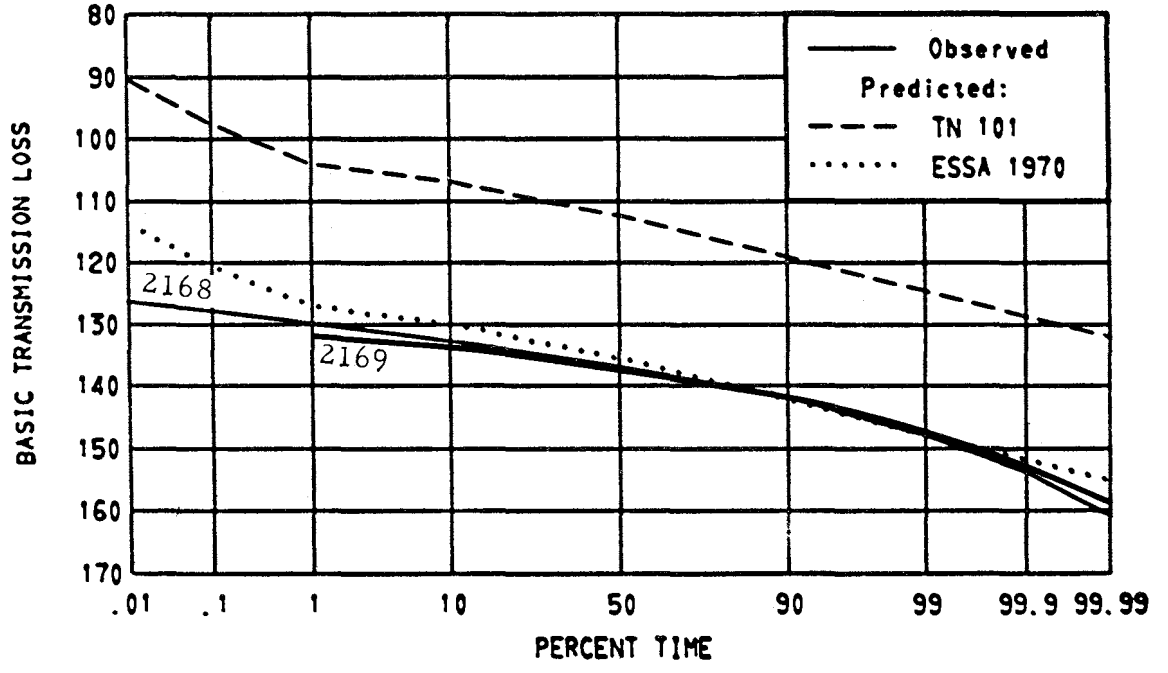


Figure 1.23 Paths 2168 2169

PATHS 2075 2151 WINTER HILL ENG - DOUGLAS ISLE OF MAN

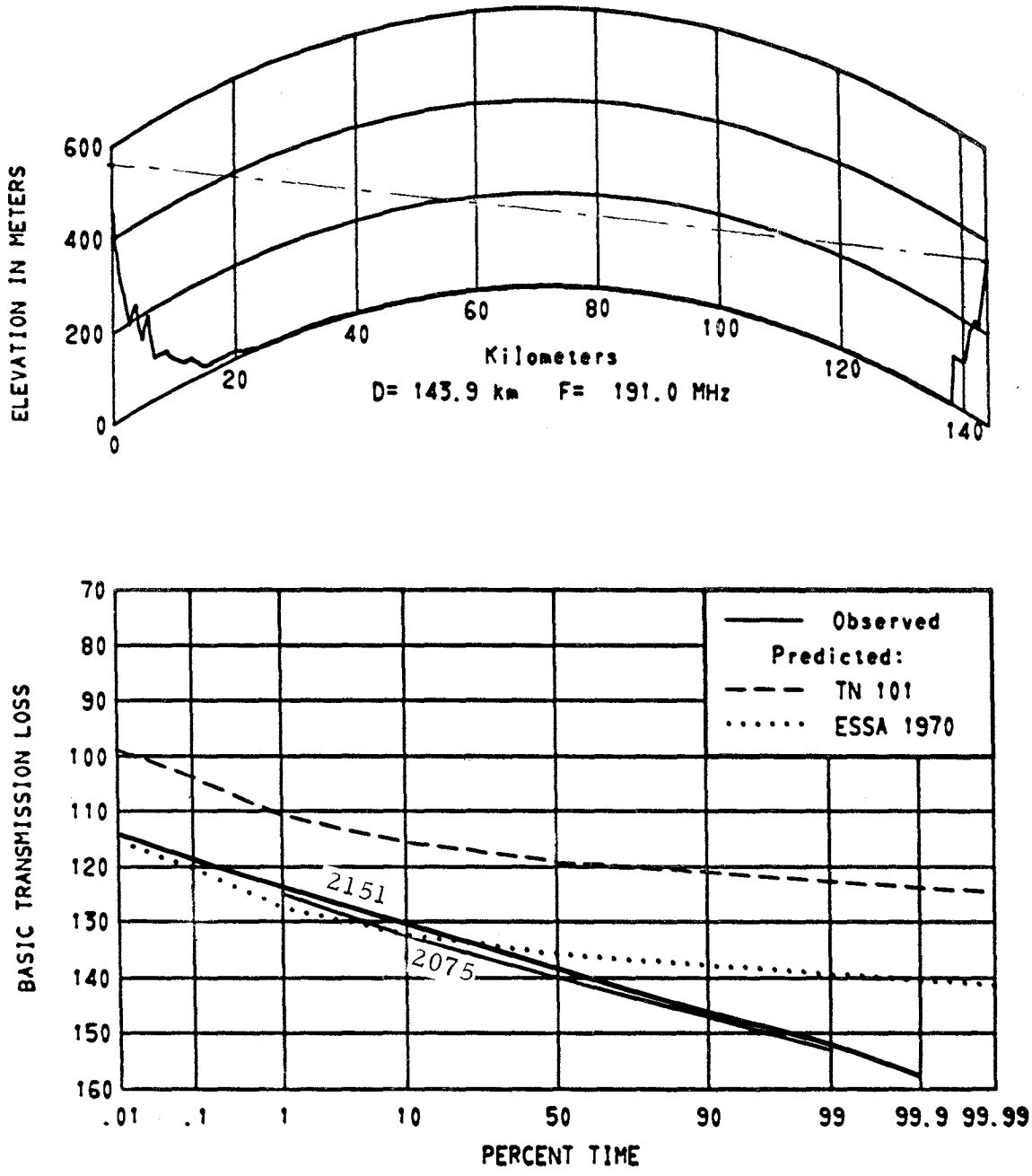


Figure 1.24 Paths 2075 2151

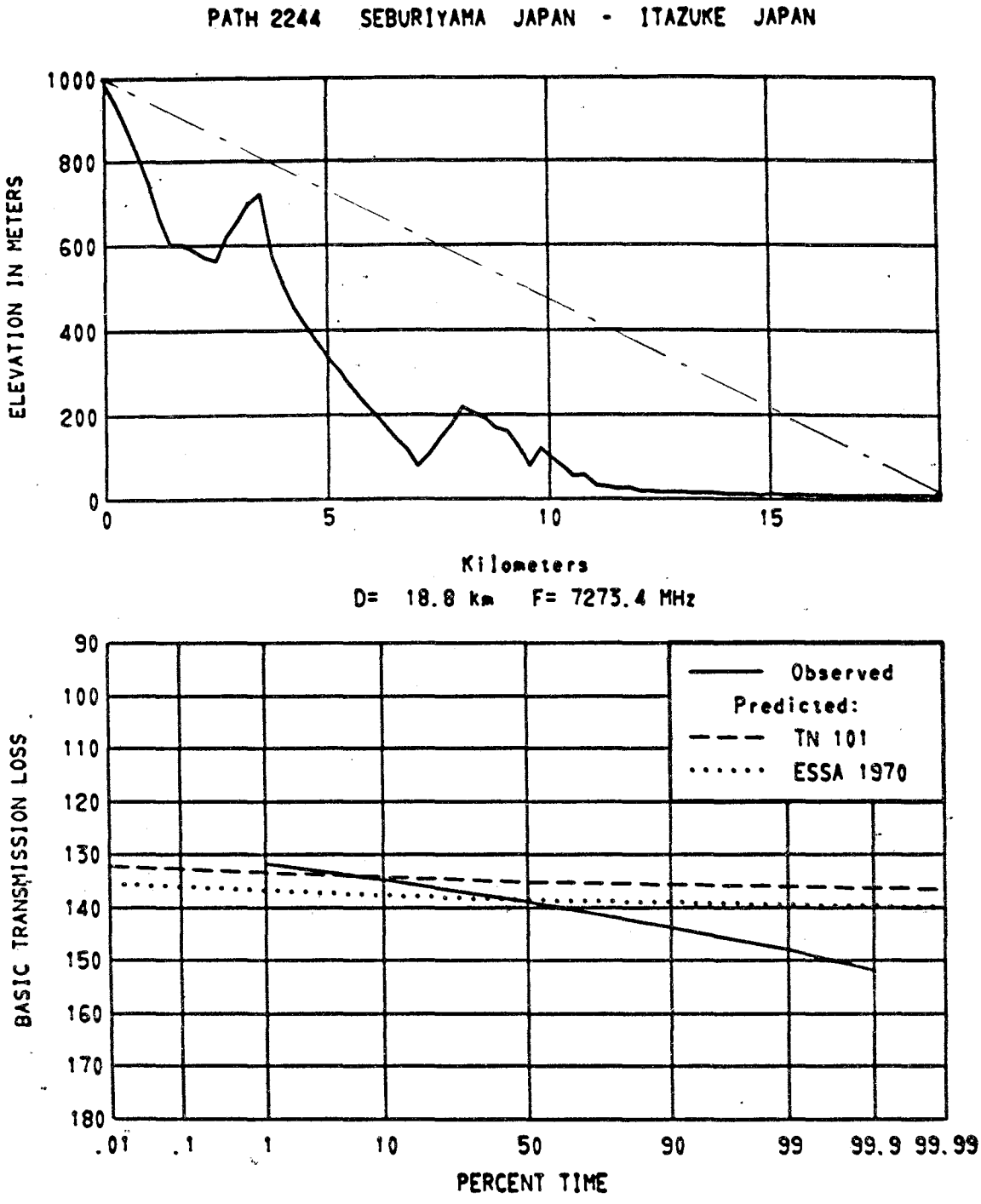


Figure 1.25 Path 2244

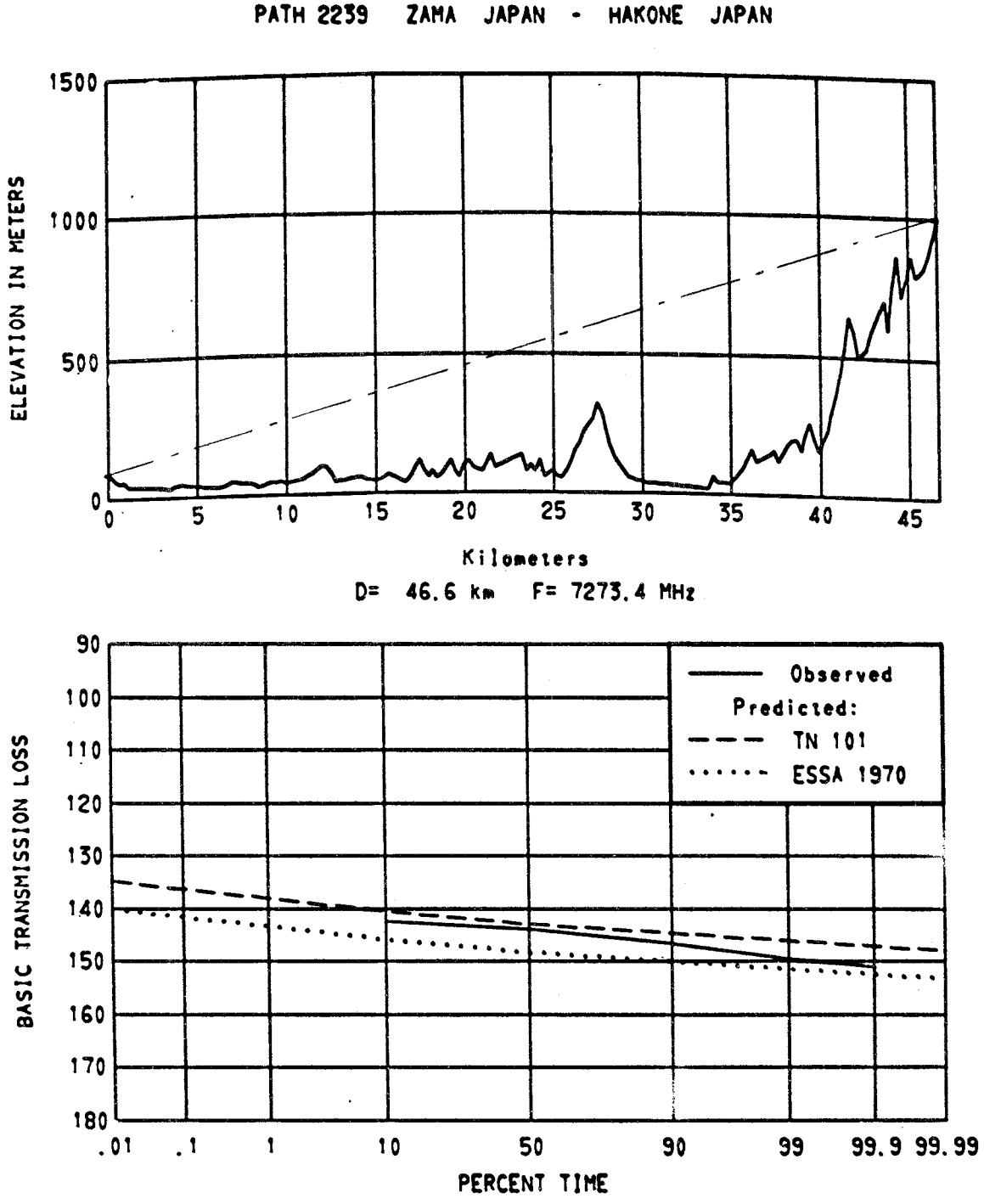
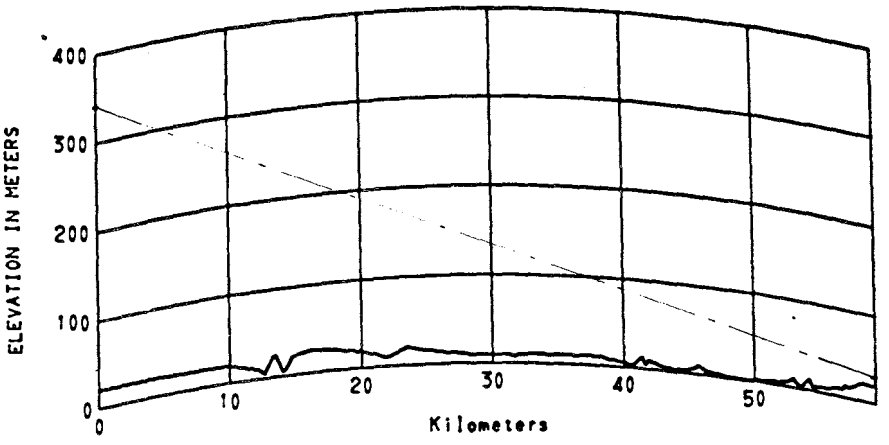
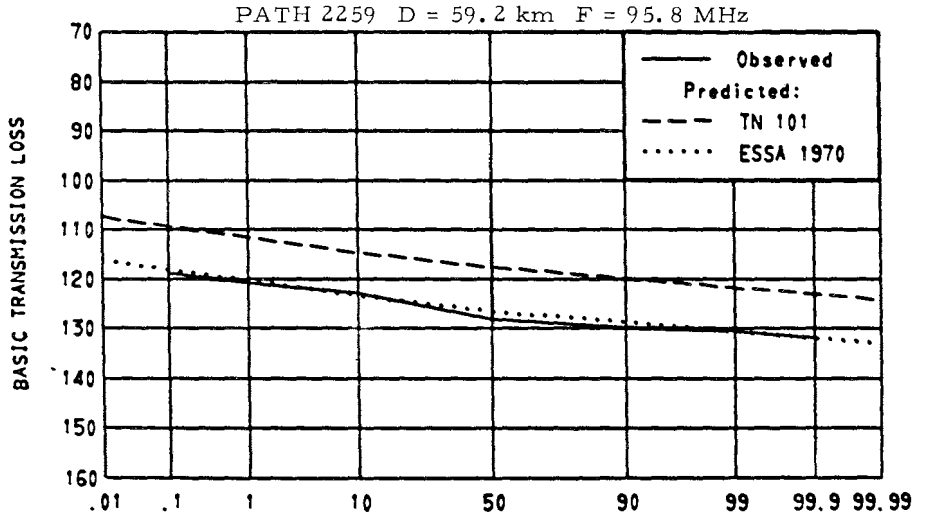


Figure 1.26 Path 2239

PATHS 2259 2260 TOKYO TOWER JAPAN - KOGA JAPAN





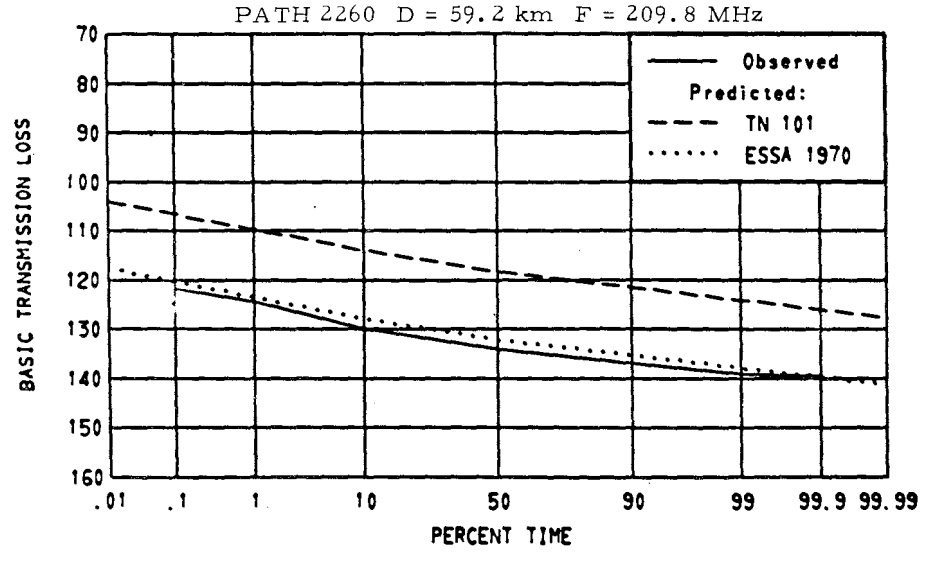
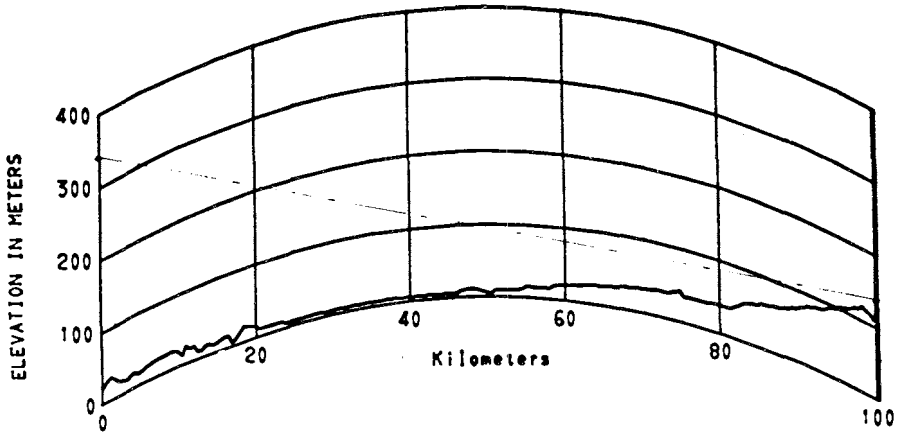
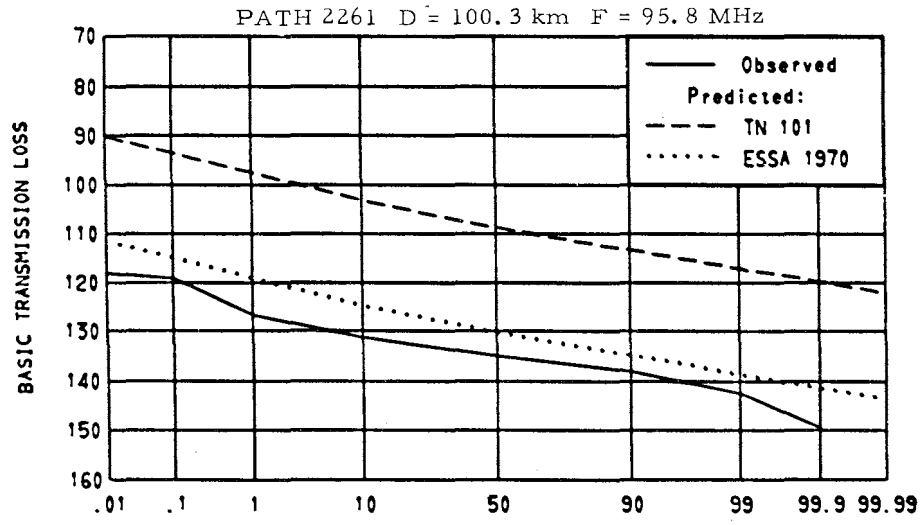


Figure 1.27 Paths 2259 2260

PATHS 2261 2262 TOKYO TOWER JAPAN - UTSUNOMIYA JAPAN





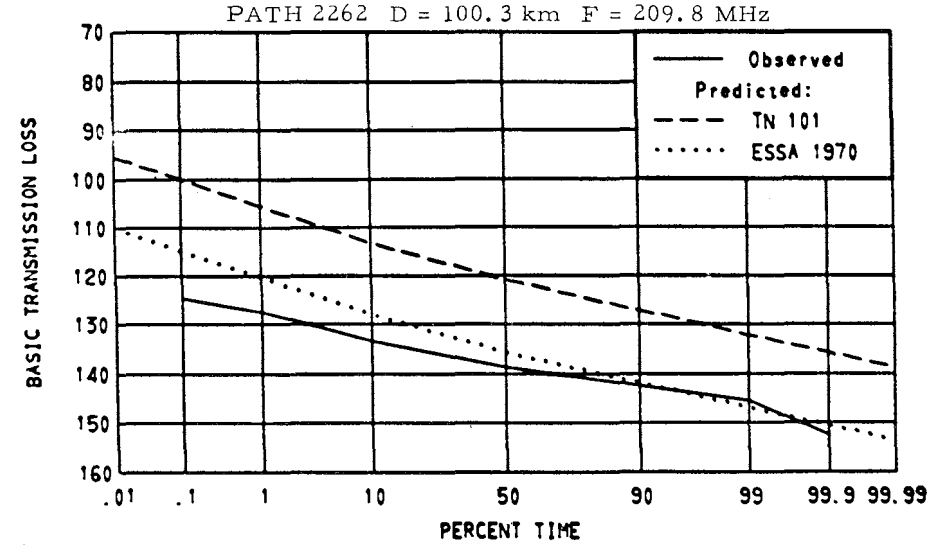


Figure 1.28 Paths 2261 2262

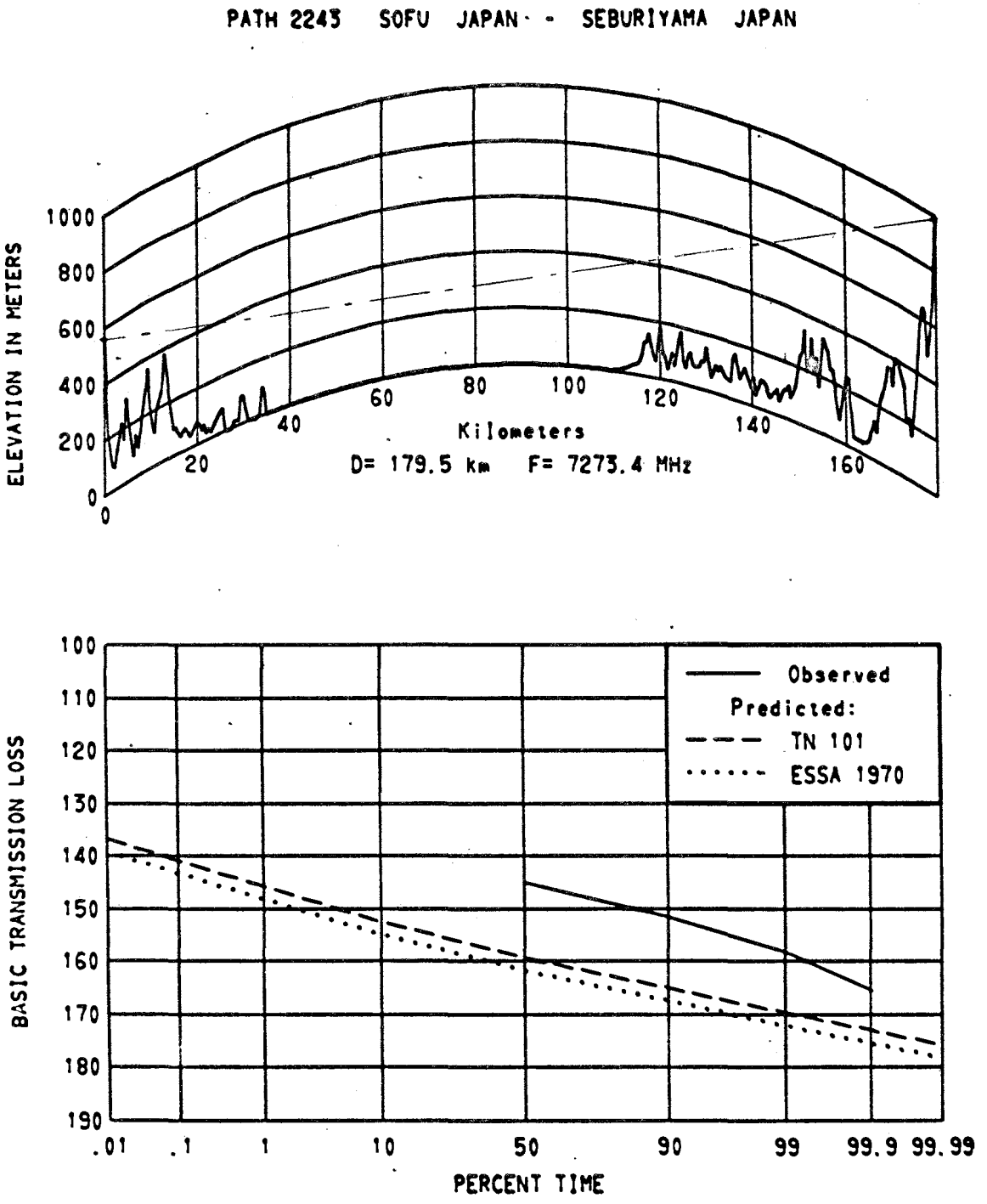


Figure 1.29 Path 2243

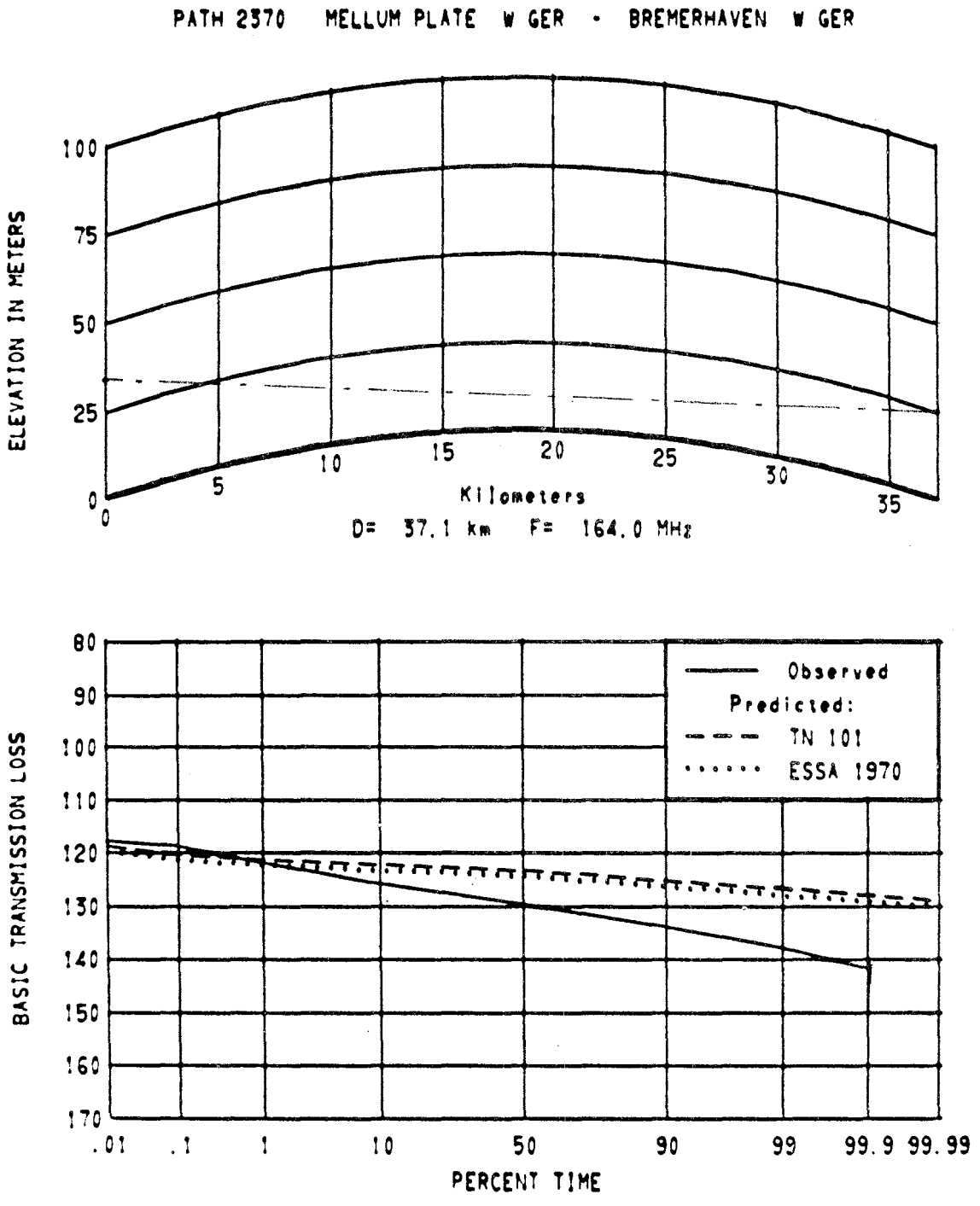


Figure 1.30 Path 2370

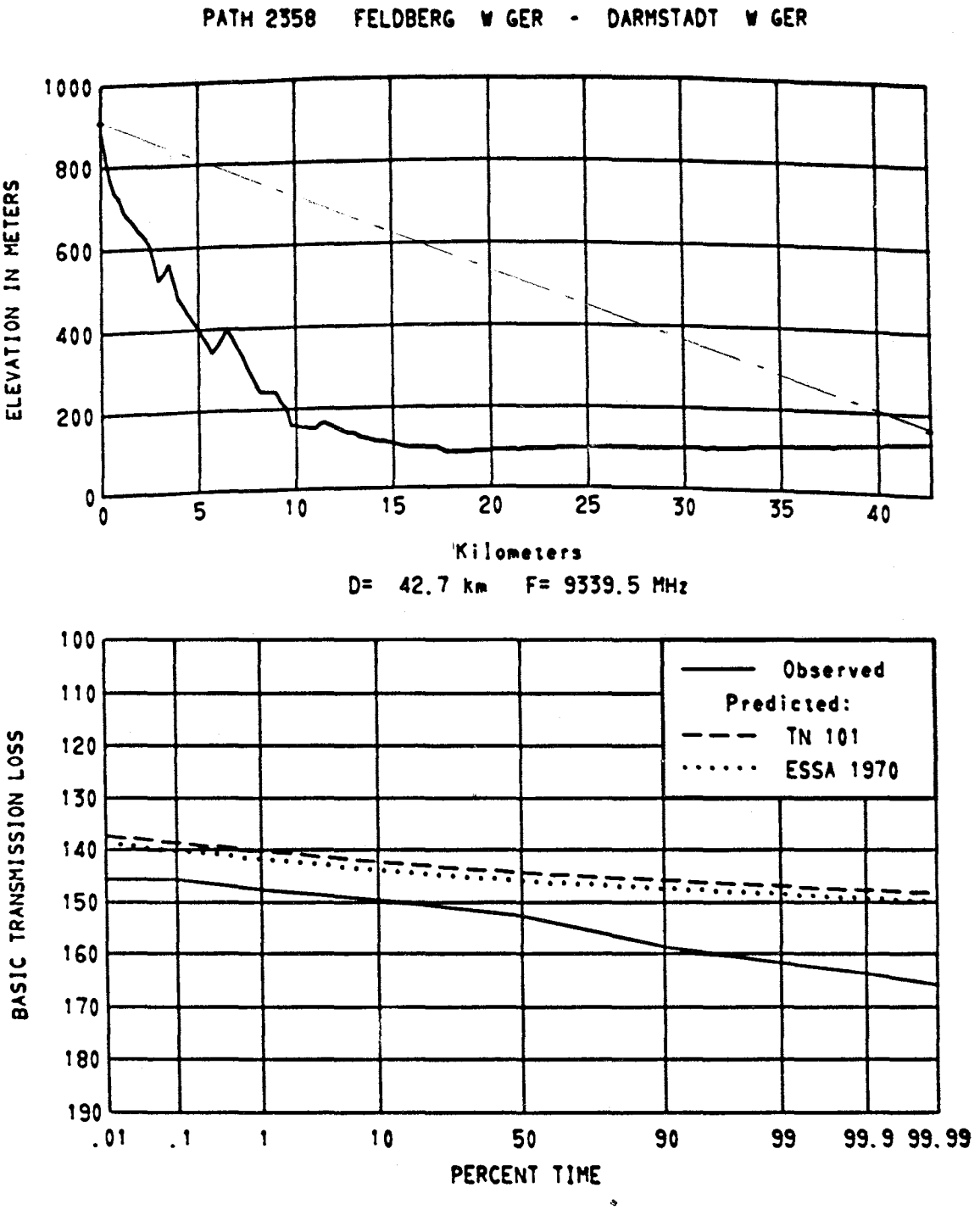
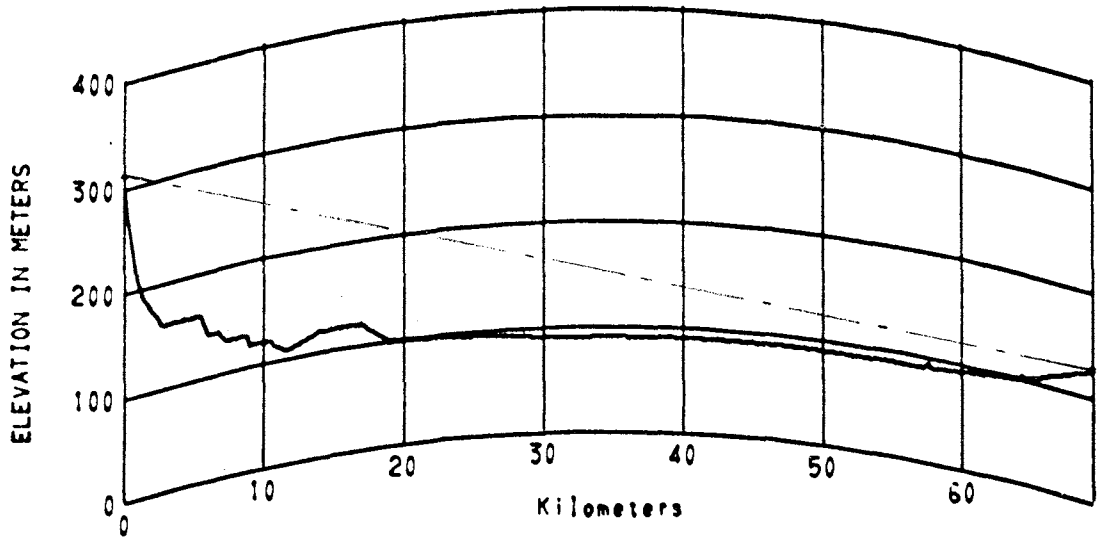


Figure 1.31 Path 2358

PATHS 2444 TO 2446 HAMBACH W GER - DARMSTADT W GER



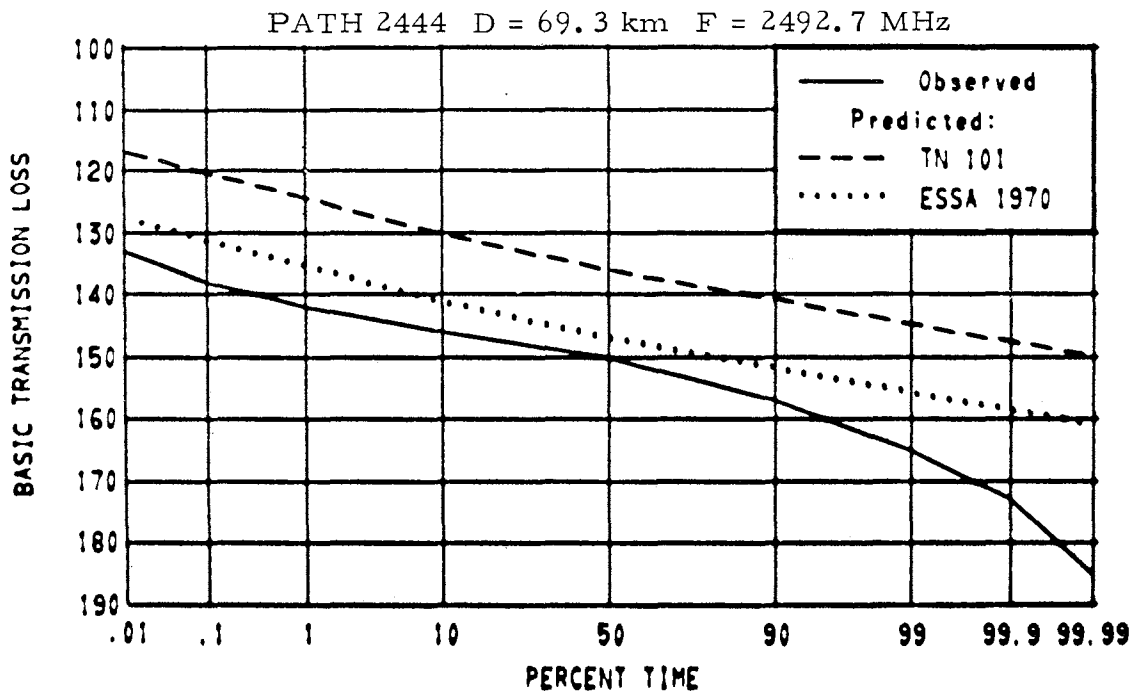


Figure 1.32 Path 2444

HAMBACH W GER - DARMSTADT W GER

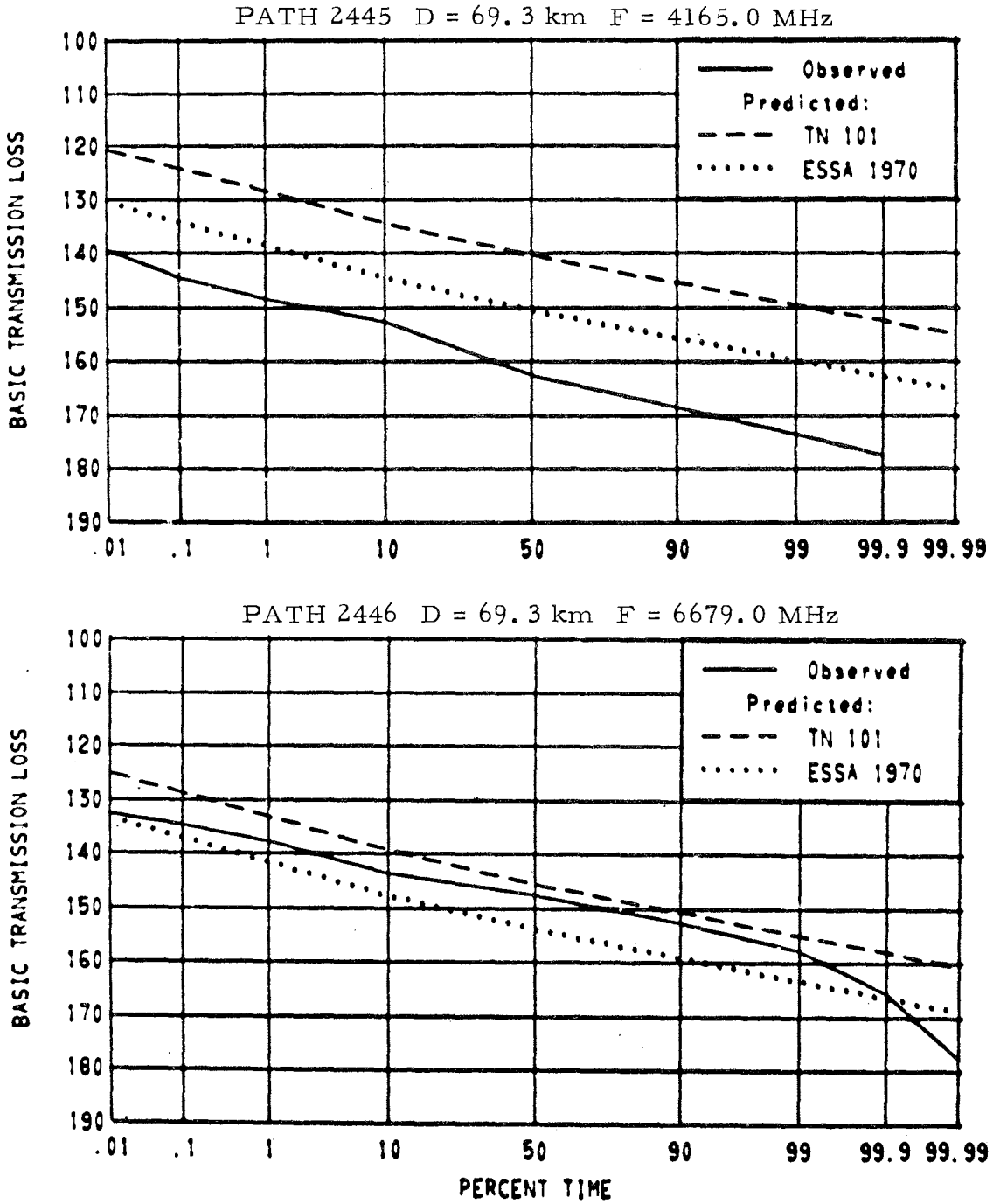


Figure 1.33 Paths 2445 2446

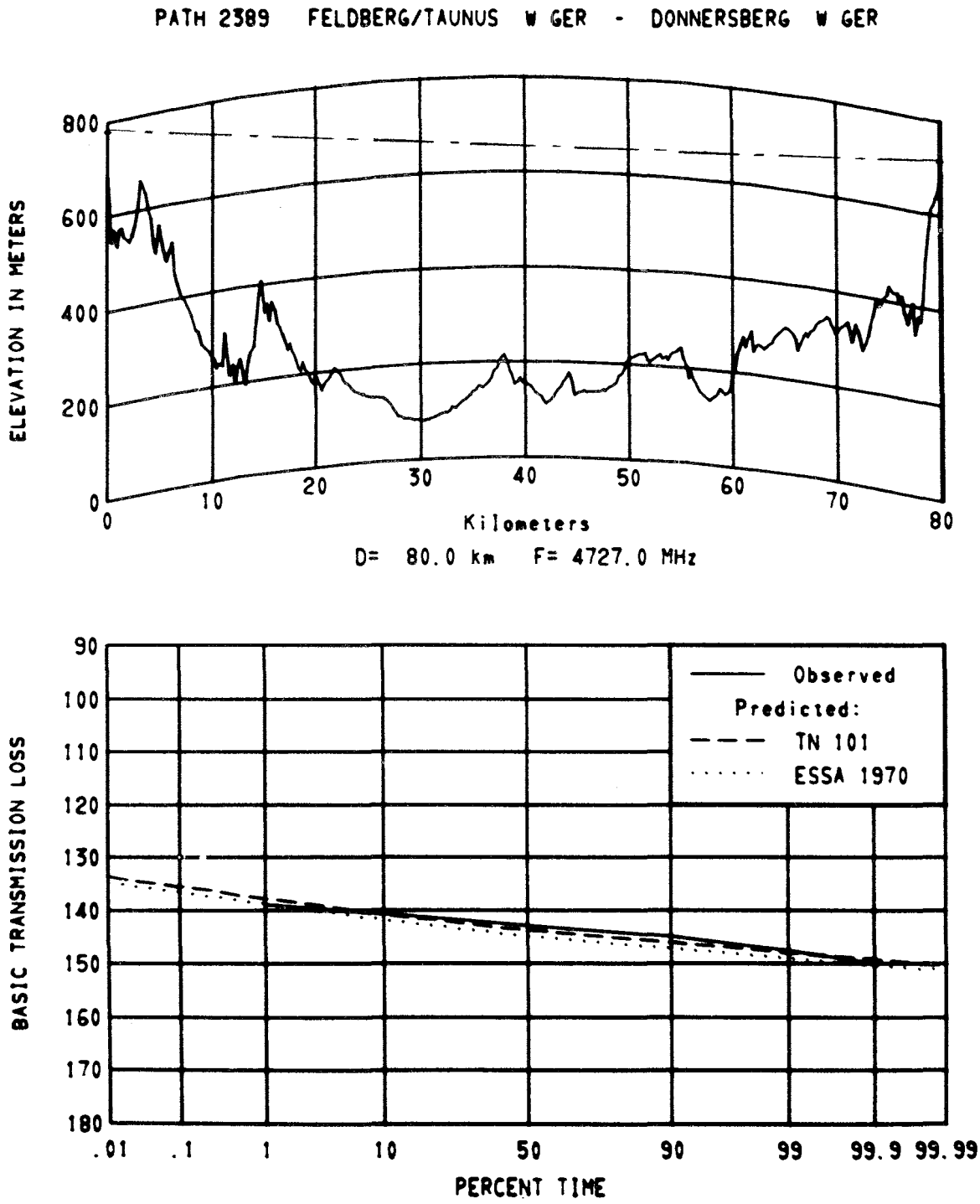
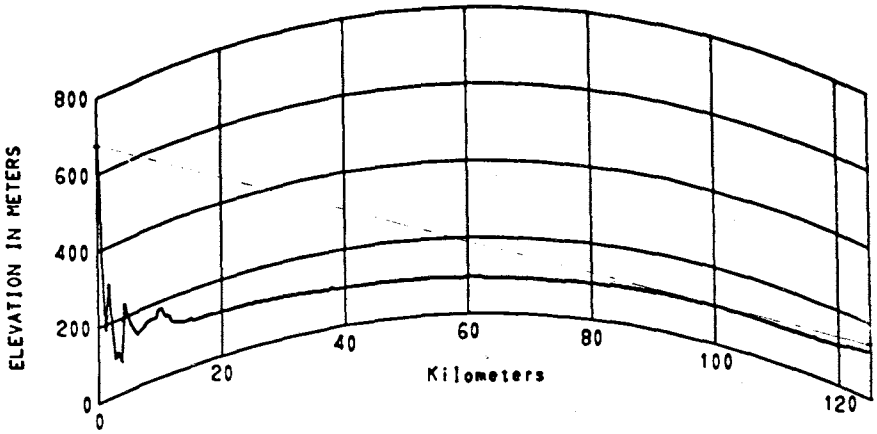
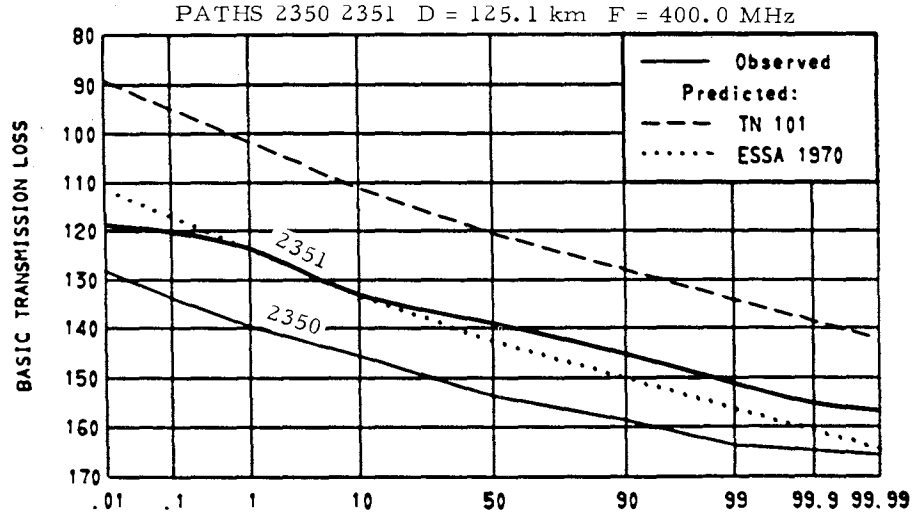


Figure 1.34 Path 2389

BADEN-BADEN W GER - DARMSTADT W GER
PATHS 2350 TO 2355, 2378



PATHS 2350 2351 D = 125.1 km F = 400.0 MHz



PATHS 2352 TO 2355, 2378 D = 125.1 km F = 6825.0 MHz

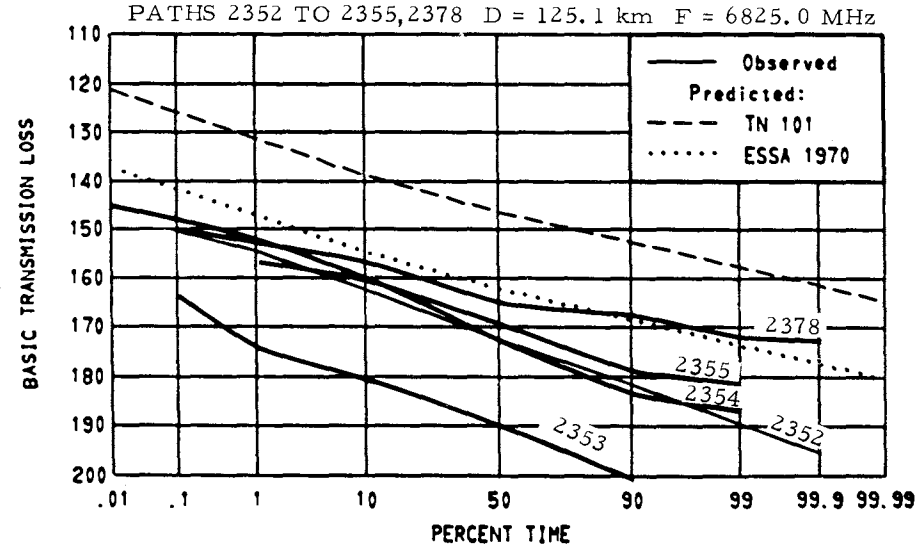
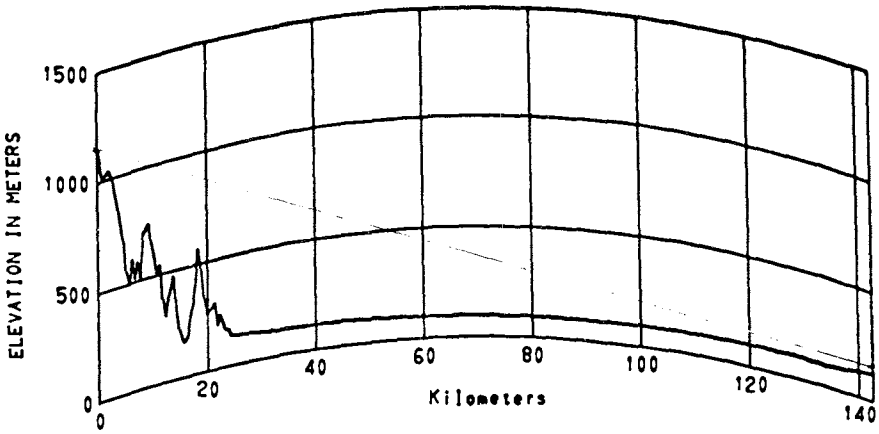
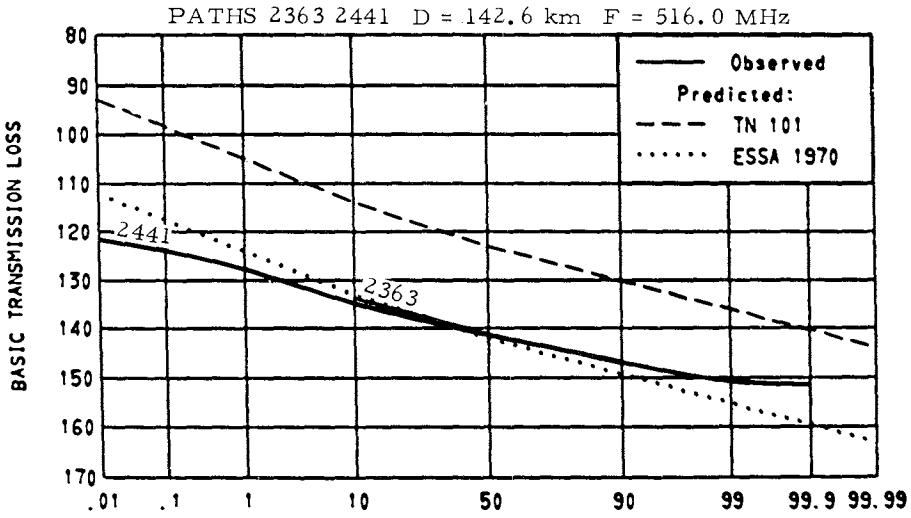


Figure 1.35 Paths 2350 to 2355, 2378

HORNISGRINDE W GER - DARMSTADT W GER
PATHS 2363 TO 2366,2440 TO 2443





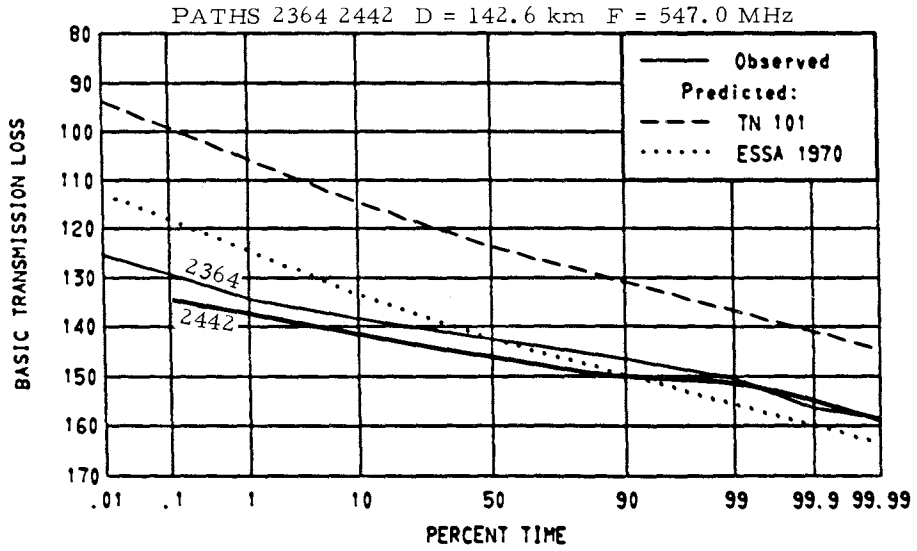


Figure 1.36 Paths 2363 2364 2441 2442

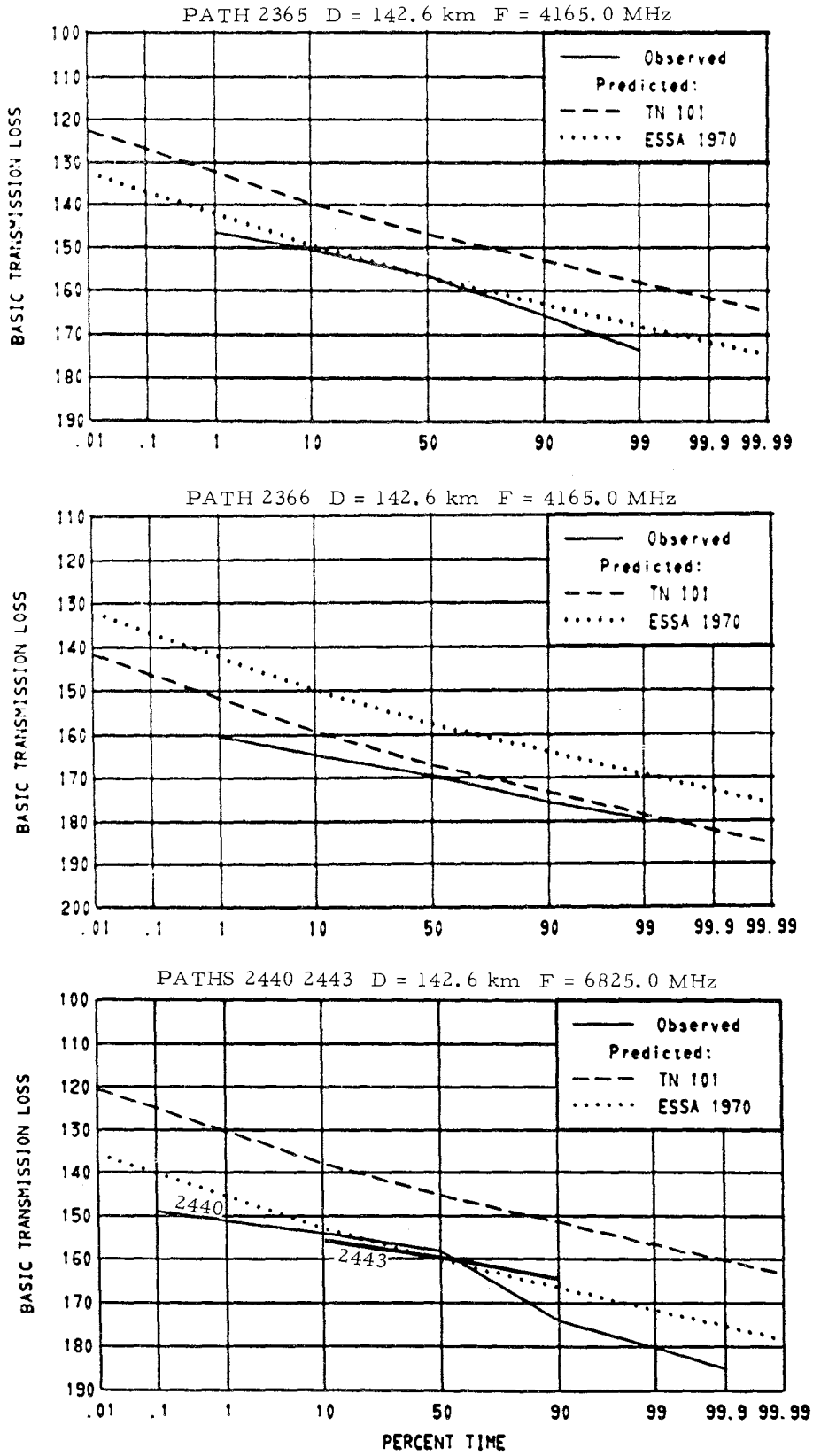


Figure 1.37 Paths 2365 2366 2440 2443

PATH 1594 PARNIS GREECE - CHIOS ISLAND GREECE

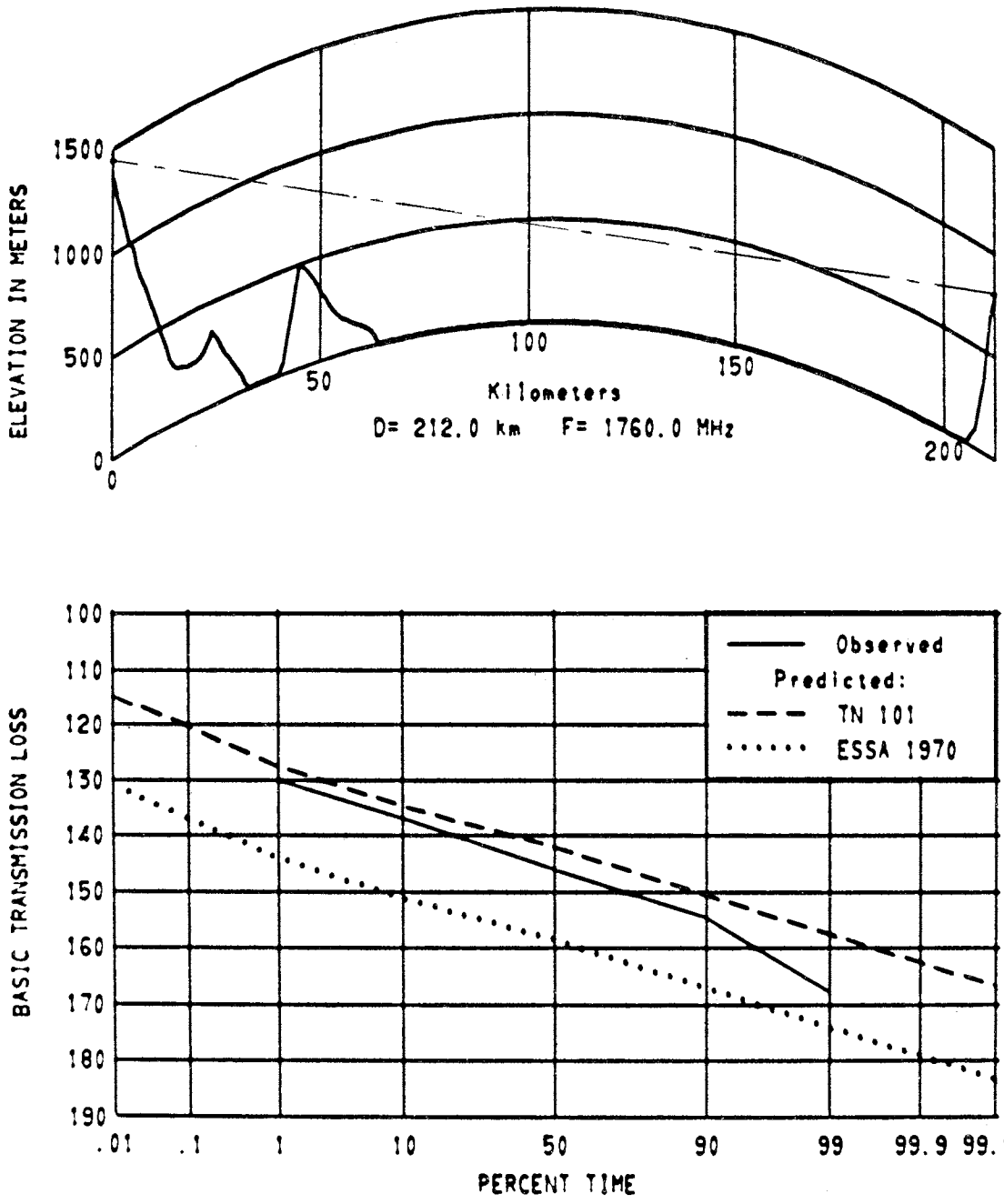


Figure 1.38 Path 1594

PART 2

Diffraction Paths

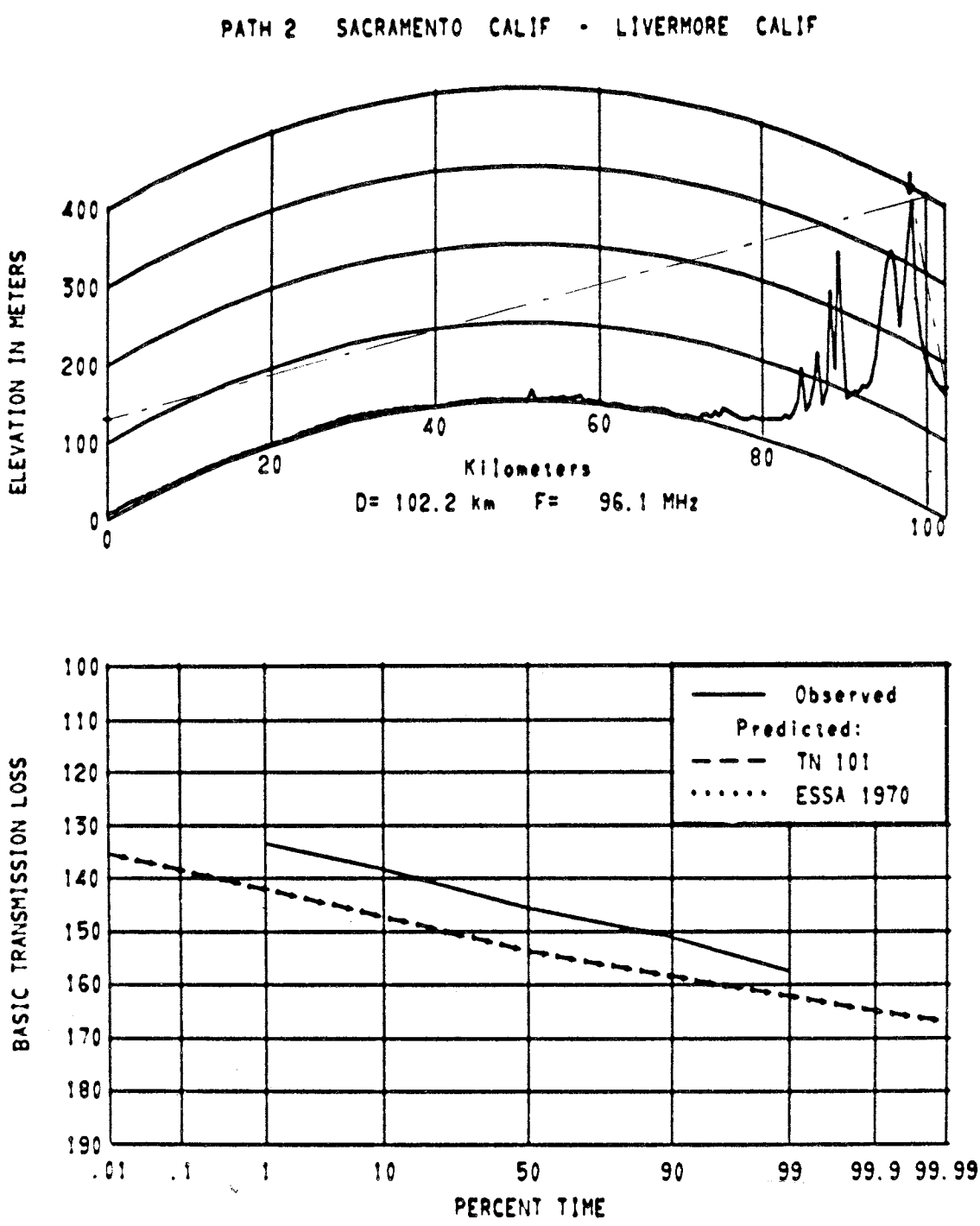


Figure 2.1 Path 2

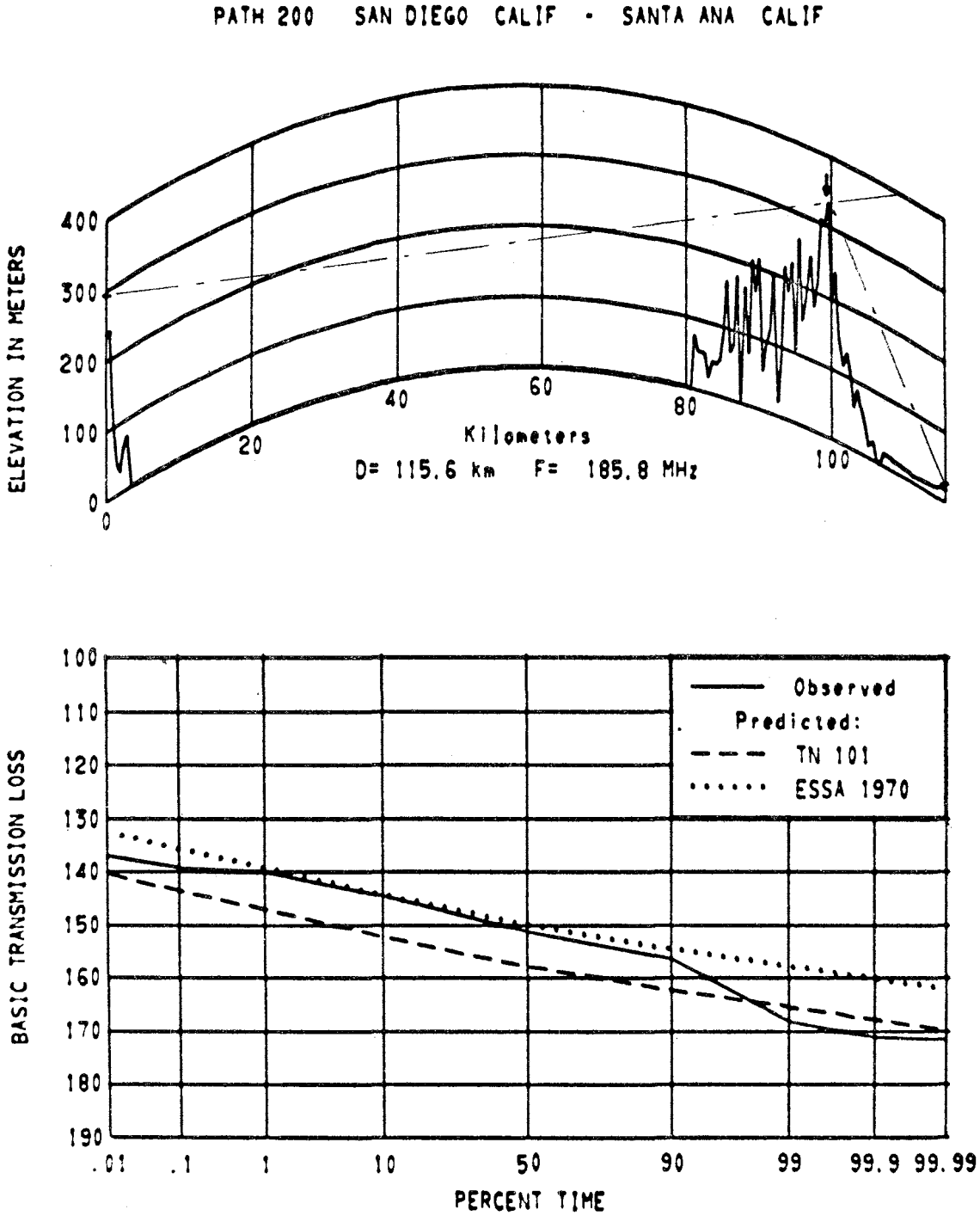


Figure 2.2 Path 200

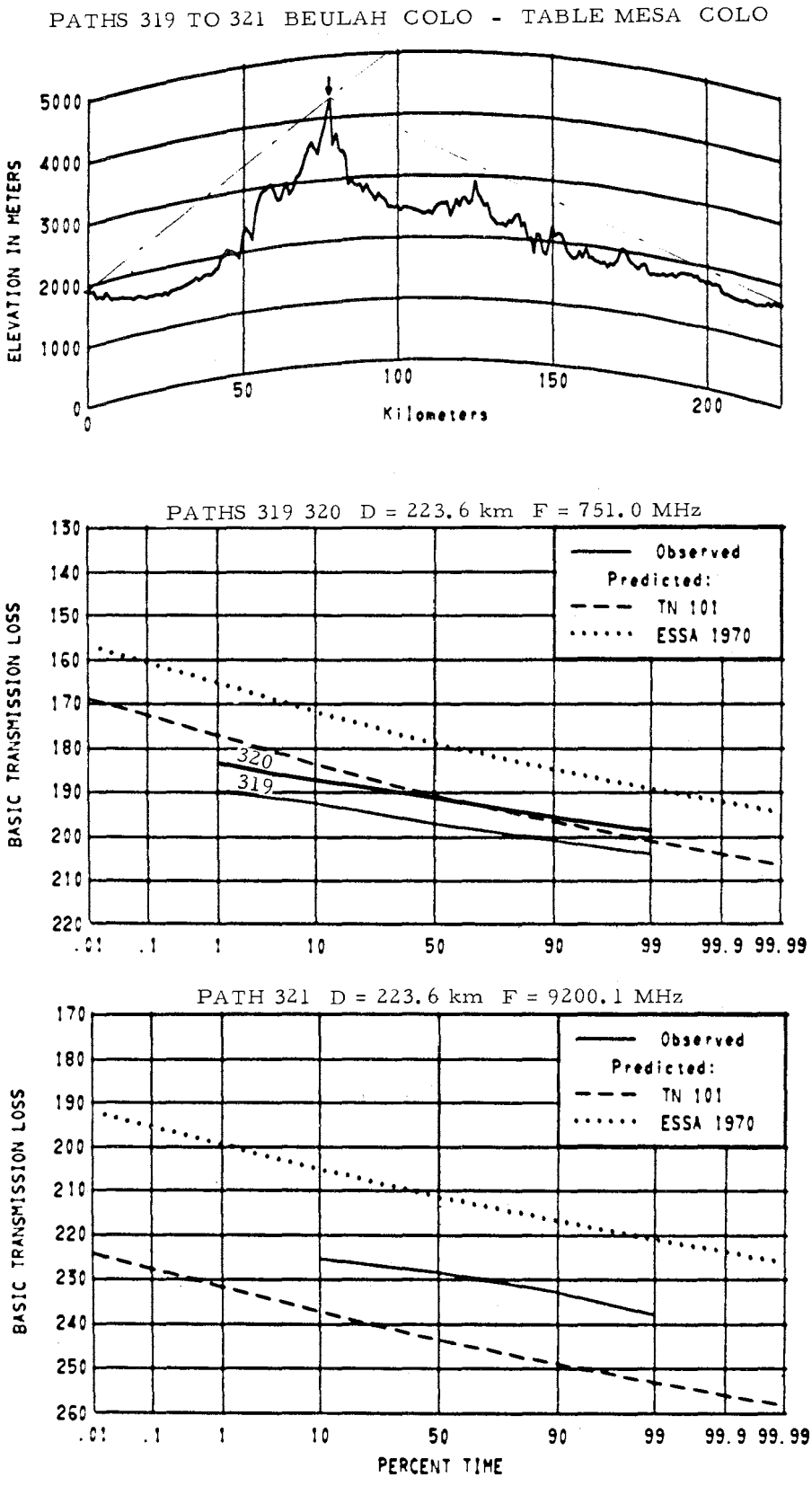


Figure 2.3 Paths 319 to 321

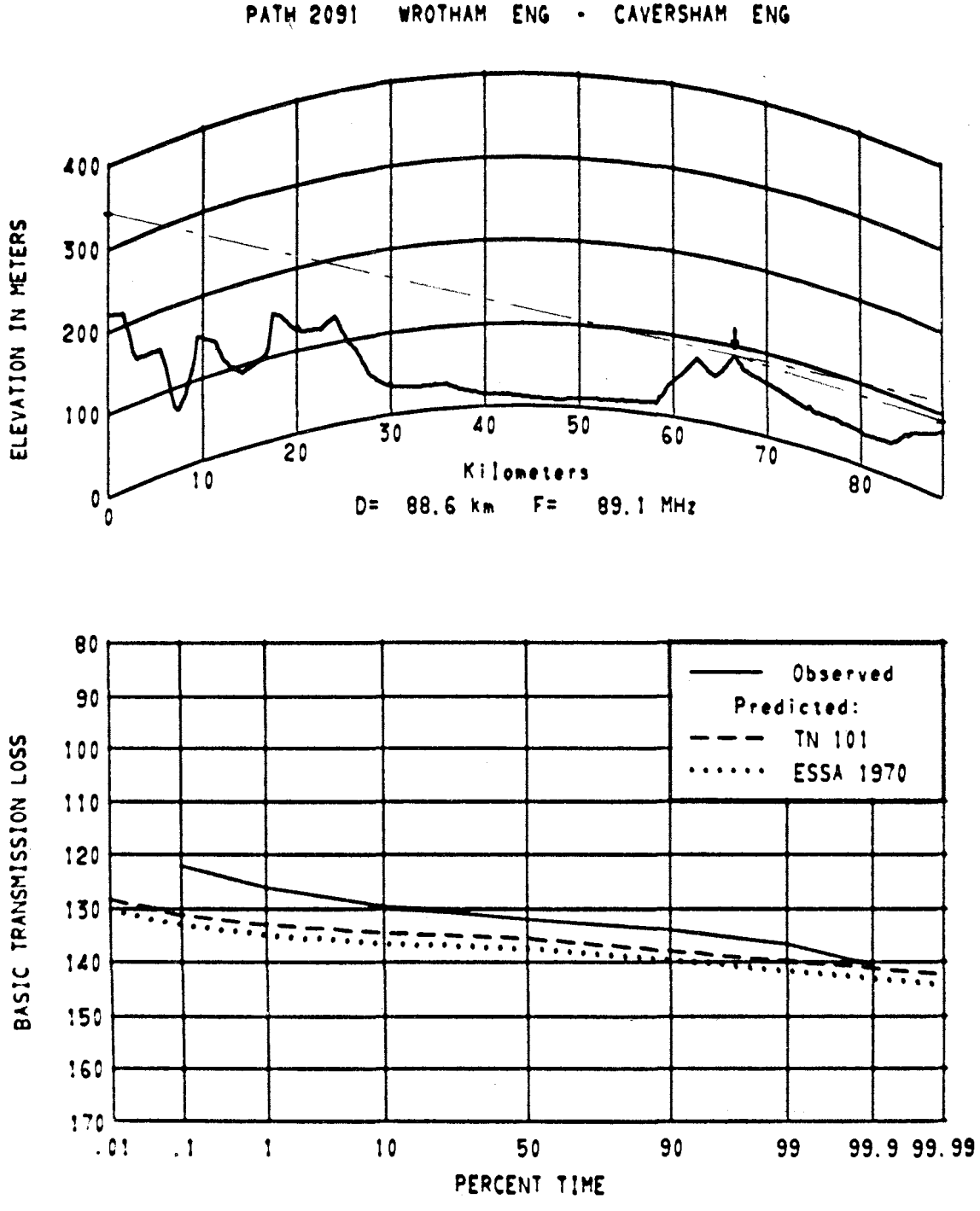


Figure 2.4 Path 2091

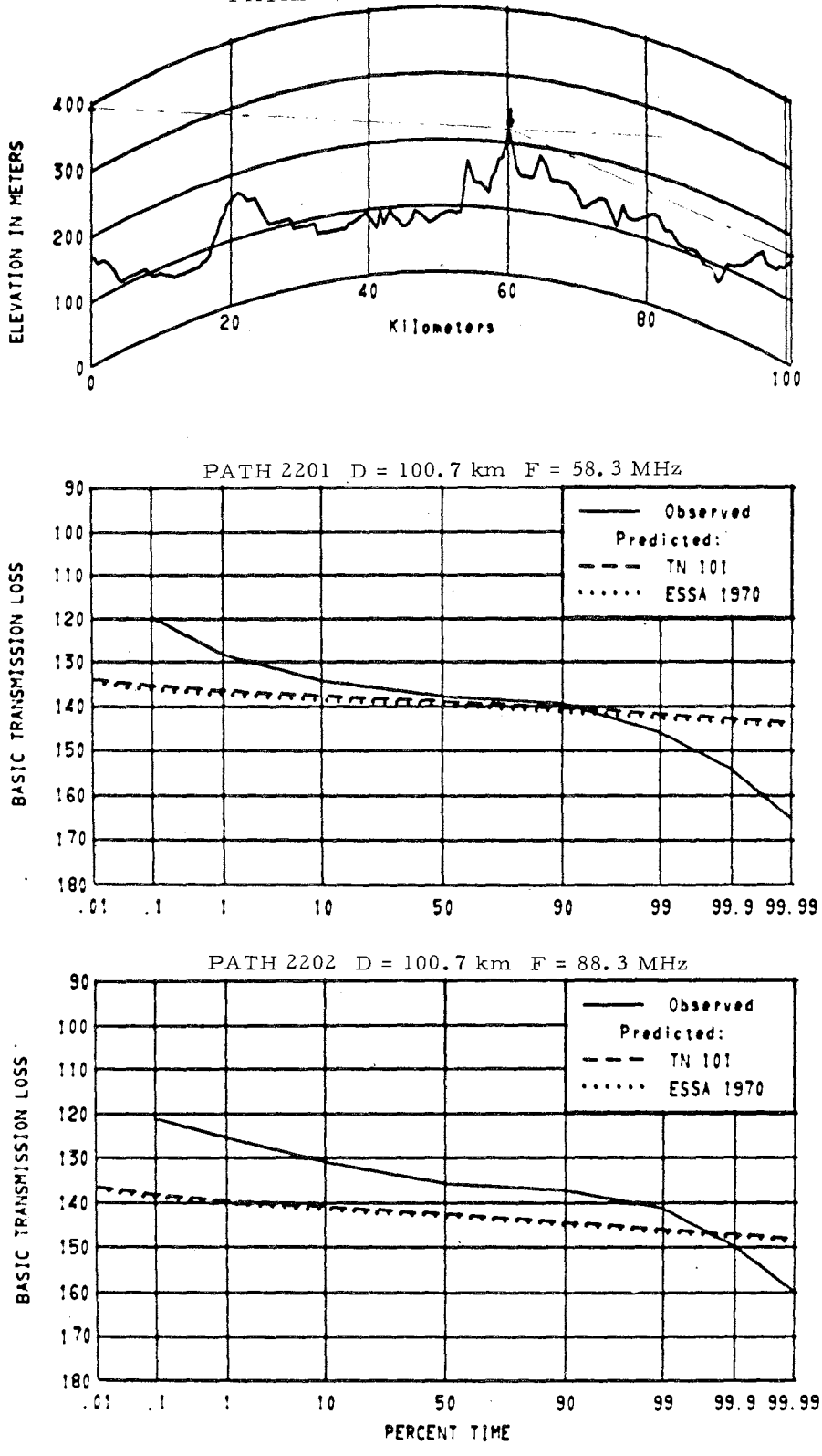


Figure 2.5 Paths 2201 2202

SUTTON COLDFIELD ENG - MURSLEY ENG

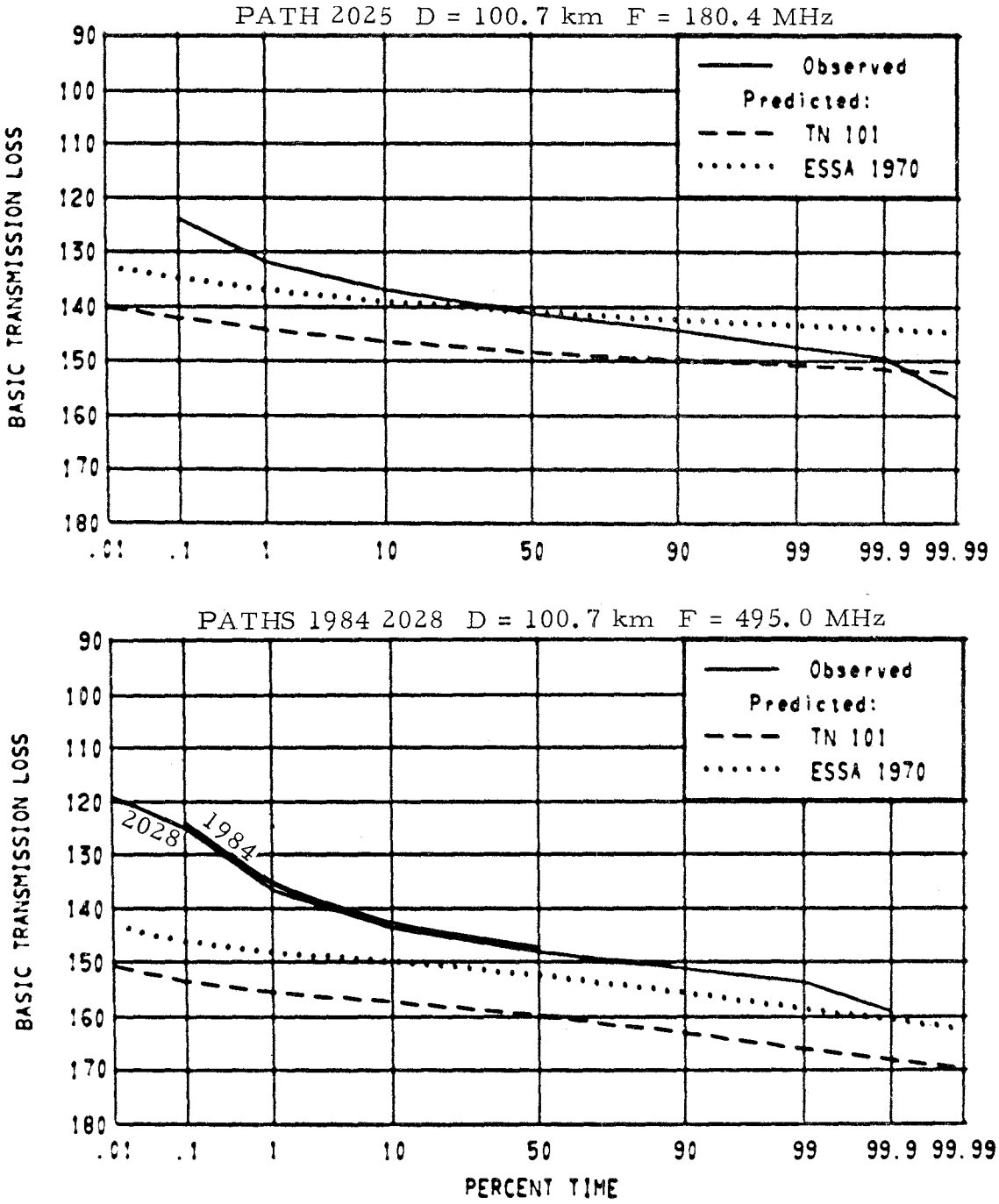


Figure 2.6 Paths 1984 2025 2028

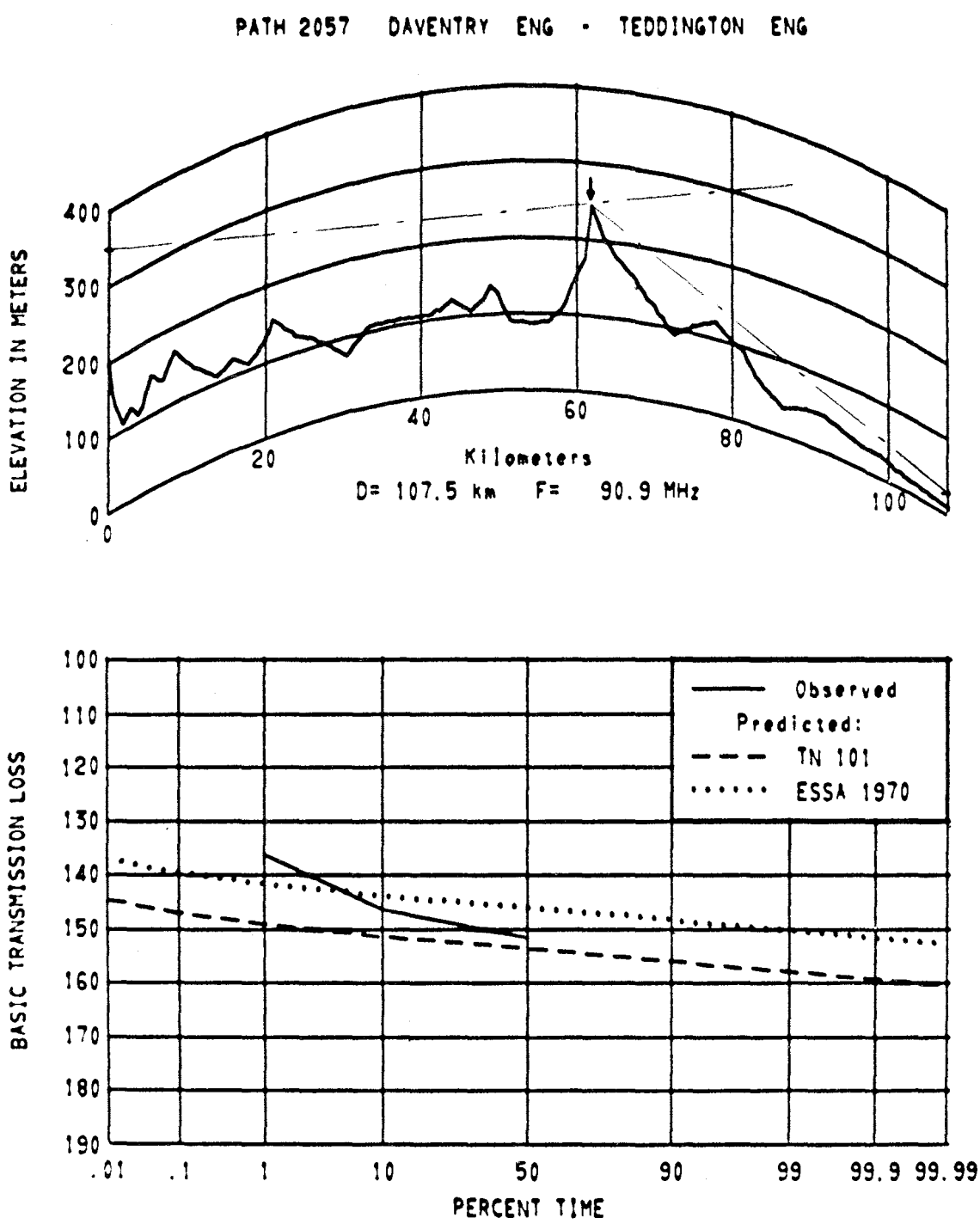


Figure 2.7 Path 2057

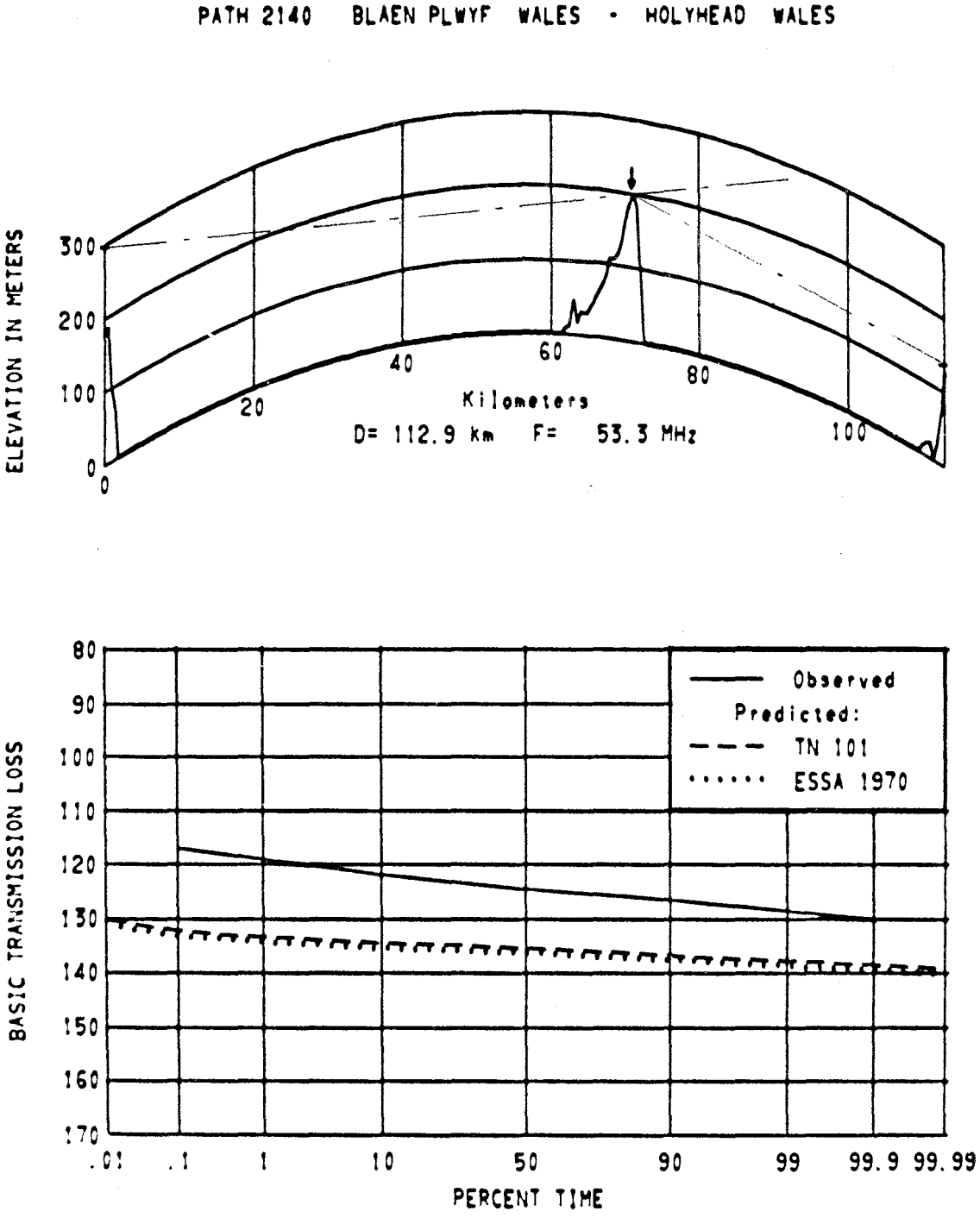
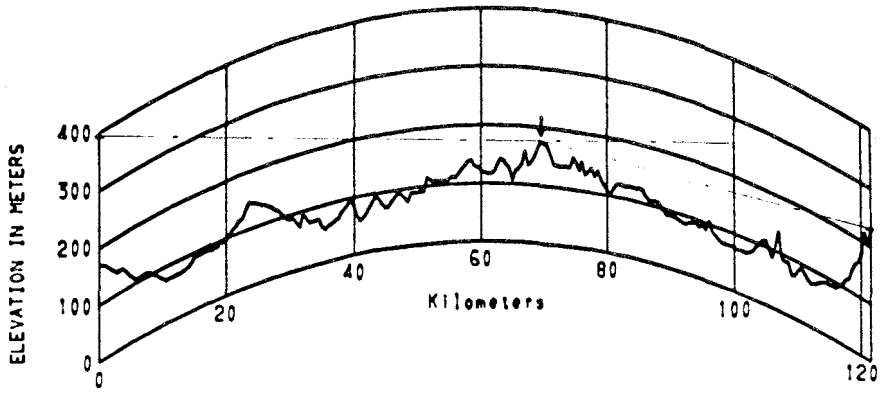
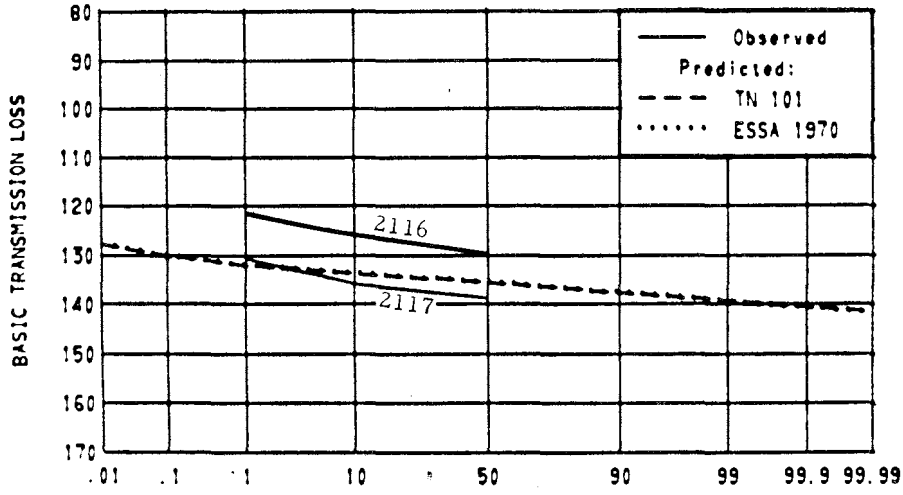


Figure 2.8 Path 2140

SUTTON COLDFIELD ENG - GREEN HAILEY ENG
PATHS 2116 TO 2119, 2121 2122 2124



PATHS 2116 2117 D = 121.5 km F = 58.3 MHz



PATHS 2118 2119 D = 121.5 km F = 180.4 MHz

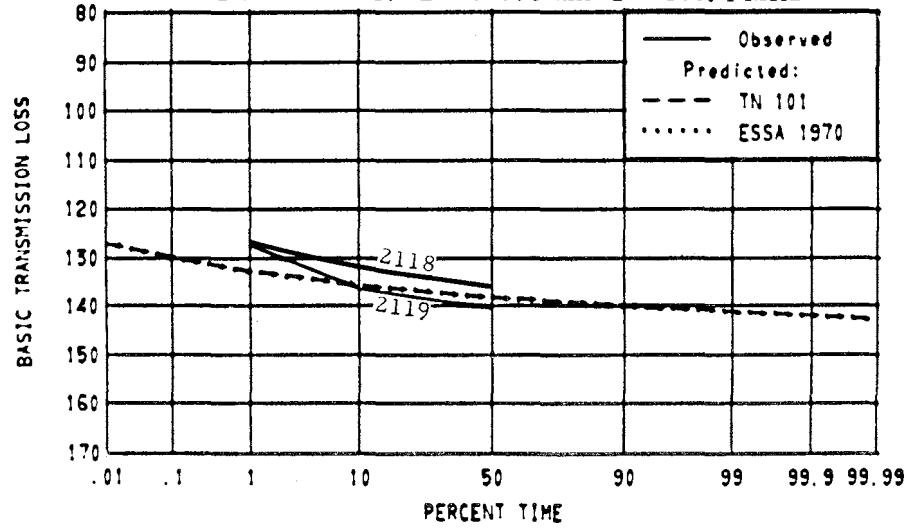


Figure 2.9 Paths 2116 to 2119

SUTTON COLDFIELD ENG - GREEN HAILEY ENG

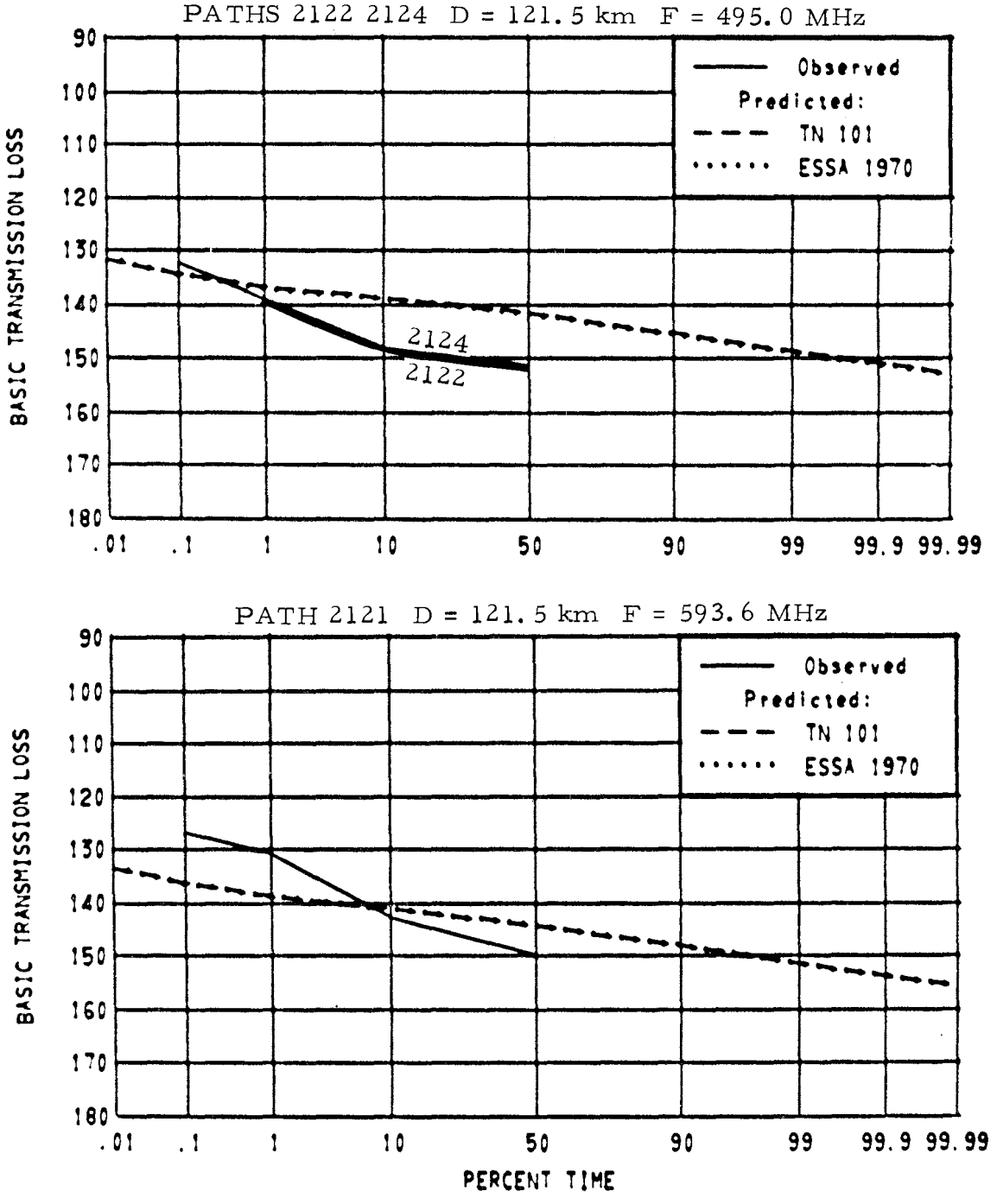


Figure 2.10 Paths 2121 2122 2124

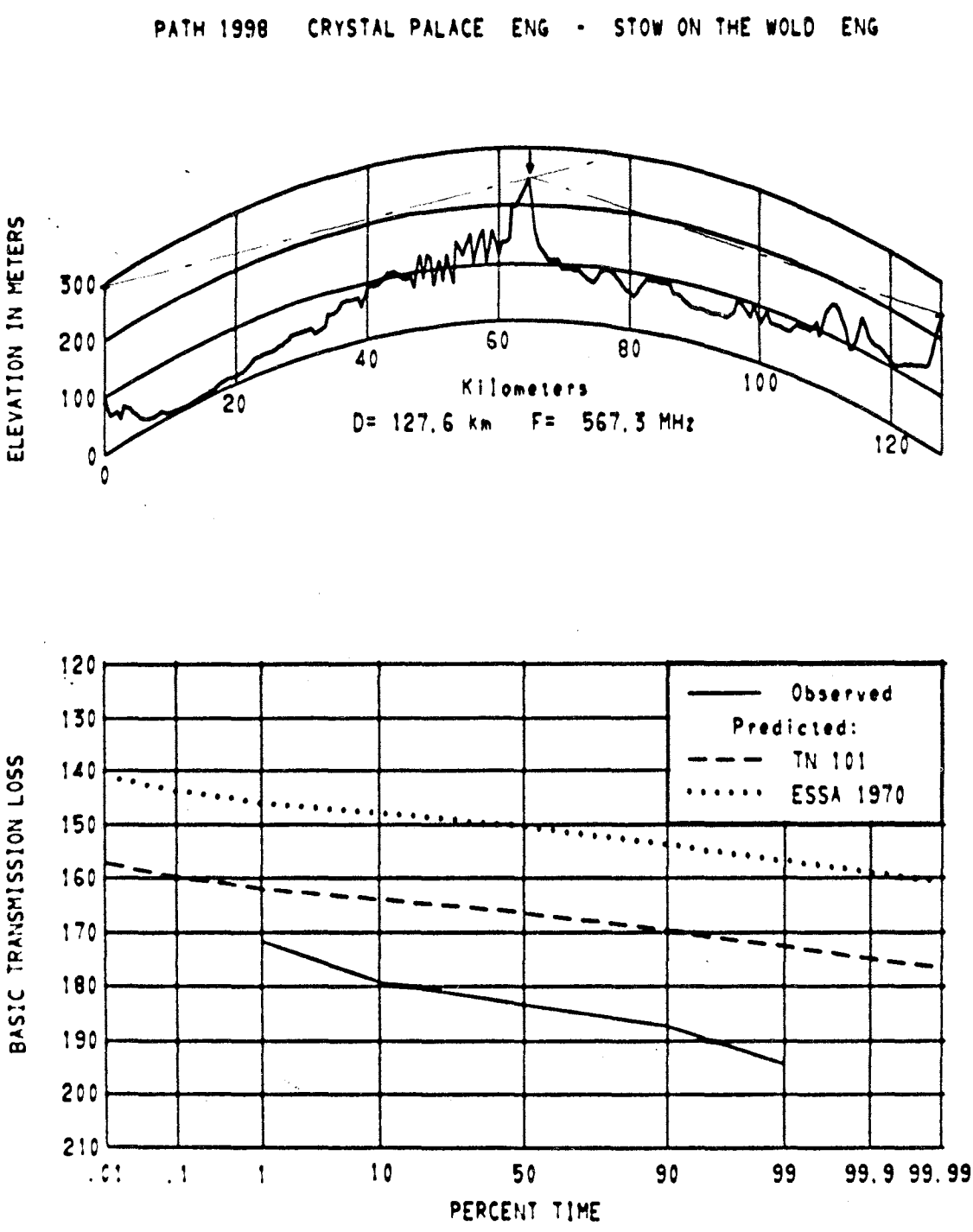


Figure 2.11 Path 1998

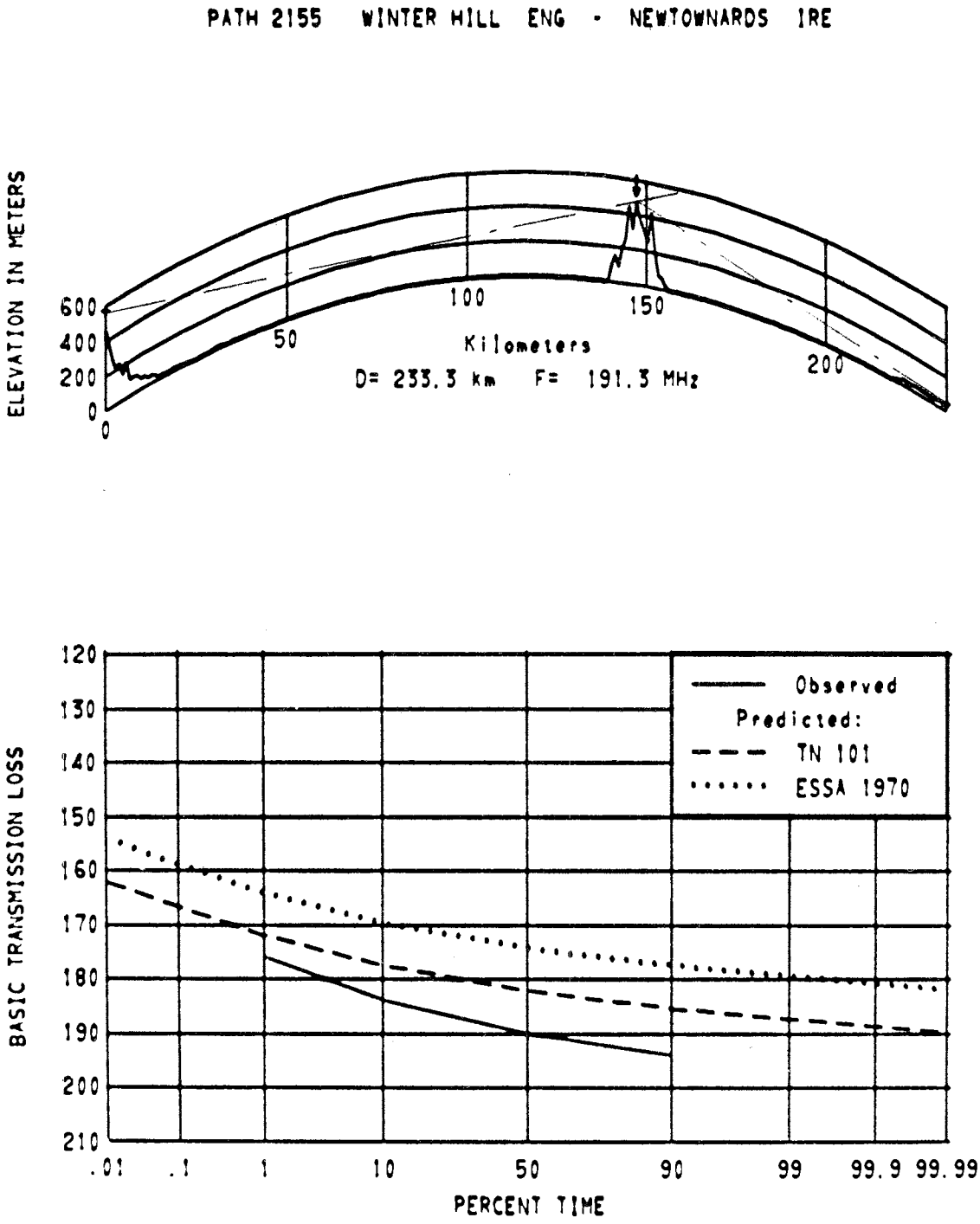


Figure 2.12 Path 2155

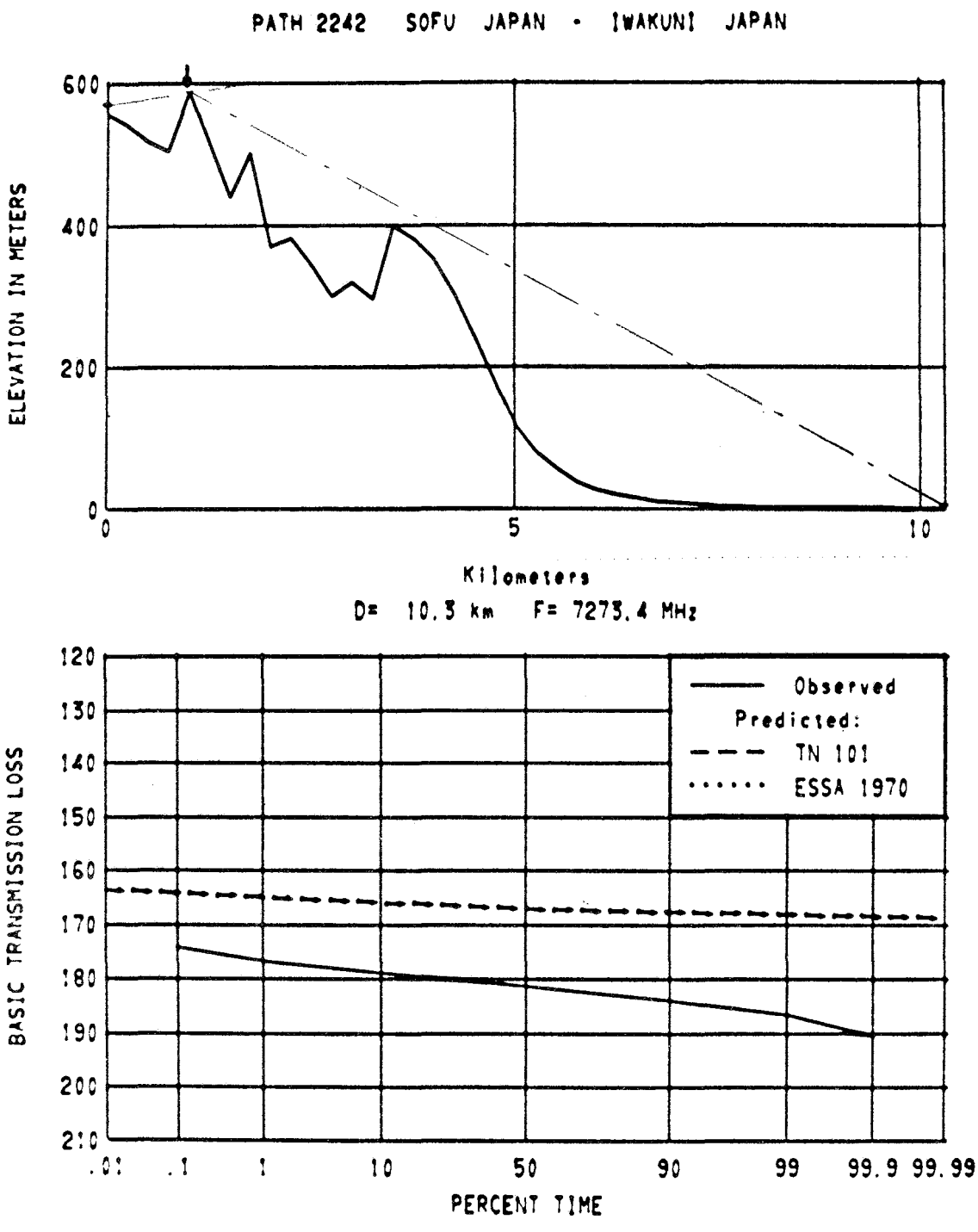


Figure 2.13 Path 2242

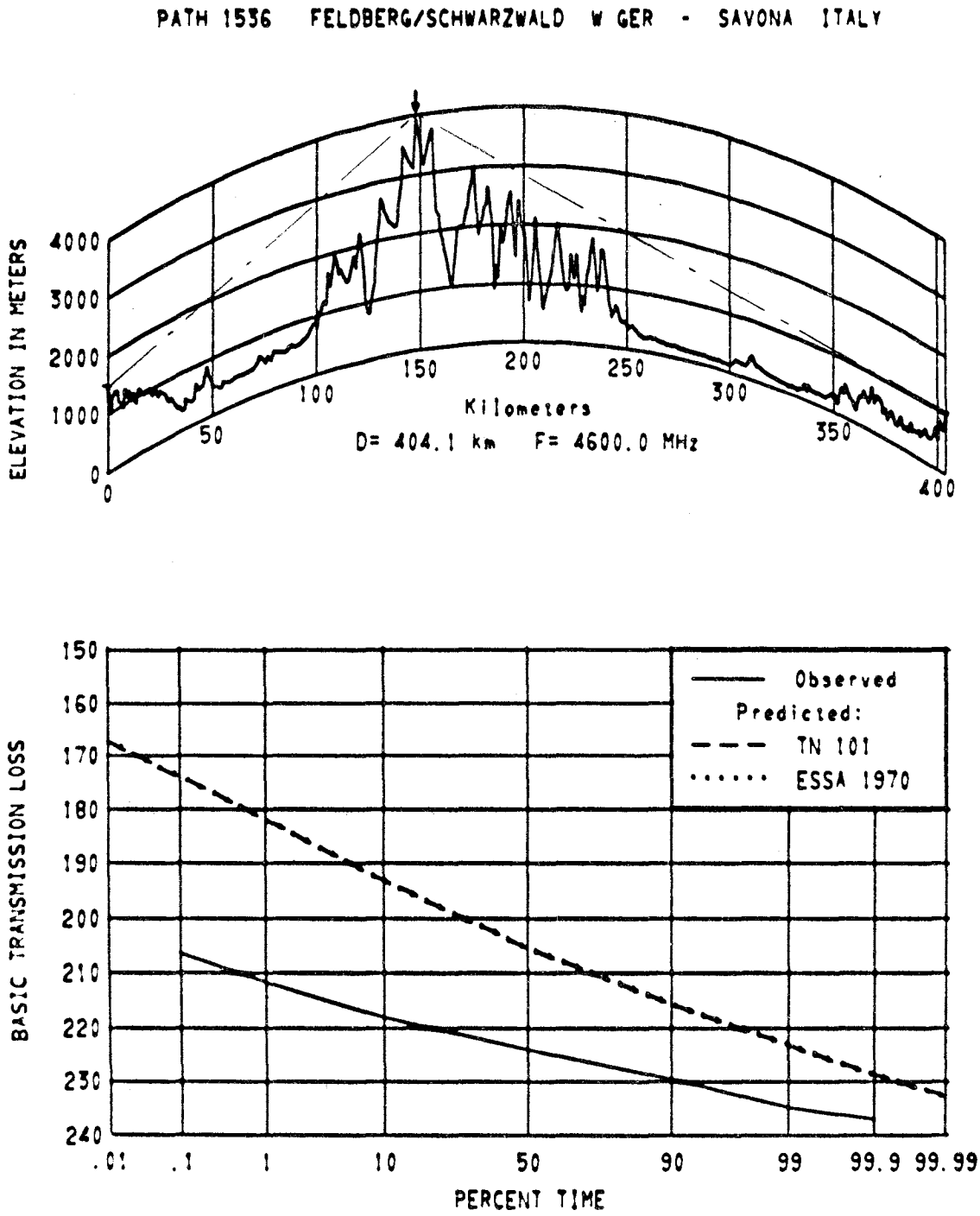


Figure 2.14 Path 1536

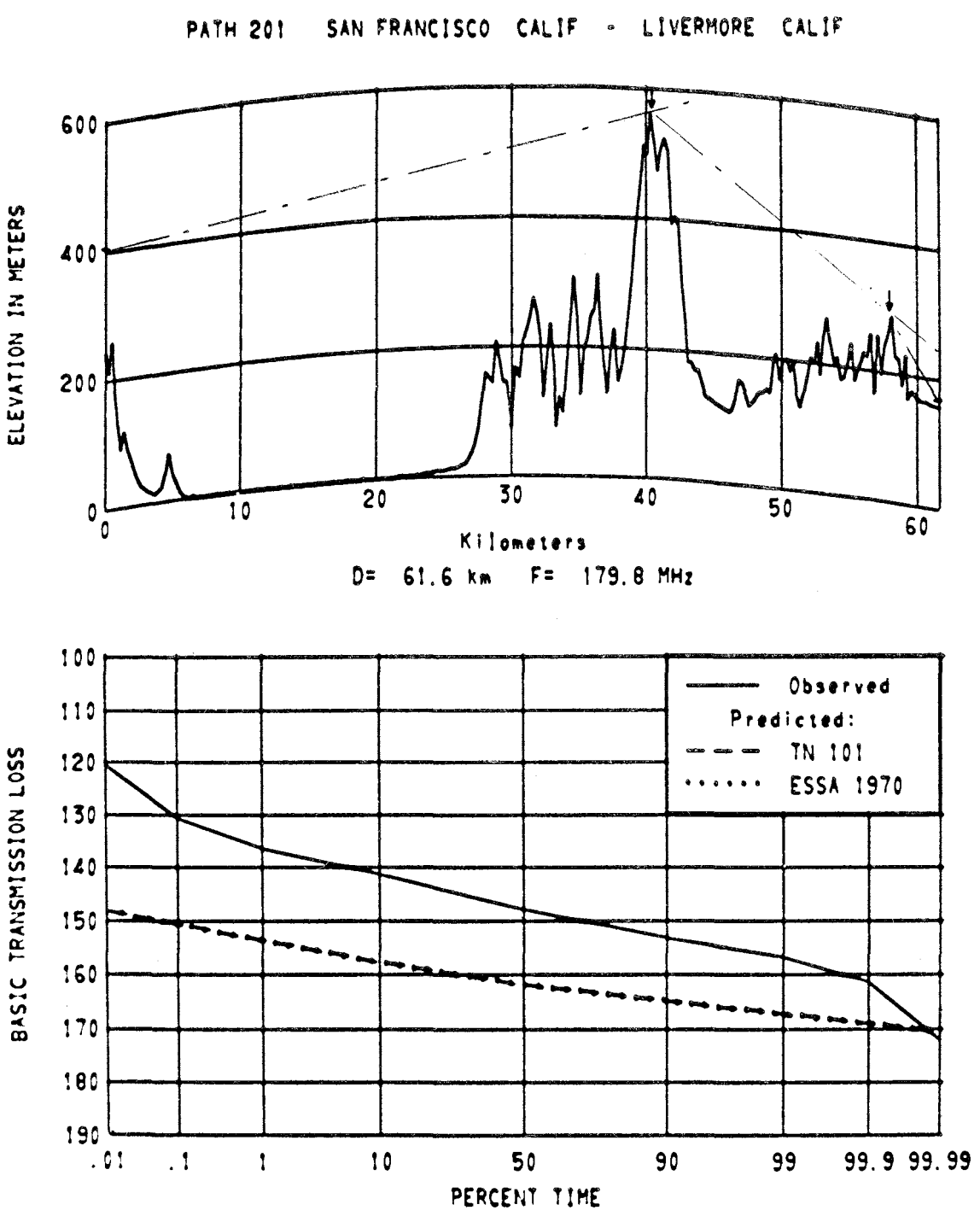
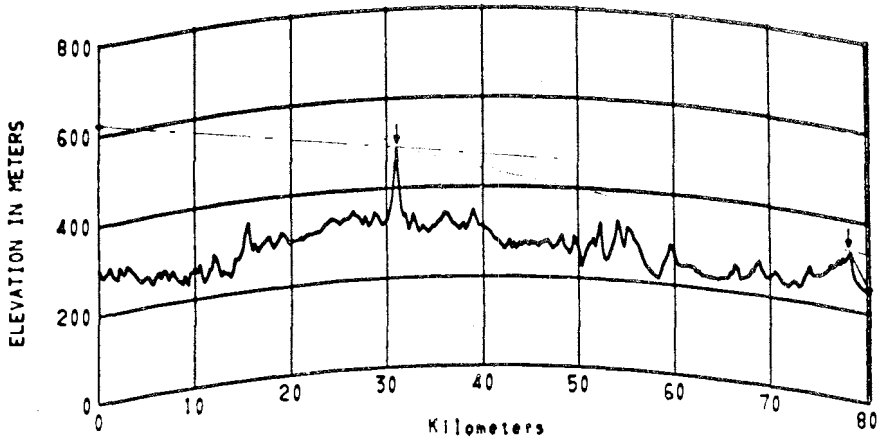
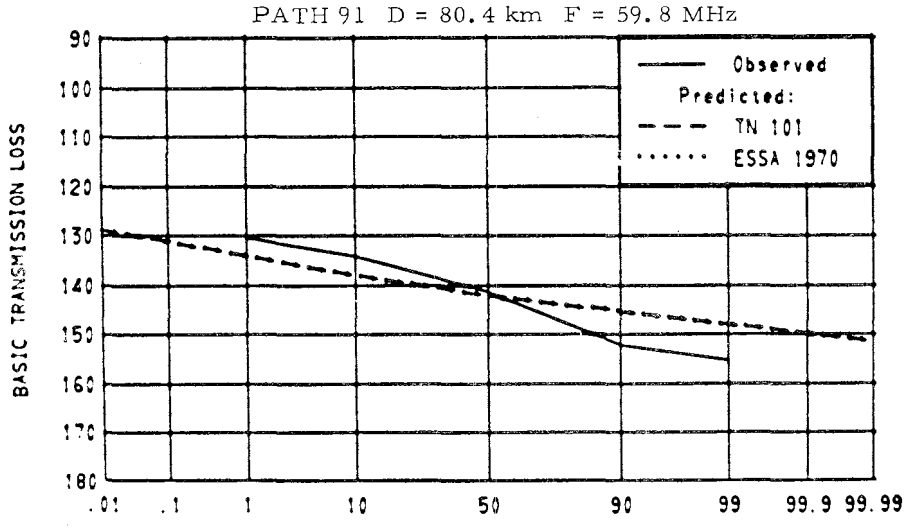


Figure 2.15 Path 201

PATHS 91 96 ATLANTA GA - ADAIRSVILLE GA





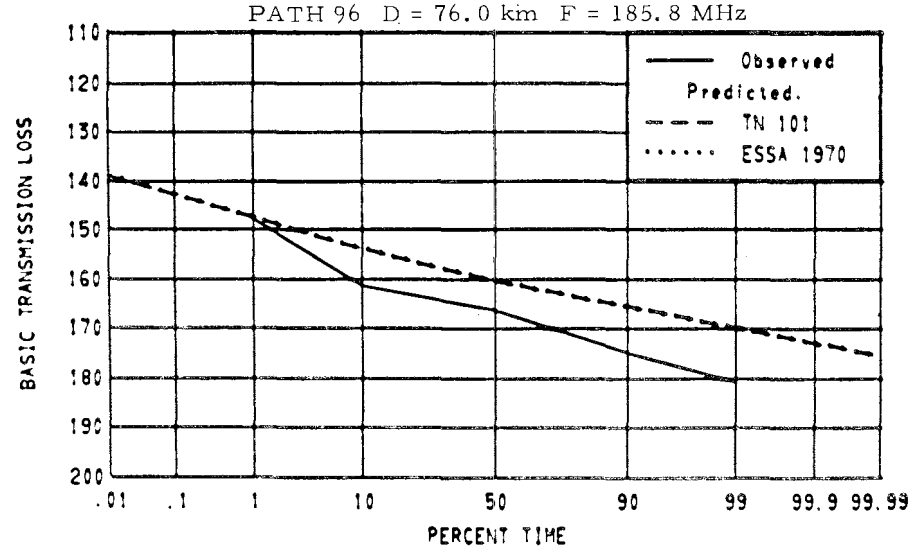


Figure 2.16 Paths 91 96

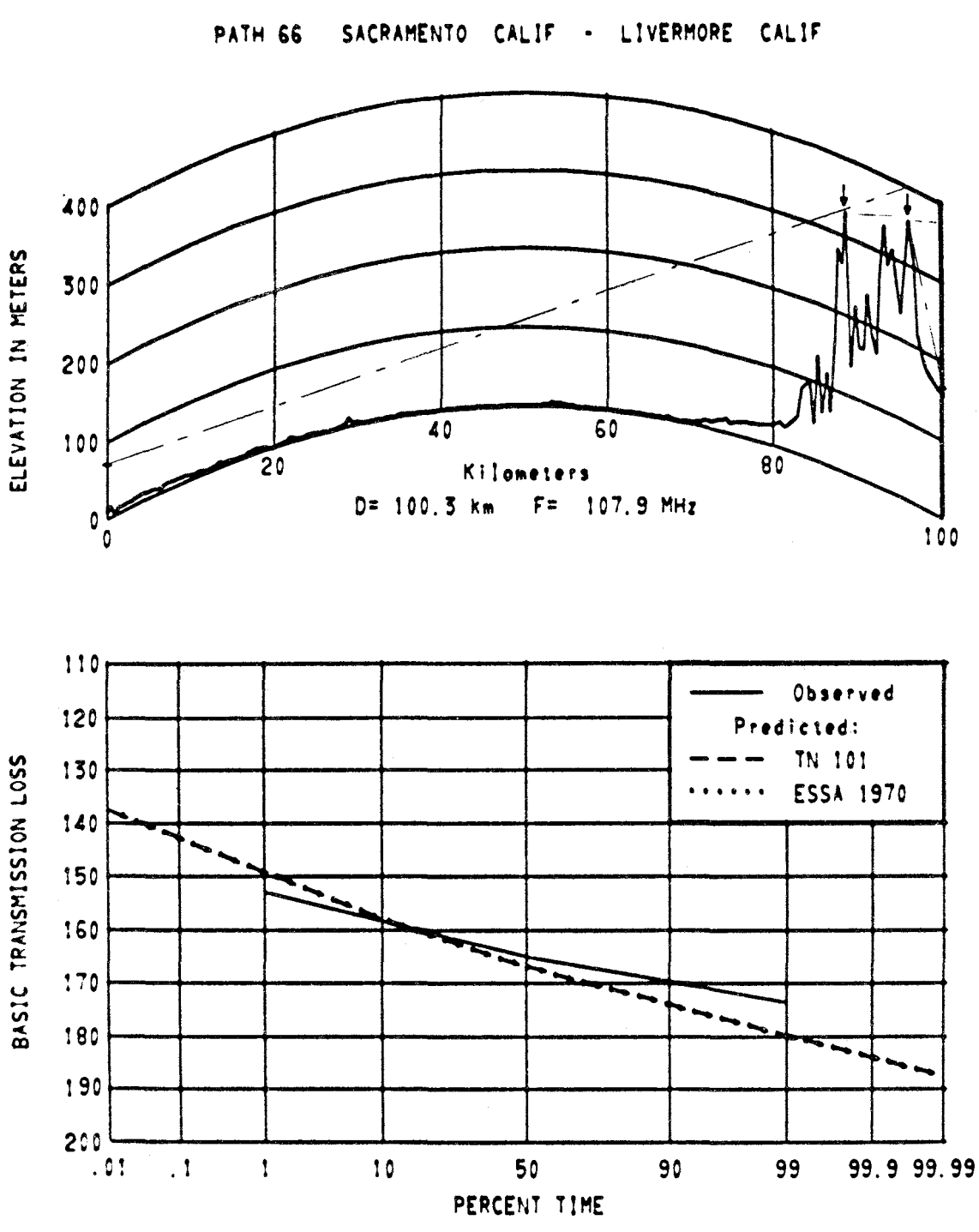


Figure 2.17 Path 66

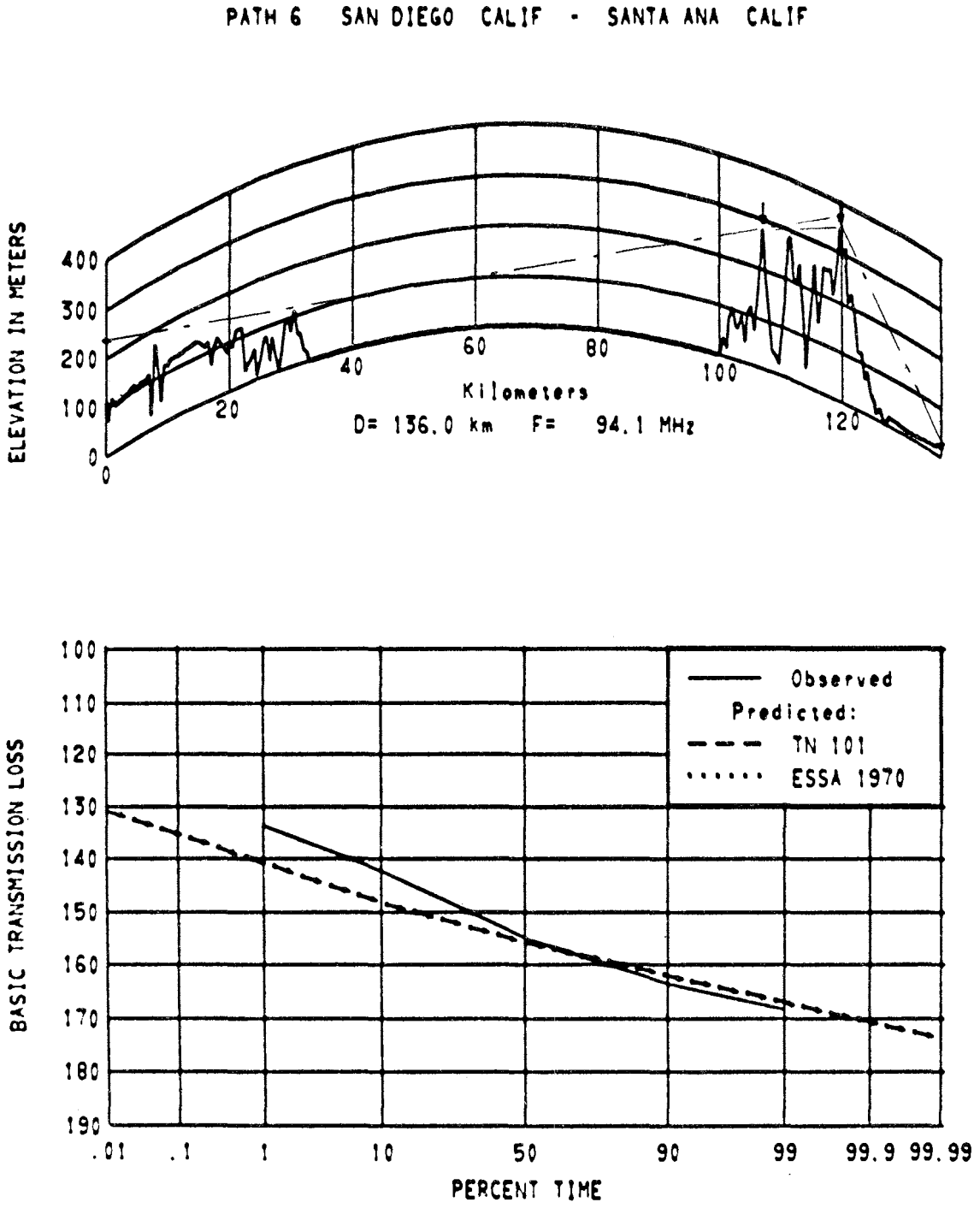
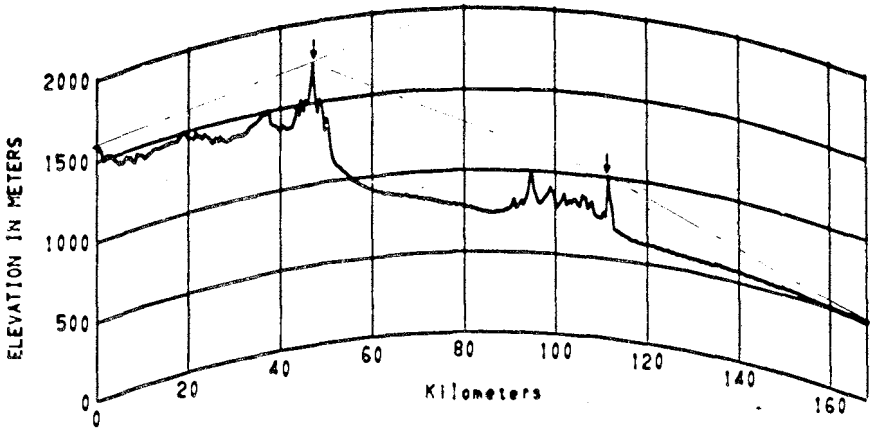
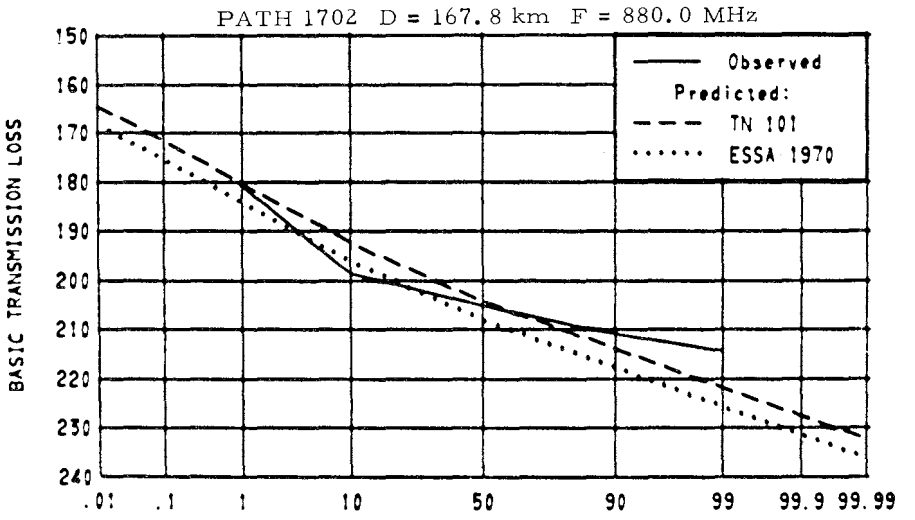


Figure 2.18 Path 6

PATHS 1702 1703 1712 1713 BLACKTAIL CANYON ARIZ - ELOY ARIZ





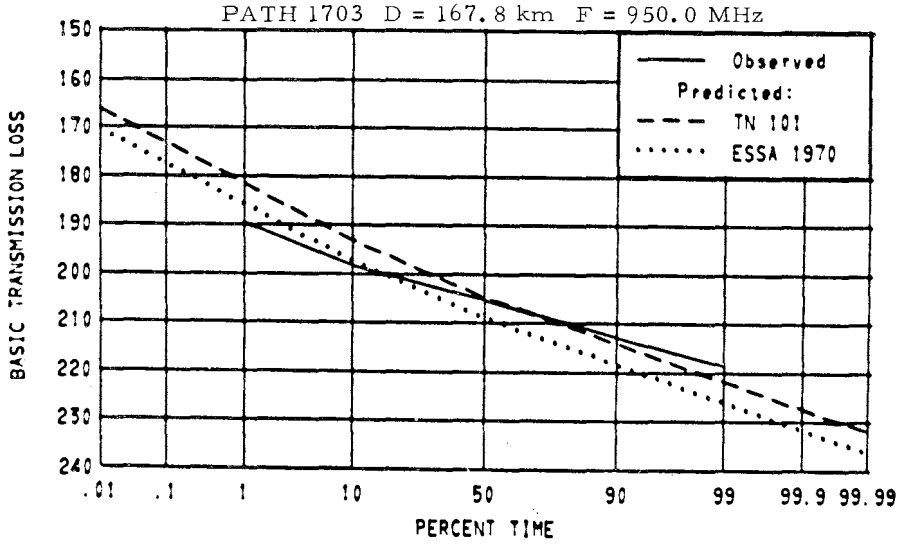


Figure 2.19 Paths 1702 1703

BLACKTAIL CANYON ARIZ - ELOY ARIZ

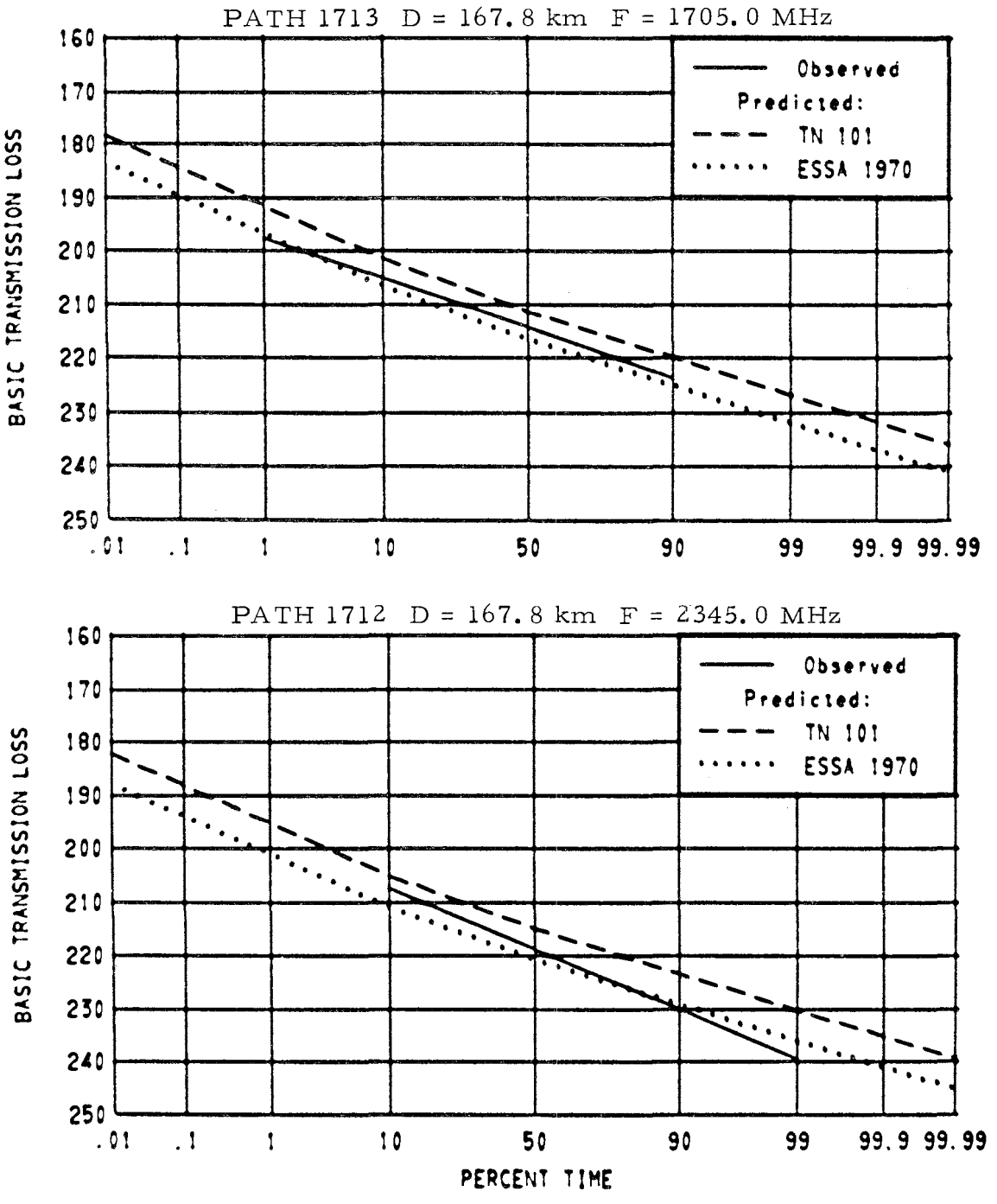


Figure 2.20 Paths 1712 1713

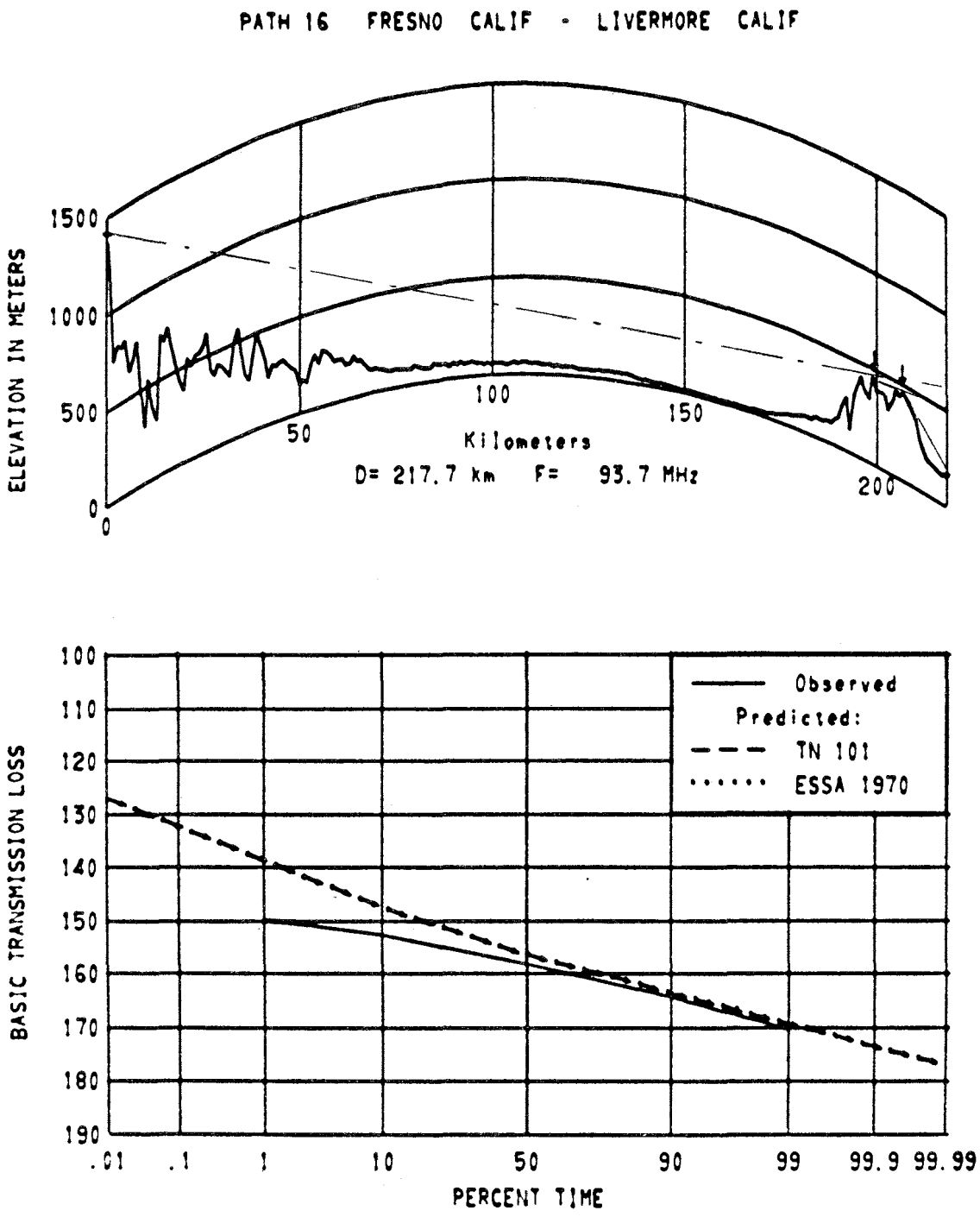


Figure 2.21 Path 16

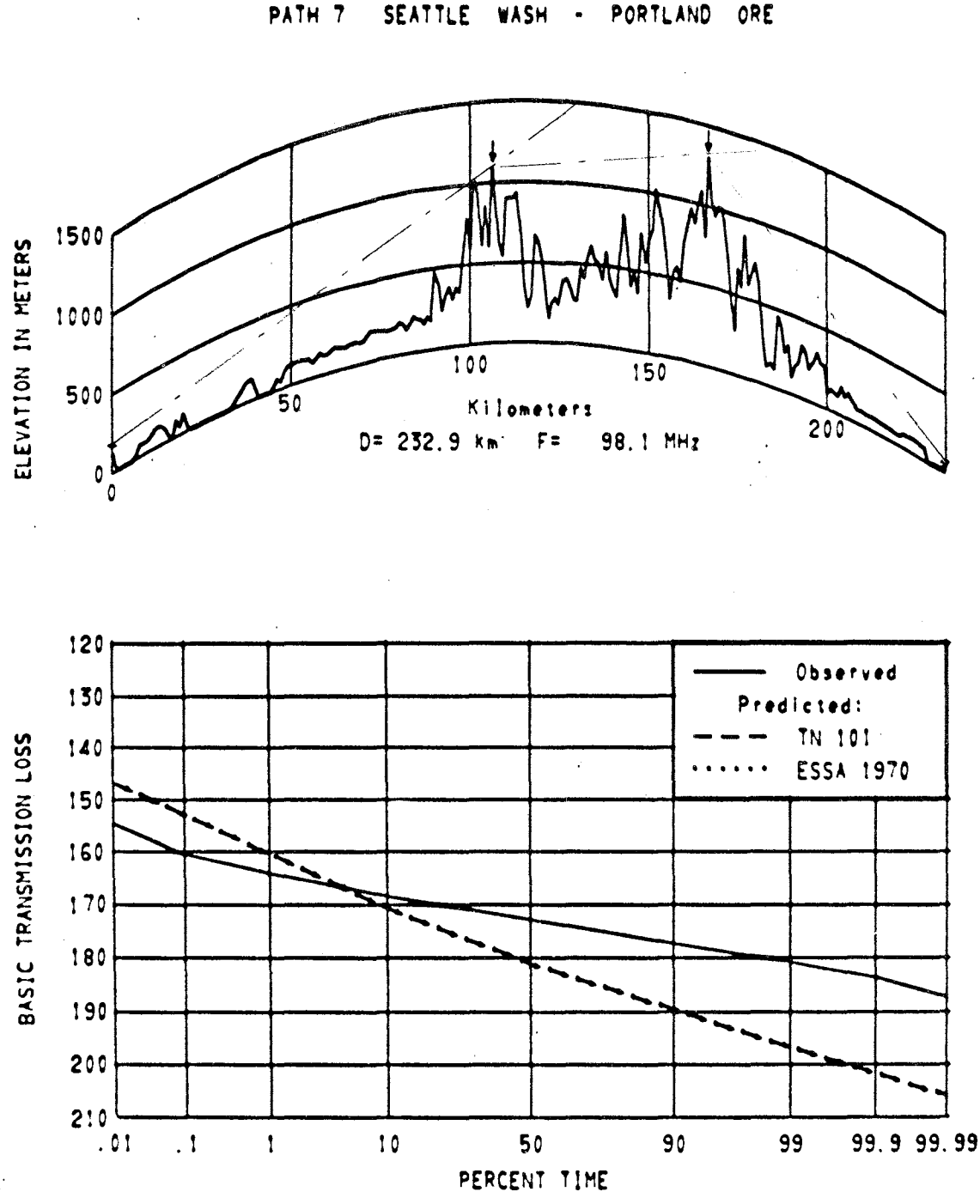
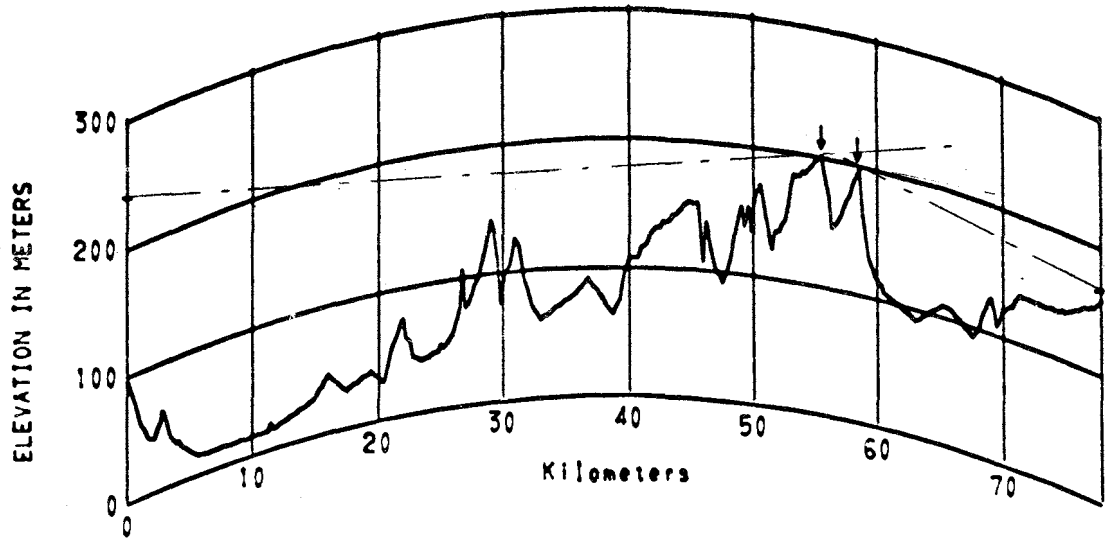


Figure 2.22 Path 7

PATHS 1979 2200 CRYSTAL PALACE ENG - MURSLEY ENG



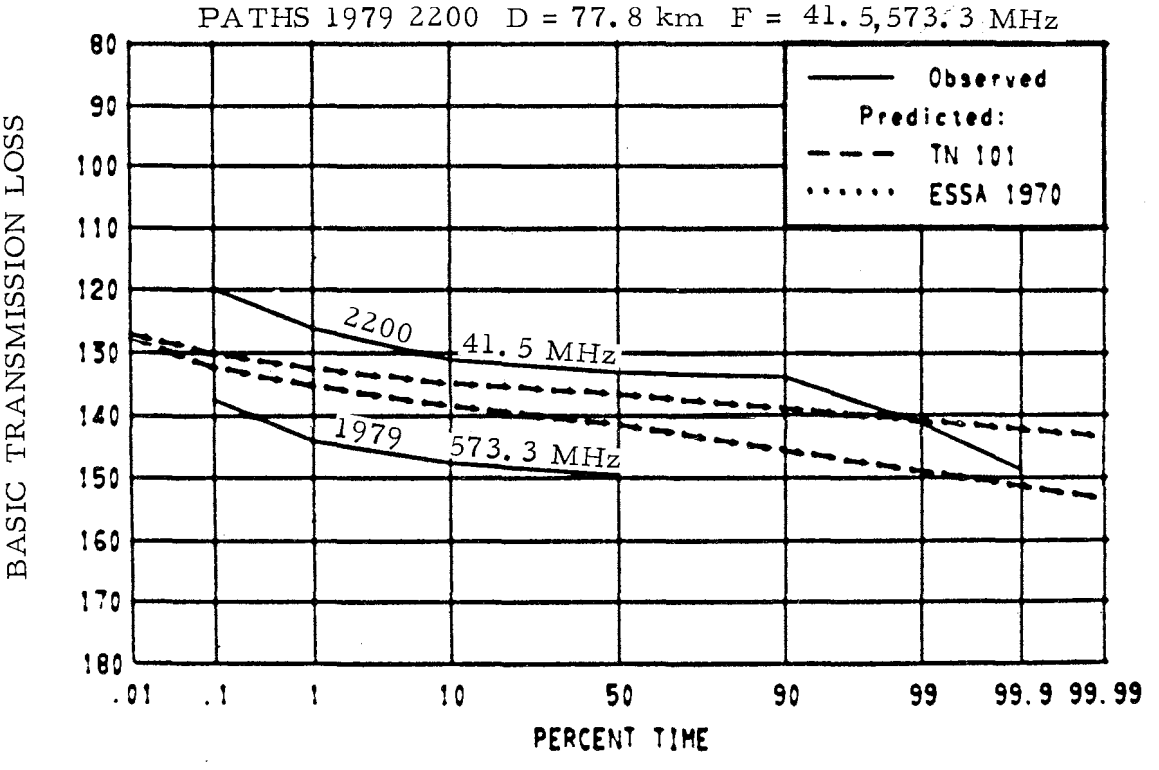


Figure 2.23 Paths 1979 2200

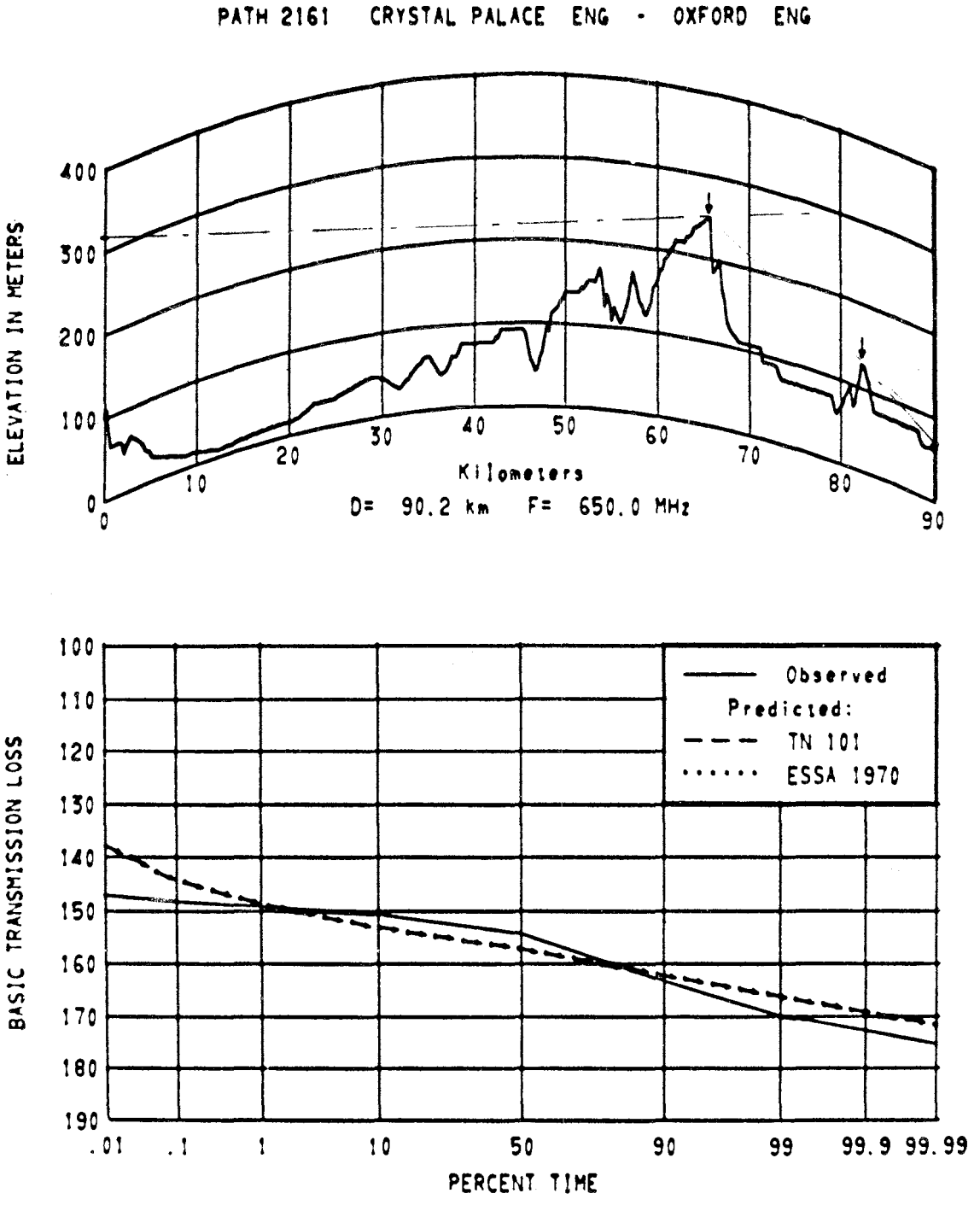
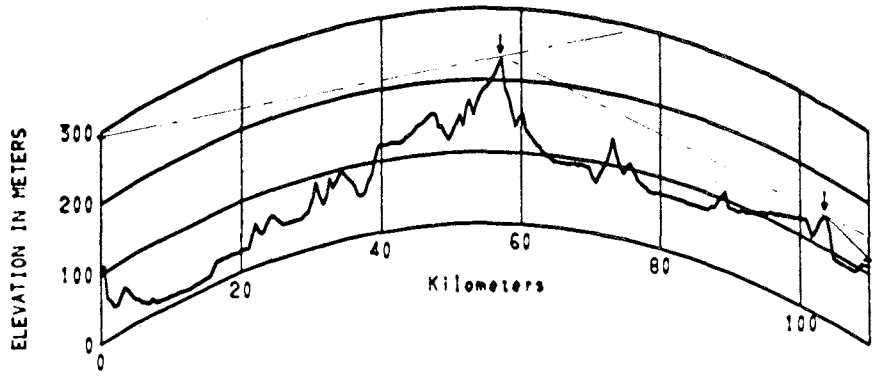
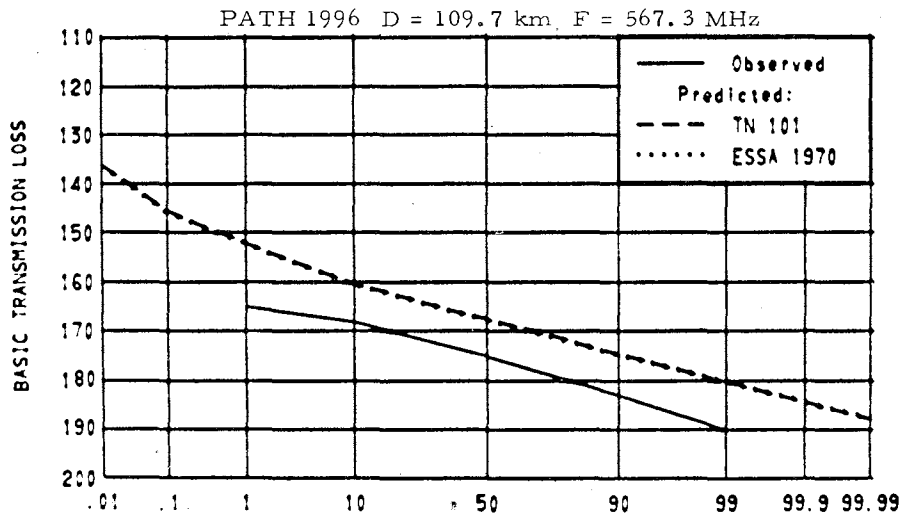


Figure 2.24 Path 2161

PATHS 1996 2162 CRYSTAL PALACE ENG - BANBURY ENG





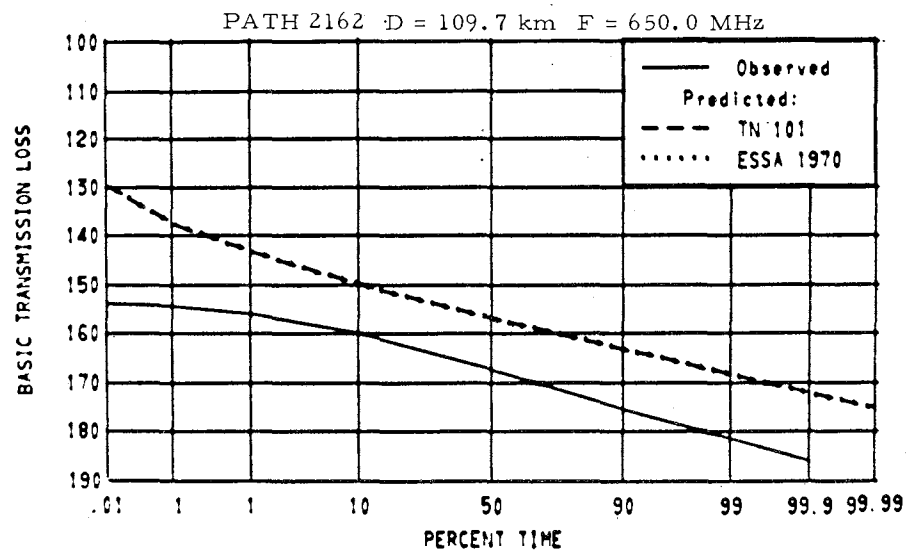


Figure 2.25 Paths 1996 2162

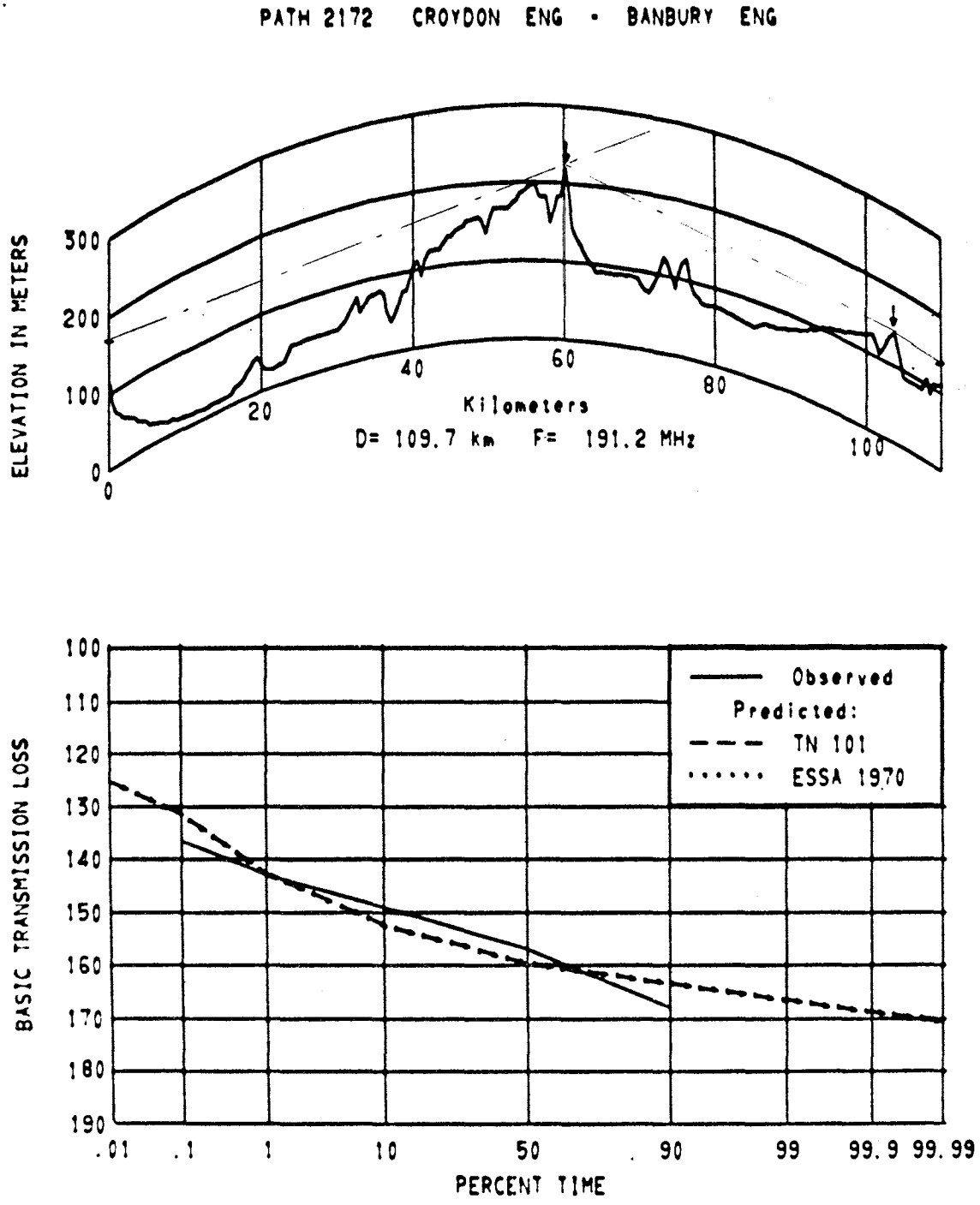


Figure 2.26 Path 2172

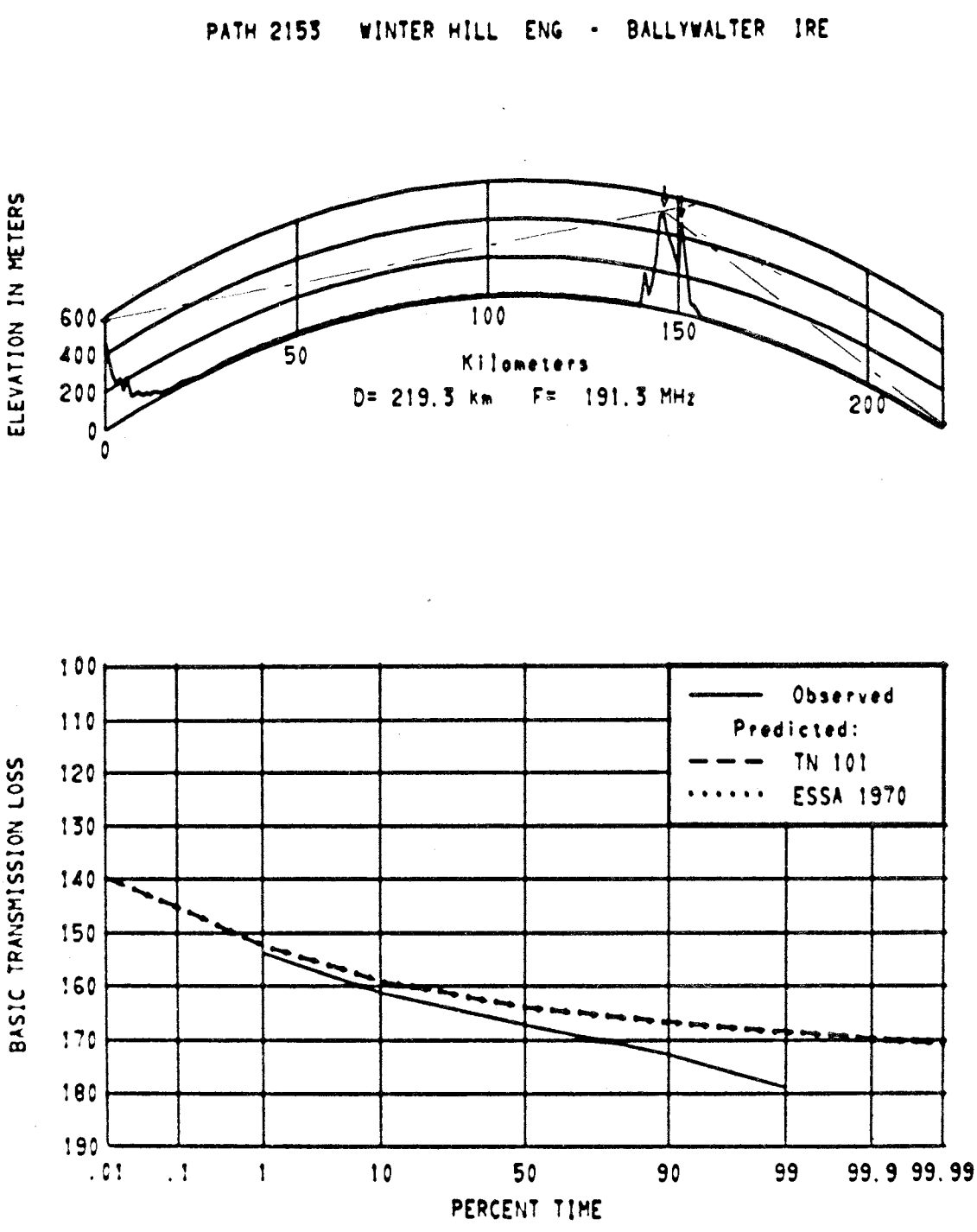


Figure 2.27 Path 2153

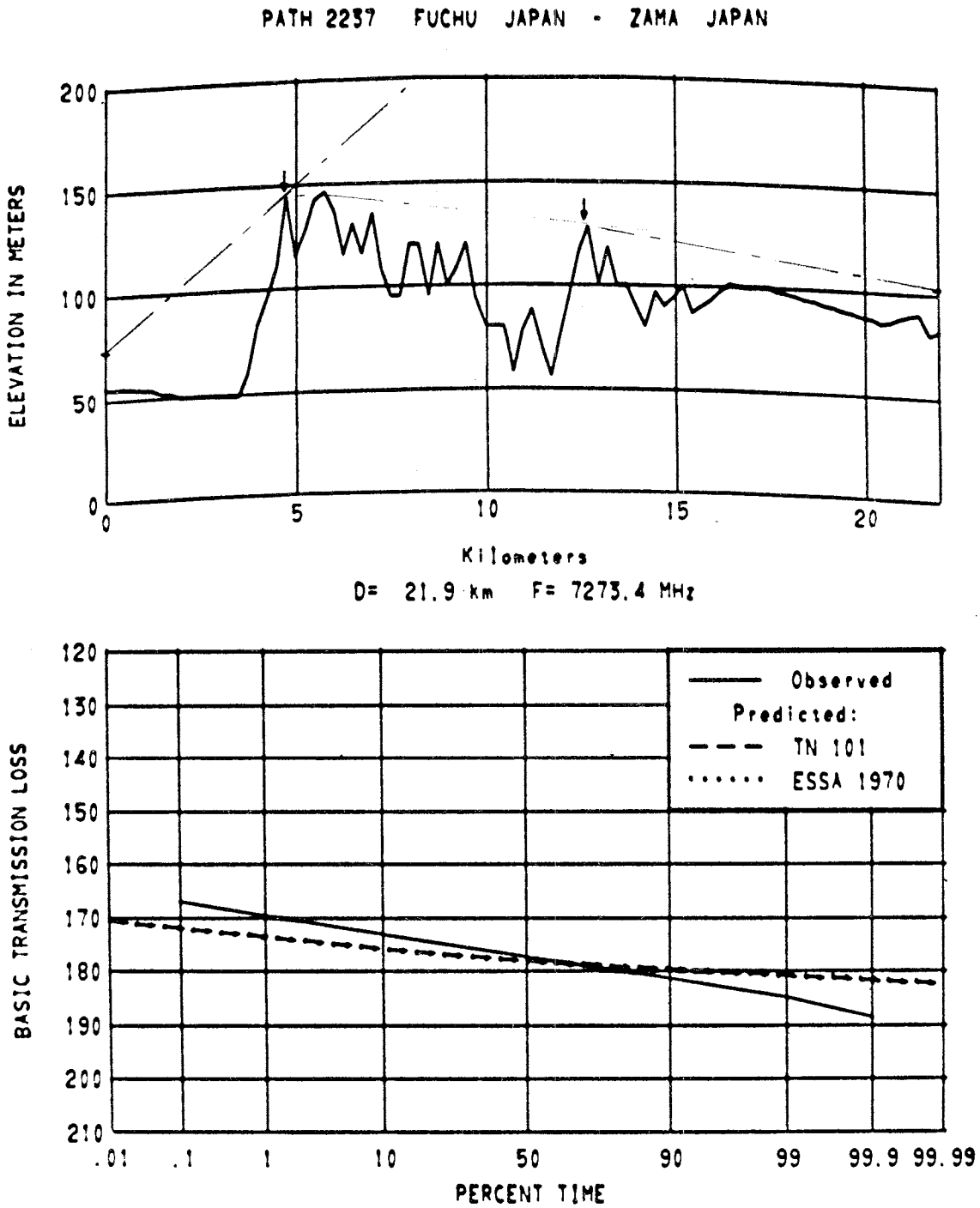


Figure 2.28 Path 2237

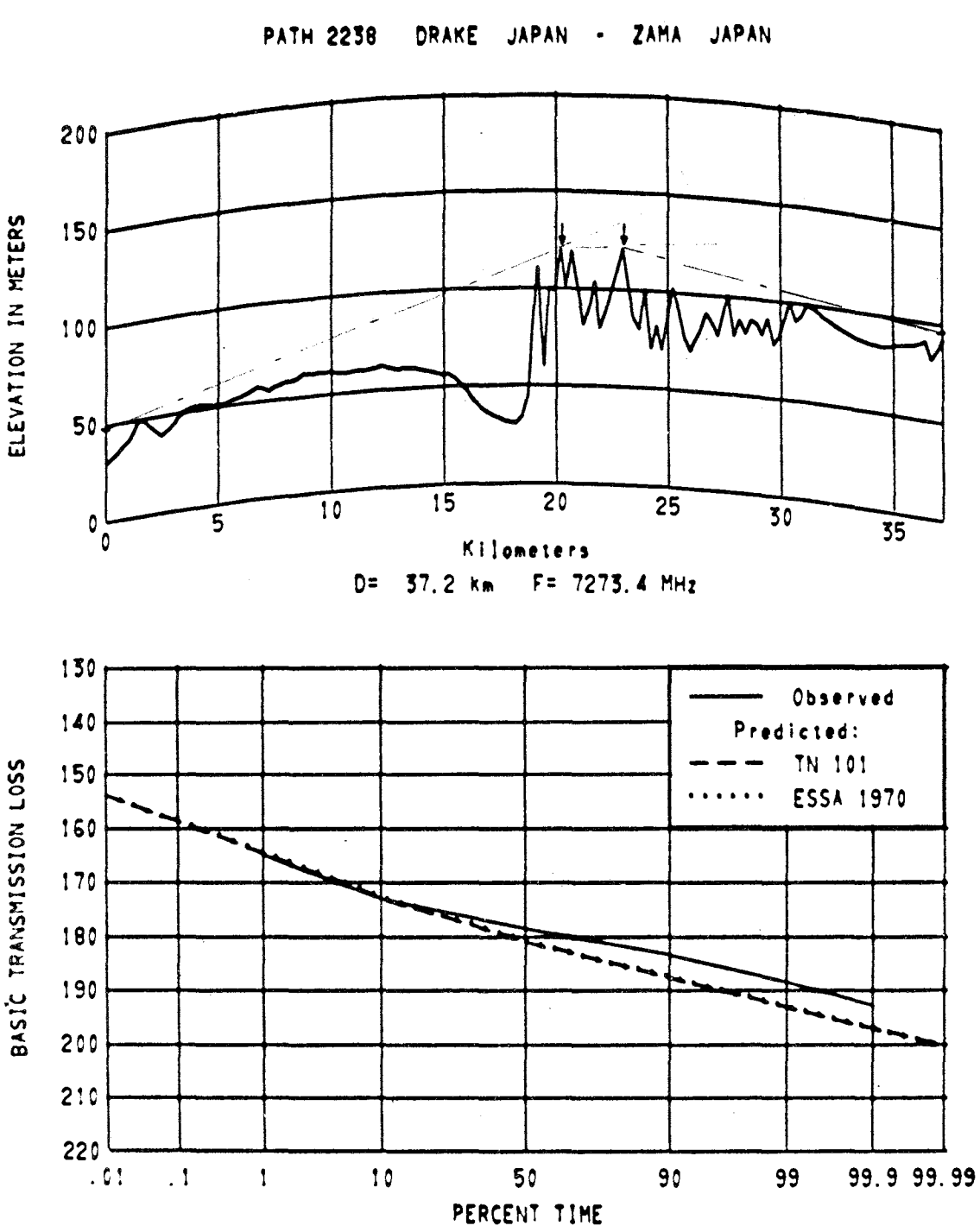
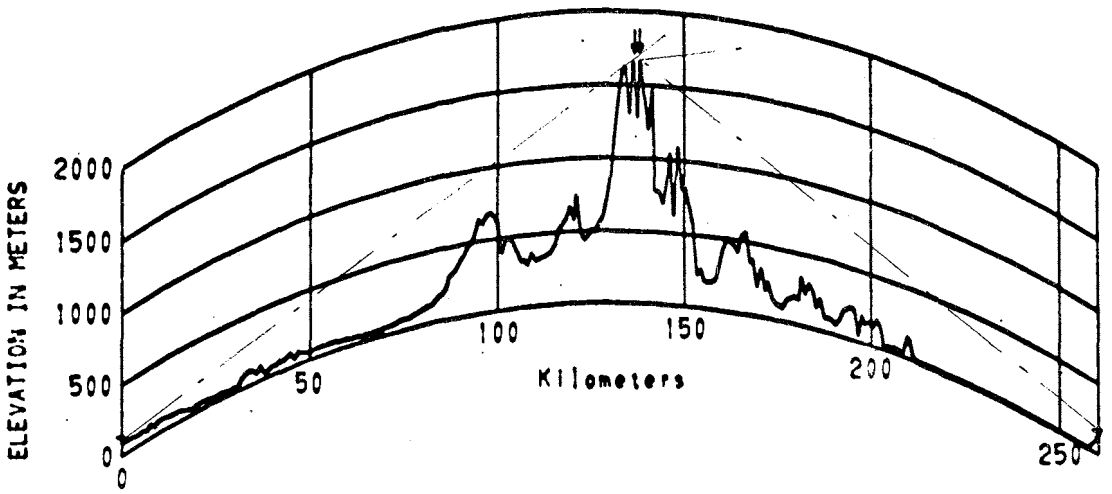


Figure 2.29 Path 2238

PATHS 2250 2251 KOKUBUNJI JAPAN - ASAO JAPAN



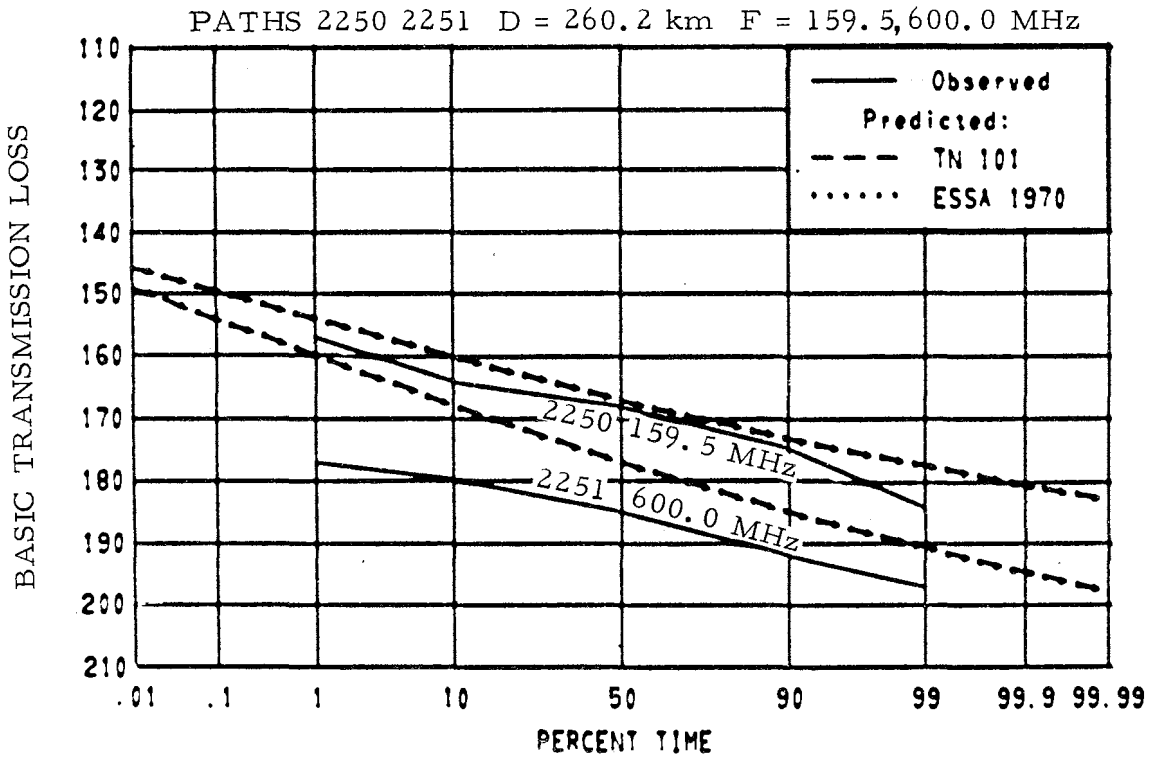


Figure 2.30 Paths 2250 2251

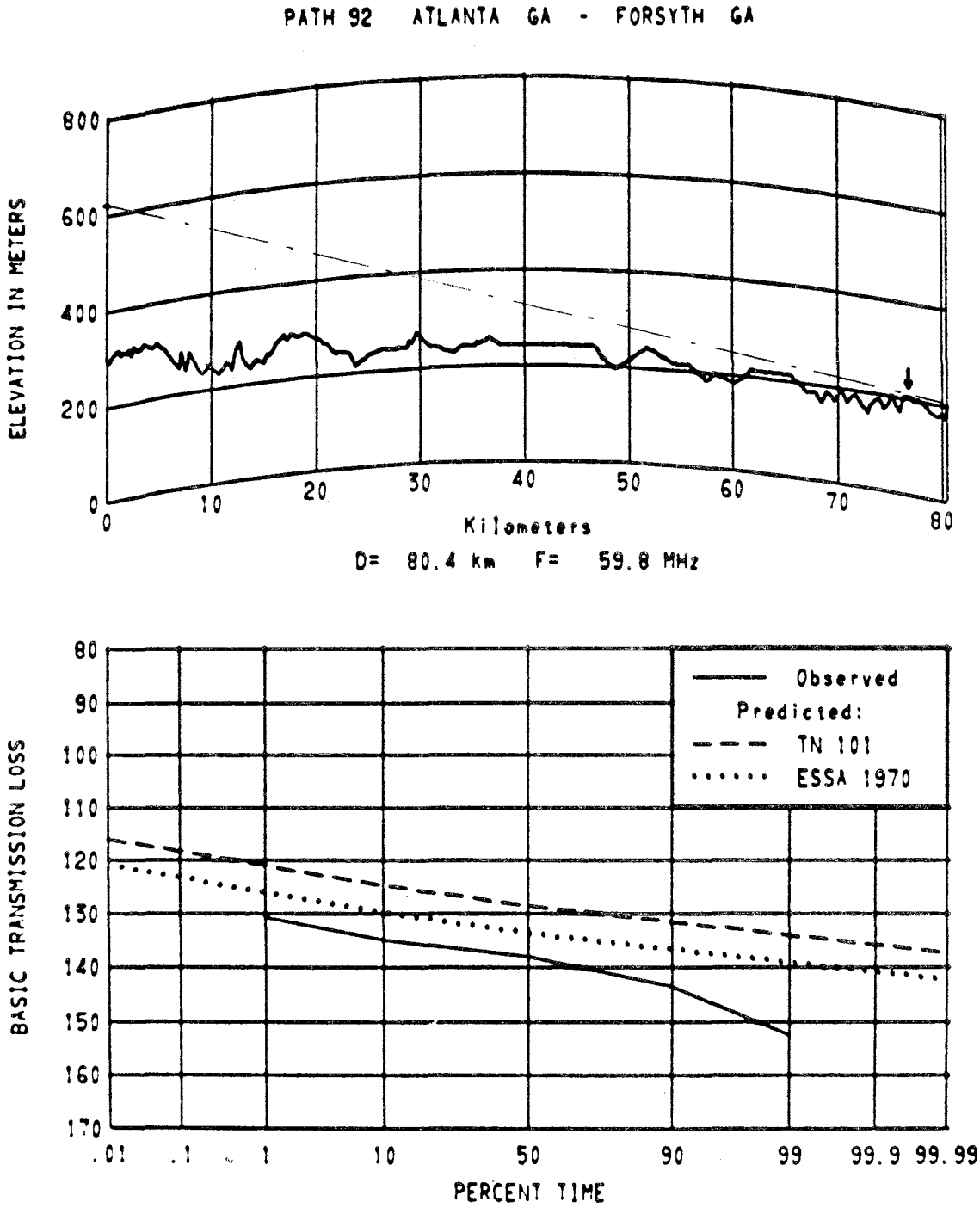
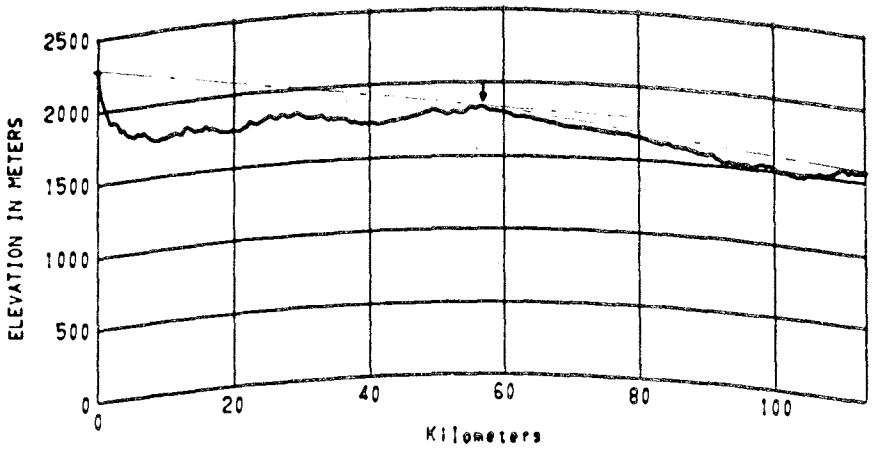
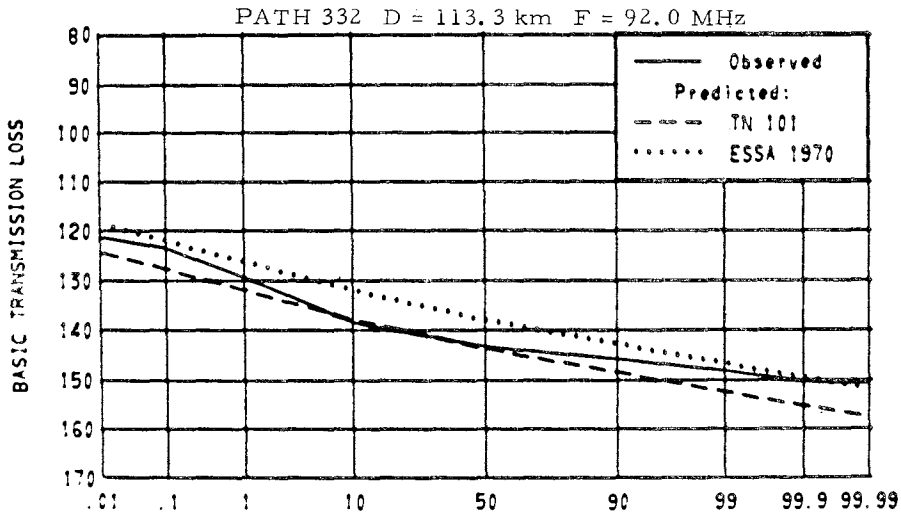


Figure 2.31 Path 92

PATHS 332 352 372 CHEYENNE MTN B COLO - KARVAL COLO





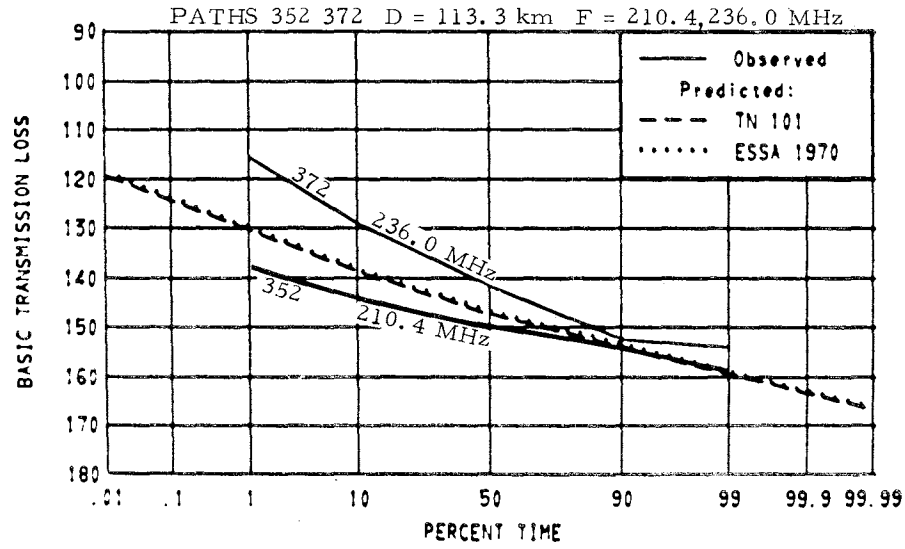
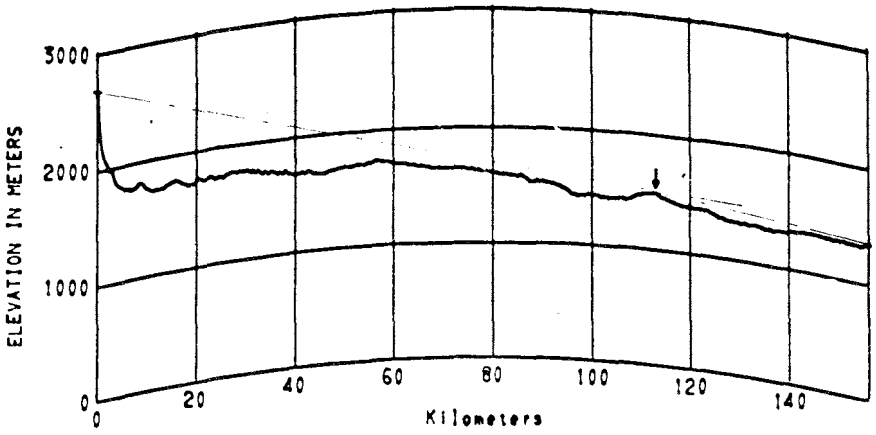
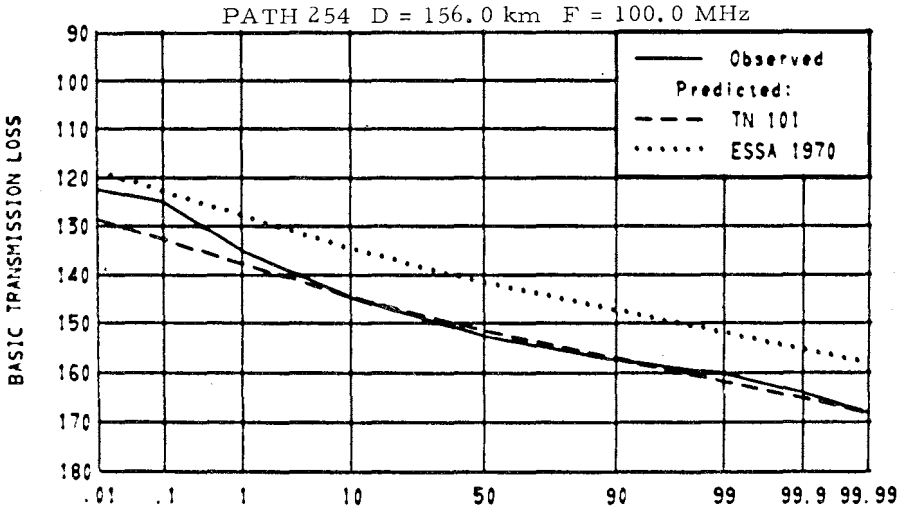


Figure 2.32 Paths 332 352 372

PATHS 254 274 294 314 CHEYENNE MTN S COLO - HASWELL COLO





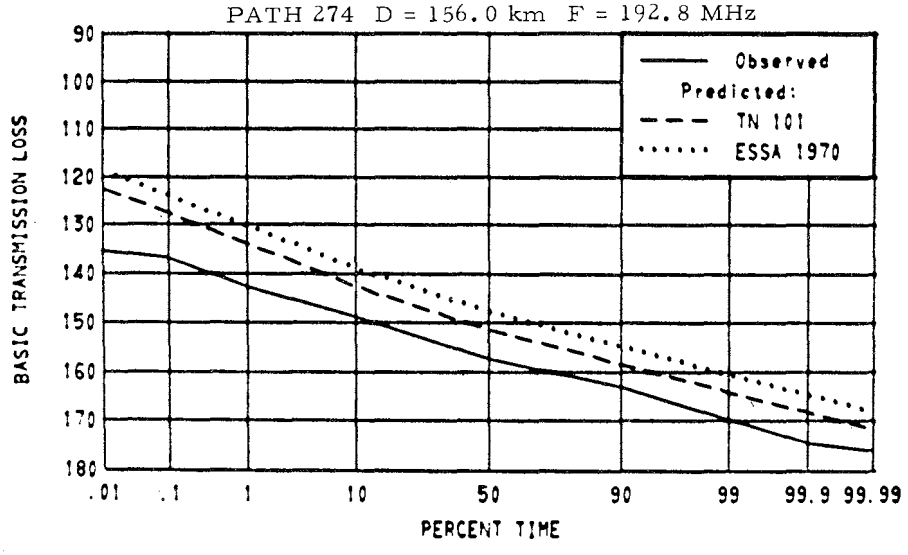


Figure 2.33 Paths 254 274

CHEYENNE MTN S COLO - HASWELL COLO

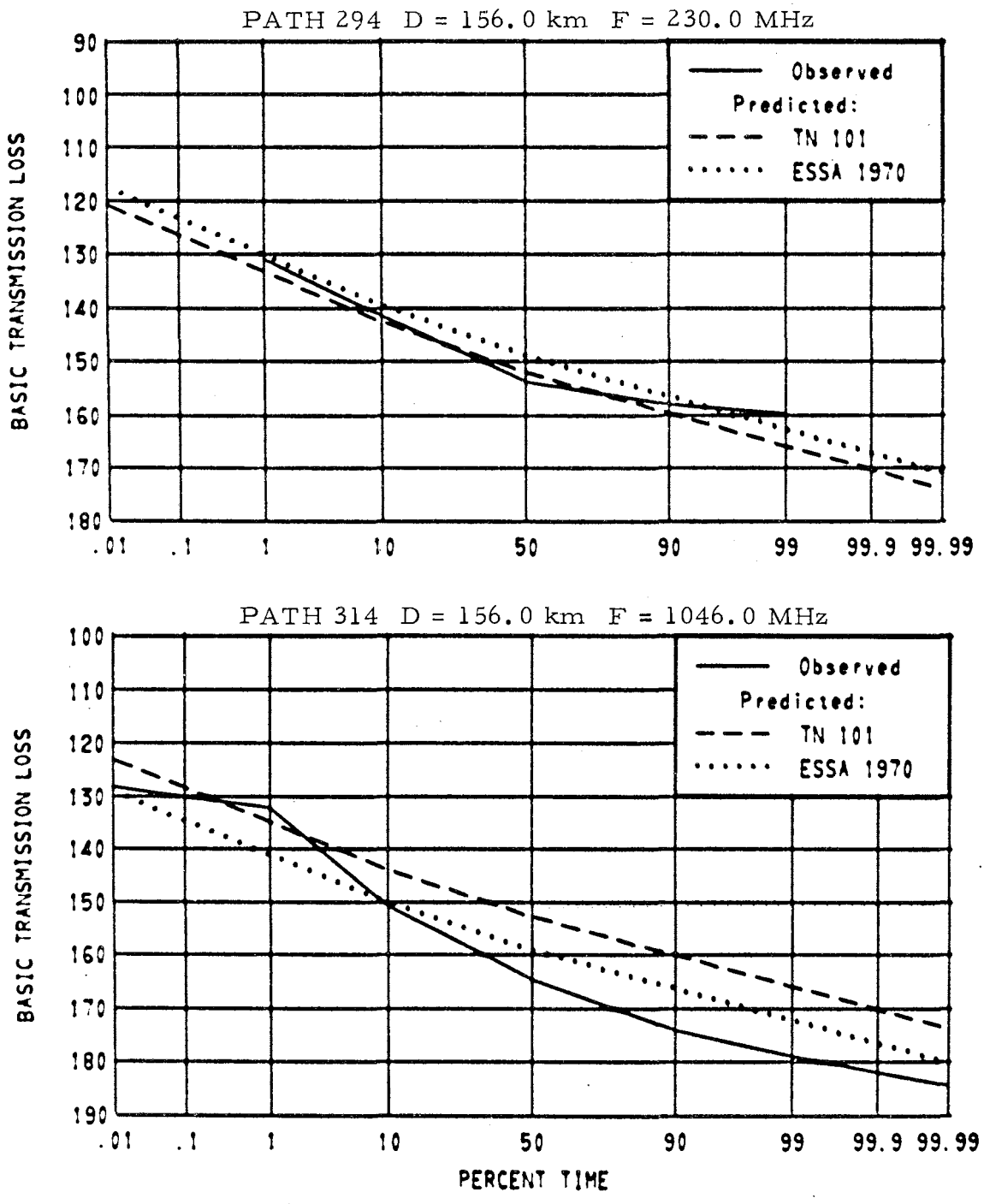


Figure 2.34 Paths 294 314

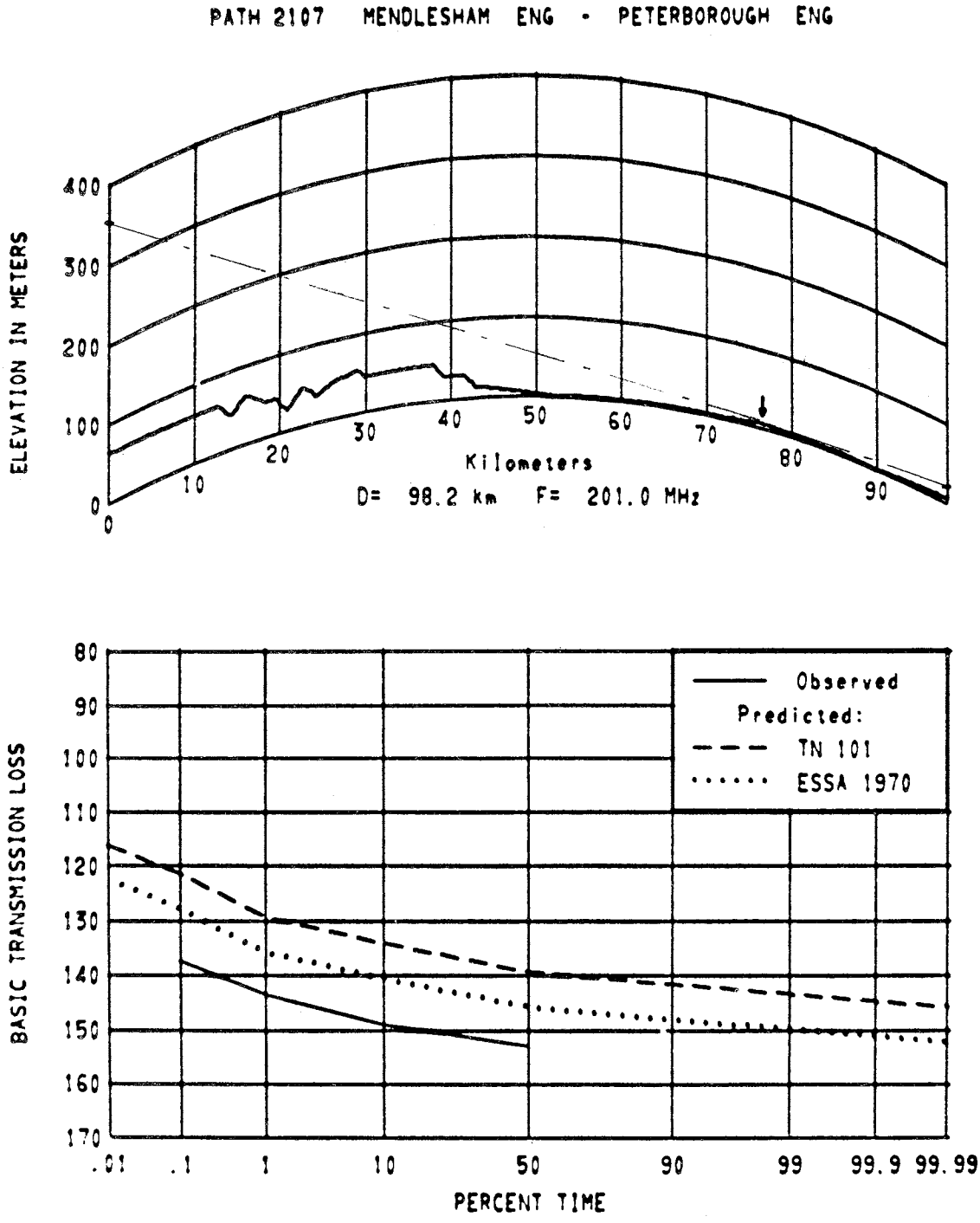


Figure 2.35 Path 2107

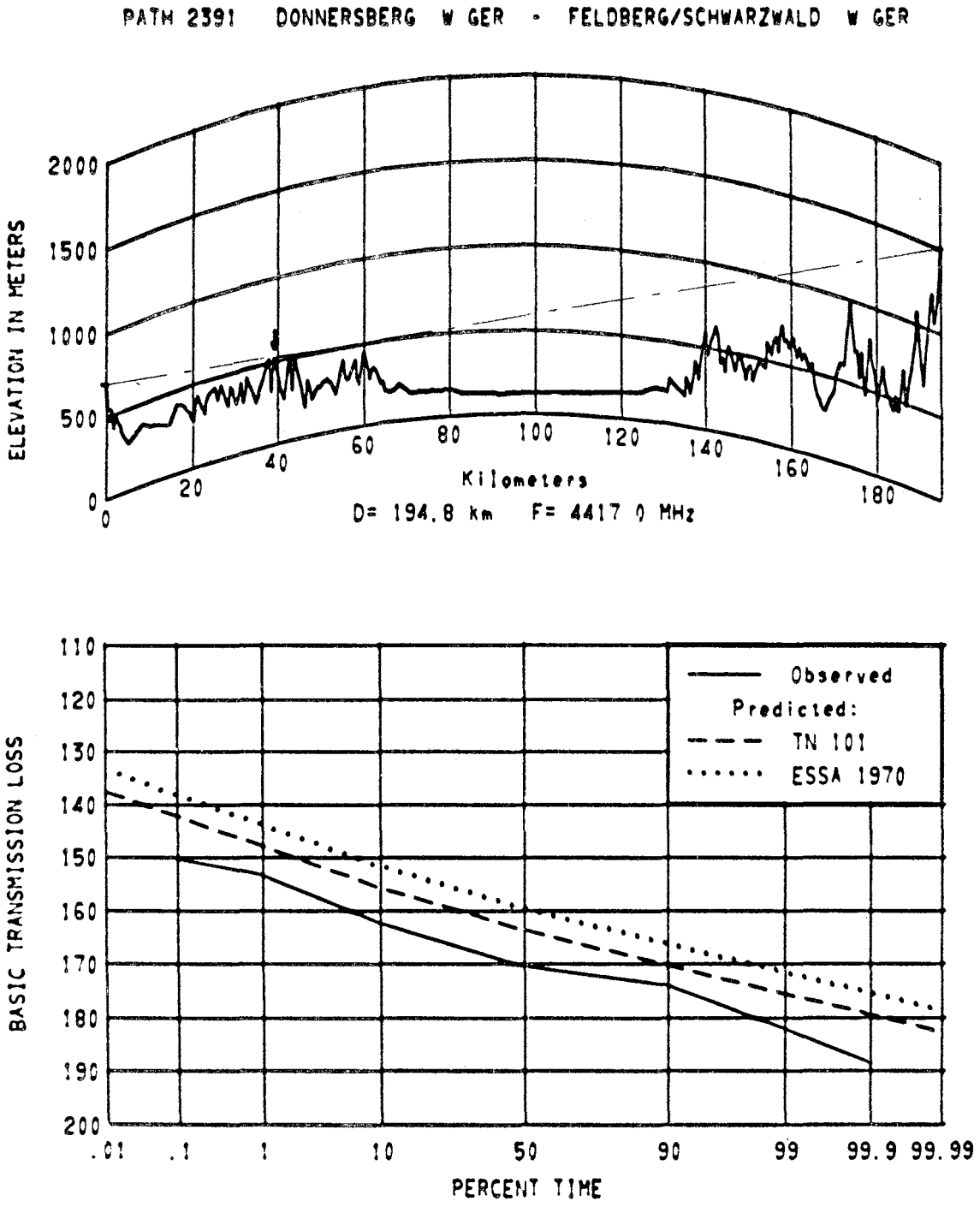


Figure 2.36 Path 2391

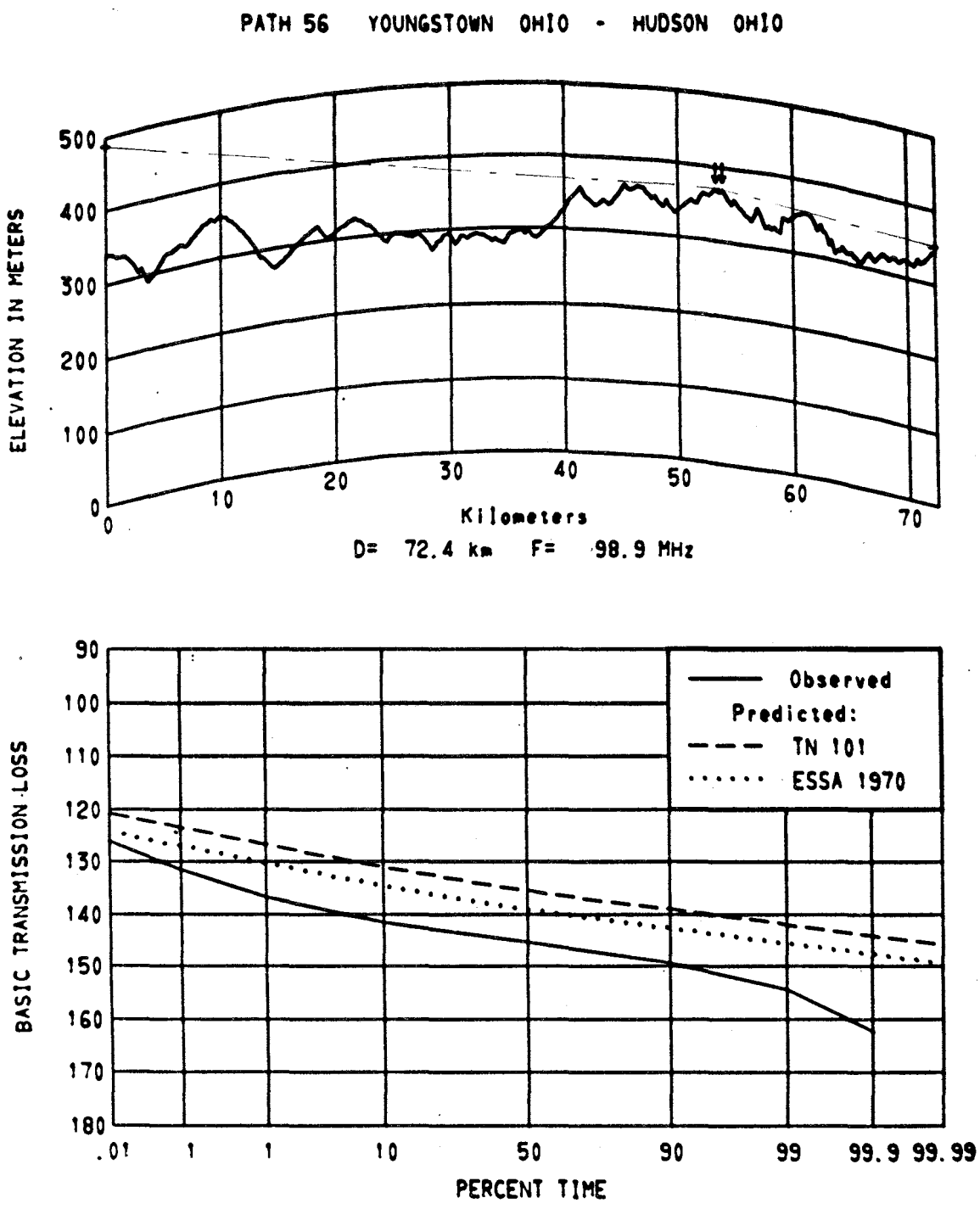


Figure 2.37 Path 56

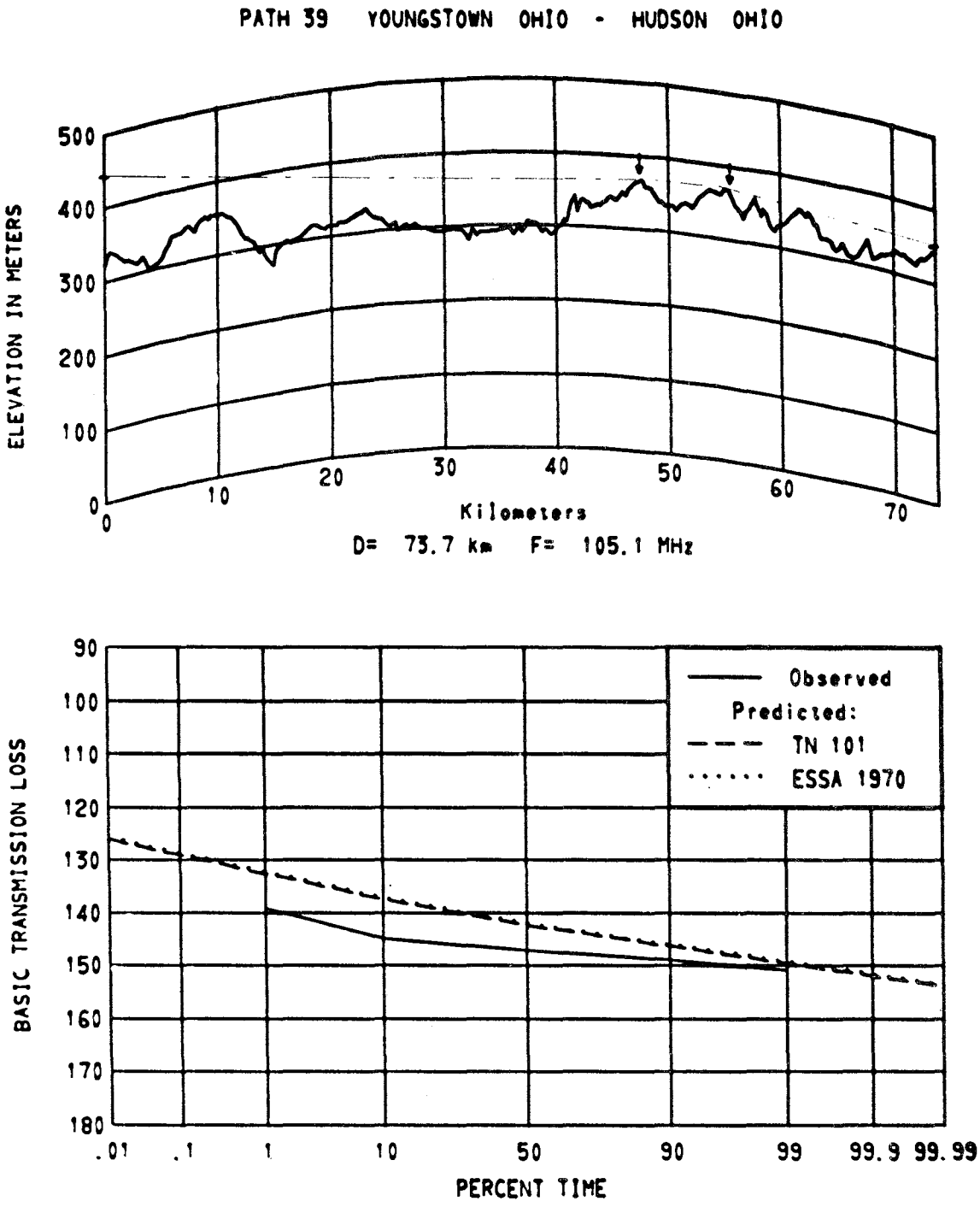


Figure 2.38 Path 39

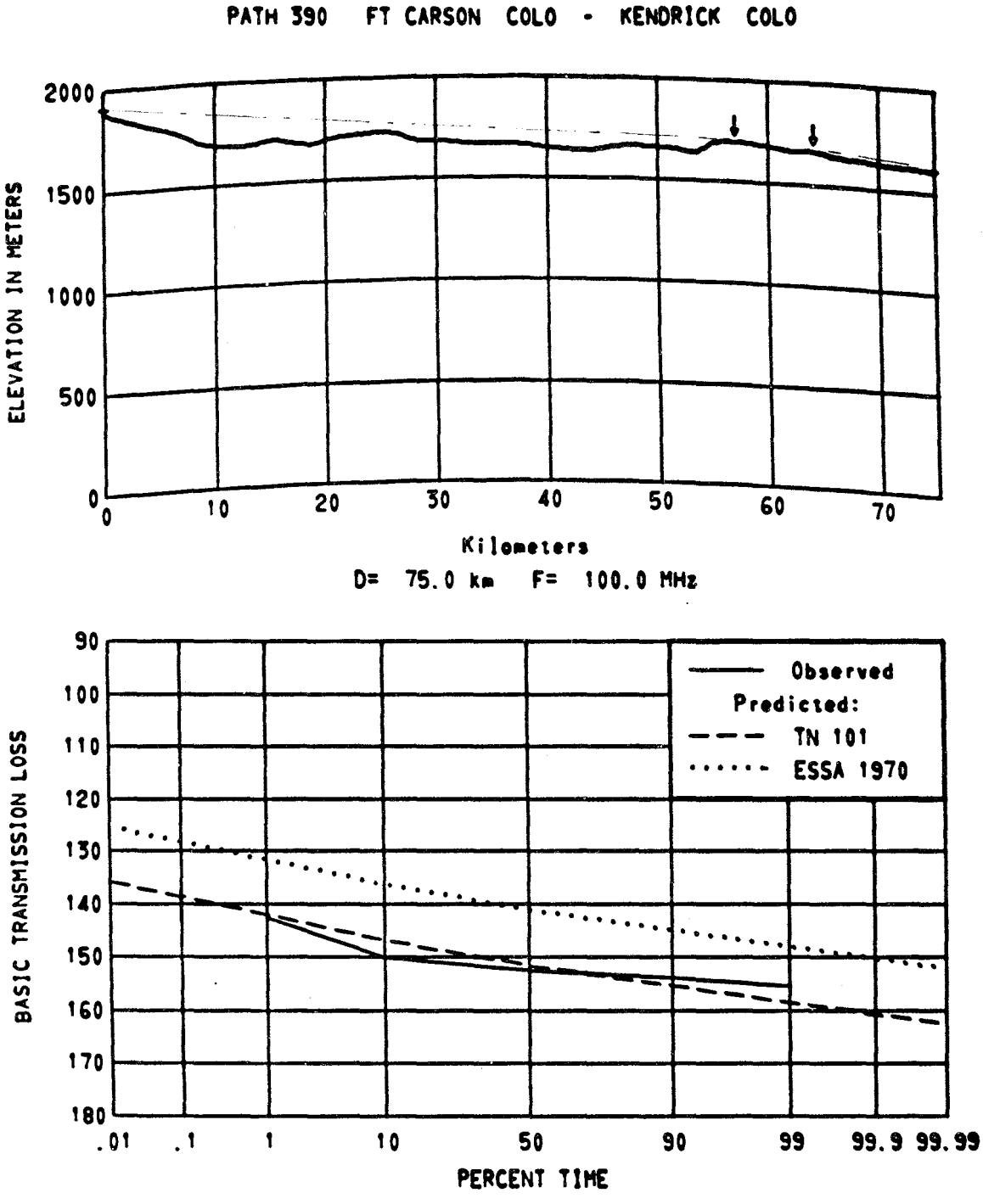


Figure 2.39 Path 390

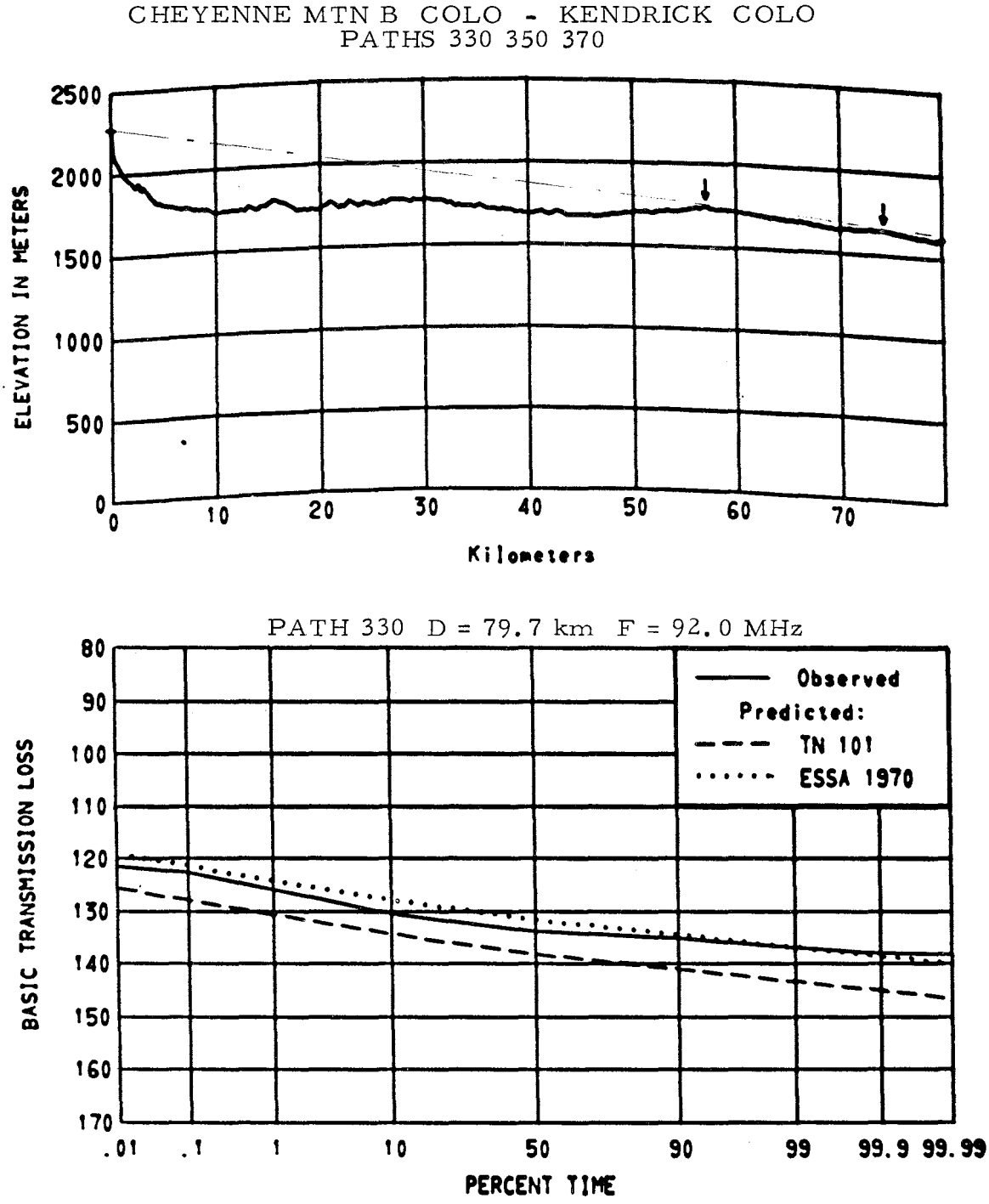


Figure 2.40 Path 330

CHEYENNE MTN B COLO - KENDRICK COLO

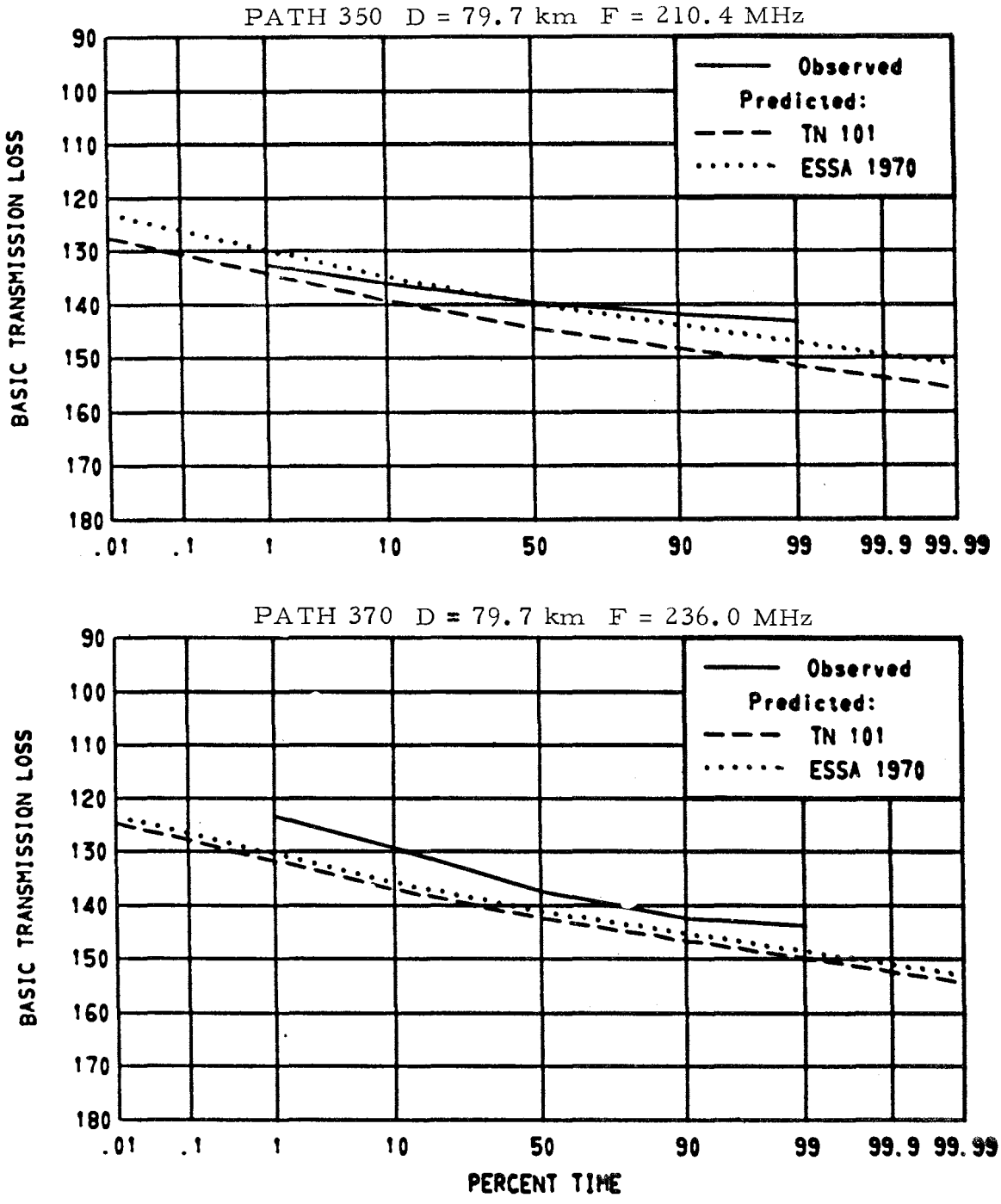


Figure 2.41 Paths 350 370

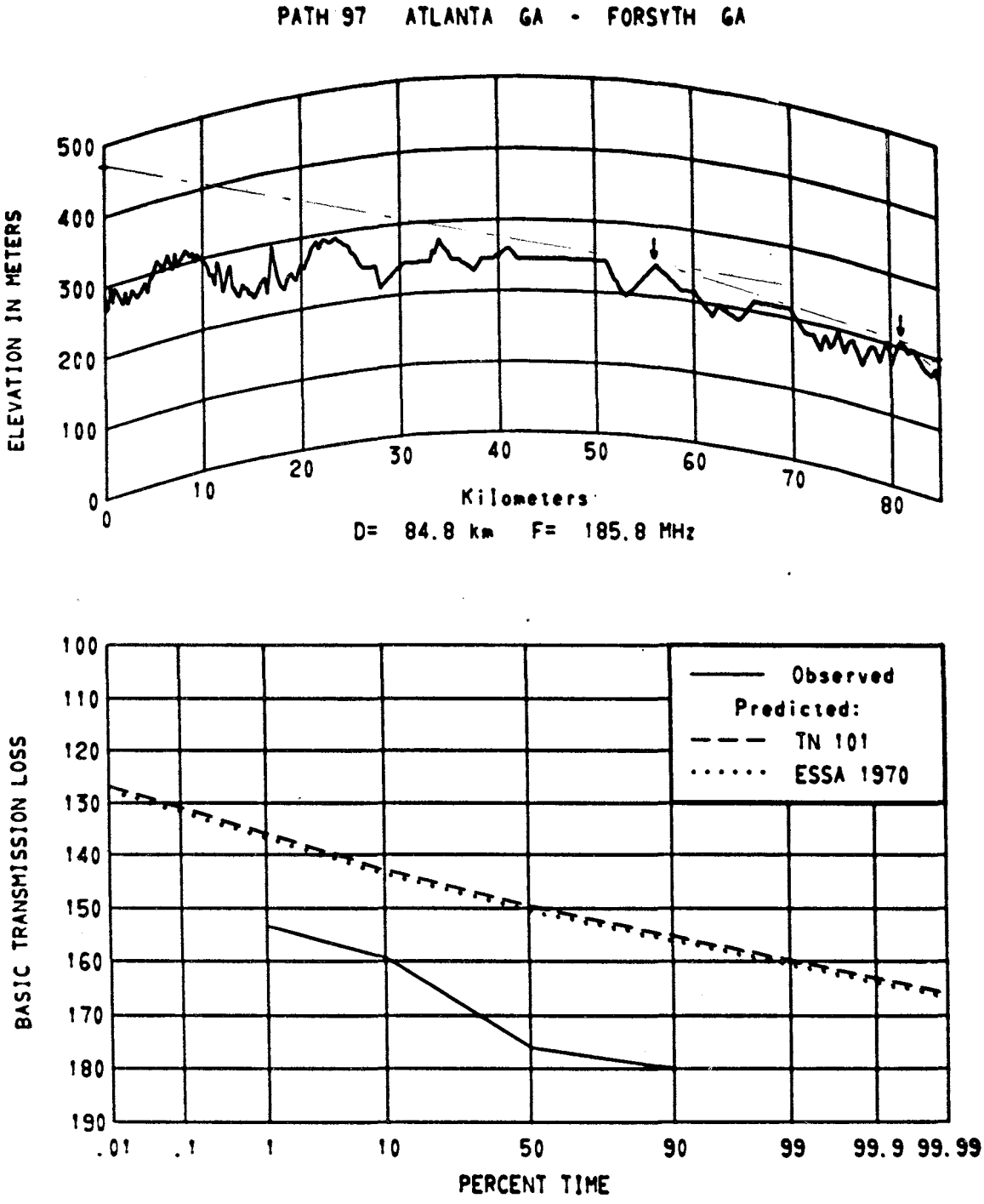
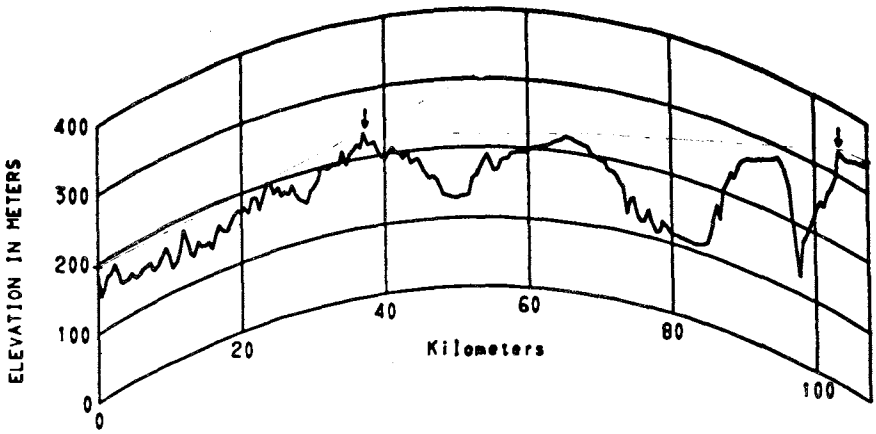
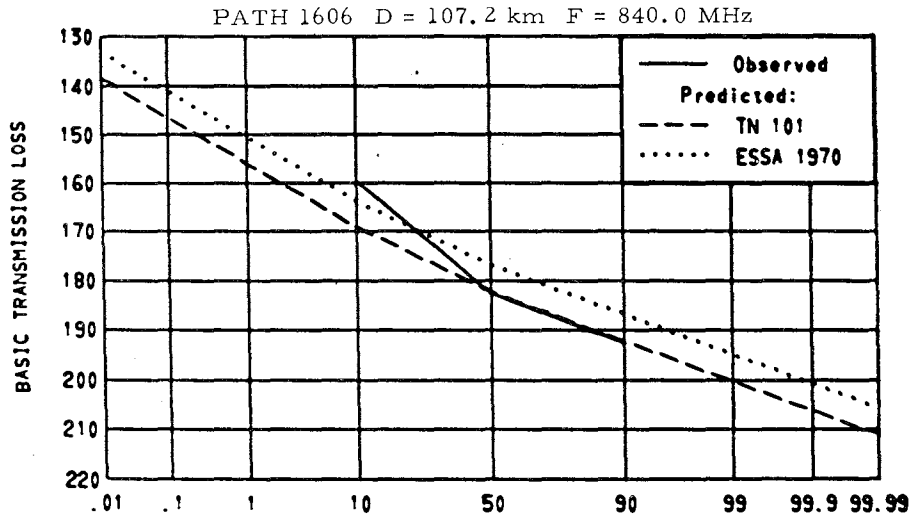


Figure 2.42 Path 97

PATHS 1606 1609 1610 ROCHESTER N Y - ITHACA N Y





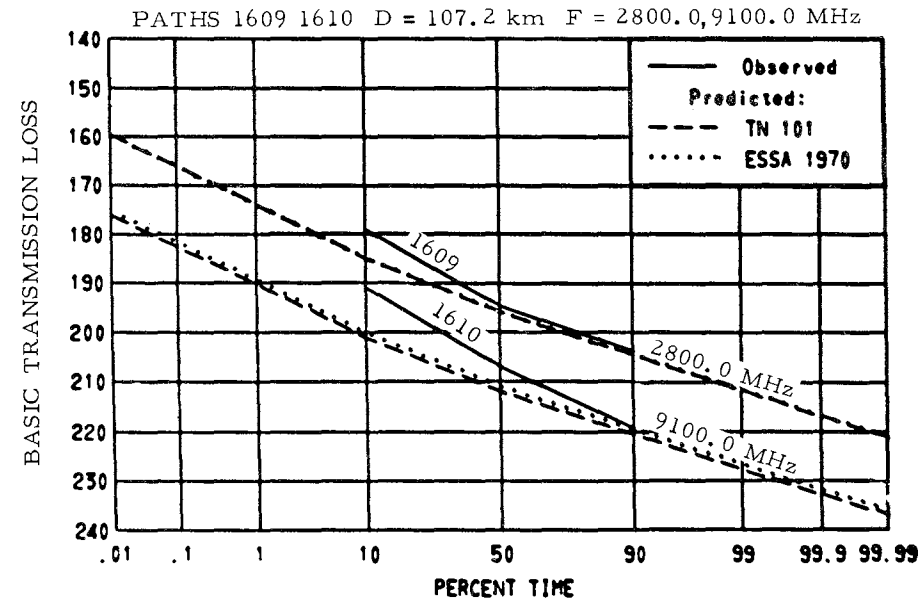


Figure 2.43 Paths 1606 1609 1610

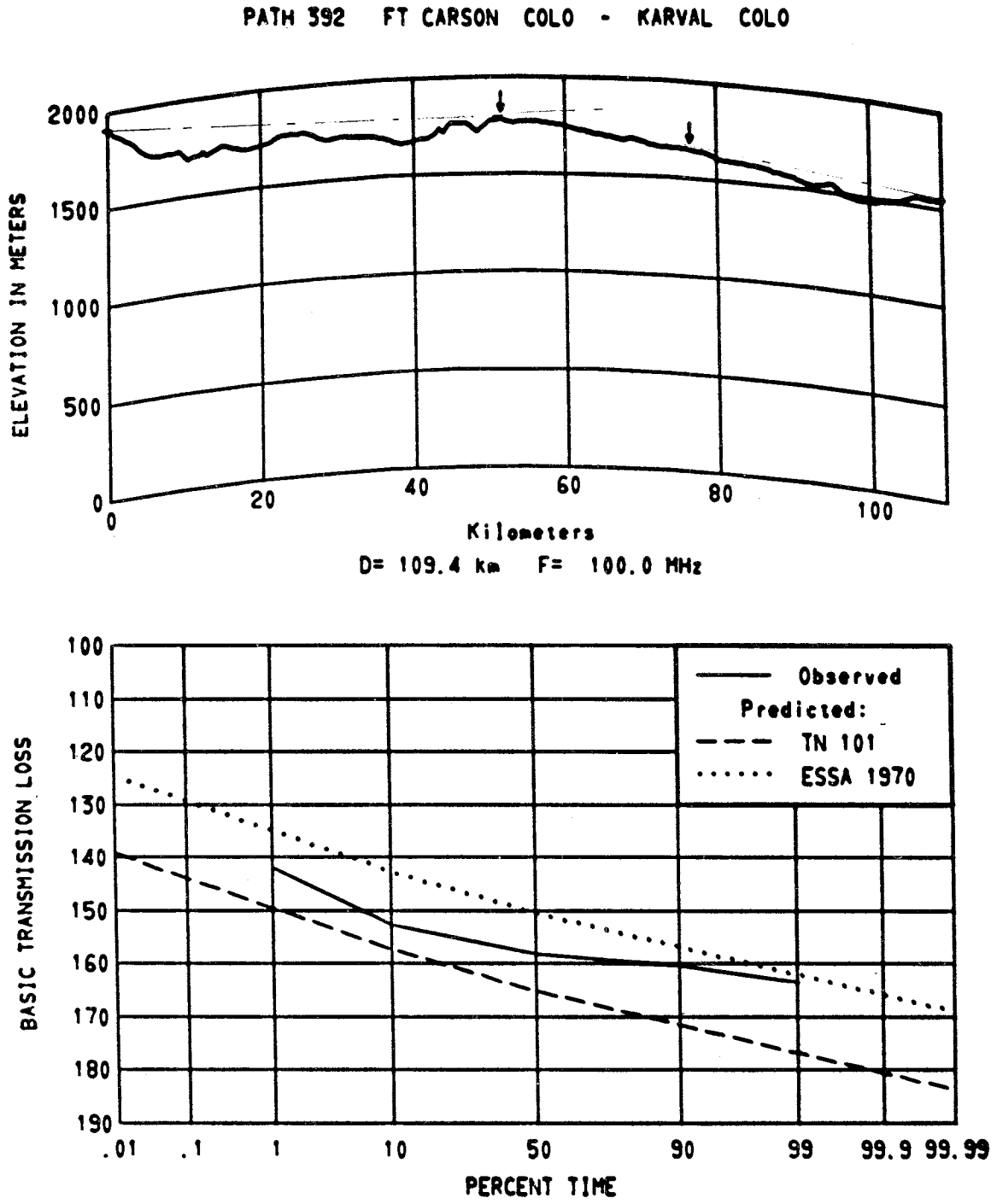


Figure 2.44 Path 392

PATHS 21 TO 23 SAN ANTONIO TEXAS - AUSTIN TEXAS

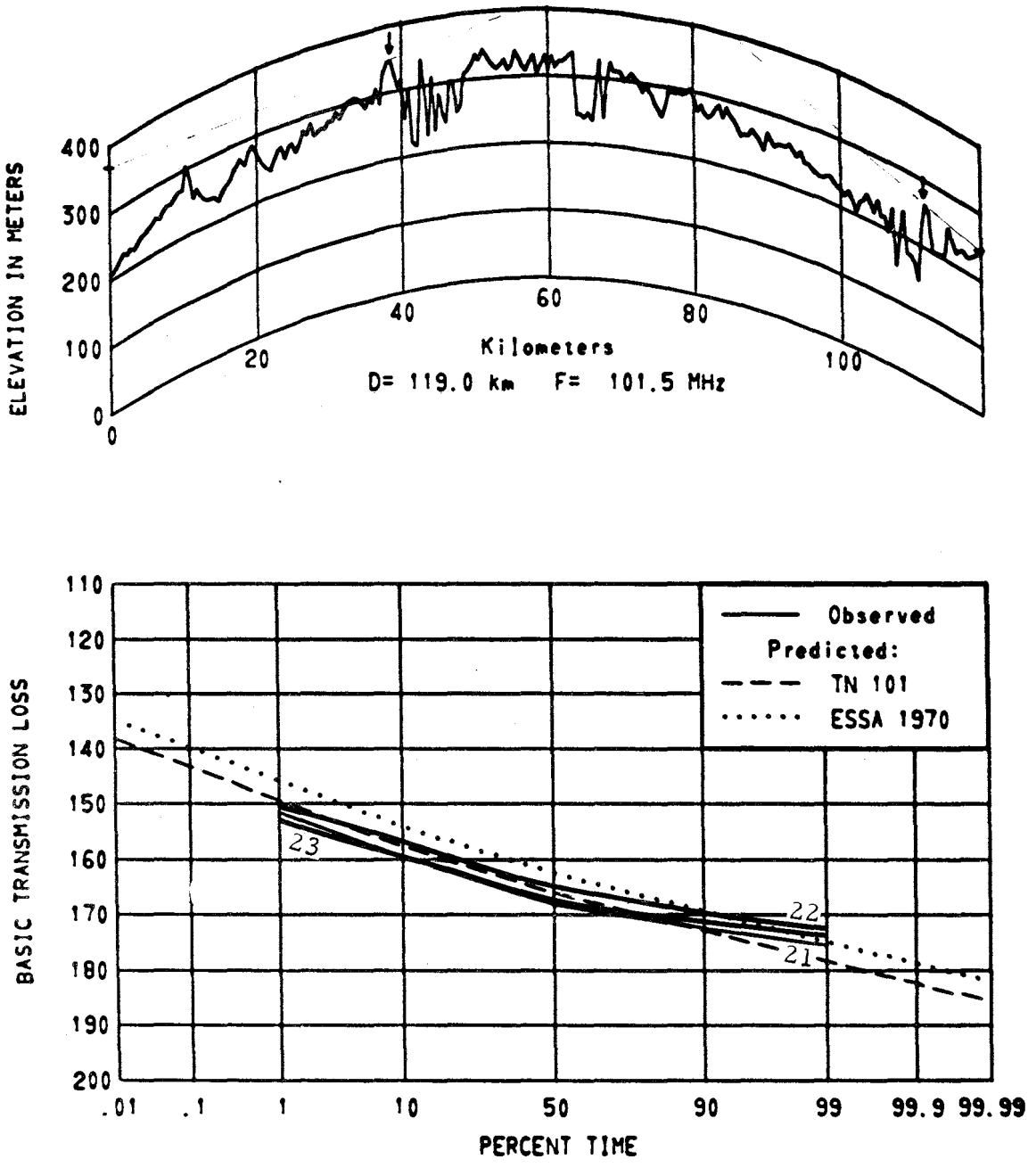


Figure 2.45 Paths 21 to 23

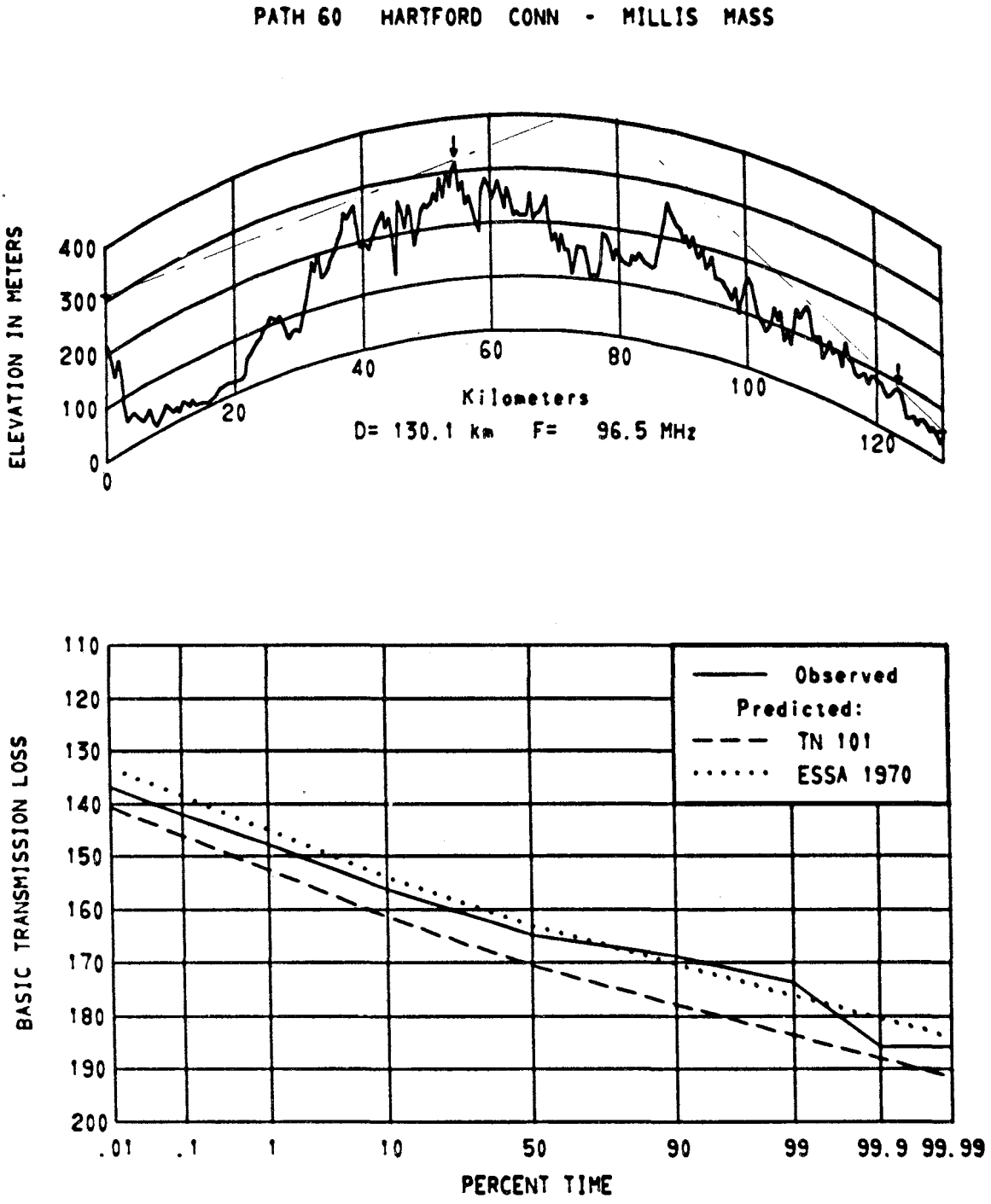


Figure 2.46 Path 60

PATHS 208 228 WILMINGTON DELA - LAUREL MD

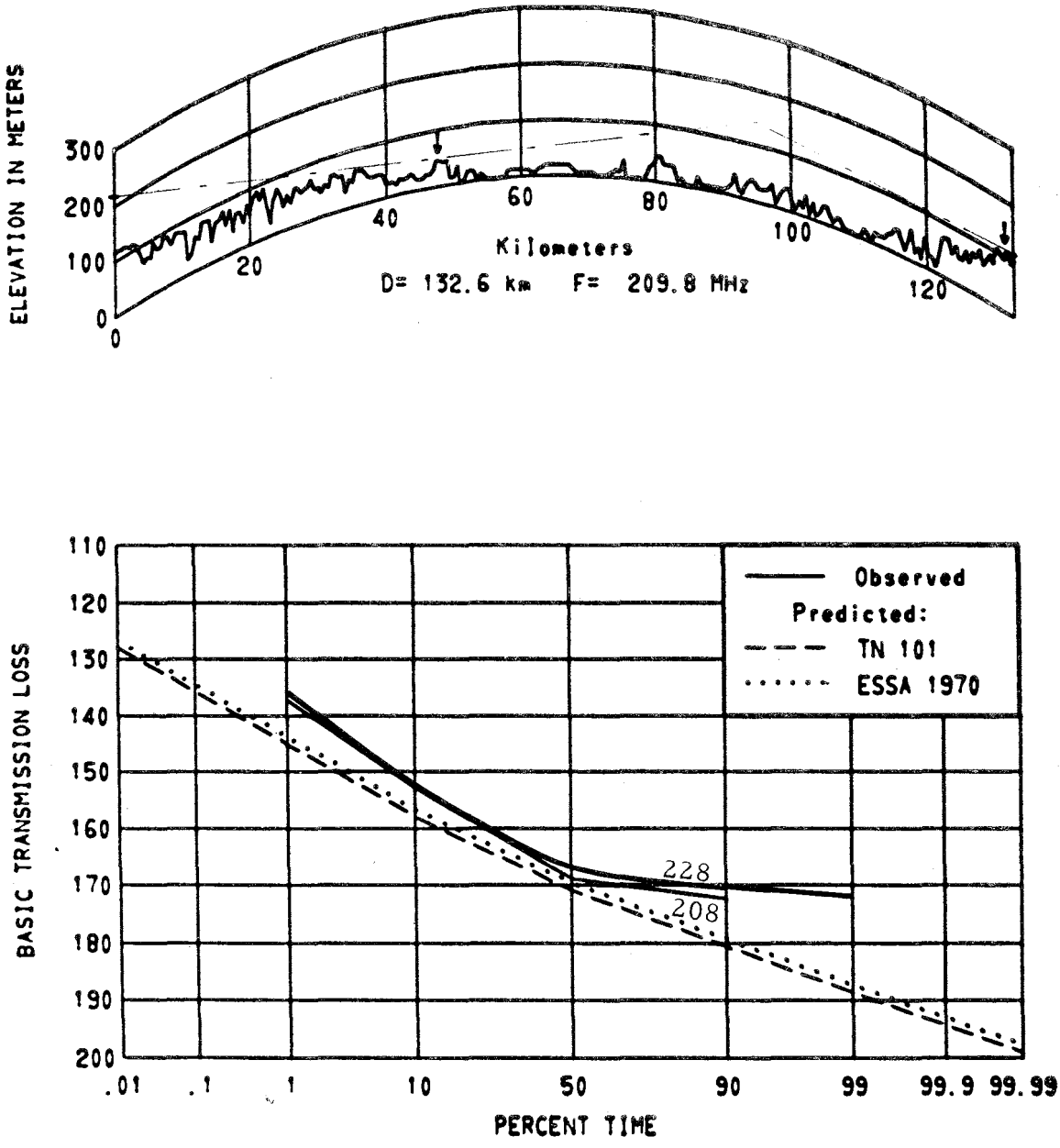


Figure 2.47 Paths 208 228

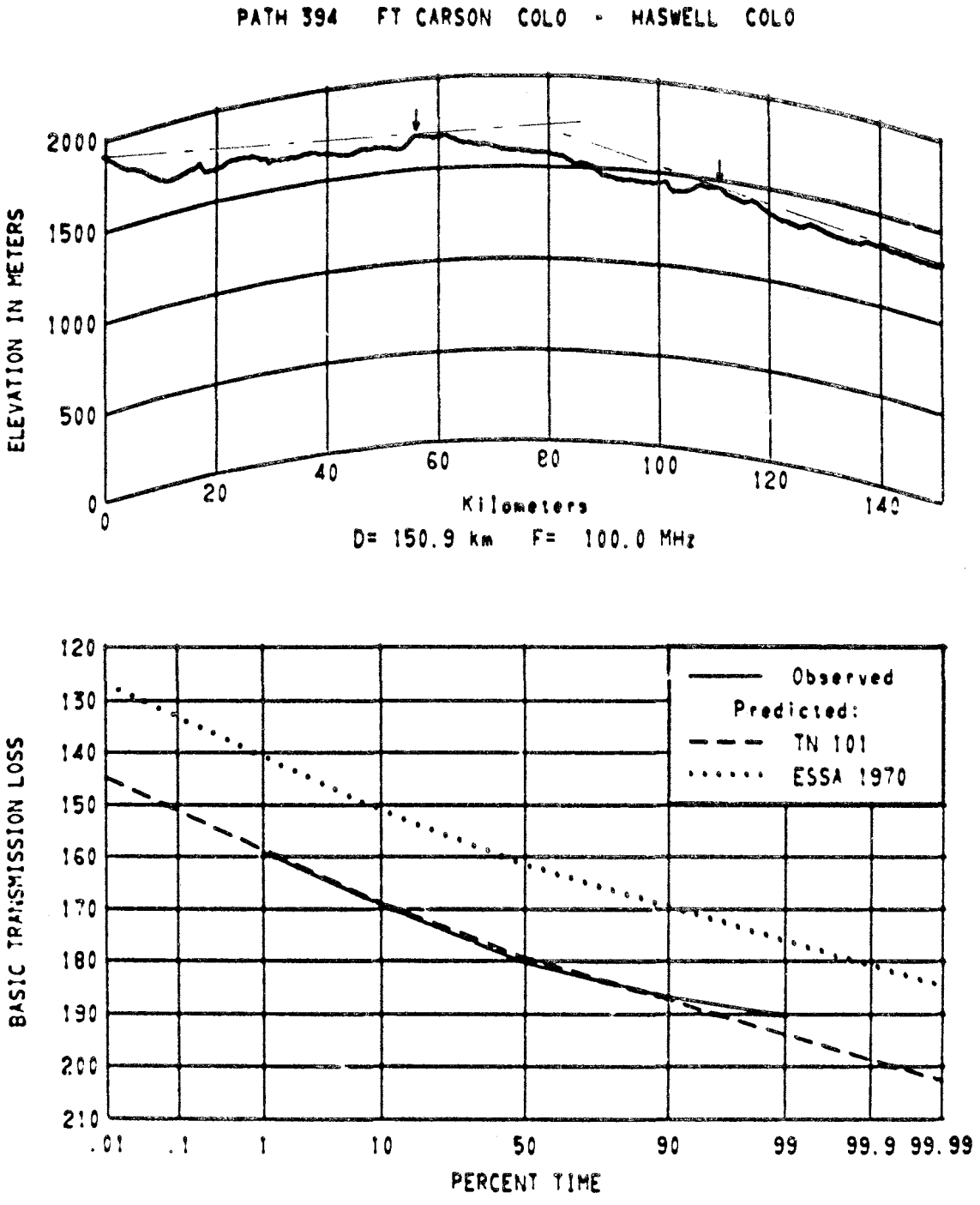


Figure 2.48 Path 394

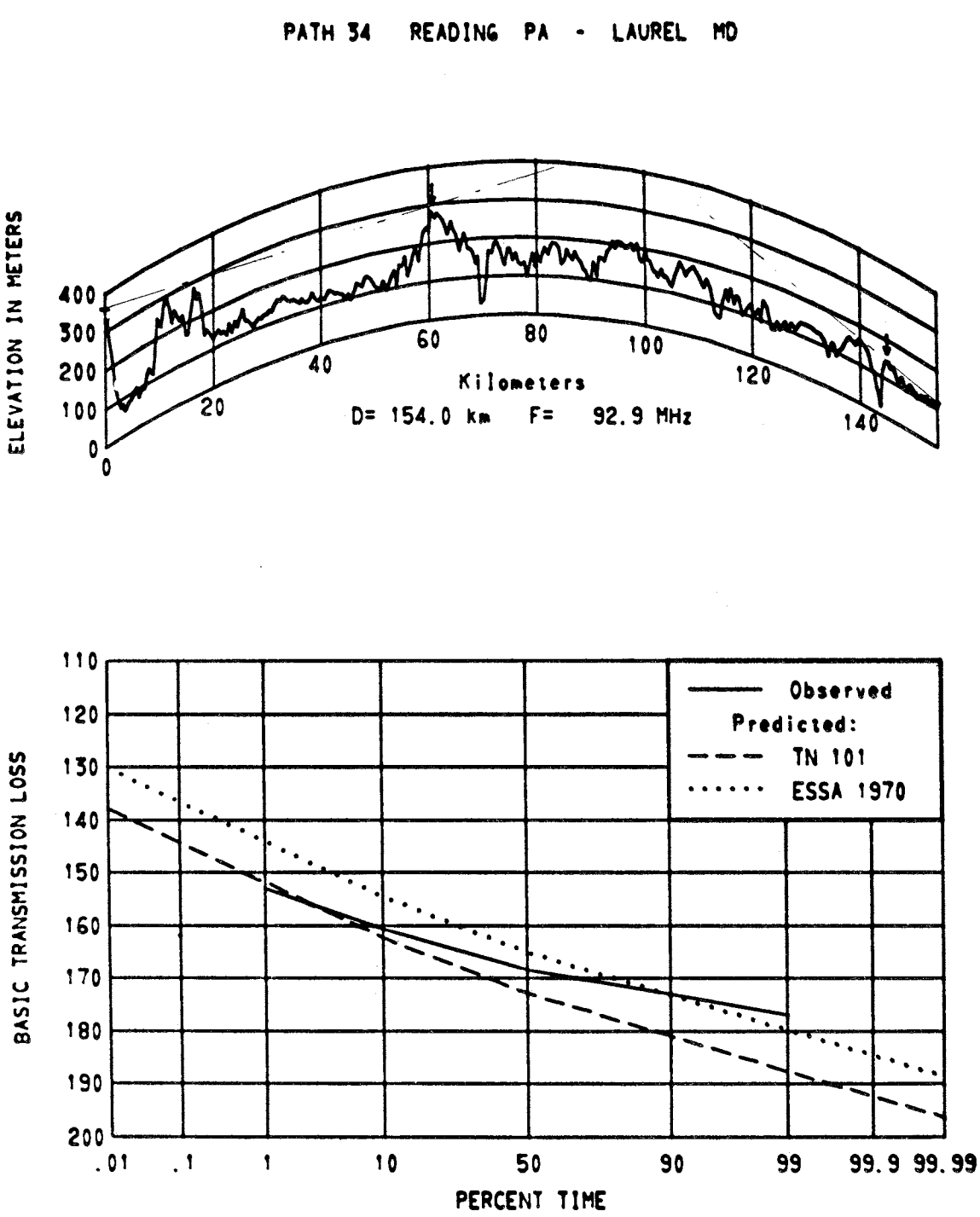
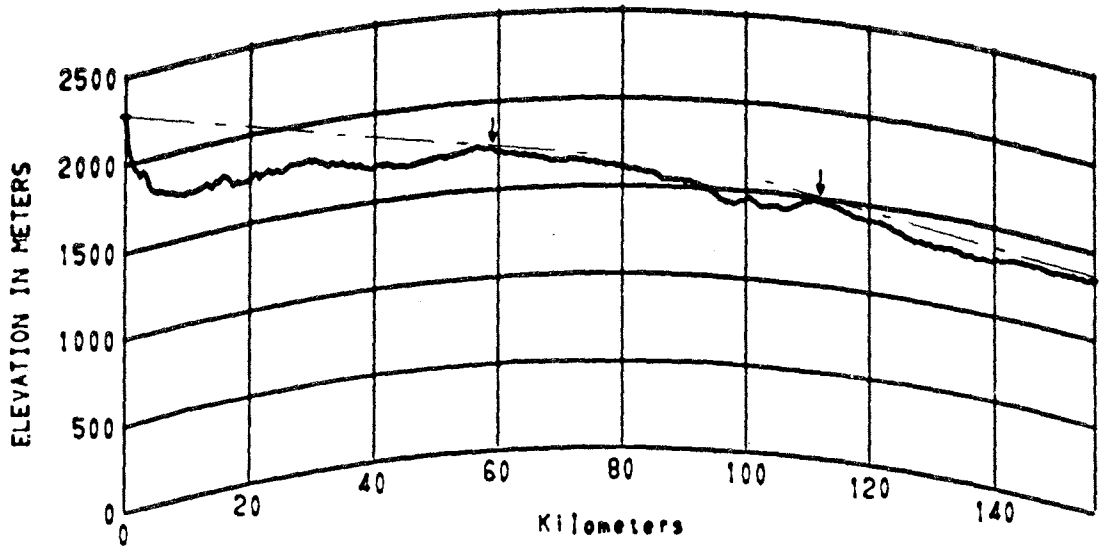


Figure 2.49 Path 34

PATHS 334 354 374 CHEYENNE MTN B COLO - HASWELL COLO



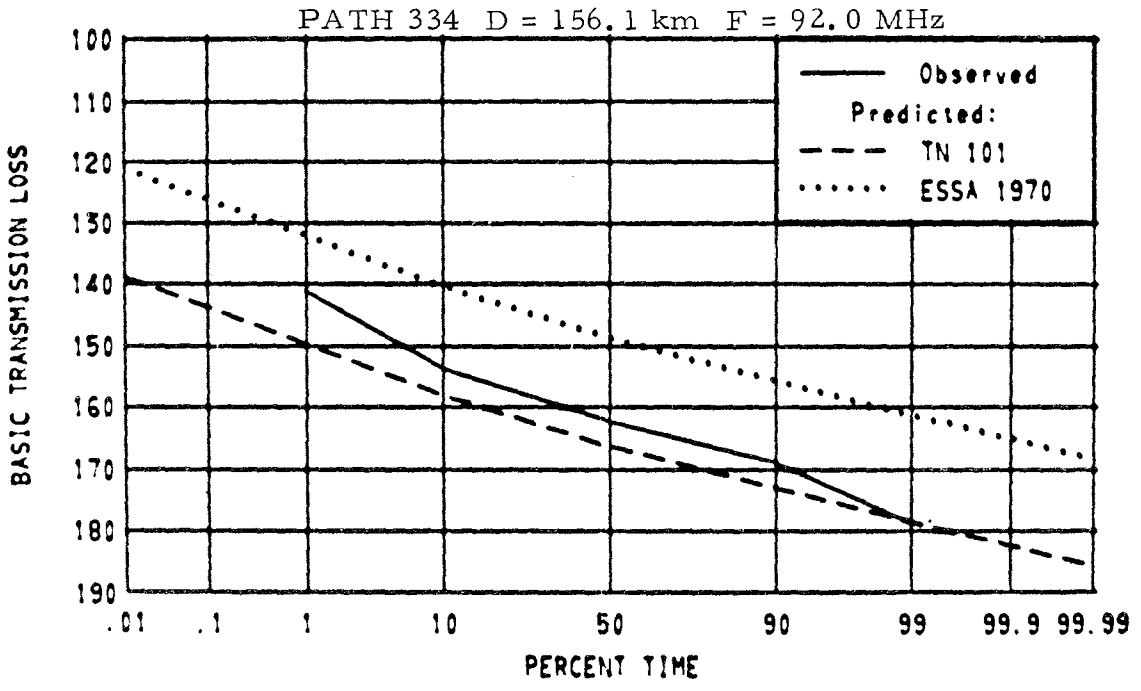


Figure 2.50 Path 334

CHEYENNE MTN B COLO - HASWELL COLO

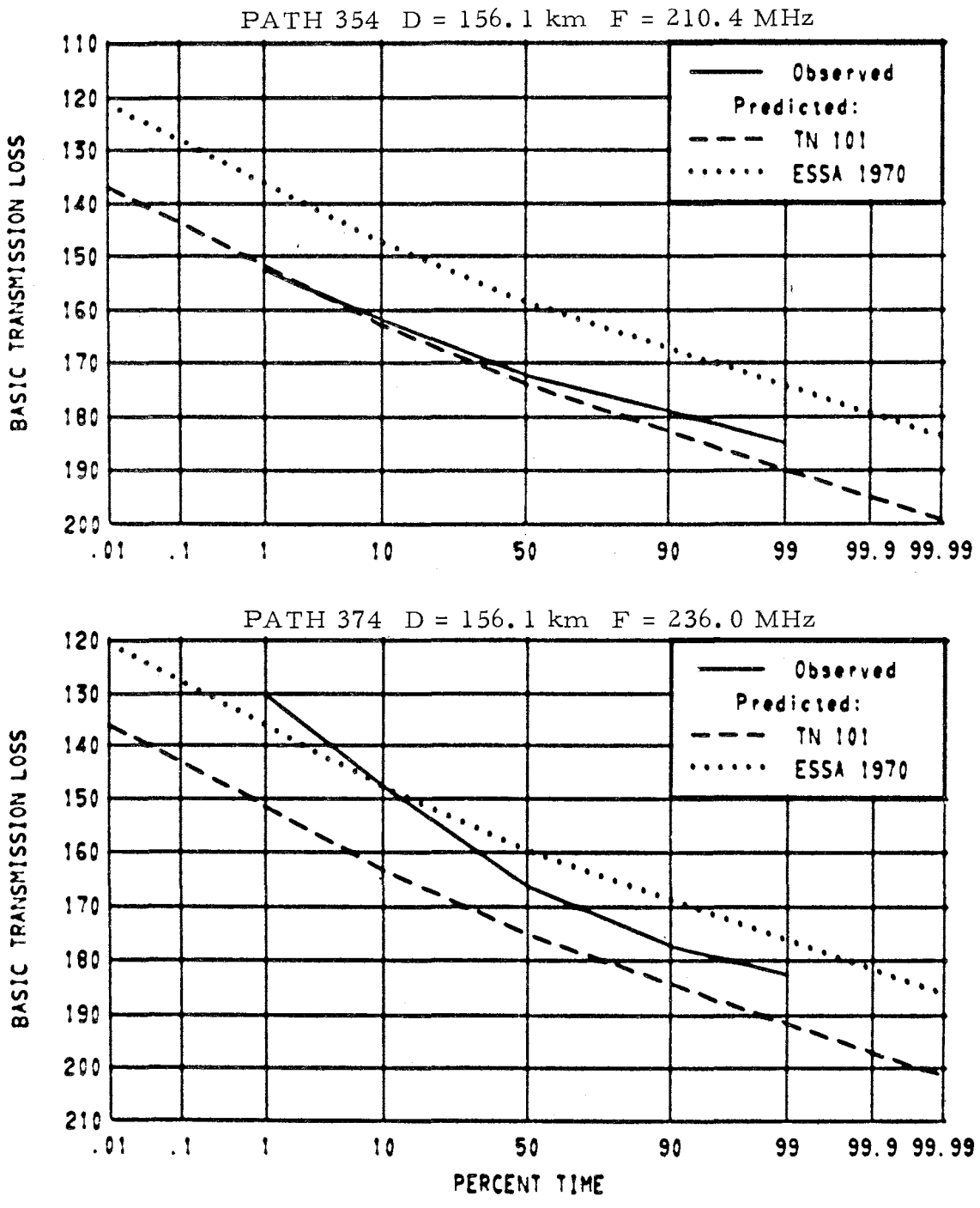
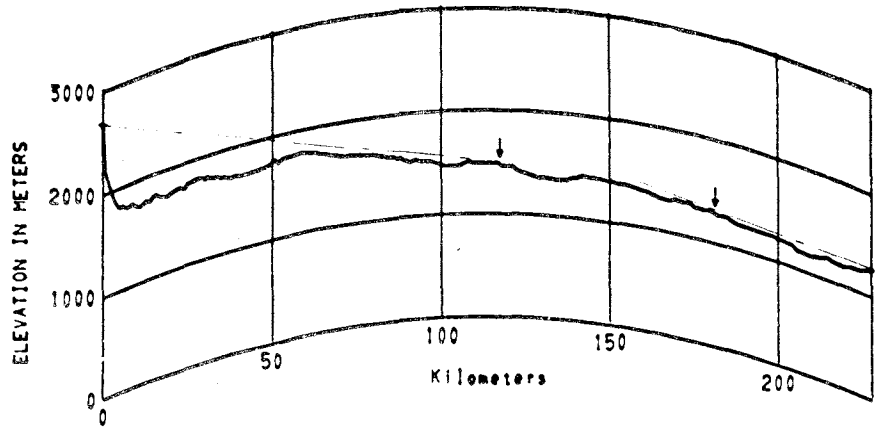
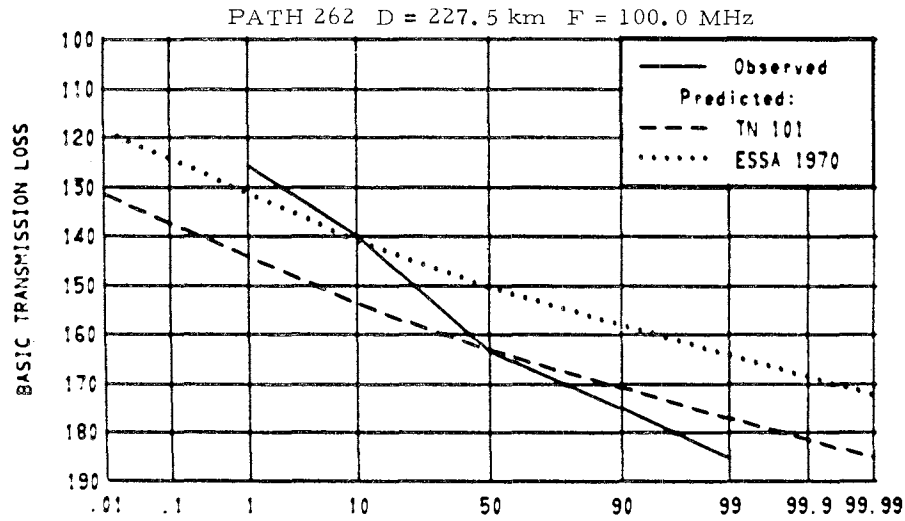


Figure 2.51 Paths 354 374

PATHS 262 302 CHEYENNE MTN S COLO - SHERIDAN LAKE COLO





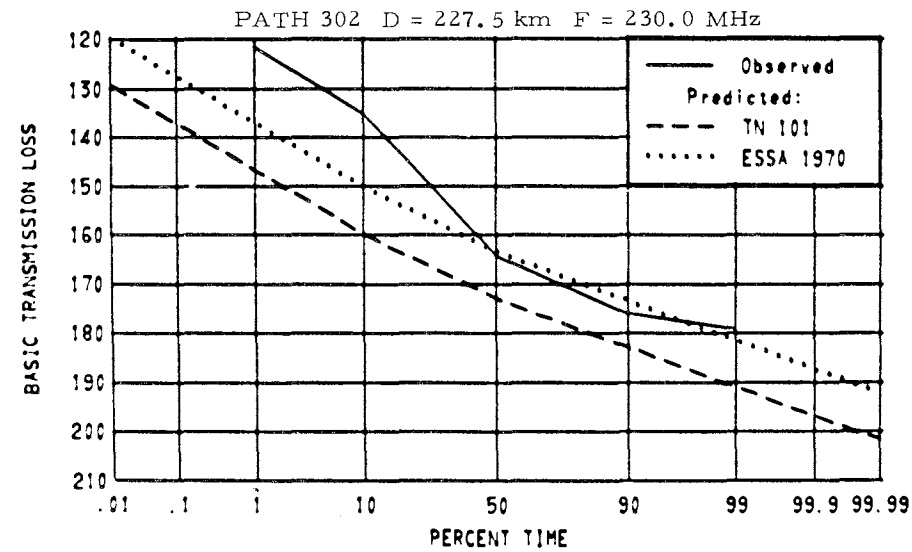


Figure 2.52 Paths 262 302

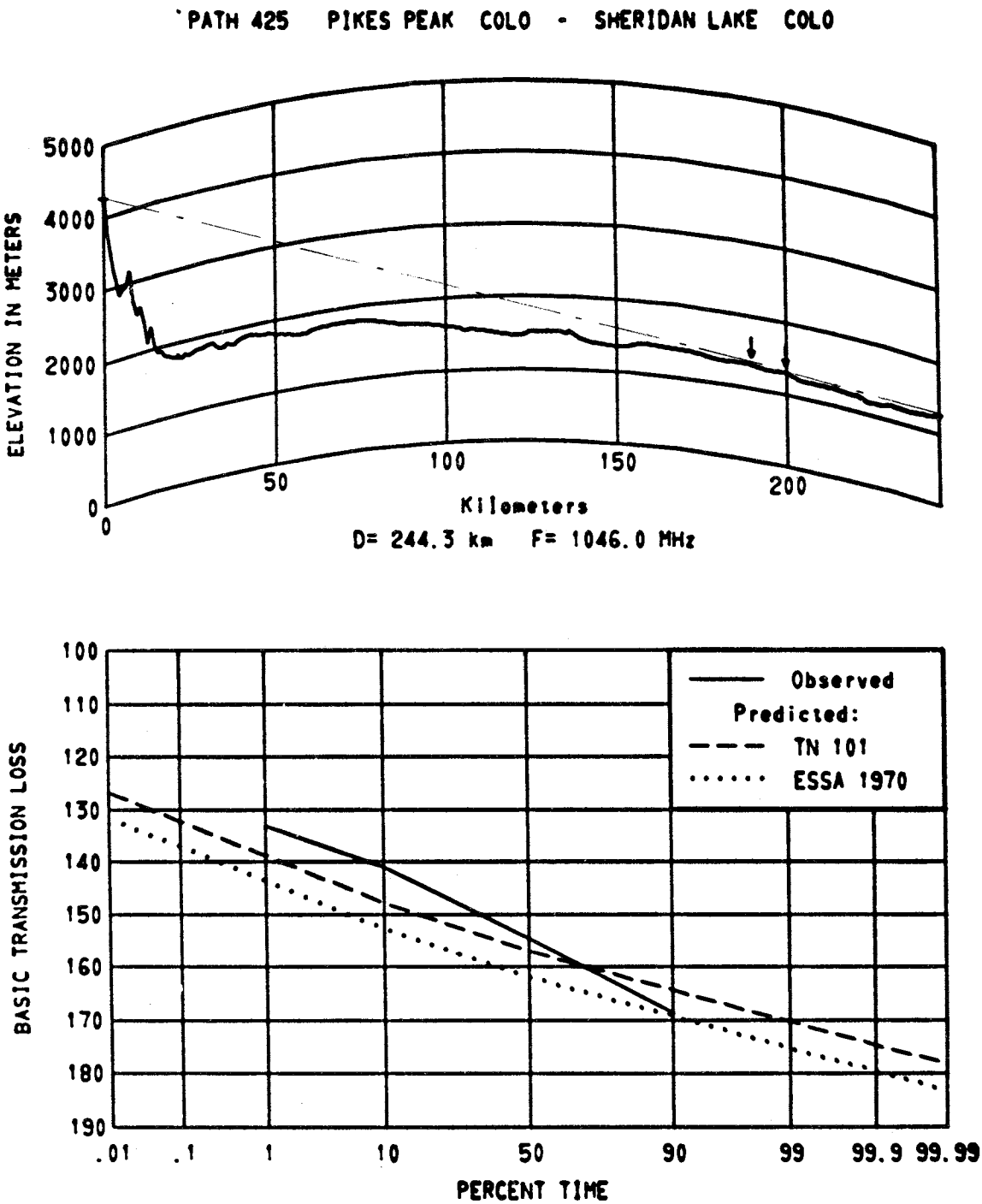
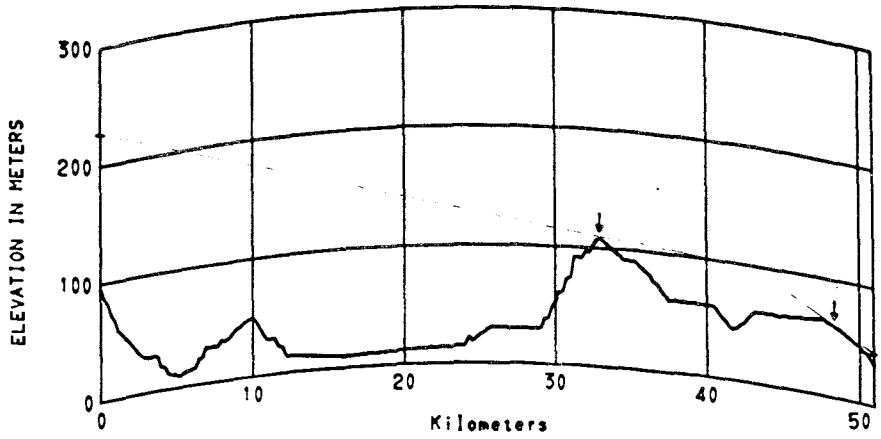
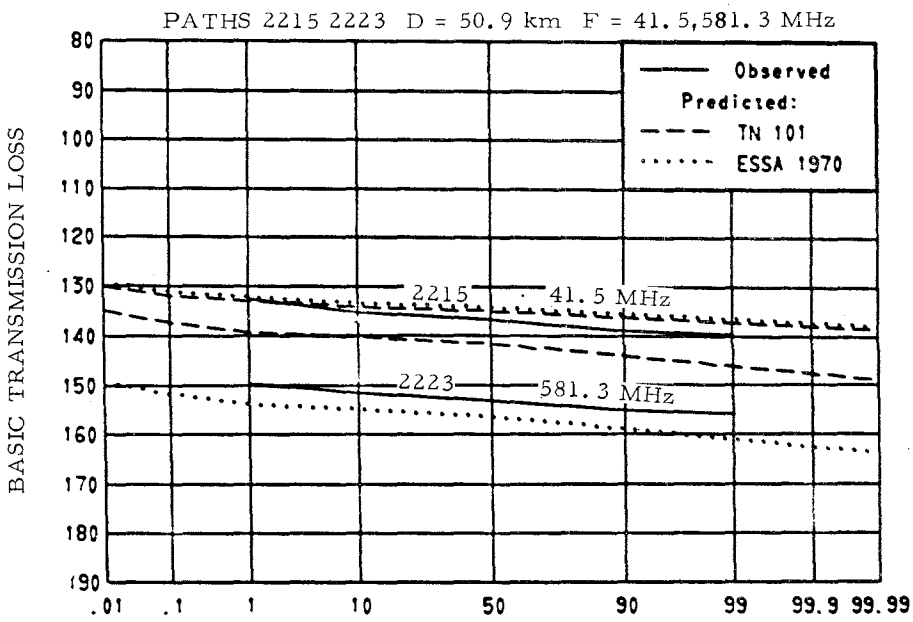


Figure 2.53 Path 425

PATHS 2215 2223 2224 CRYSTAL PALACE ENG - GREAT BADDOW ENG





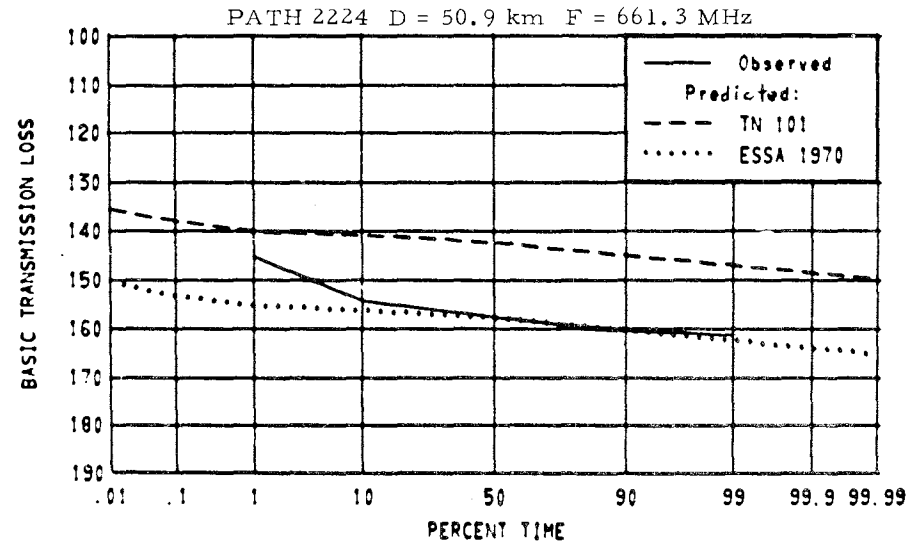


Figure 2.54 Paths 2215 2223 2224

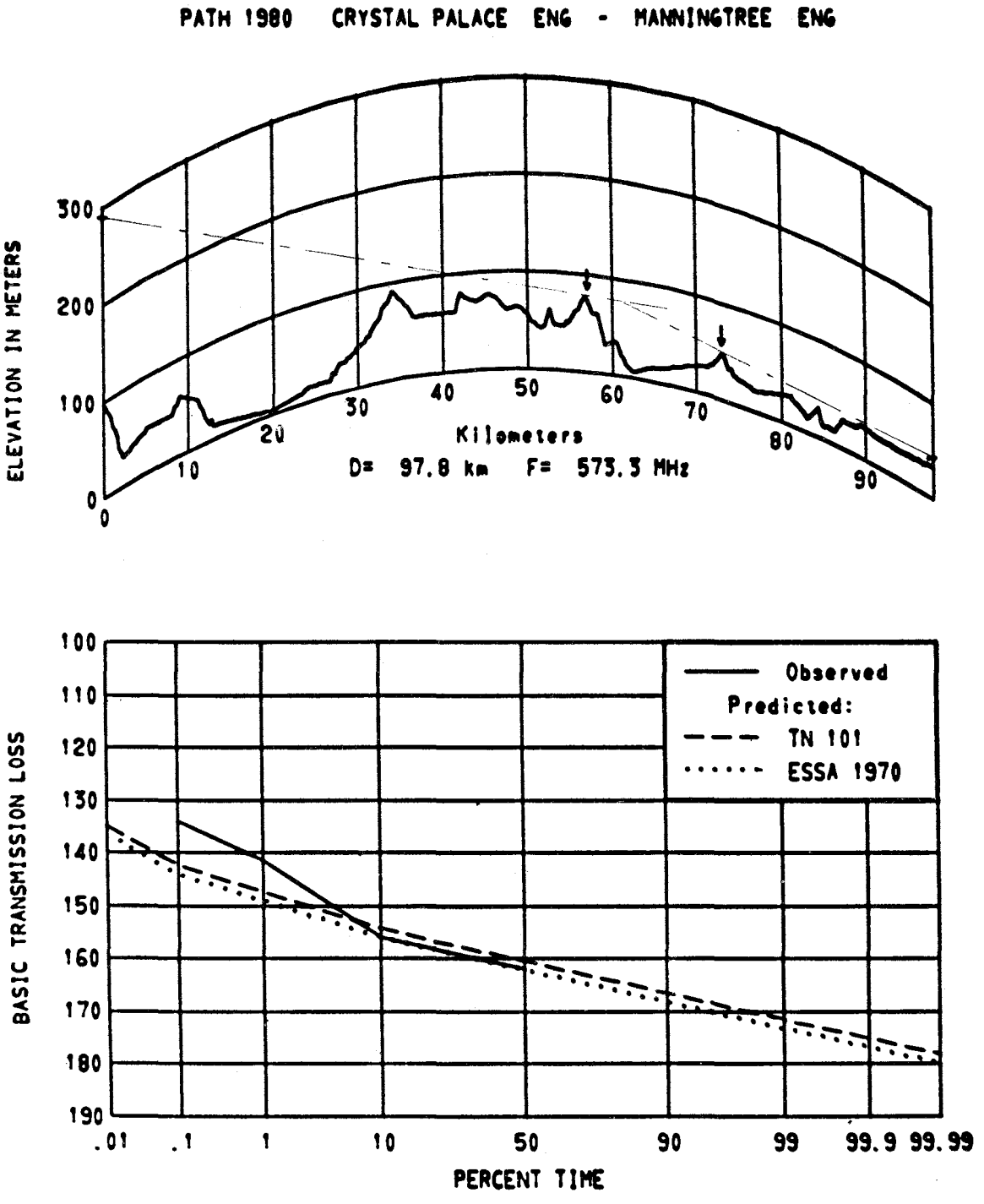
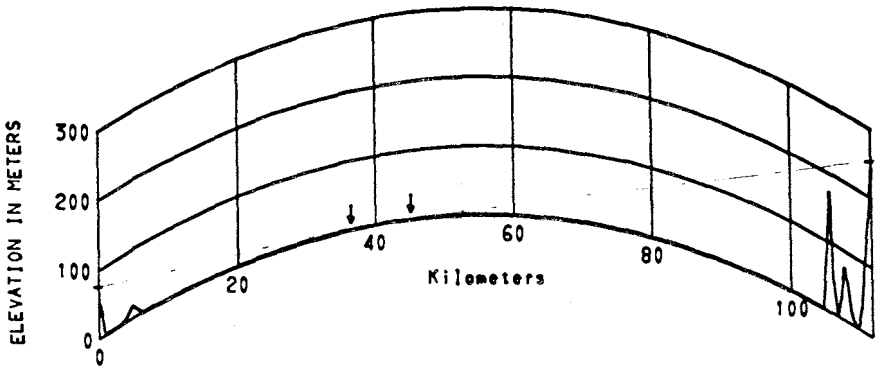
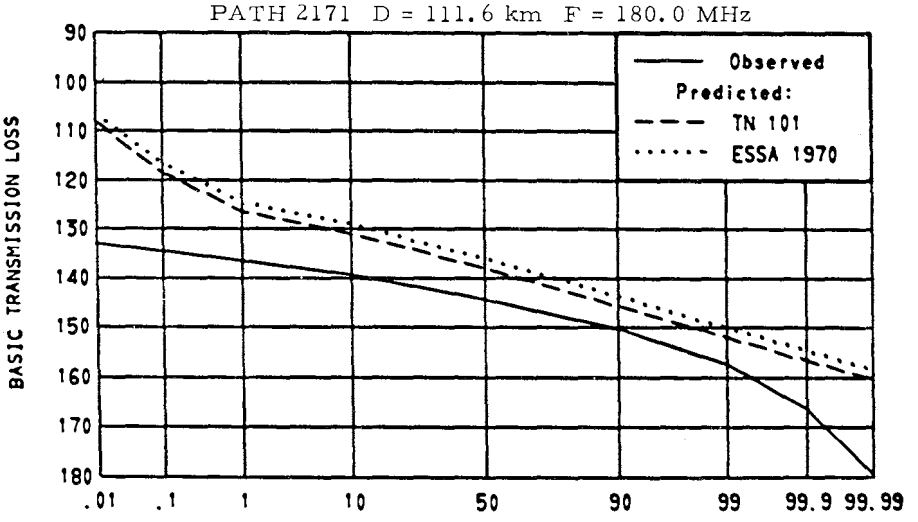


Figure 2.55 Path 1980

PATHS 2170 2171 SANDAY ORKNEY IS - SCOUSBURGH SHETLAND IS





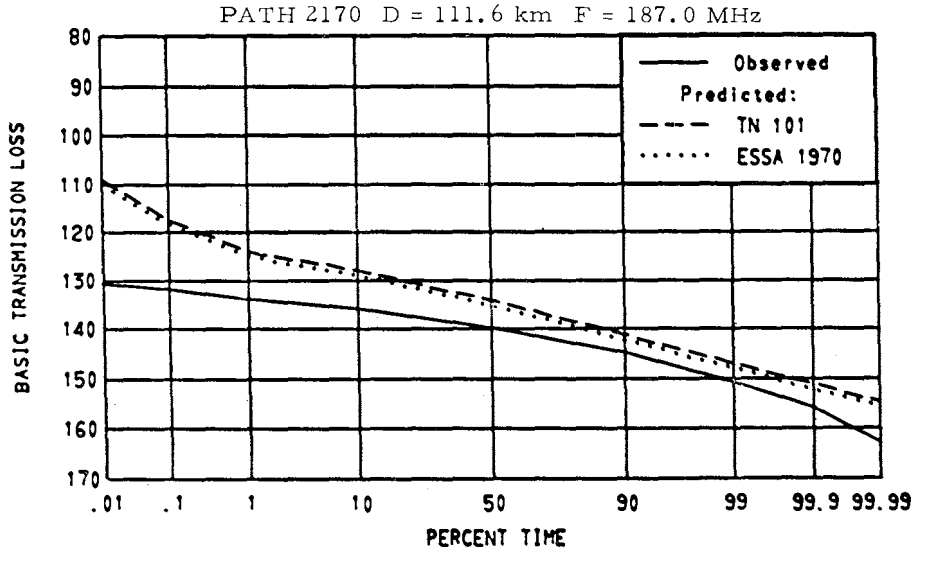


Figure 2.56 Paths 2170 2171

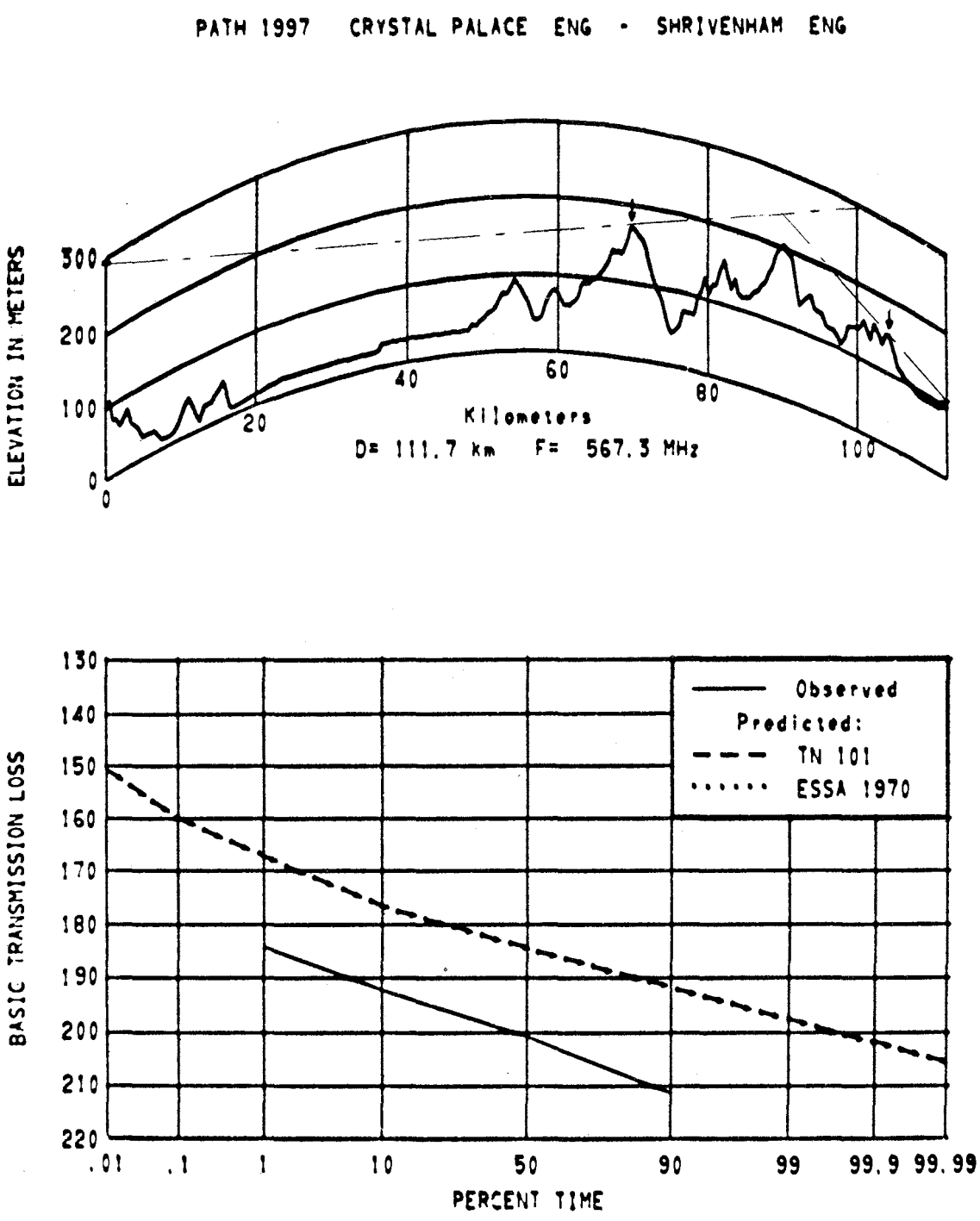


Figure 2.57 Path 1997

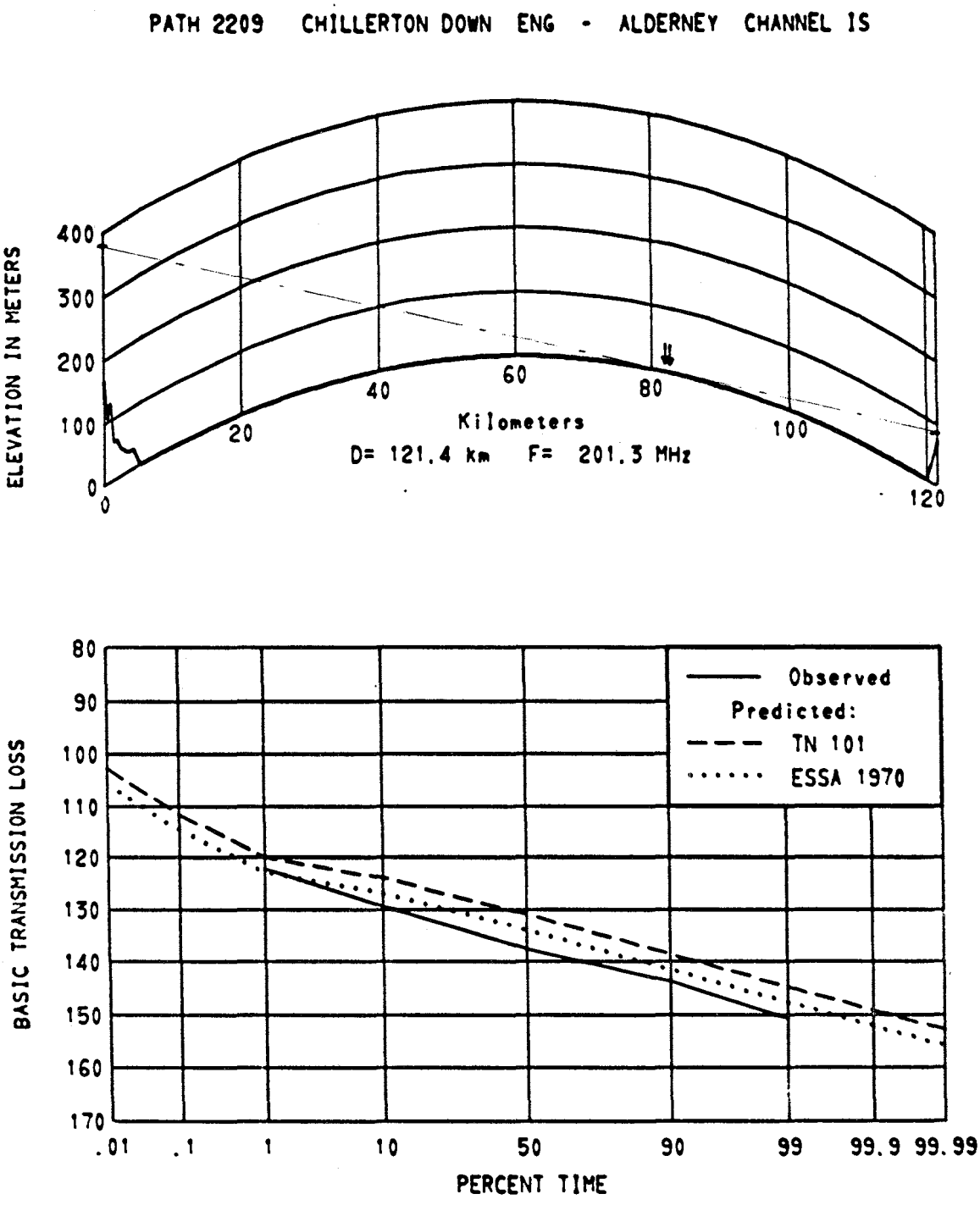
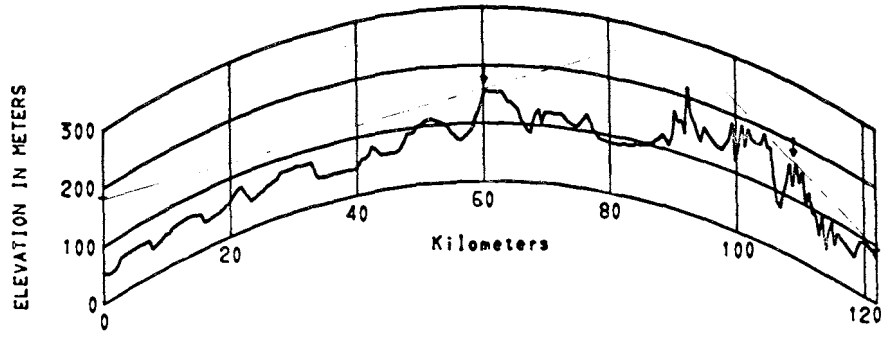
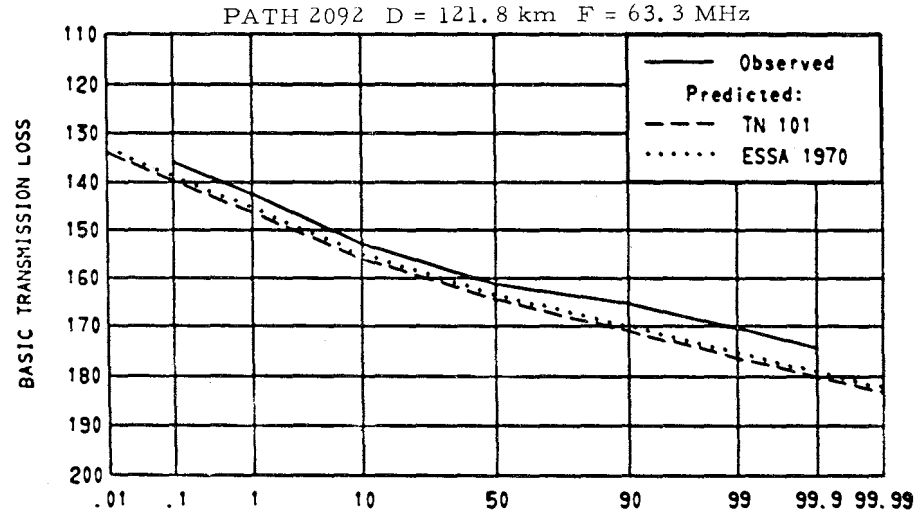


Figure 2.58 Path 2209

PATHS 2092 2093 PETERBOROUGH ENG - CAVERSHAM ENG





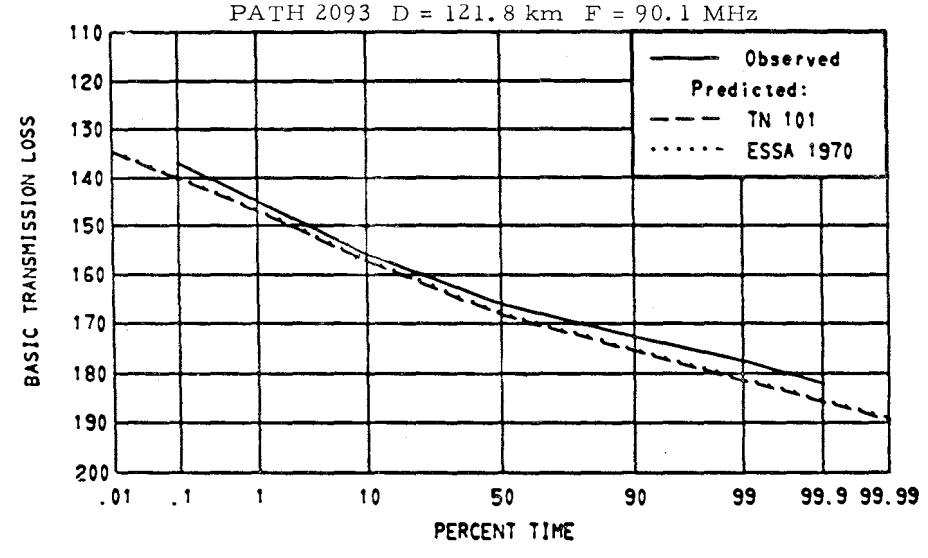


Figure 2.59 Paths 2092 2093

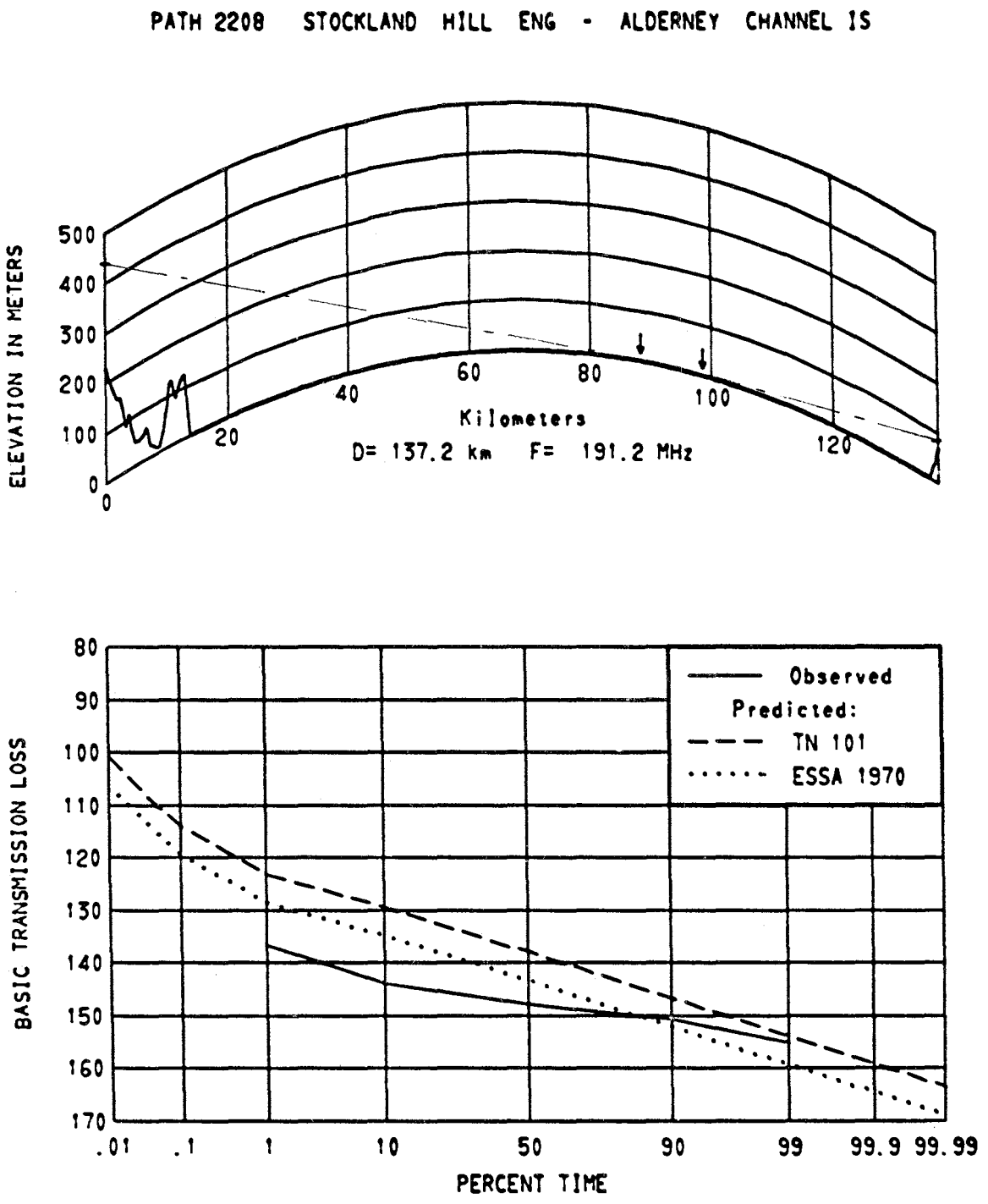
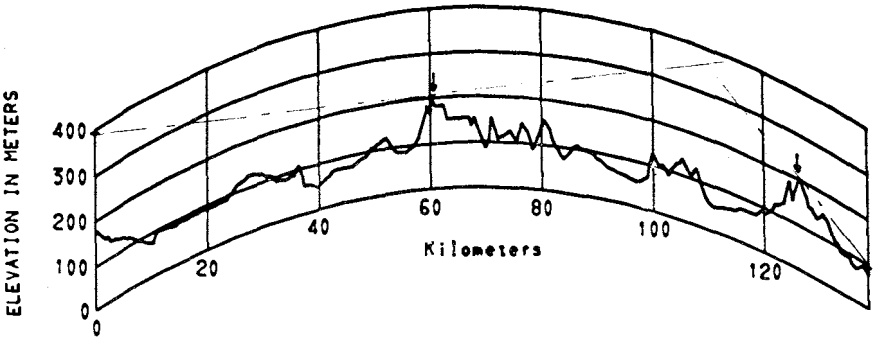
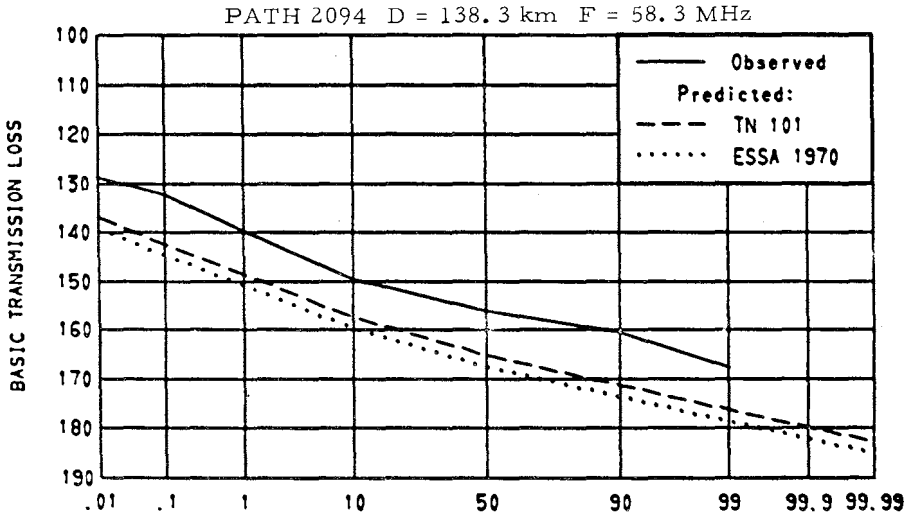


Figure 2.60 Path 2208

PATHS 2094 2095 SUTTON COLDFIELD ENG - CAVERSHAM ENG





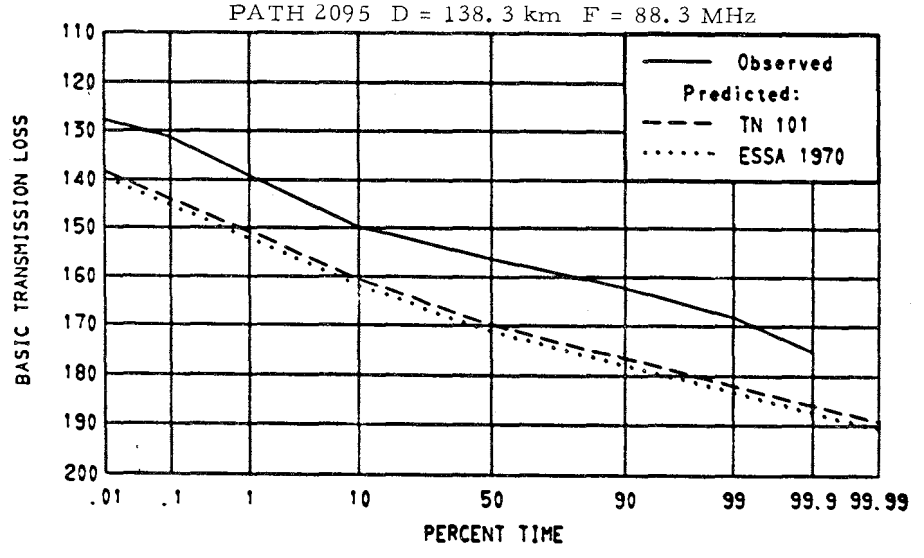


Figure 2.61 Paths 2094 2095

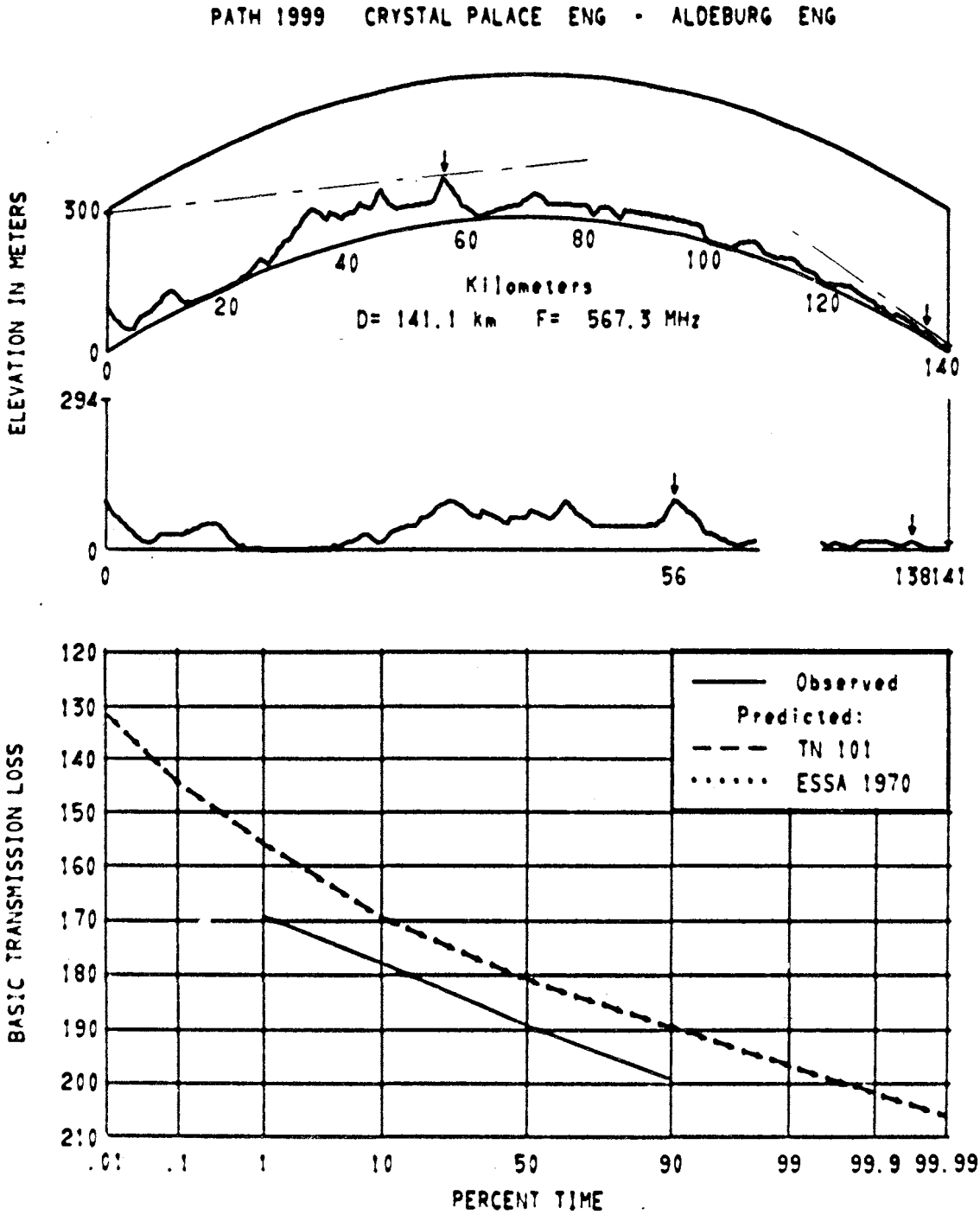


Figure 2.62 Path 1999

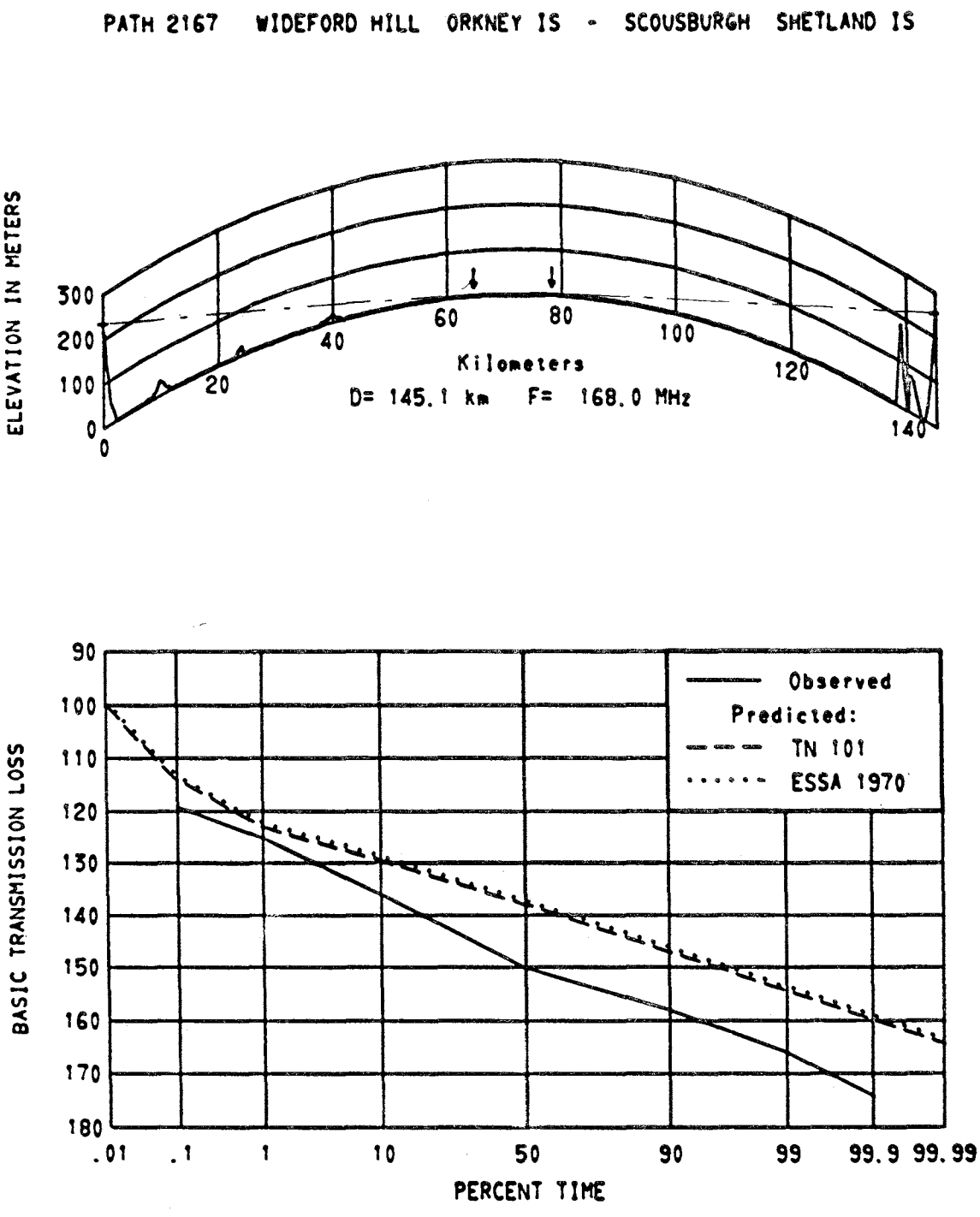
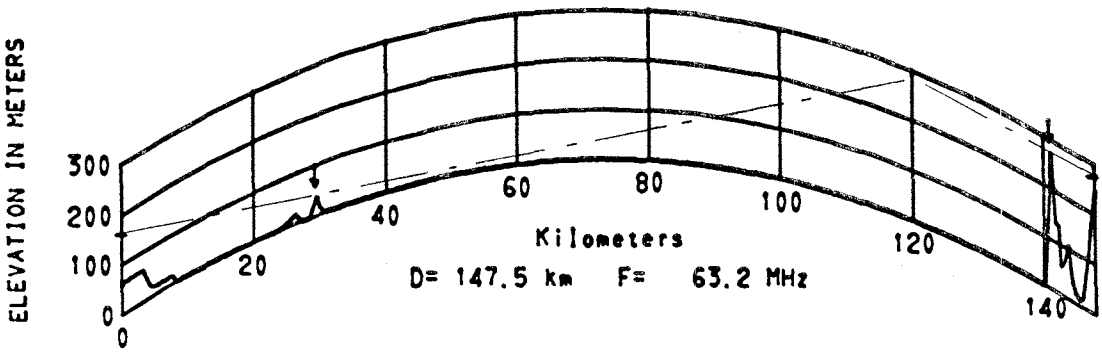


Figure 2.63 Path 2167

PATH 2142 NETHERBUTTON ORKNEY IS - SCOUSBURGH SHETLAND IS



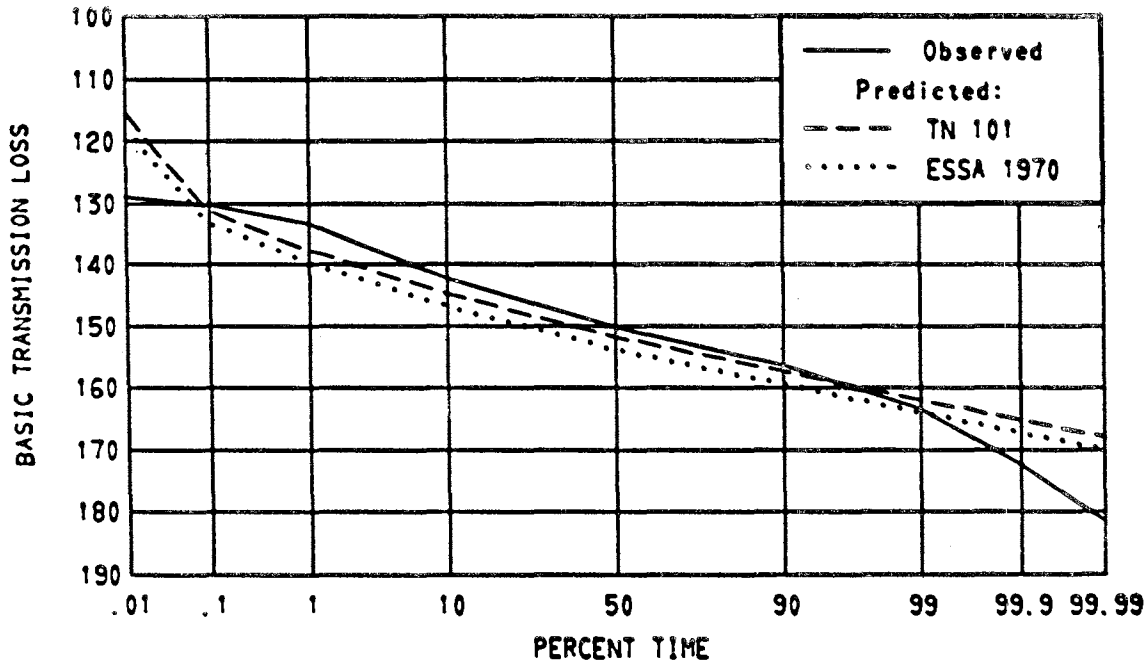
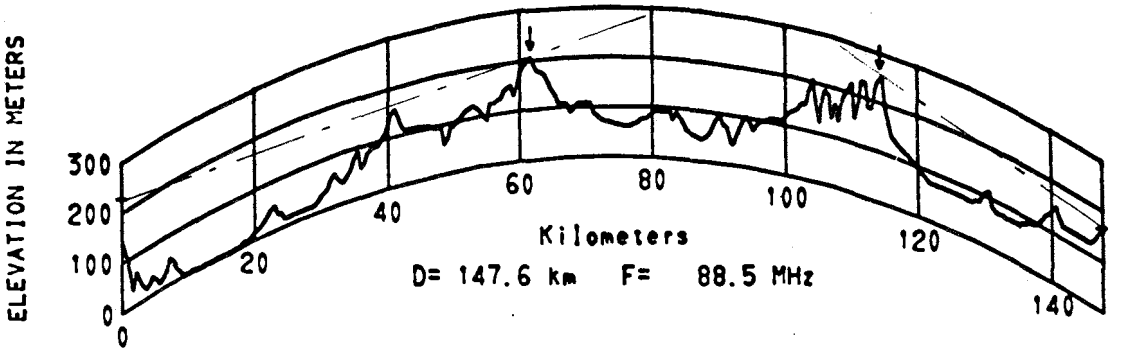


Figure 2.64 Path 2142

PATH 2203 ROWRIDGE ENG - MURSLEY ENG



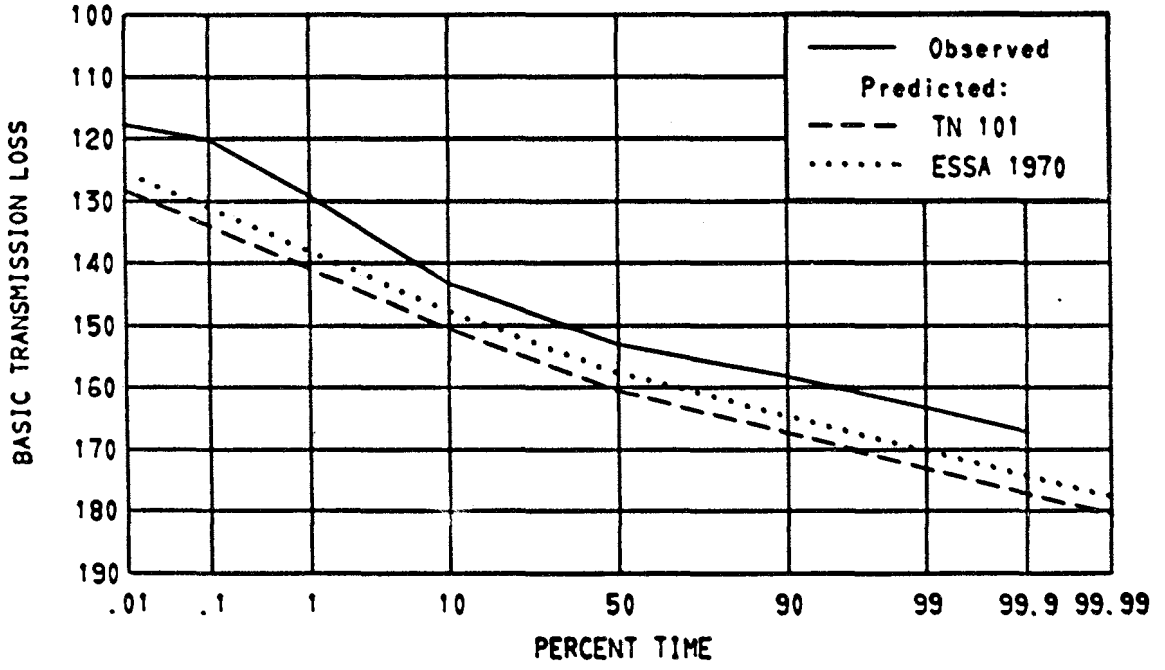


Figure 2.65 Path 2203

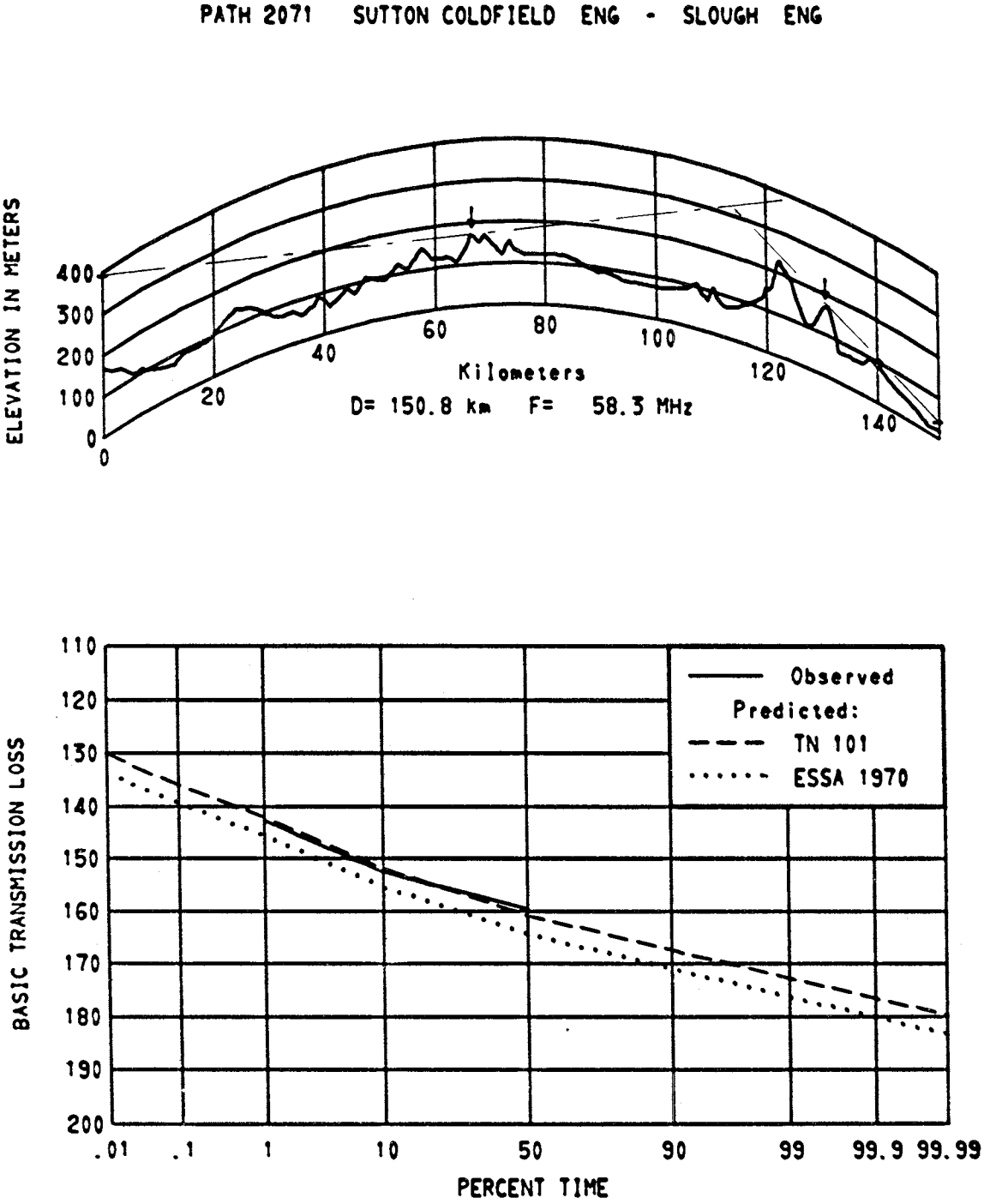


Figure 2.66 Path 2071

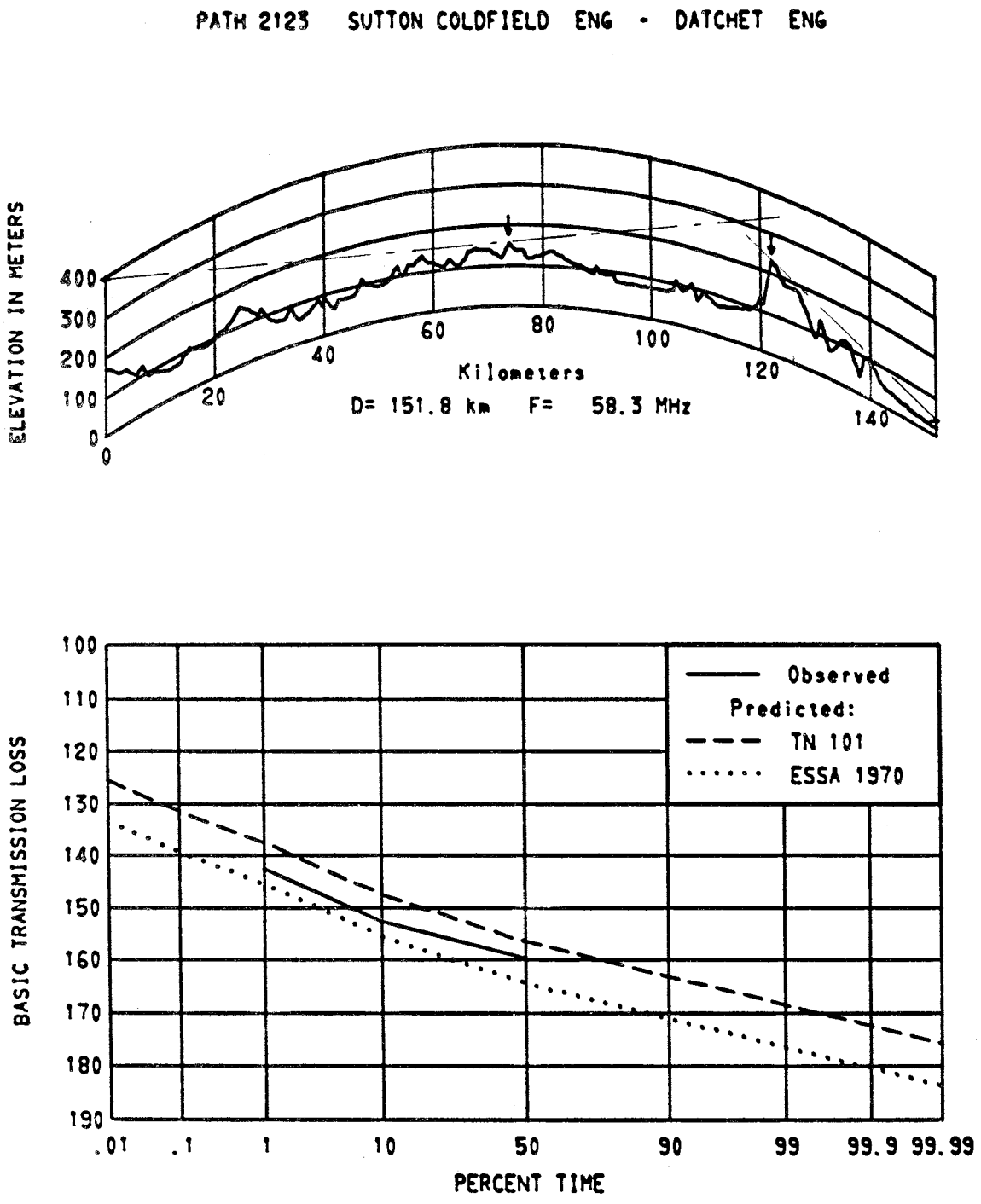


Figure 2.67 Path 2123

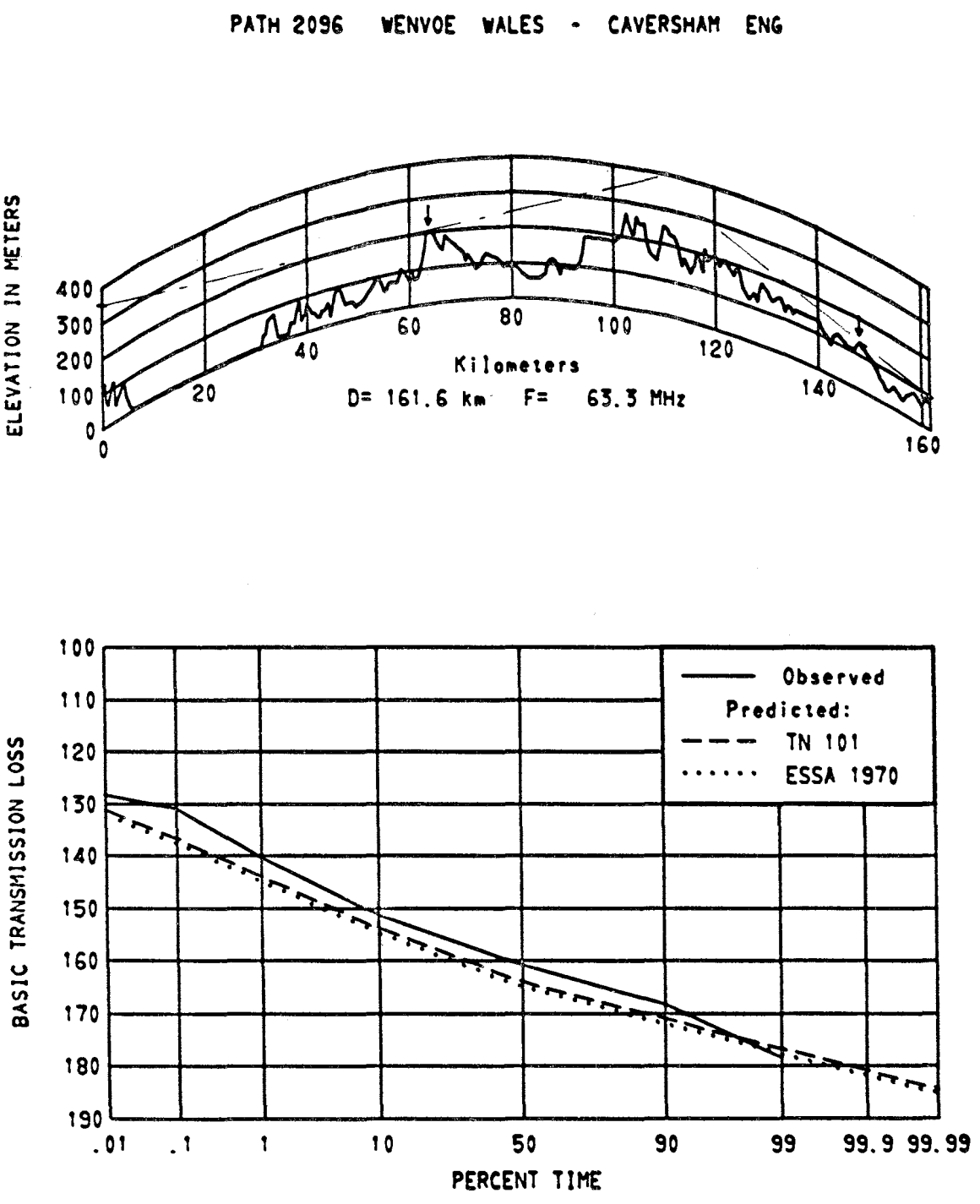


Figure 2.68 Path 2096

PATH 2131 ROWRIDGE ENG - STOKE FLEMING ENG

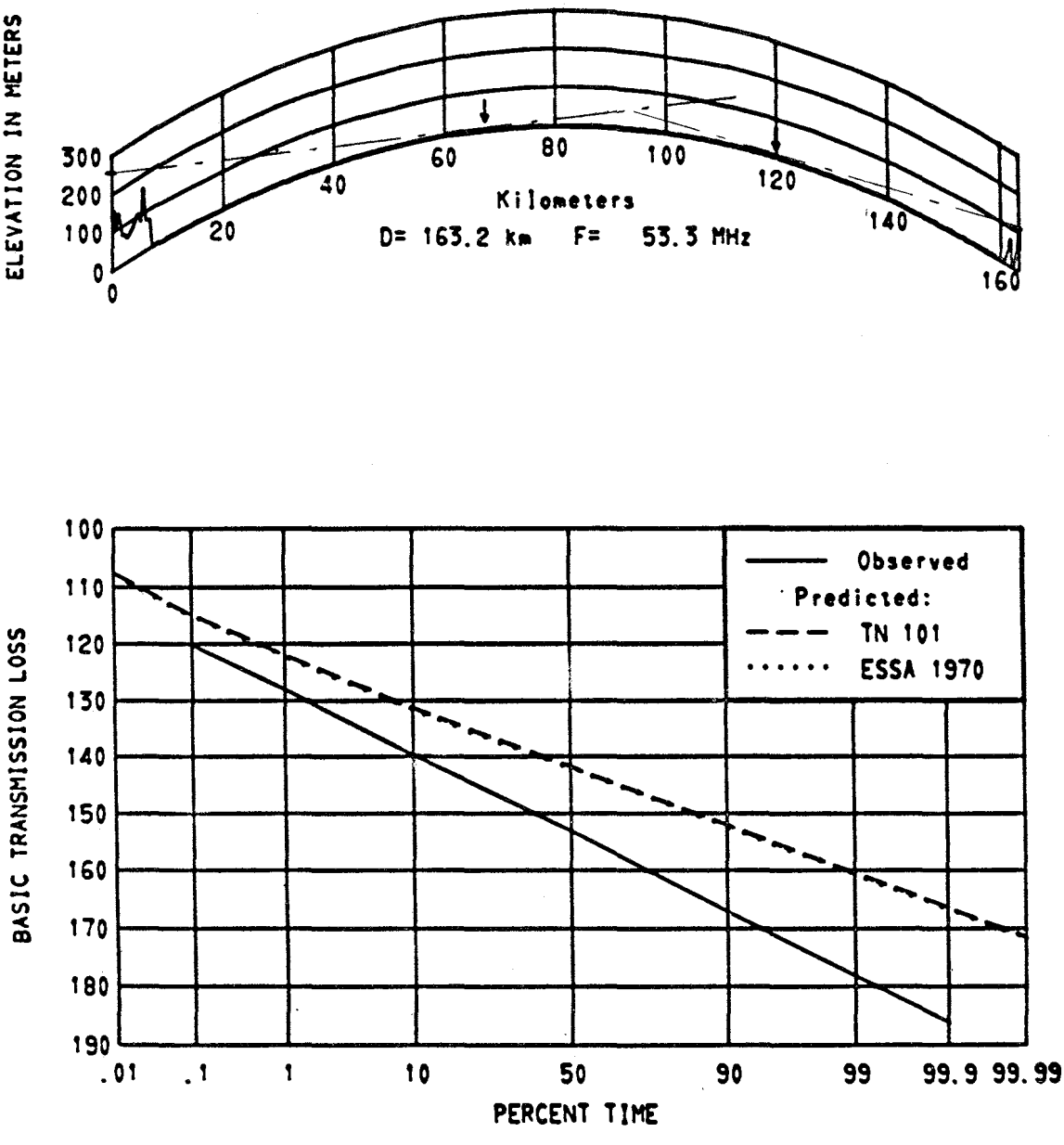


Figure 2.69 Path 2131

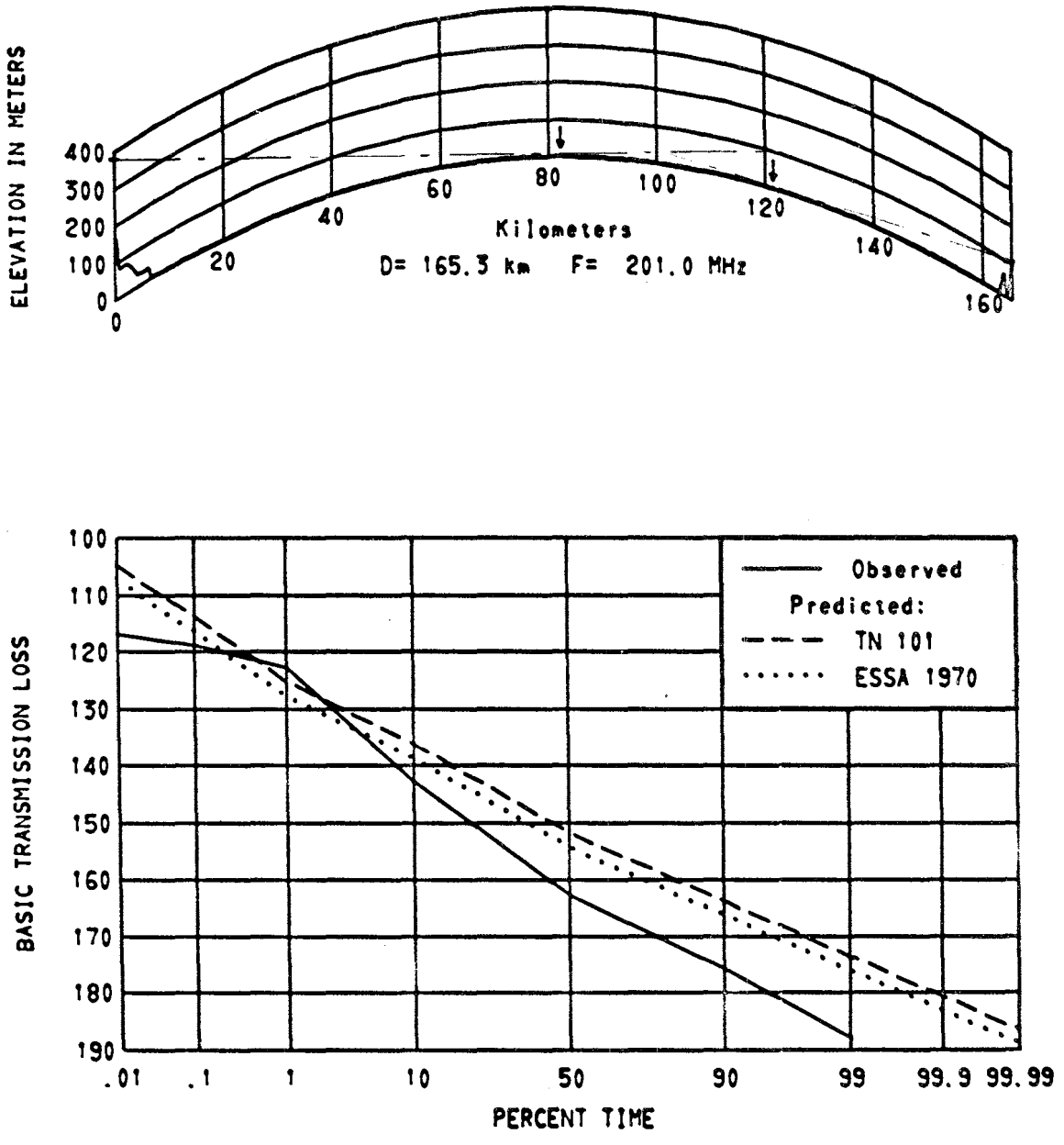


Figure 2.70 Path 2158

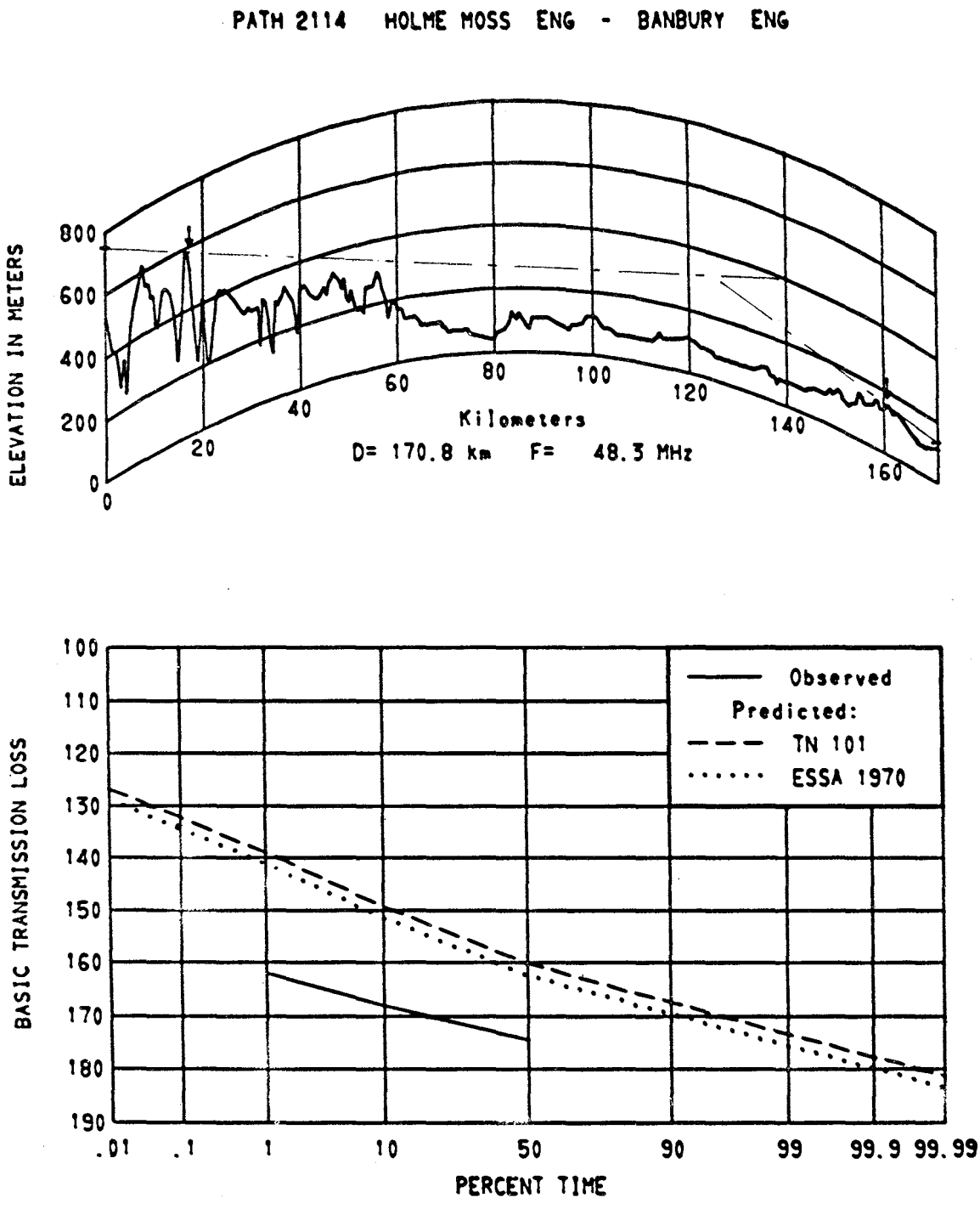


Figure 2.71 Path 2114

PATHS 2204 2205 WENVOE WALES - MURSLEY ENG

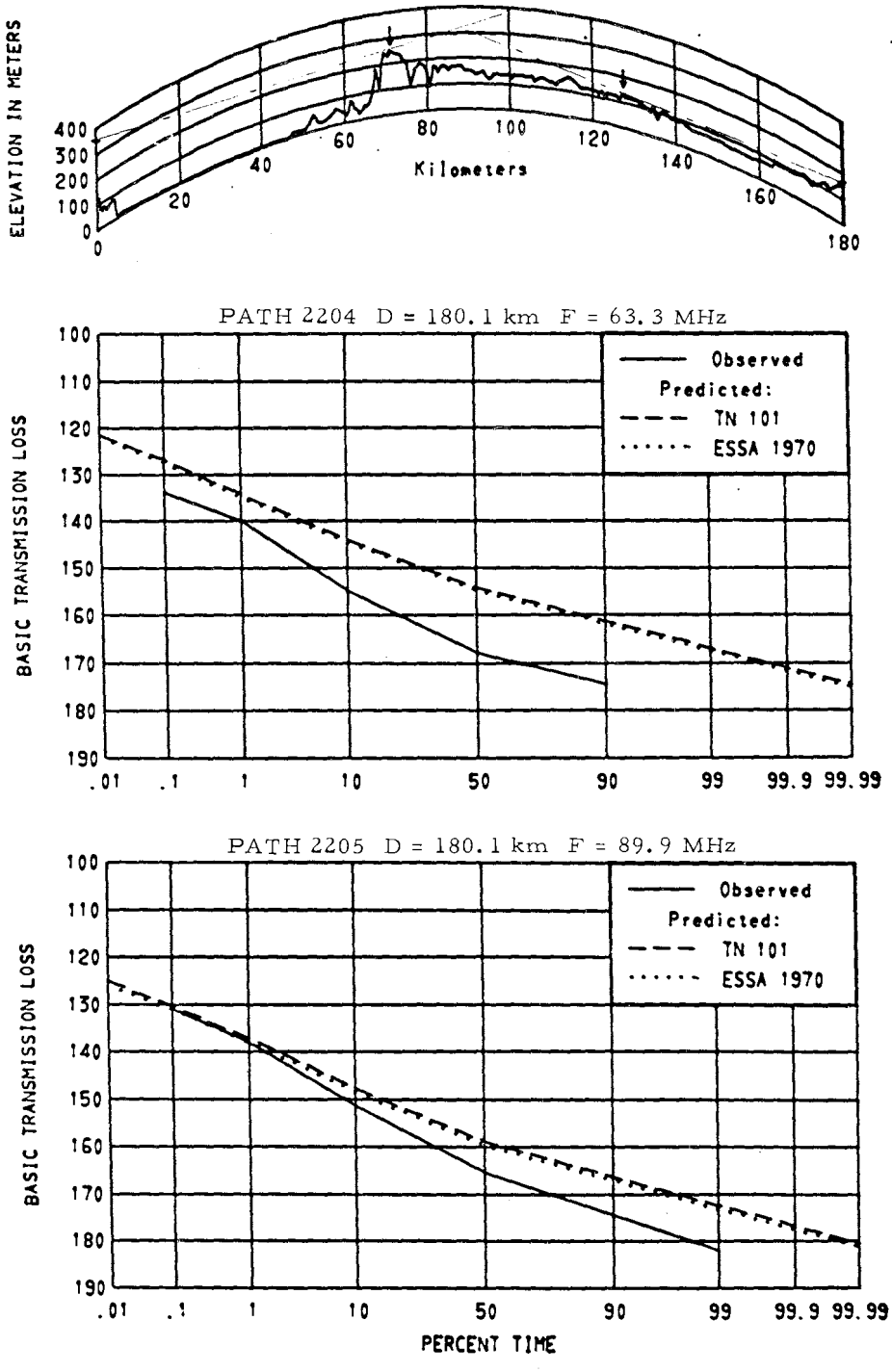


Figure 2.72 Paths 2204 2205

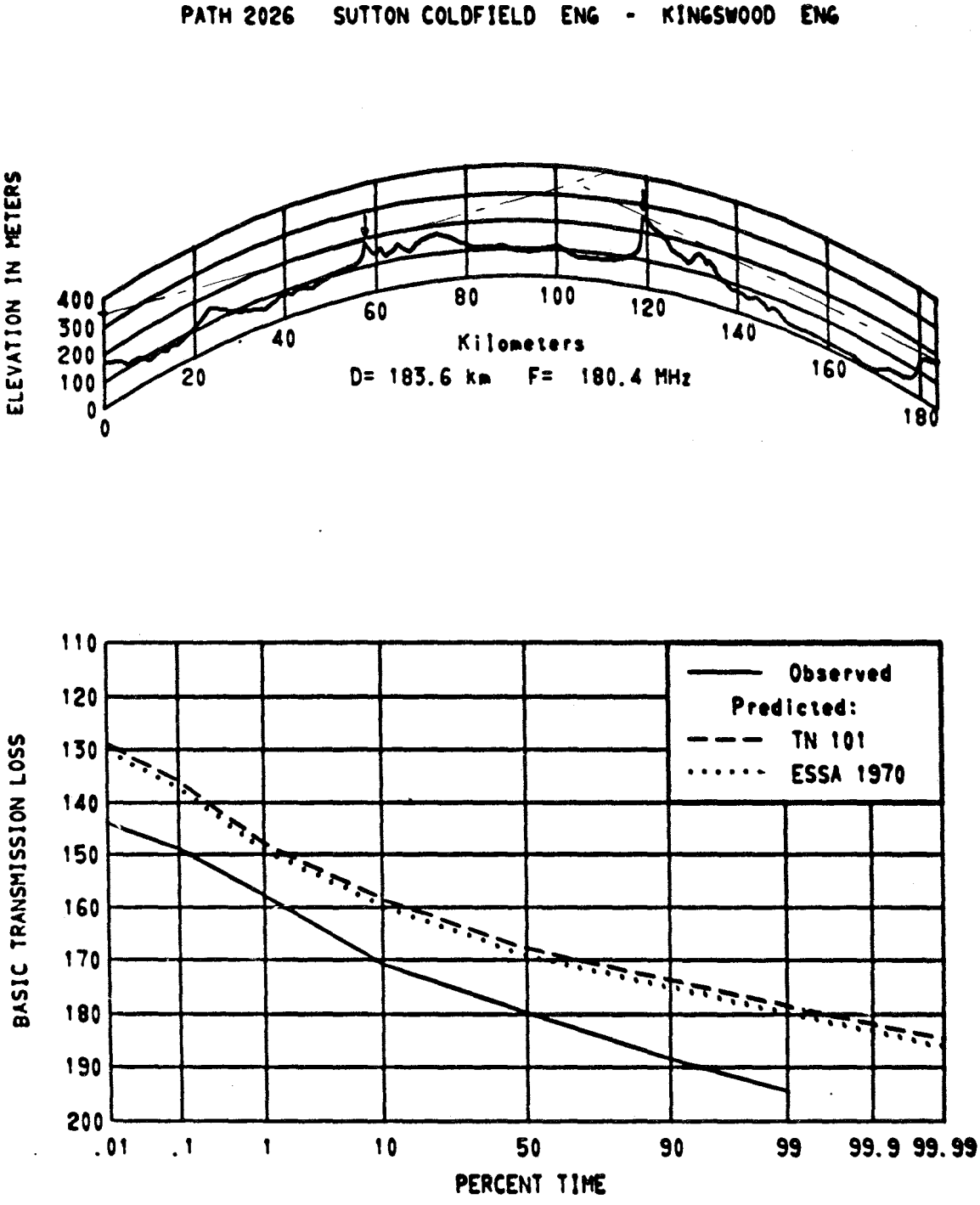


Figure 2.73 Path 2026

PATHS 2369 2381 HELGOLAND W GER - SAHLENBURG W GER

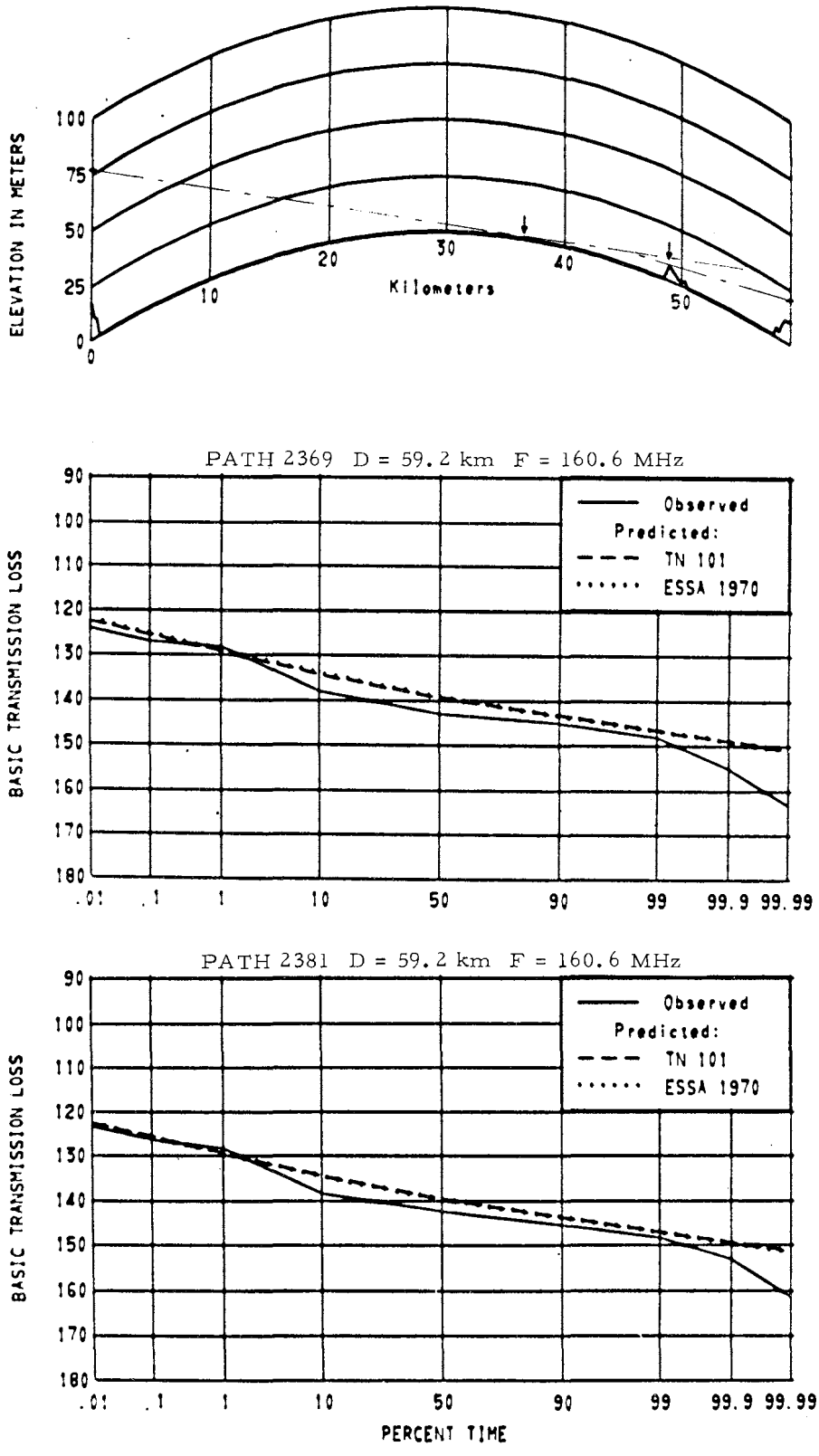
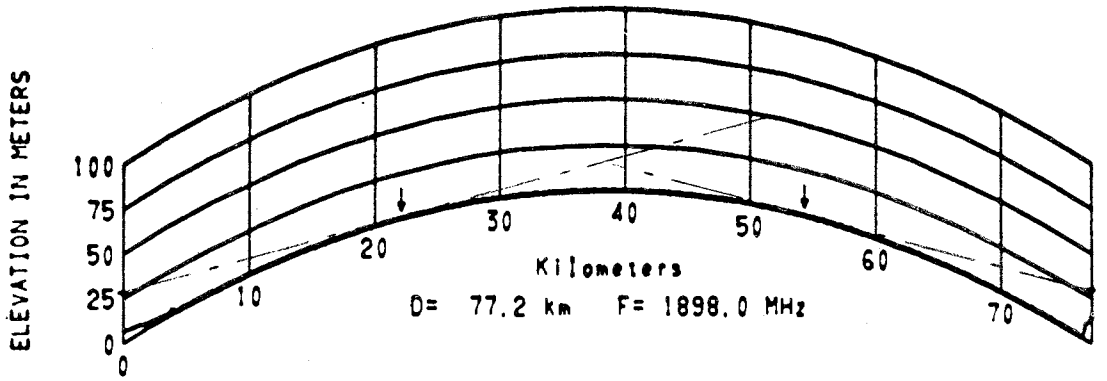


Figure 2.74 Paths 2369 2381

PATHS 2373 2382 WEDDEWARDEN W GER - HELGOLAND W GER



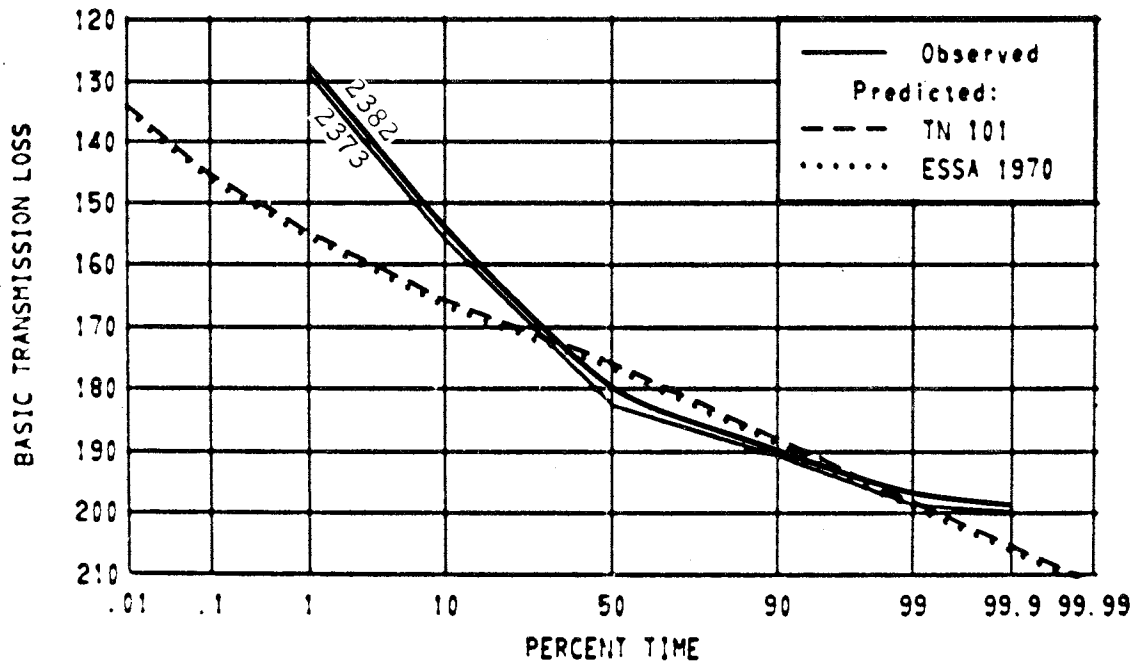


Figure 2.75 Paths 2373 2382

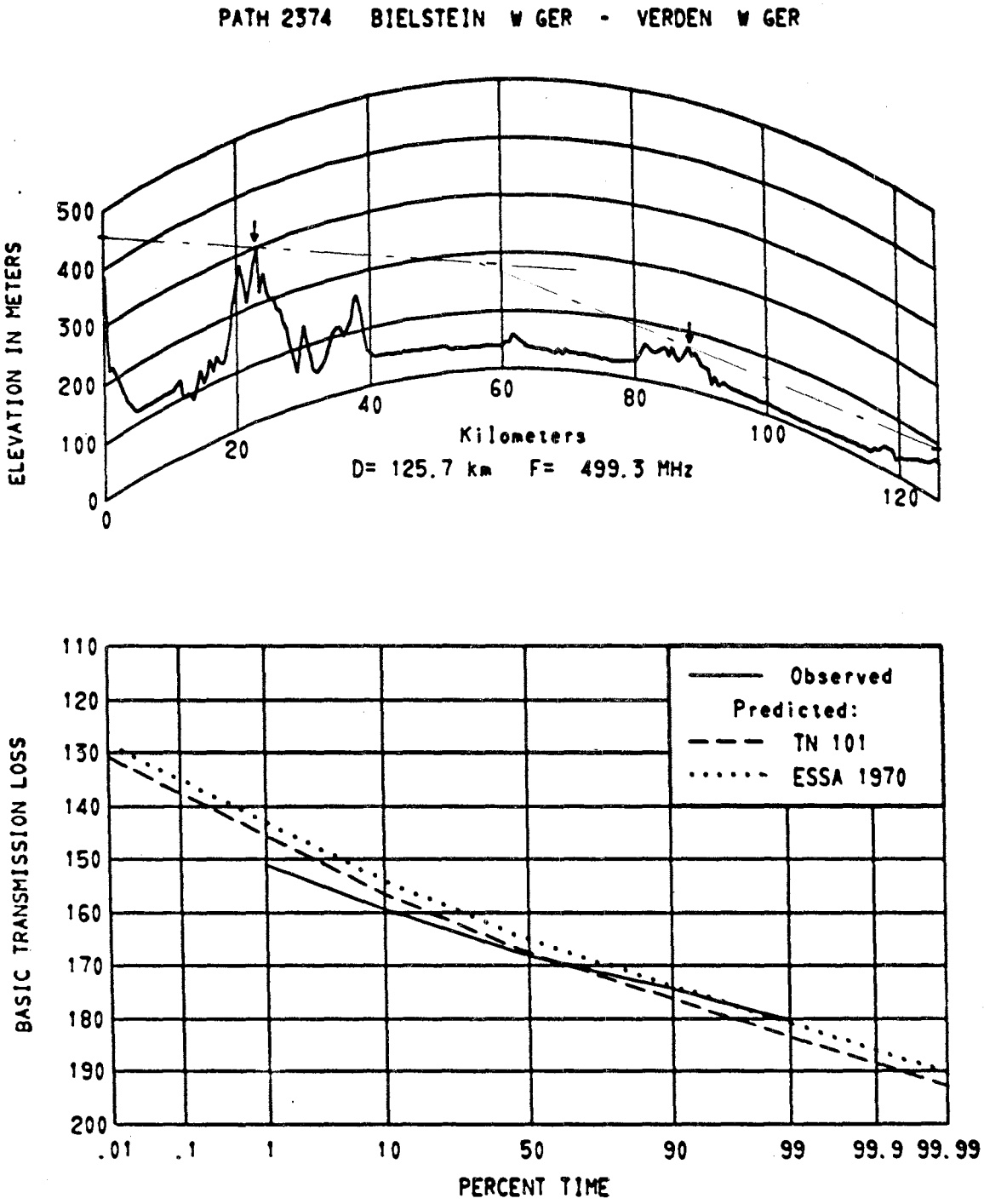
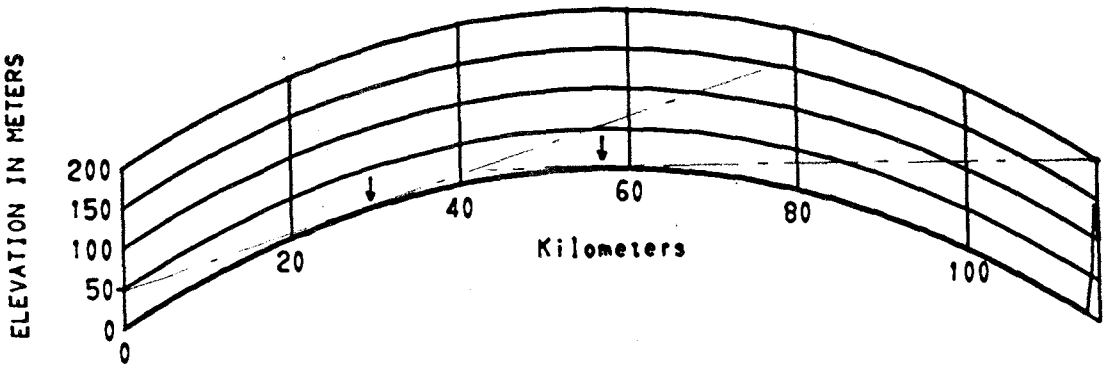


Figure 2.76 Path 2374

PATHS 2277 2278 INAMI JAPAN - MUROTOMISAKI JAPAN



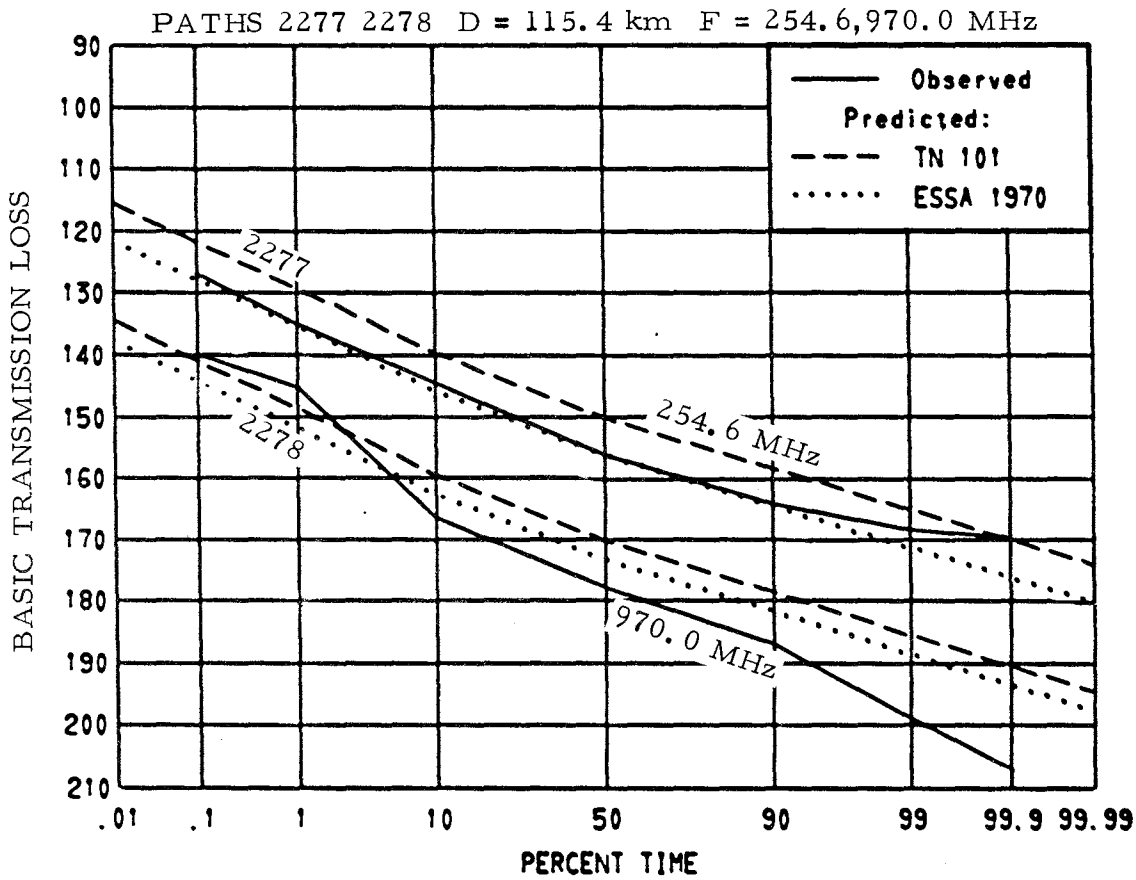


Figure 2.77 Paths 2277 2278

PATHS 2308 2309 INUBO JAPAN - KOKUBUNJI JAPAN

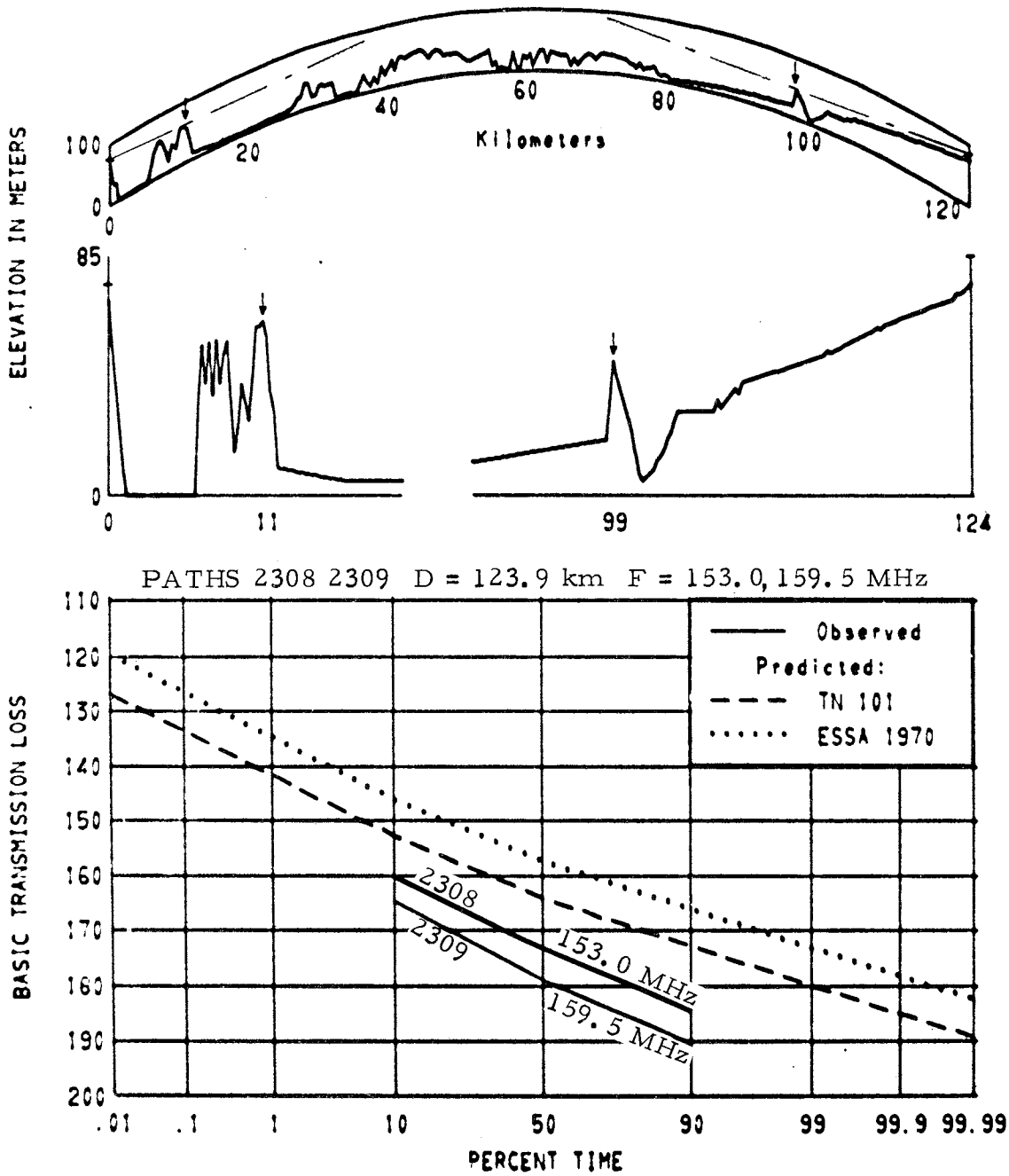


Figure 2.78 Paths 2308 2309

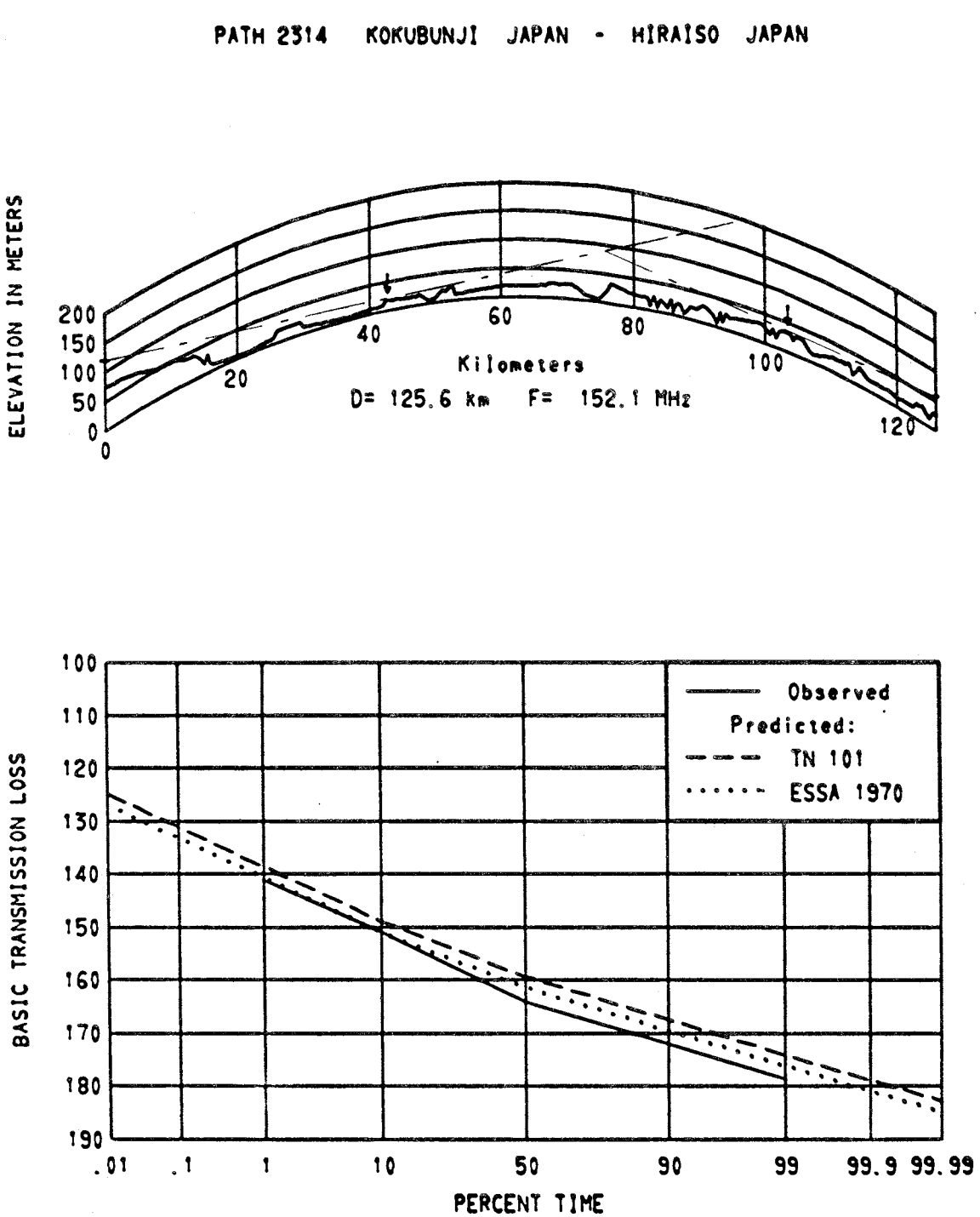
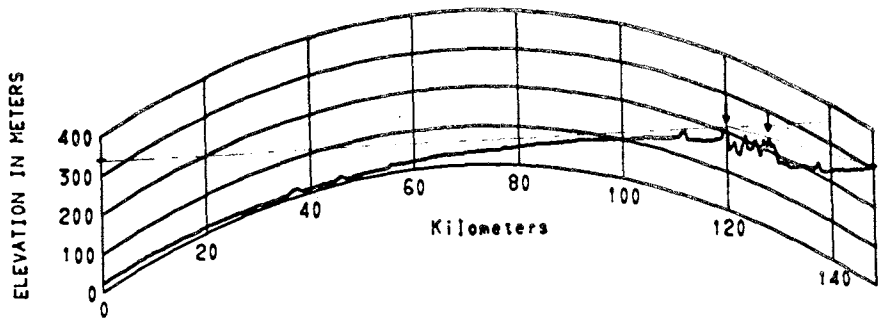
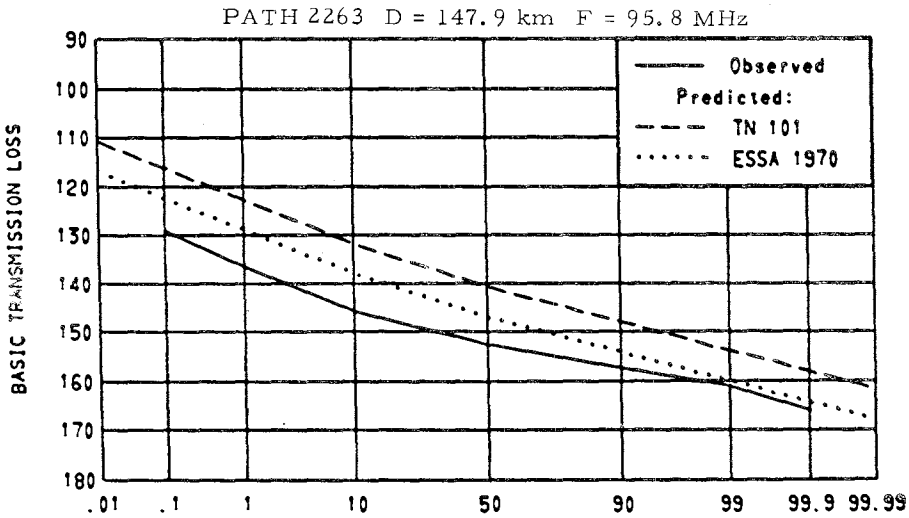


Figure 2.79 Path 2314

PATHS 2263 2264 TOKYO TOWER JAPAN - KUROISO JAPAN





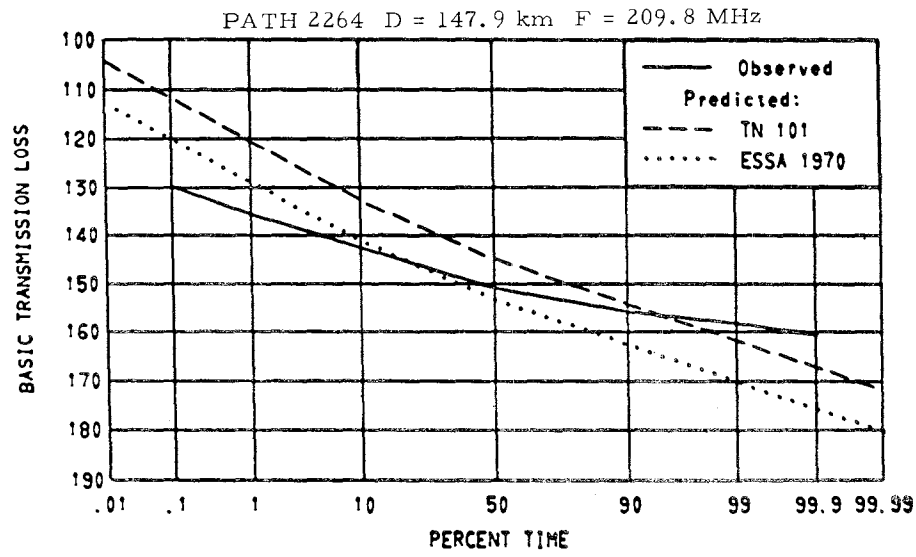


Figure 2.80 Paths 2263 2264

PART 3

Forward Scatter Paths

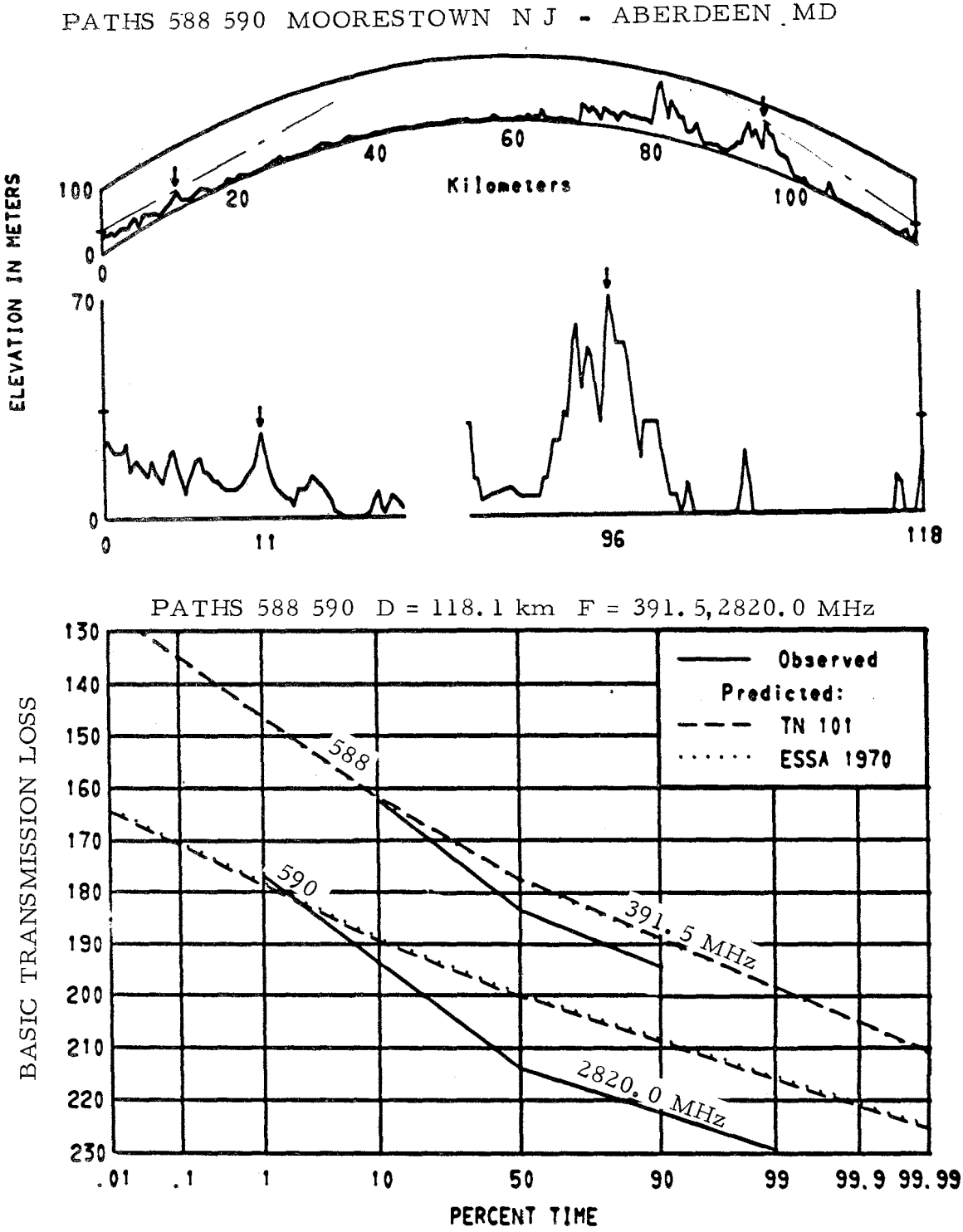


Figure 3.1 Paths 588 590

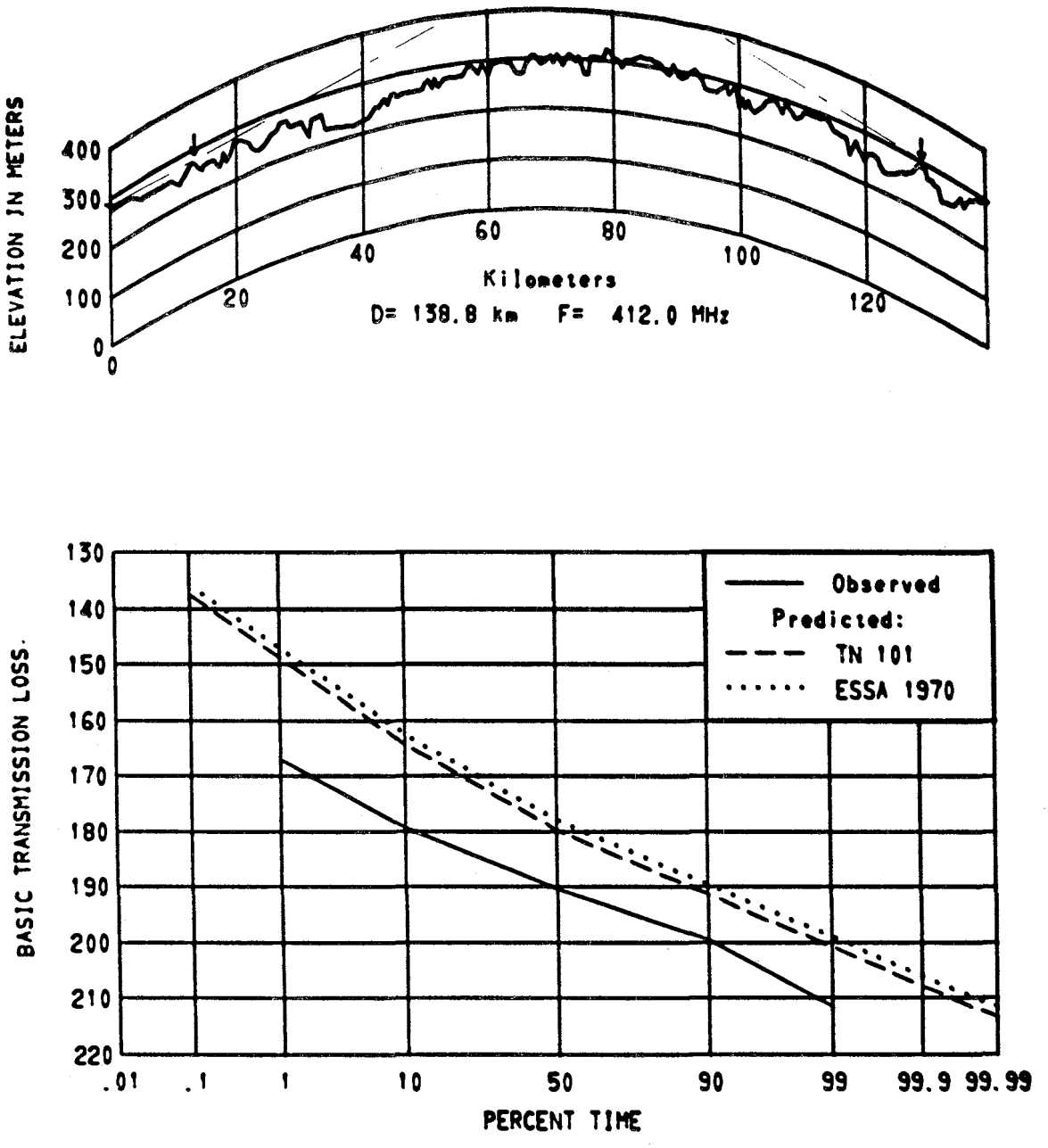


Figure 3.2 Path 450

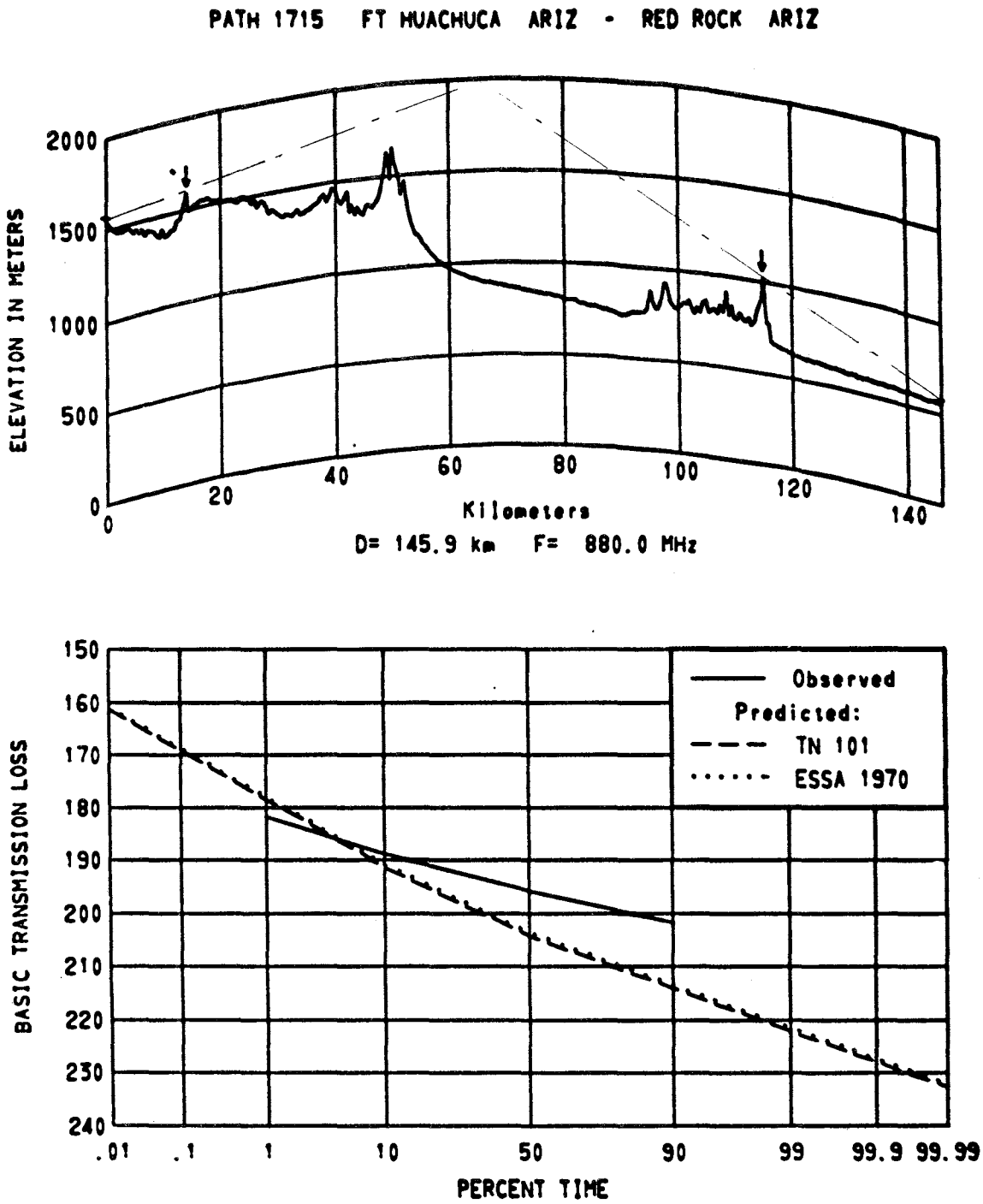


Figure 3.3 Path 1715

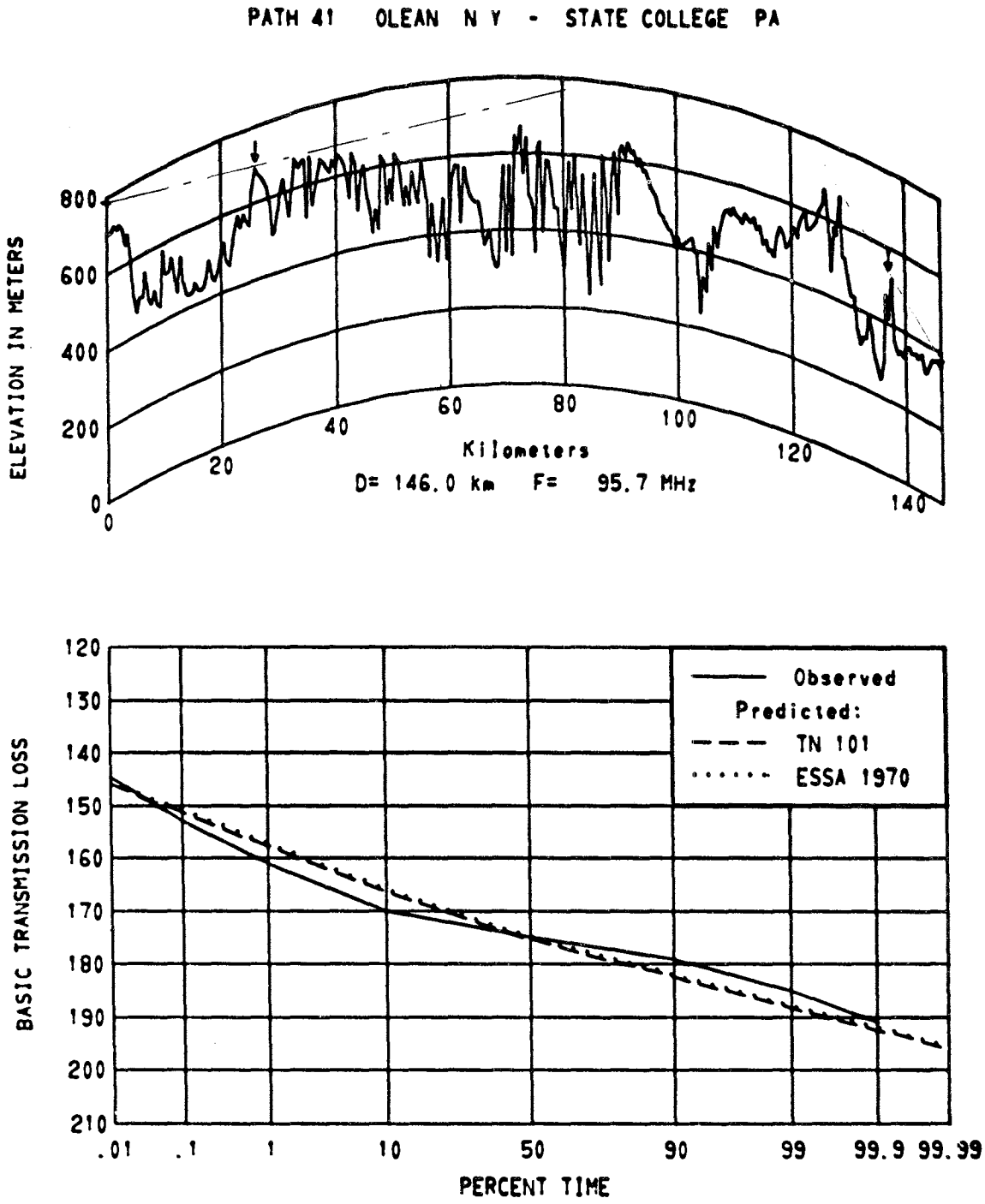


Figure 3.4 Path 41

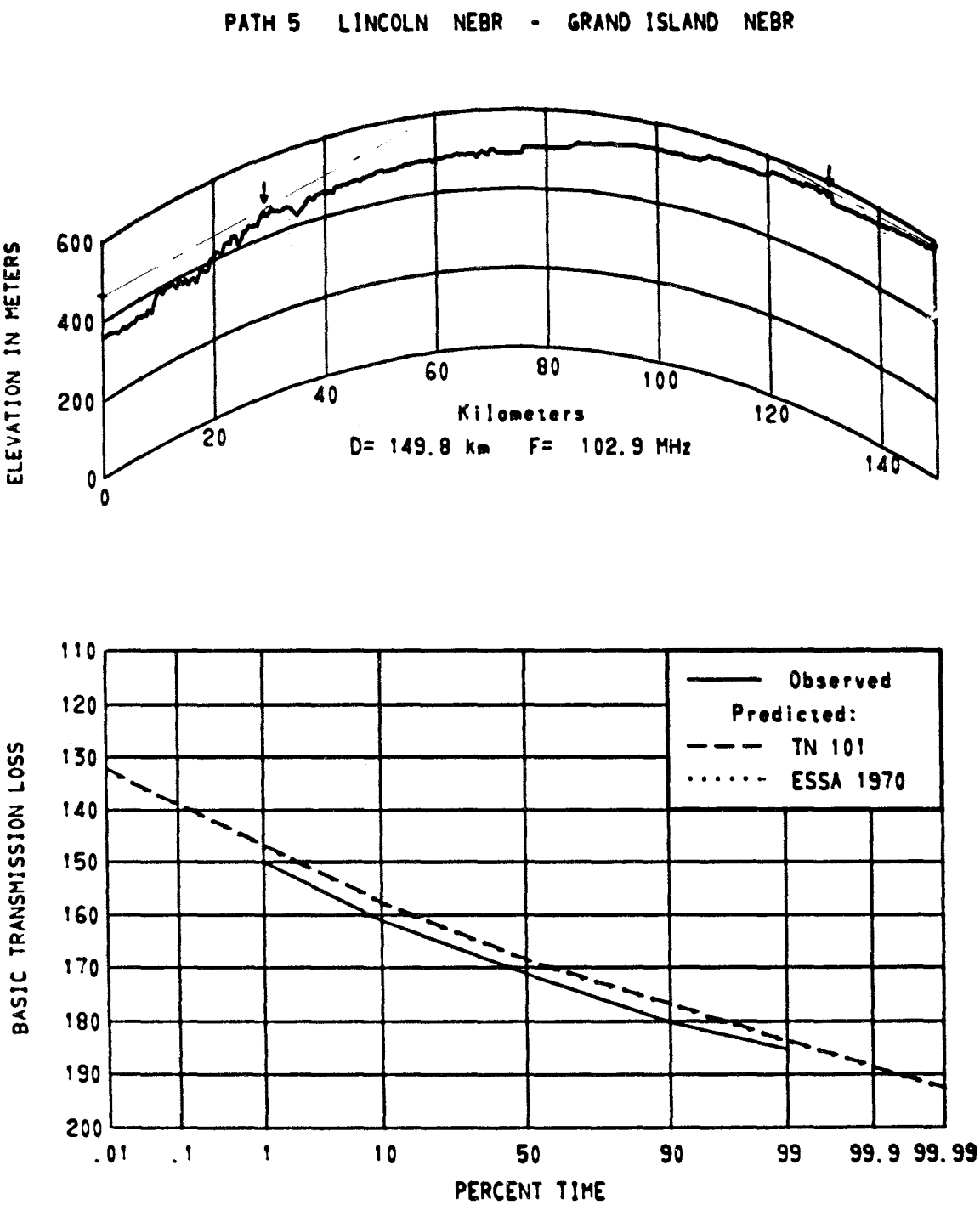


Figure 3.5 Path 5

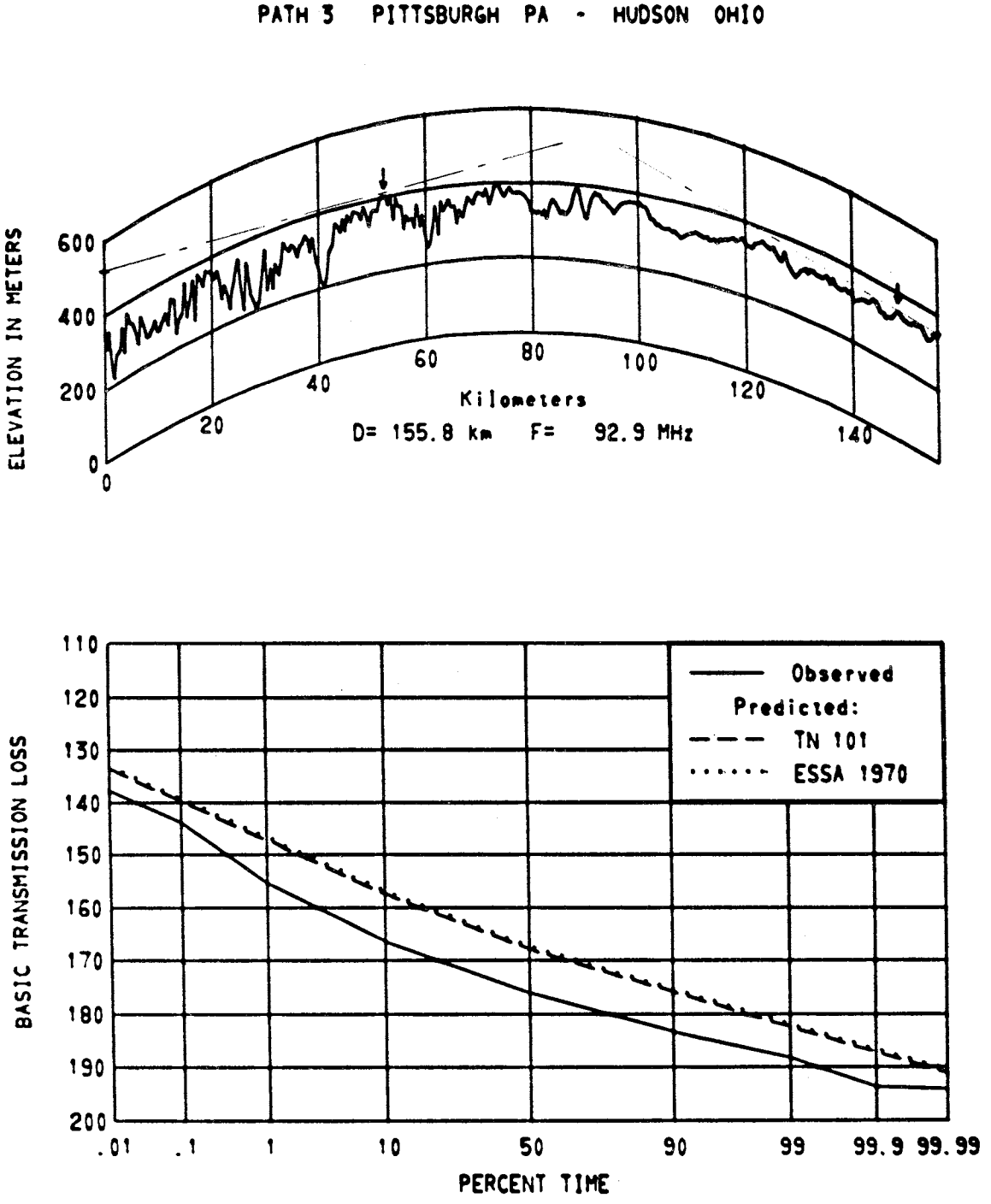


Figure 3.6 Path 3

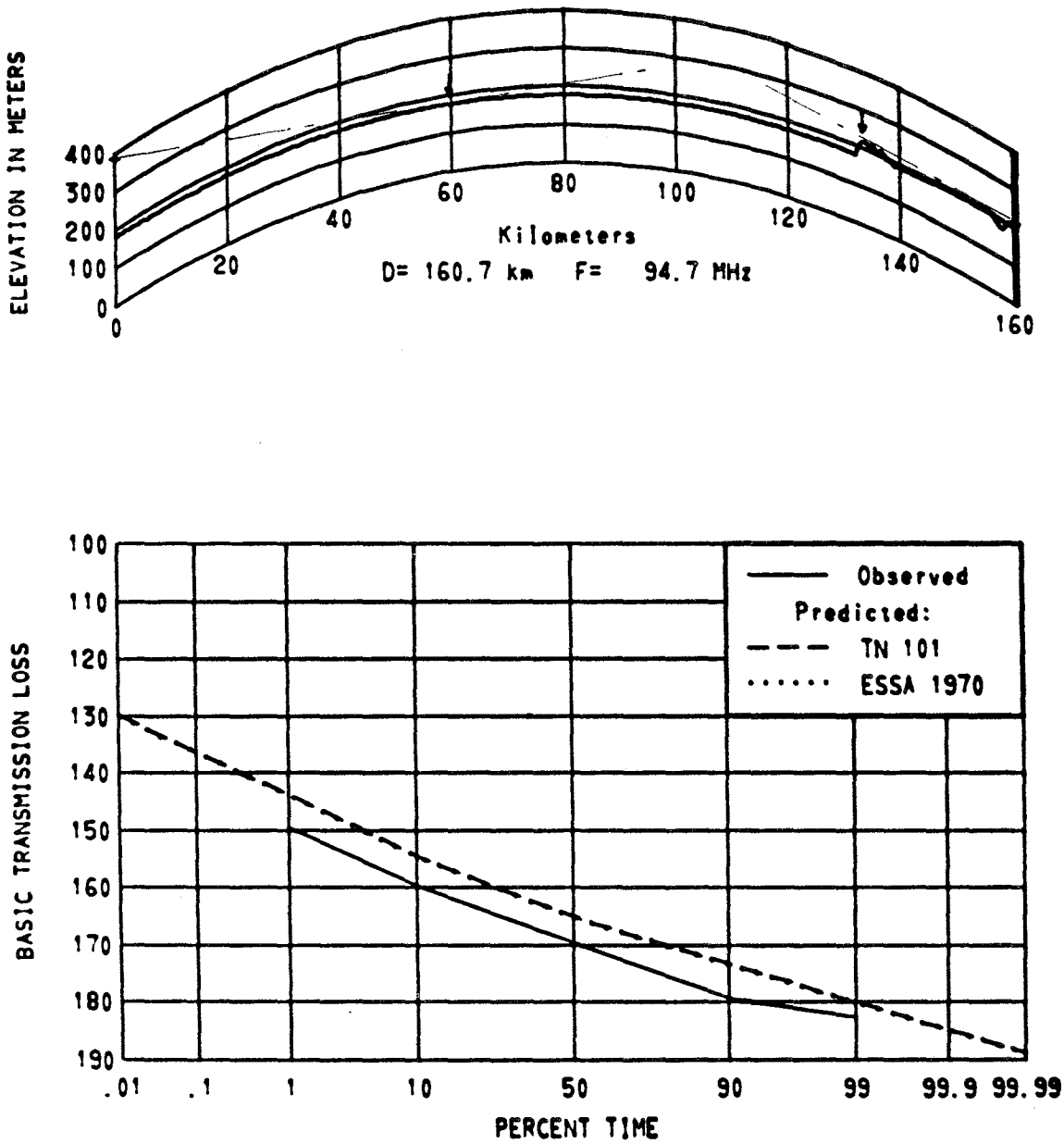


Figure 3.7 Path 35

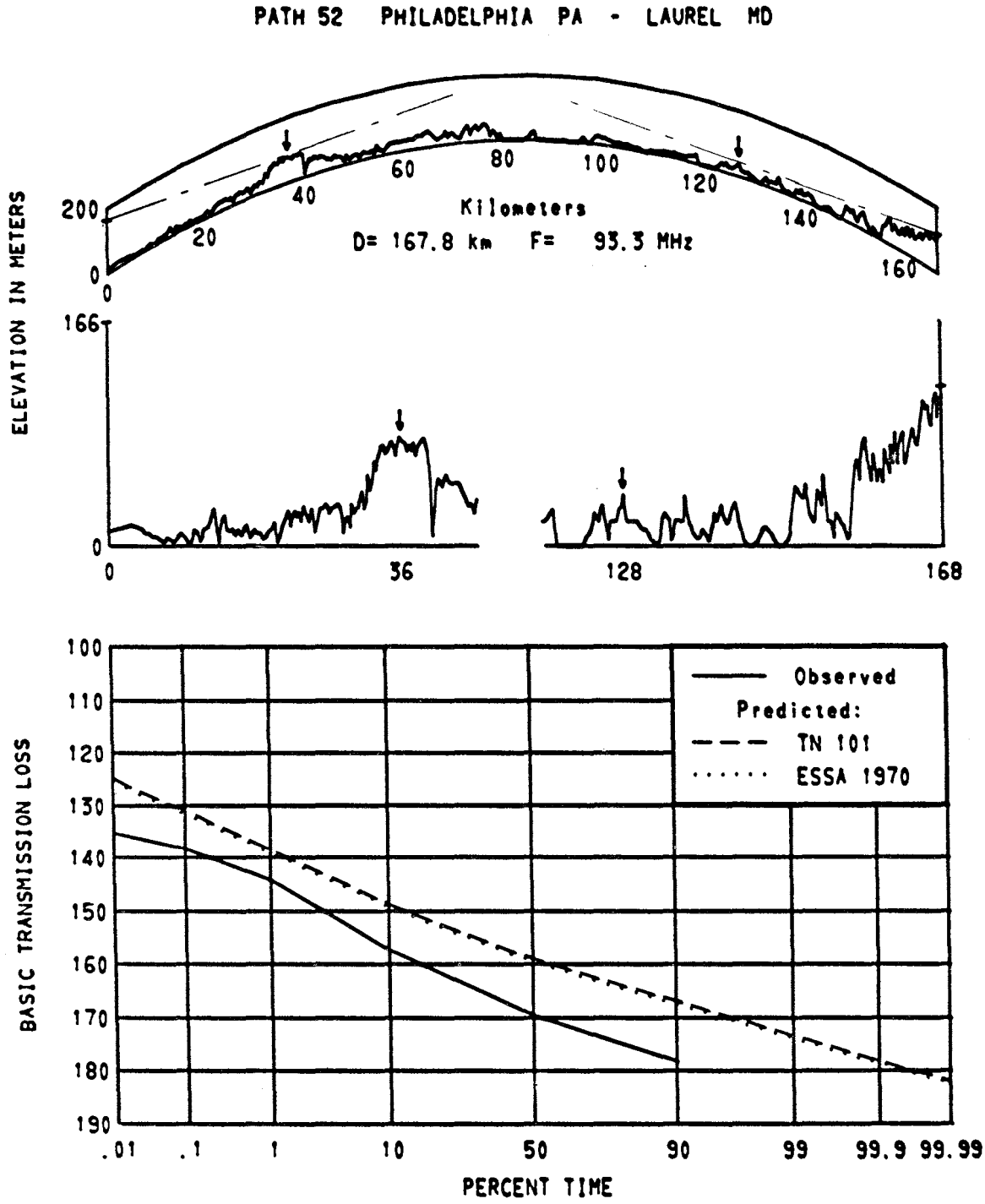
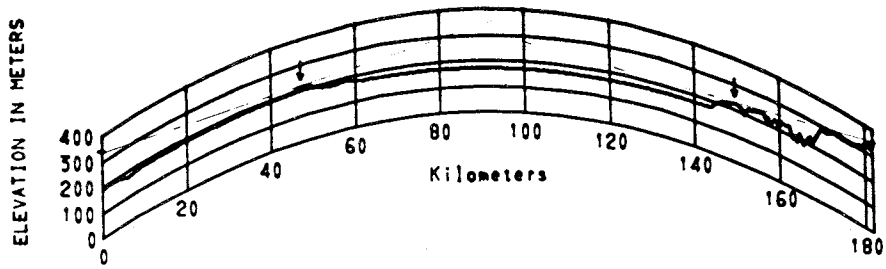
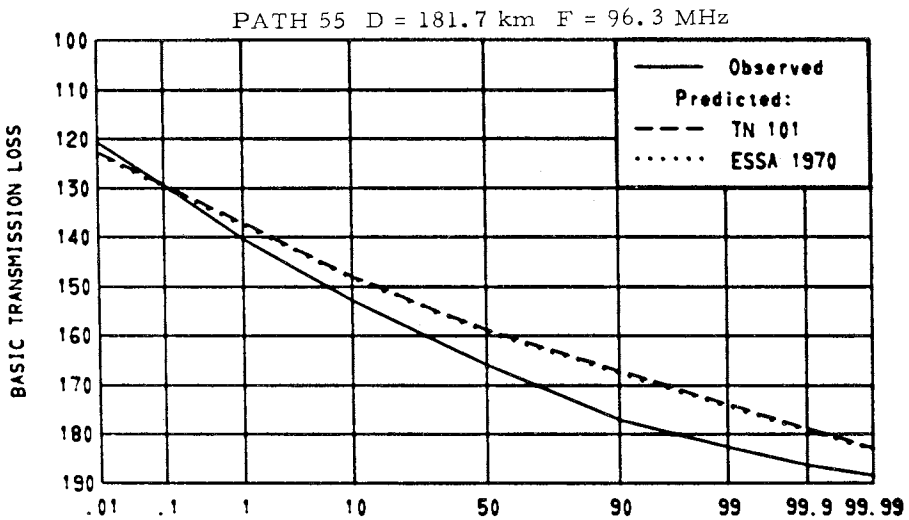


Figure 3.8 Path 52

PATHS 55 223 DETROIT MICH - HUDSON OHIO





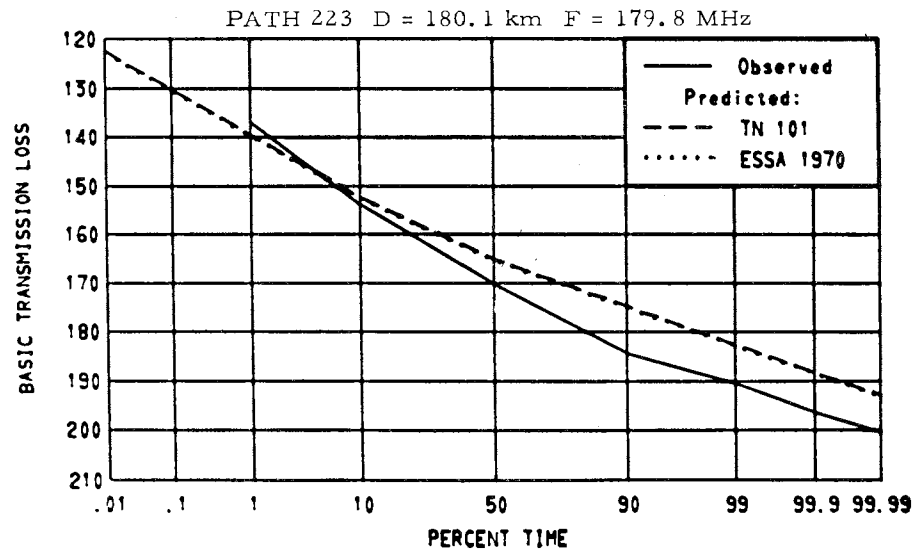


Figure 3.9 Paths 55 223

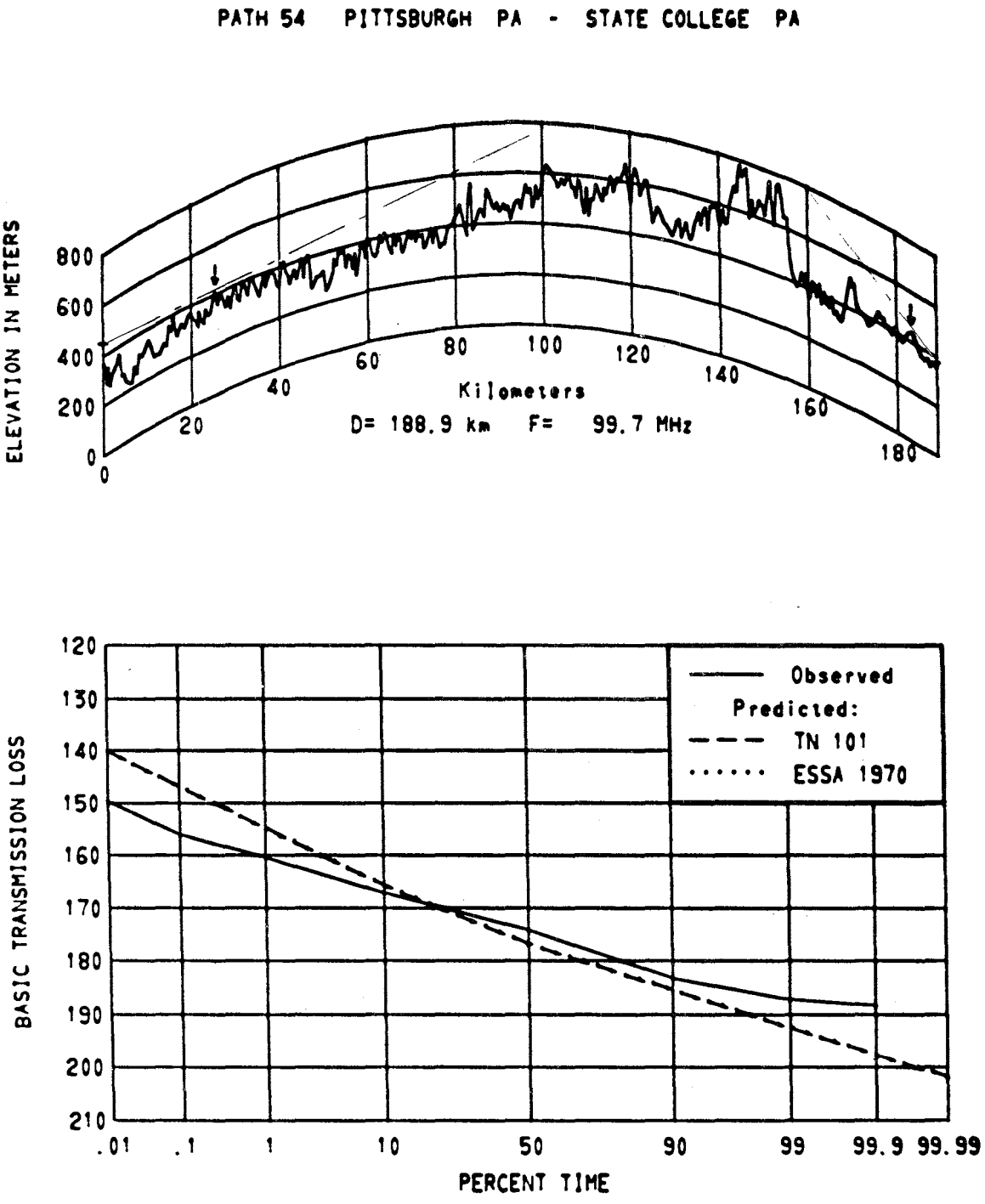
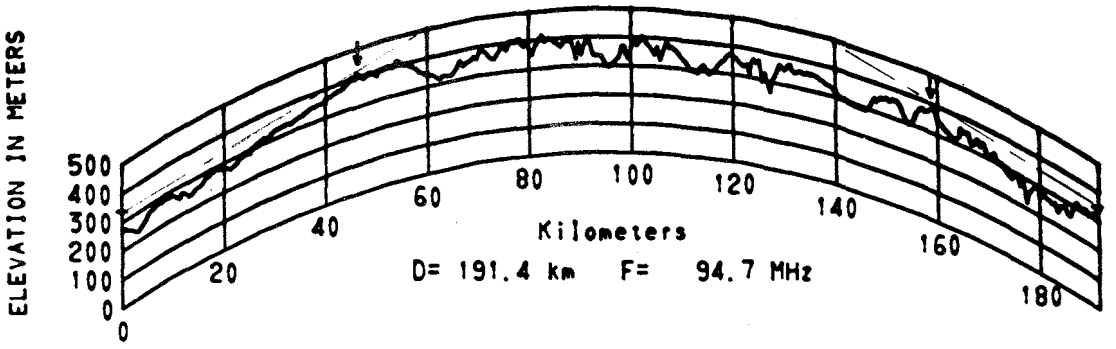


Figure 3.10 Path 54

PATHS 63 64 COLUMBUS OHIO - HUDSON OHIO



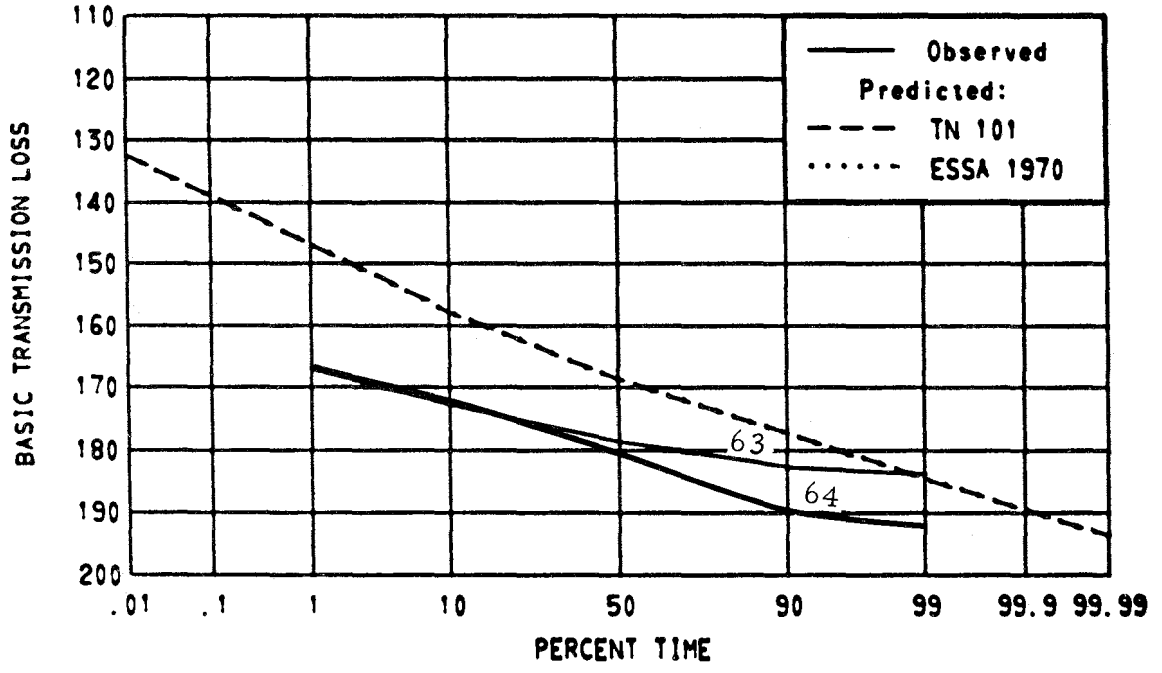


Figure 3.11 Paths 63 64

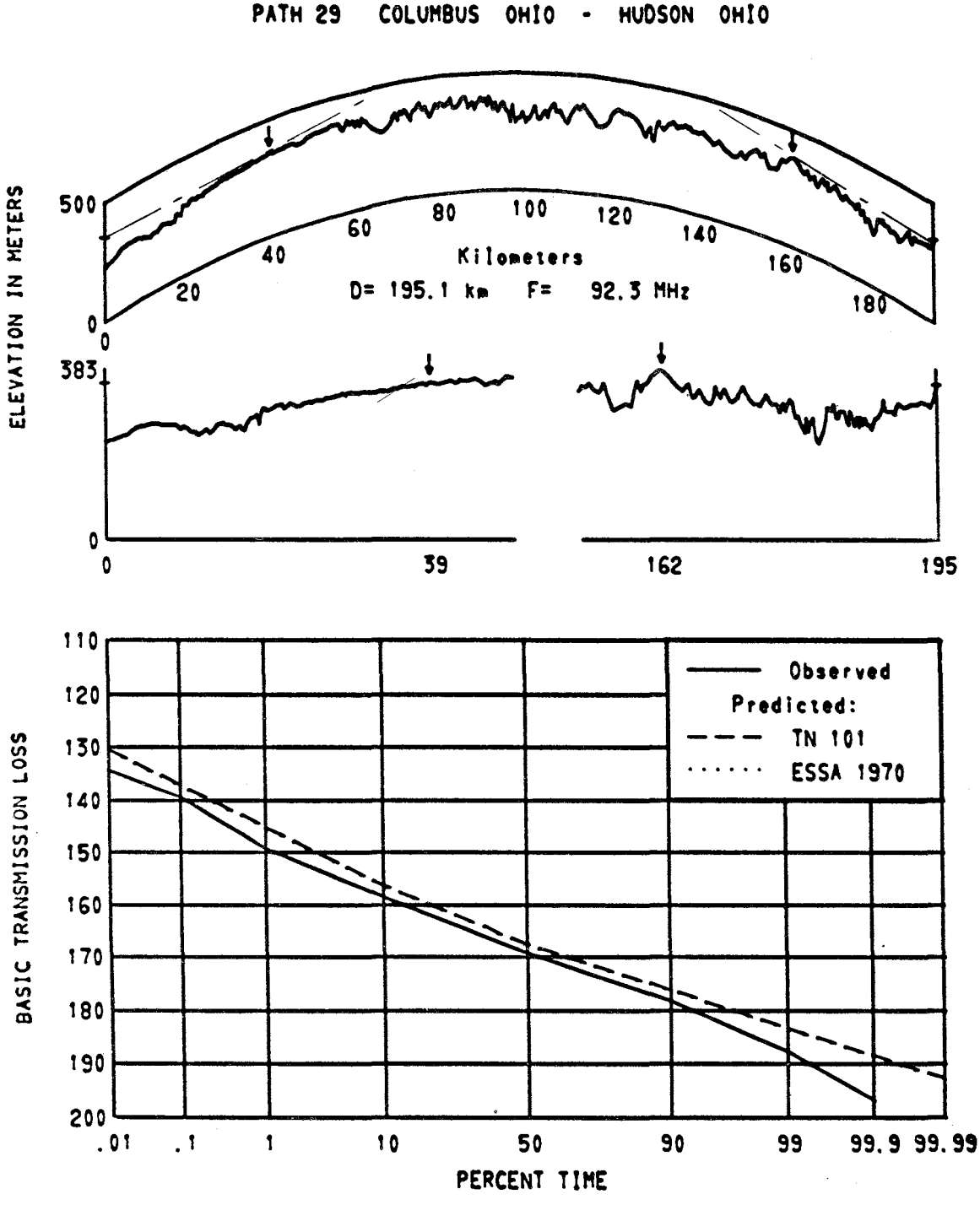


Figure 3.12 Path 29

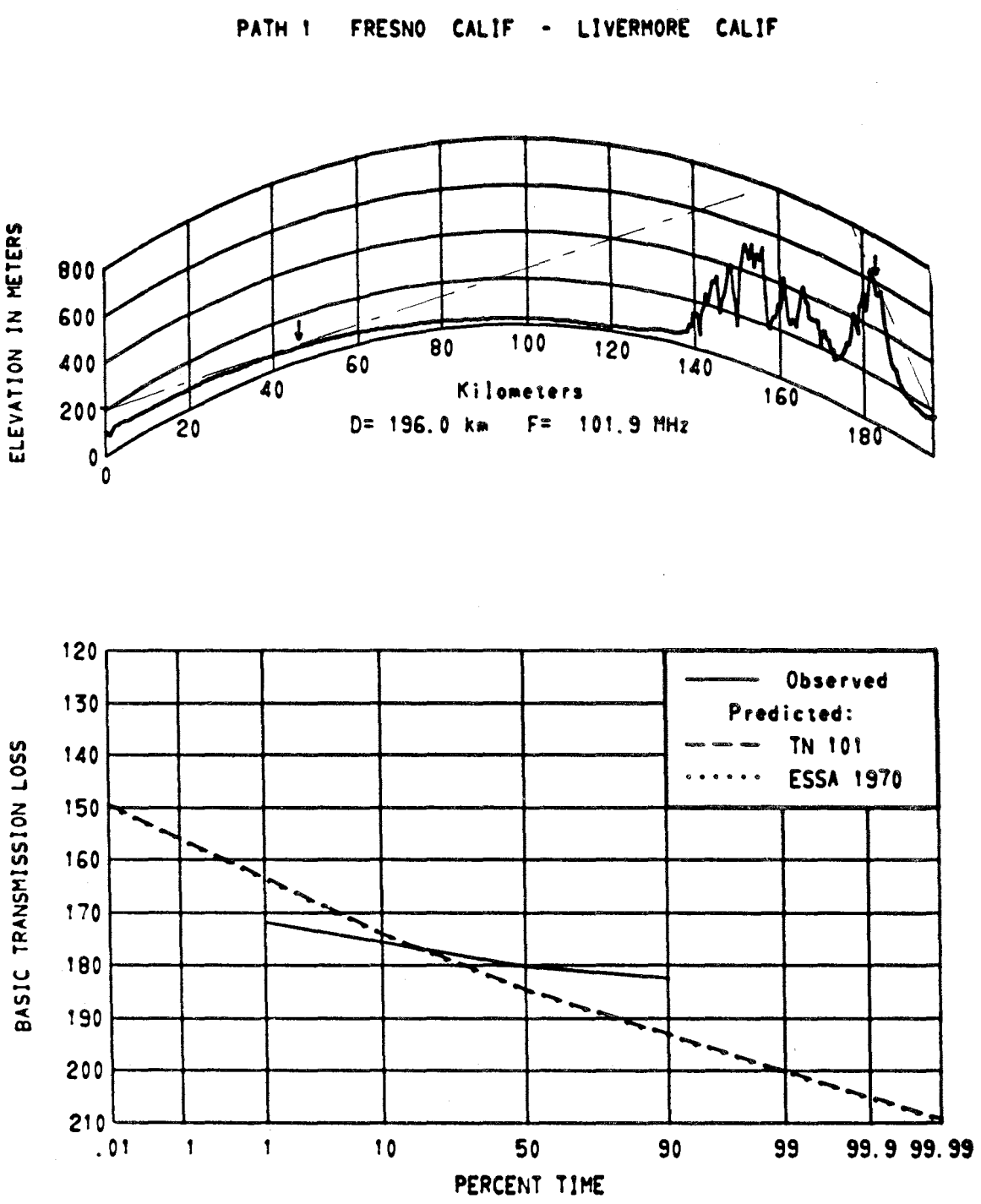


Figure 3.13 Path 1

PATHS 204 244 BIRMINGHAM ALA - POWDER SPGS GA

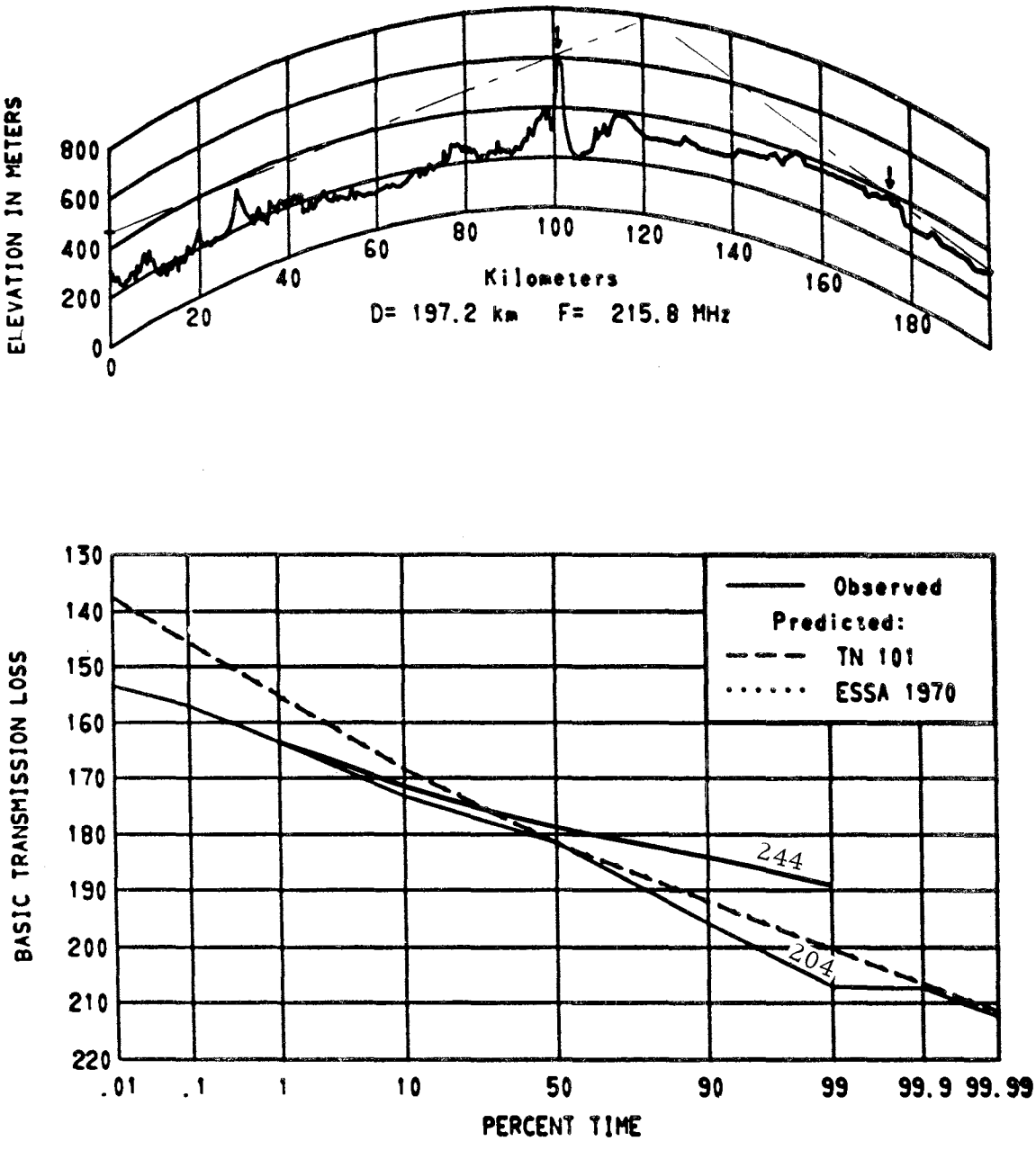
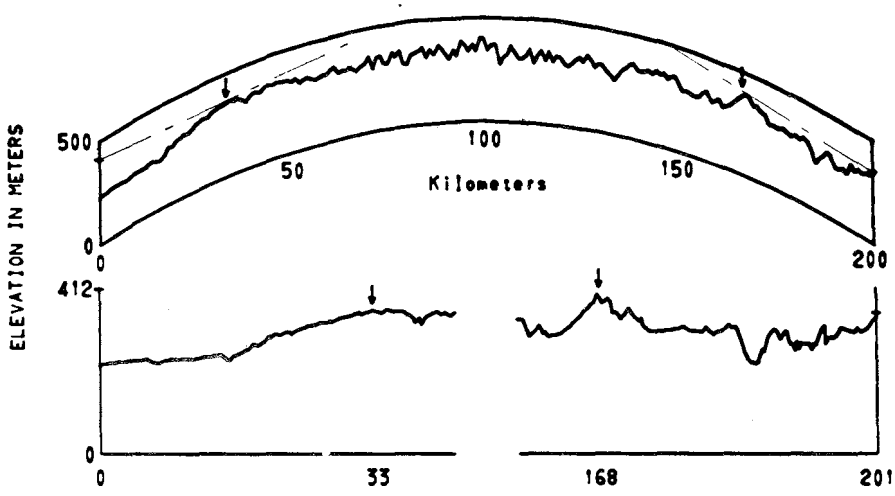
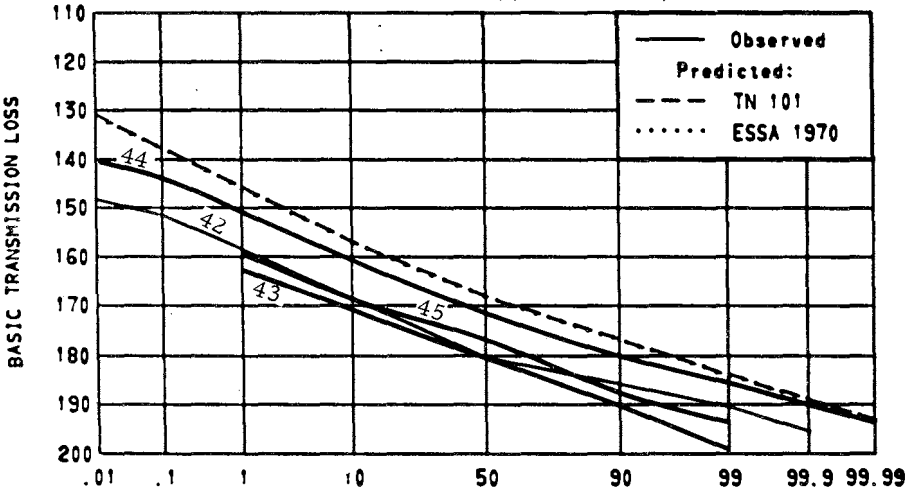


Figure 3.14 Paths 204 244

PATHS 42 TO 49 COLUMBUS OHIO - HUDSON OHIO



PATHS 42 TO 45 D = 201.1 km F = 98.7 MHz



PATHS 46 TO 49 D = 201.1 km F = 98.7 MHz

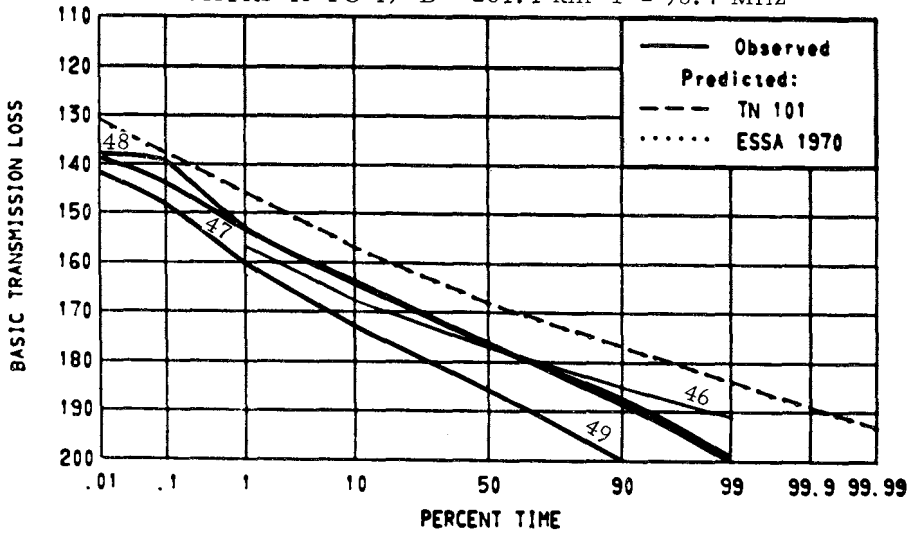


Figure 3.15 Paths 42 to 49

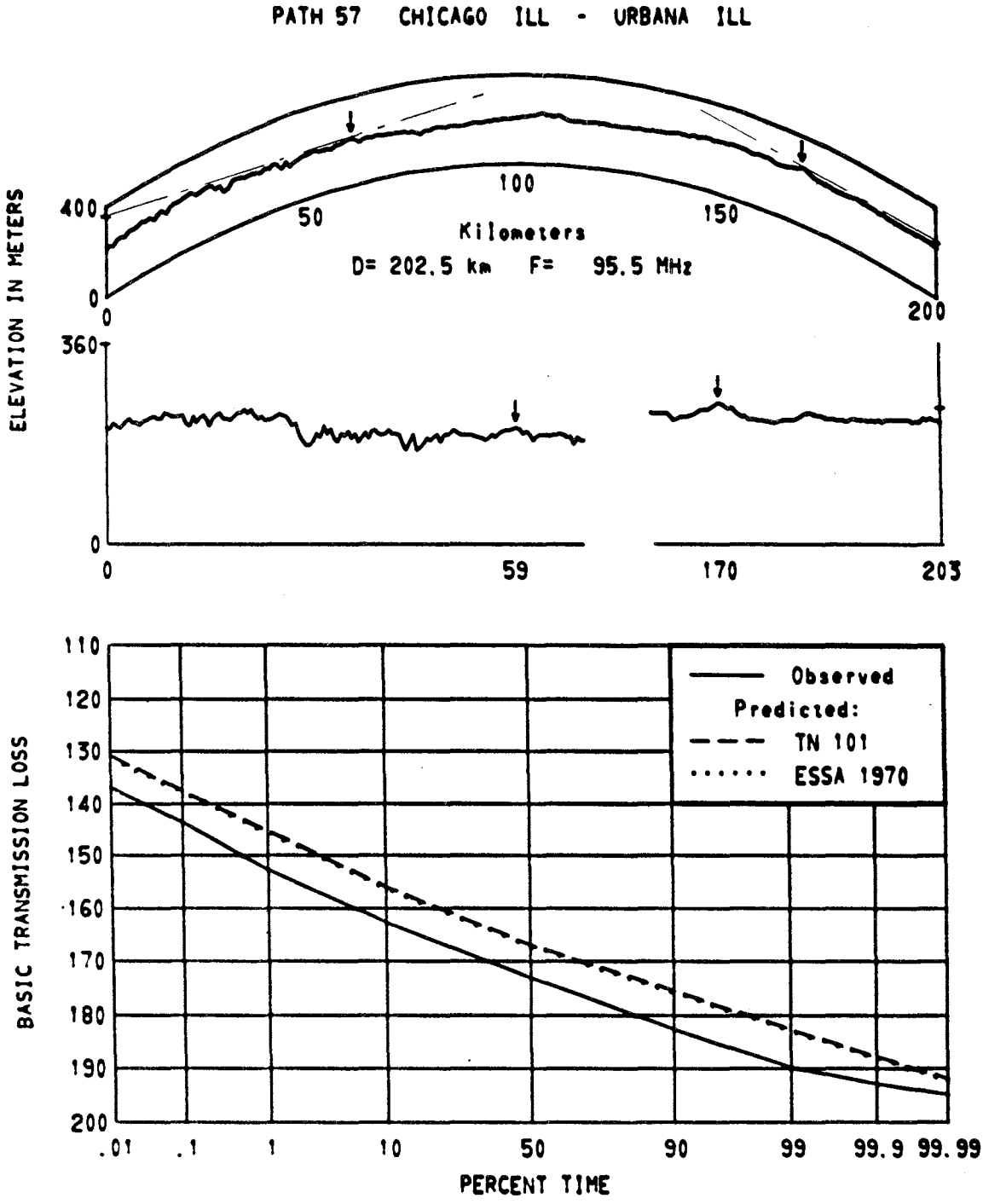
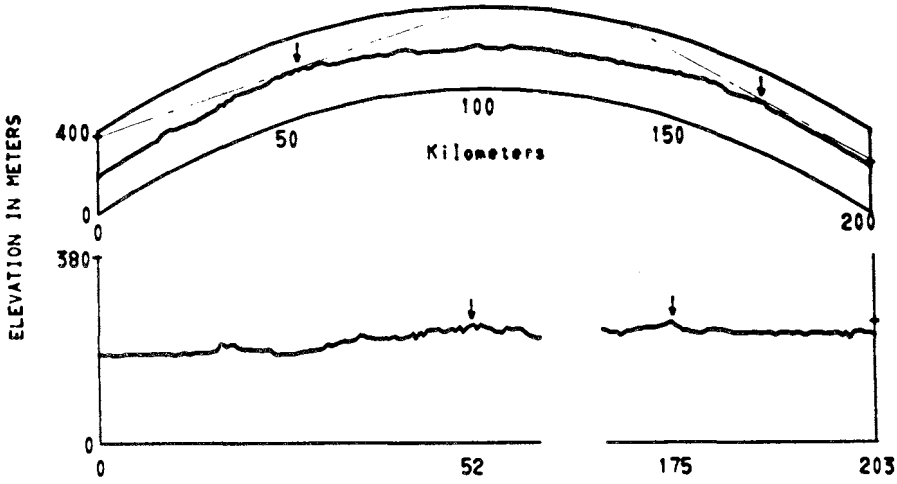
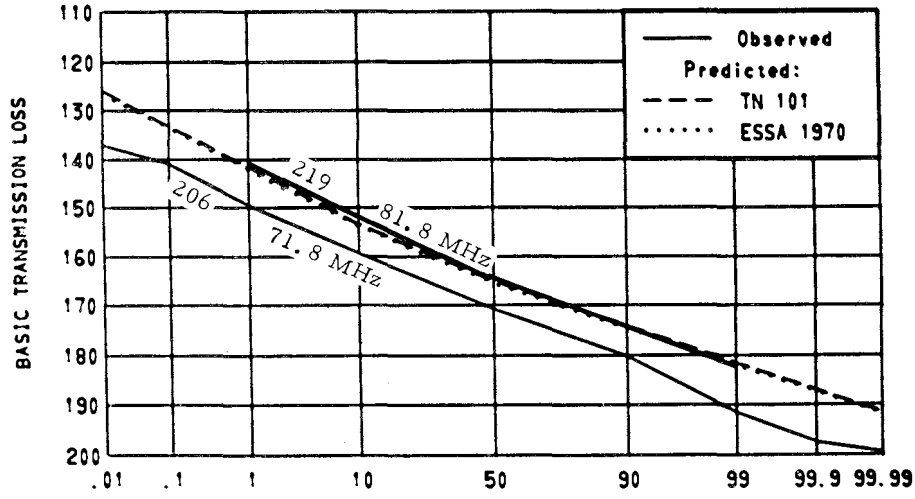


Figure 3.16 Path 57

PATHS 206 210 212 TO 216,219 CHICAGO ILL - URBANA ILL



PATHS 206 219 D = 203.0 km F = 71.8, 81.8 MHz



PATH 210 D = 203.0 km F = 179.8 MHz

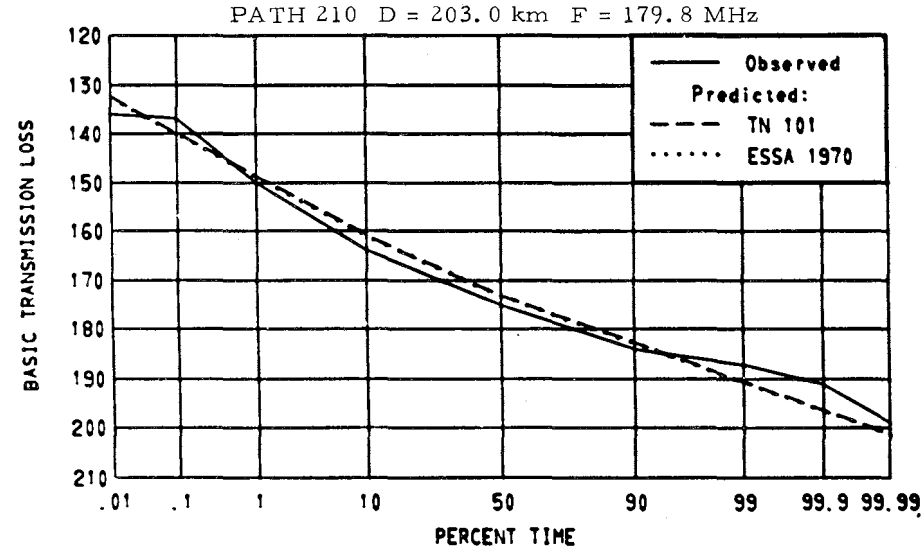


Figure 3.17 Paths 206 210 219

CHICAGO ILL - URBANA ILL

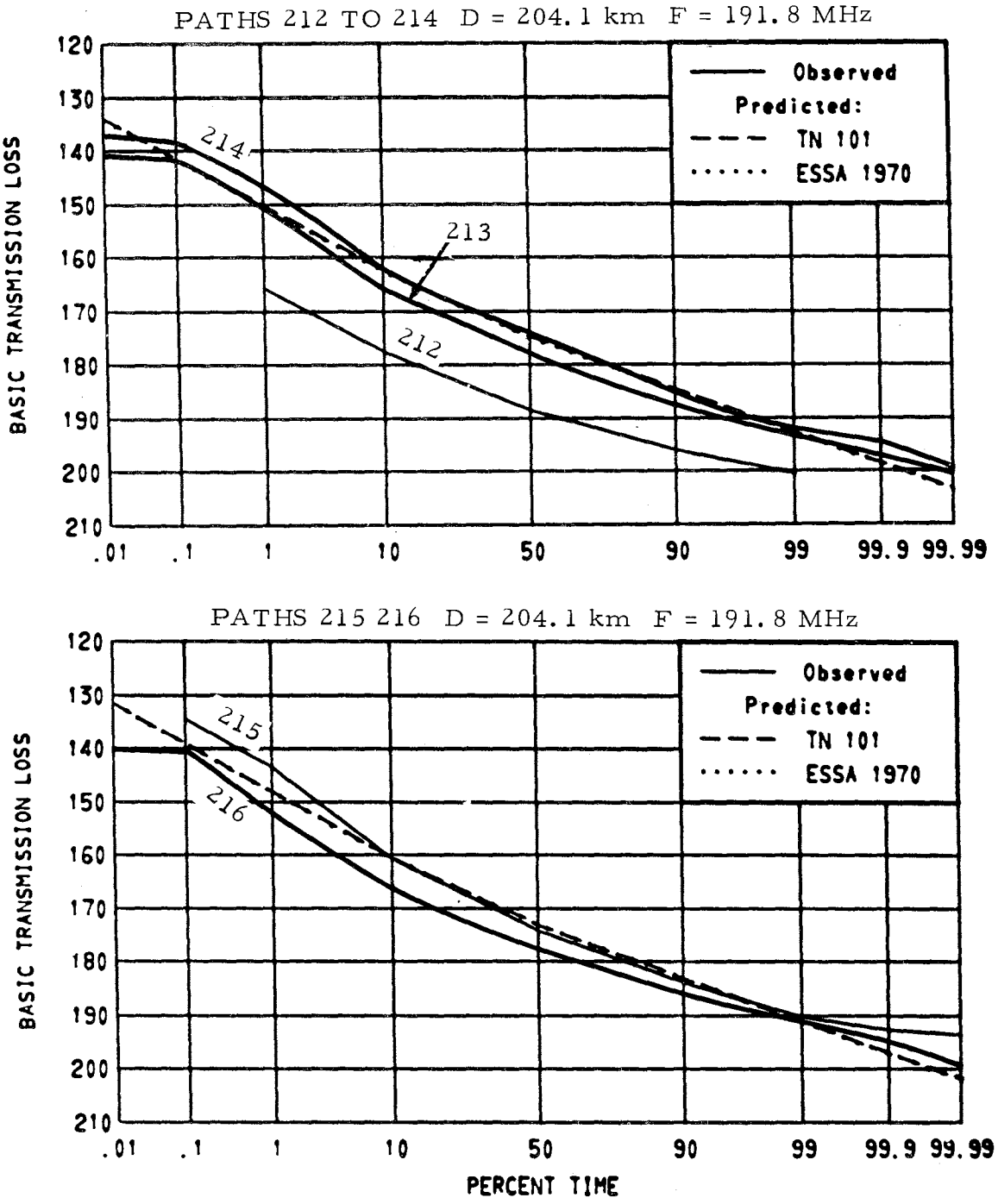


Figure 3.18 Paths 212 to 216

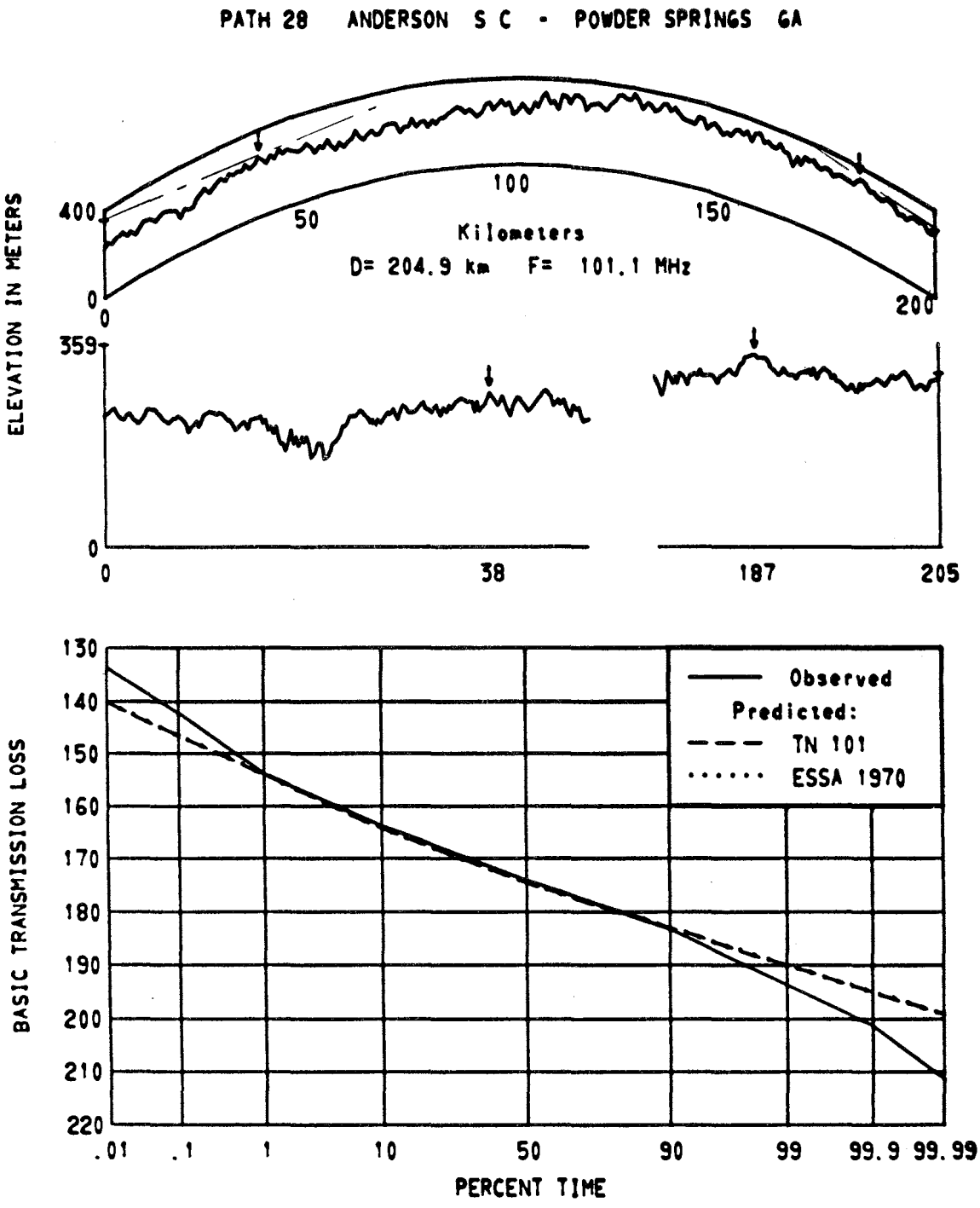
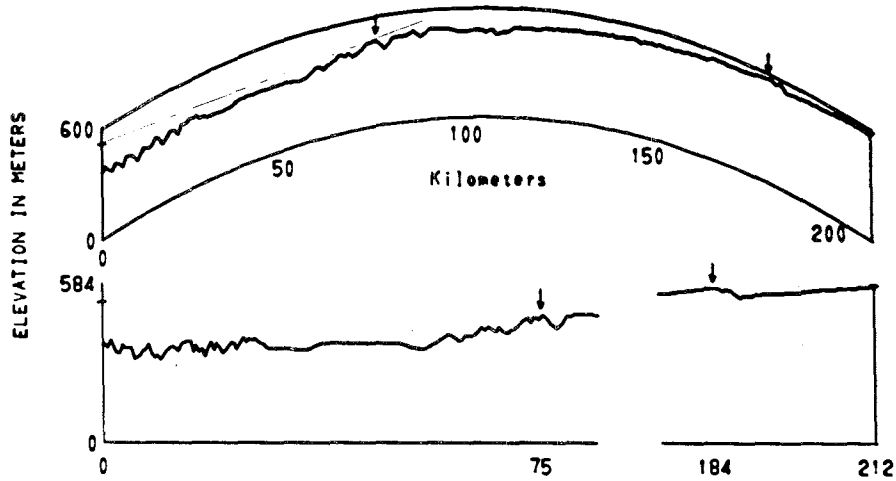
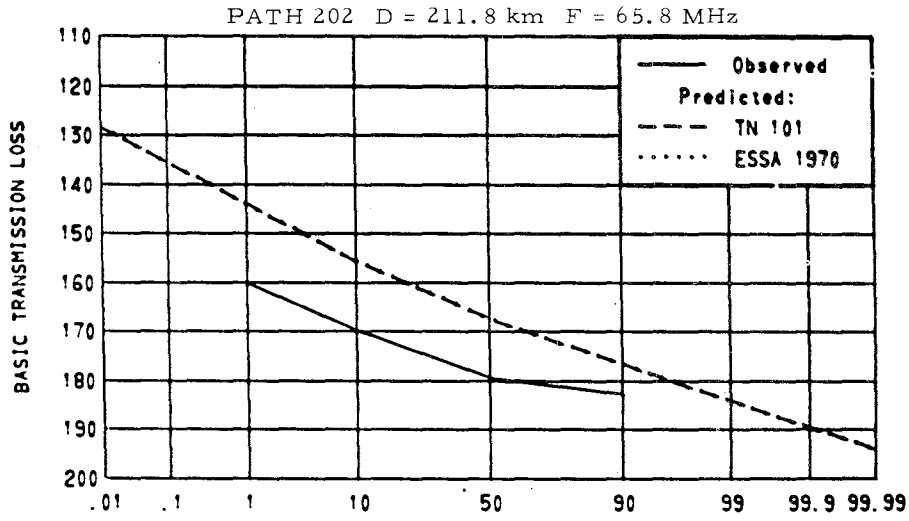


Figure 3.19 Path 28

PATHS 202 222 OMAHA NEBR - GRAND ISLAND NEBR





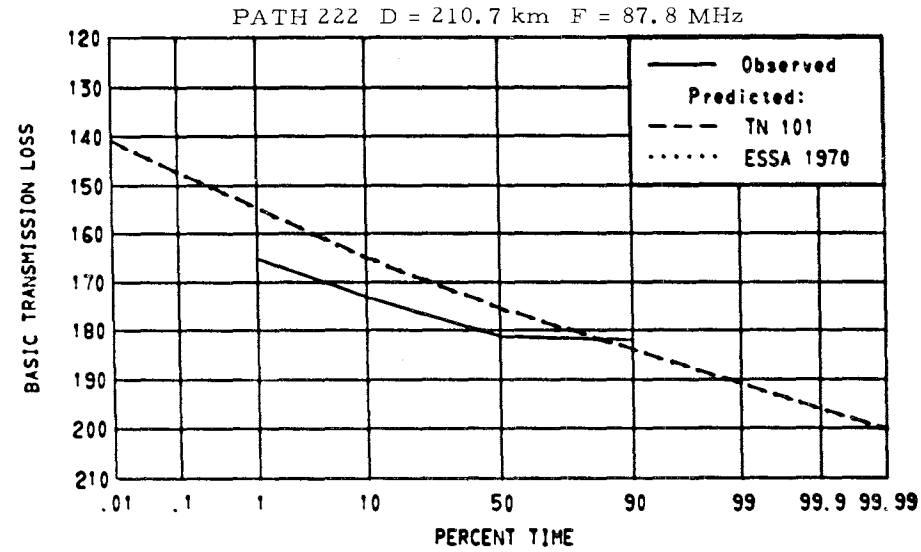
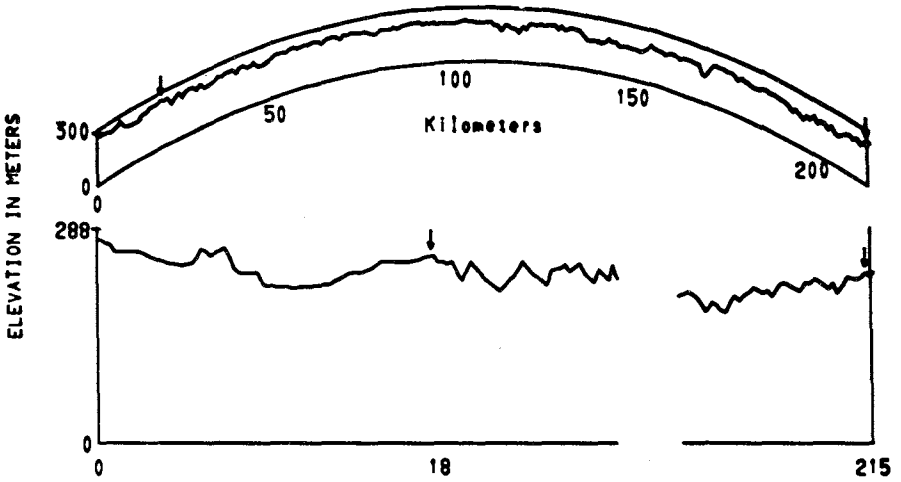
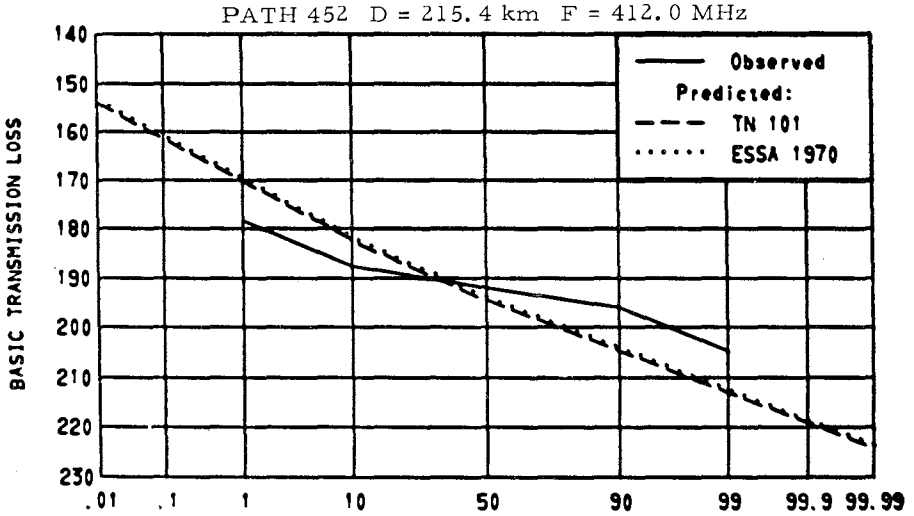


Figure 3.20 Paths 202 222

PATHS 452 TO 454 CEDAR RAPIDS IOWA - QUINCY ILL



PATH 452 D = 215.4 km F = 412.0 MHz



PATHS 453 454 D = 215.4 km F = 418.0 MHz

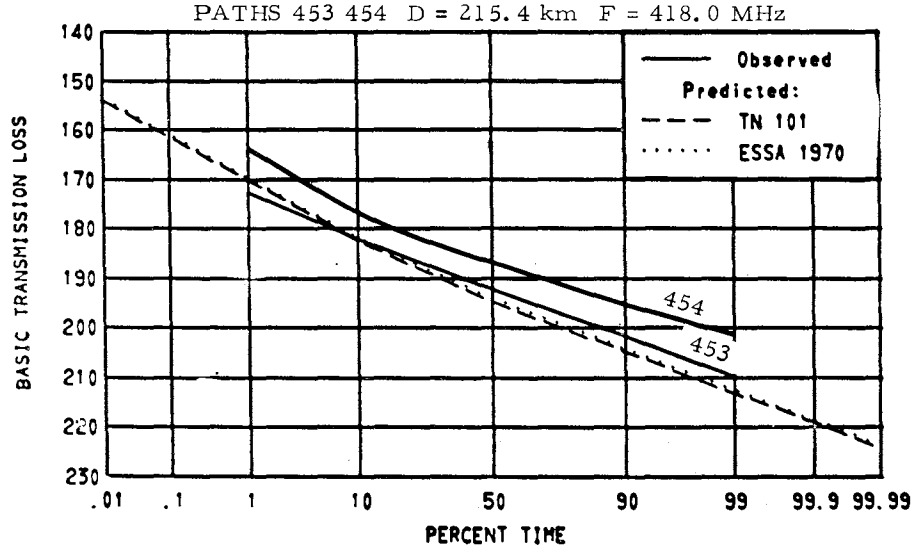
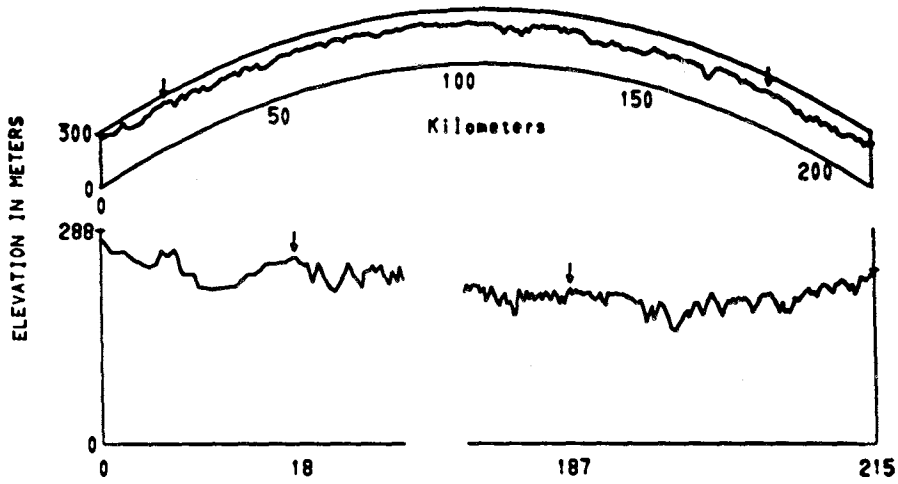
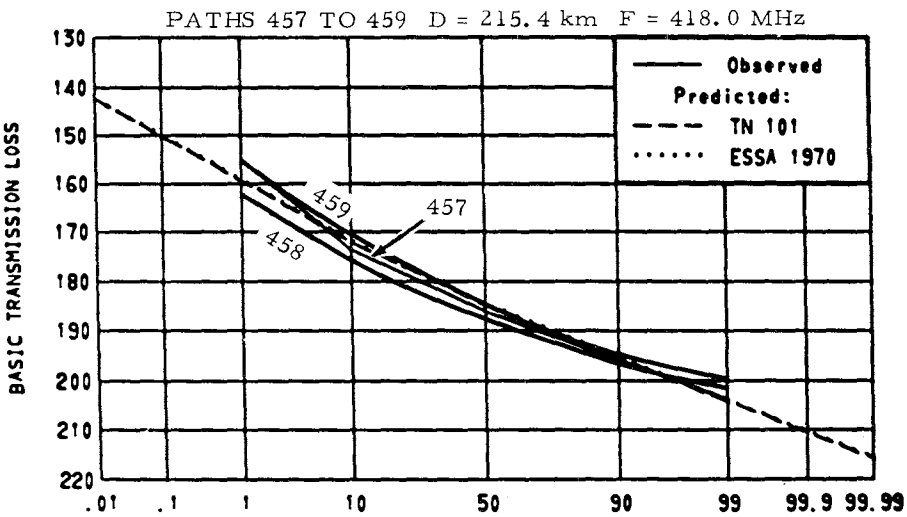


Figure 3.21 Paths 452 to 454

PATHS 457 TO 462 CEDAR RAPIDS IOWA - QUINCY ILL





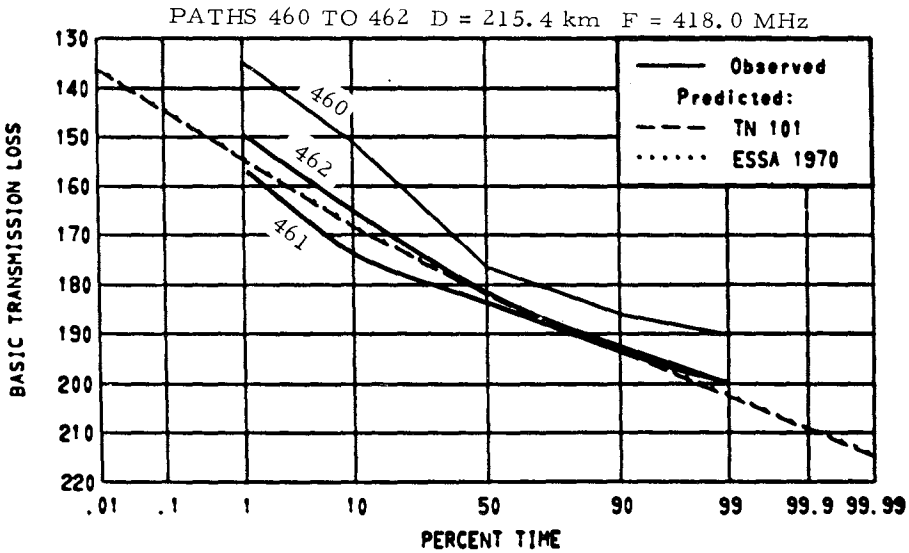


Figure 3.22 Paths 457 to 462

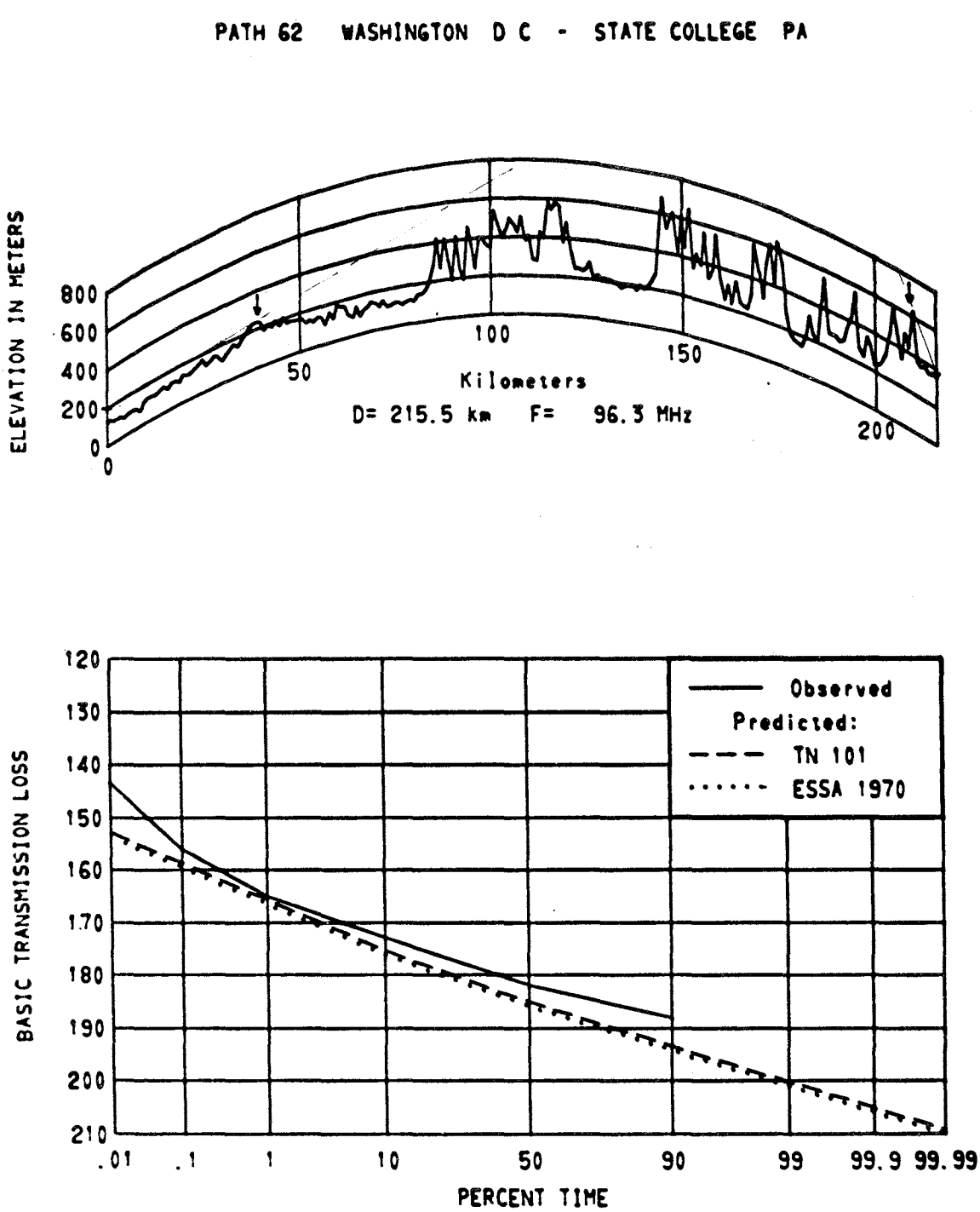


Figure 3.23 Path 62

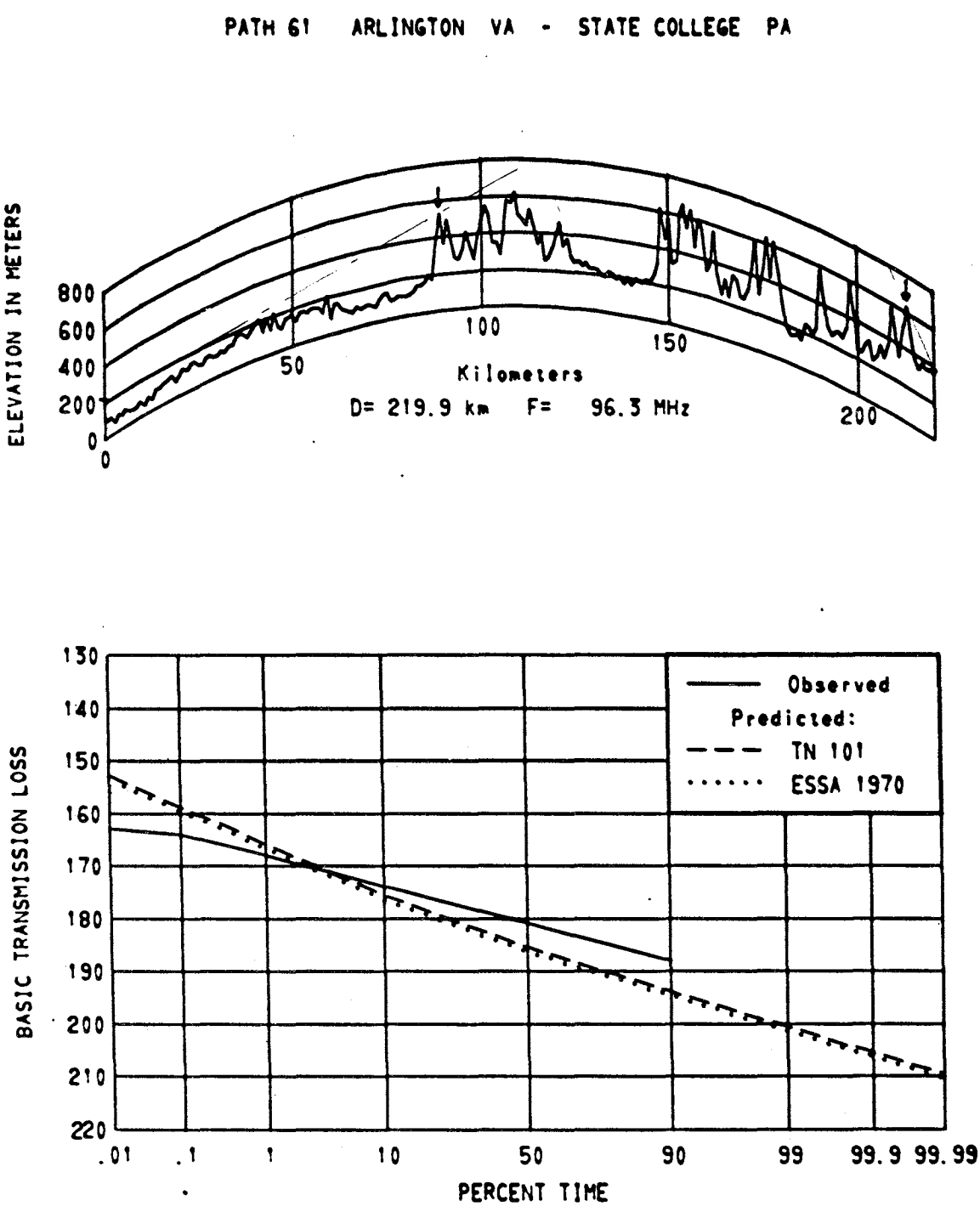


Figure 3.24 Path 61

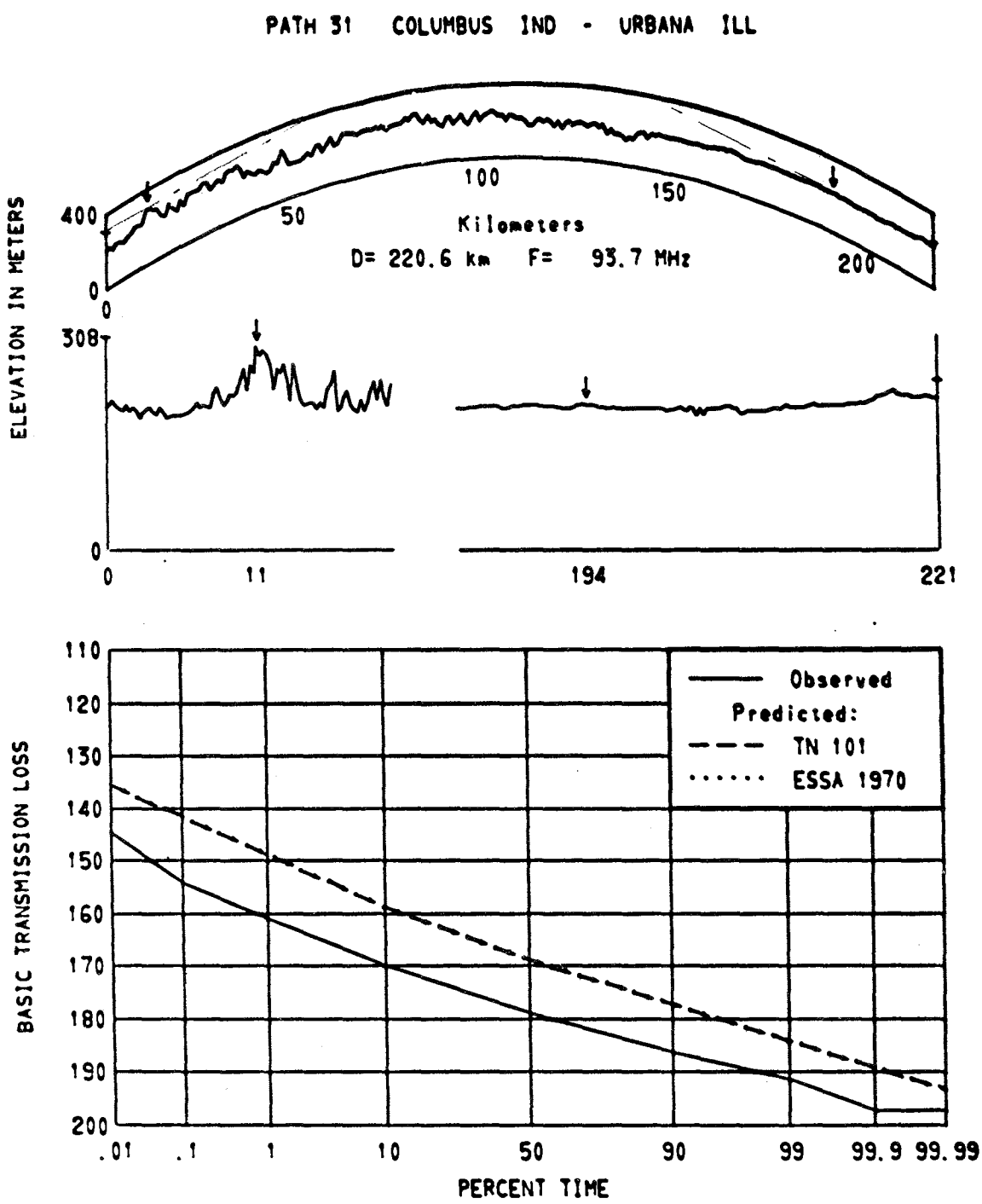


Figure 3.25 Path 31

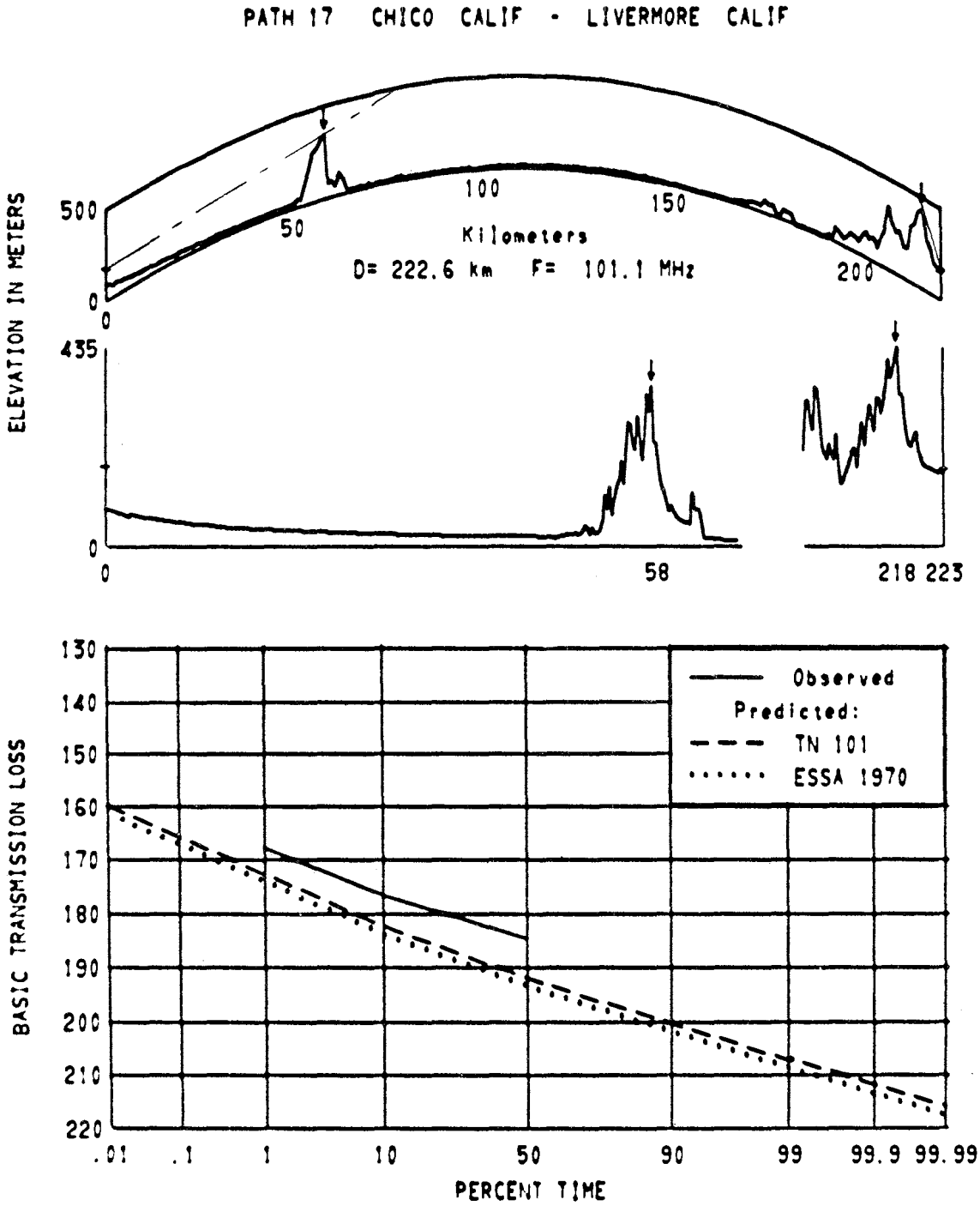


Figure 3.26 Path 17

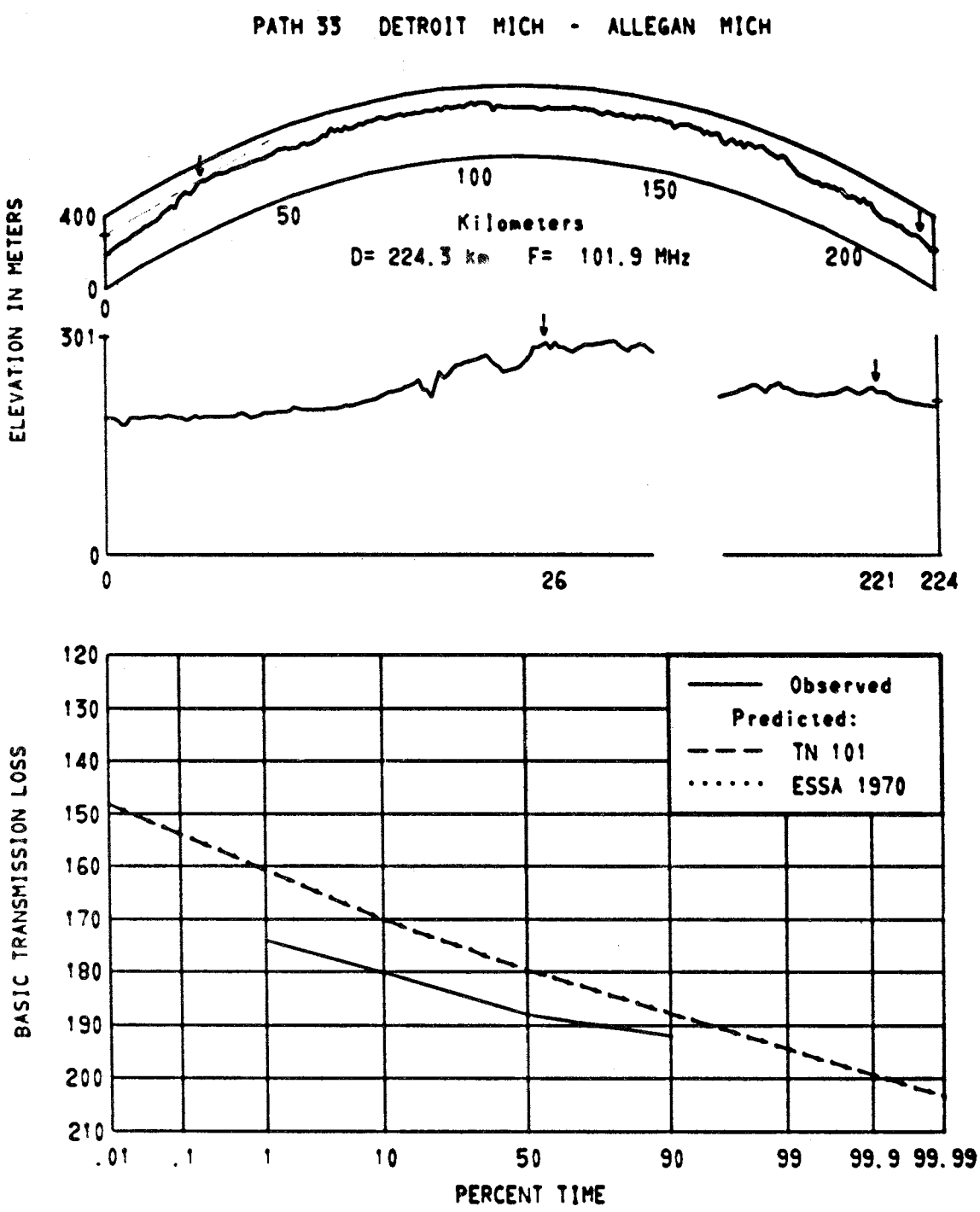


Figure 3.27 Path 33

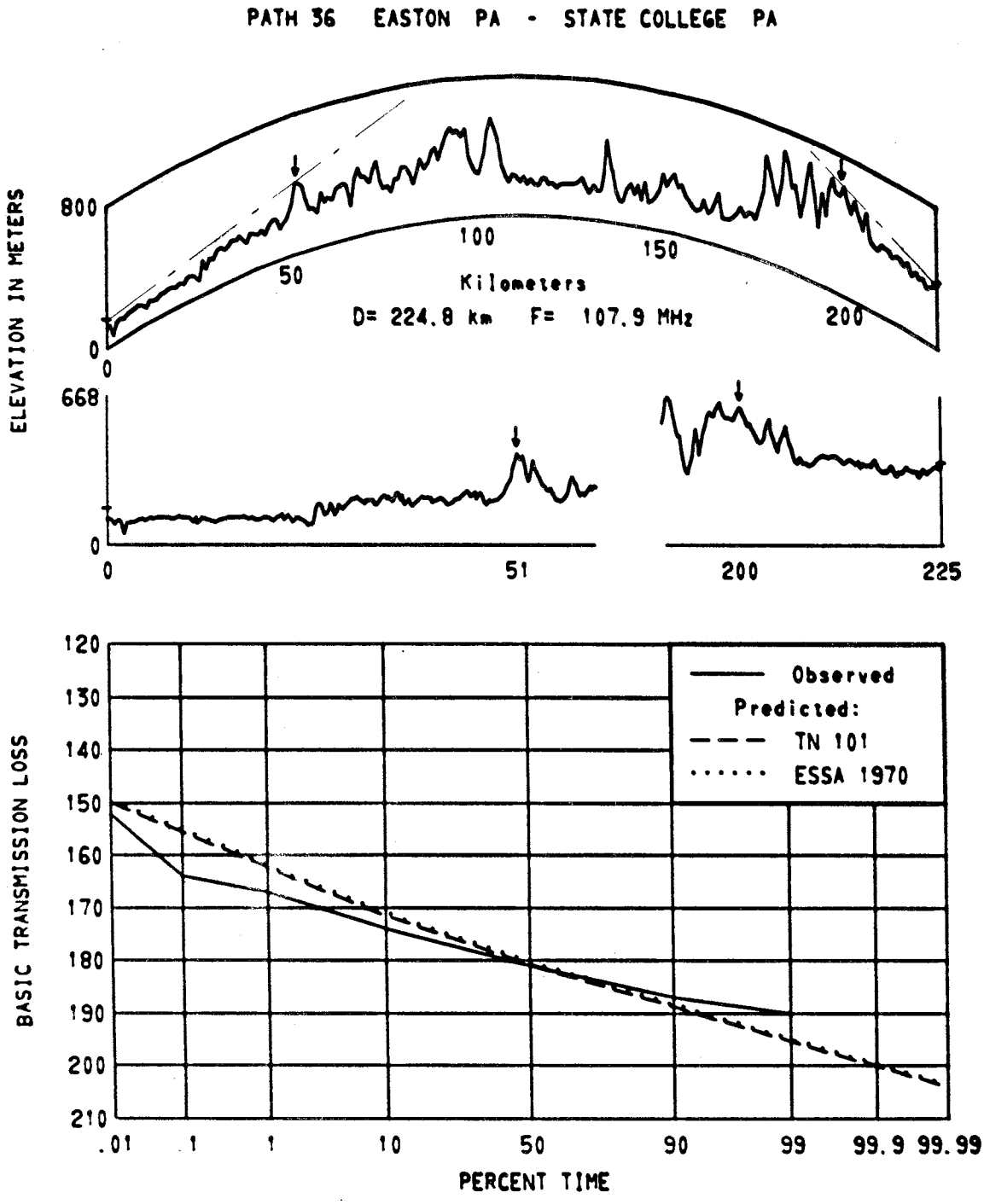
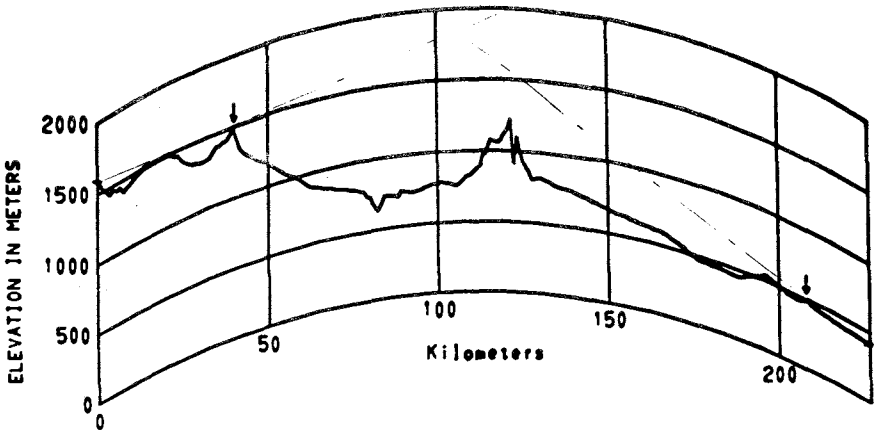
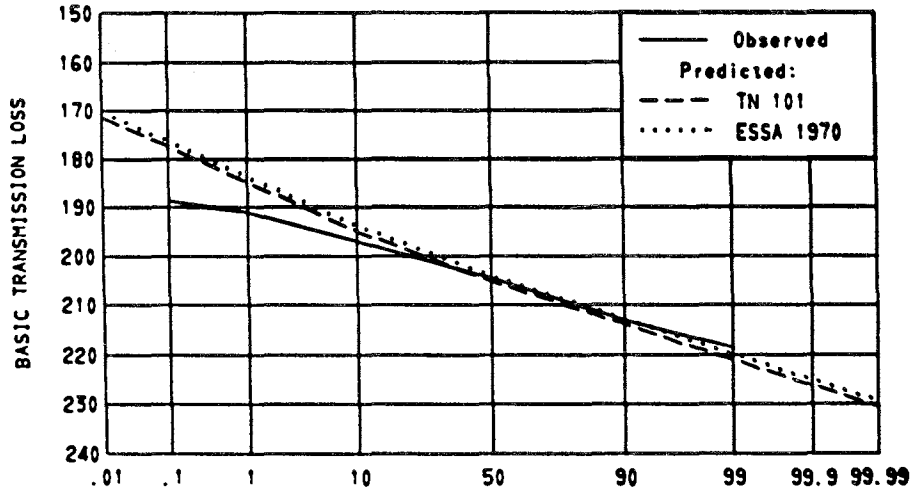


Figure 3.28 Path 36

PATHS 1700 1701 BLACKTAIL CANYON ARIZ - WILLIAMS AFB ARIZ



PATH 1701 D = 226.4 km F = 880.0 MHz



PATH 1700 D = 226.4 km F = 950.0 MHz

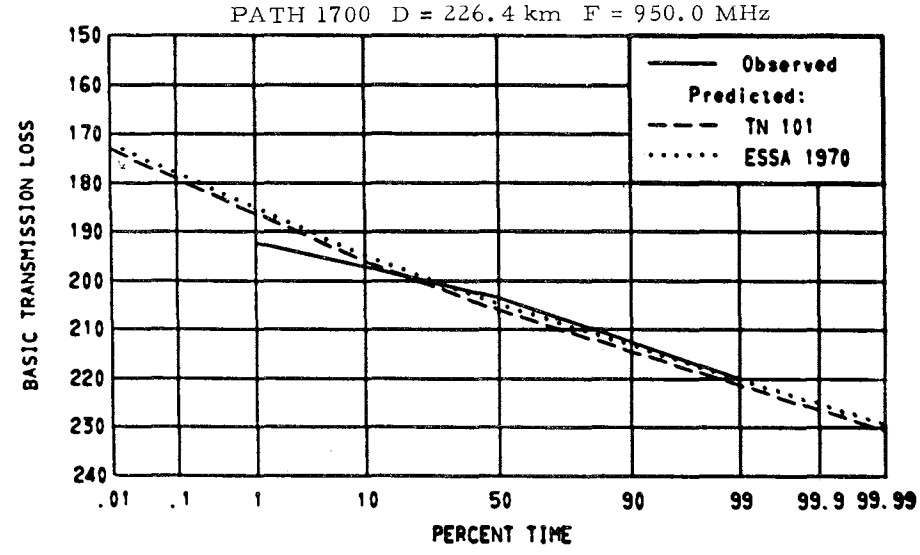
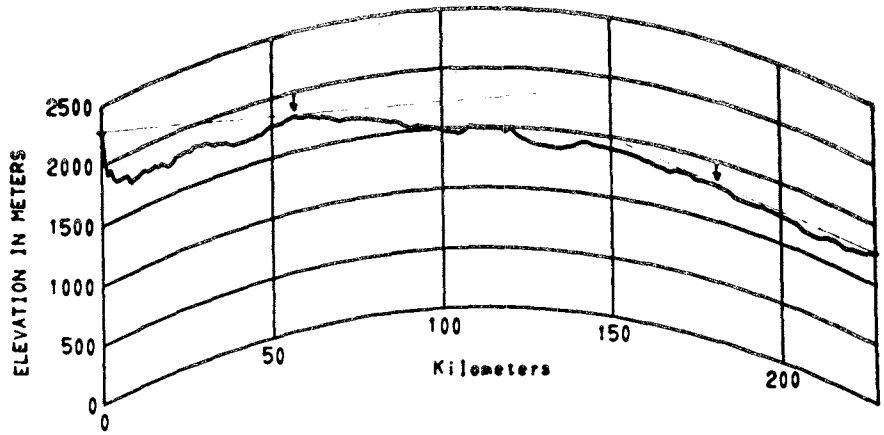
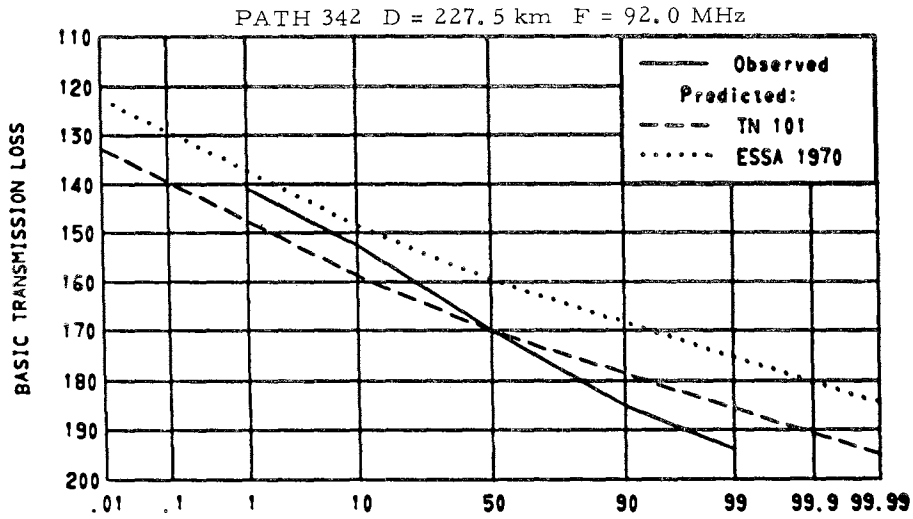


Figure 3.29 Paths 1700 1701

PATHS 342 382 CHEYENNE MTN B COLO - SHERIDAN LAKE COLO





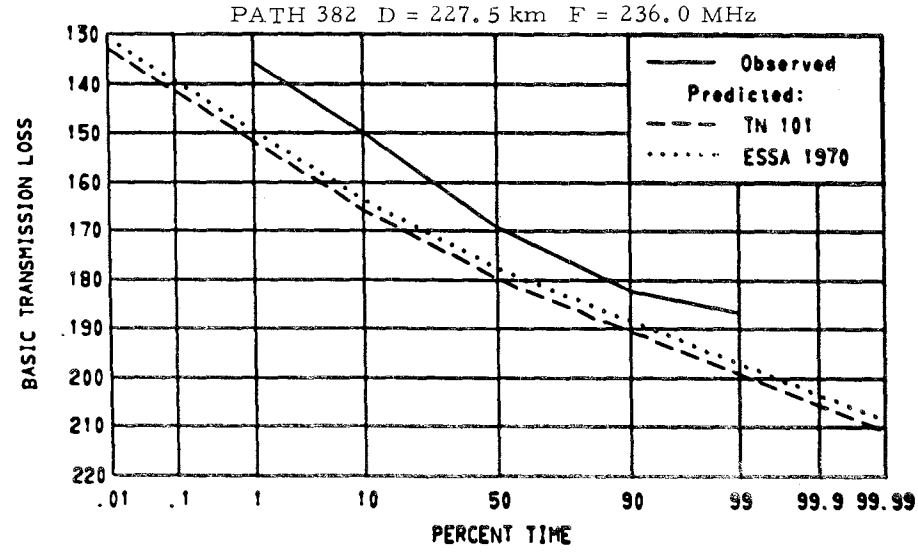


Figure 3.30 Paths 342 382

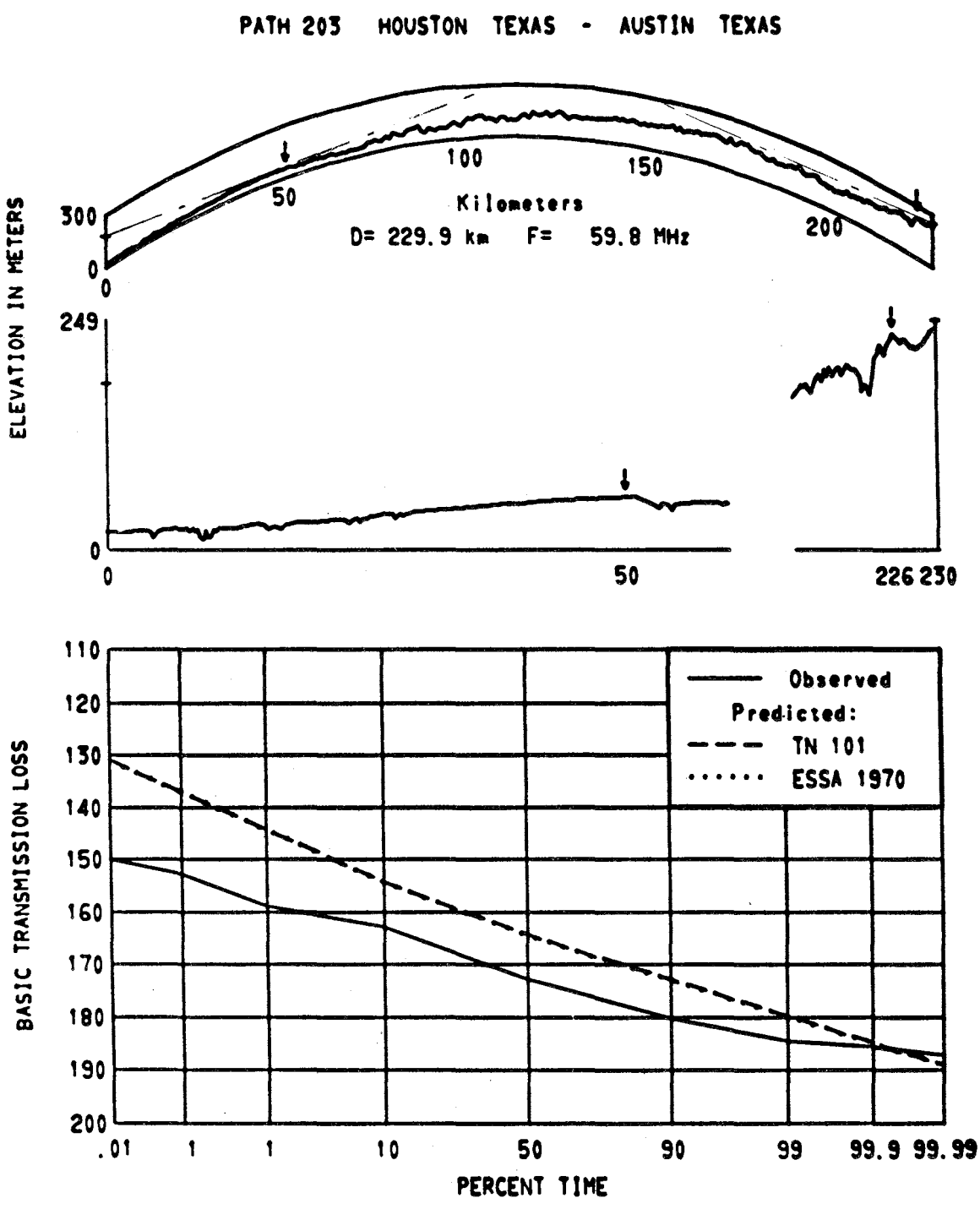


Figure 3.31 Path 203

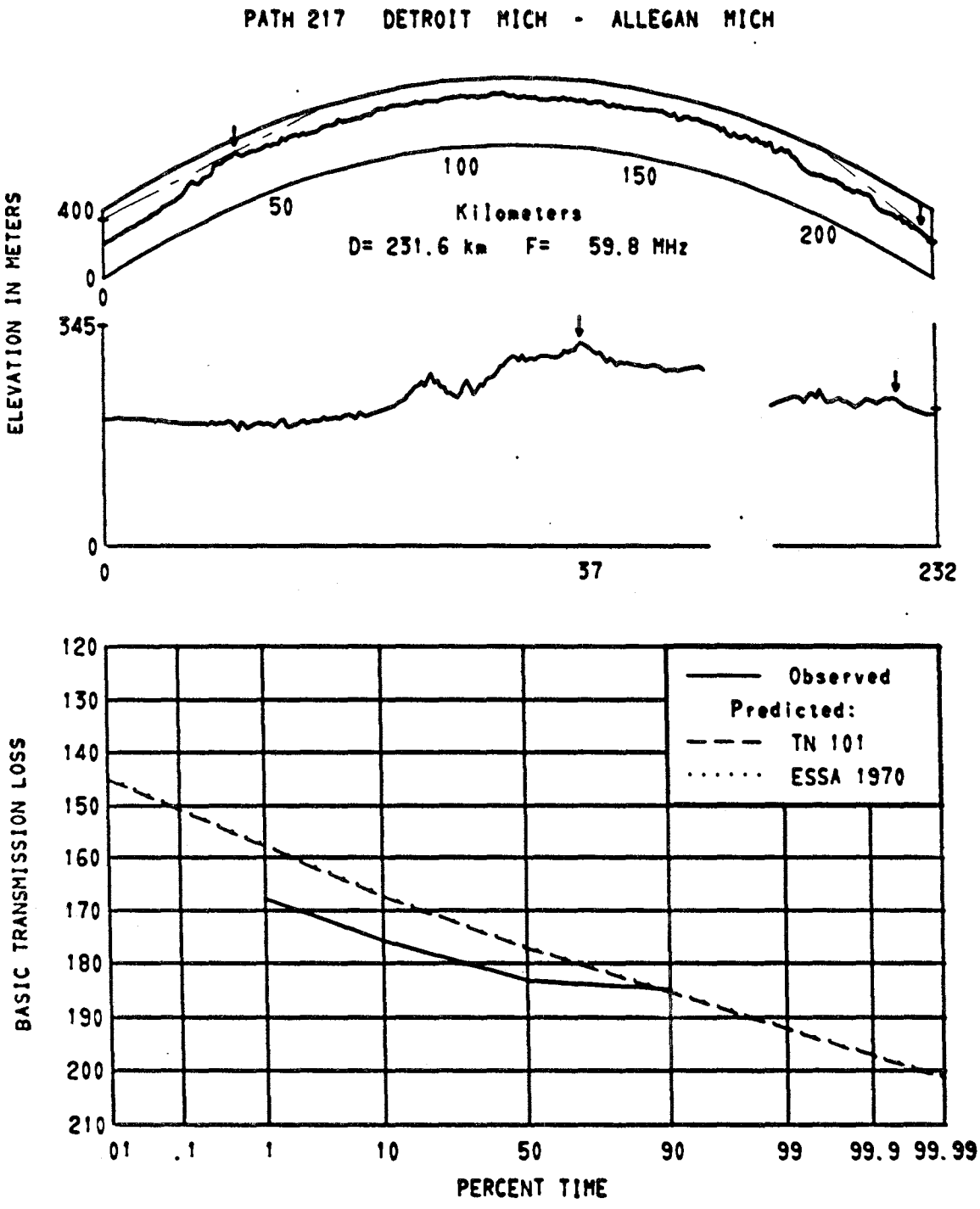


Figure 3.32 Path 217

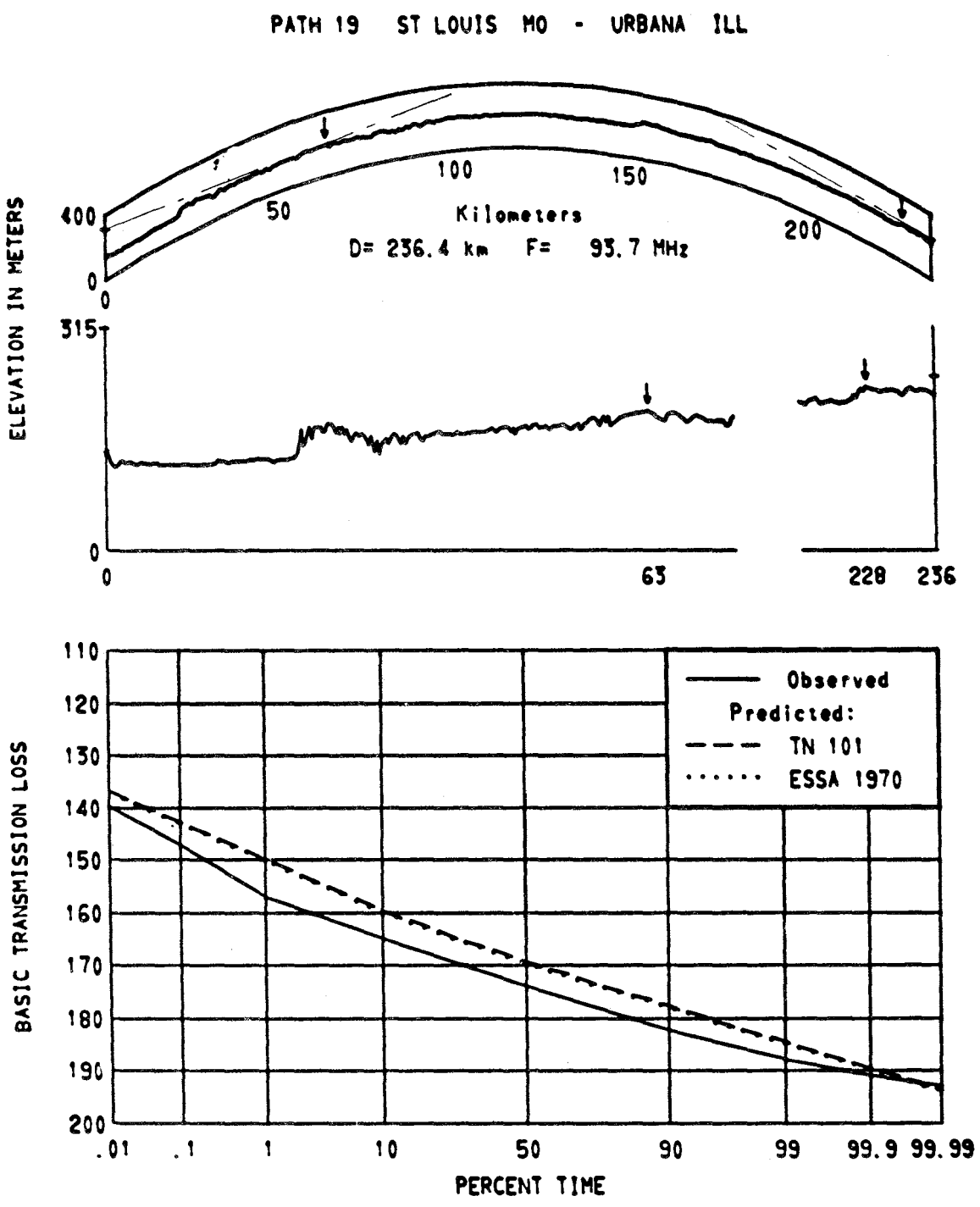
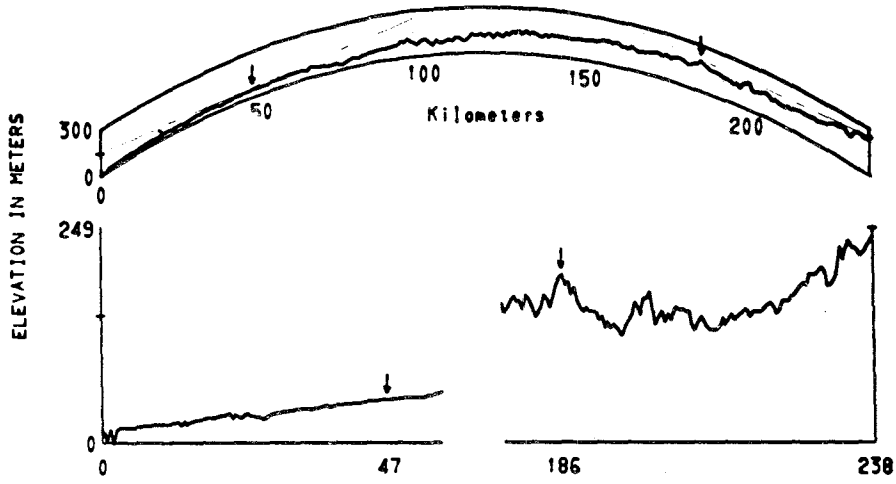
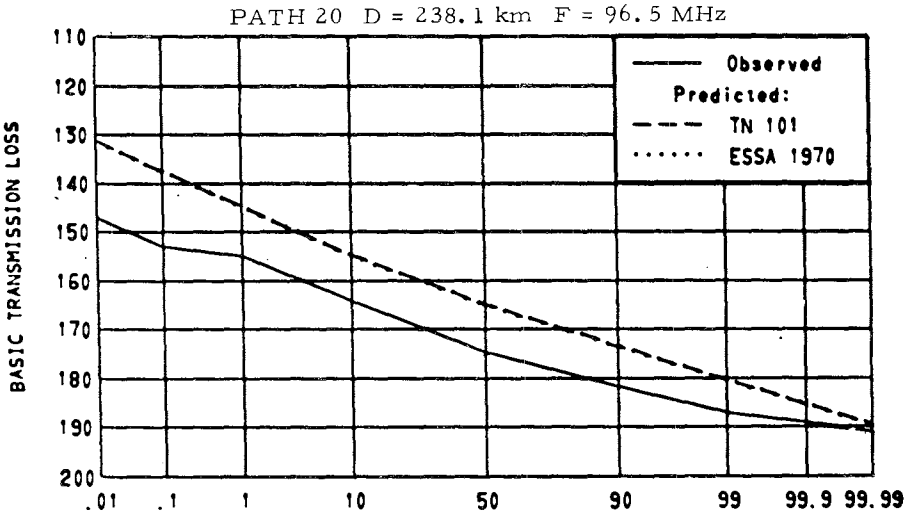


Figure 3.33 Path 19

PATHS 13 20 HOUSTON TEXAS - AUSTIN TEXAS



PATH 20 D = 238.1 km F = 96.5 MHz



PATH 13 D = 238.0 km F = 102.9 MHz

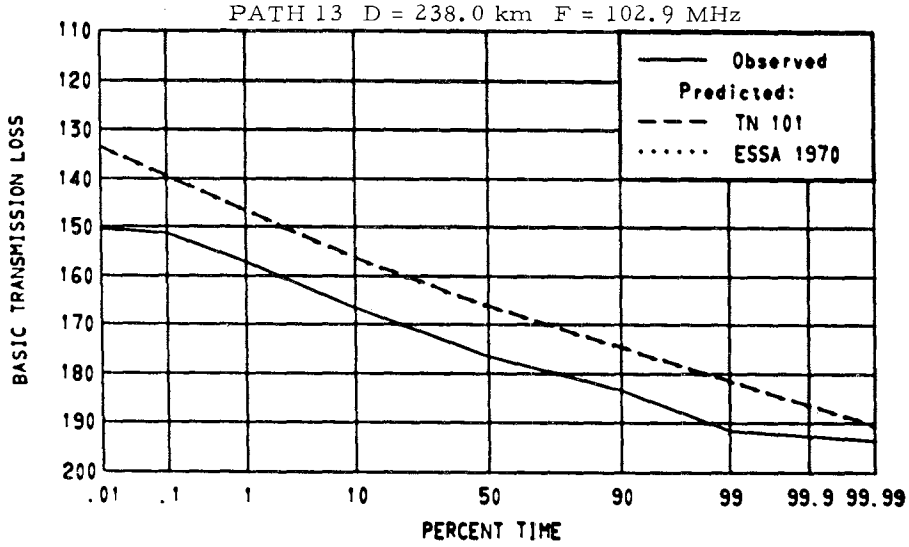


Figure 3.34 Paths 13 20

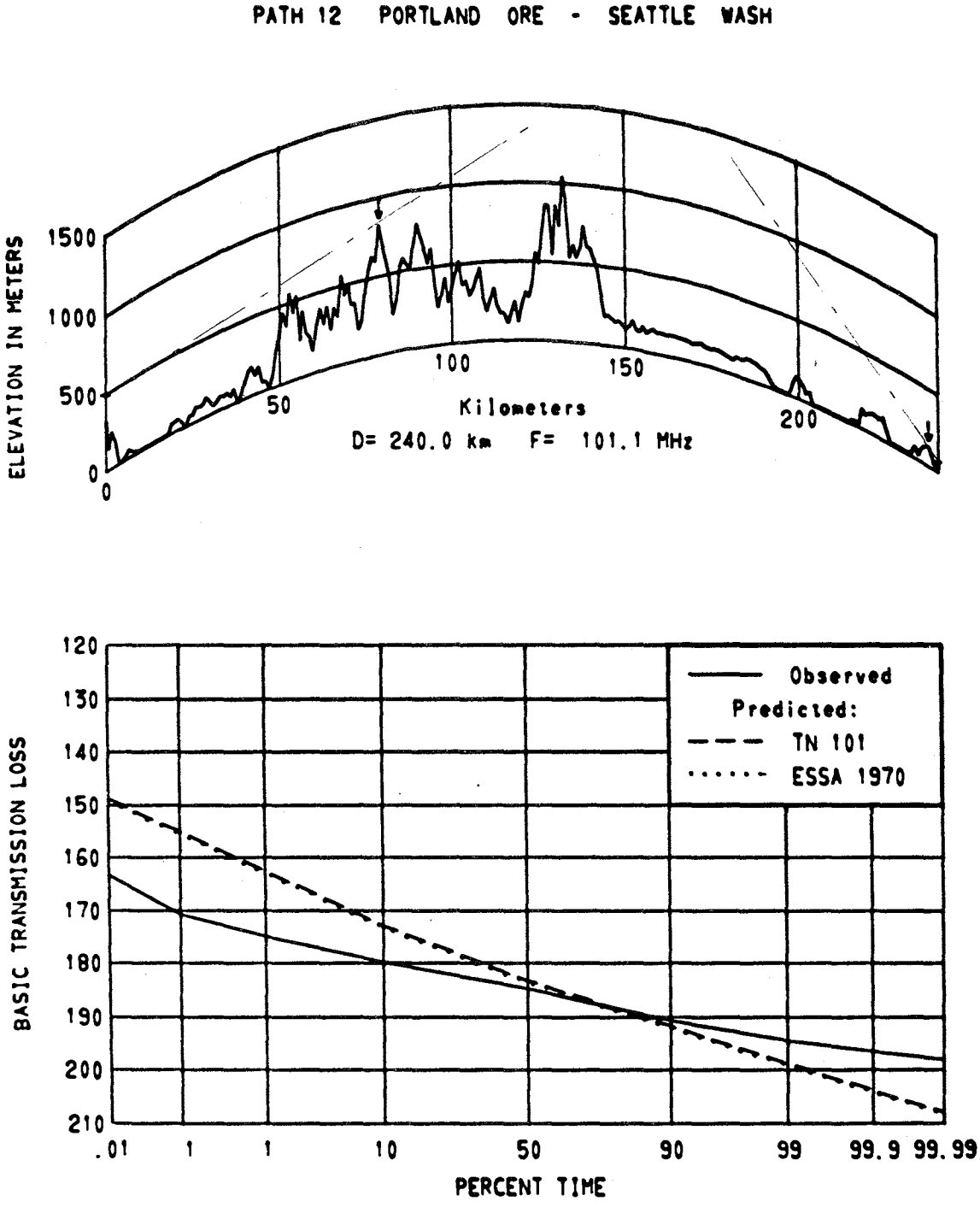


Figure 3.35 Path 12

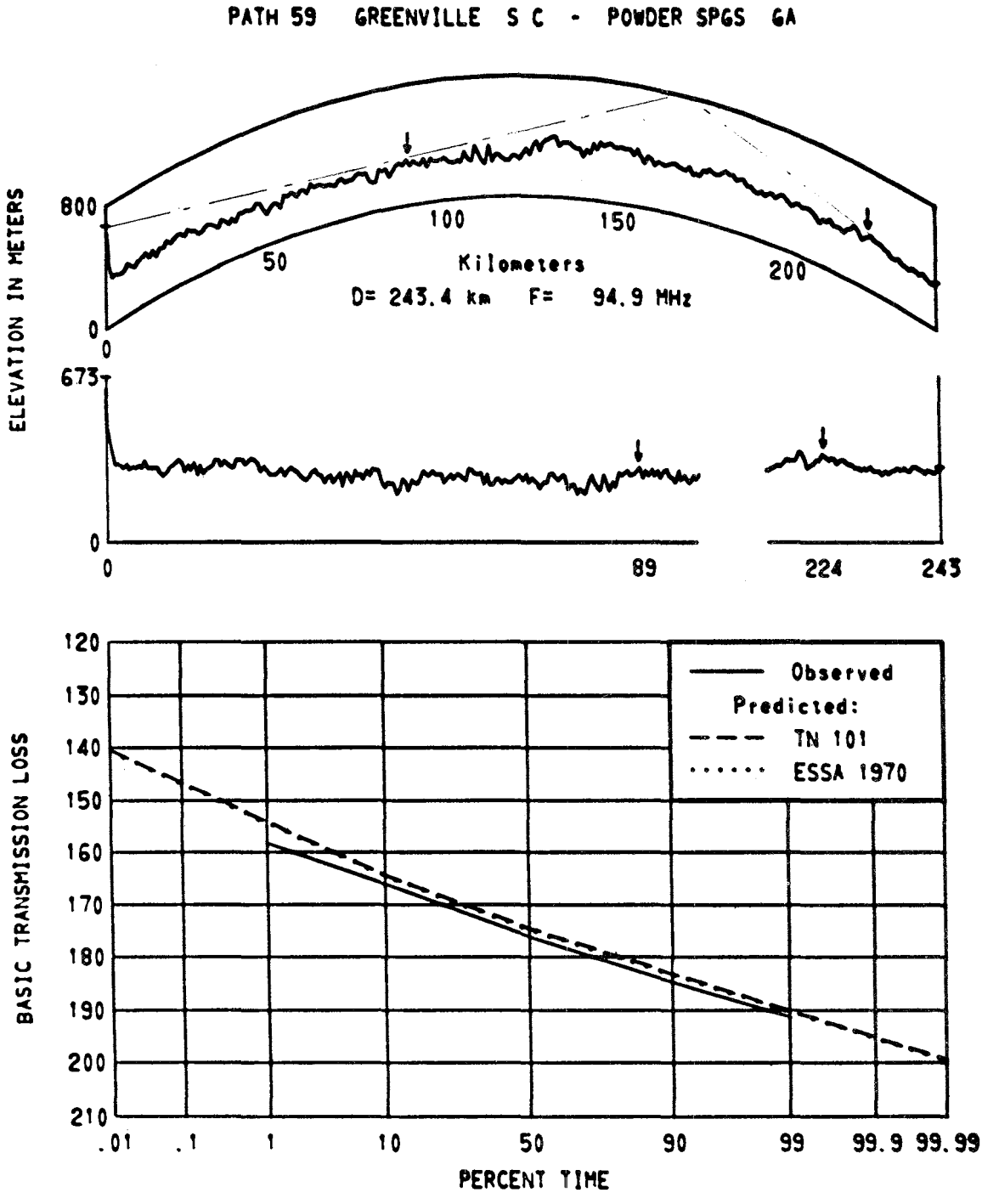
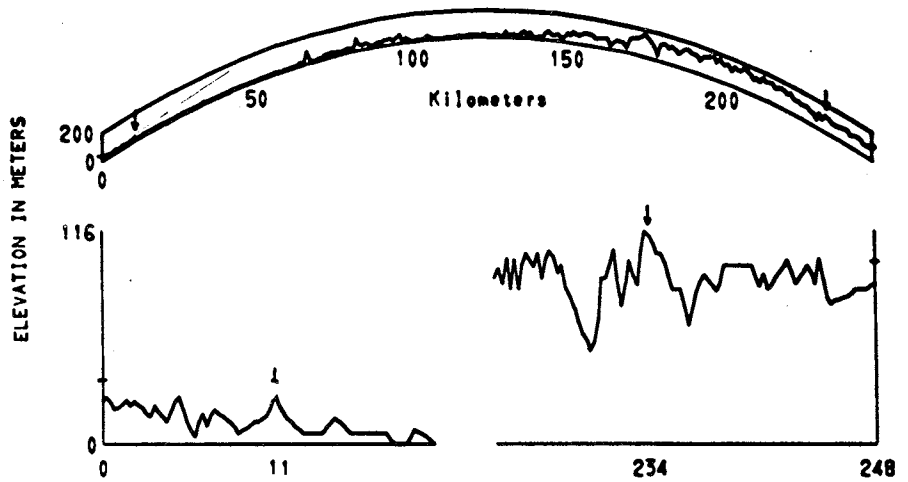
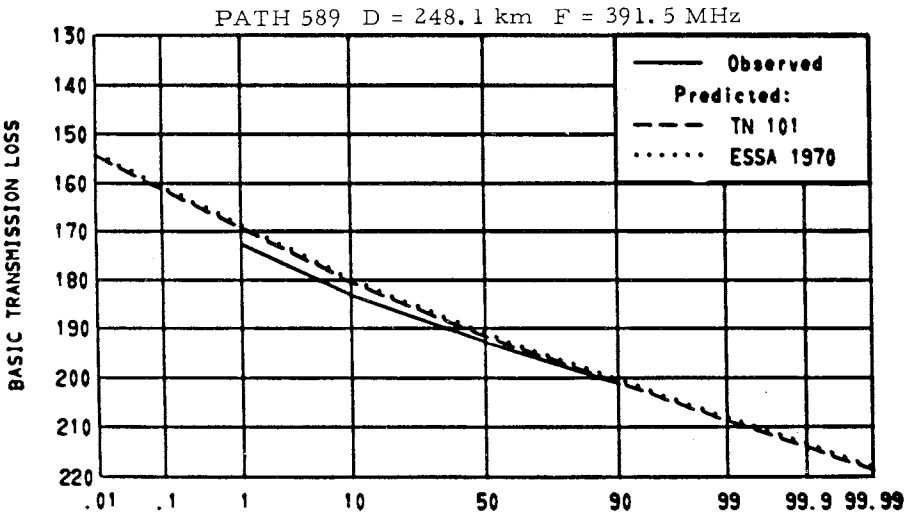


Figure 3.36 Path 59

PATHS 589 591 MOORESTOWN N J - STERLING VA





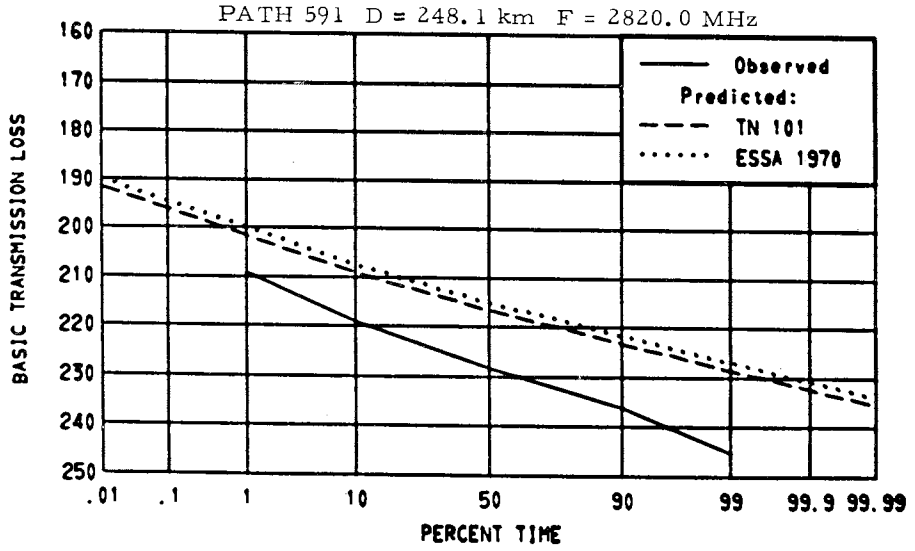
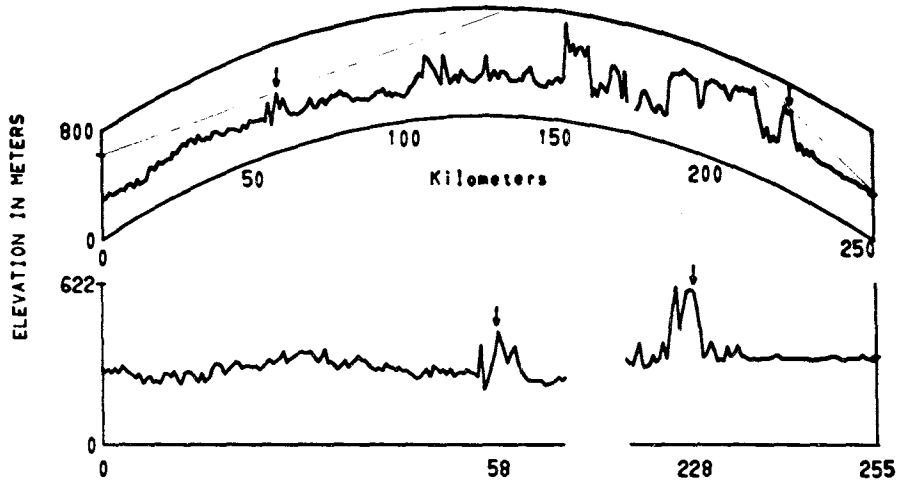
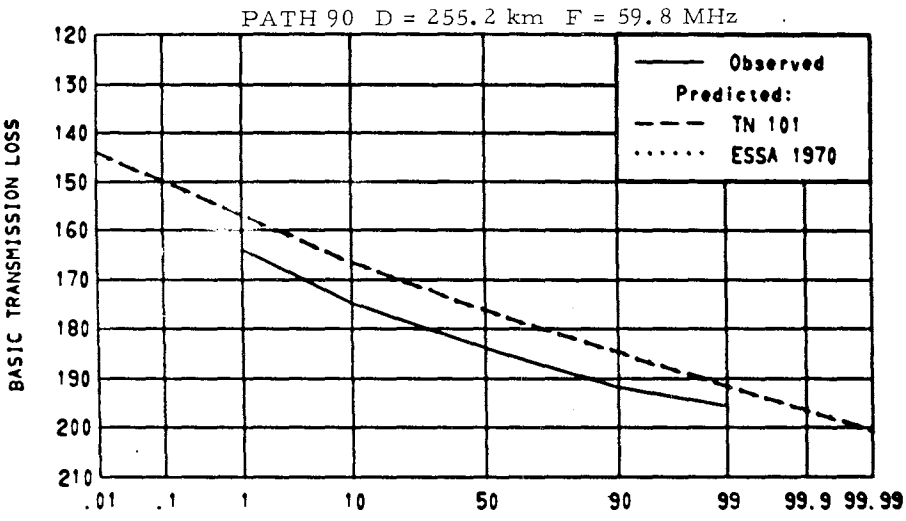


Figure 3.37 Paths 589 591

PATHS 90 95 ATLANTA GA - MANCHESTER TENN





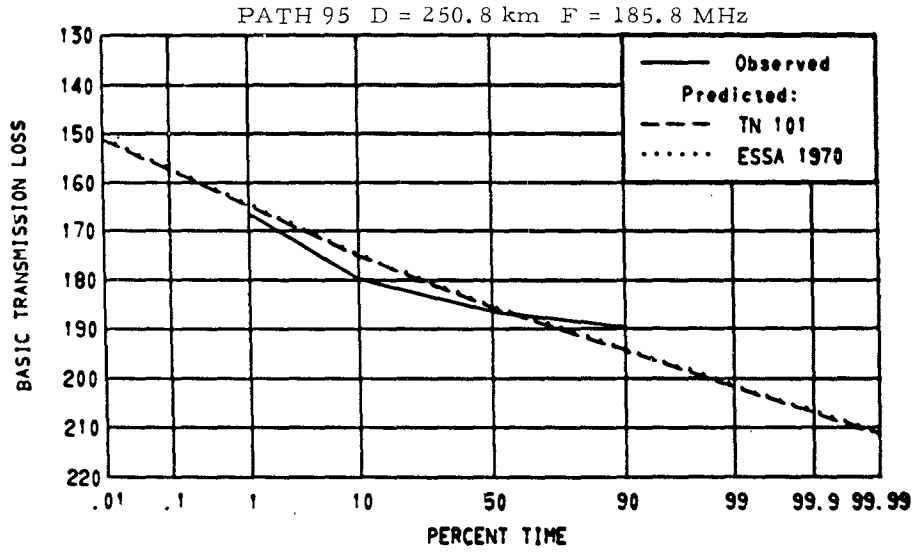


Figure 3.38 Paths 90 95

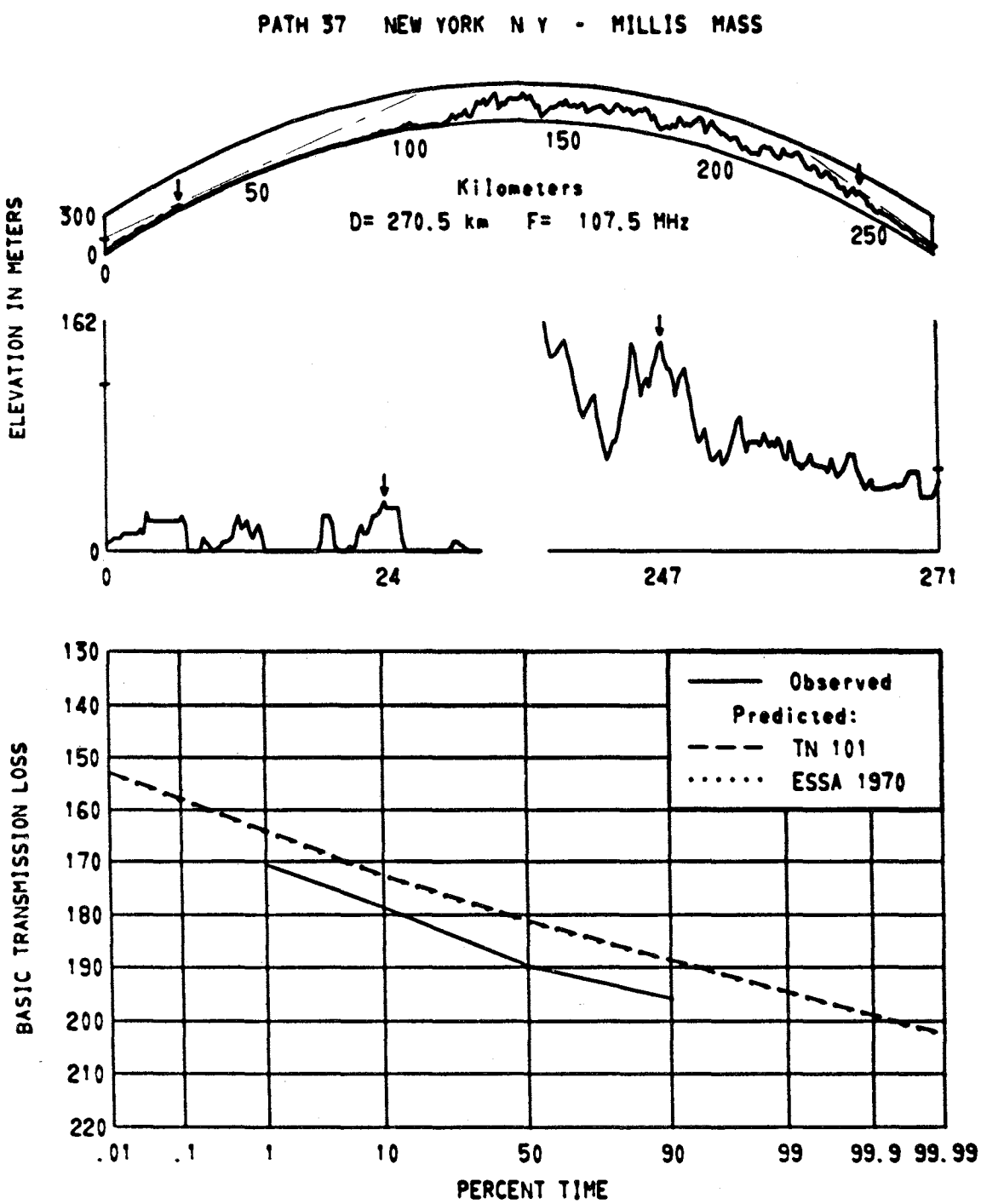


Figure 3.39 Path 37

PATHS 1123 1124 PHARSALIA N Y - CRAWFORDS HILL N J

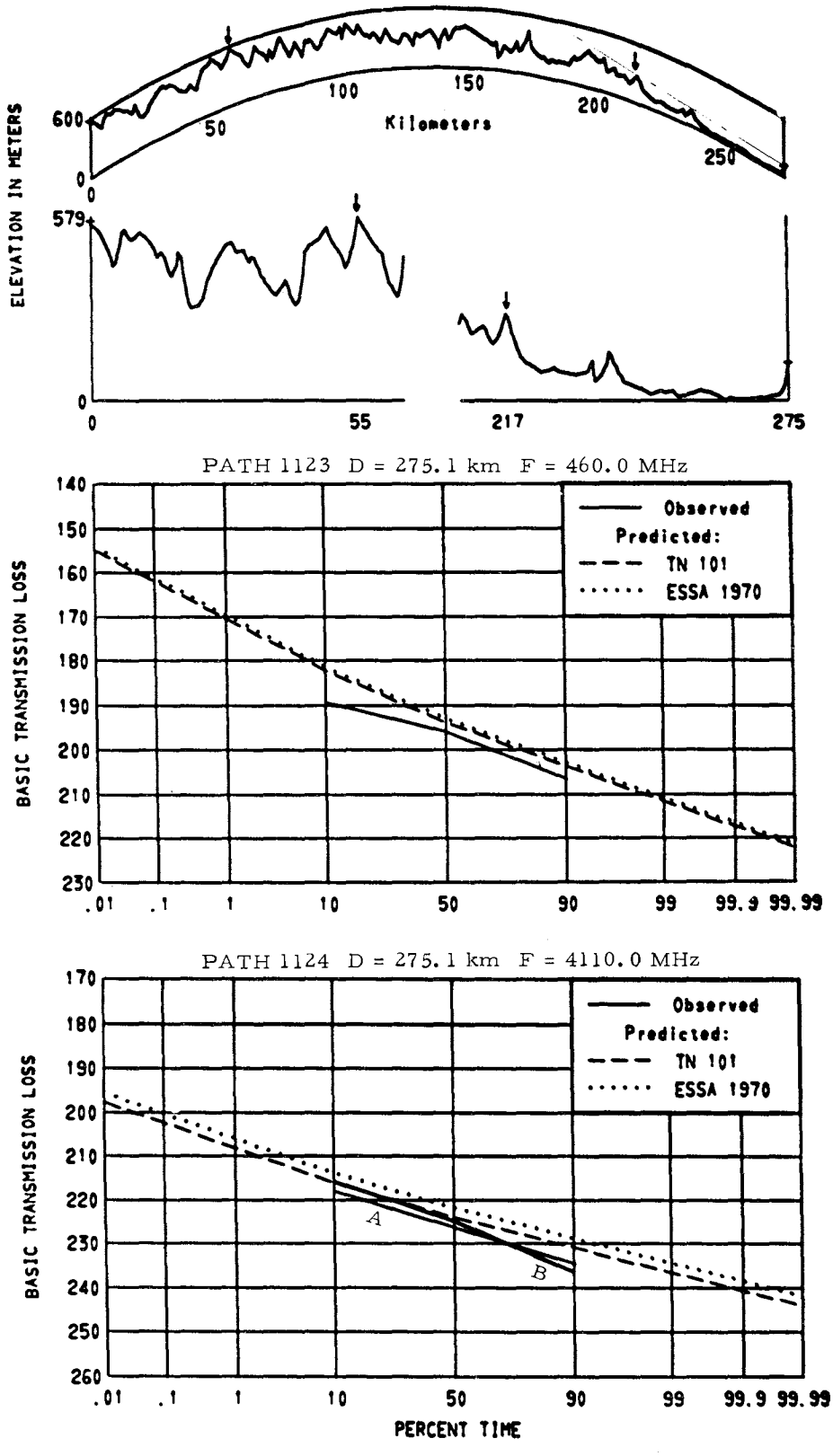


Figure 3.40 Paths 1123 1124

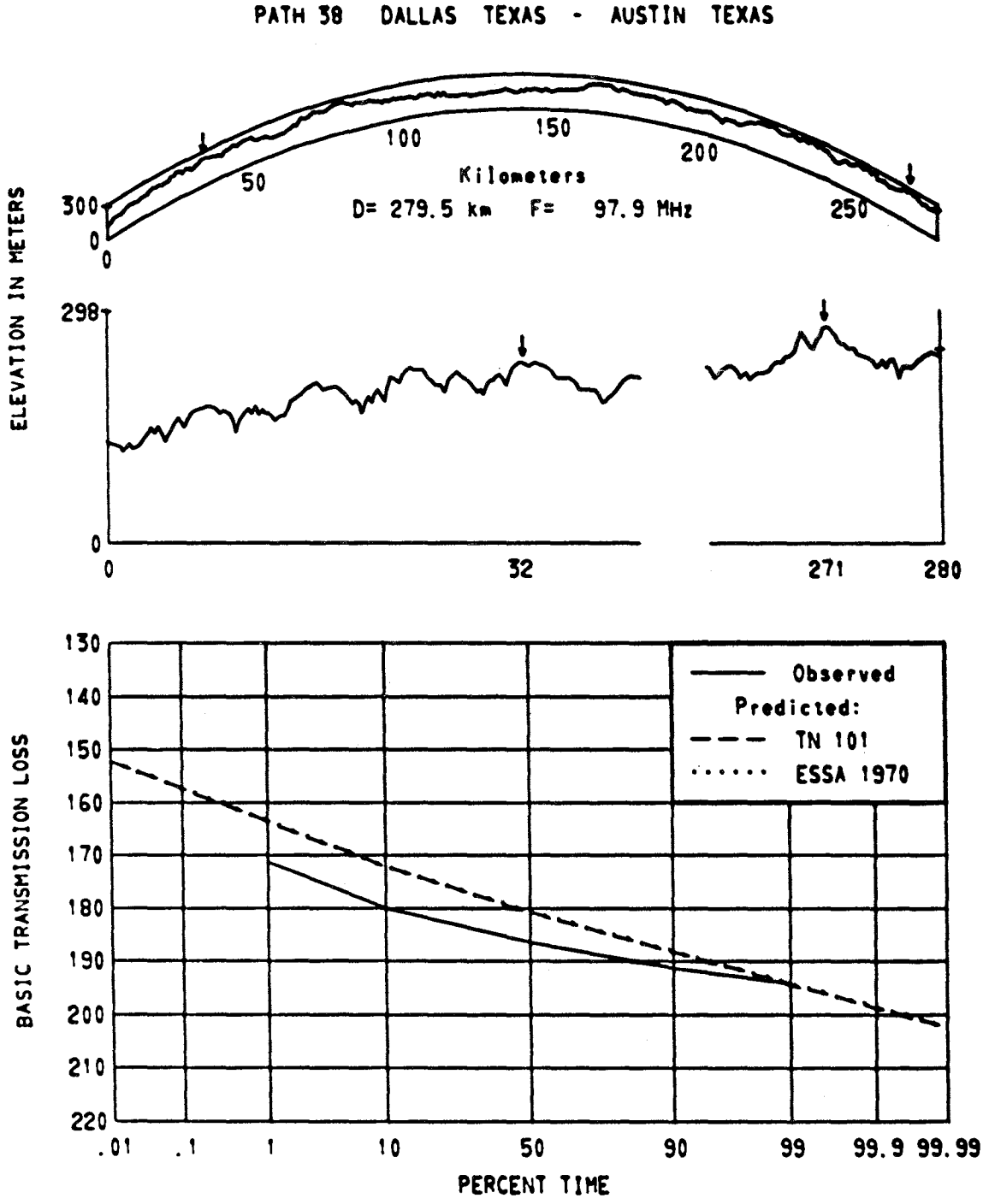


Figure 3.41 Path 38

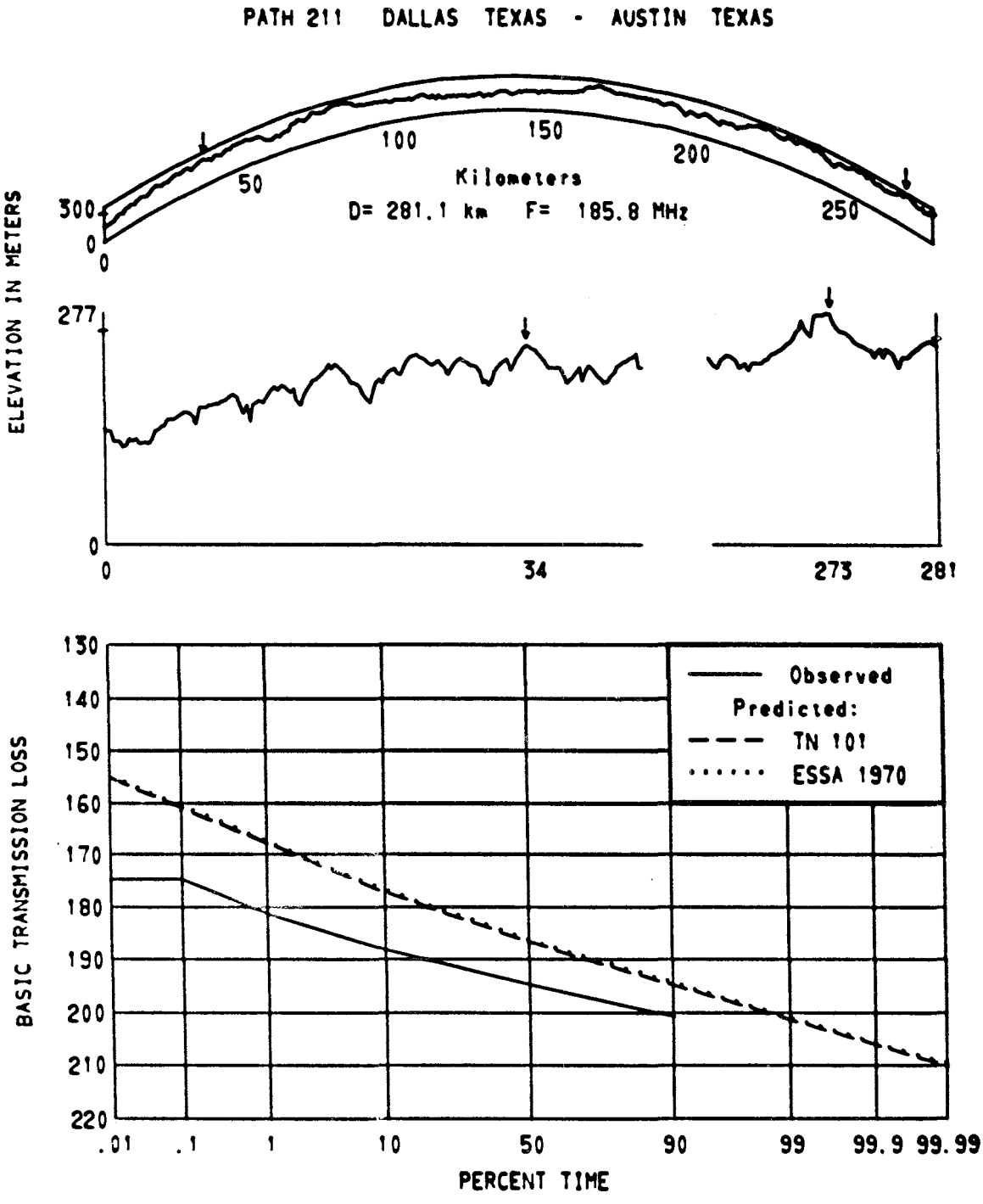


Figure 3.42 Path 211

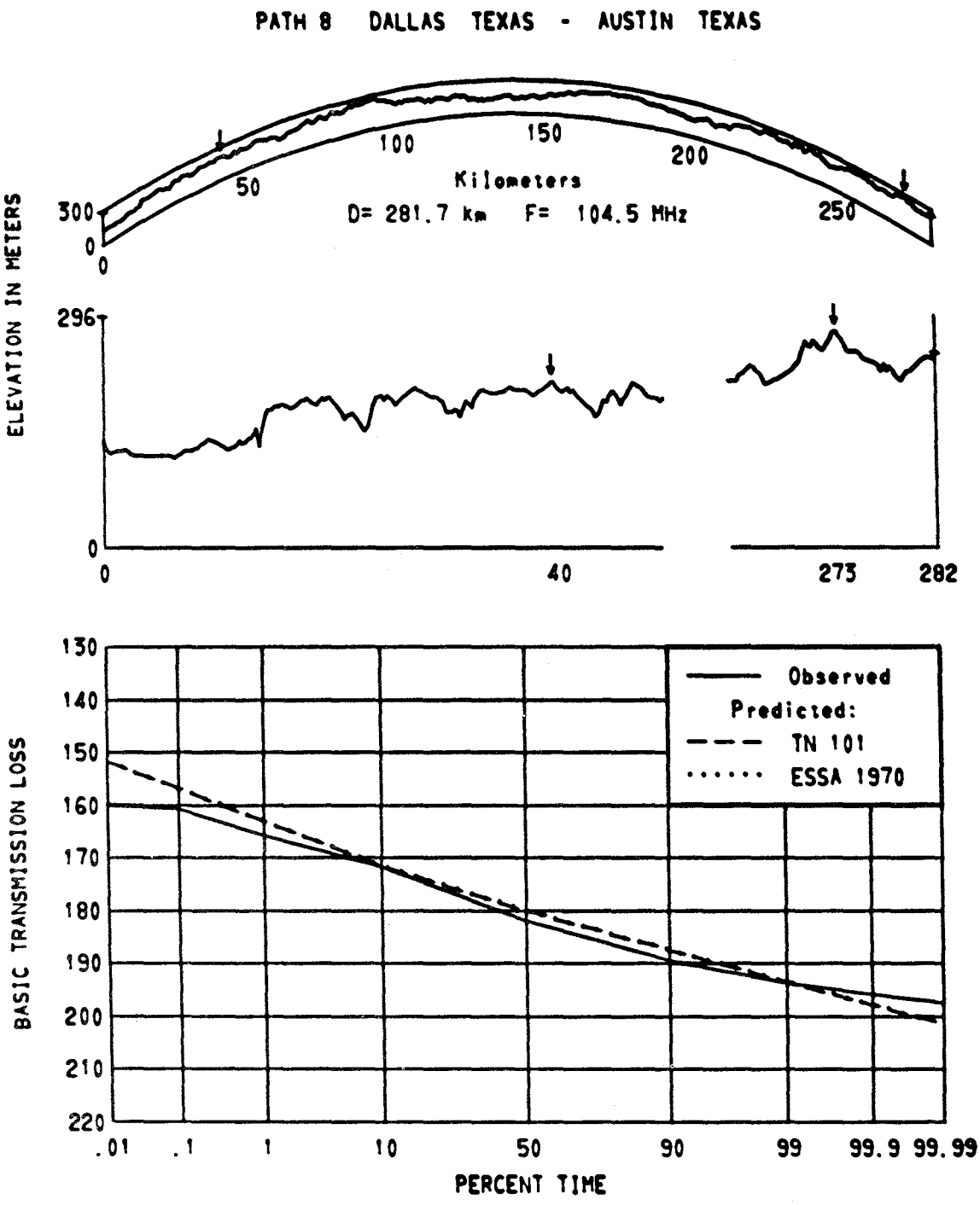


Figure 3.43 Path 8

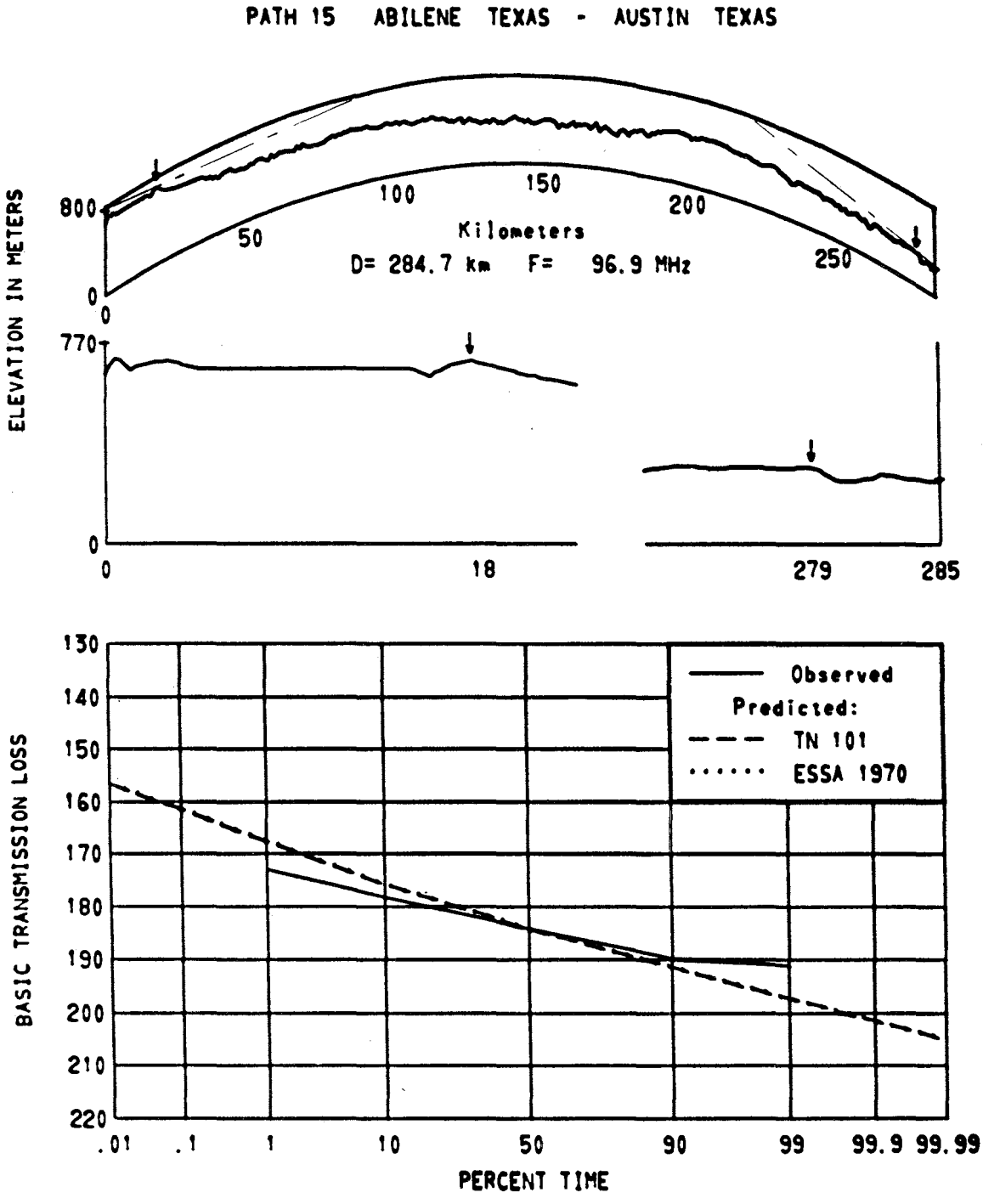


Figure 3.44 Path 15

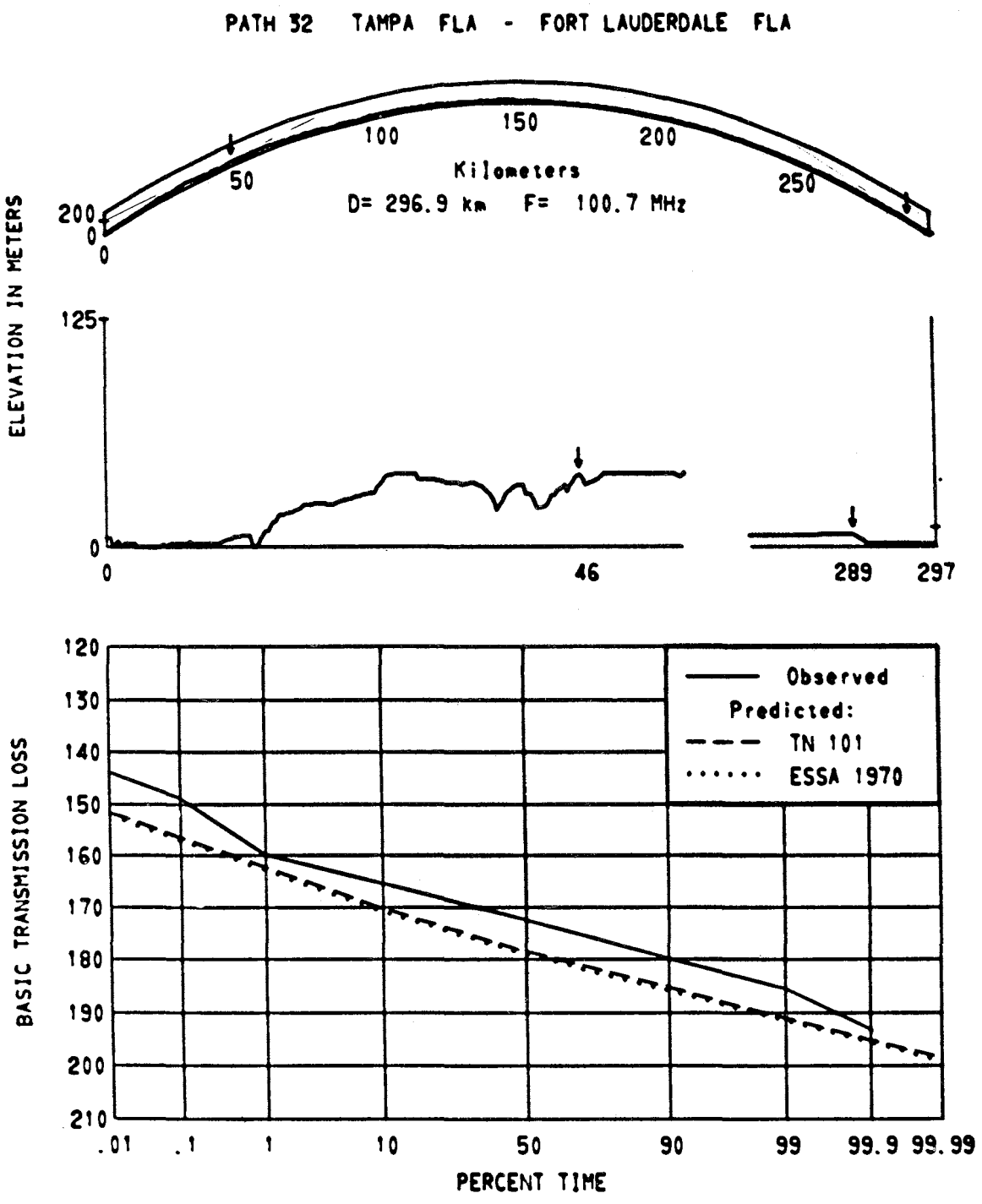


Figure 3.45 Path 32

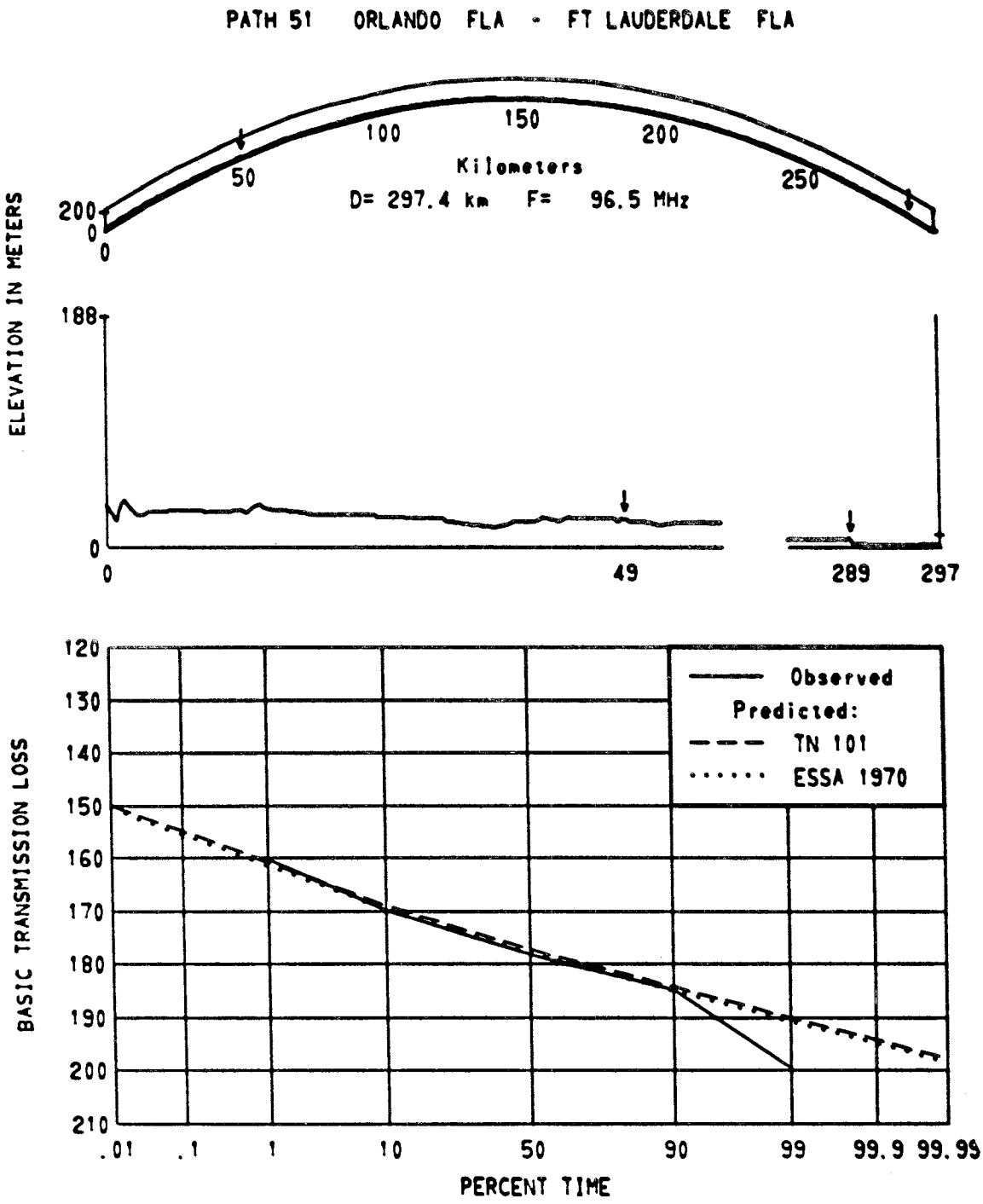


Figure 3.46 Path 51

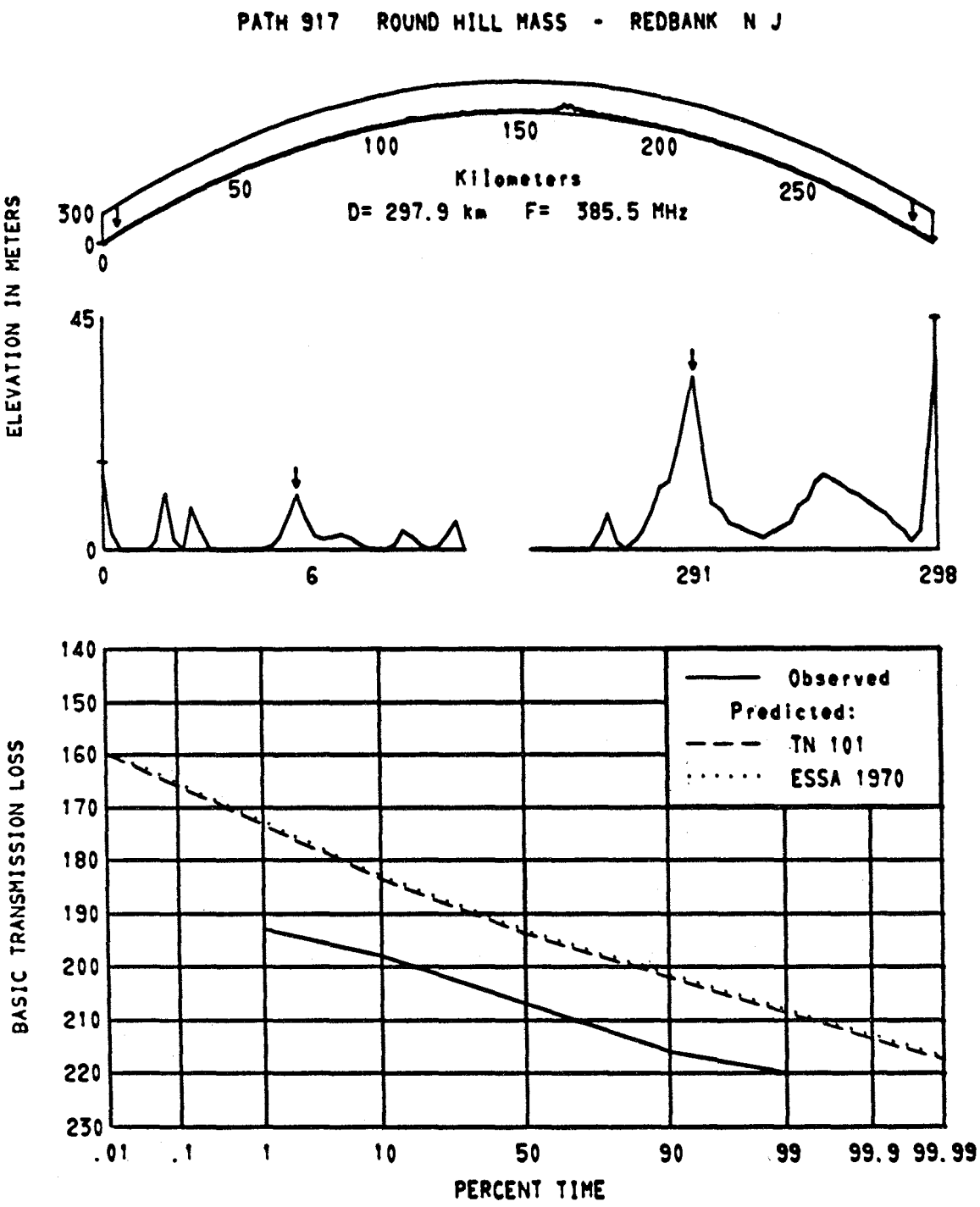
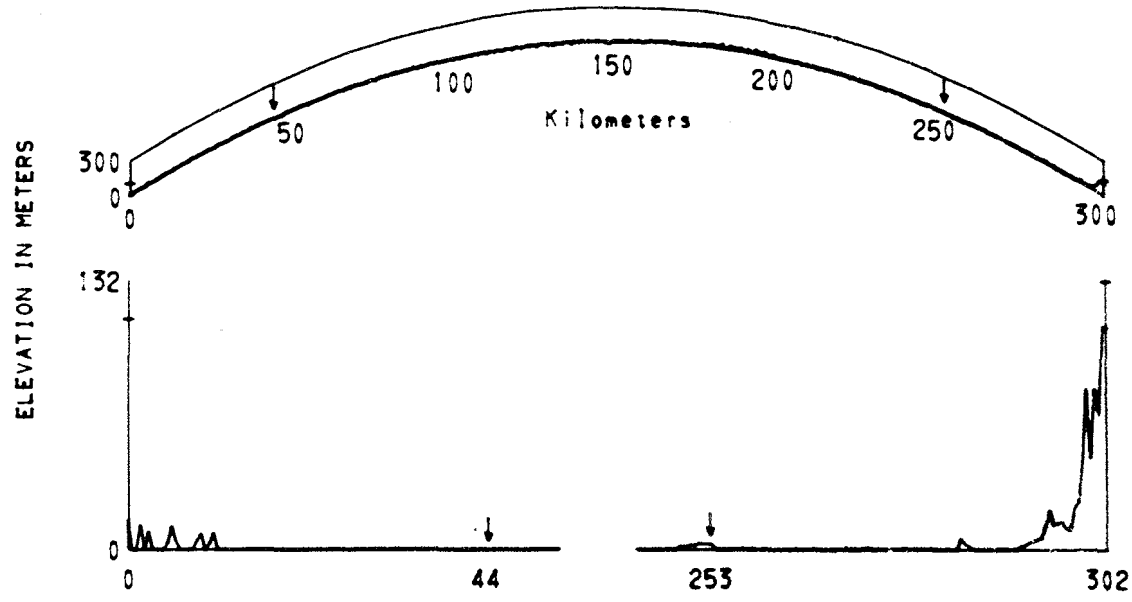


Figure 3.47 Path 917

PATHS 903 904 ROUND HILL MASS - CRAWFORDS HILL N J



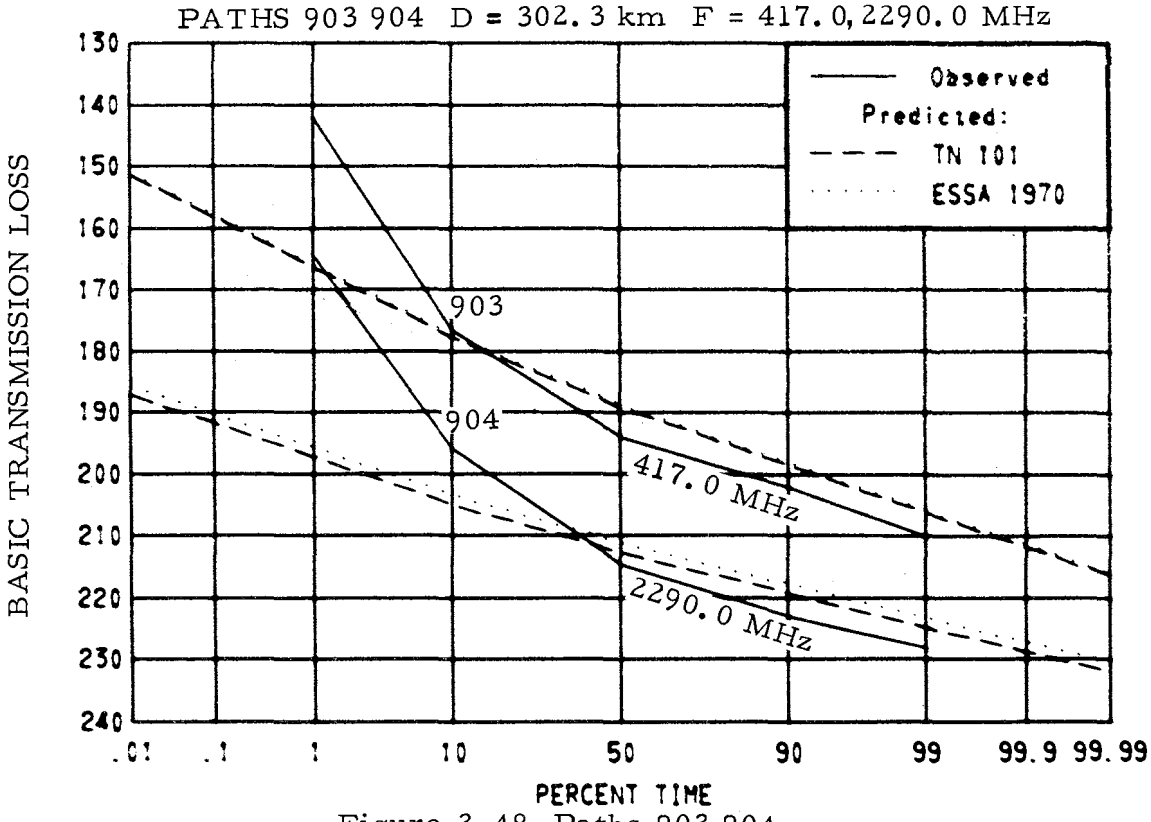


Figure 3.48 Paths 903 904

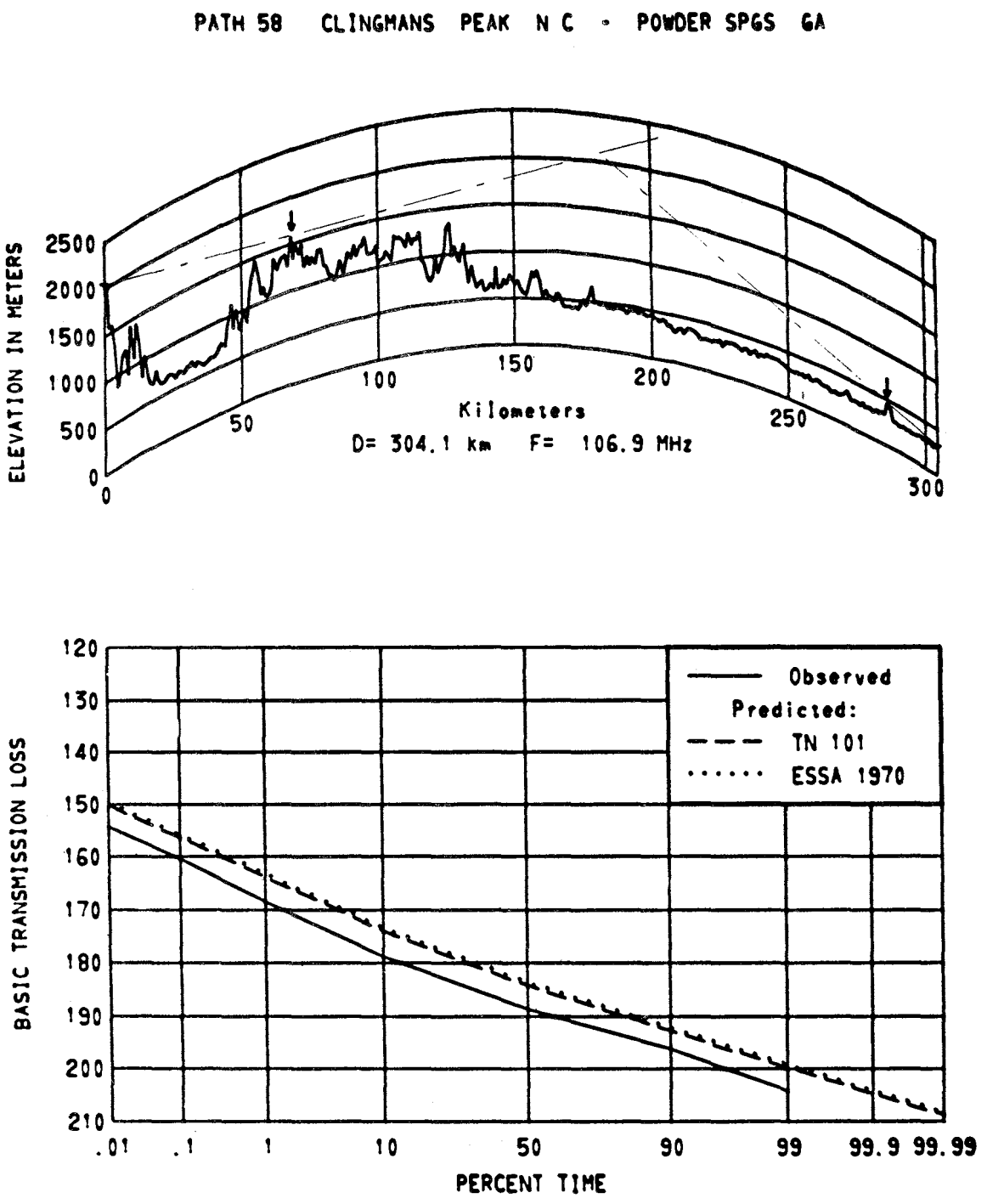


Figure 3.49 Path 58

PATHS 53 71 PITTSBURGH PA - LAUREL MD

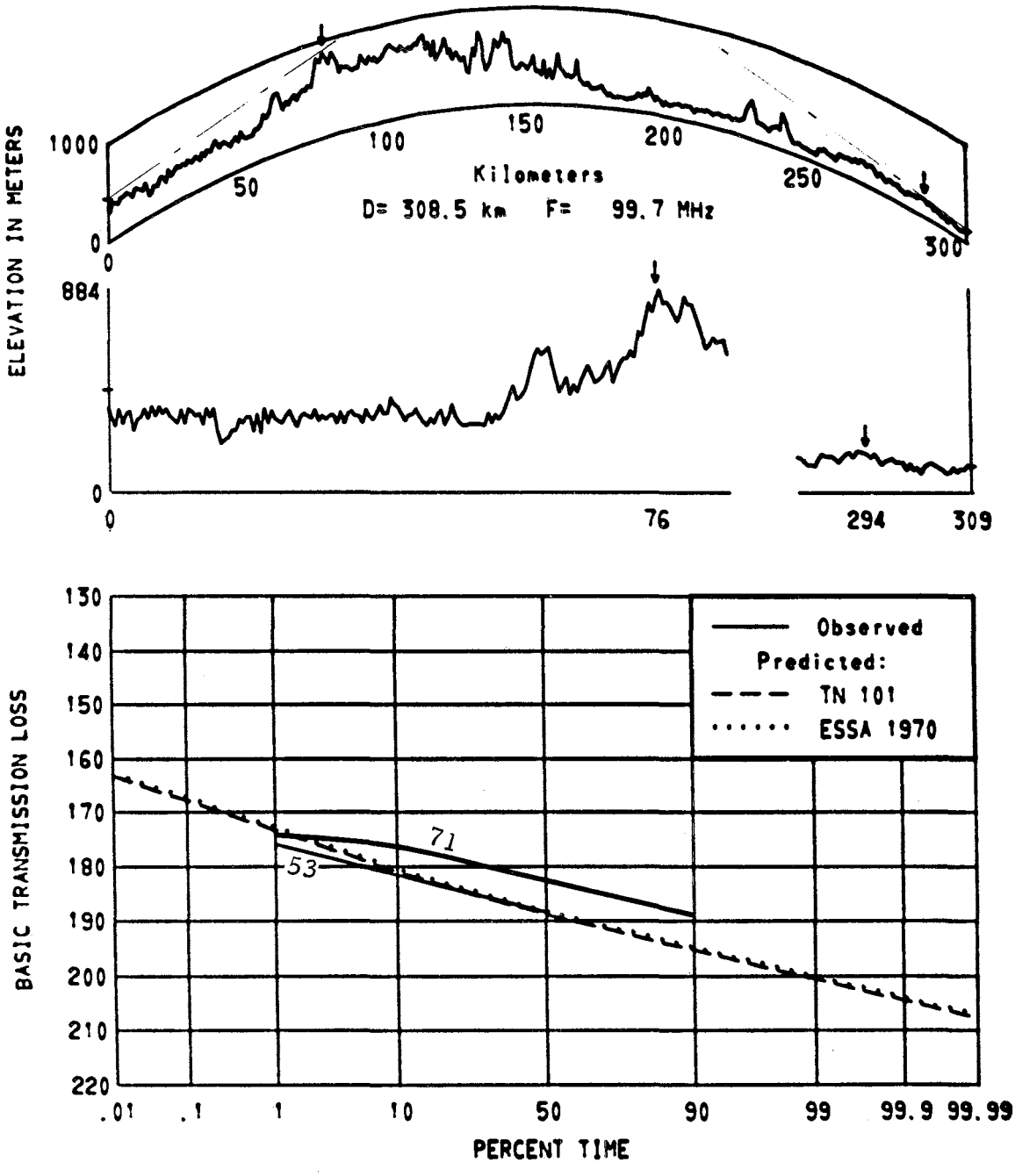


Figure 3.50 Paths 53 71

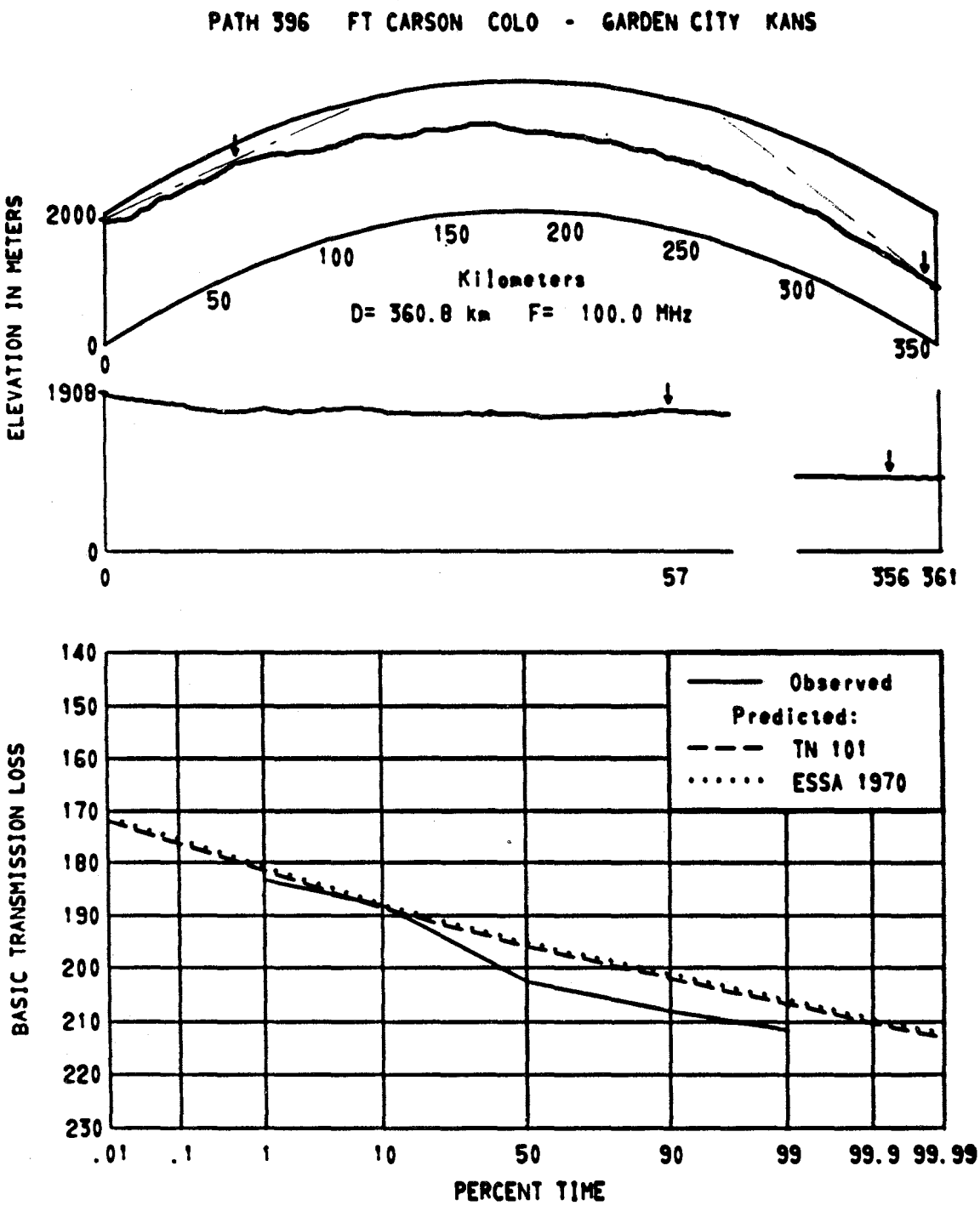


Figure 3.51 Path 396

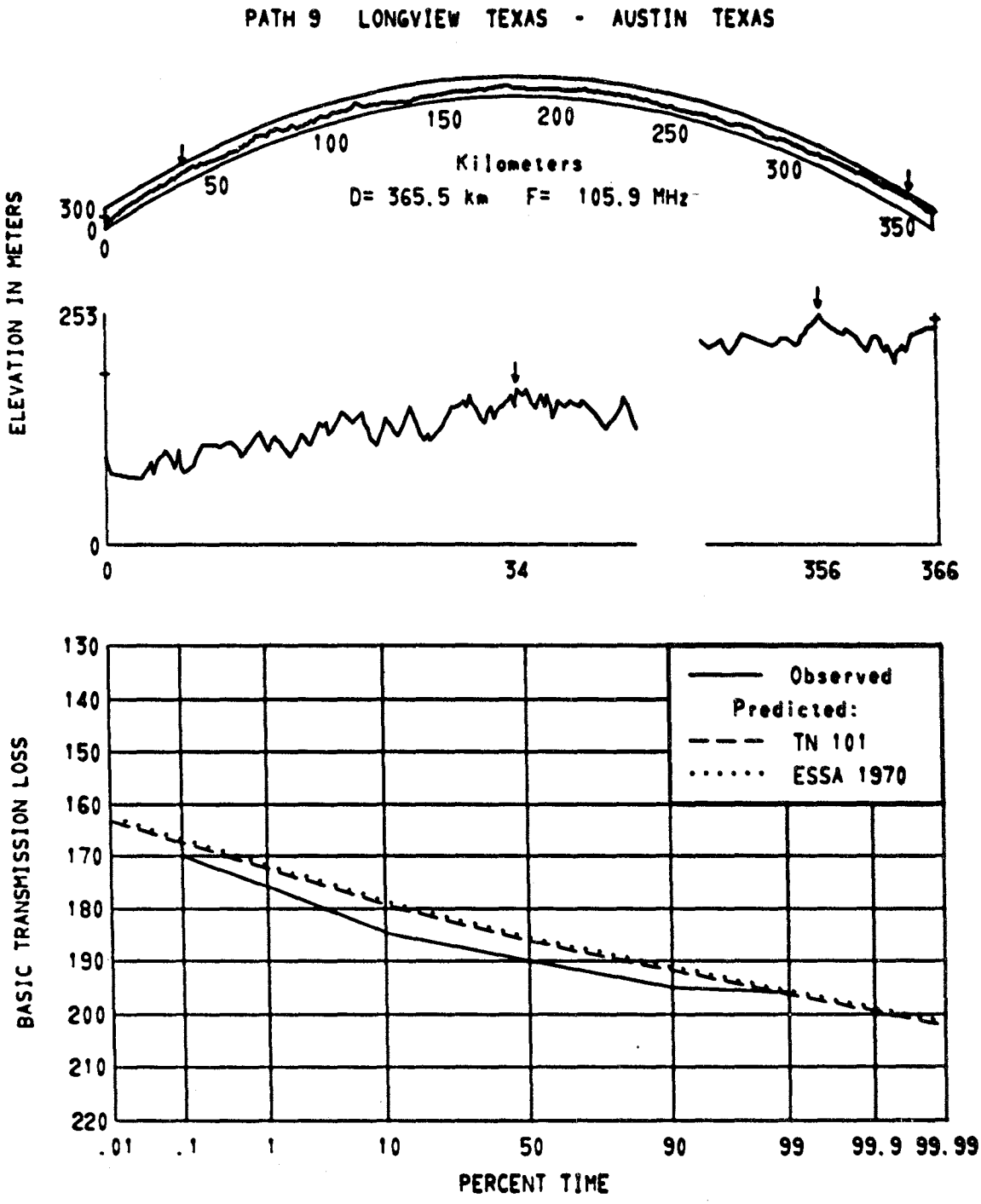
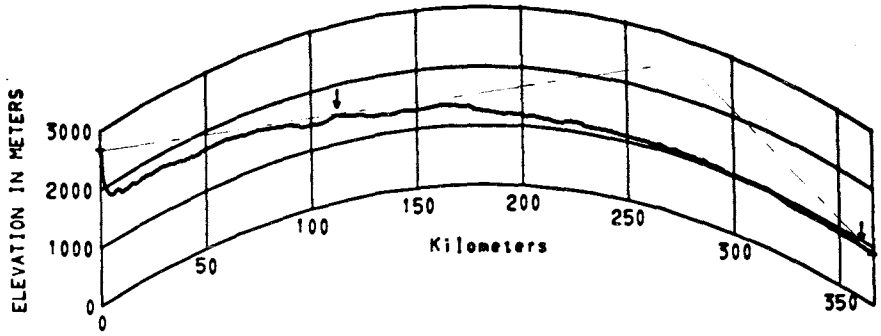
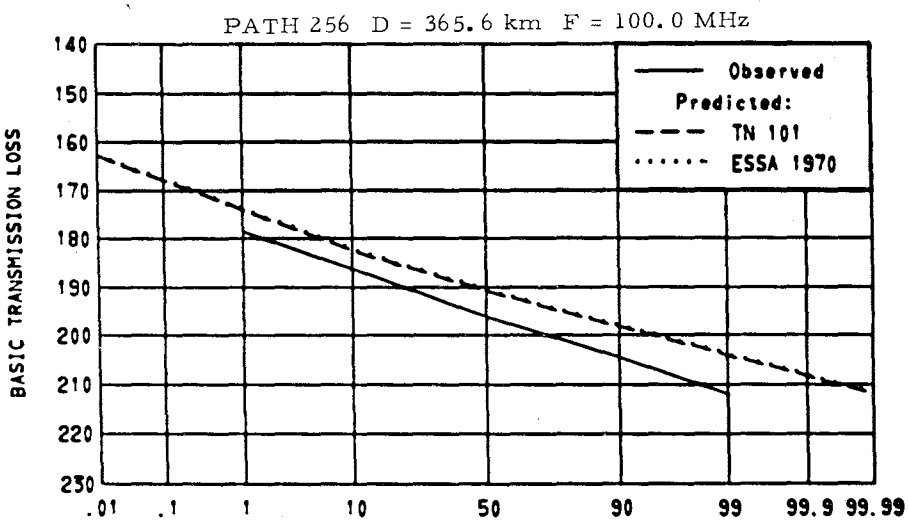


Figure 3.52 Path 9

CHEYENNE MTN S COLO - GARDEN CITY KANS
PATHS 256 276 296 316 317





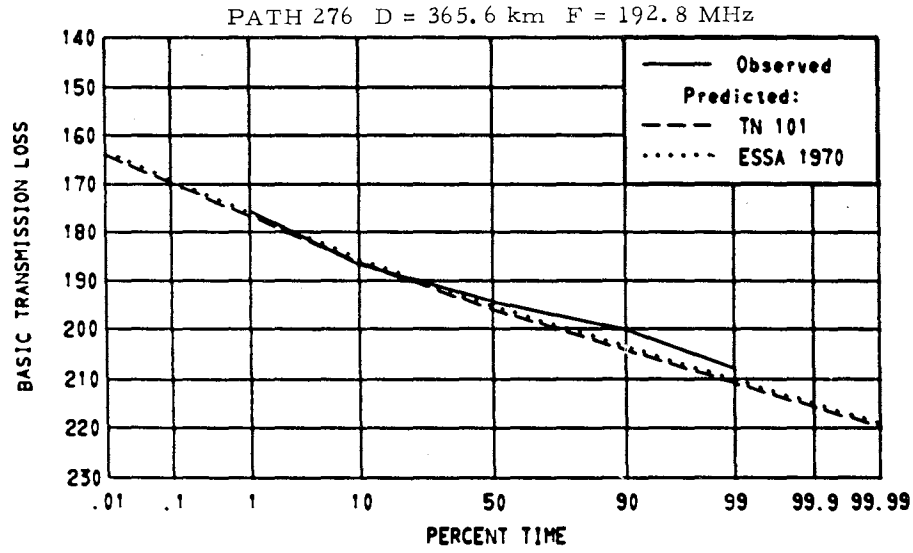


Figure 3.53 Paths 256 276

CHEYENNE MTN S COLO - GARDEN CITY KANS

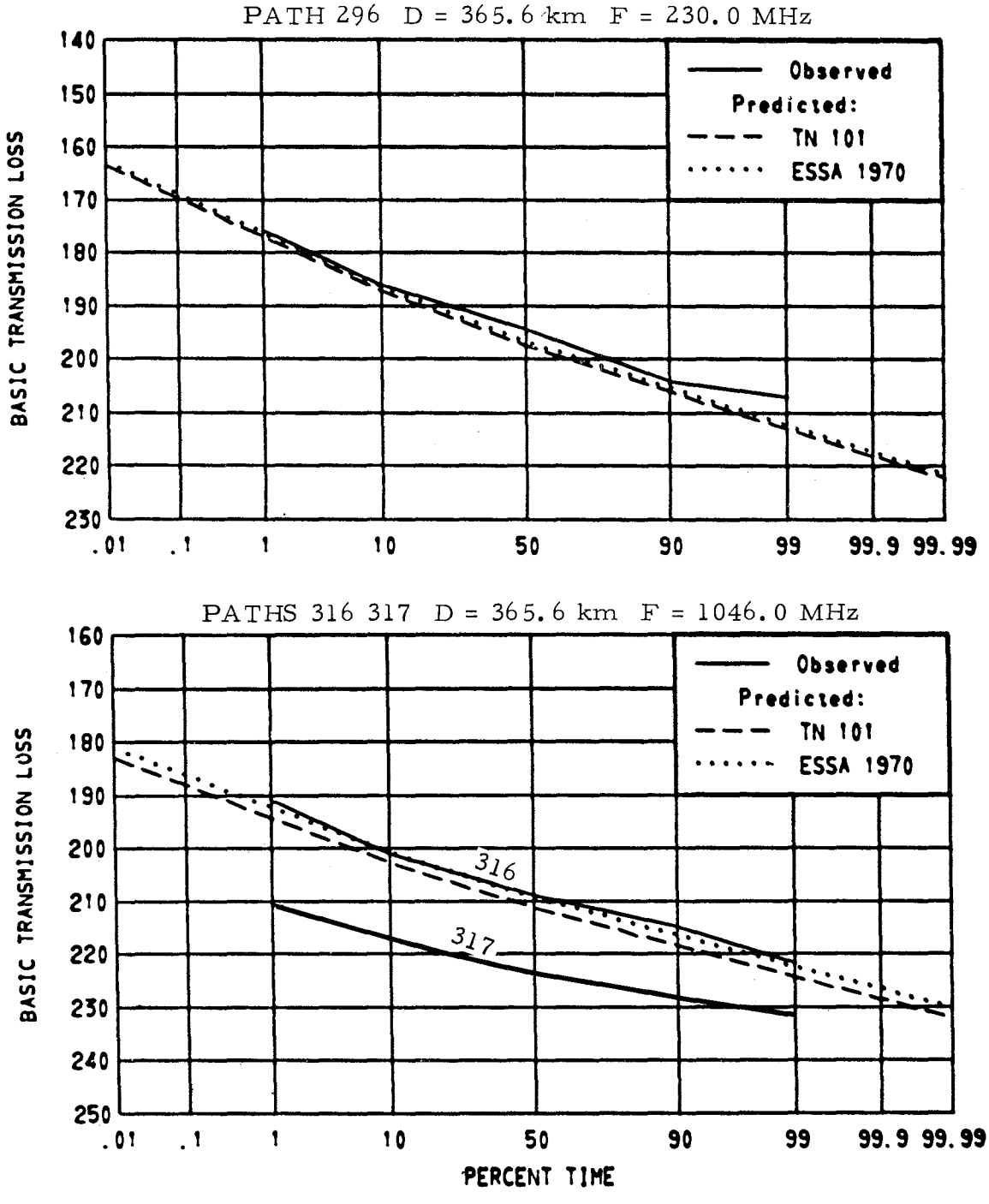
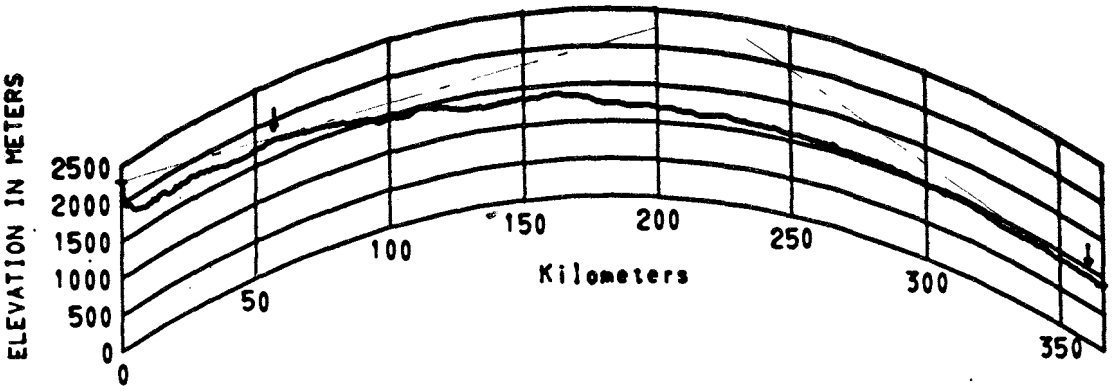


Figure 3.54 Paths 296 316 317

CHEYENNE MTN B COLO - GARDEN CITY KANS
PATHS 336 356 376



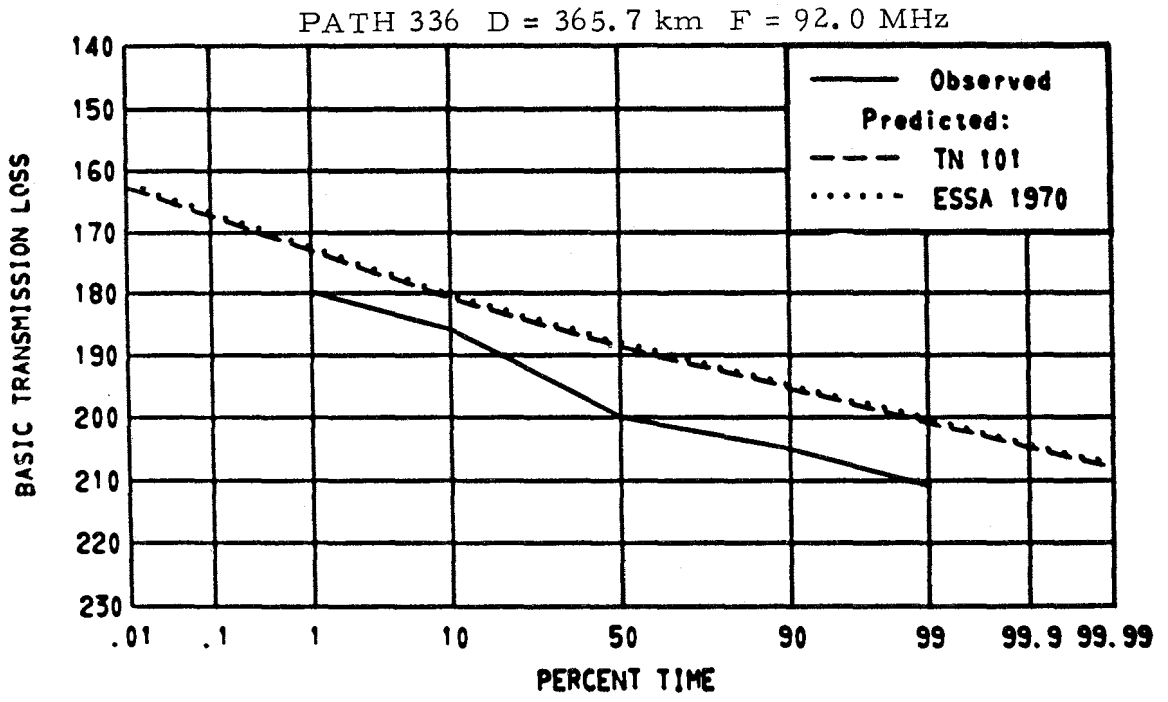


Figure 3.55 Path 336

CHEYENNE MTN B COLO - GARDEN CITY KANS

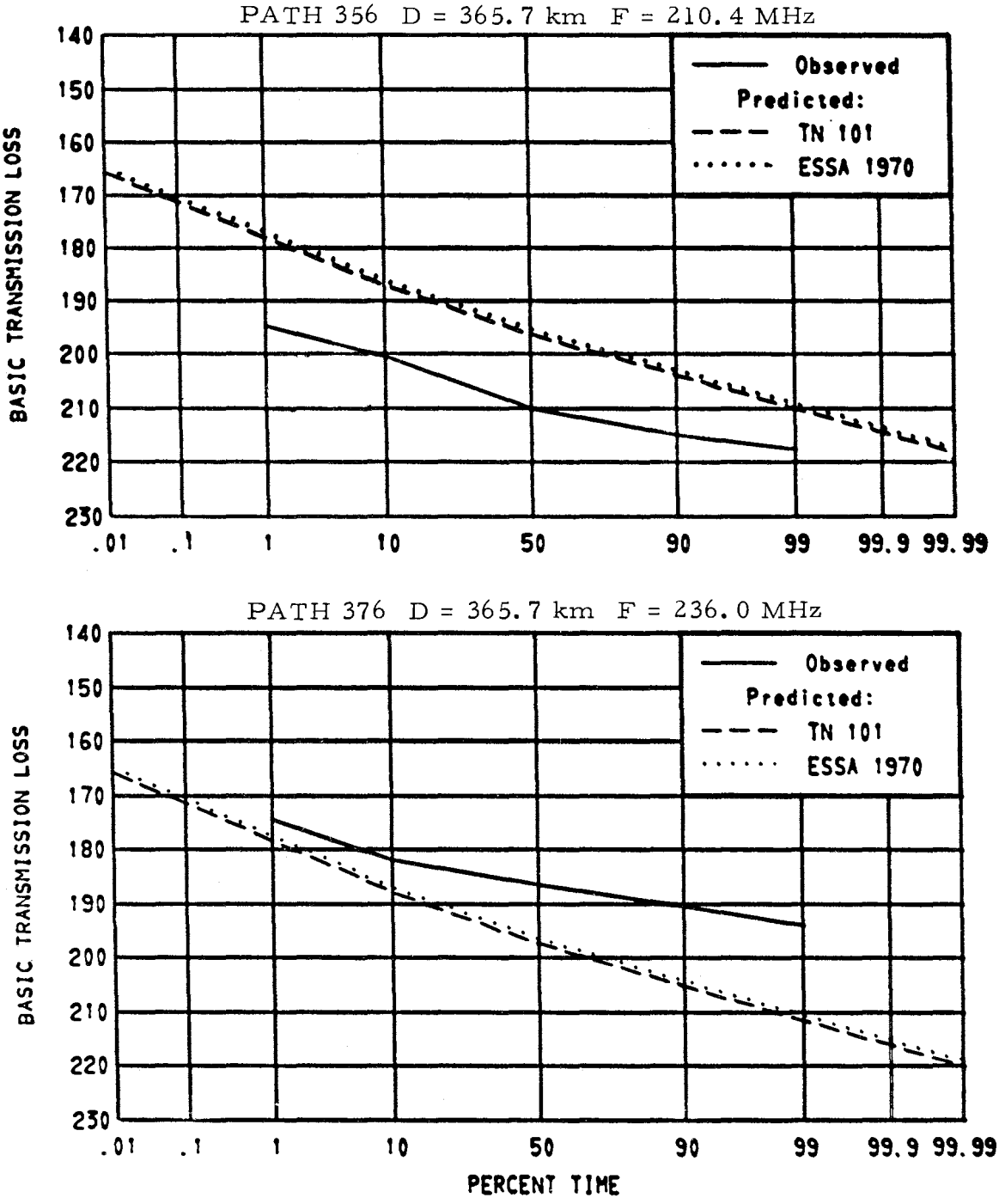


Figure 3.56 Paths 356 376

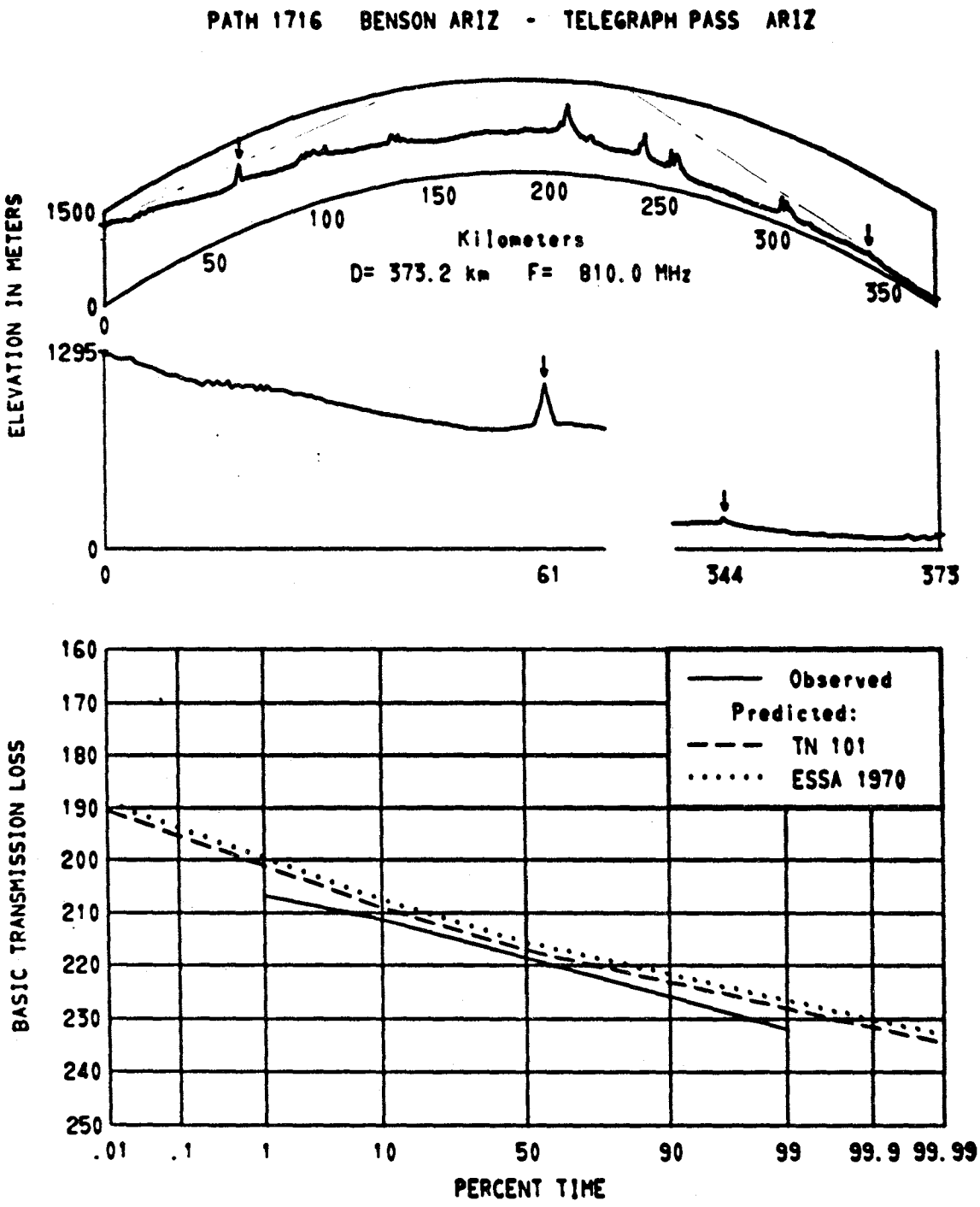


Figure 3.57 Path 1716

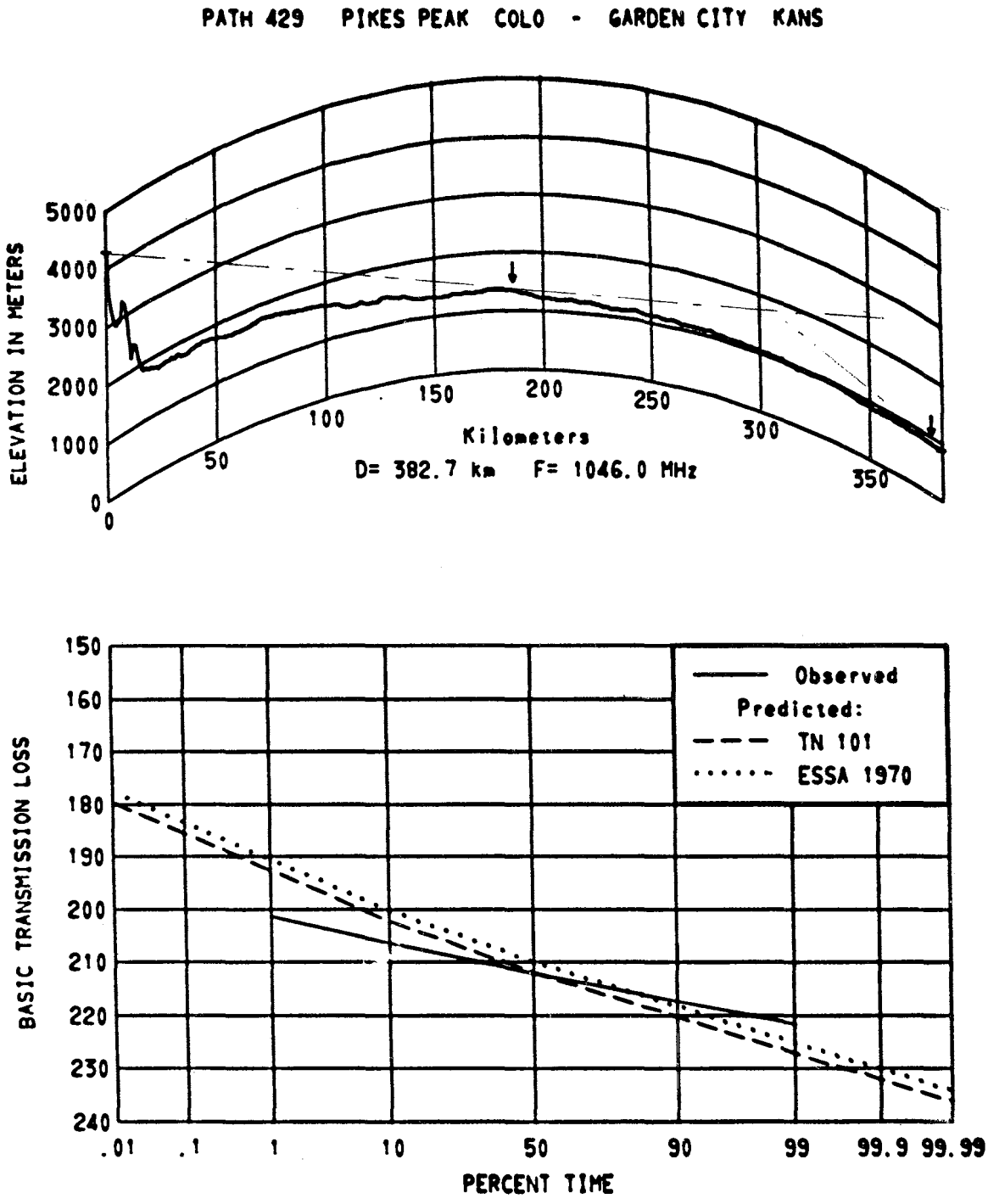


Figure 3.58 Path 429

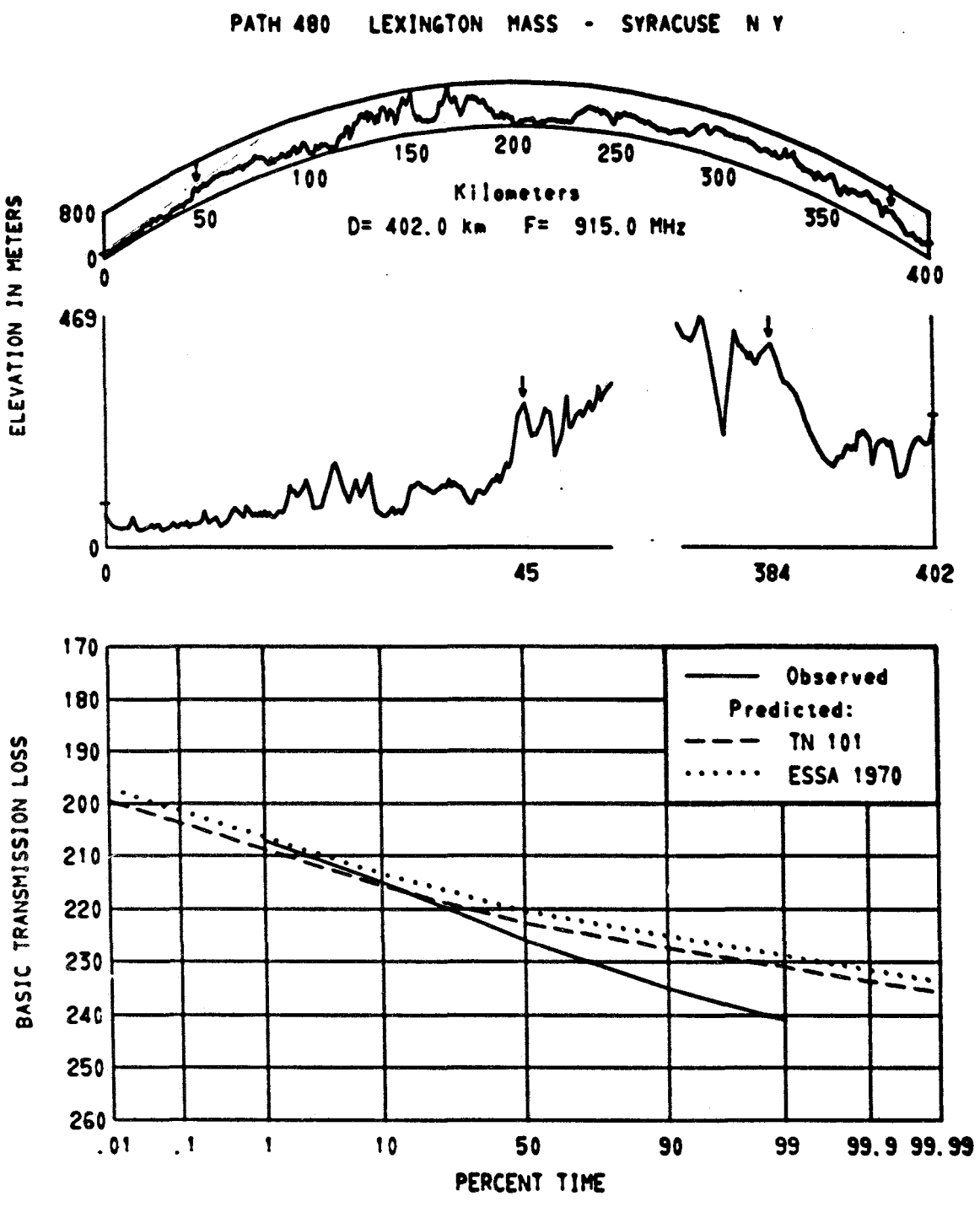


Figure 3.59 Path 480

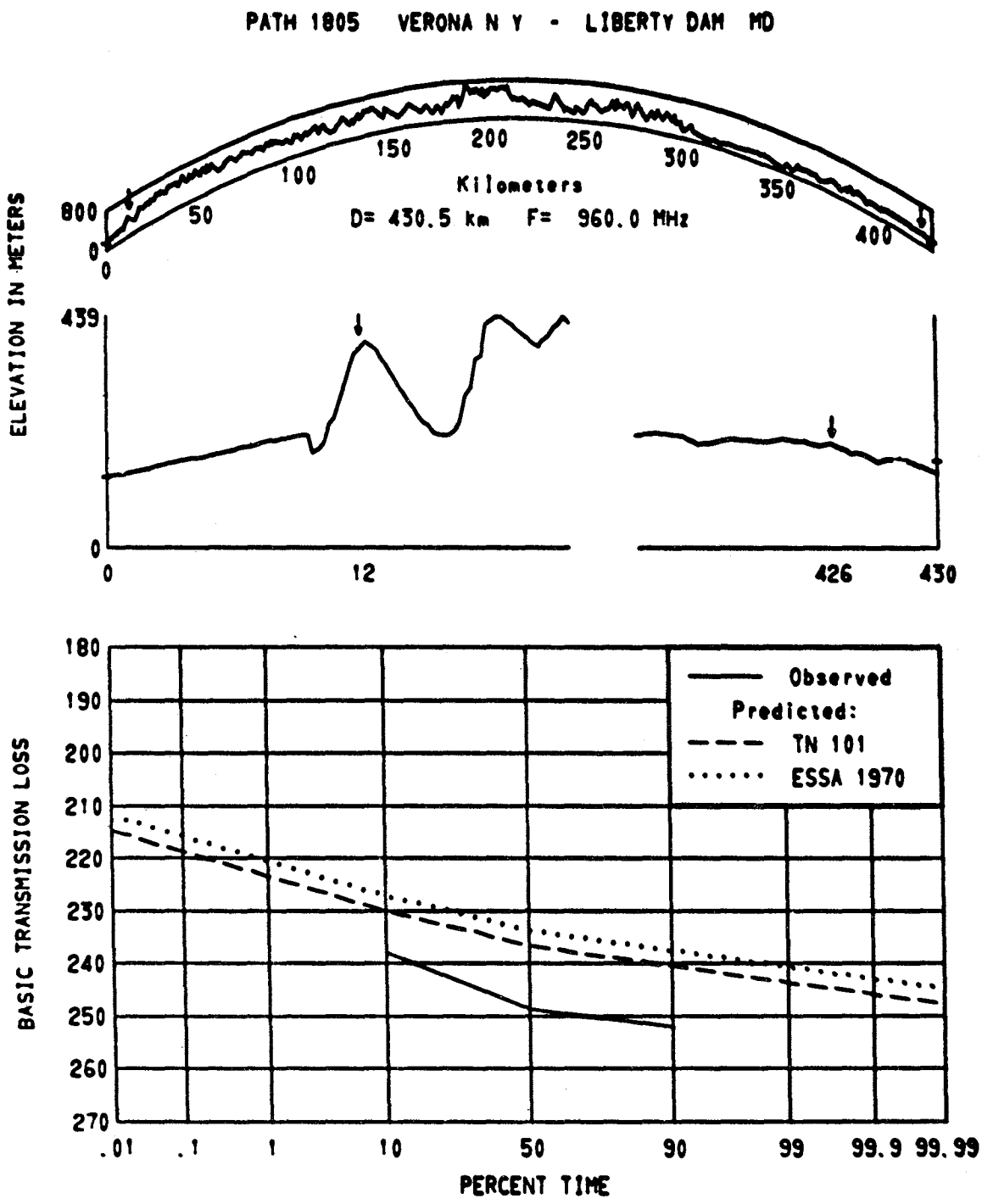


Figure 3.60 Path 1805

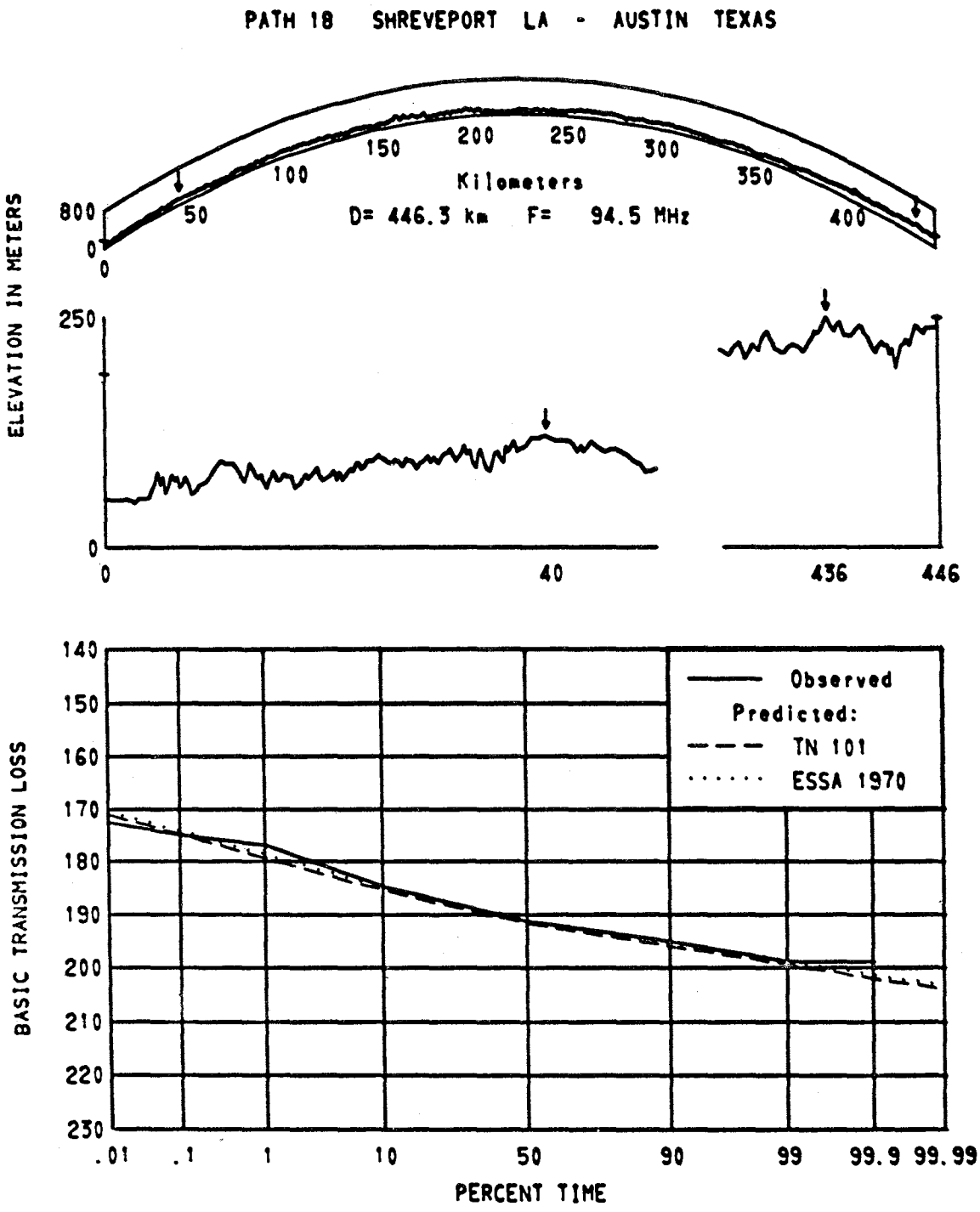


Figure 3.61 Path 18

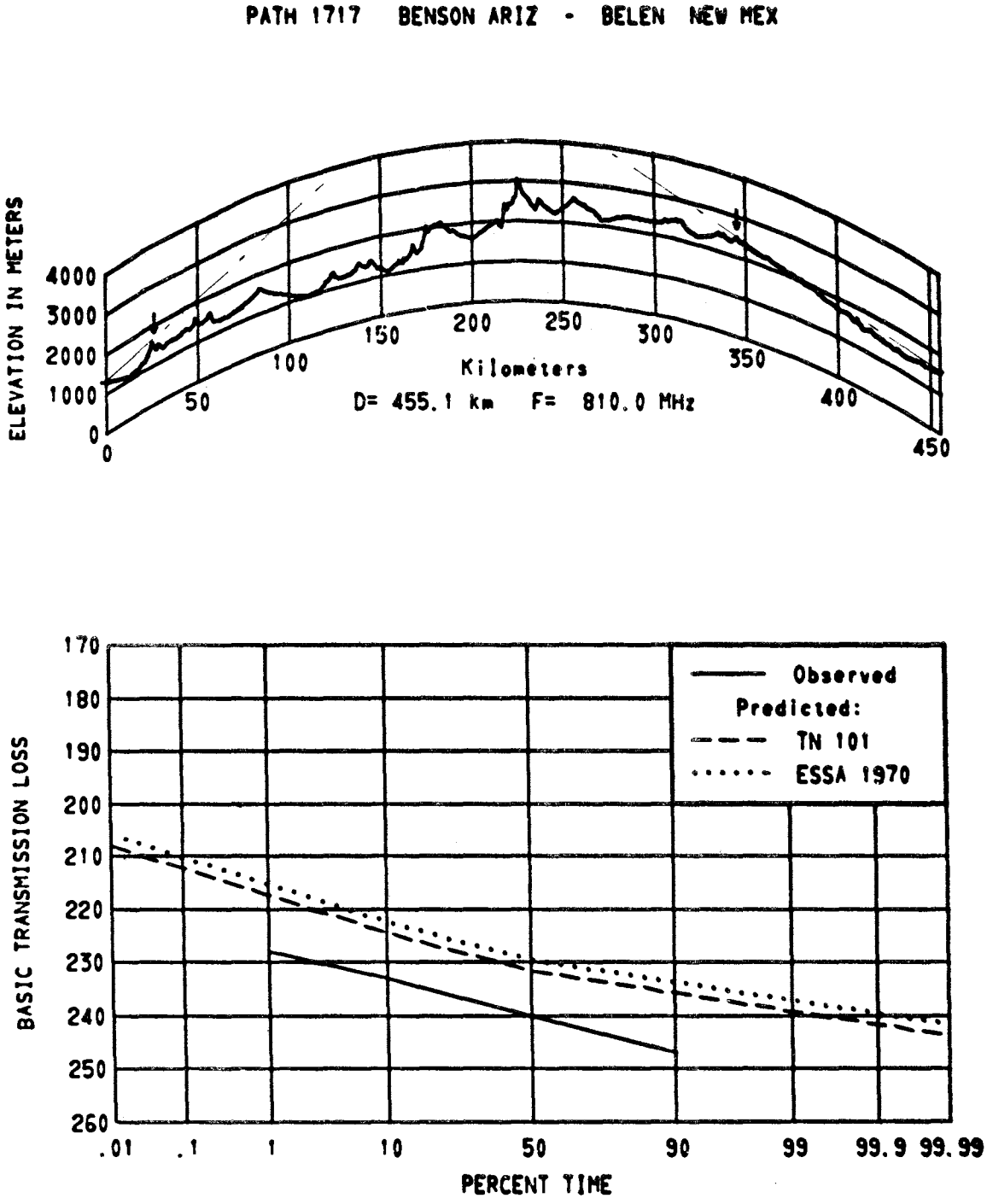


Figure 3.62 Path 1717

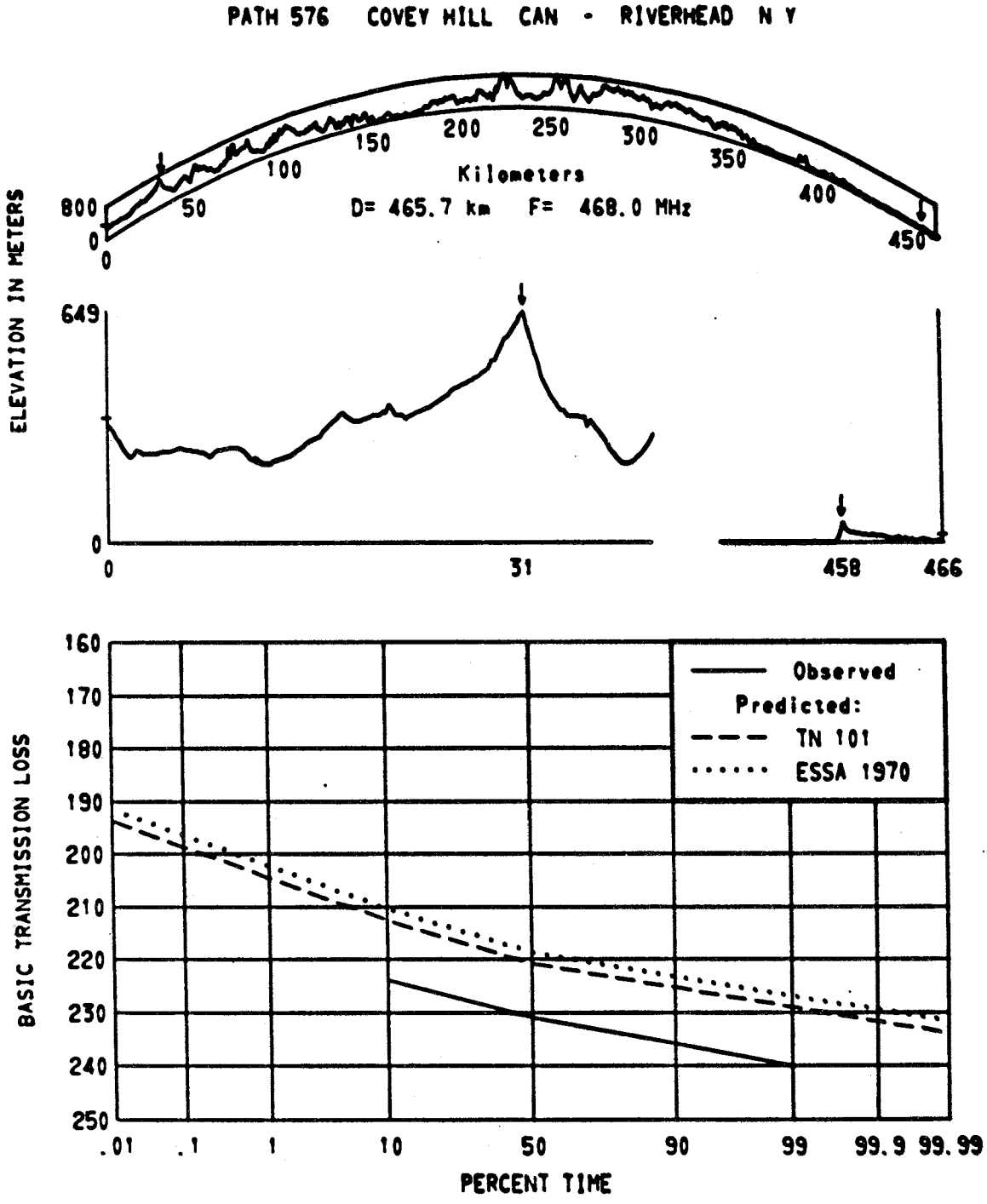


Figure 3.63 Path 576

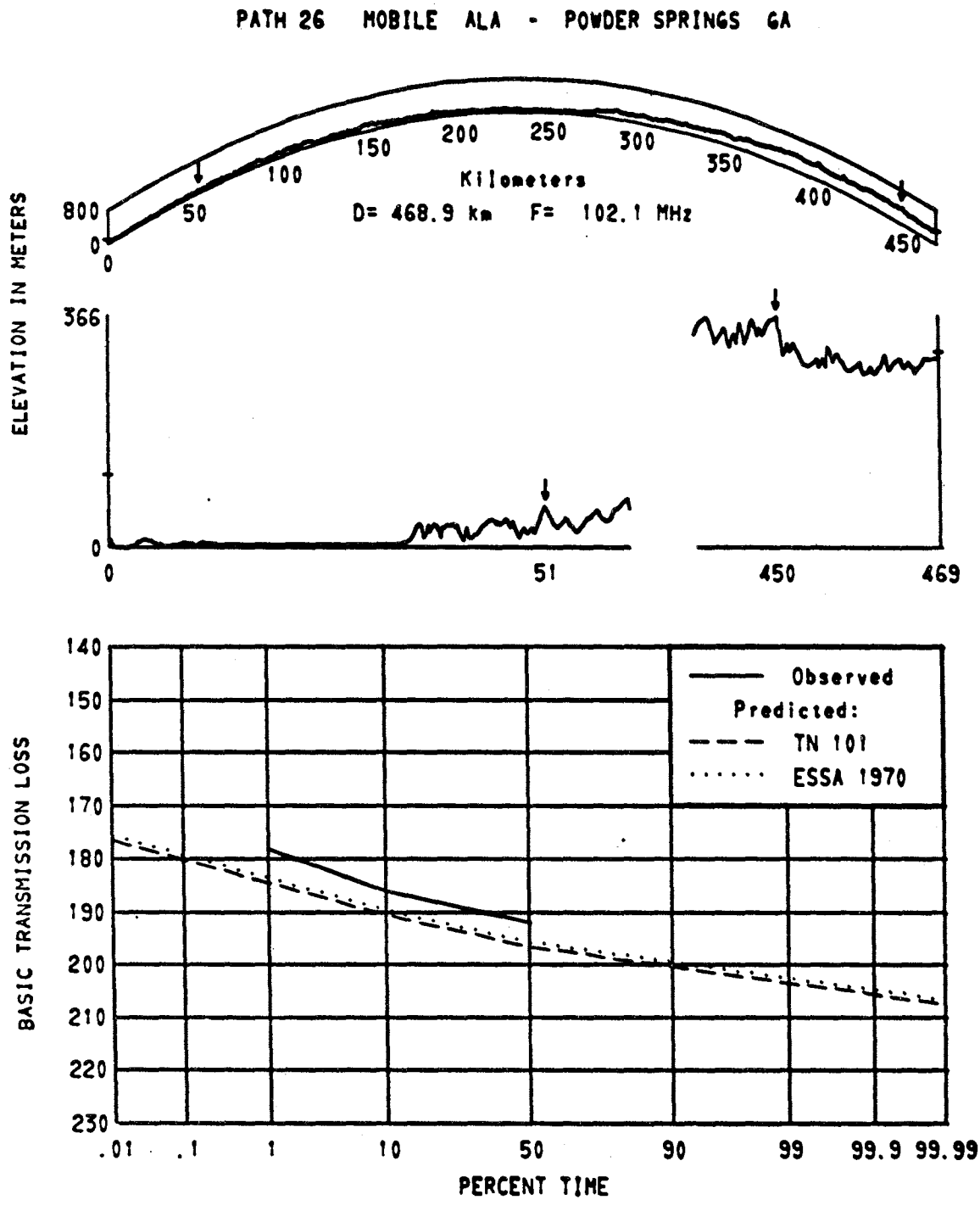
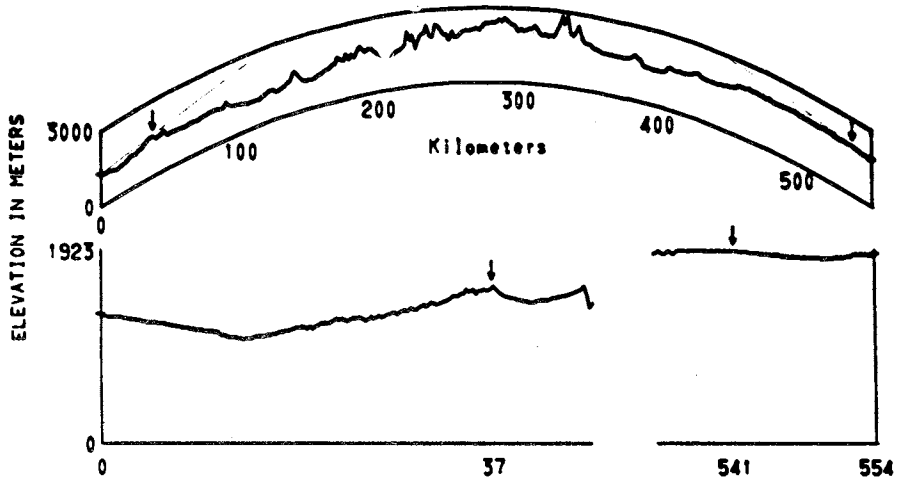
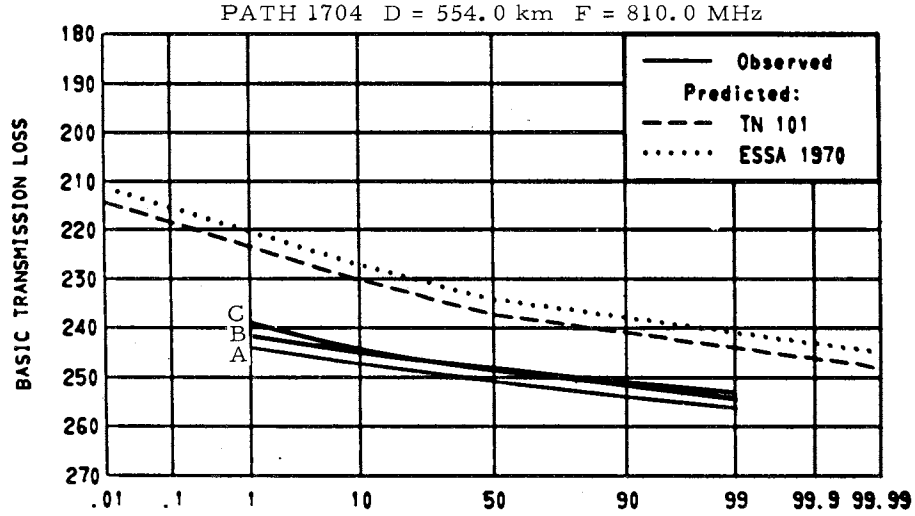


Figure 3.64 Path 26

PATHS 1704 1705 BENSON ARIZ - ENCINO NEW MEX



PATH 1704 D = 554.0 km F = 810.0 MHz



PATH 1705 D = 554.0 km F = 810.0 MHz

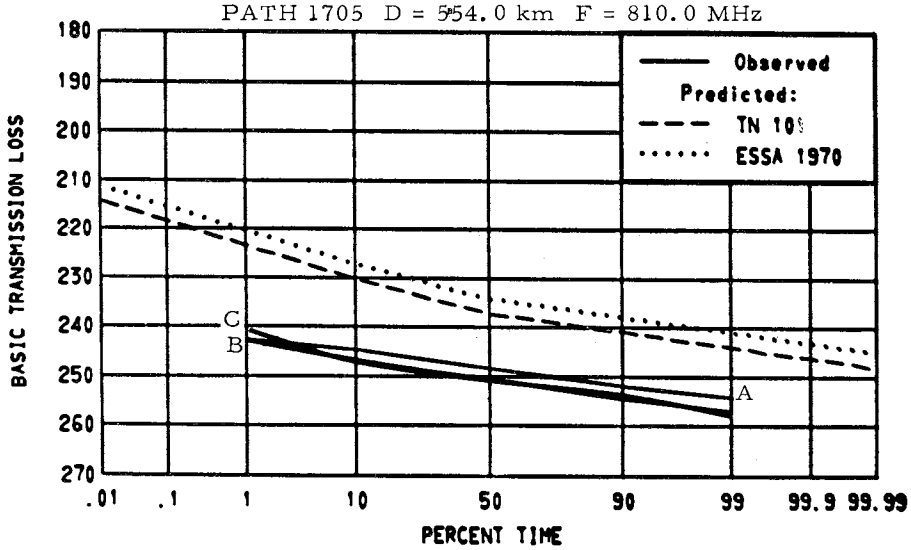


Figure 3.65 Paths 1704 1705

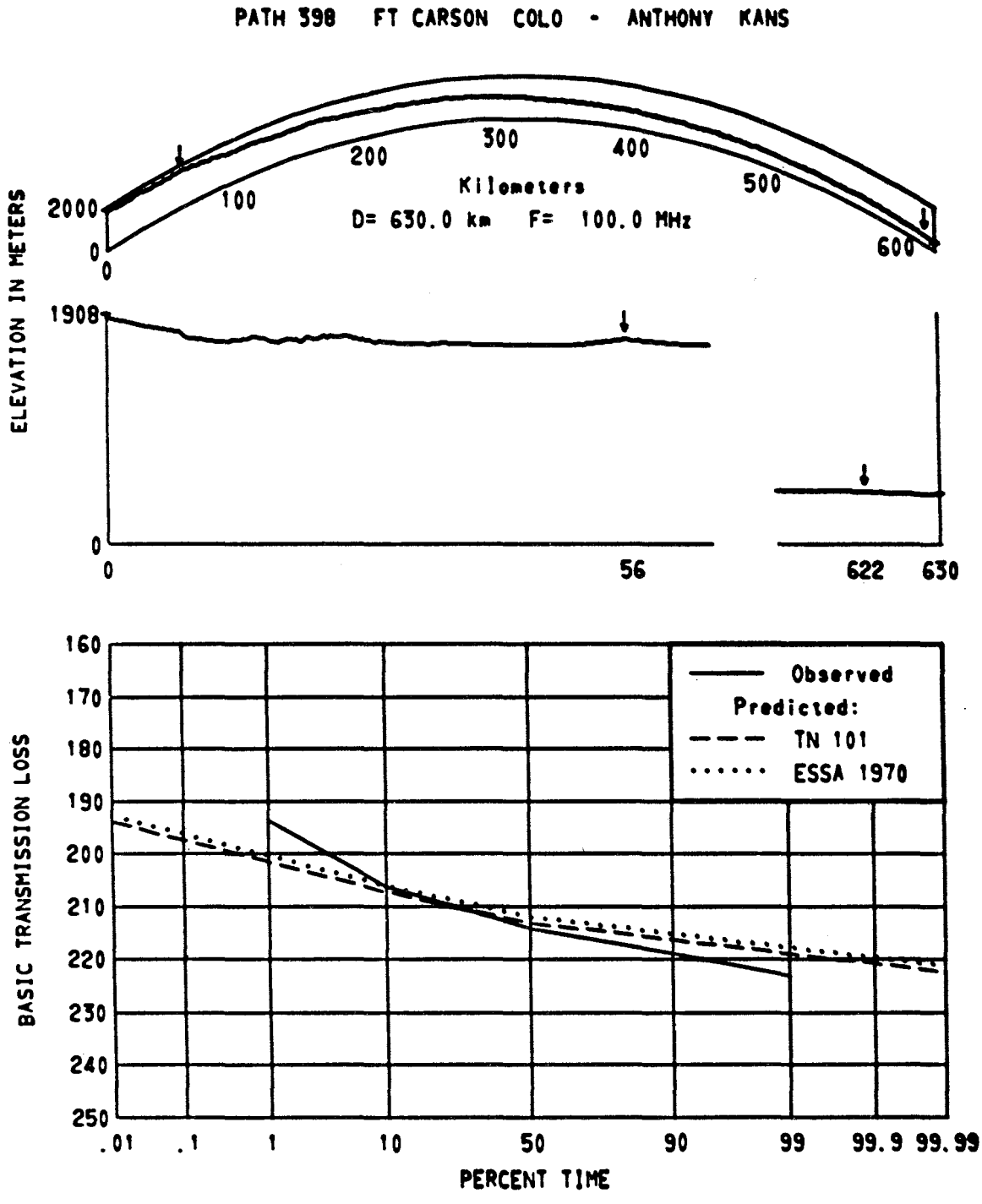
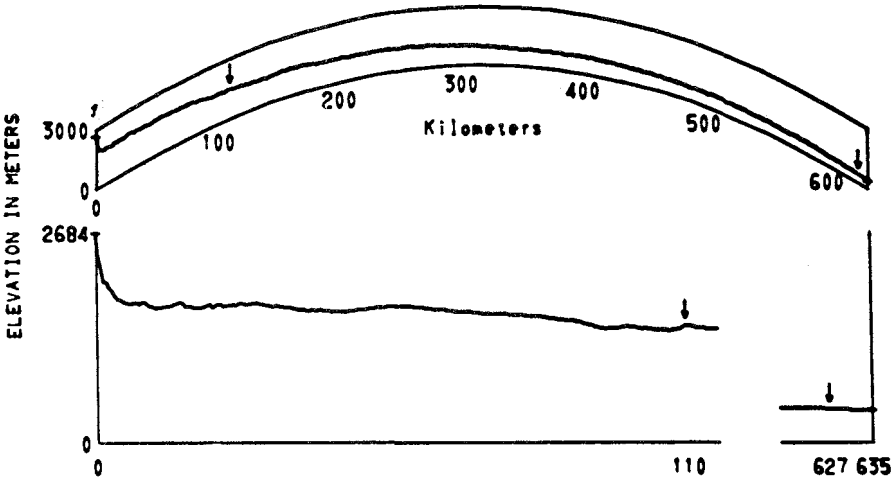
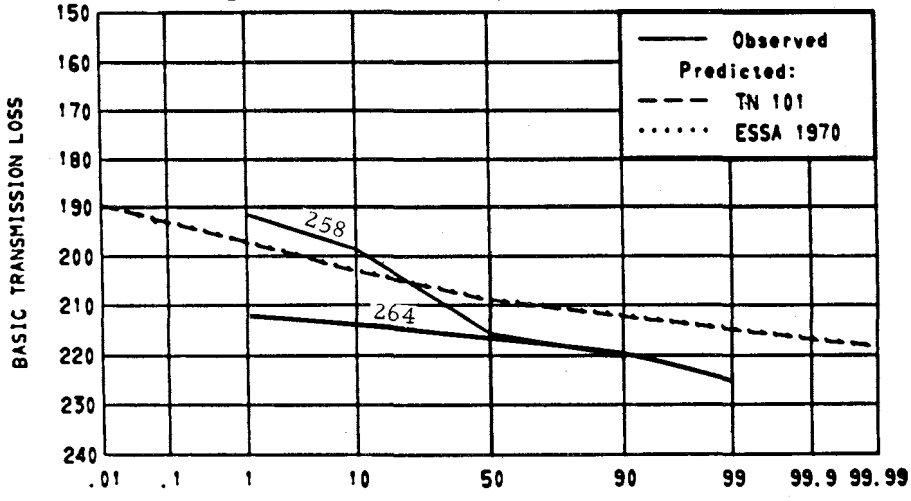


Figure 3.66 Path 398

PATHS 258 264 278 318 CHEYENNE MTN S COLO - ANTHONY KANS



PATHS 258 264 D = 634.6 km F = 100.0 MHz



PATHS 278 318 D = 634.6 km F = 192.8,1046.0 MHz

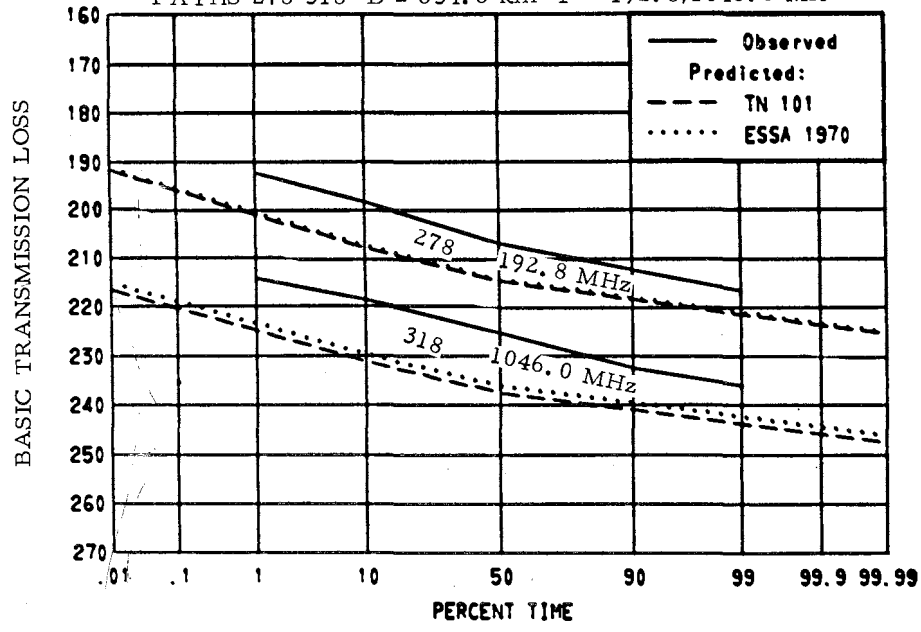
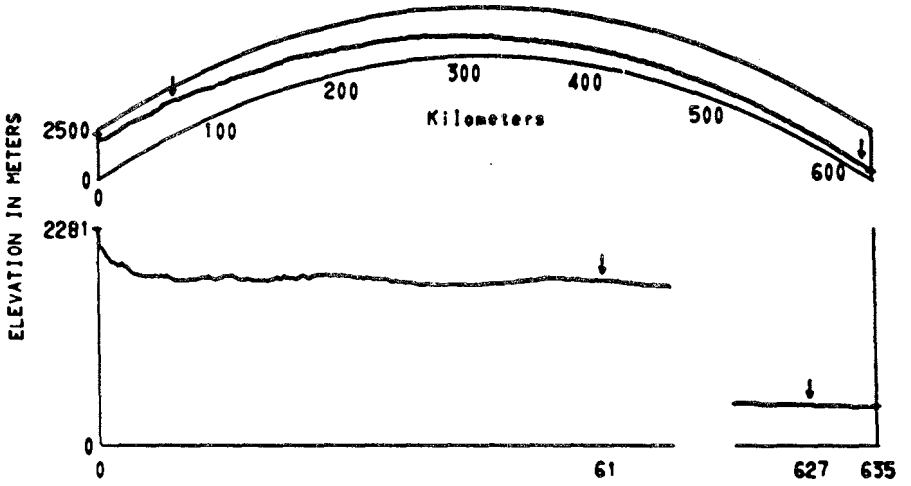
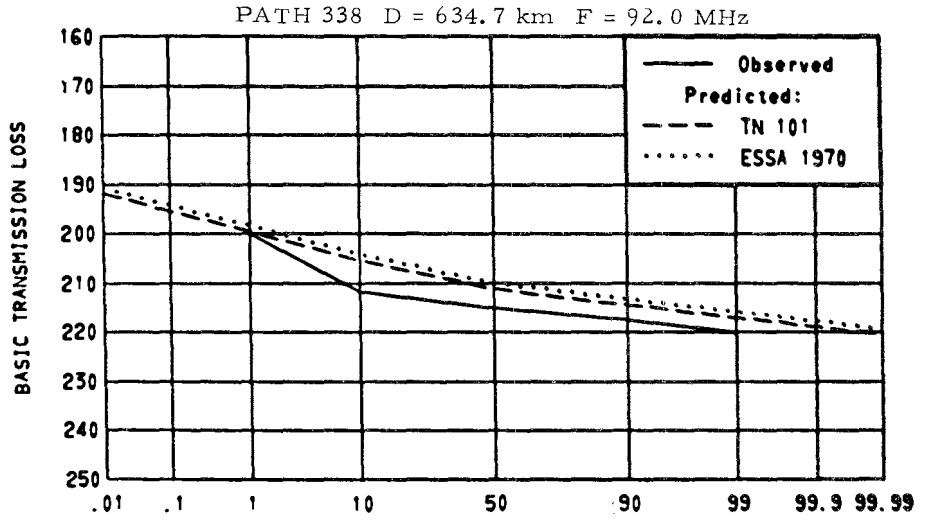


Figure 3.67 Paths 258 264 278 318

PATHS 338 358 CHEYENNE MTN B COLO - ANTHONY KANS





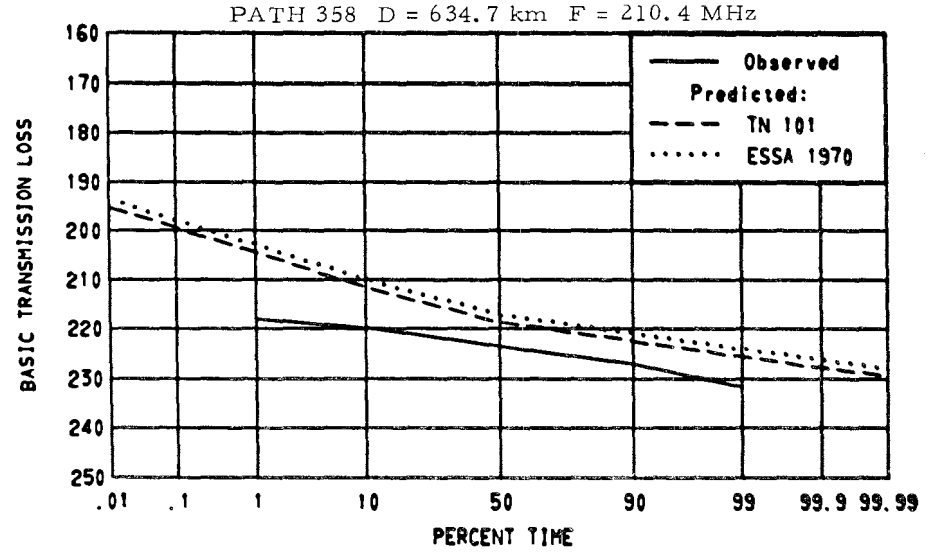


Figure 3.68 Paths 338 358

PATHS 1708 TO 1711 BENSON ARIZ - SANTA ROSA NEW MEX

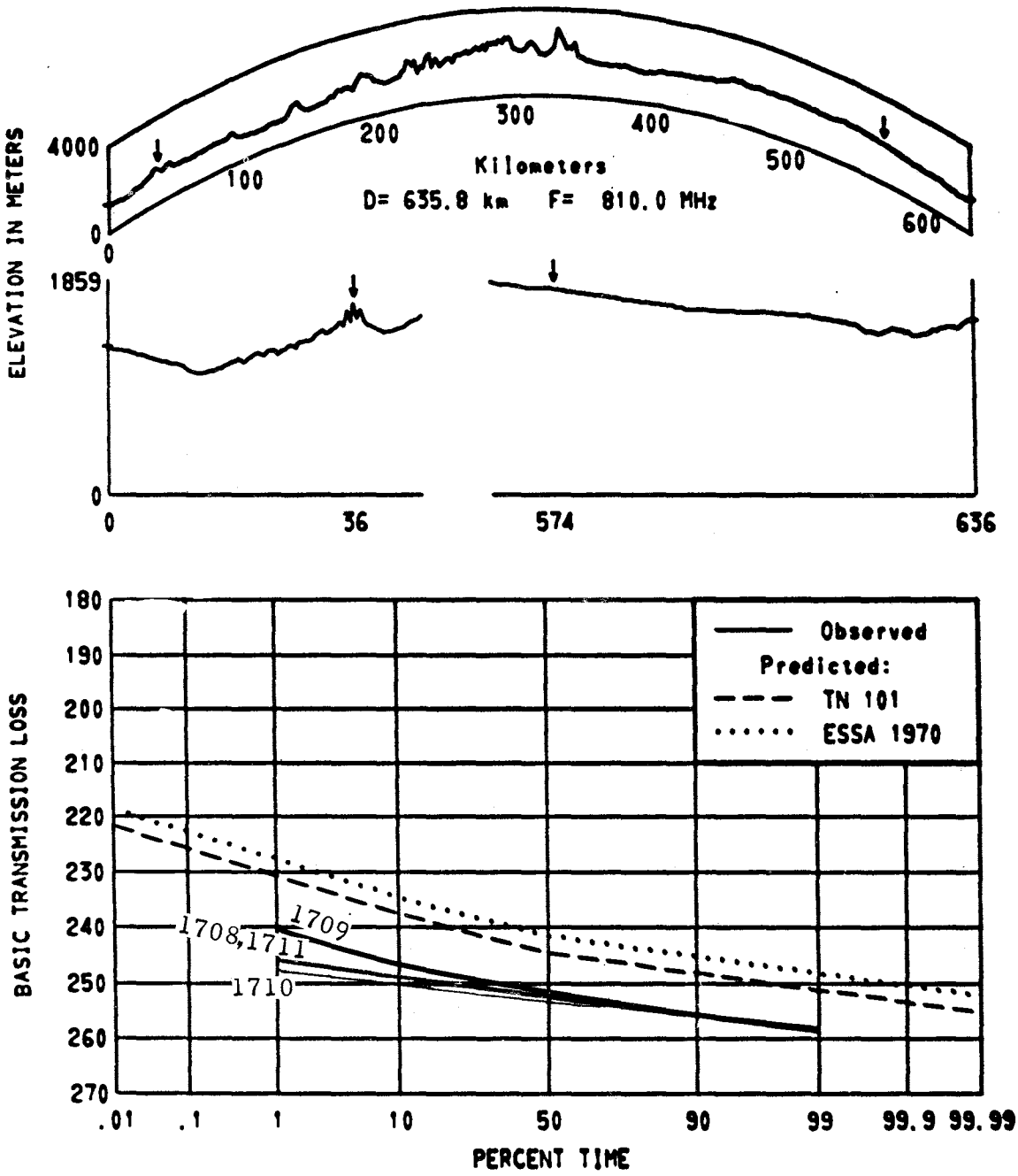


Figure 3.69 Paths 1708 to 1711

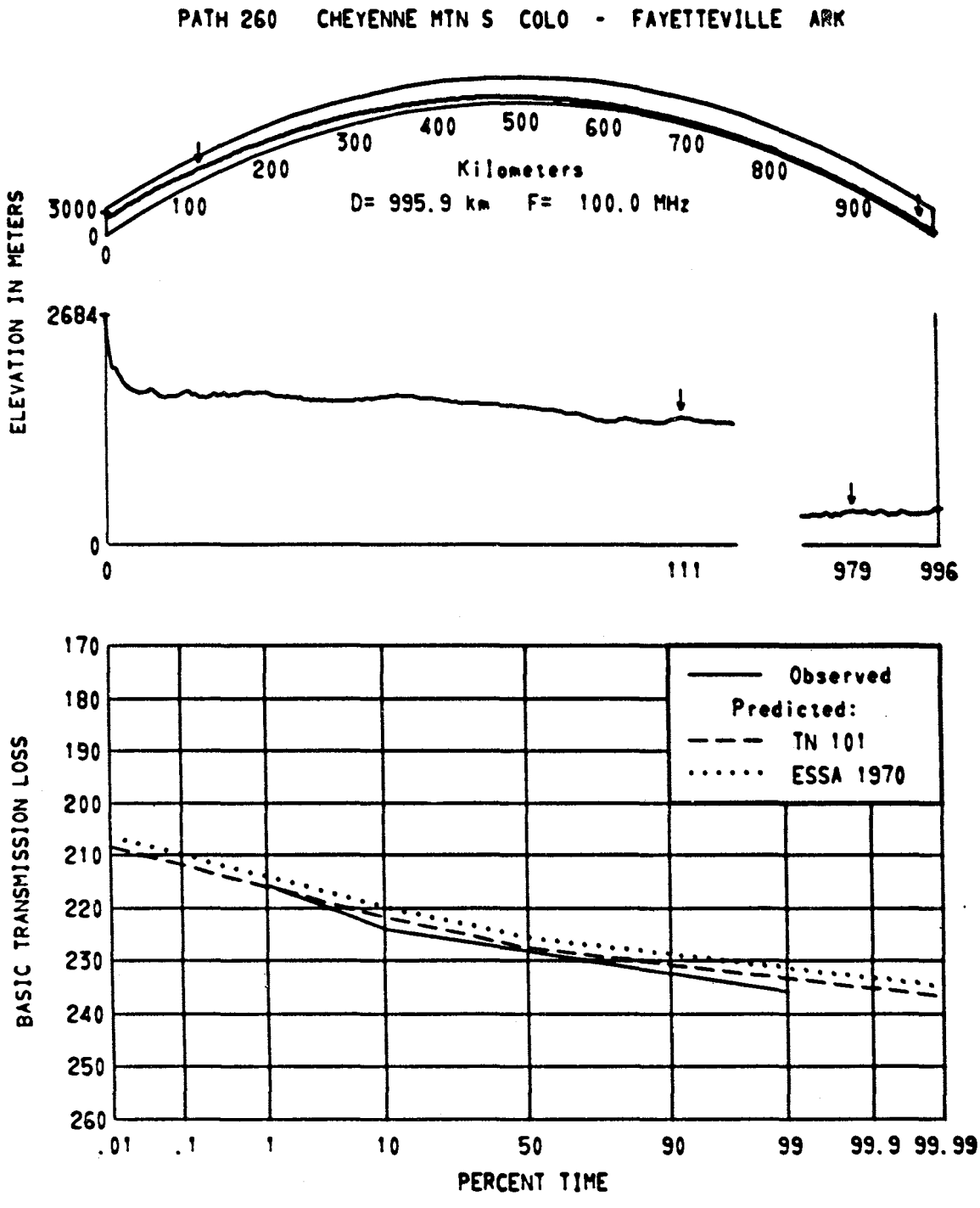


Figure 3.70 Path 260

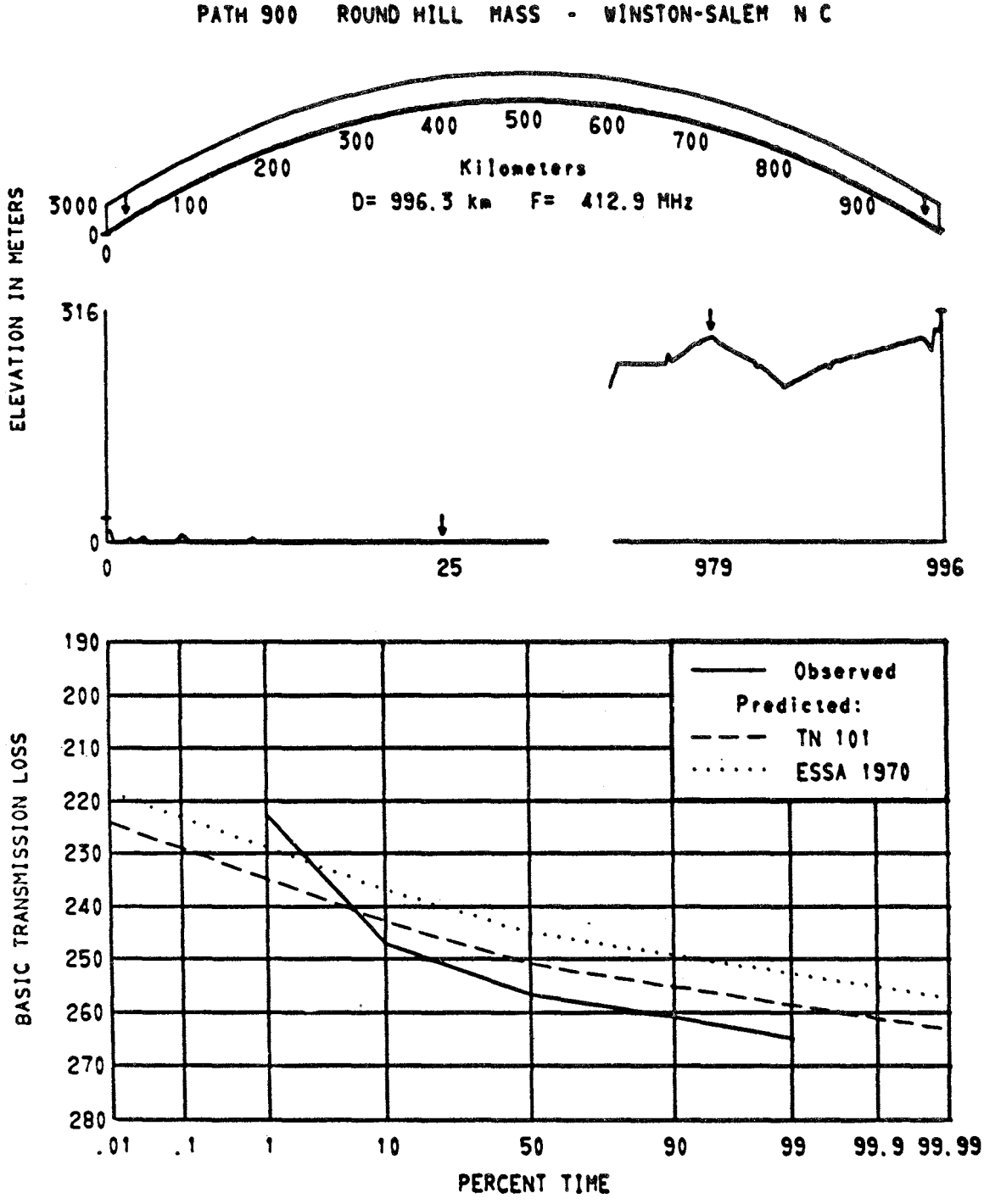


Figure 3.71 Path 900

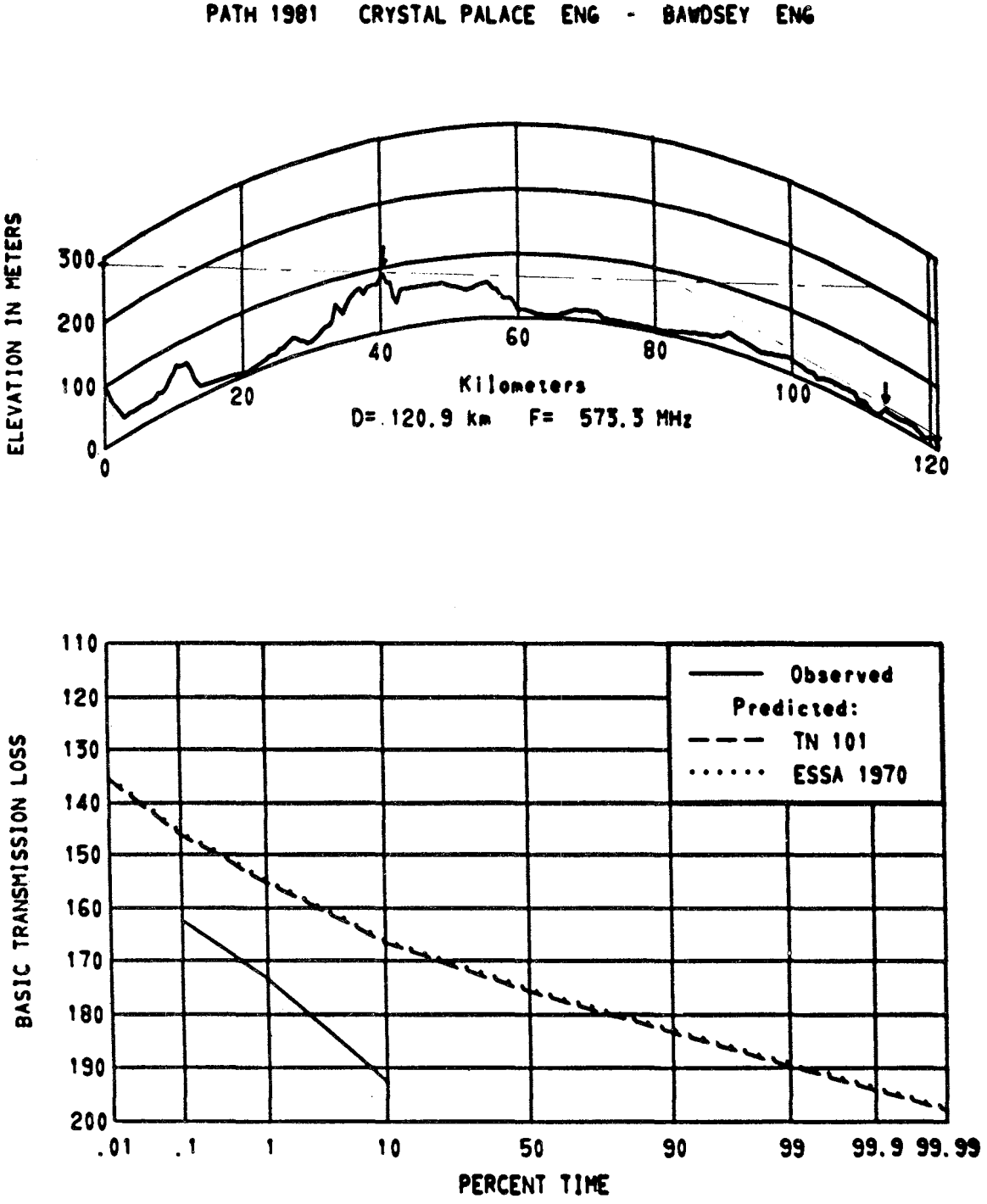


Figure 3.72 Path 1981

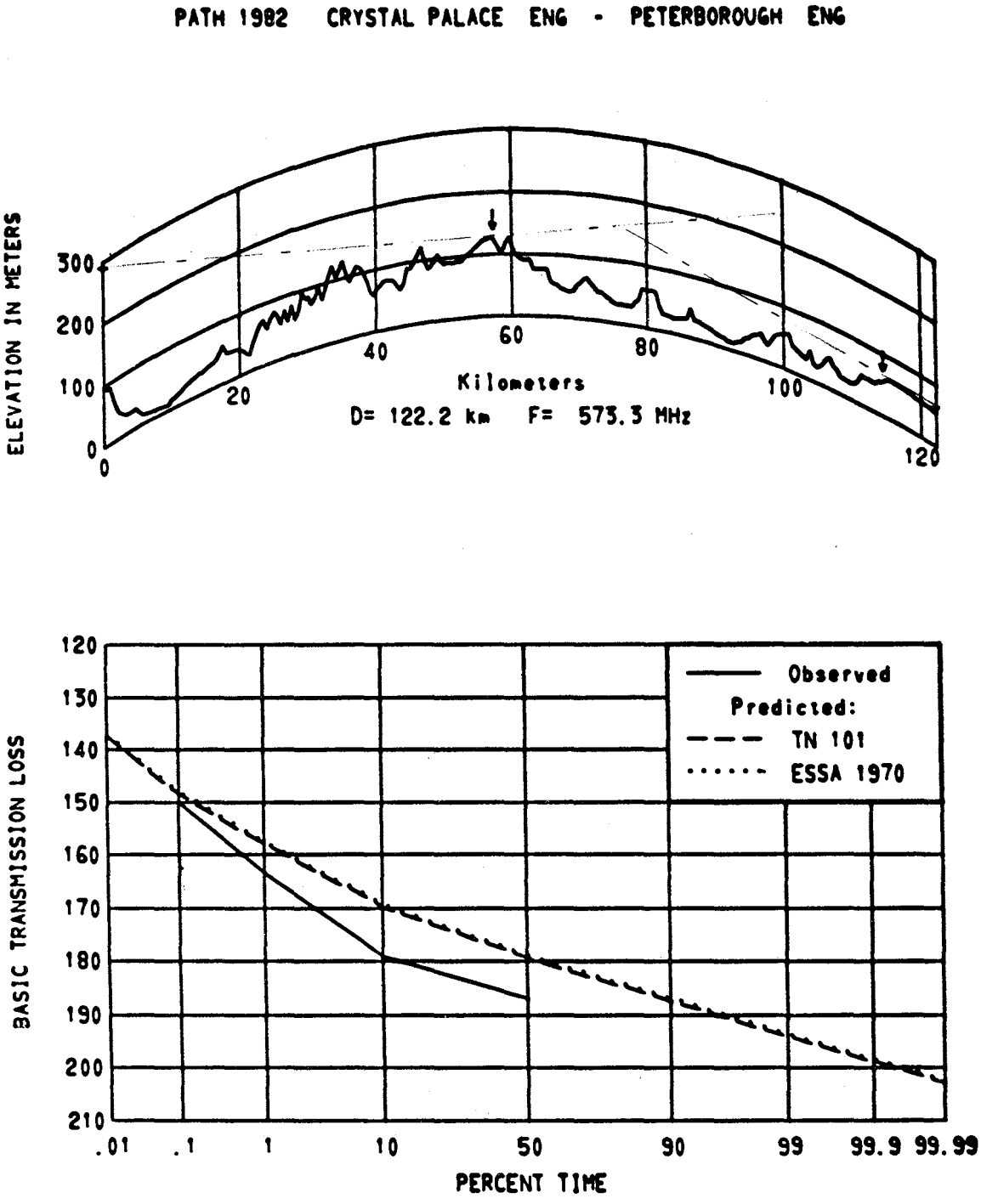


Figure 3.73 Path 1982

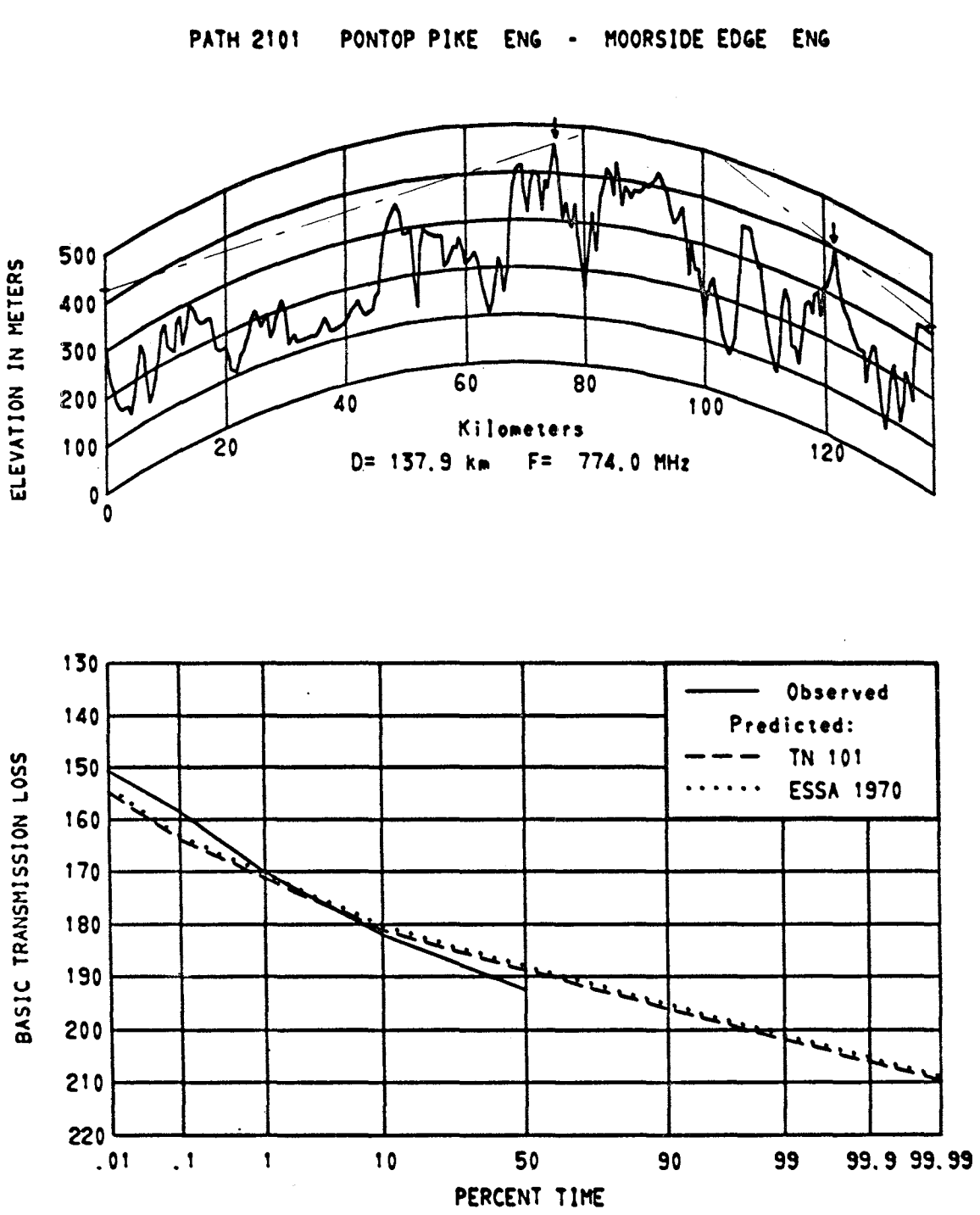


Figure 3.74 Path 2101

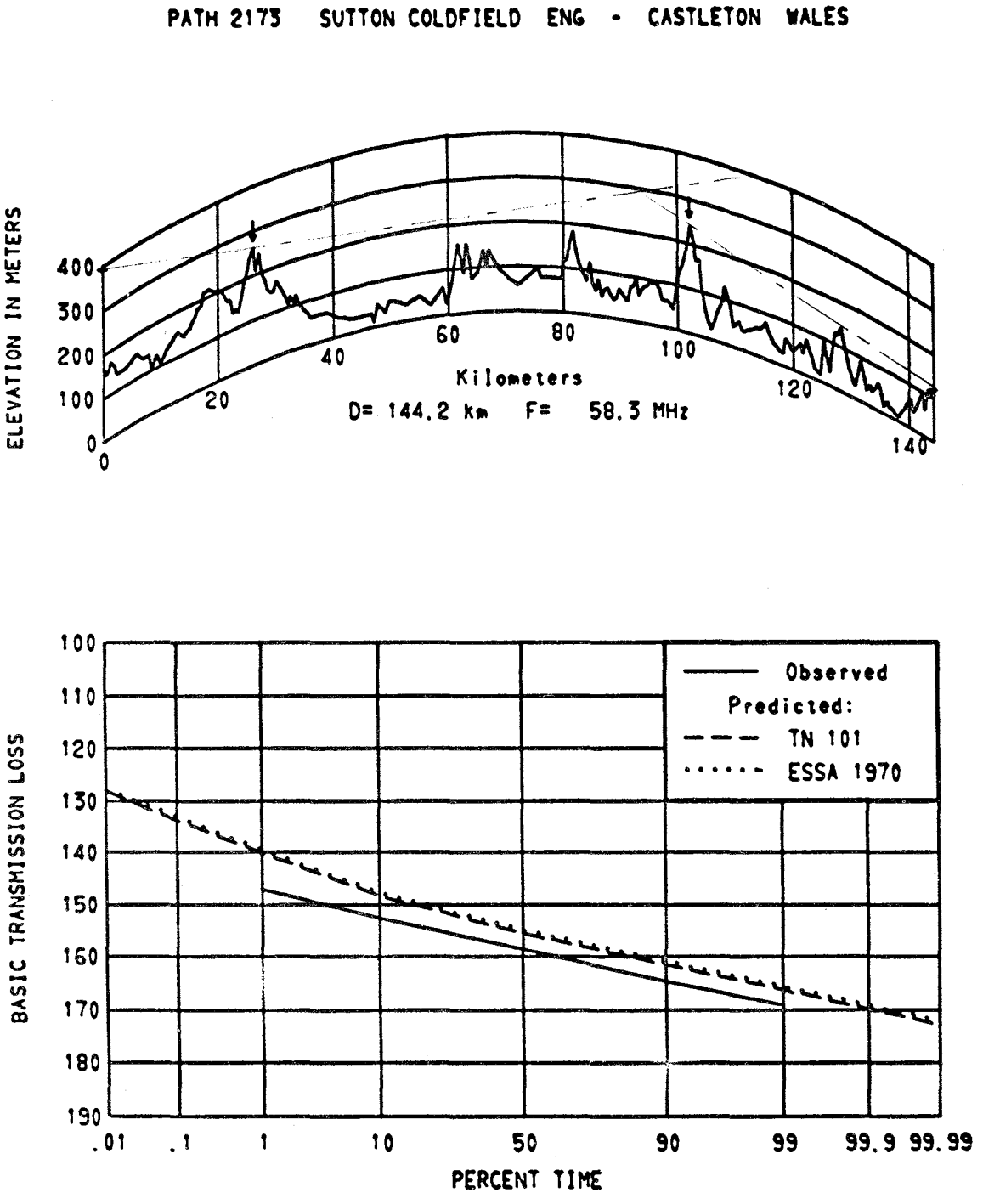
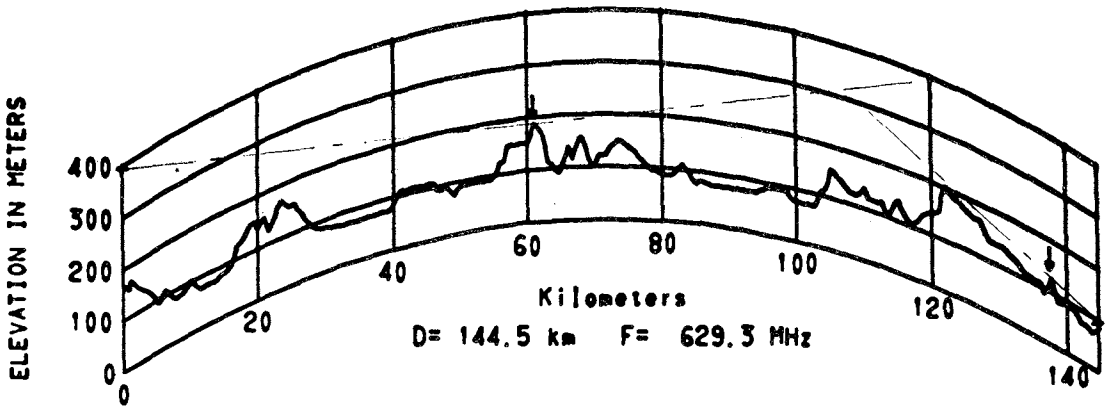
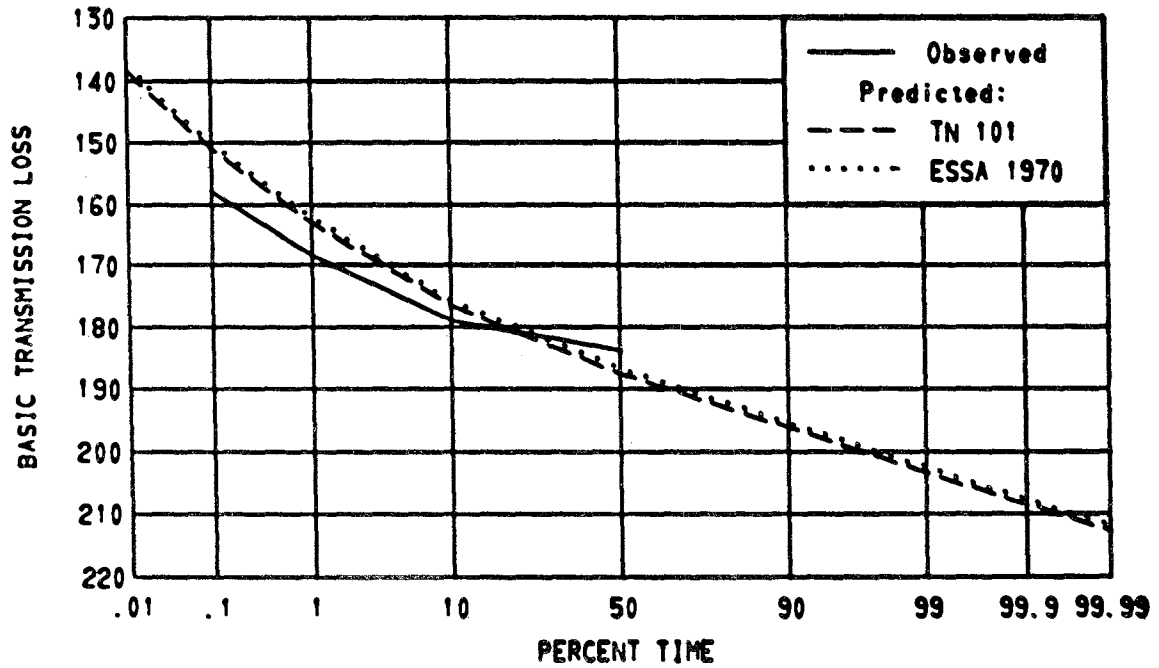


Figure 3.75 Path 2173

PATH 1985 SUTTON COLDFIELD ENG - HATFIELD ENG





Path 3.76 Path 1985

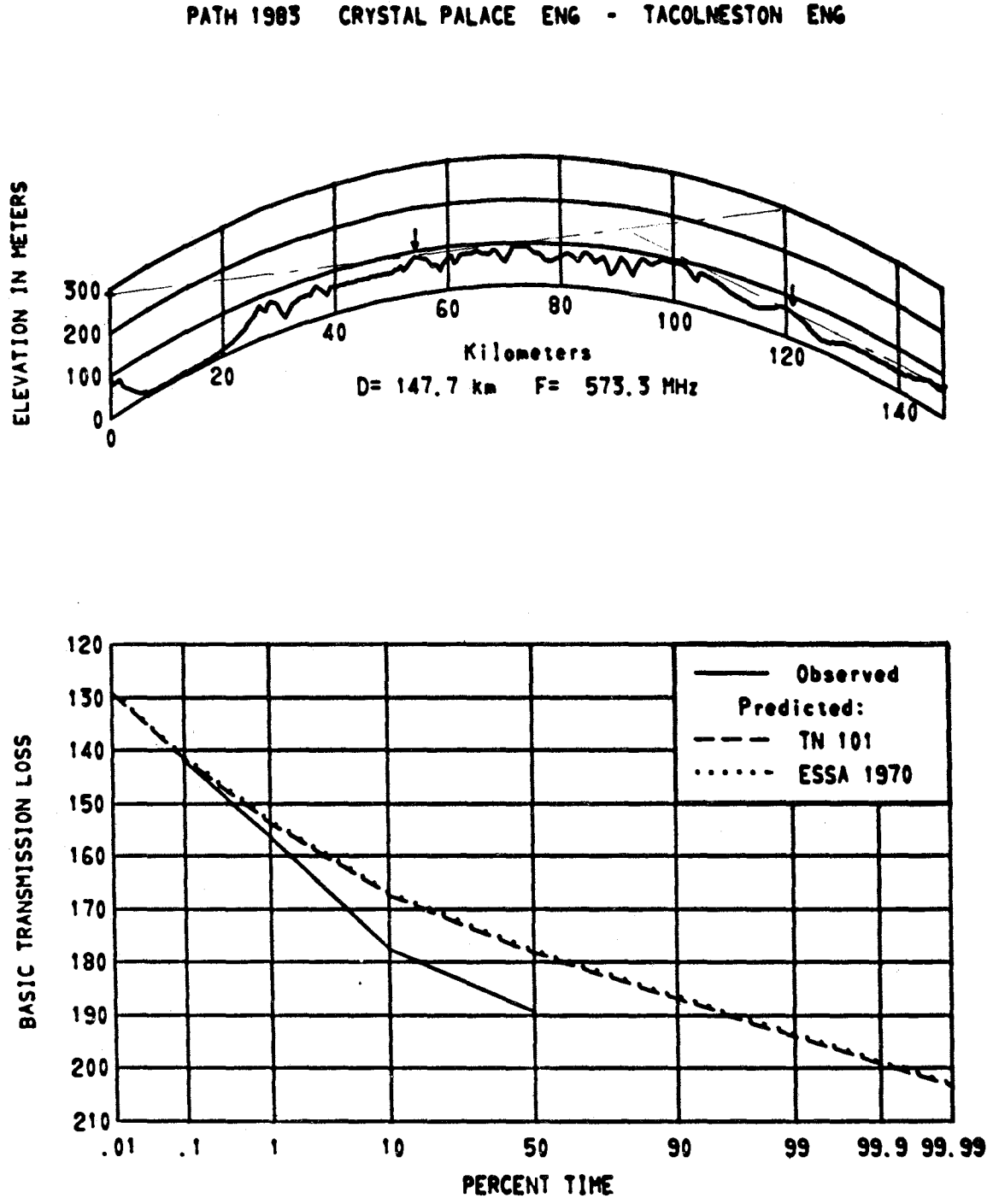


Figure 3.77 Path 1983

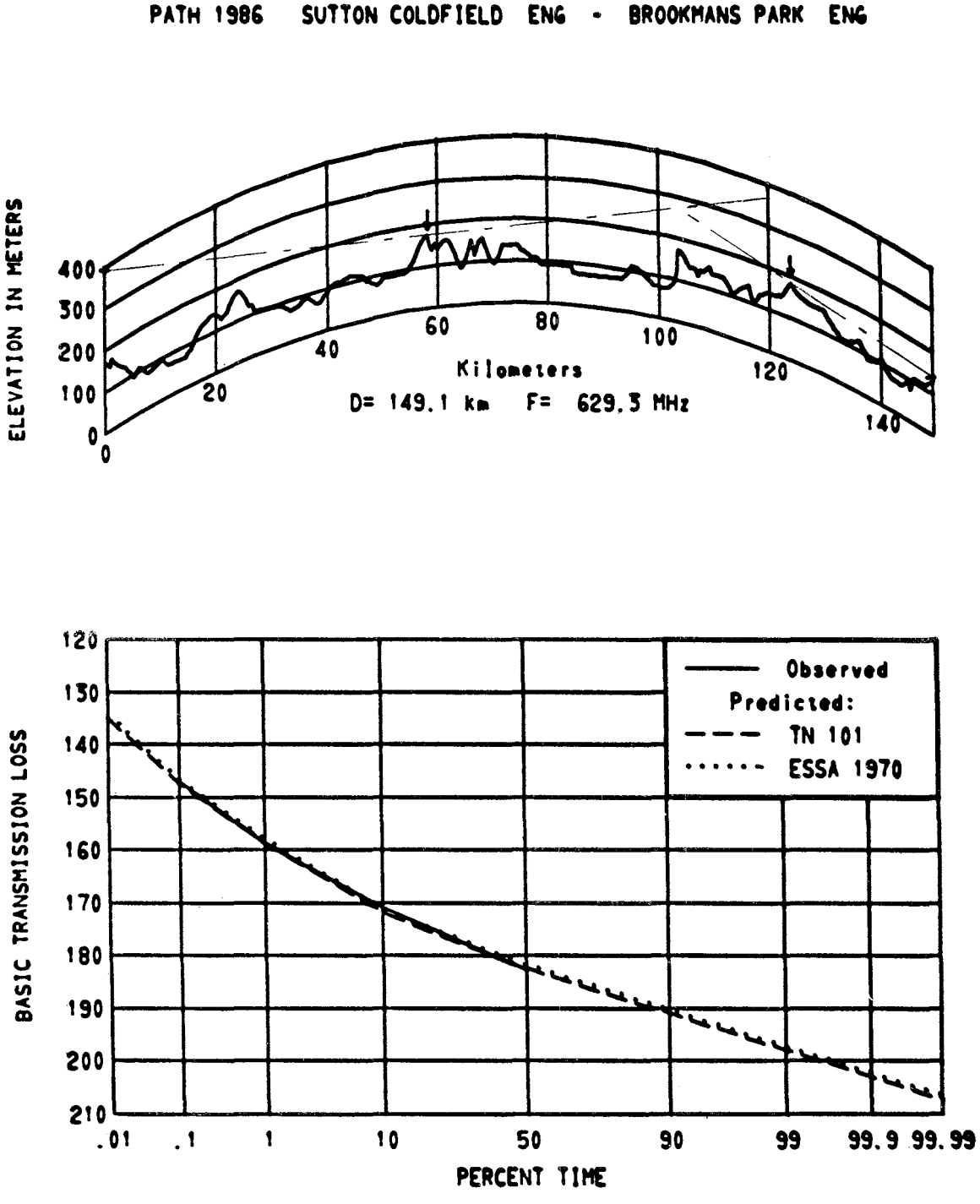


Figure 3.78 Path 1986

PATHS 2058 2120 SUTTON COLDFIELD ENG - SLOUGH ENG

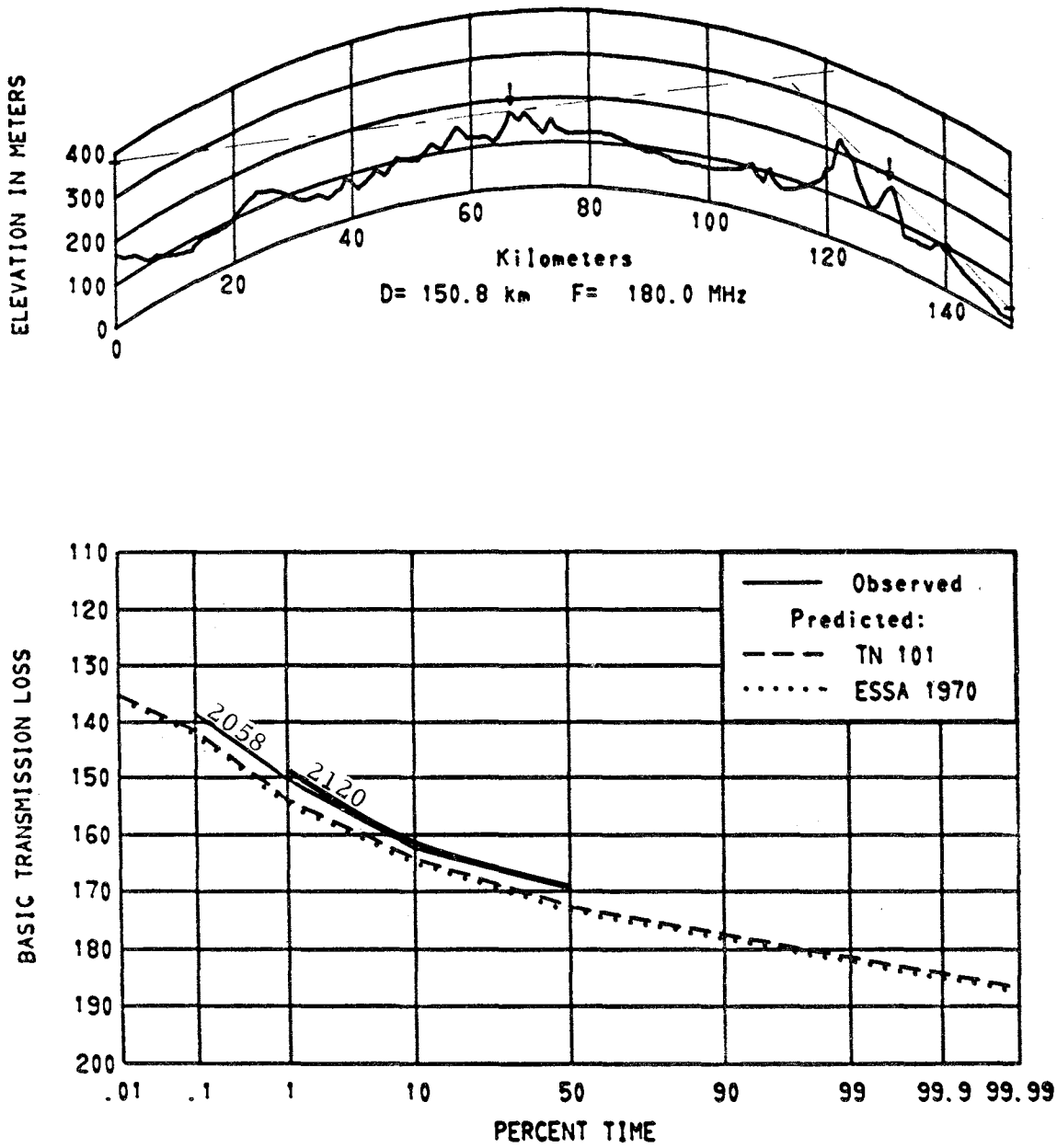


Figure 3.79 Paths 2058 2120

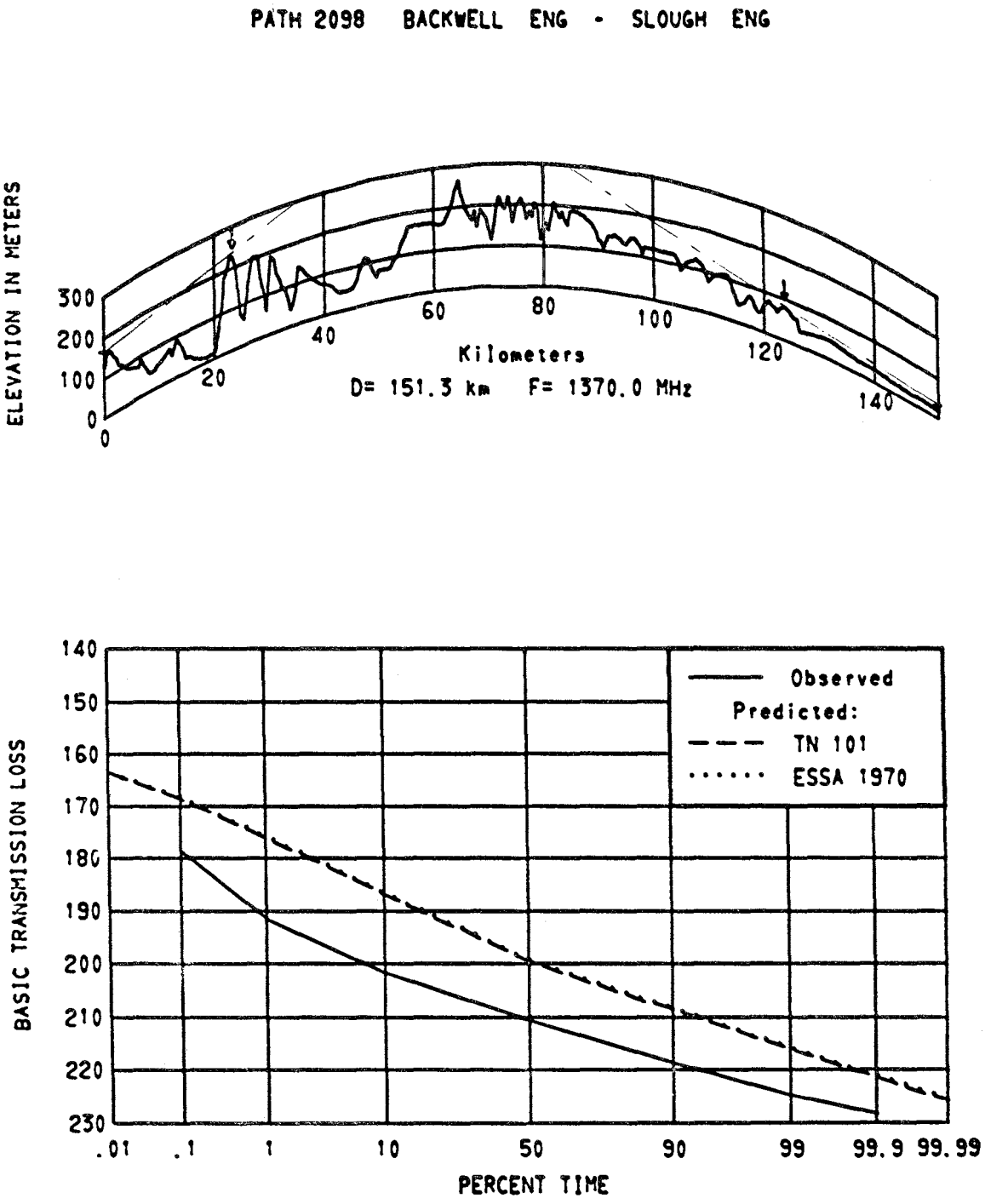
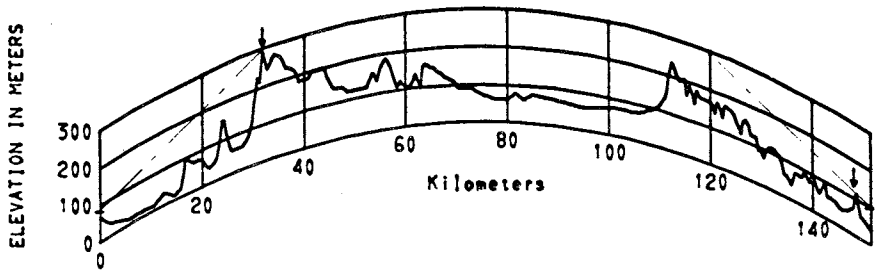
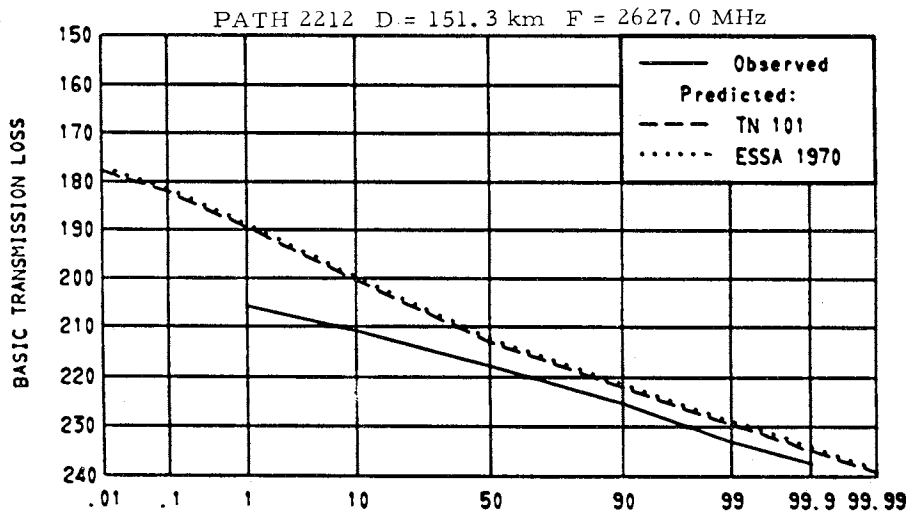


Figure 3.80 Path 2098

PATHS 2212 2213 MALVERN ENG - WEMBLEY ENG





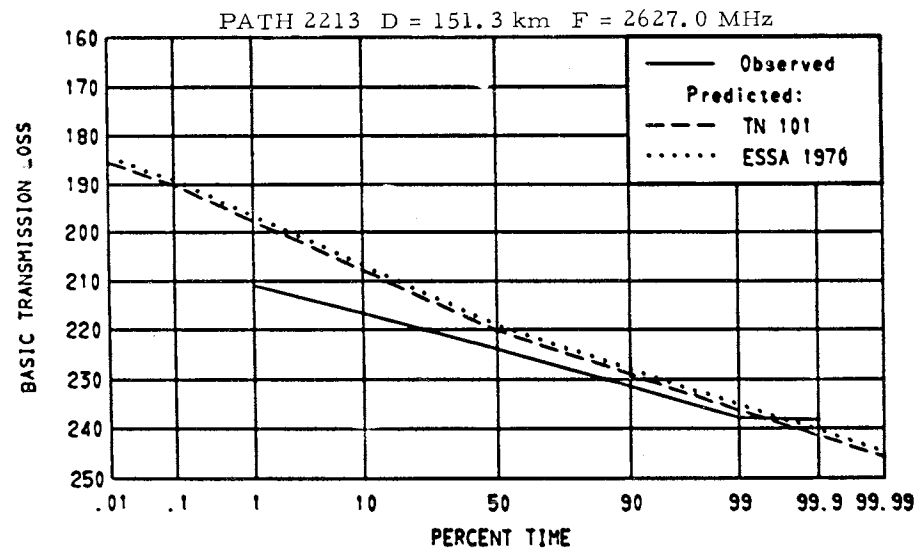


Figure 3.81 Paths 2212 2213

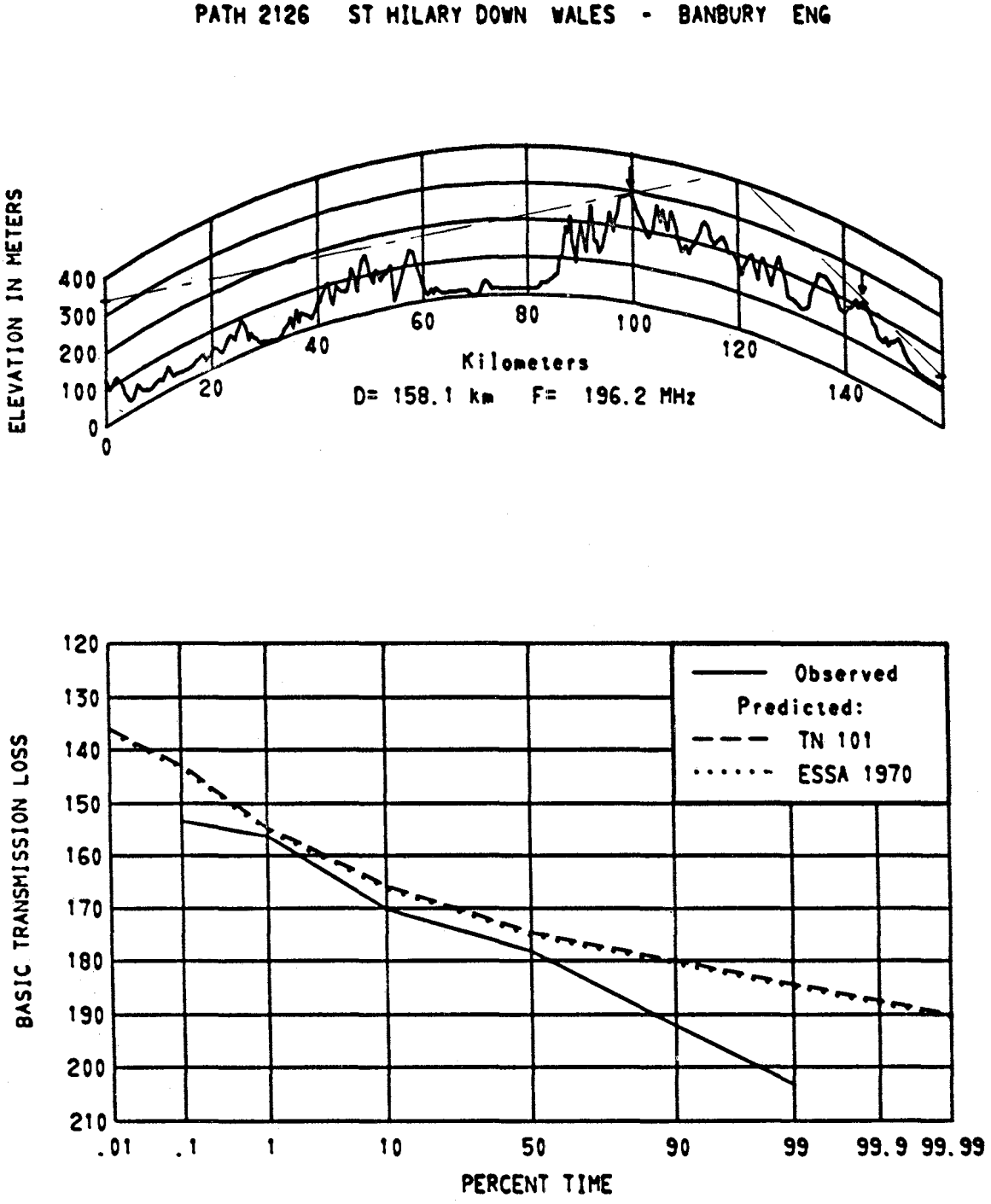


Figure 3.82 Path 2126

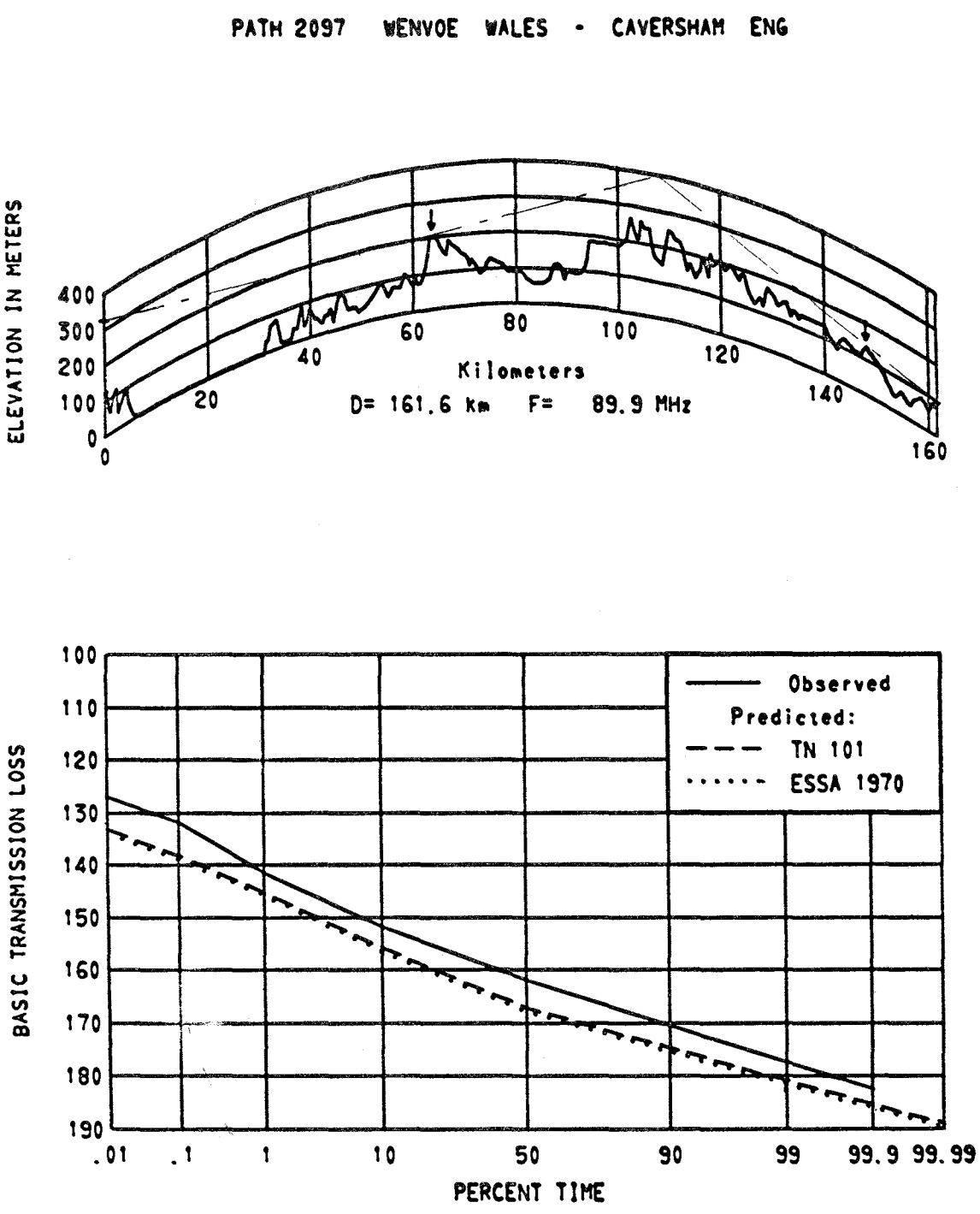
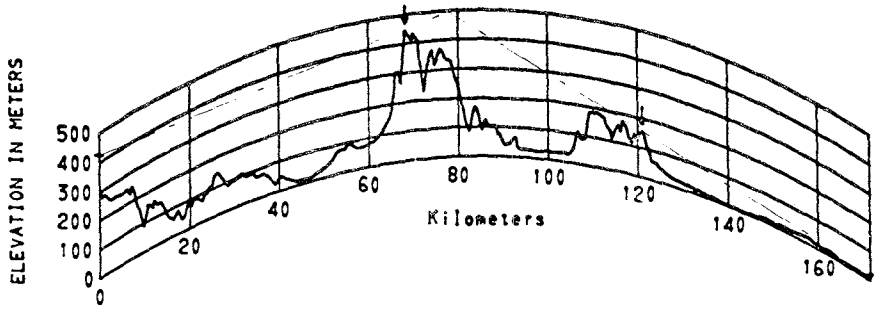
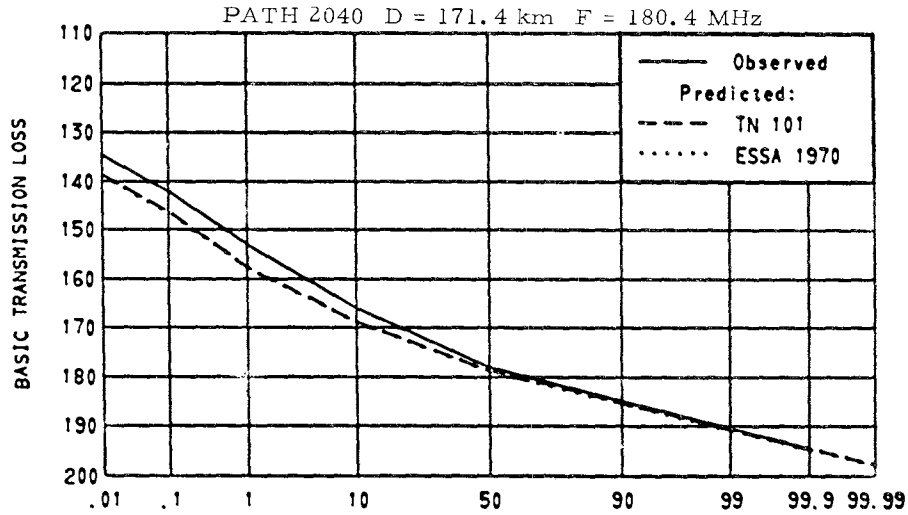


Figure 3.83 Path 2097

PATHS 2040 2045 PONTOP PIKE ENG - OTTRINGHAM ENG





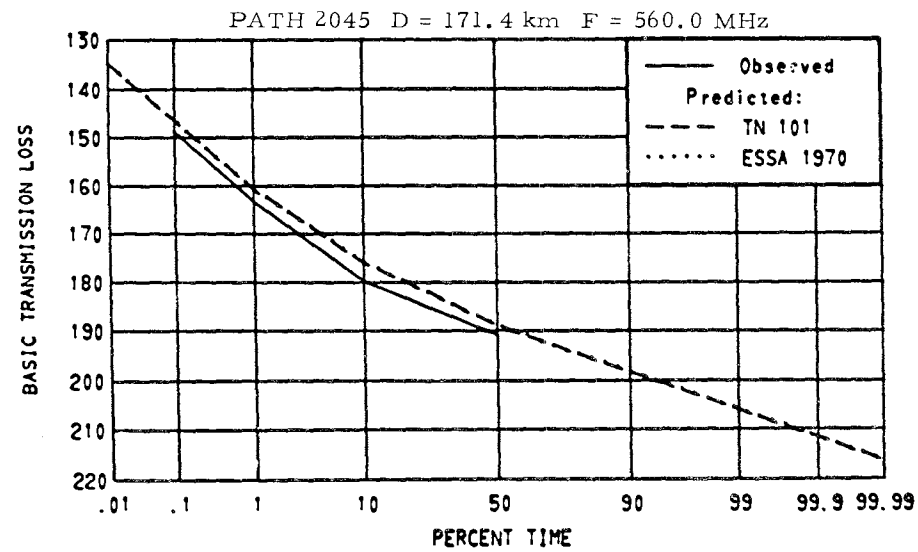


Figure 3.84 Paths 2040 2045

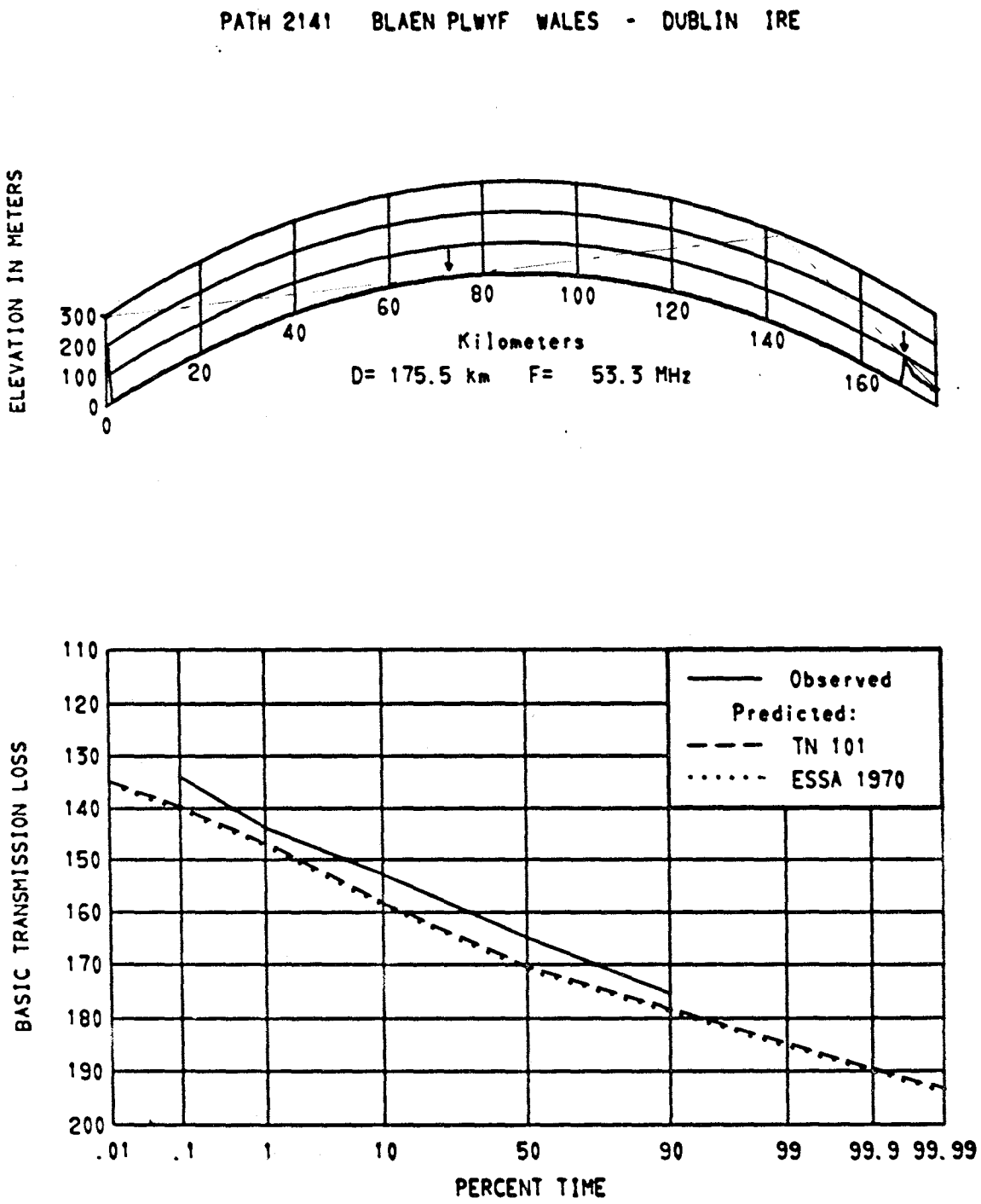


Figure 3.85 Path 2141

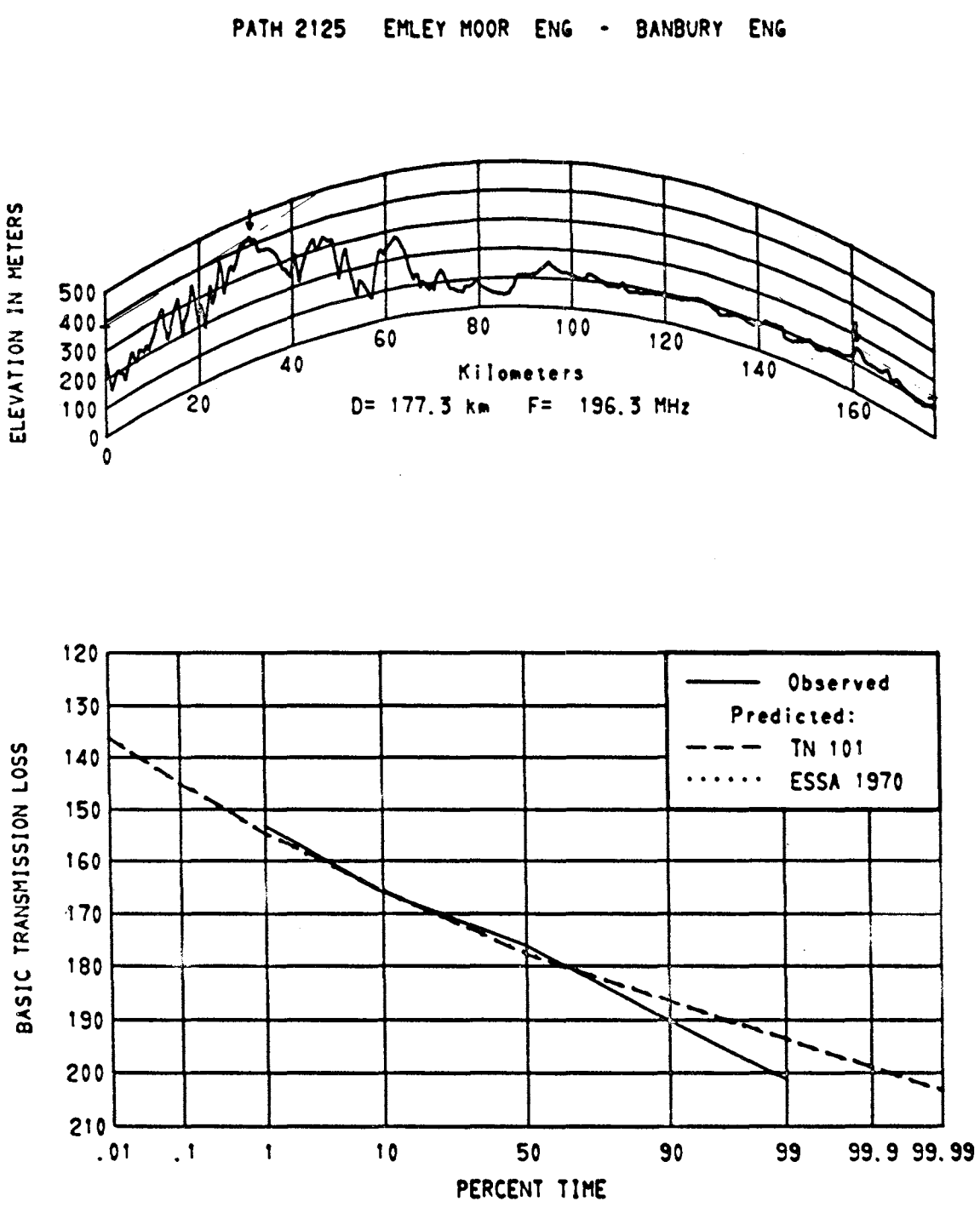
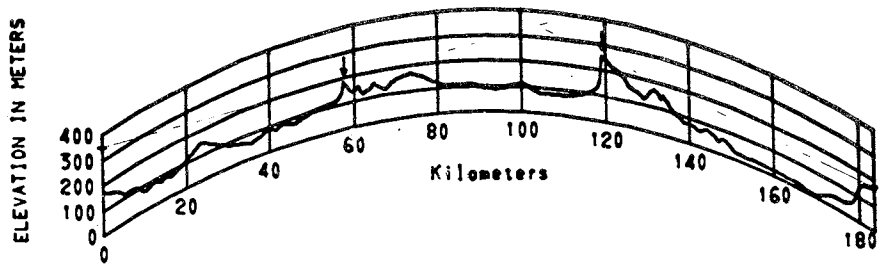
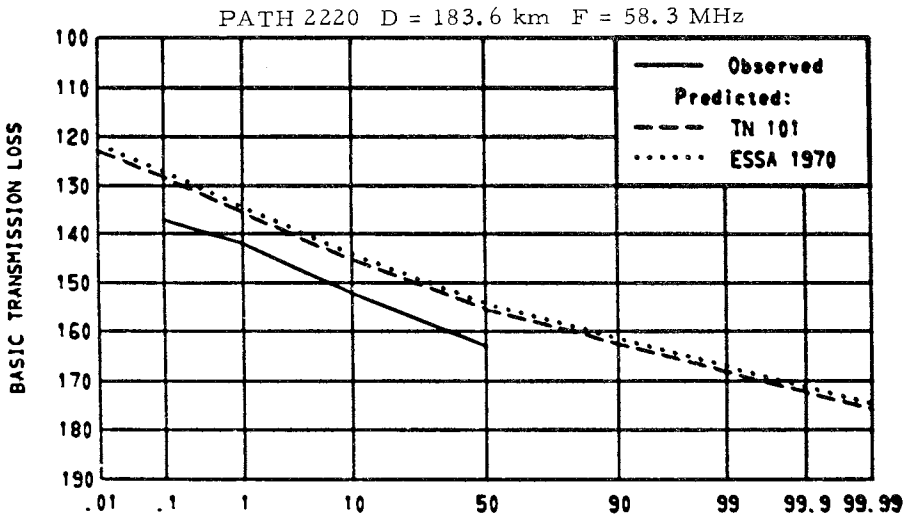


Figure 3.86 Path 2125

PATHS 2029 2220 SUTTON COLDFIELD ENG - KINGSWOOD ENG





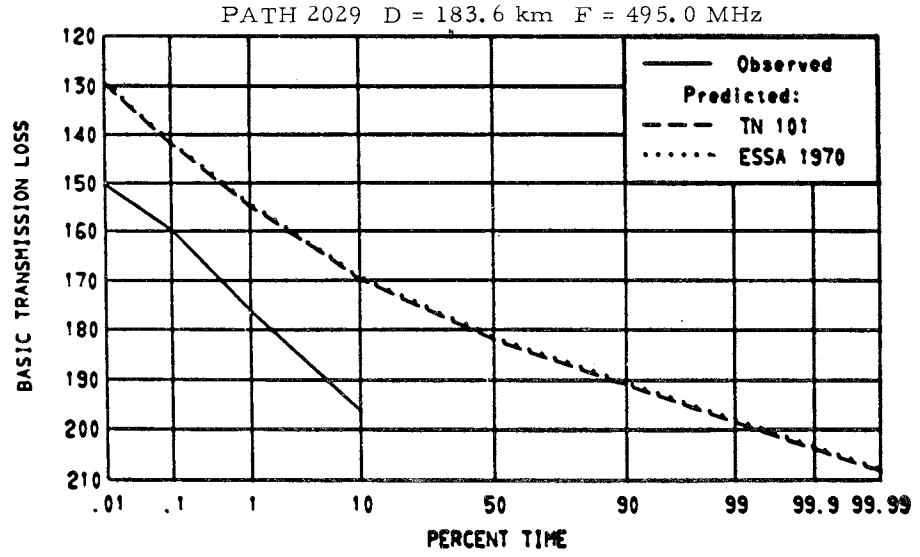


Figure 3.87 Paths 2029 2220

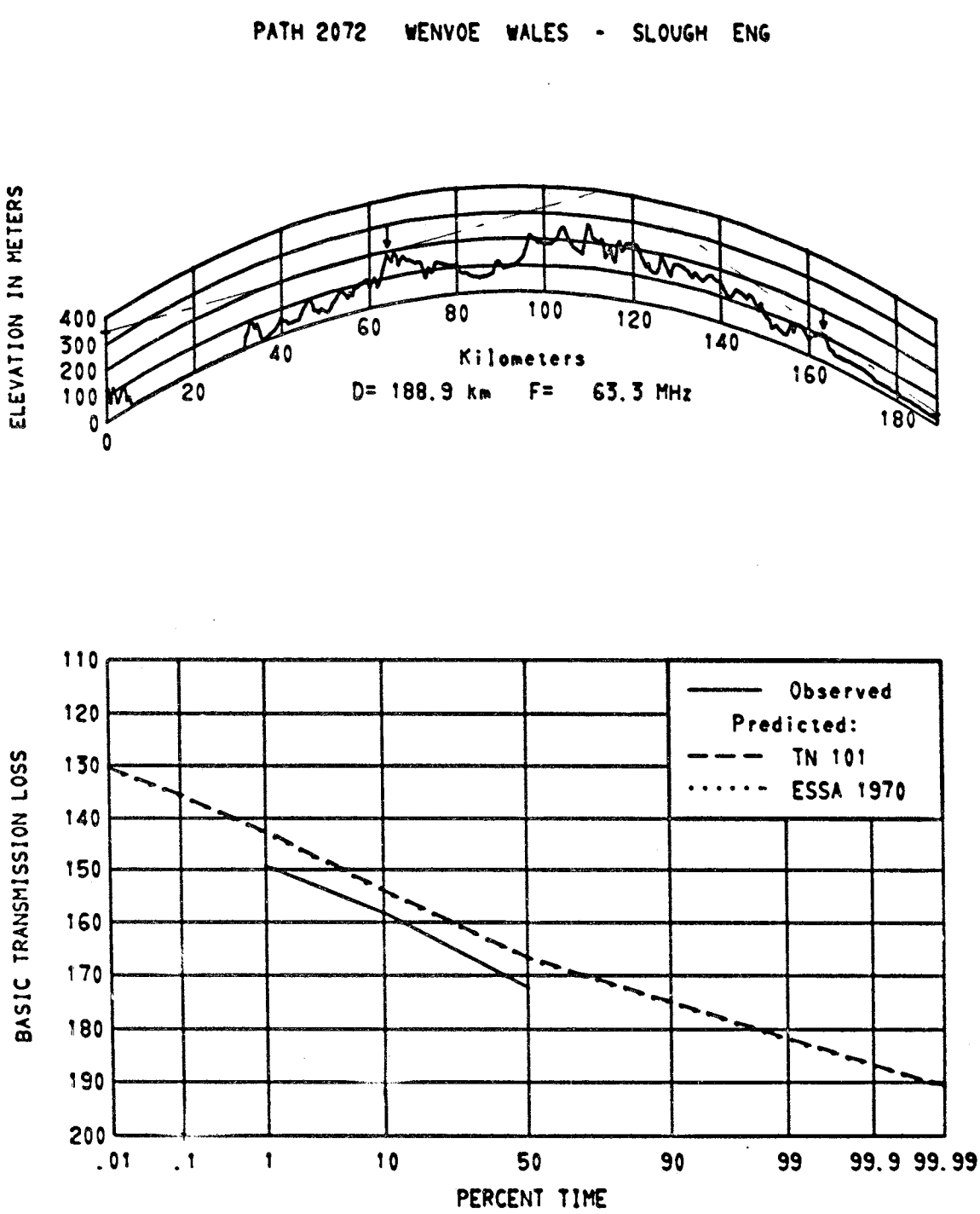


Figure 3.88 Path 2072

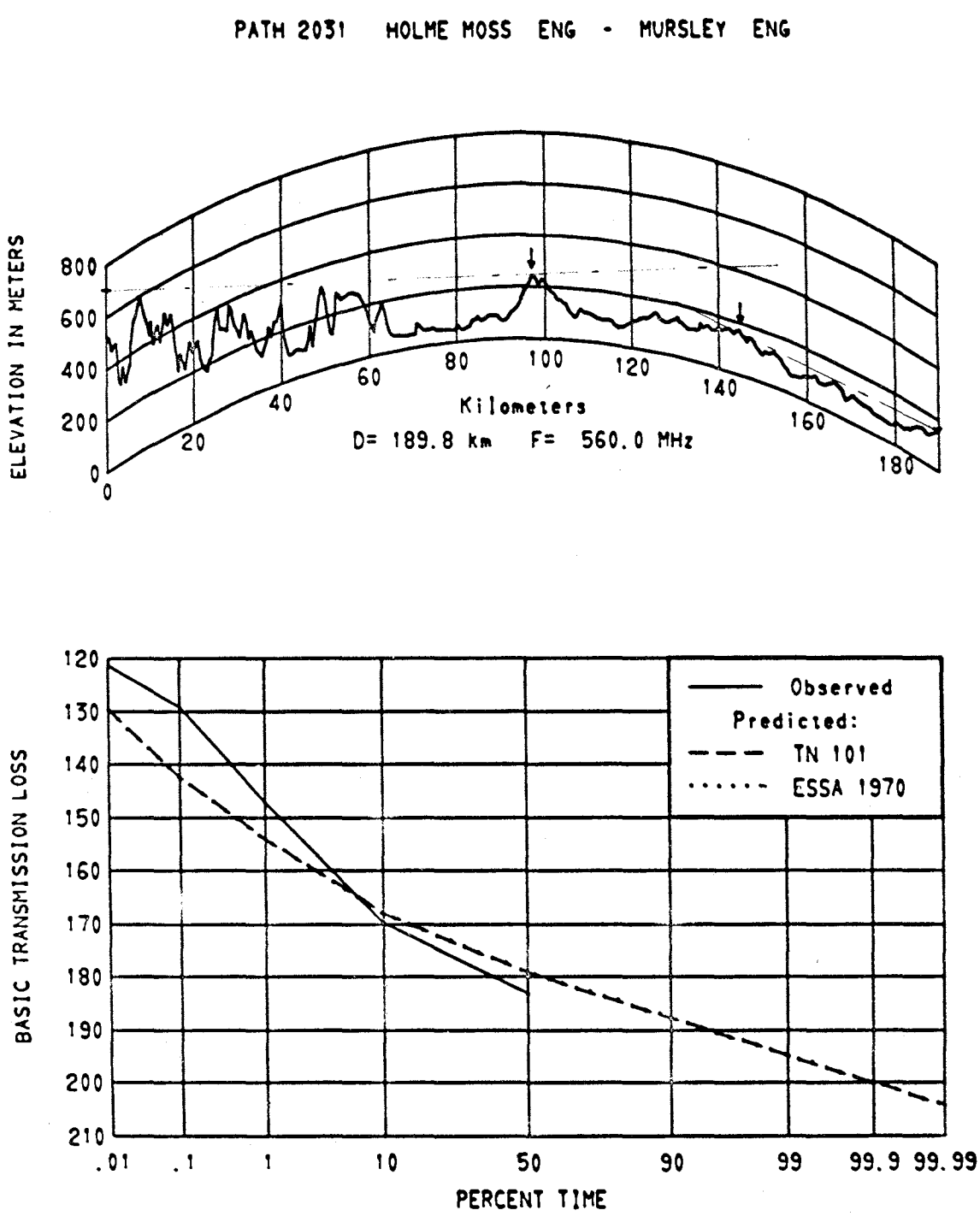
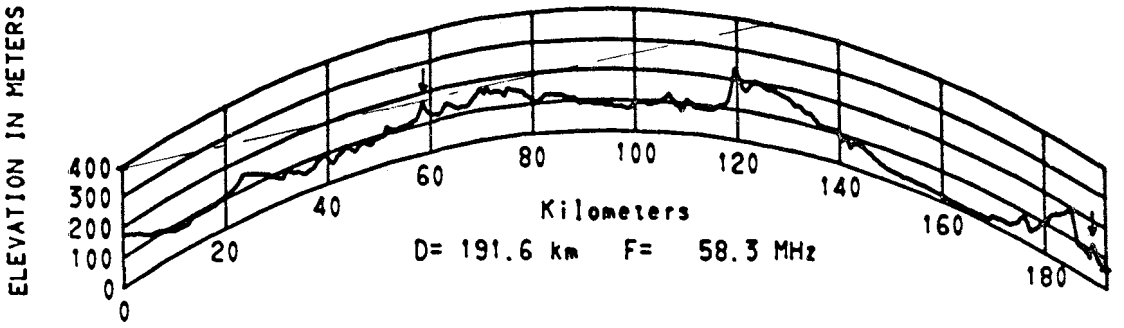


Figure 3.89 Path 2031

PATH 2221 SUTTON COLDFIELD ENG - REIGATE ENG



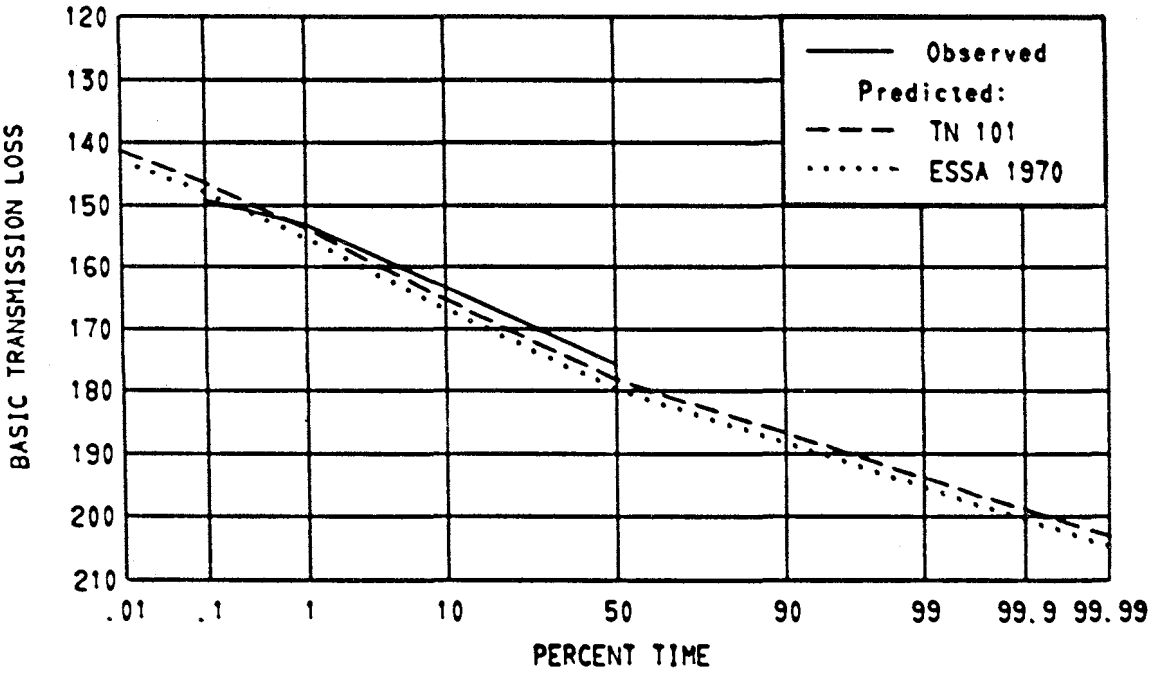


Figure 3.90 Path 2221

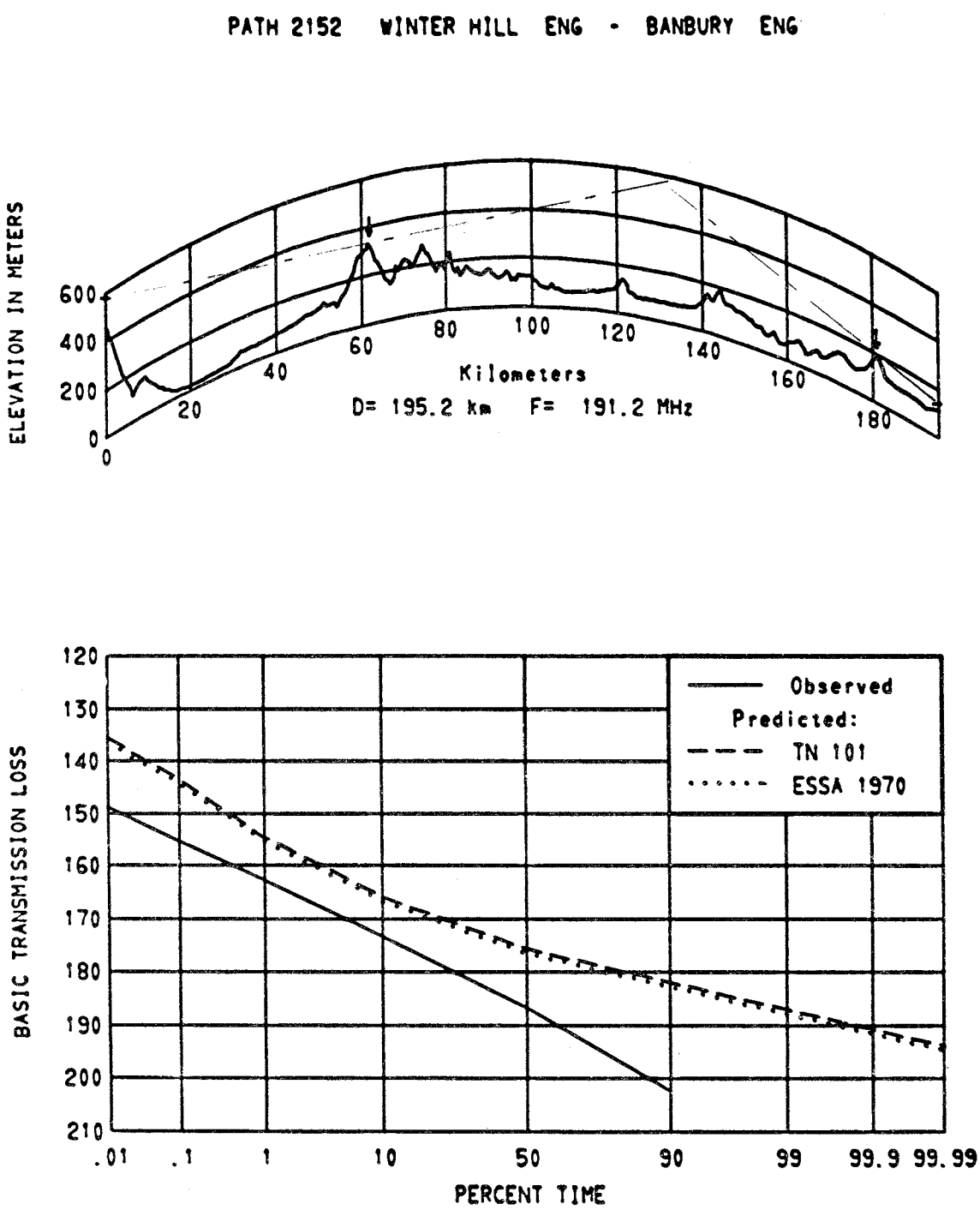


Figure 3.91 Path 2152

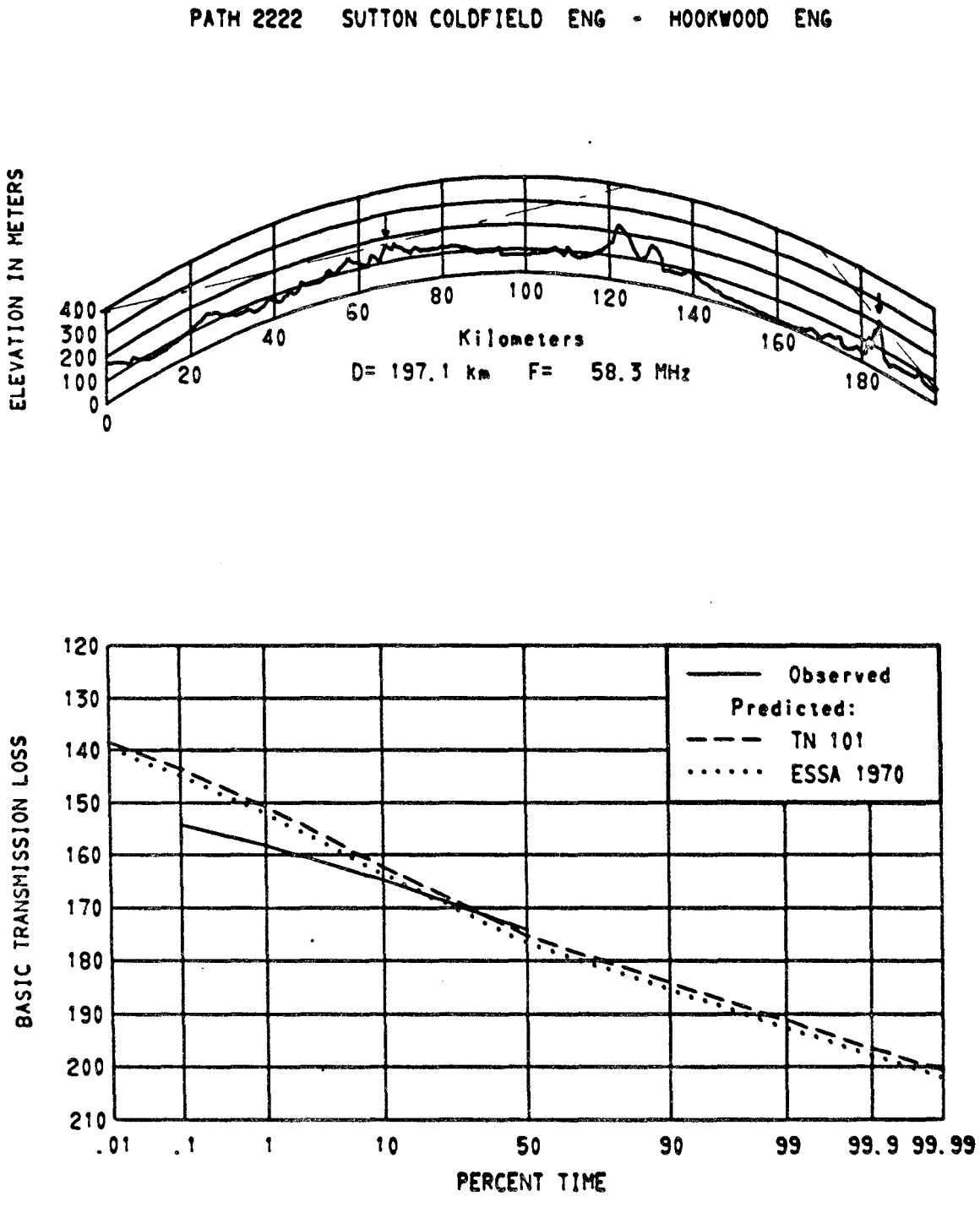


Figure 3.92 Path 2222

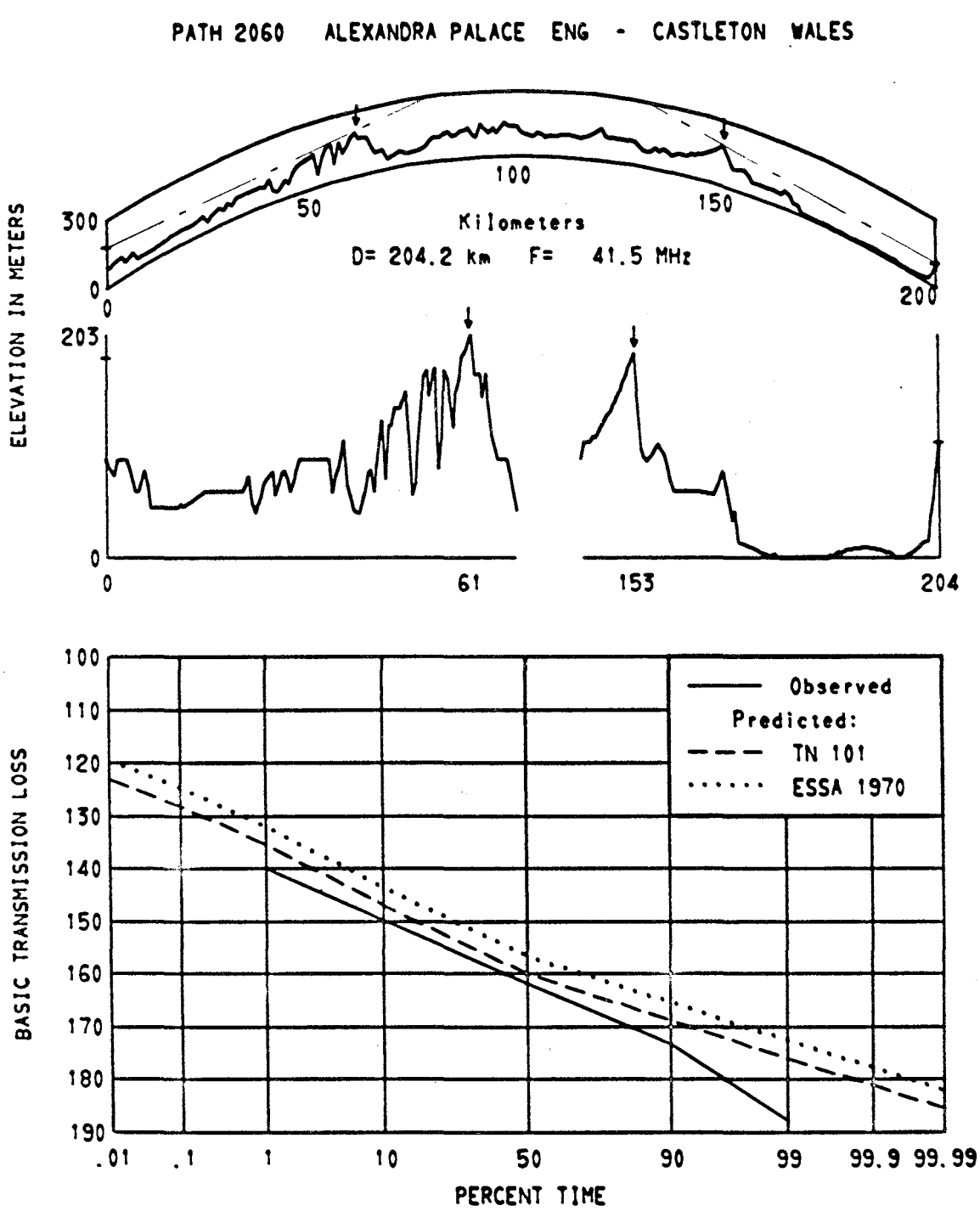


Figure 3.93 Path 2060

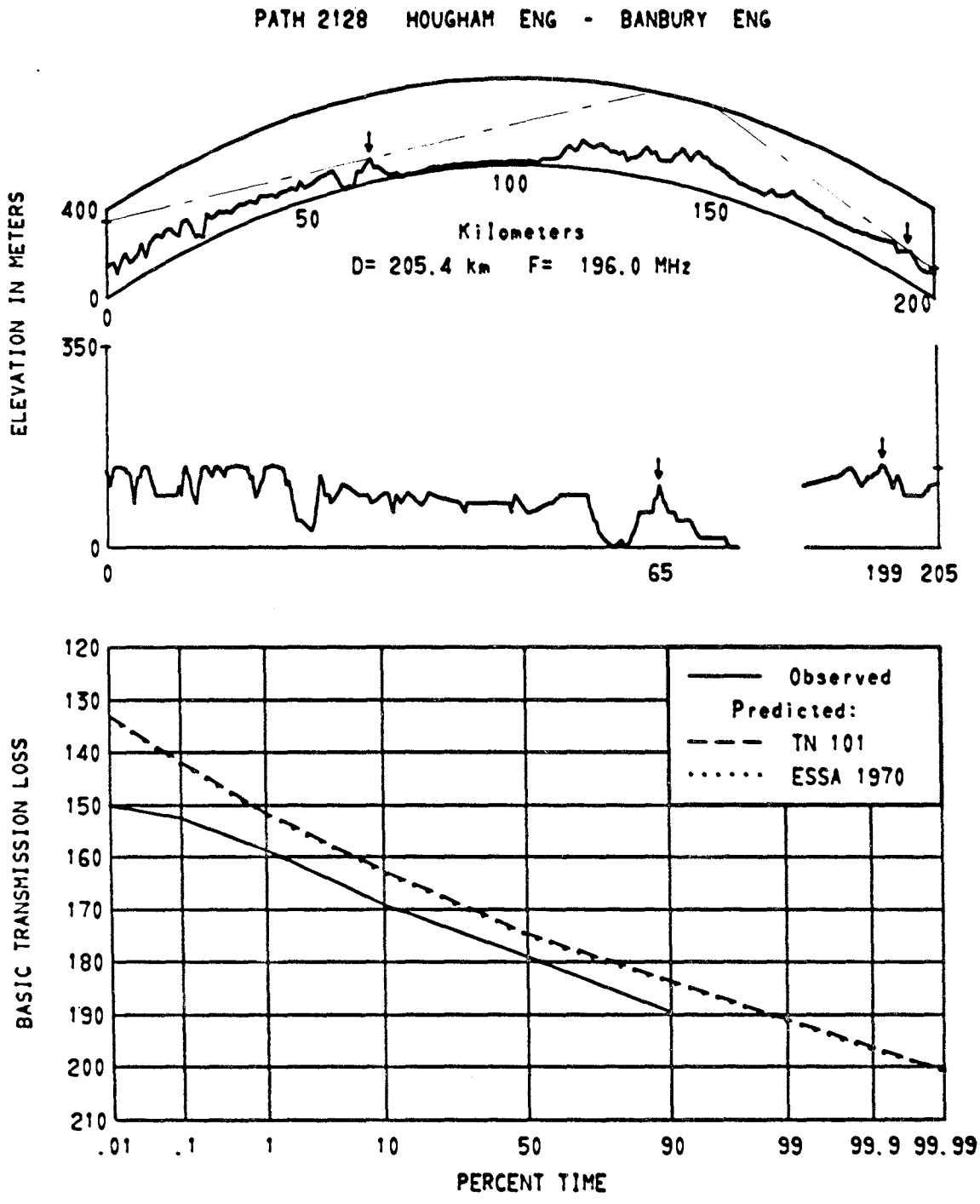


Figure 3.94 Figure 2128

PATHS 2185 2191 CRYSTAL PALACE ENG - CASTLETON WALES

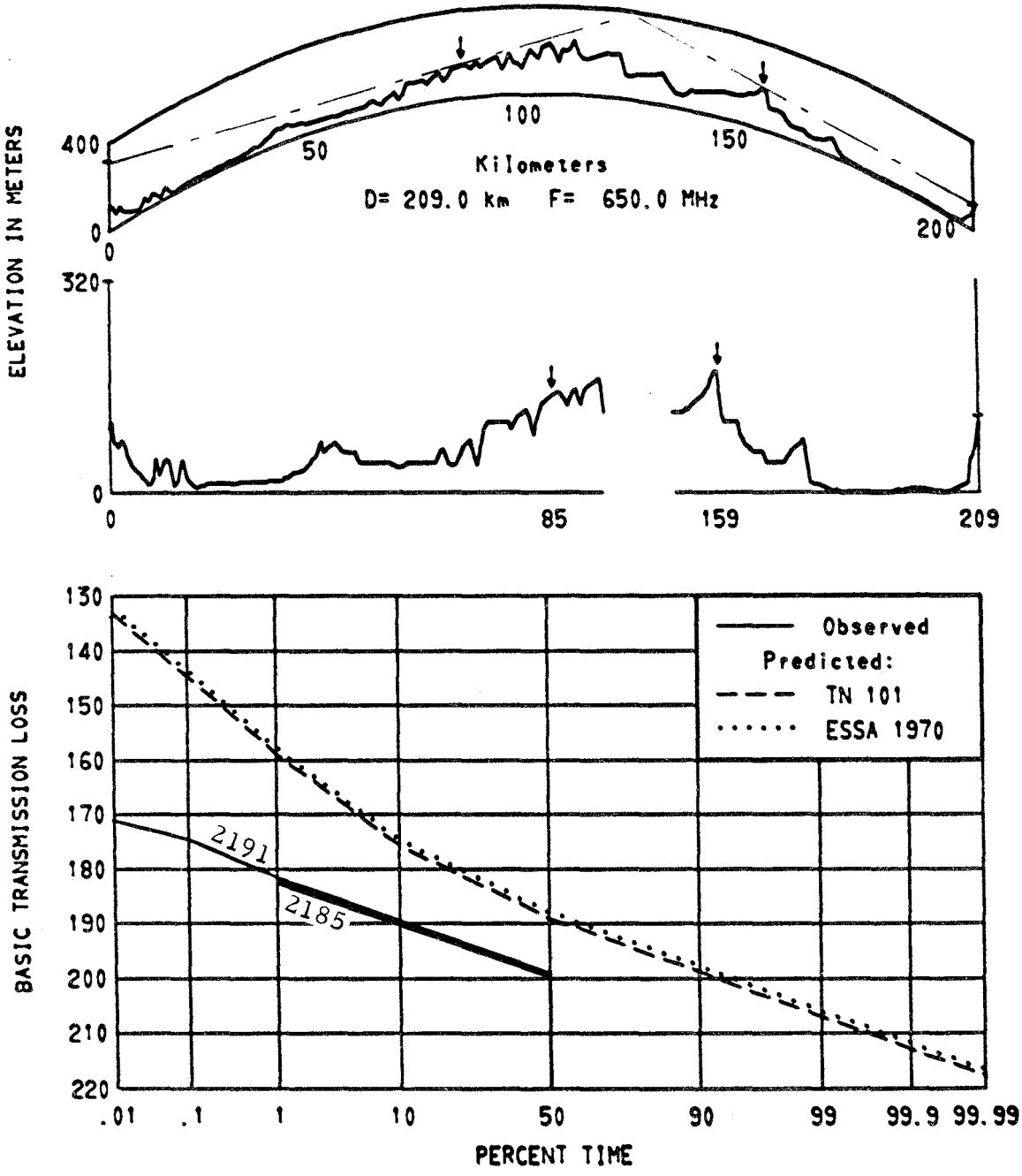
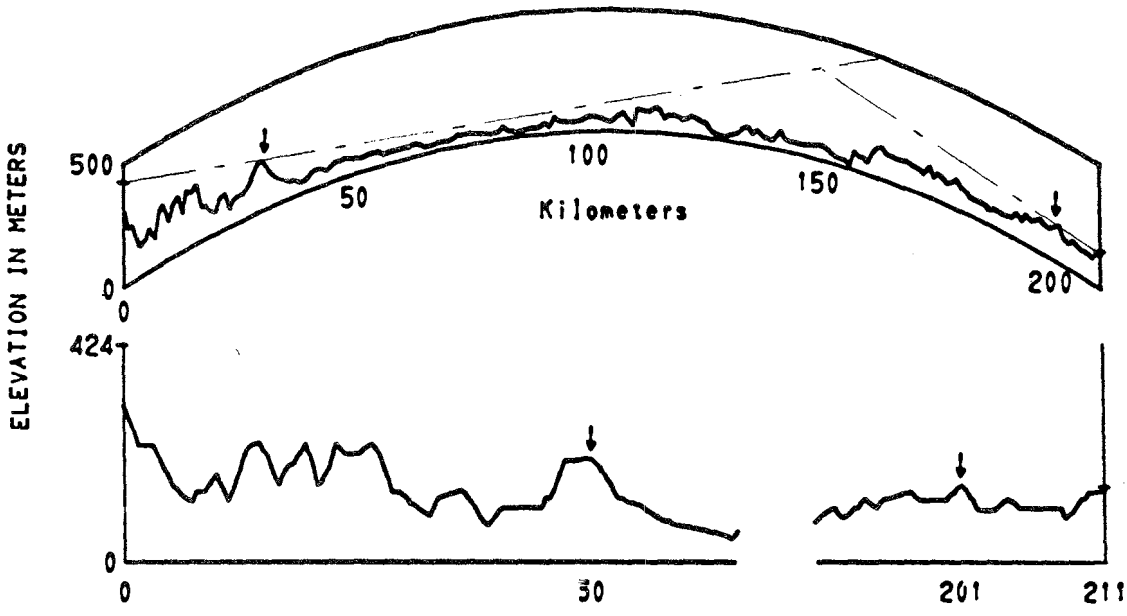


Figure 3.95 Paths 2185 2191

PATHS 2041 2046 2102 PONTOP PIKE ENG - DORKET HEAD ENG



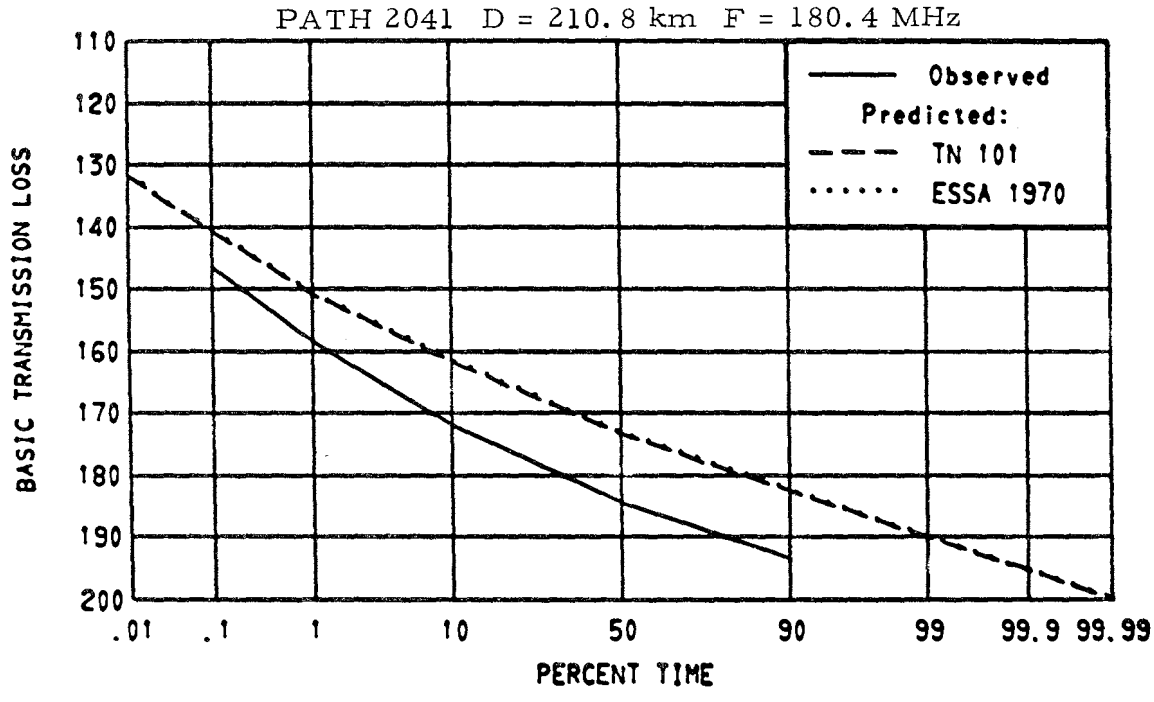


Figure 3.96 Path 2041

PONTOP PIKE ENG - DORKET HEAD ENG

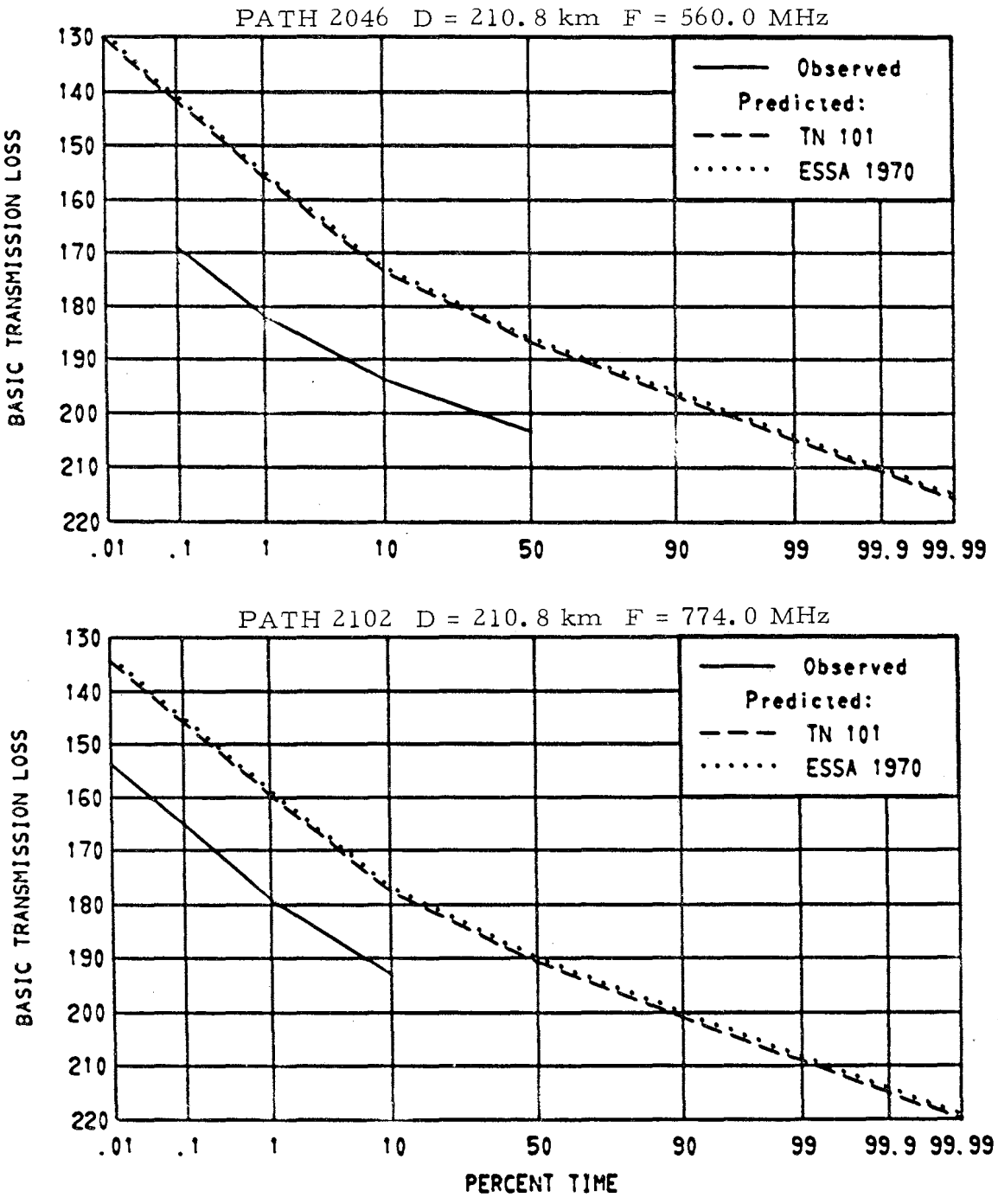


Figure 3.97 Paths 2046 2102

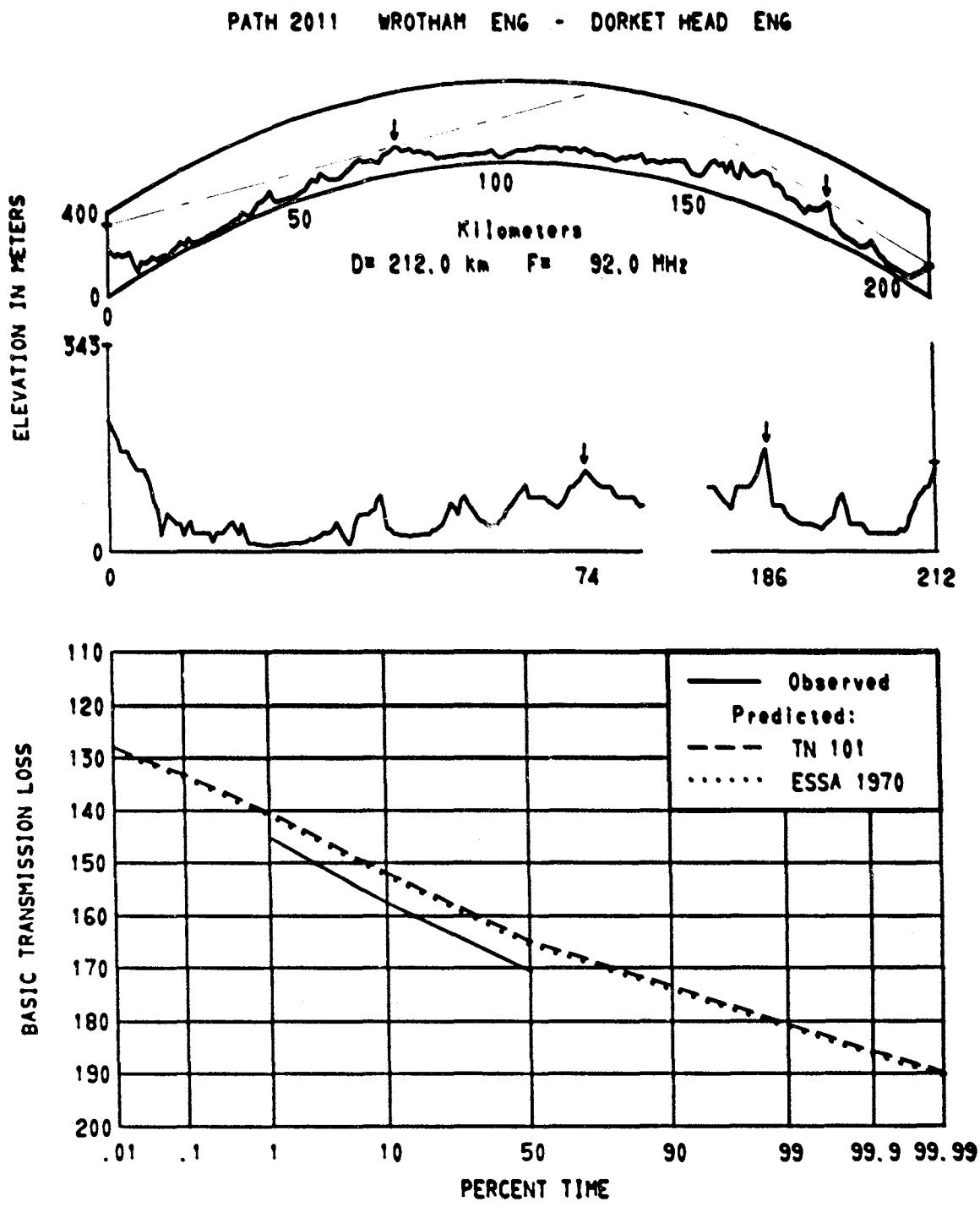


Figure 3.98 Path 2011

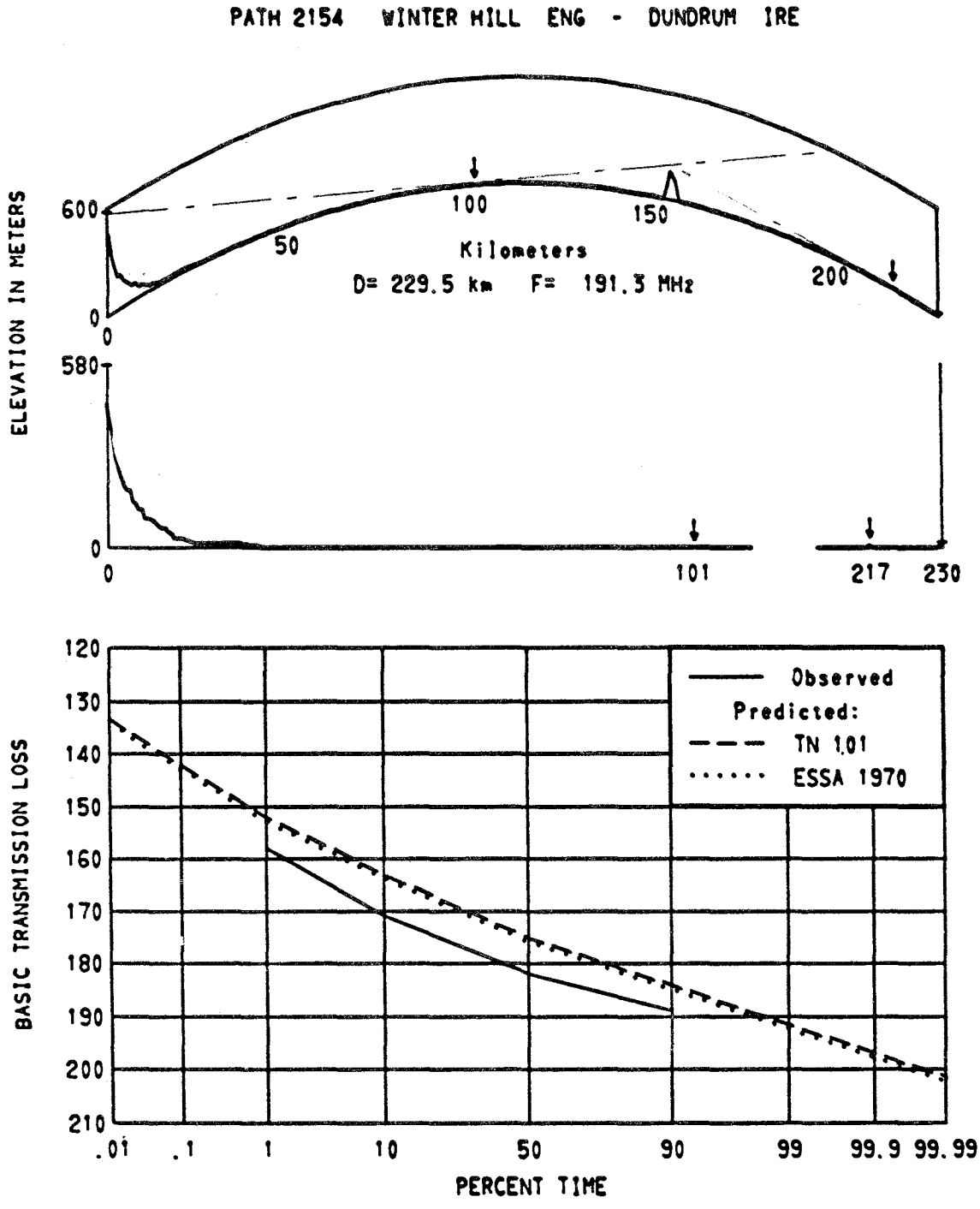


Figure 3.99 Path 2154

PATHS 2174 2187 WROTHAM ENG - CASTLETON WALES

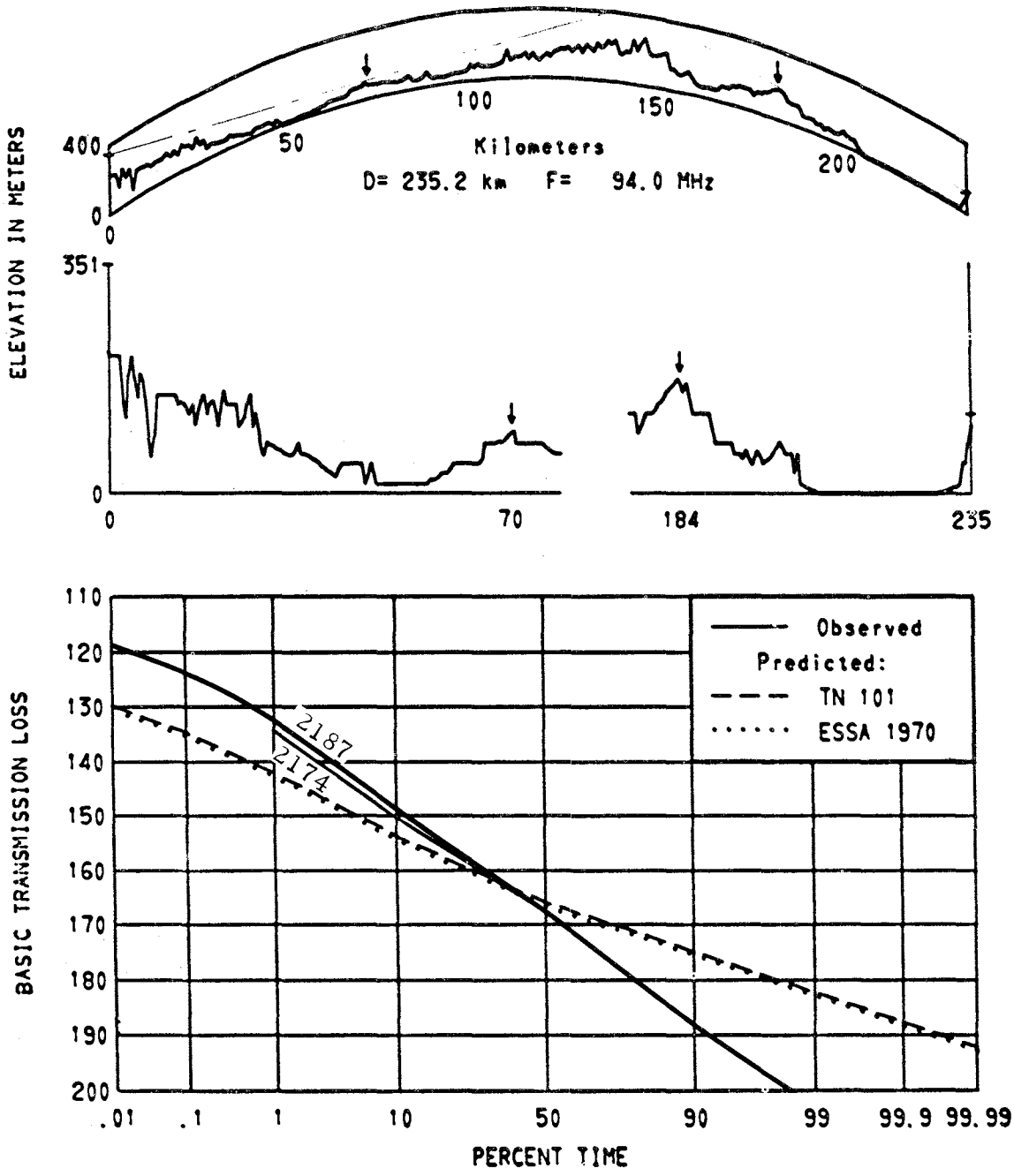
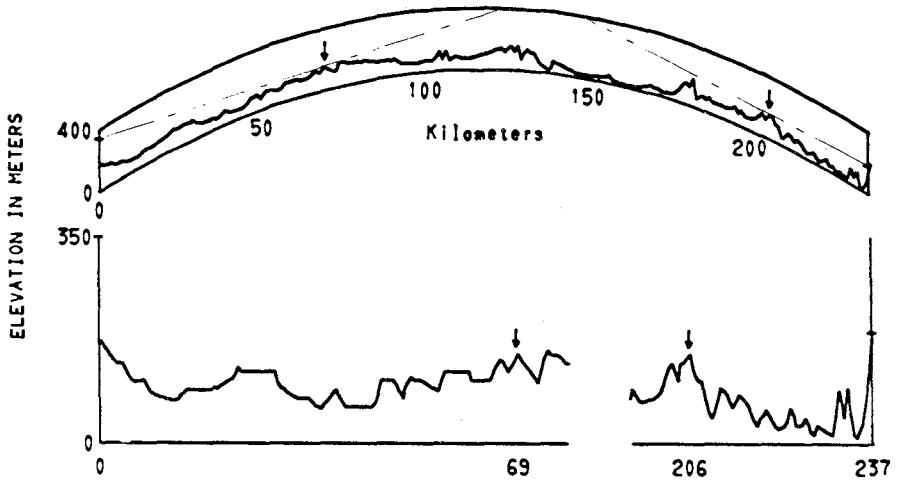
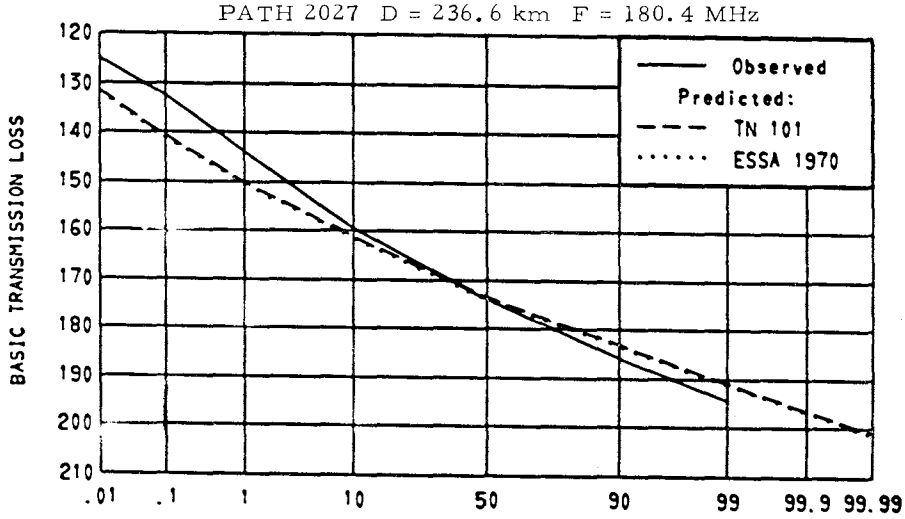


Figure 3.100 Paths 2174 2187

PATHS 2027 2030 SUTTON COLDFIELD ENG - BEDDINGHAM ENG



PATH 2027 D = 236.6 km F = 180.4 MHz



PATH 2030 D = 236.6 km F = 495.0 MHz

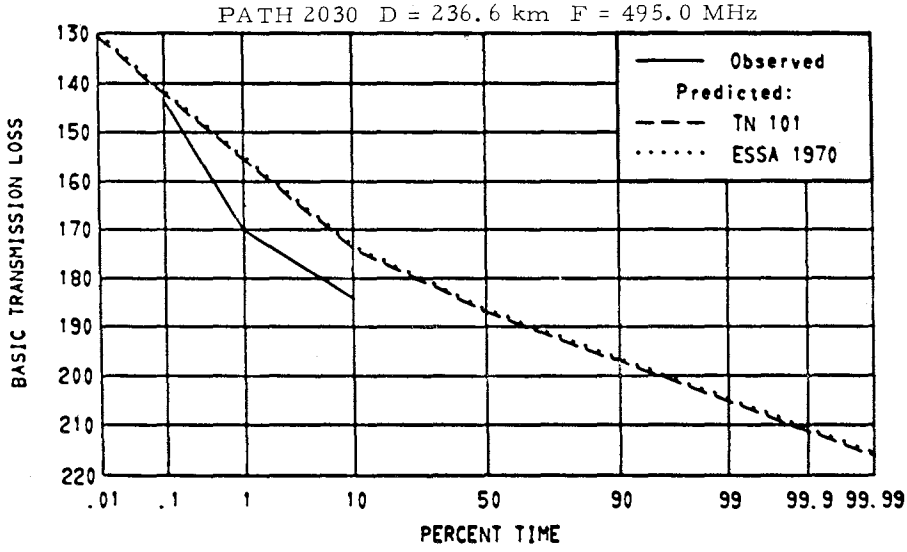


Figure 3.101 Paths 2027 2030

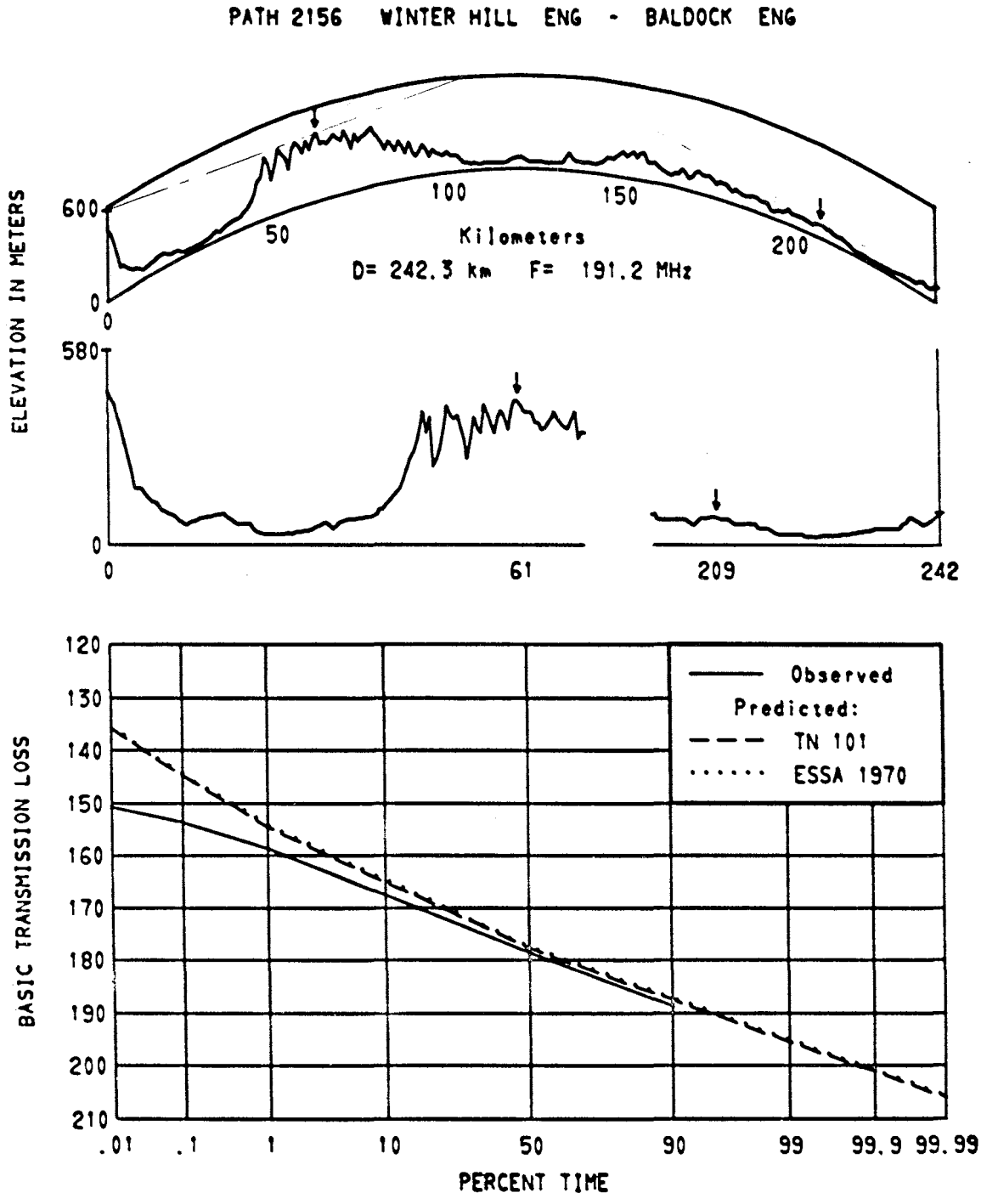


Figure 3.102 Path 2156

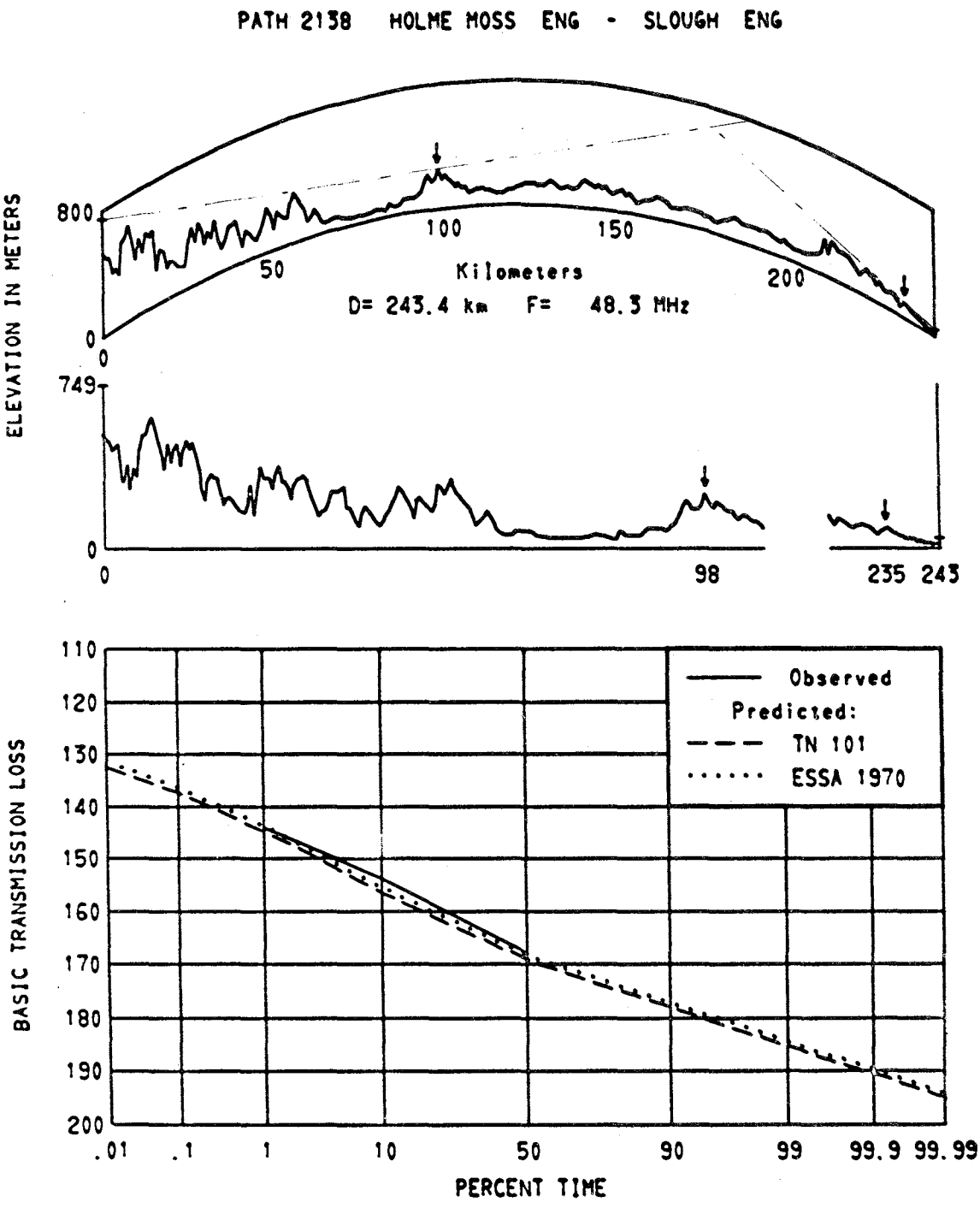


Figure 3.103 Path 2138

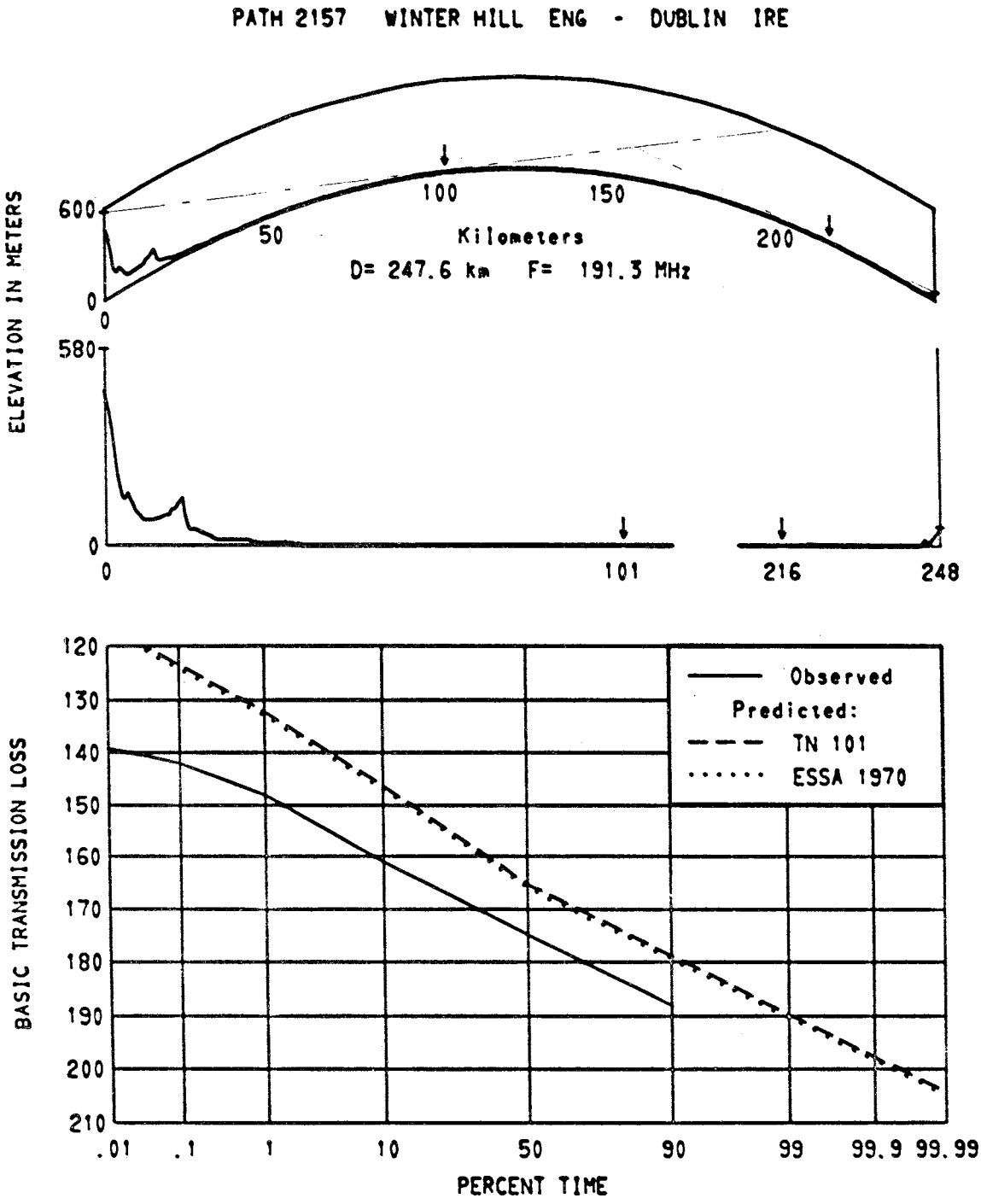


Figure 3.104 Path 2157

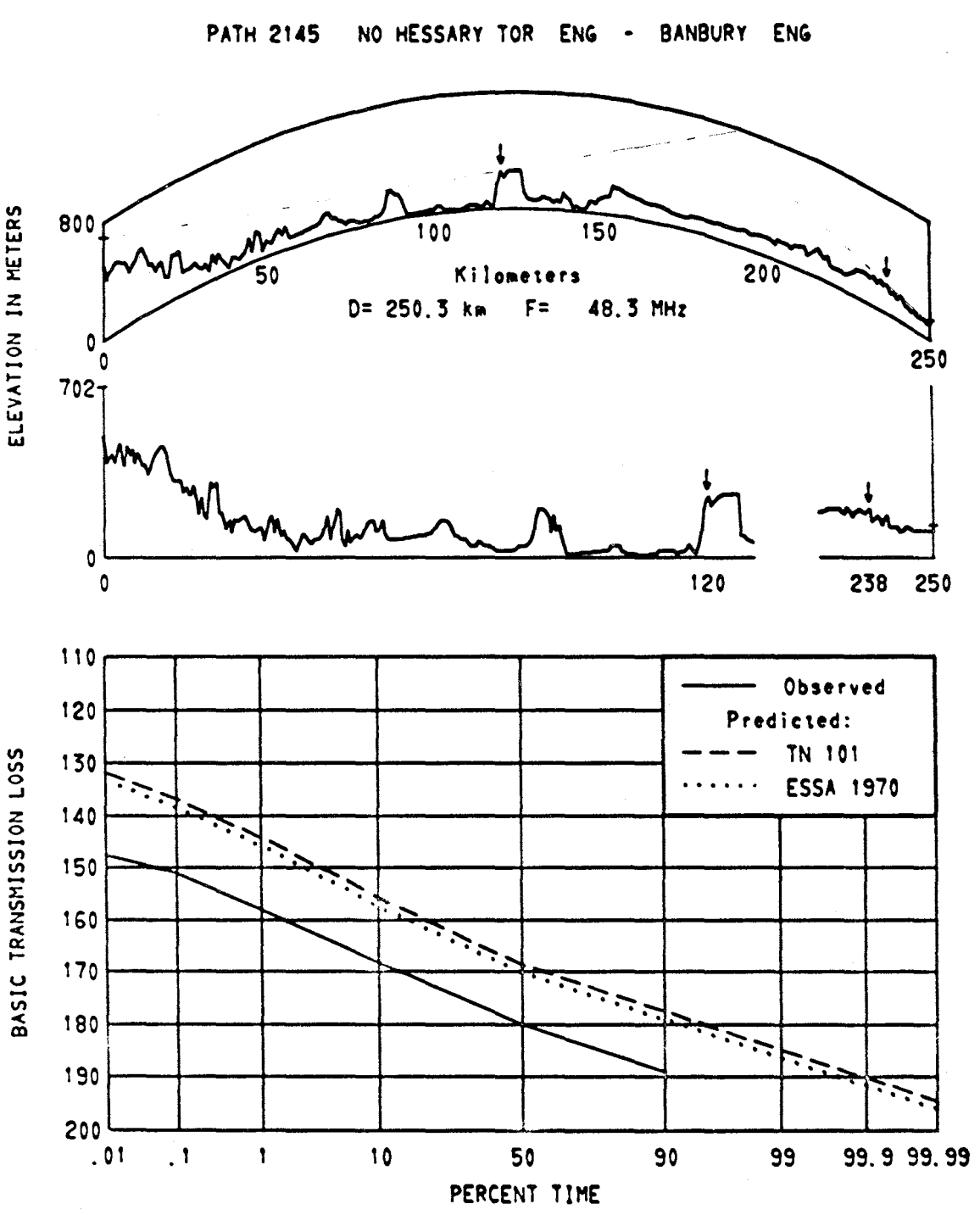


Figure 3.105 Path 2145

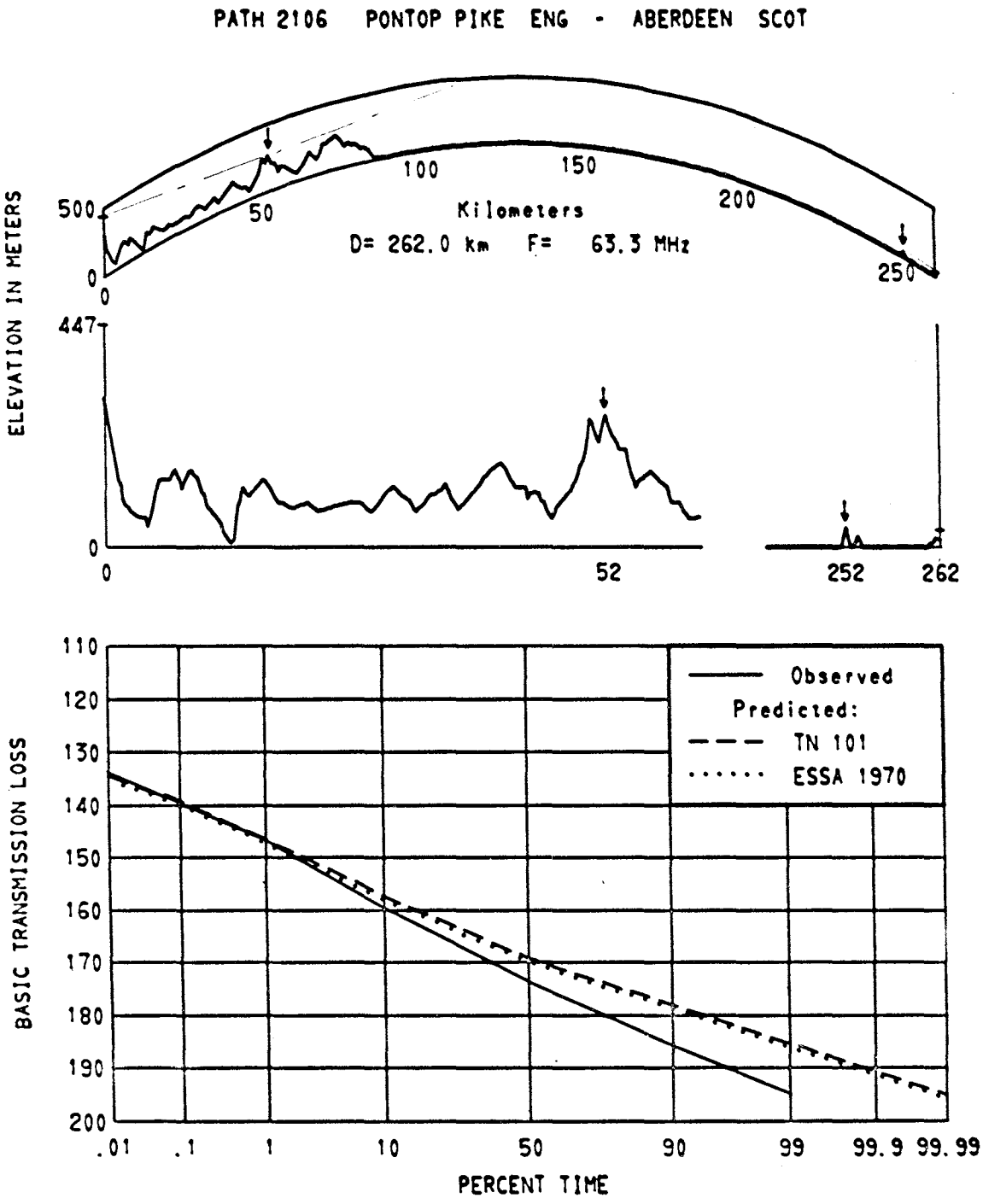
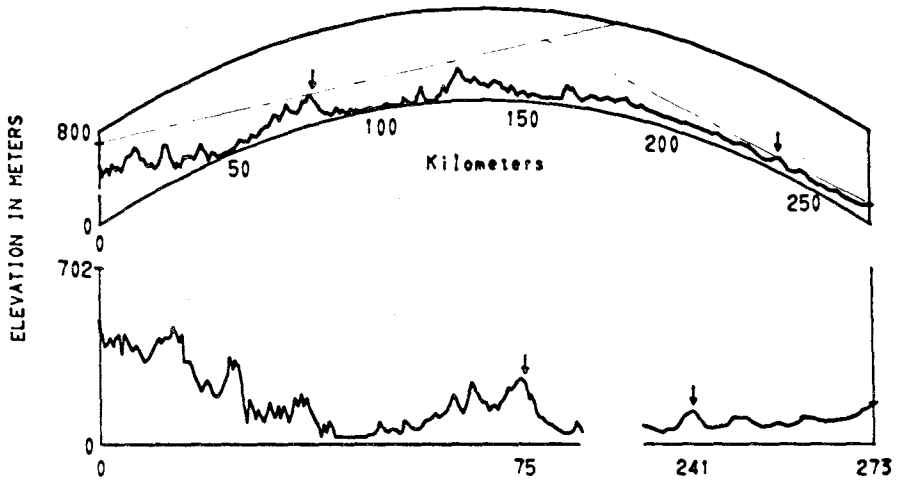
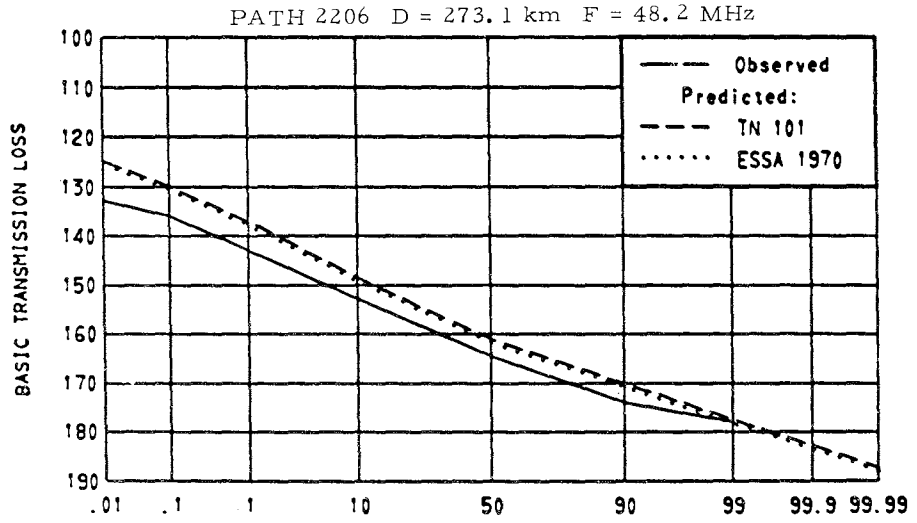


Figure 3.106 Path 2106

PATHS 2206 2207 NO HESSARY TOR ENG - MURSLEY ENG





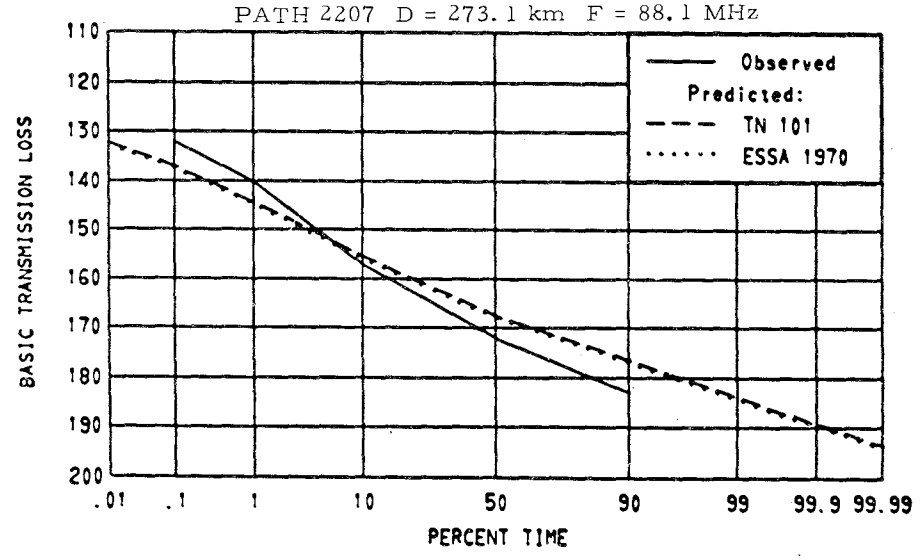
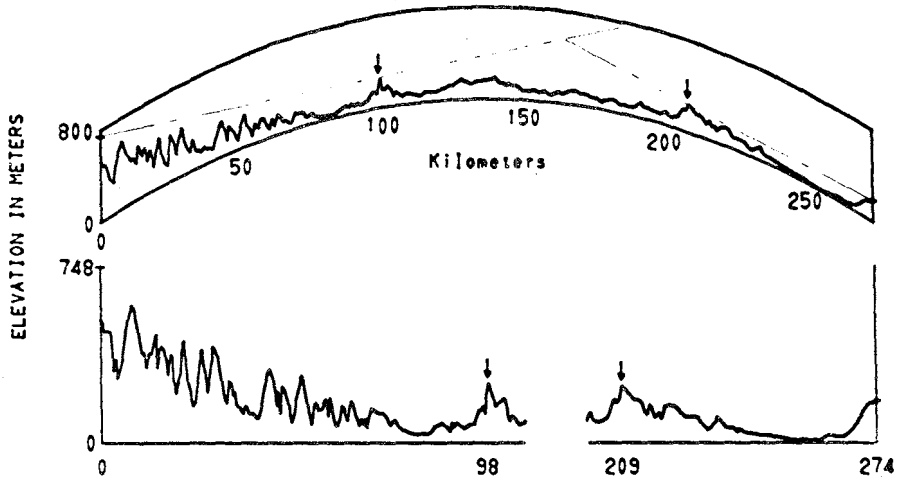
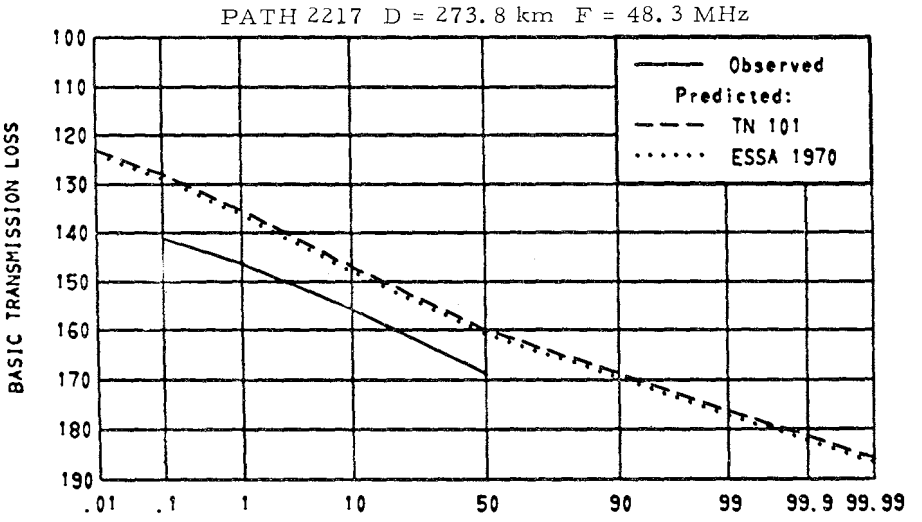


Figure 3.107 Paths 2206 2207

PATHS 2032 2217 HOLME MOSS ENG - KINGSWOOD ENG





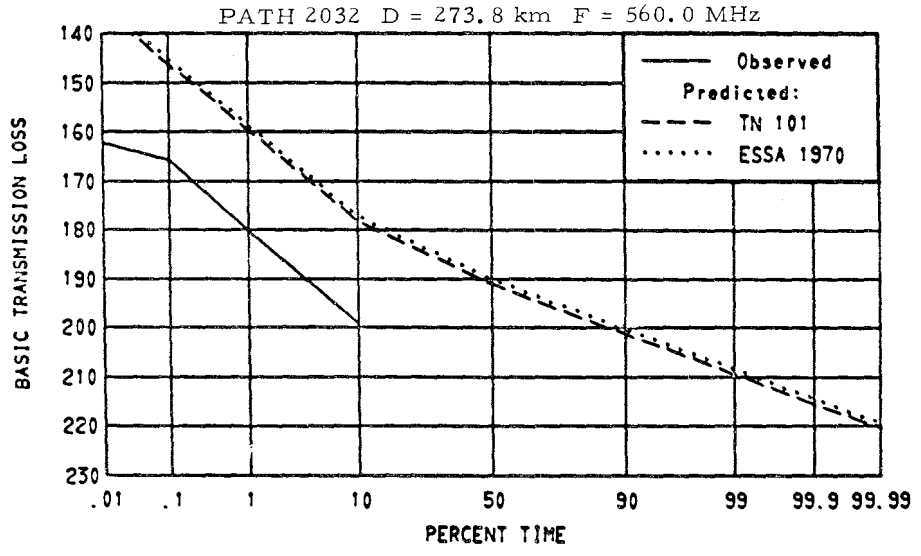


Figure 3.108 Paths 2032 2217

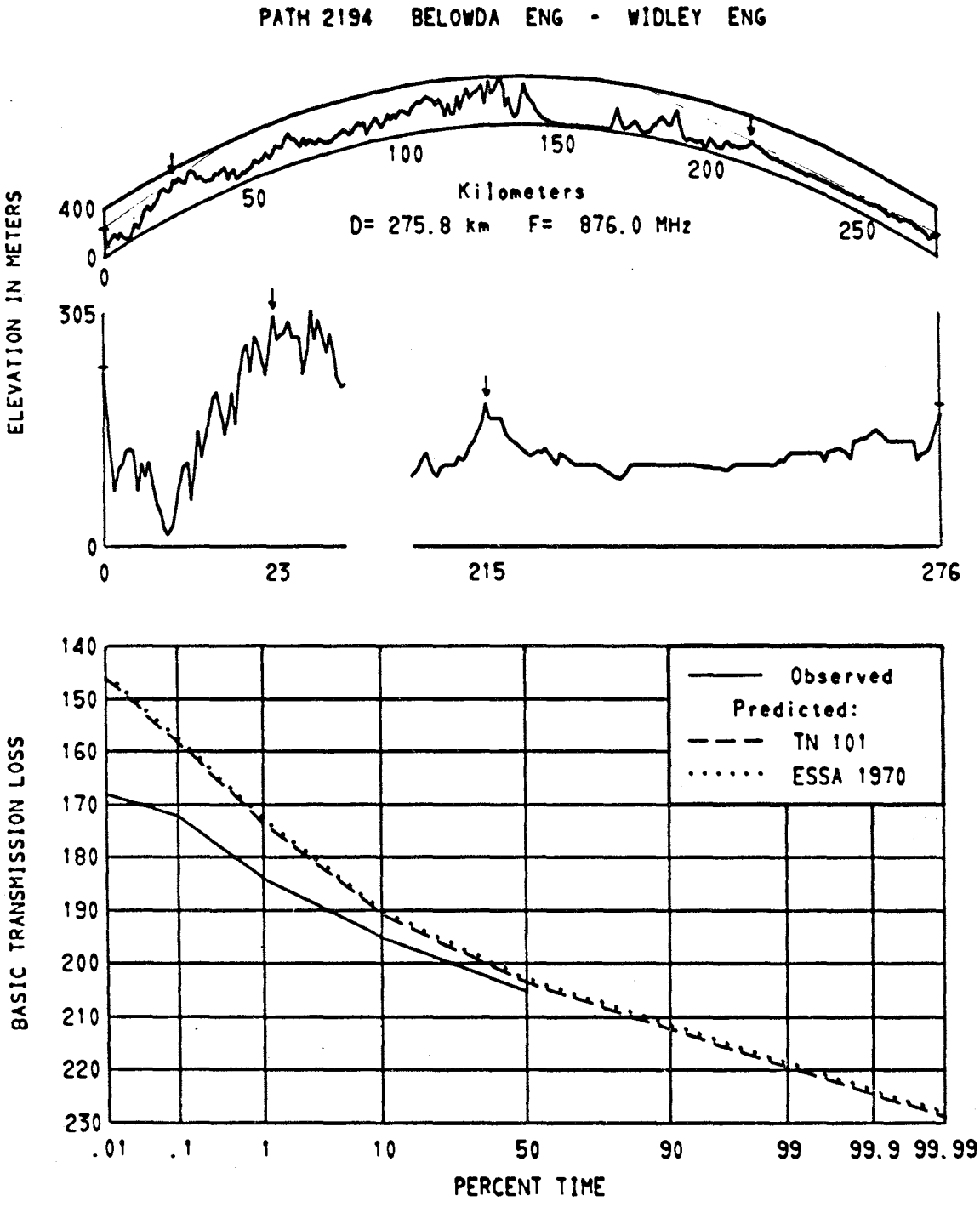


Figure 3.109 Path 2194

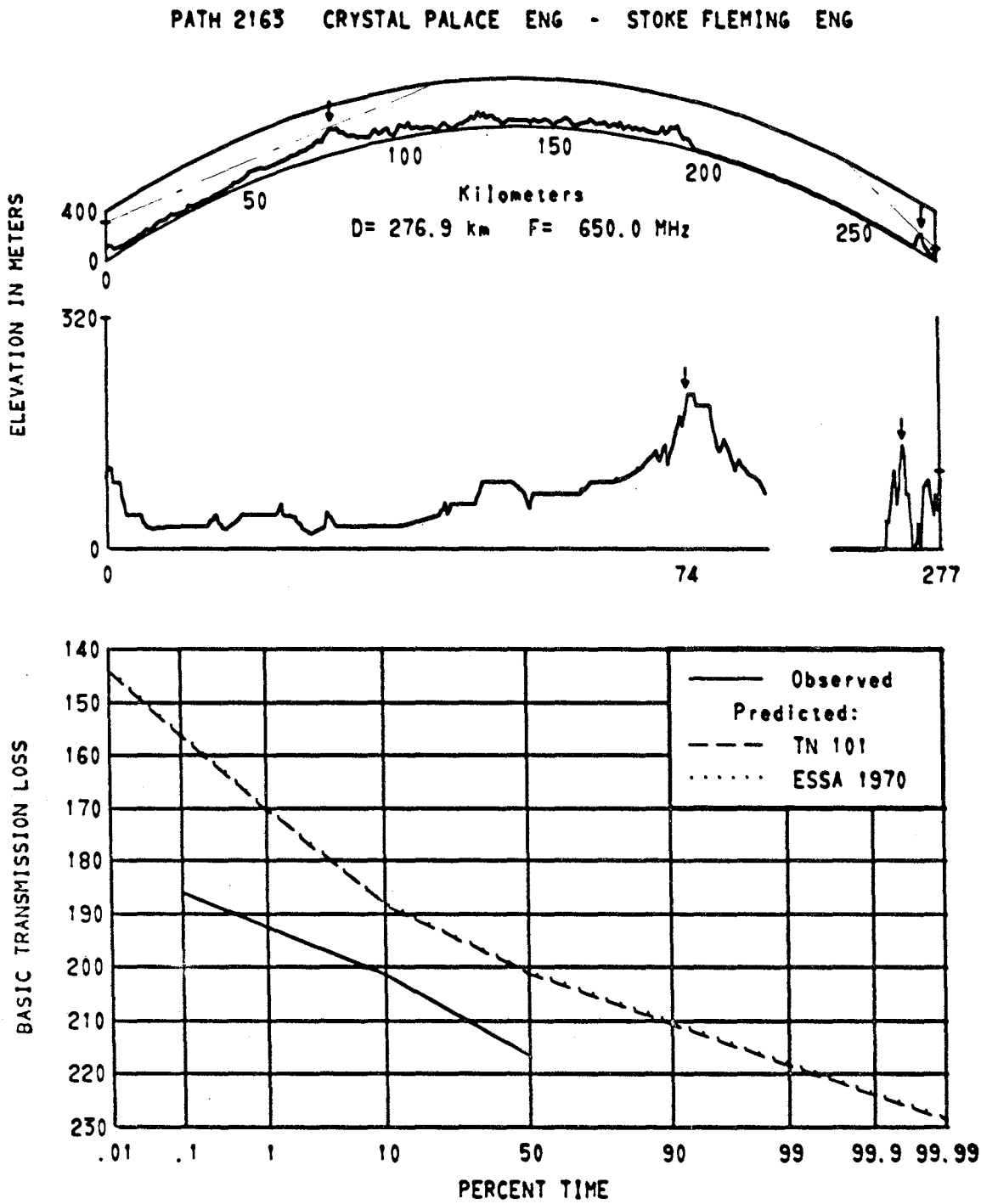


Figure 3.110 Path 2163

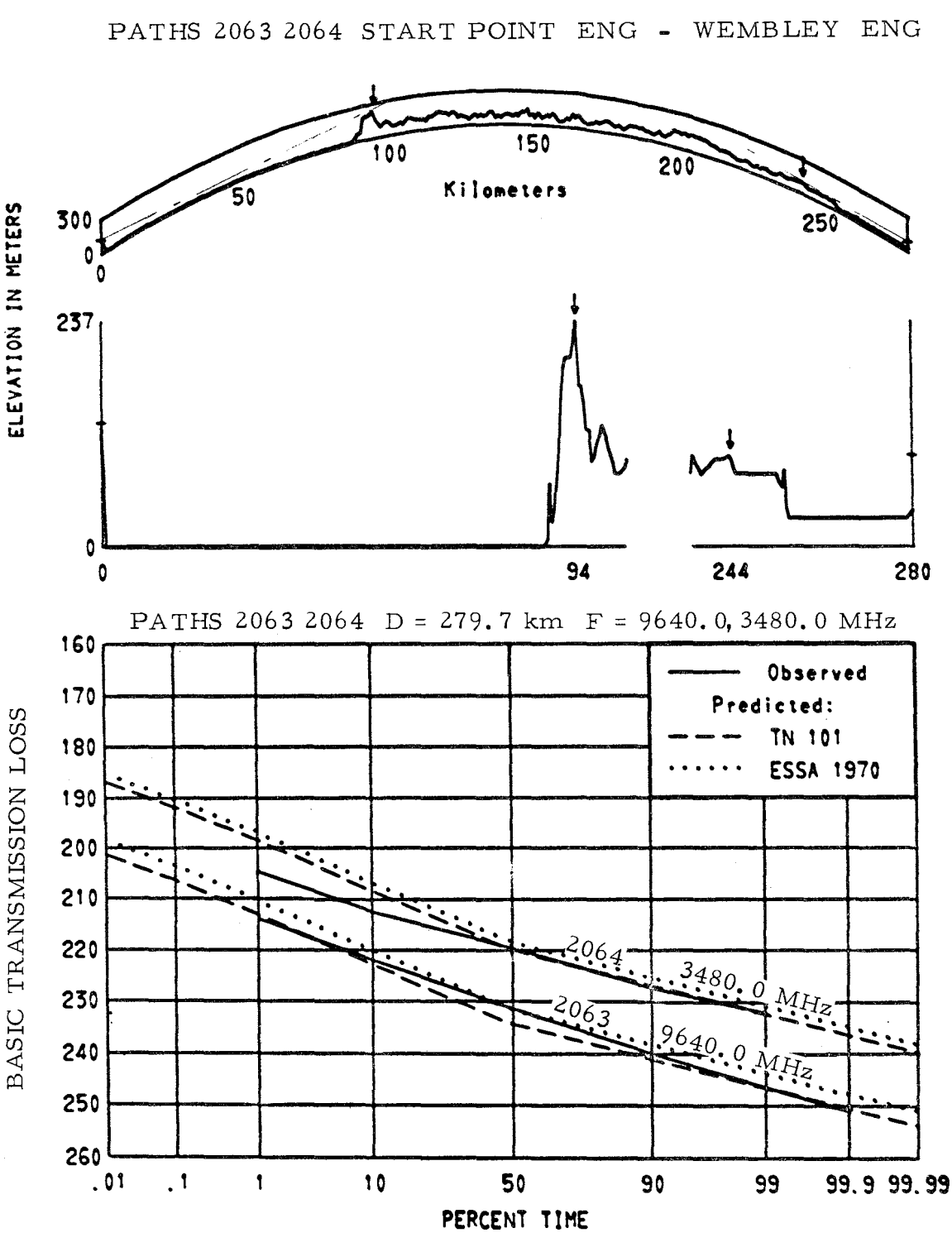


Figure 3.111 Paths 2063 2064

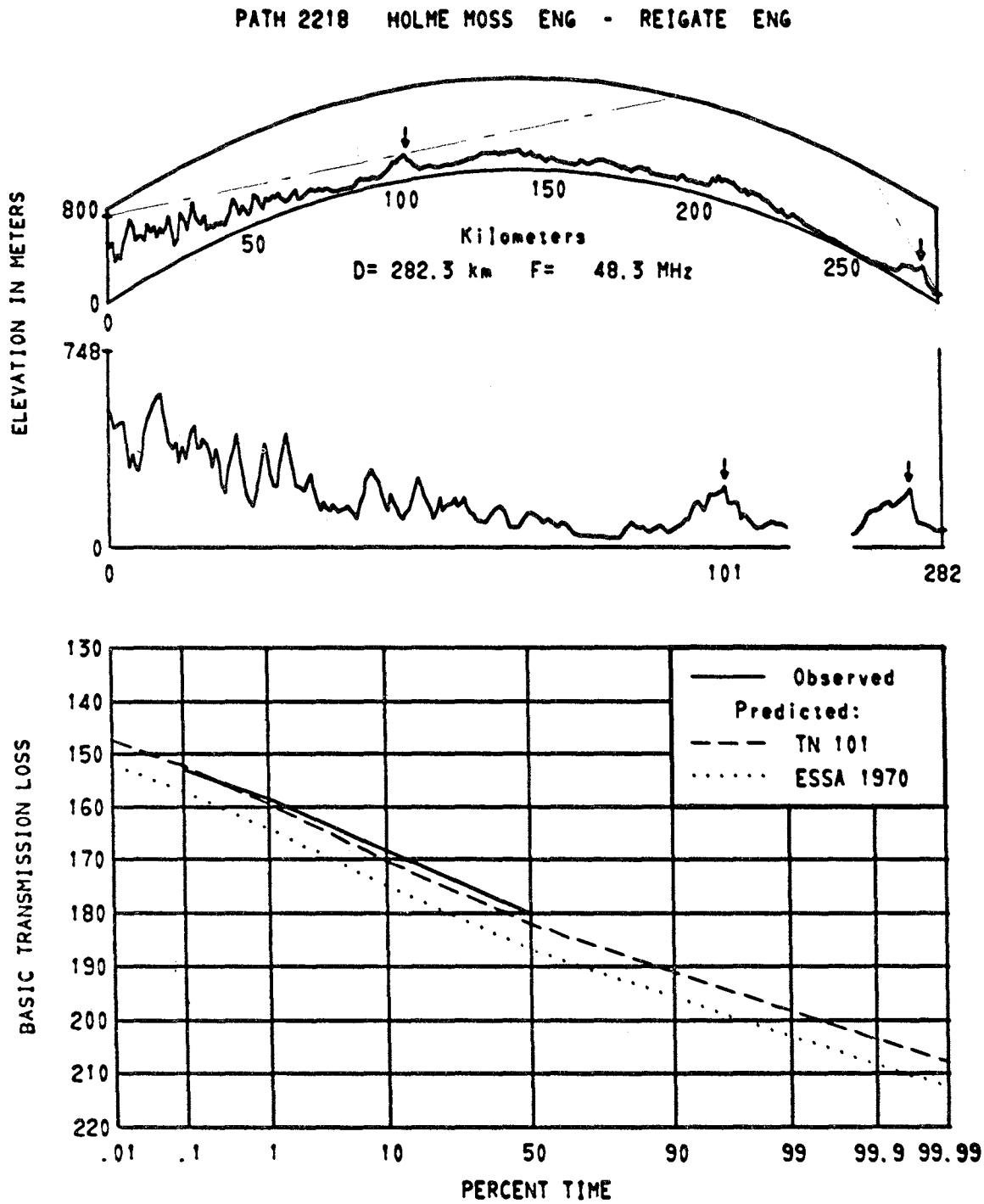


Figure 3.112 Path 2218

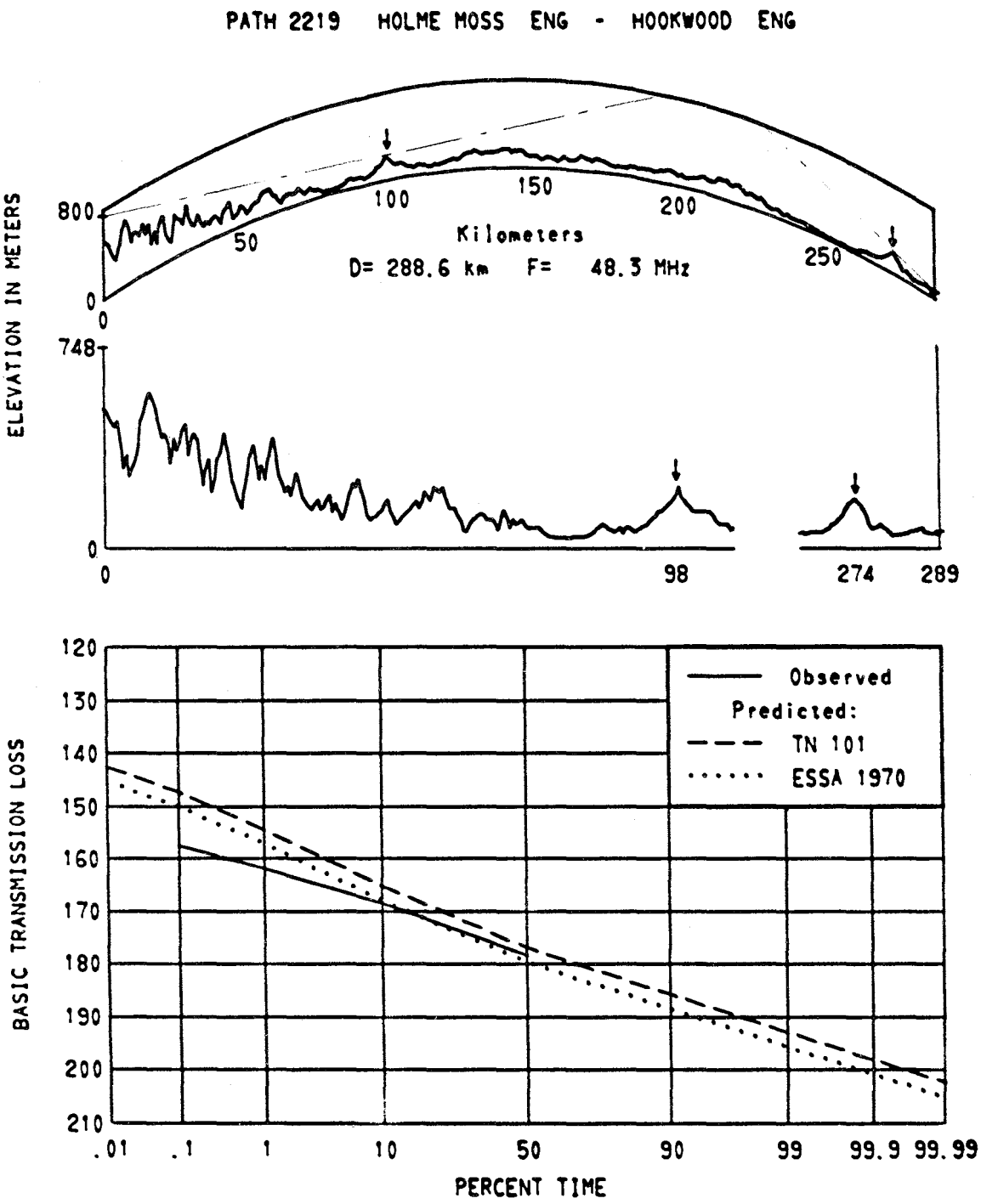


Figure 3.113 Path 2219

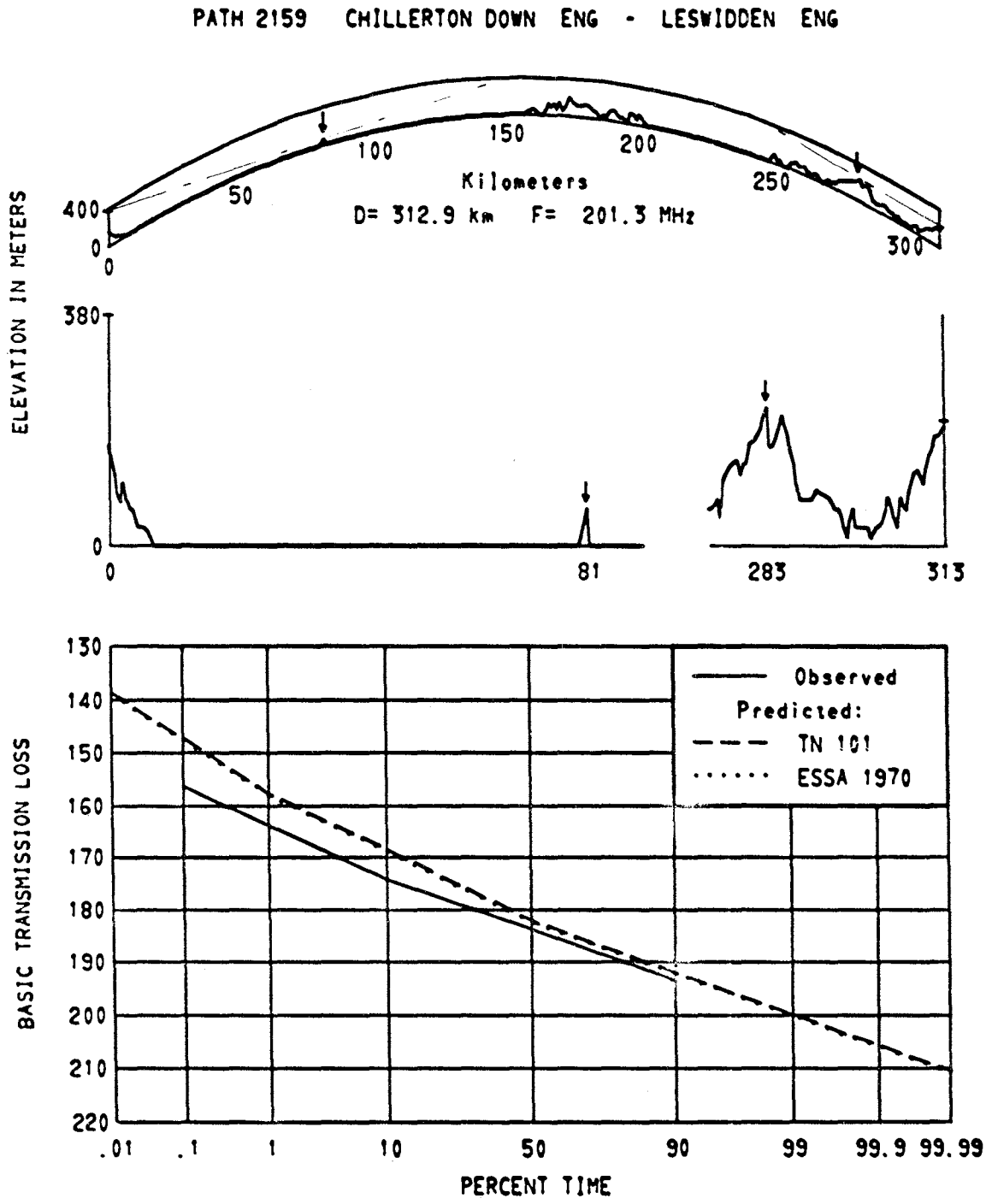


Figure 3.114 Path 2159

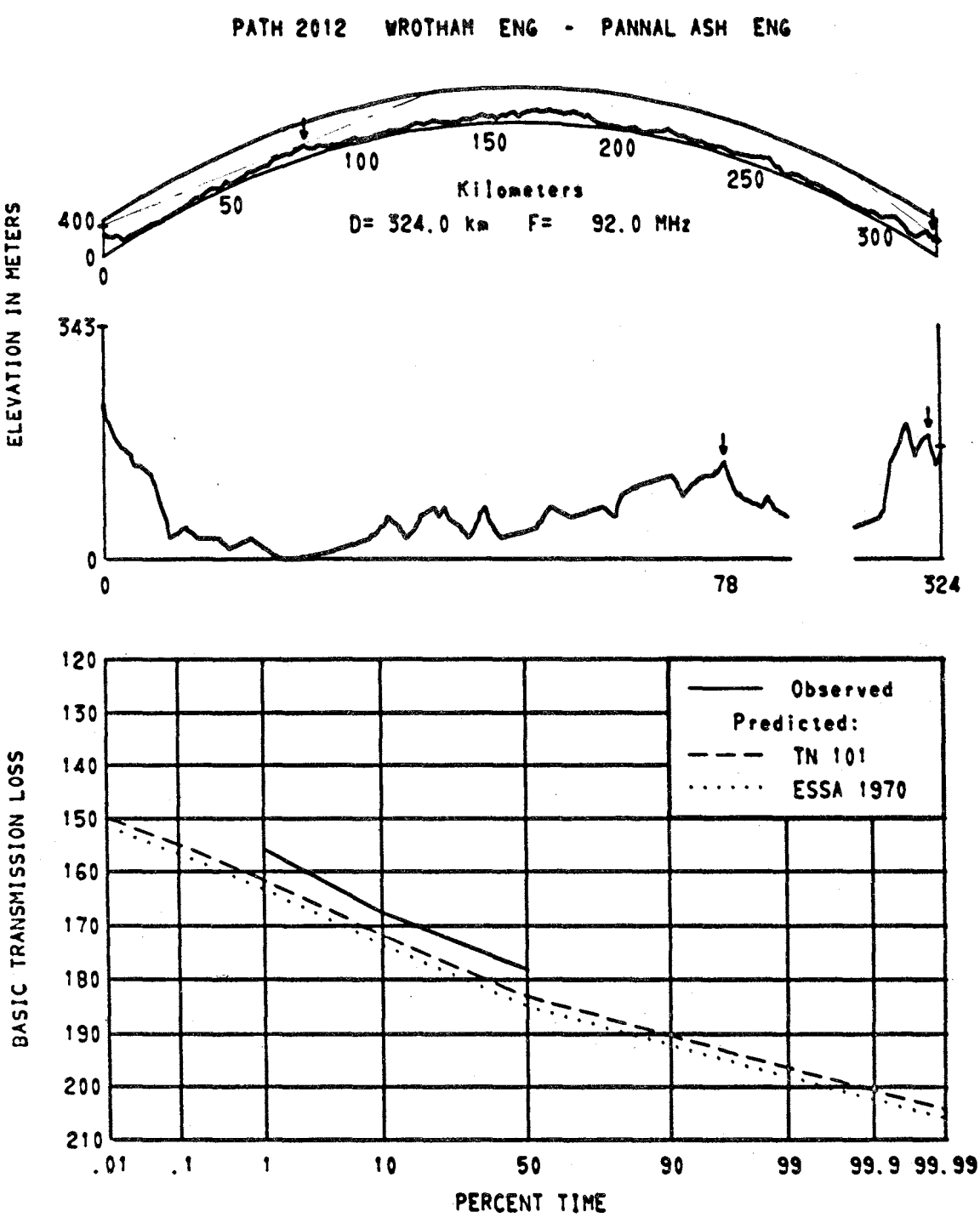


Figure 3.115 Path 2012

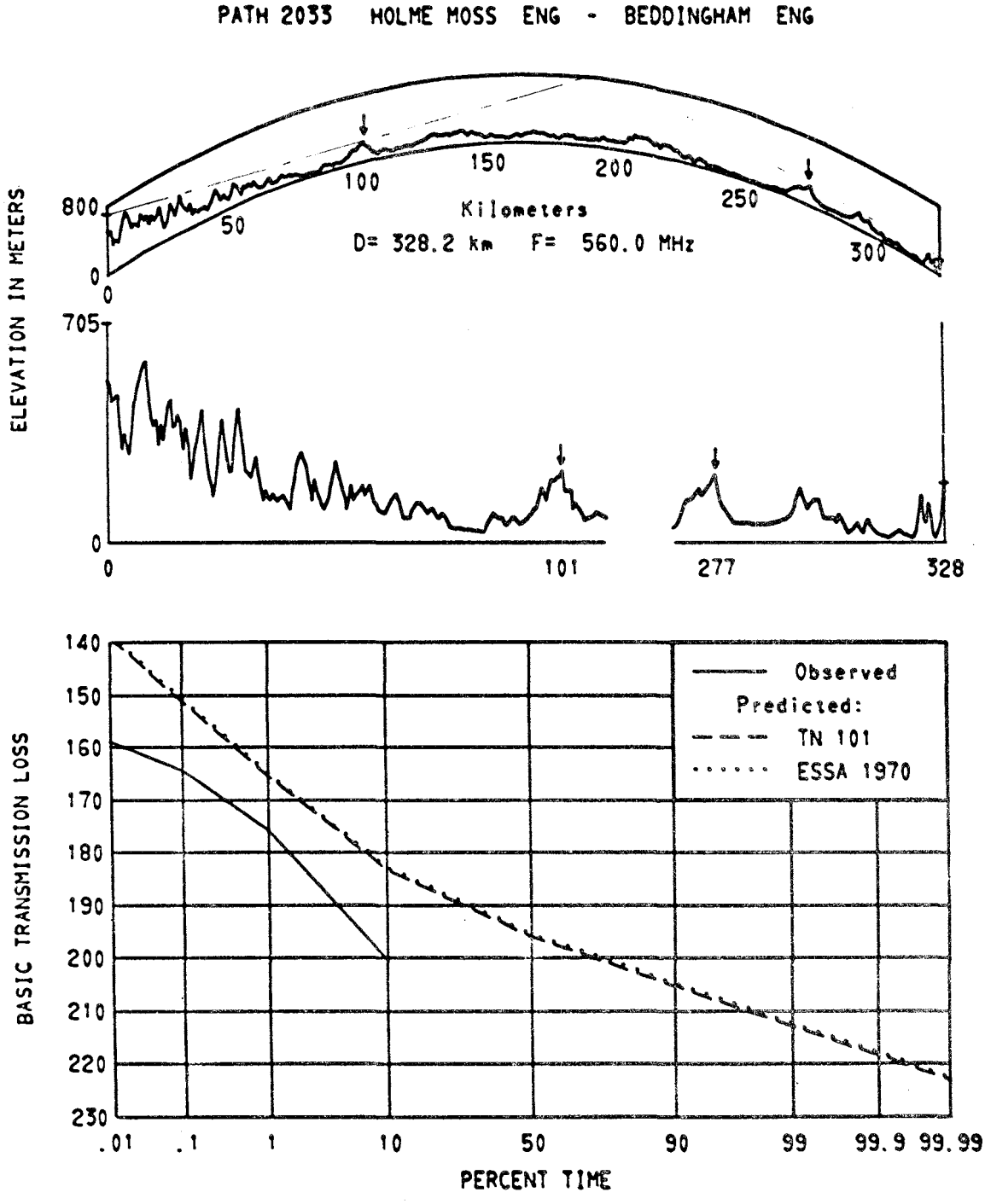
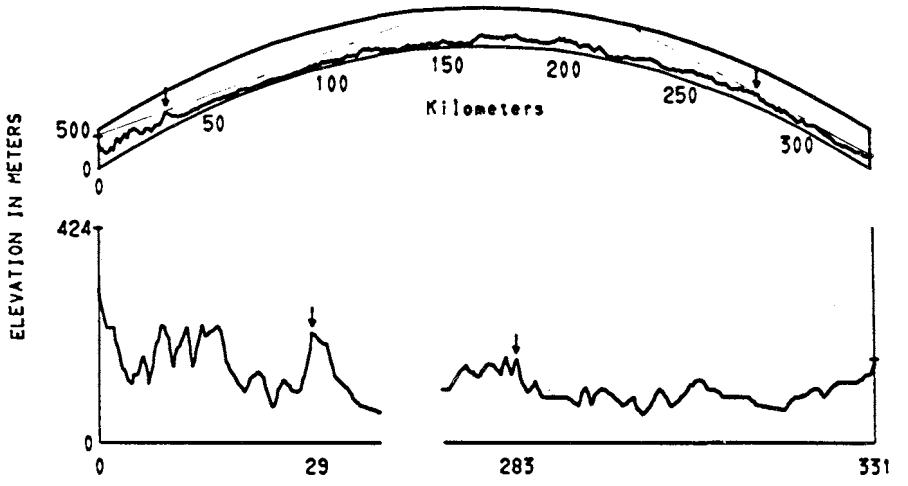
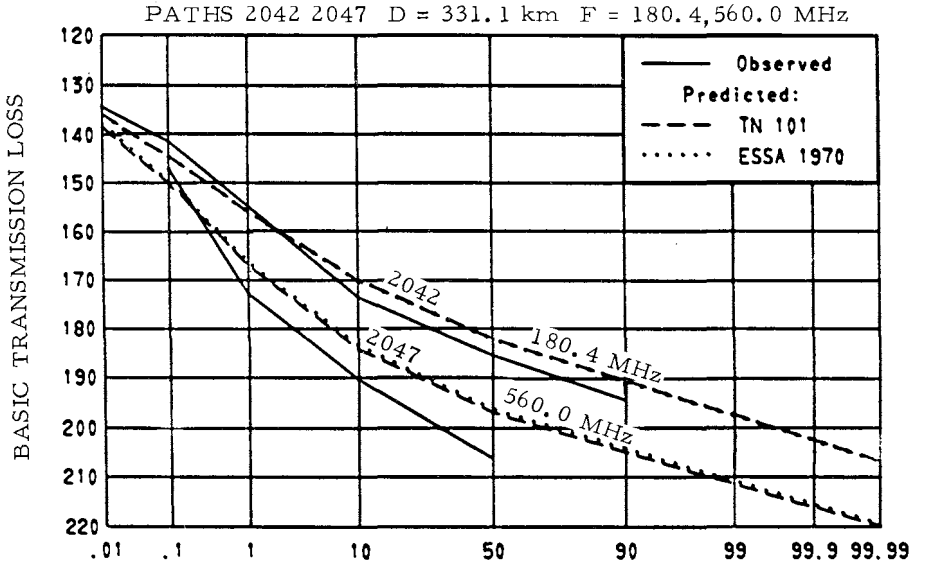


Figure 3.116 Path 2033

PATHS 2042 2047 2103 PONTOP PIKE ENG - MURSLEY ENG





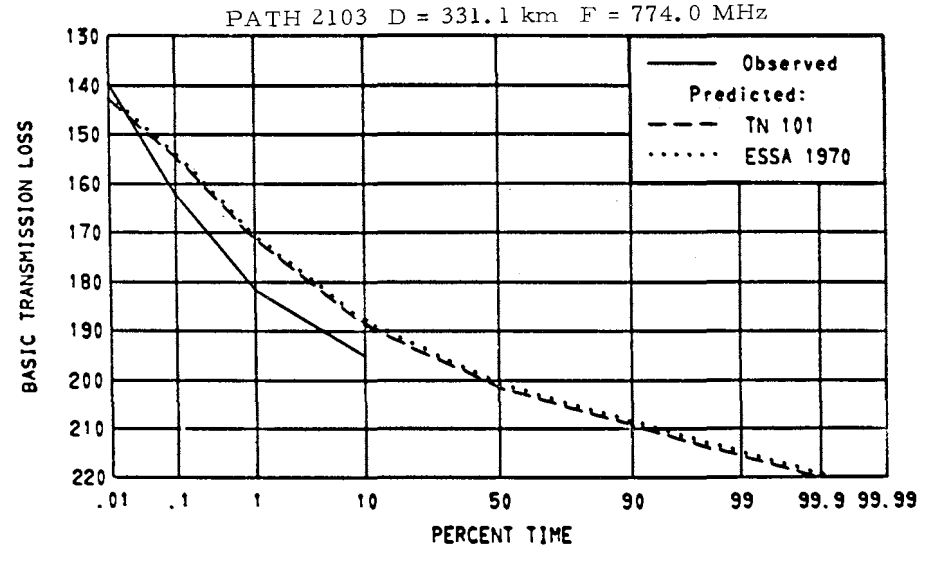


Figure 3.117 Paths 2042 2047 2103

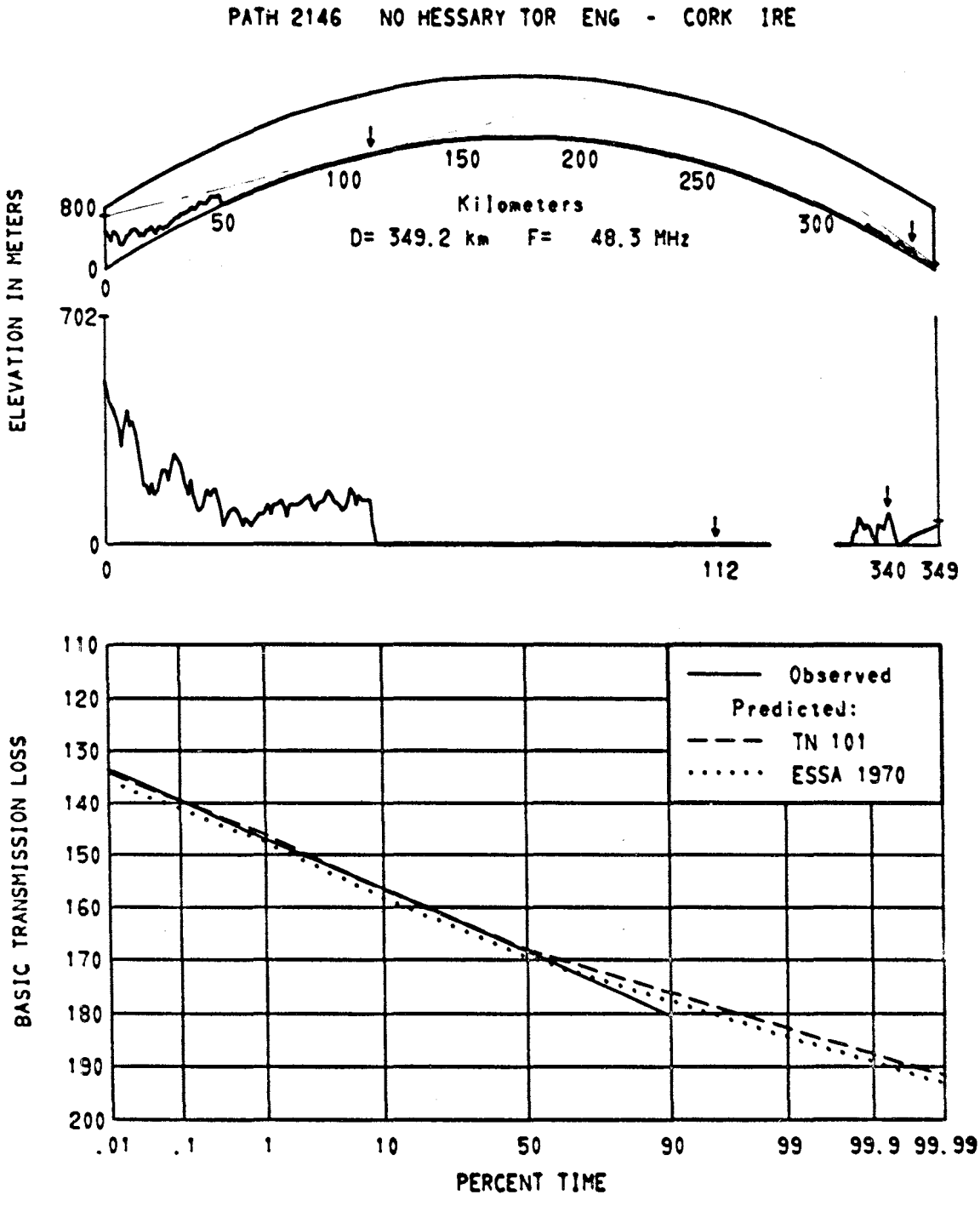


Figure 3.118 Path 2146

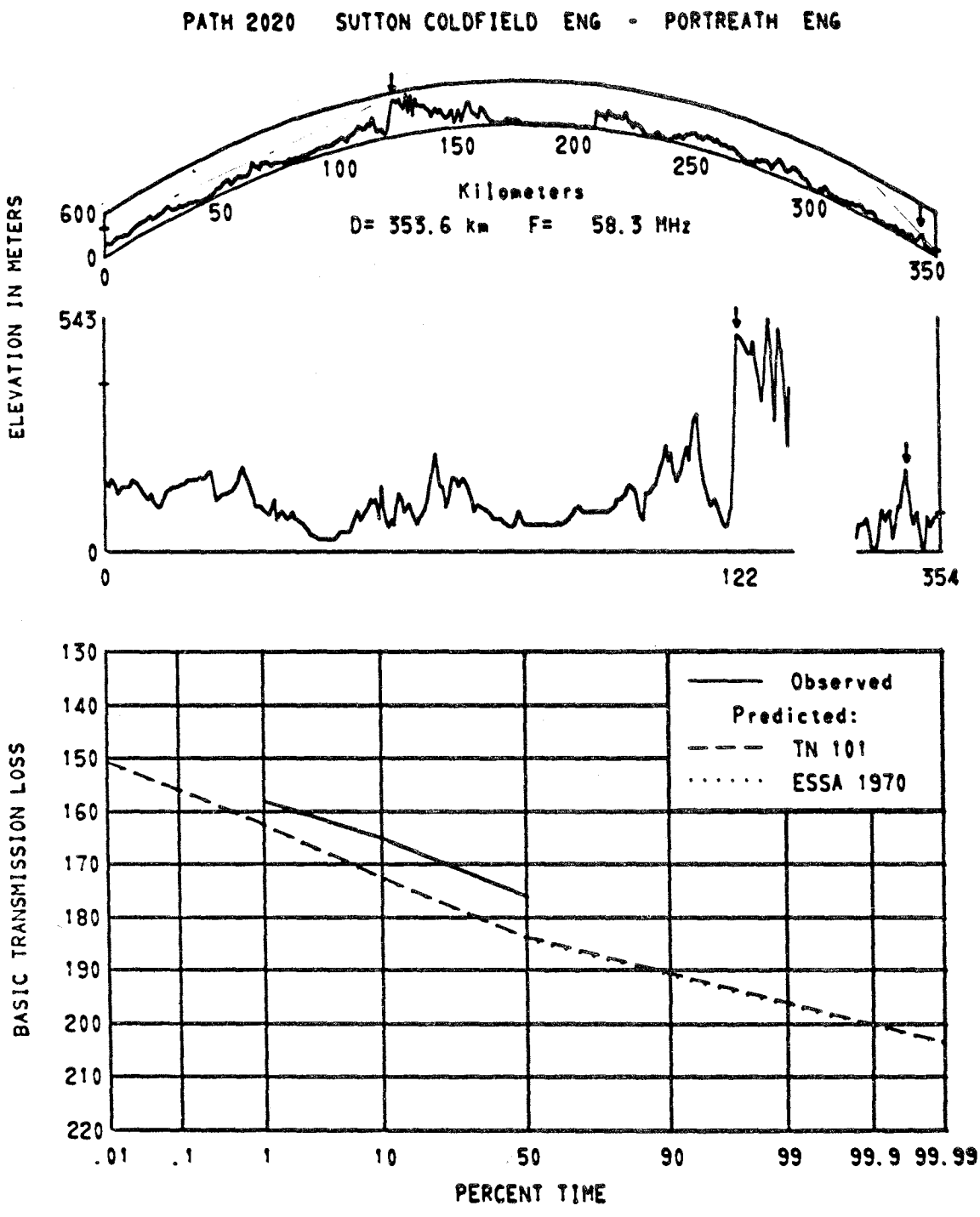


Figure 3.119 Path 2020

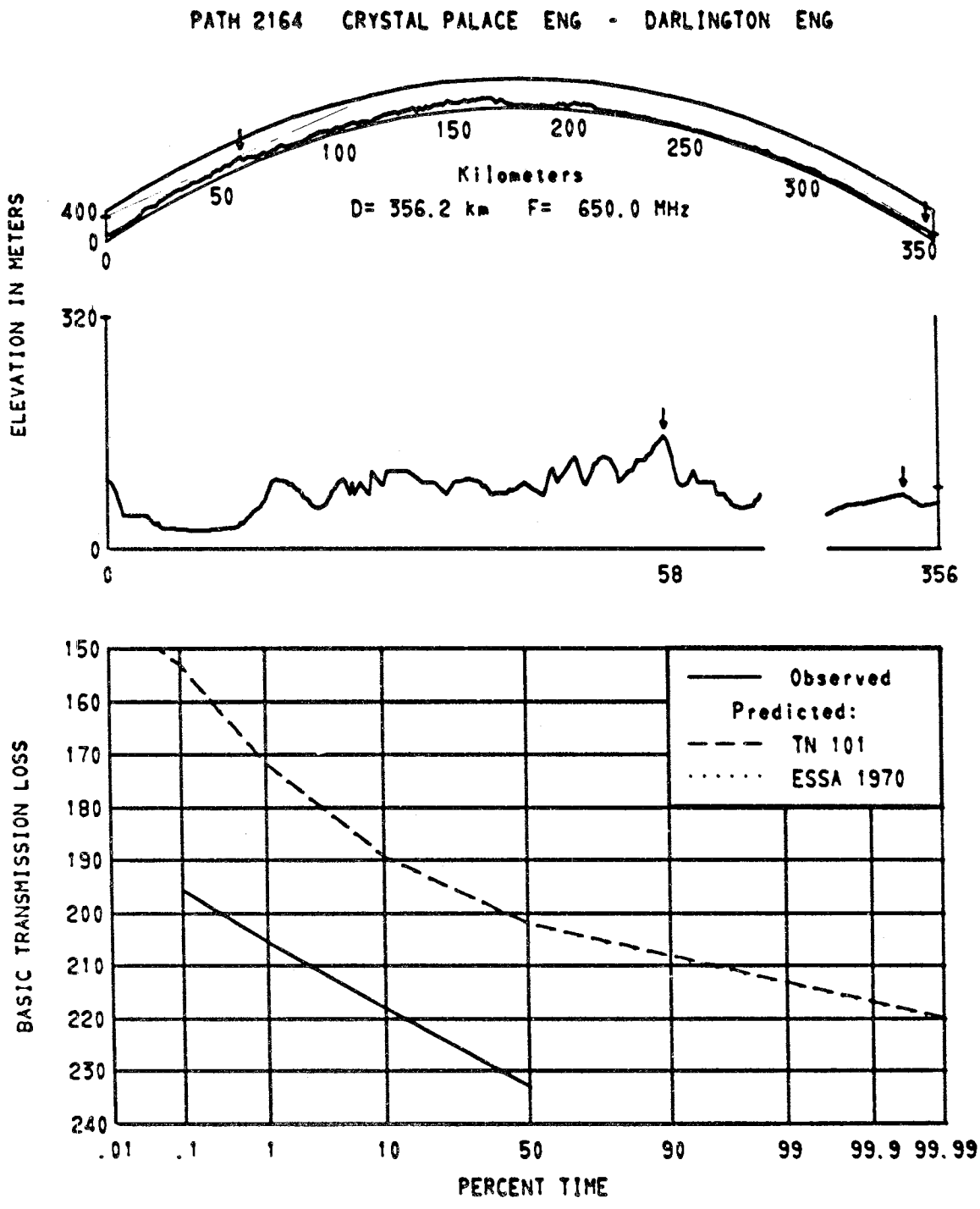


Figure 3.120 Path 2164

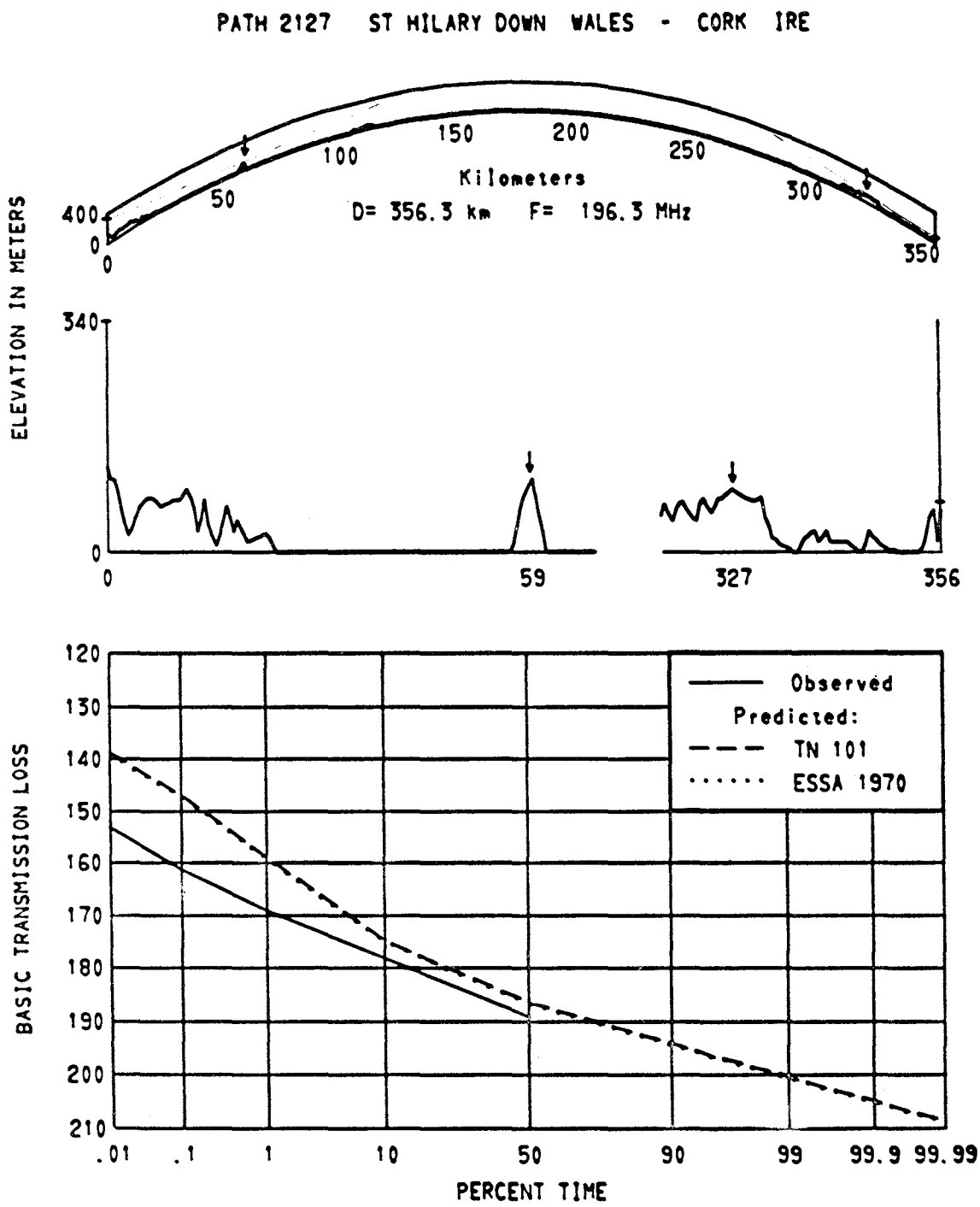


Figure 3.121 Path 2127

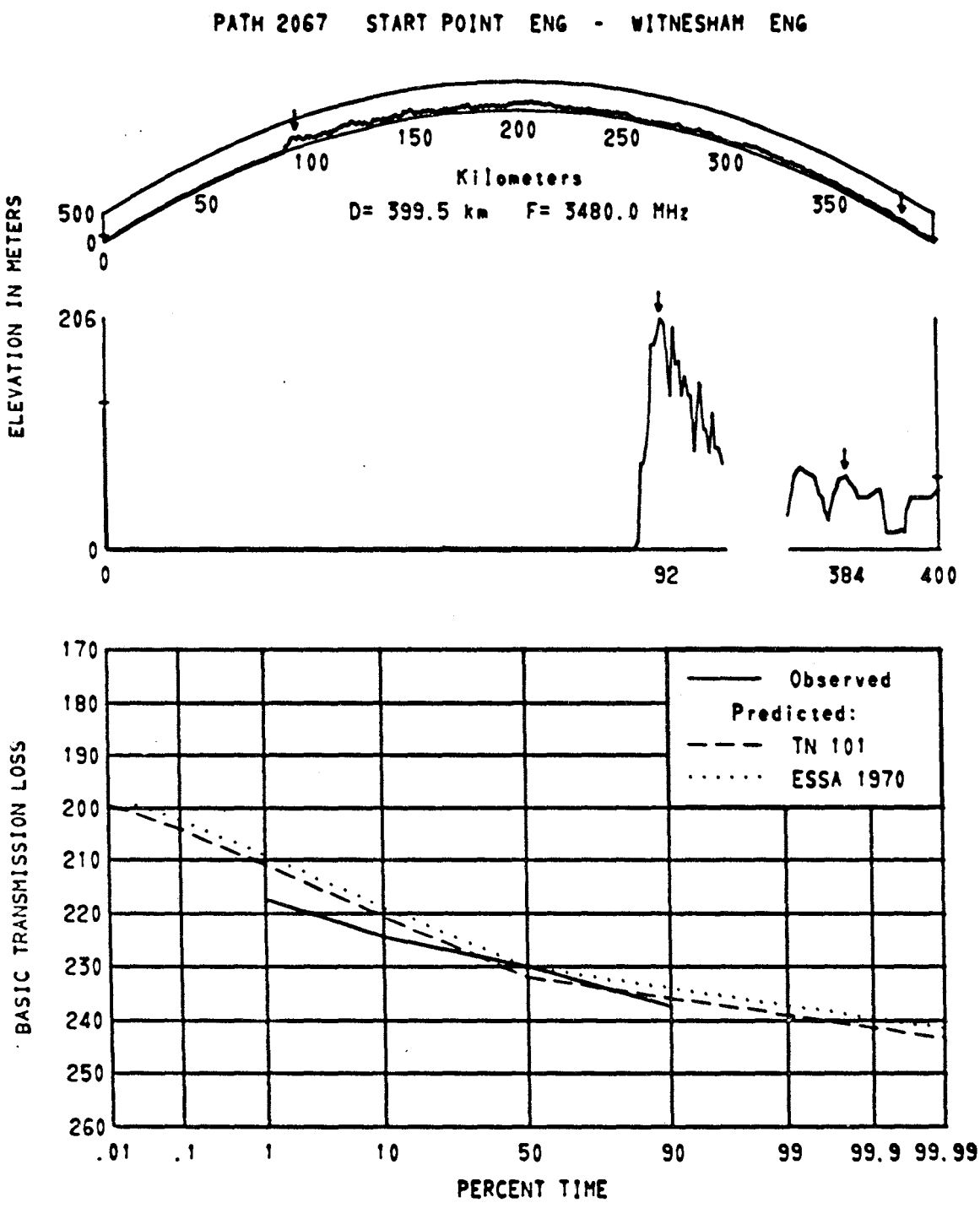


Figure 3.122 Path 2067

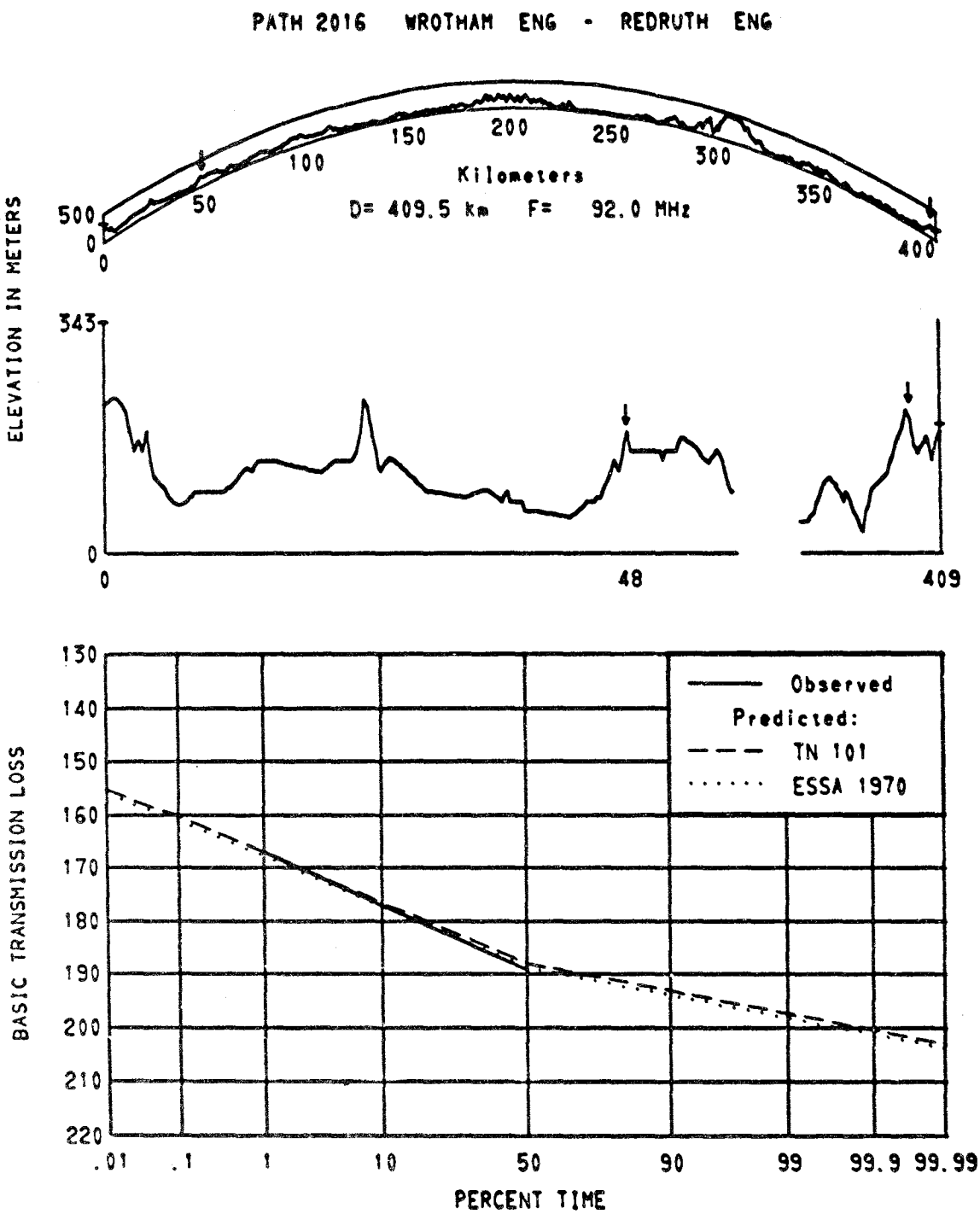


Figure 3.123 Path 2016

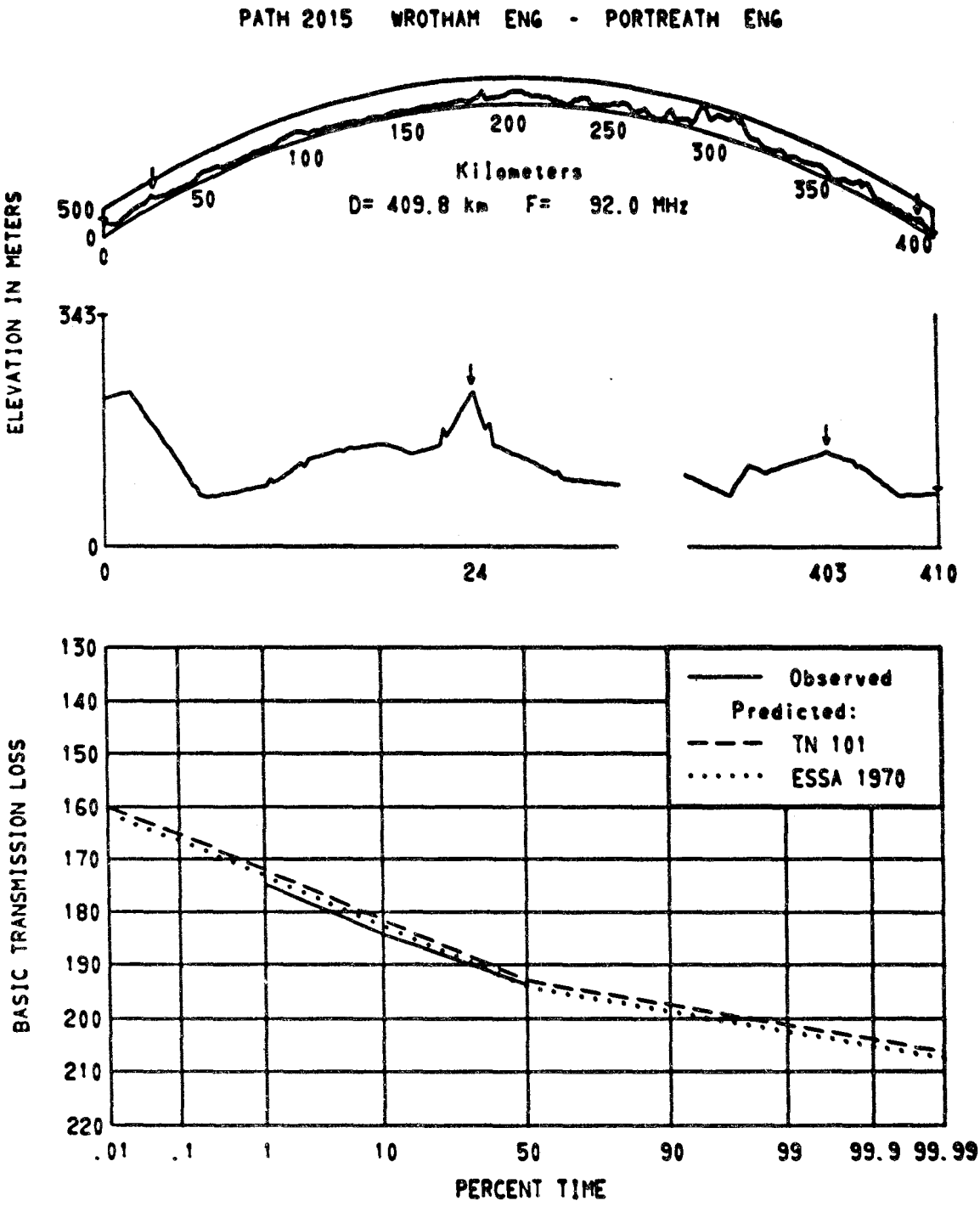
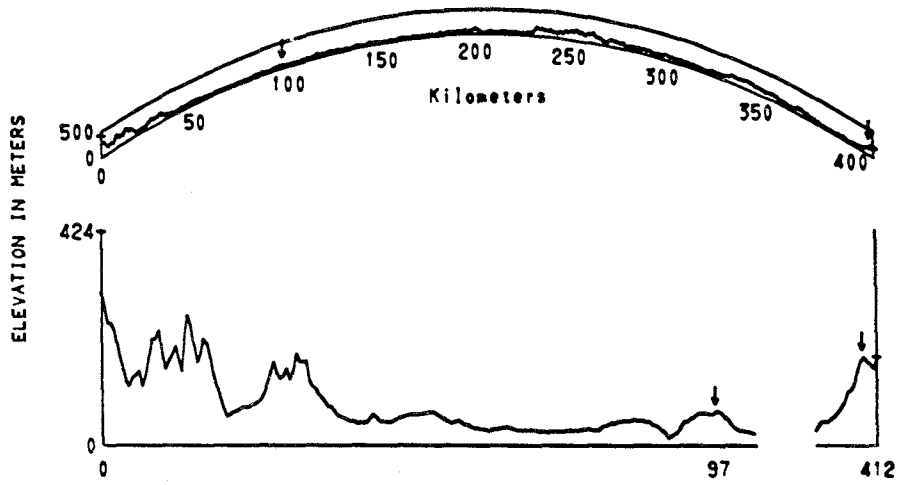
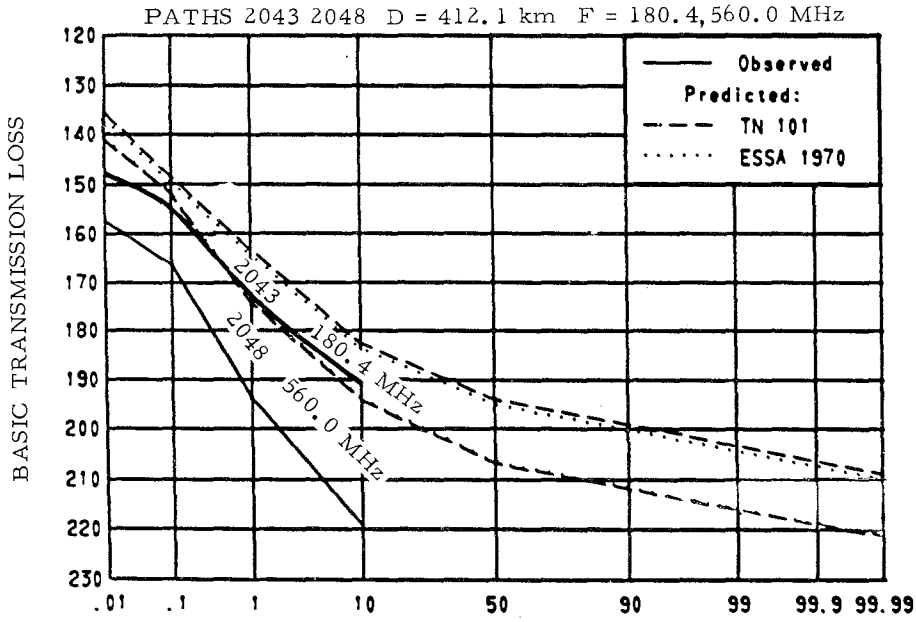


Figure 3.124 Path 2015

PATHS 2043 2048 2104 PONTOP PIKE ENG - KINGSWOOD ENG



PATHS 2043 2048 D = 412.1 km F = 180.4, 560.0 MHz



PATH 2104 D = 412.1 km F = 774.0 MHz

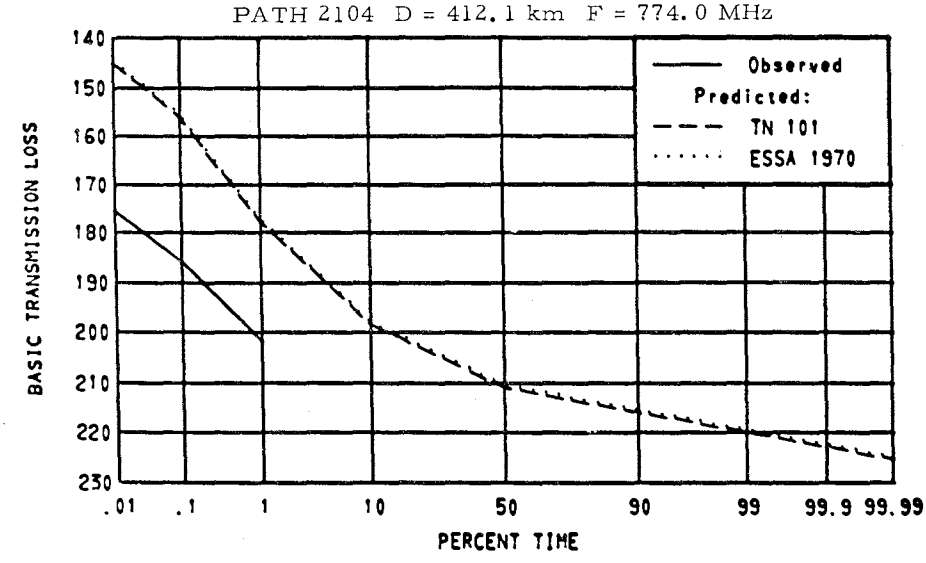


Figure 3.125 Paths 2043 2048 2104

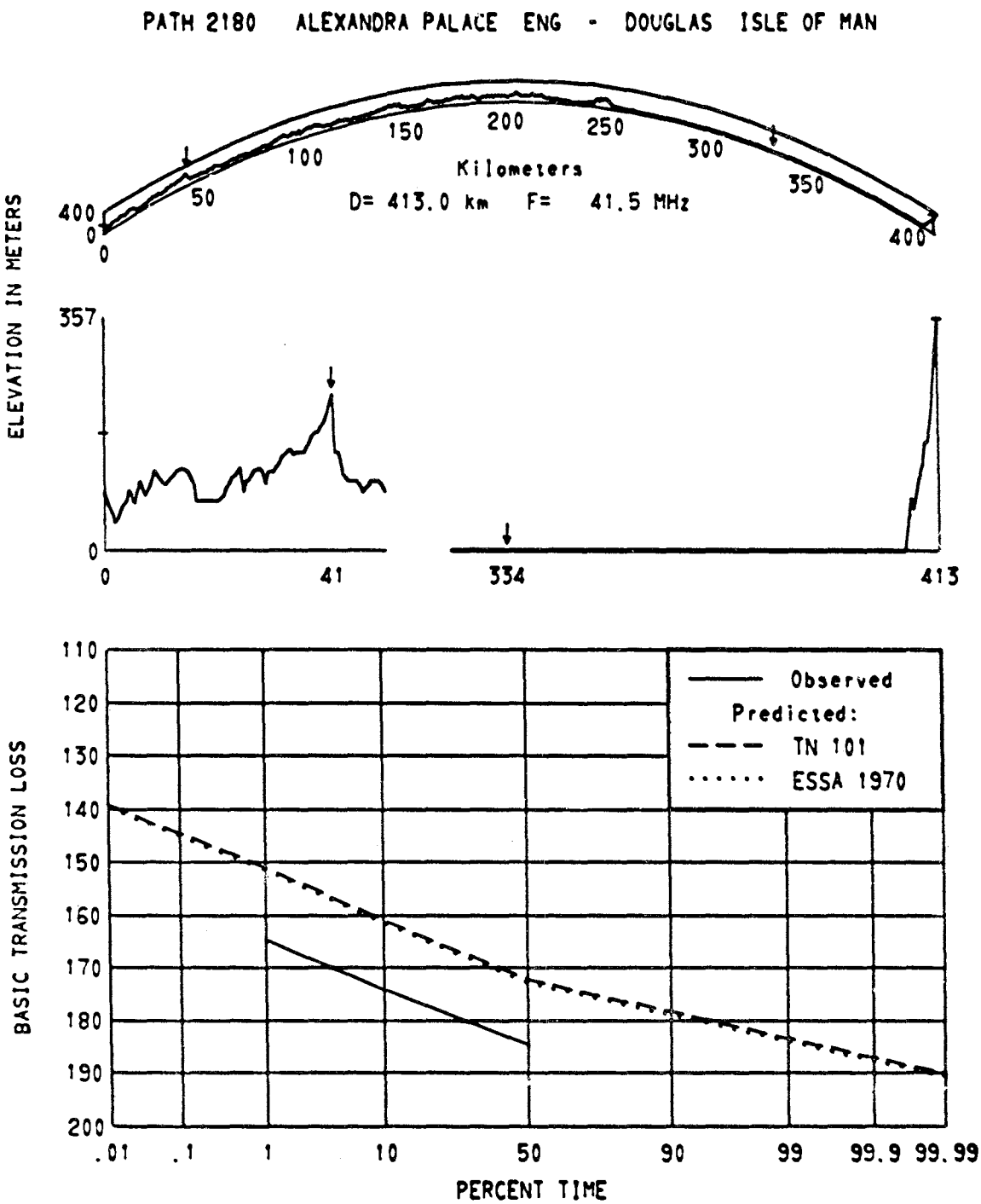


Figure 3.126 Path 2180

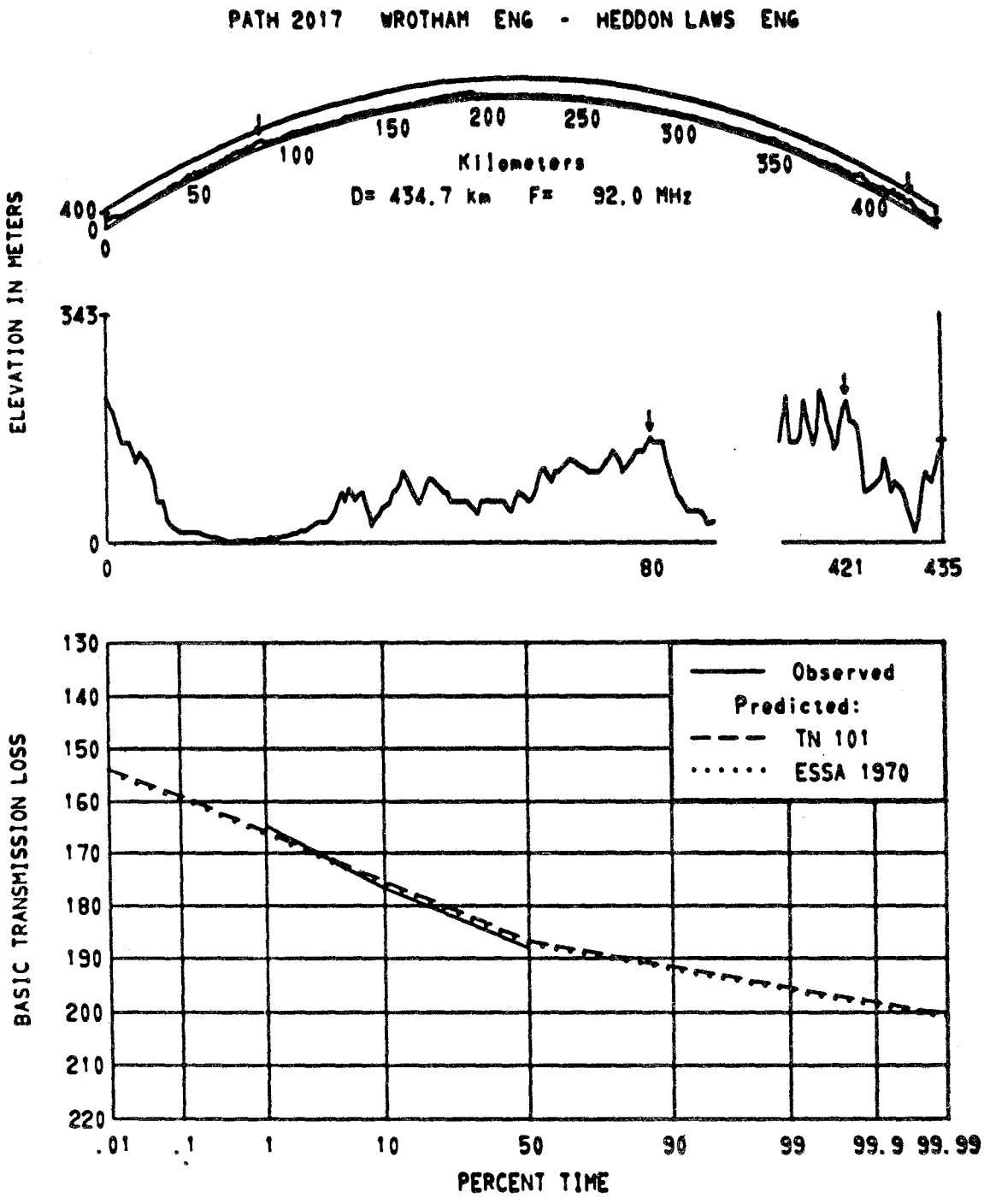


Figure 3.127 Path 2017

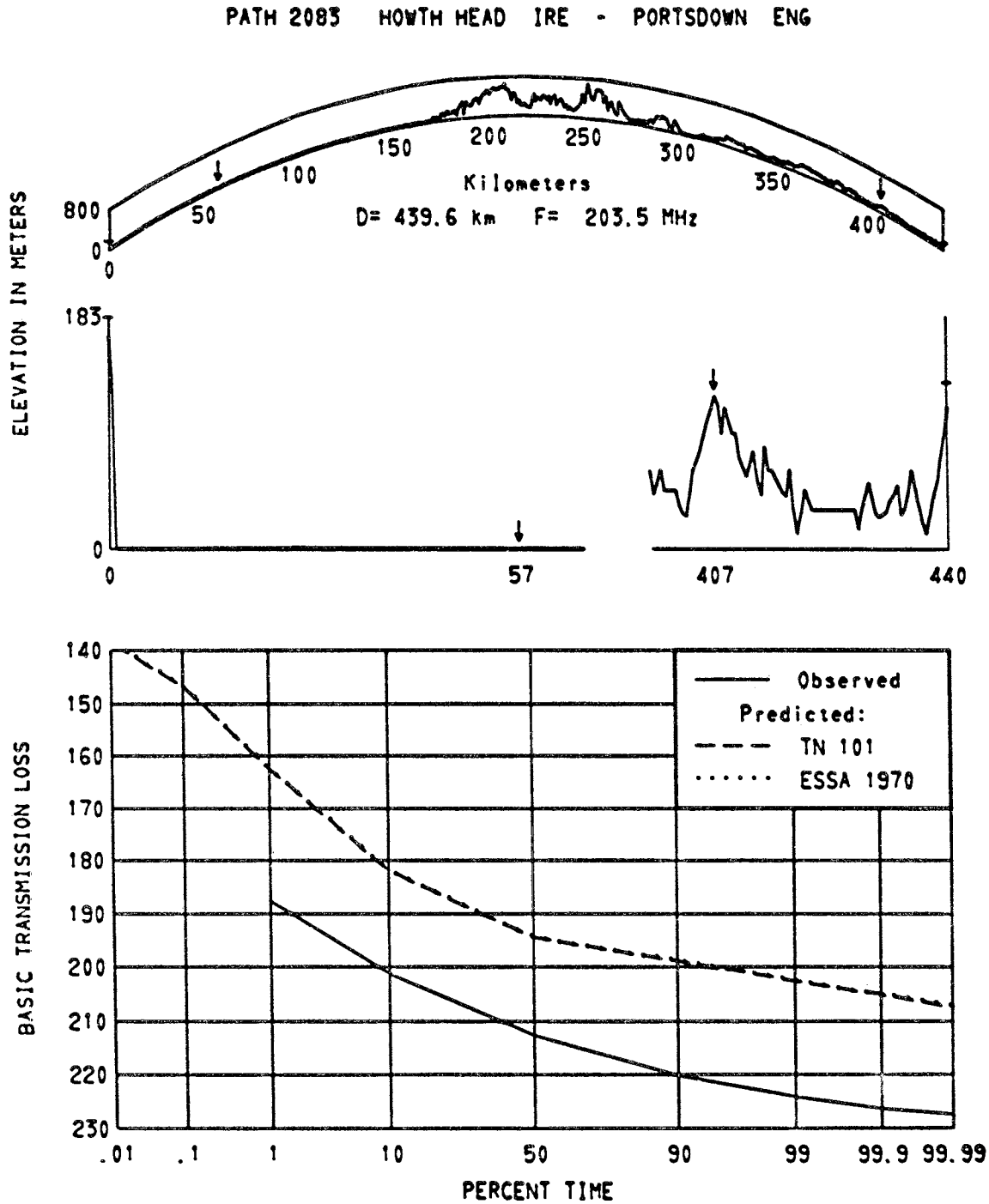
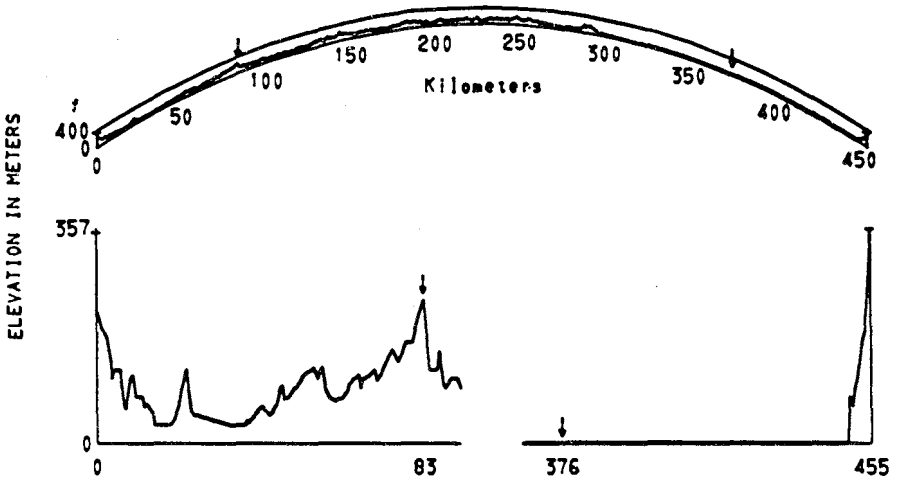
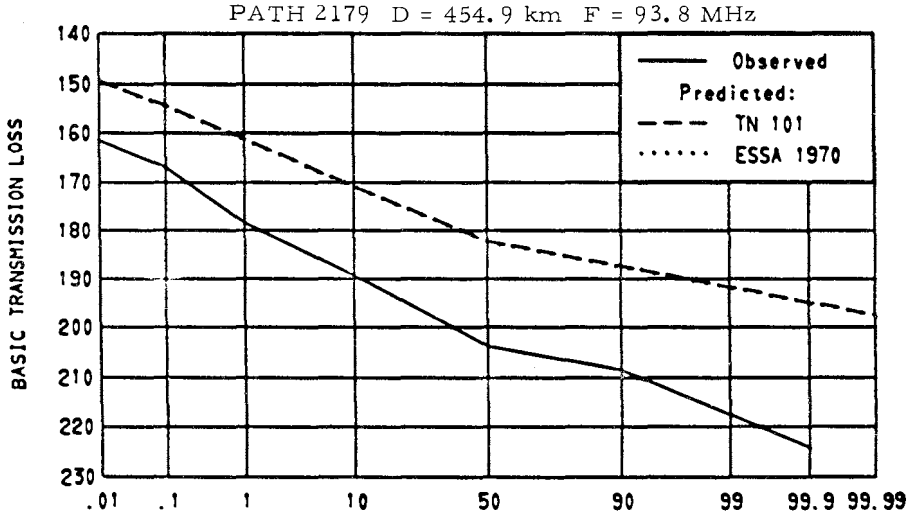


Figure 3.128 Path 2083

PATHS 2179 2181 WROTHAM ENG - DOUGLAS ISLE OF MAN





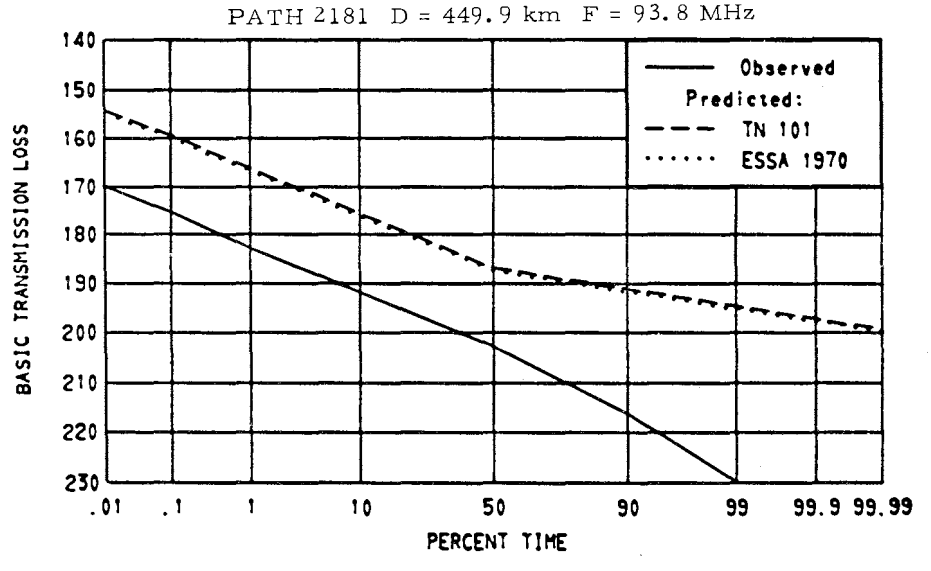


Figure 3.129 Paths 2179 2181

PATHS 2044 2049 2105 PONTOP PIKE ENG - BEDDINGHAM ENG

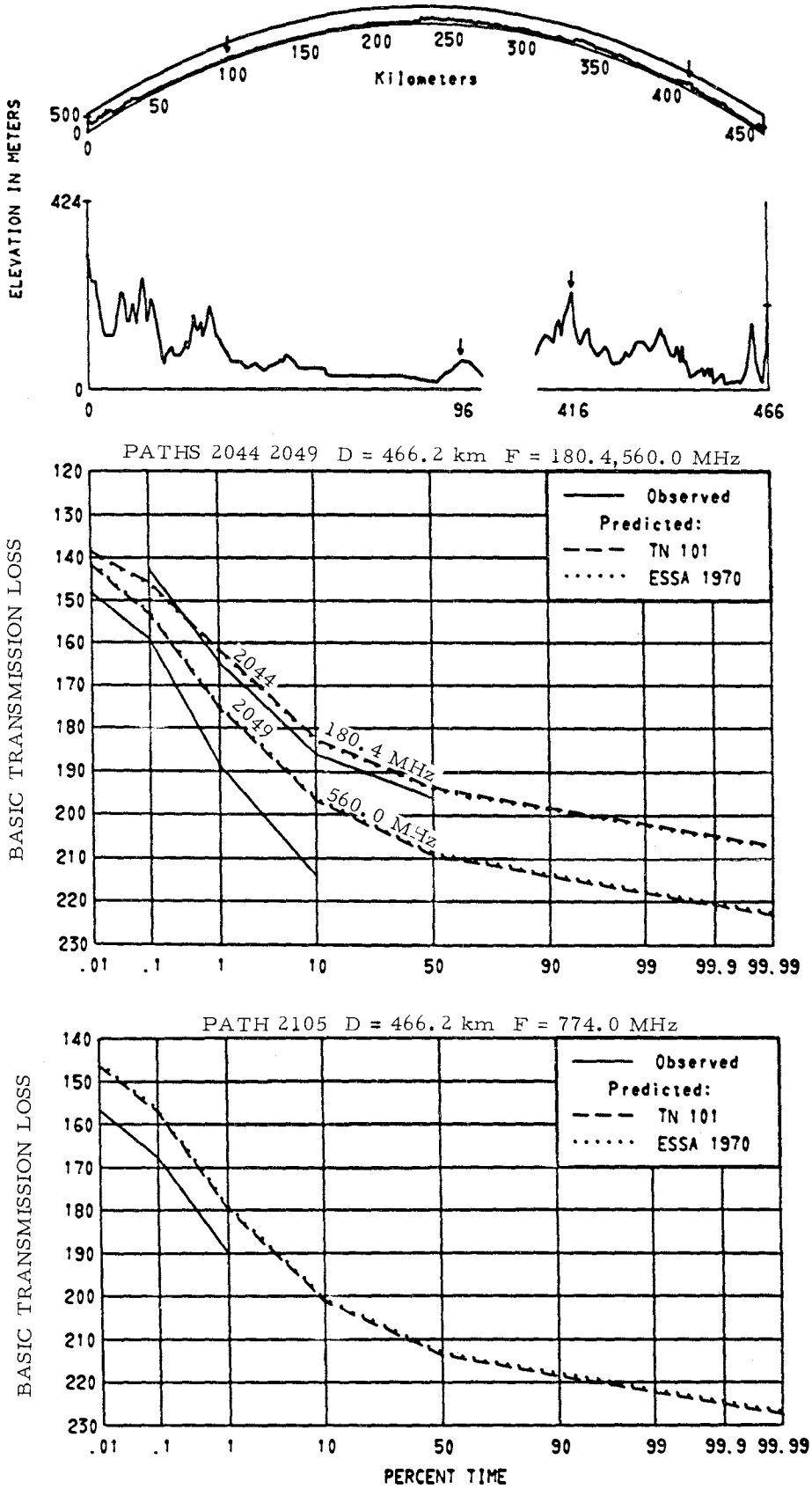


Figure 3.130 Paths 2044 2049 2105

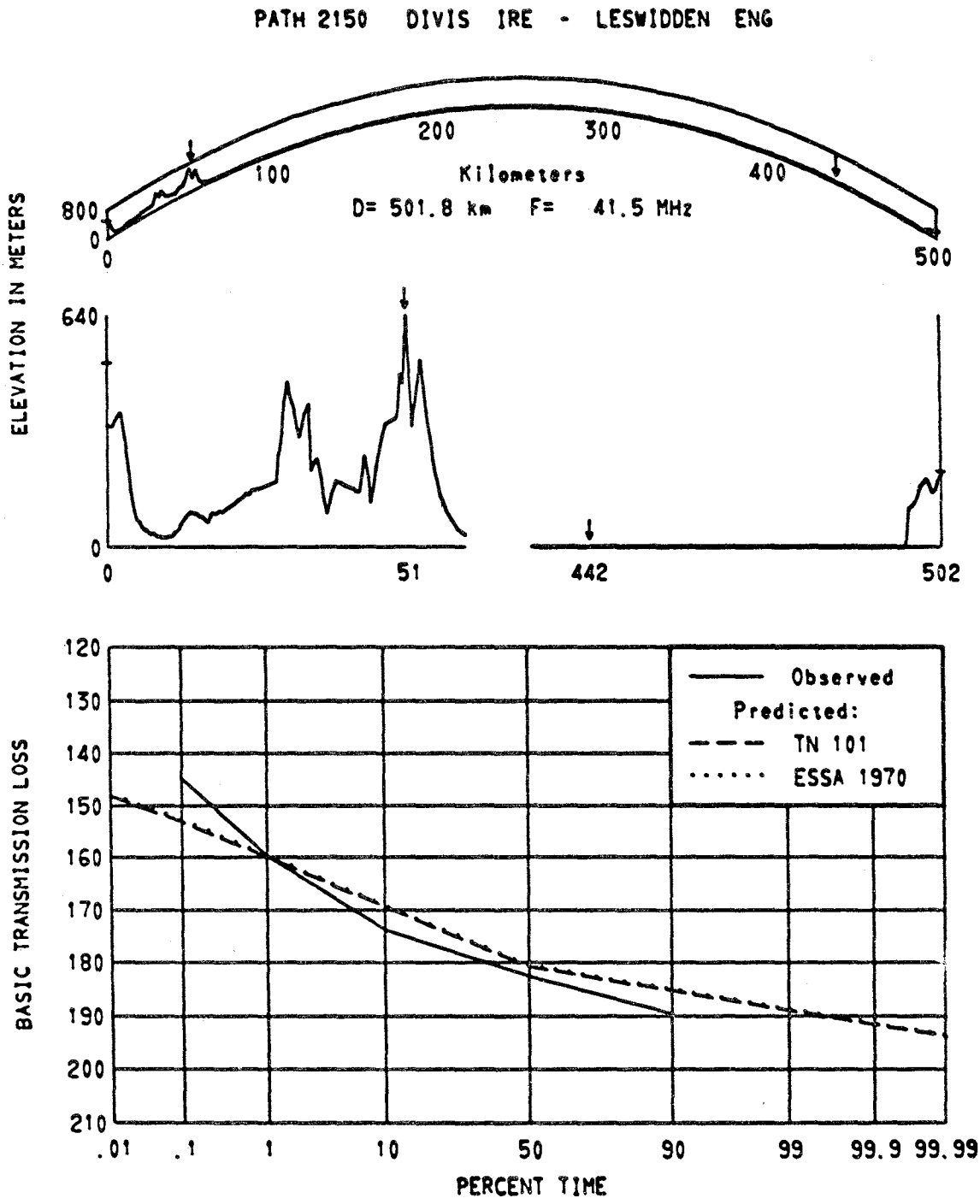


Figure 3.131 Path 2150

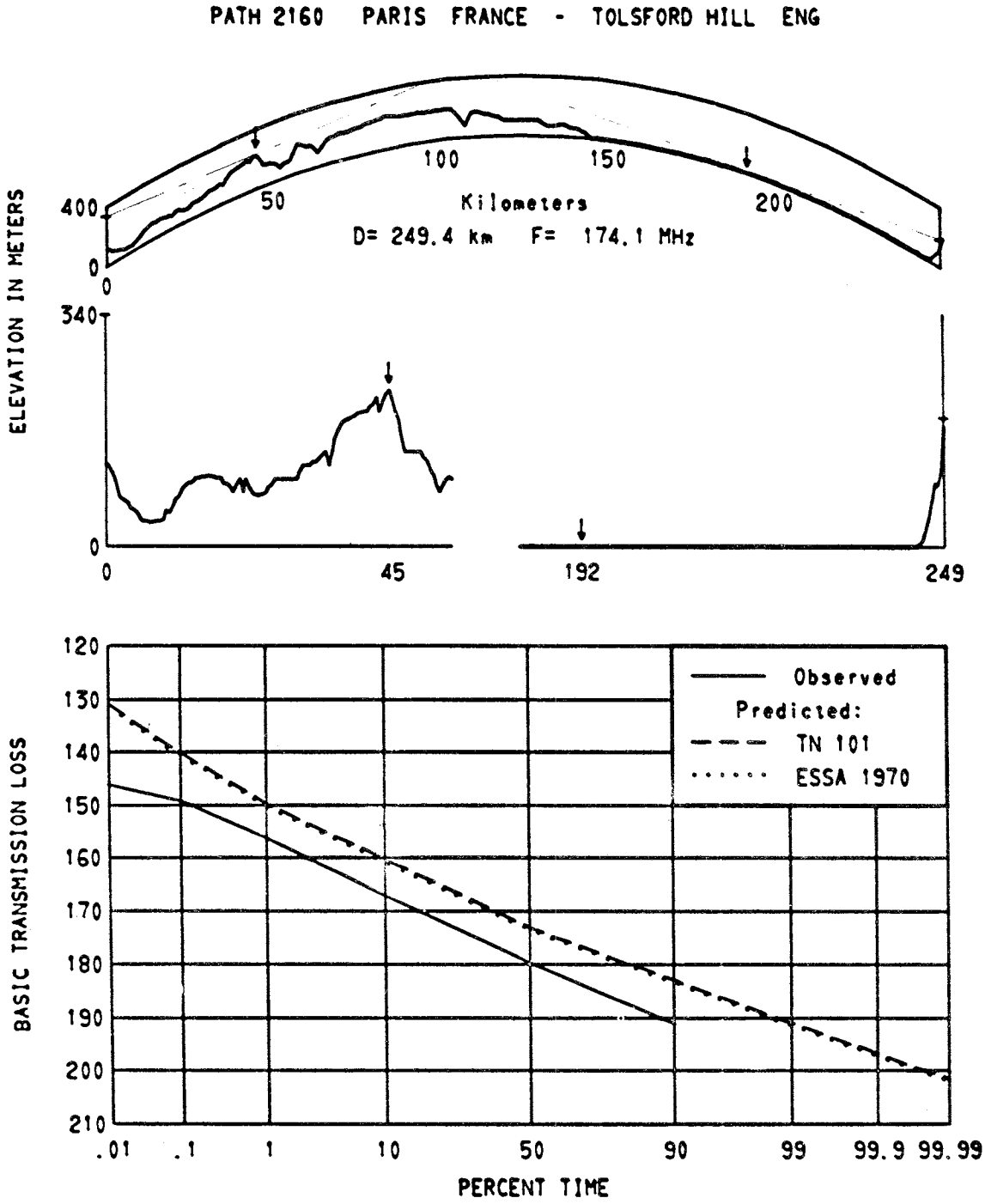


Figure 3.132 Path 2160

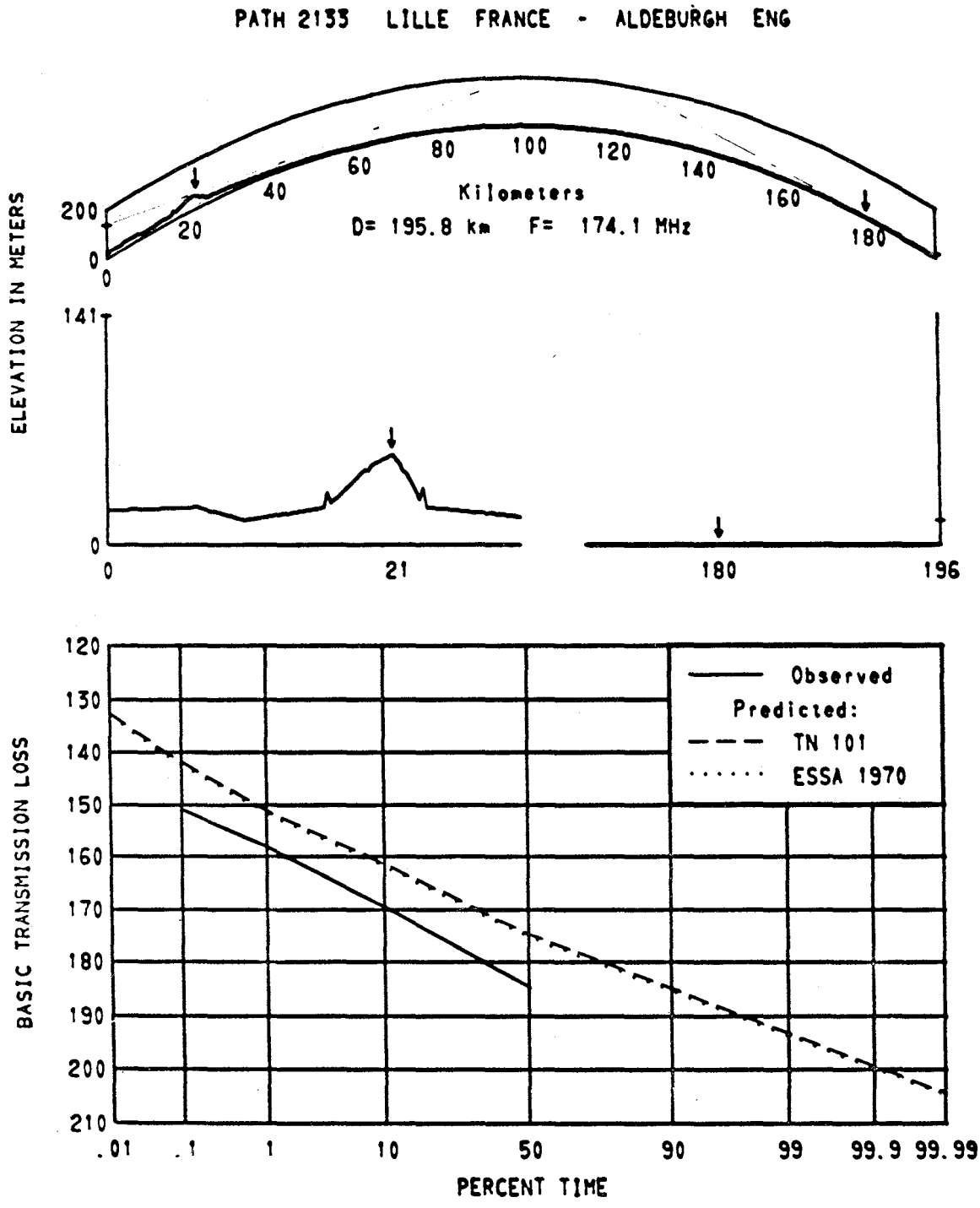


Figure 3.133 Path 2133

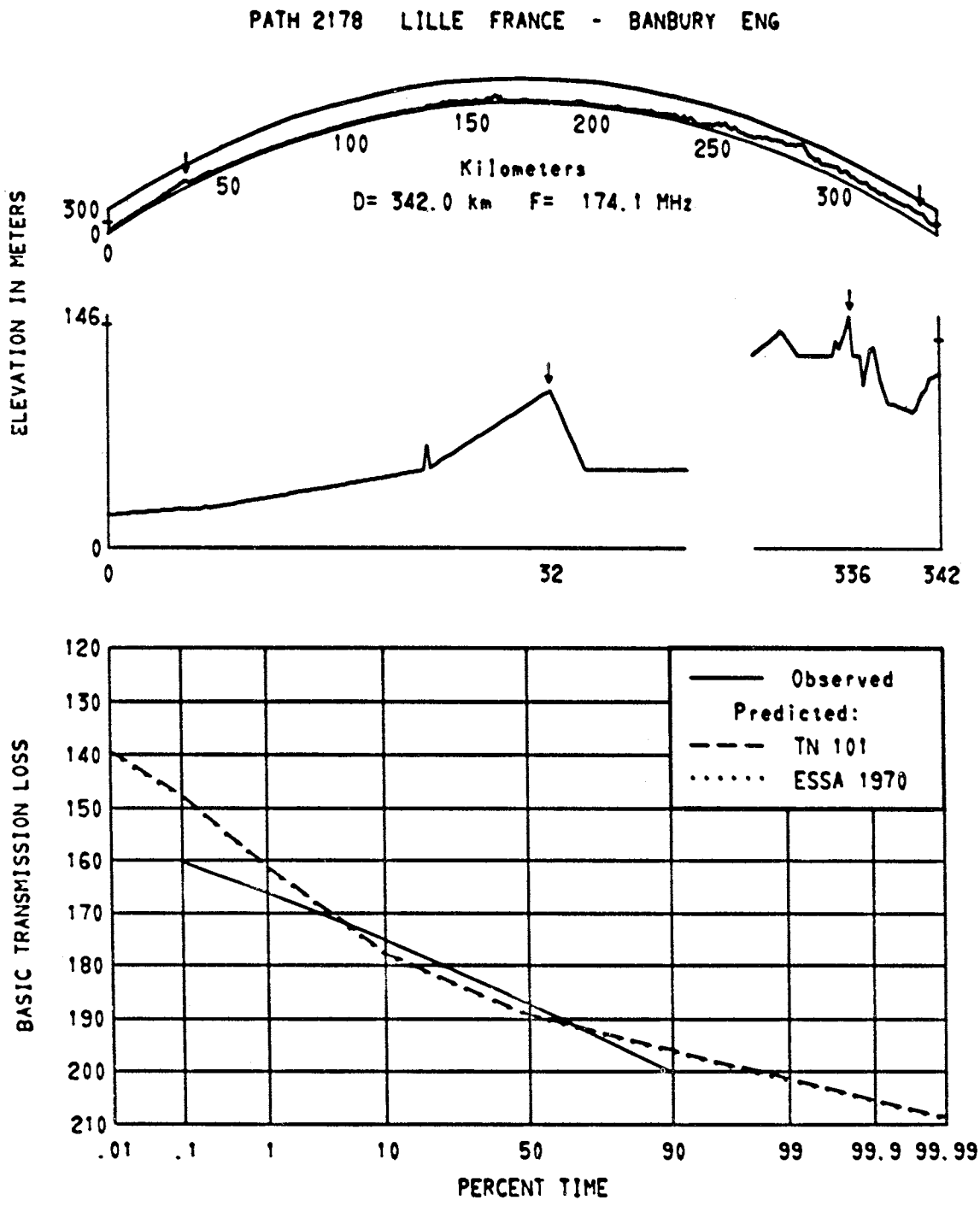


Figure 3.134 Path 2178

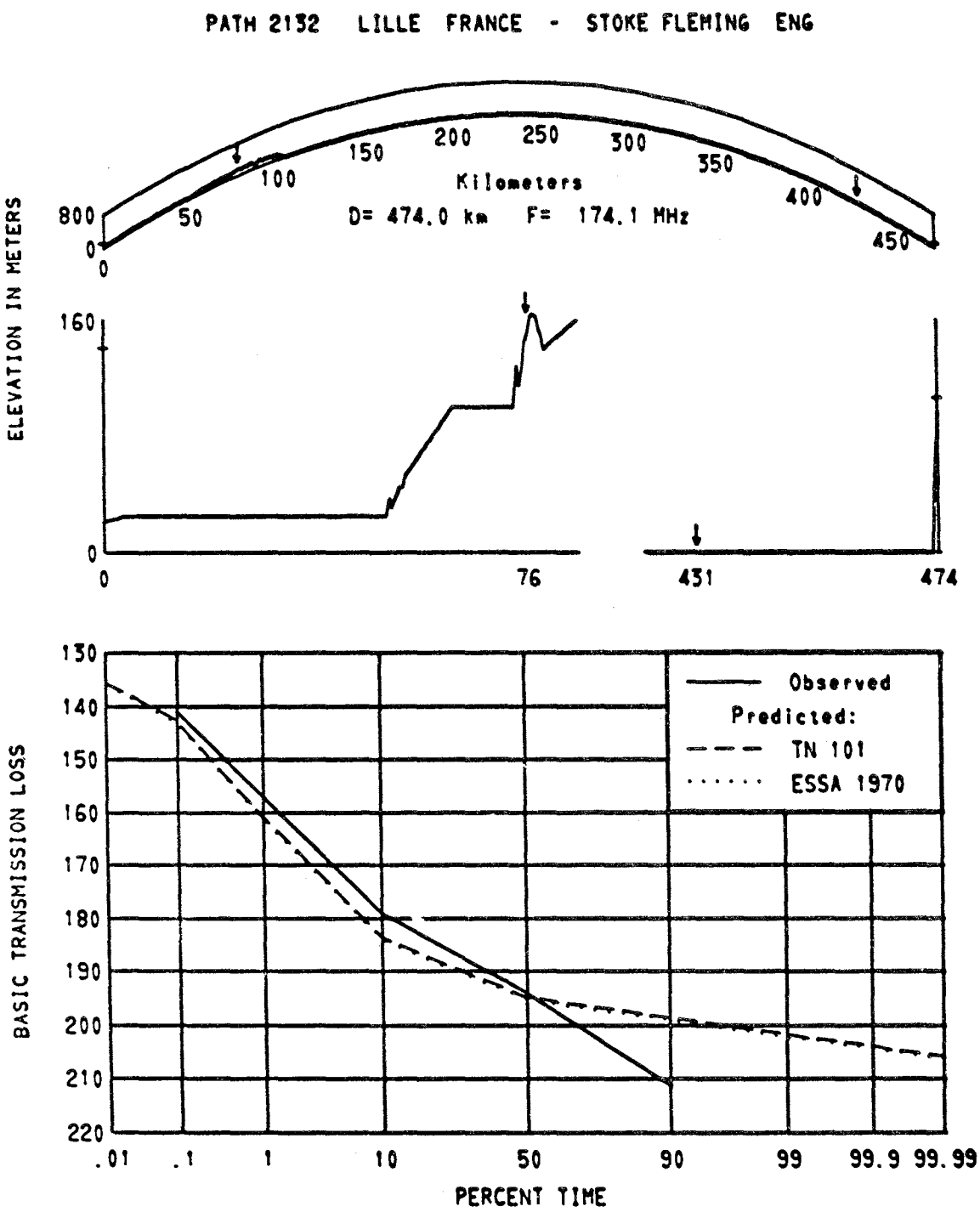
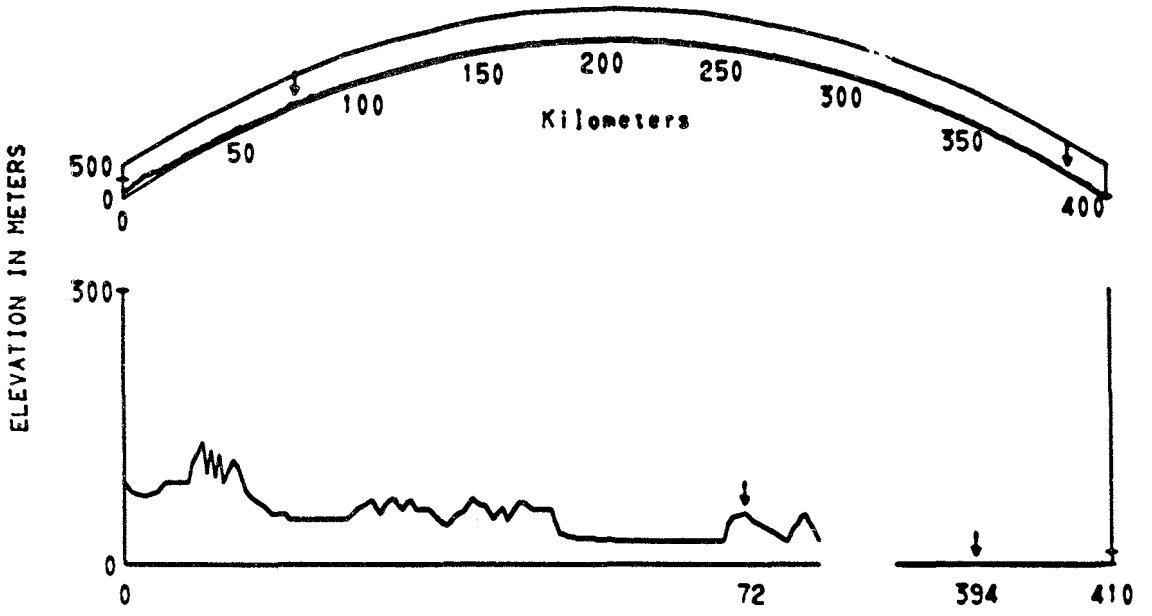


Figure 3.135 Path 2132

PATHS 2199 2216 DORTMUND W GER - ALDEBURGH ENG



PATHS 2199 2216 D = 409.7 km F = 535.0, 503.0 MHz

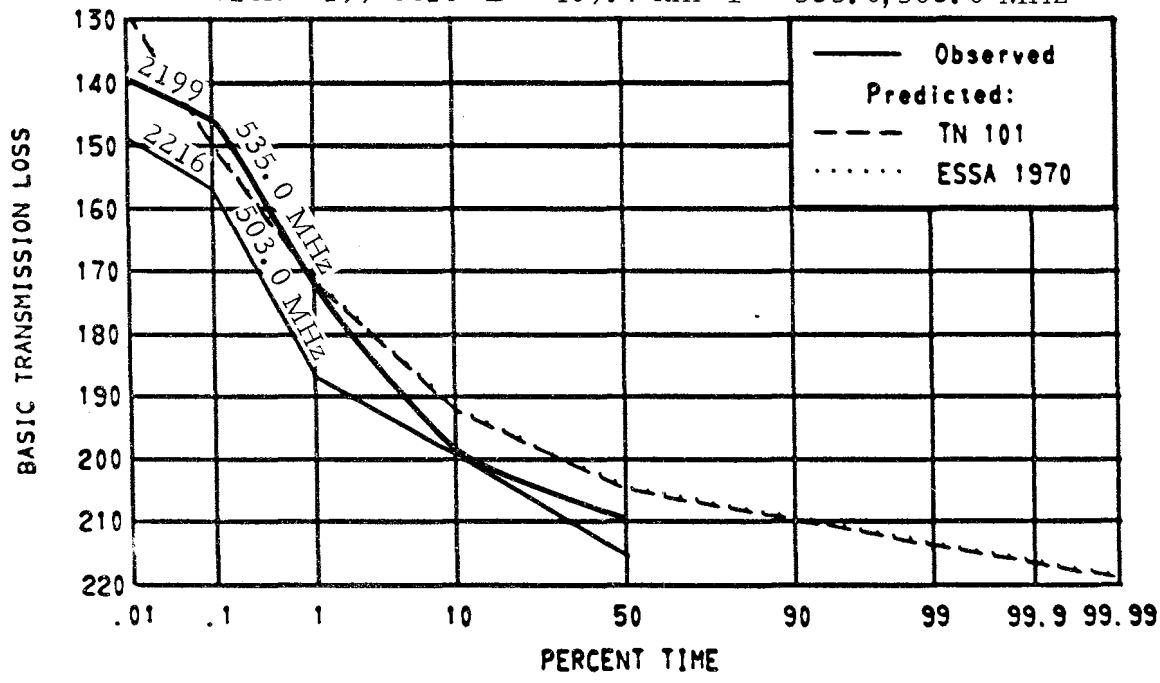


Figure 3.136 Paths 2199 2216

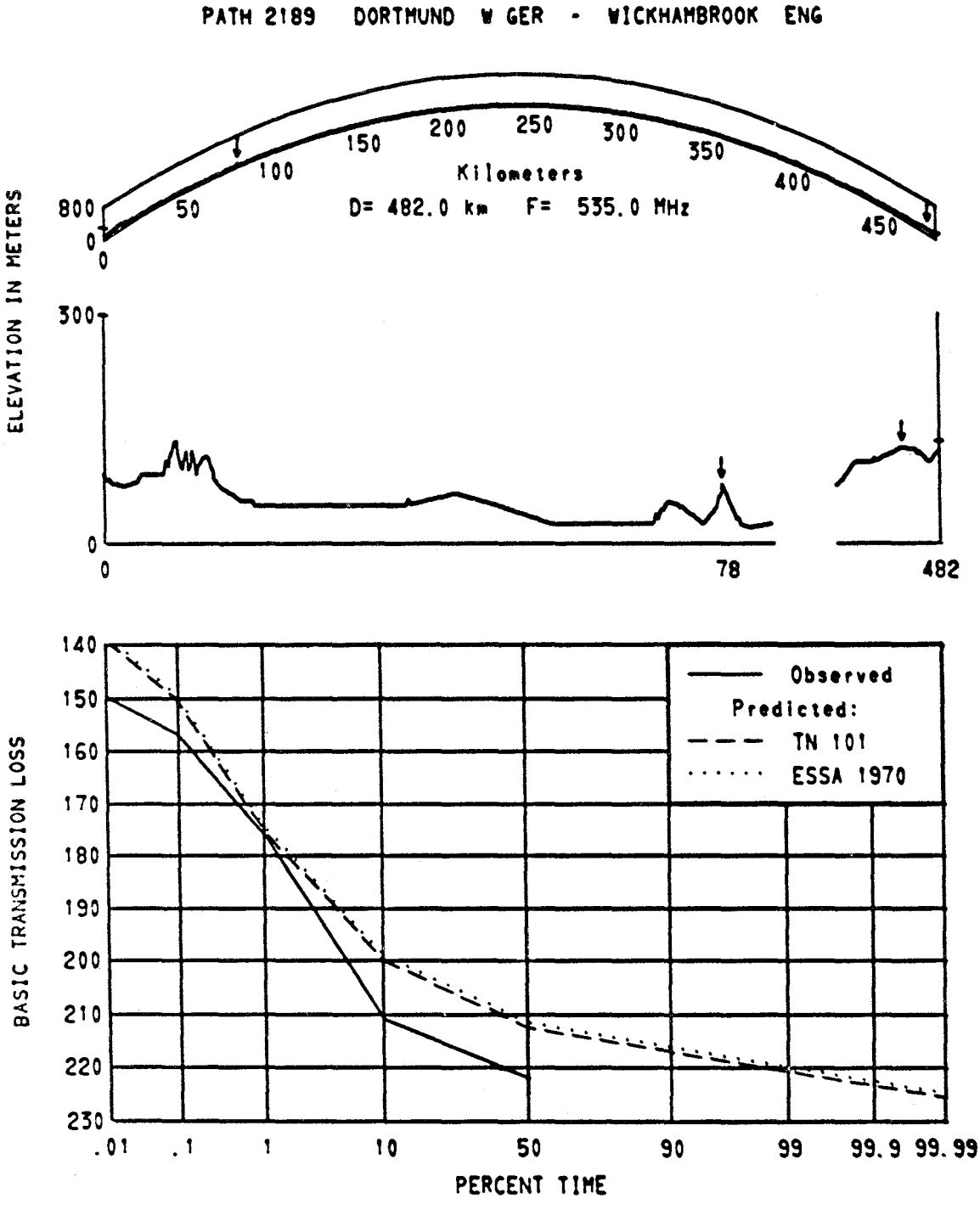


Figure 3.137 Path 2189

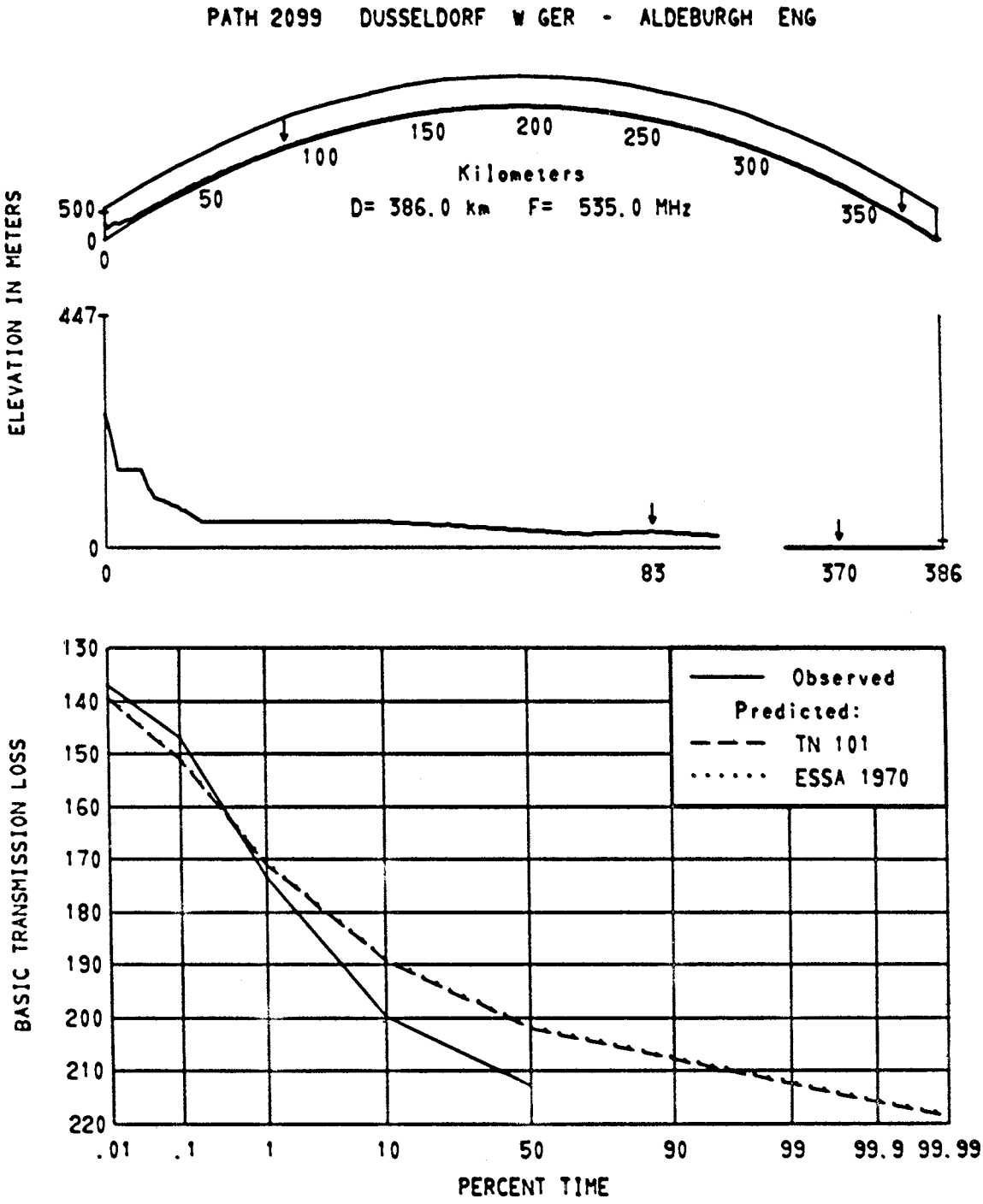


Figure 3.138 Path 2099

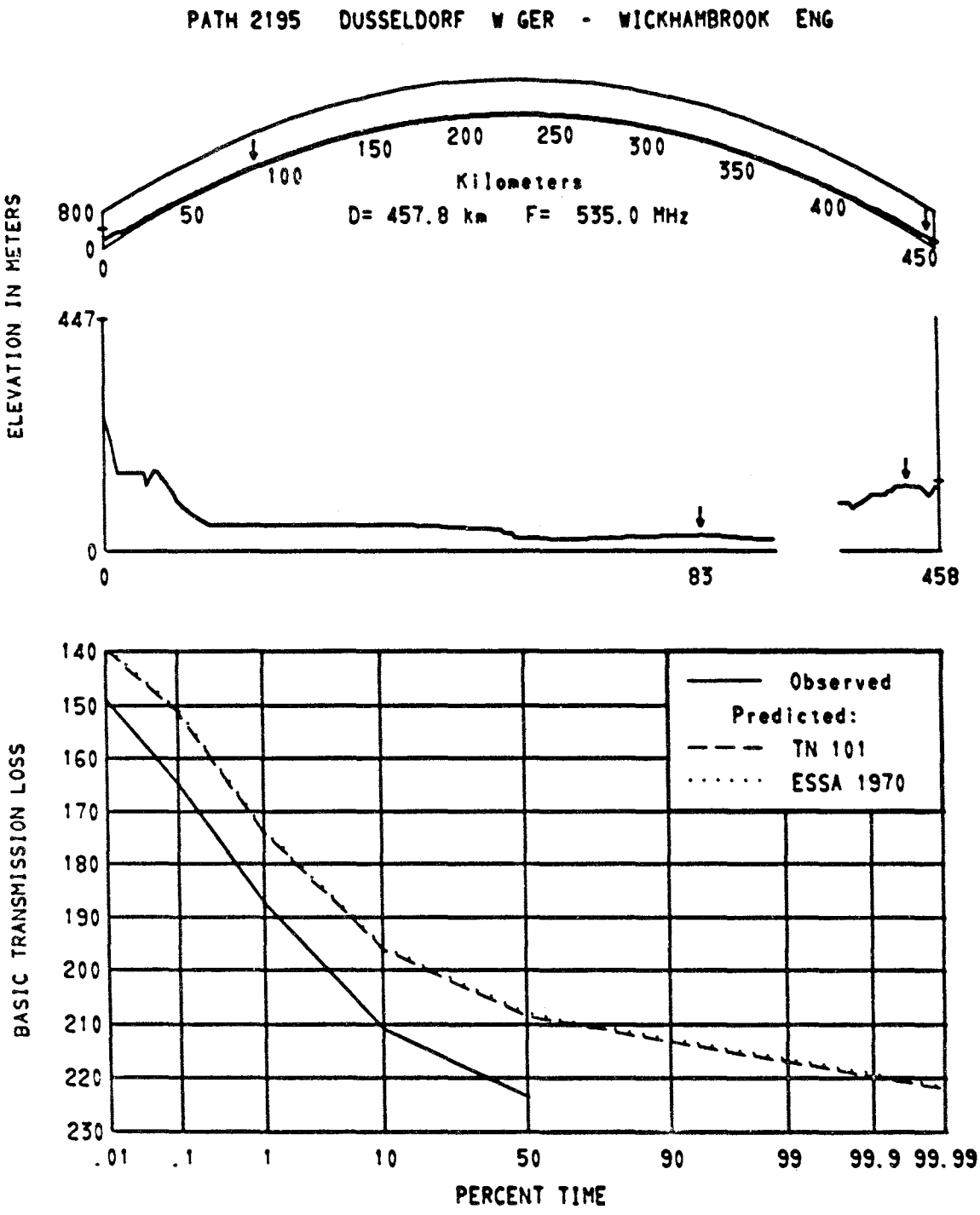


Figure 3.139 Path 2195

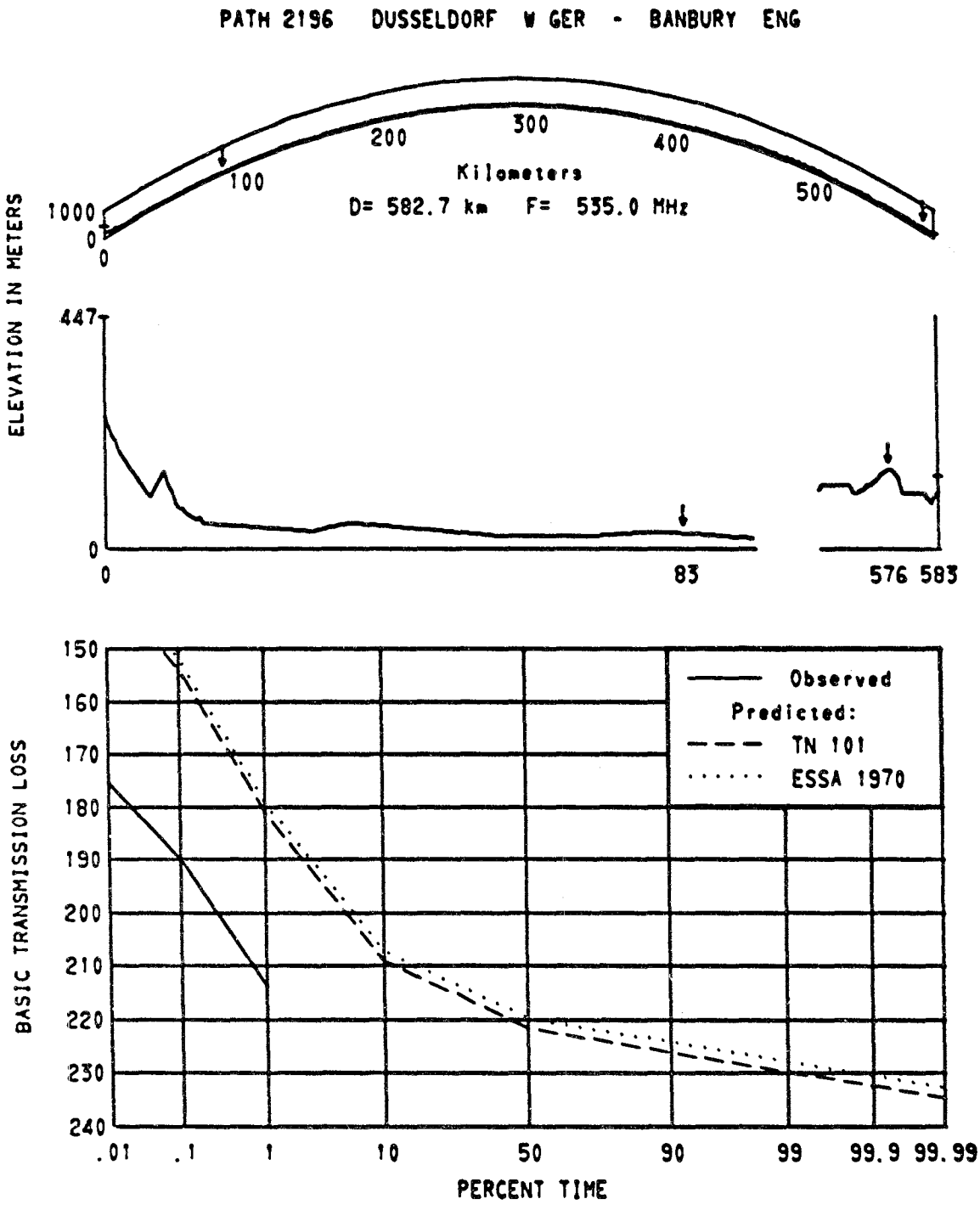


Figure 3.140 Path 2196

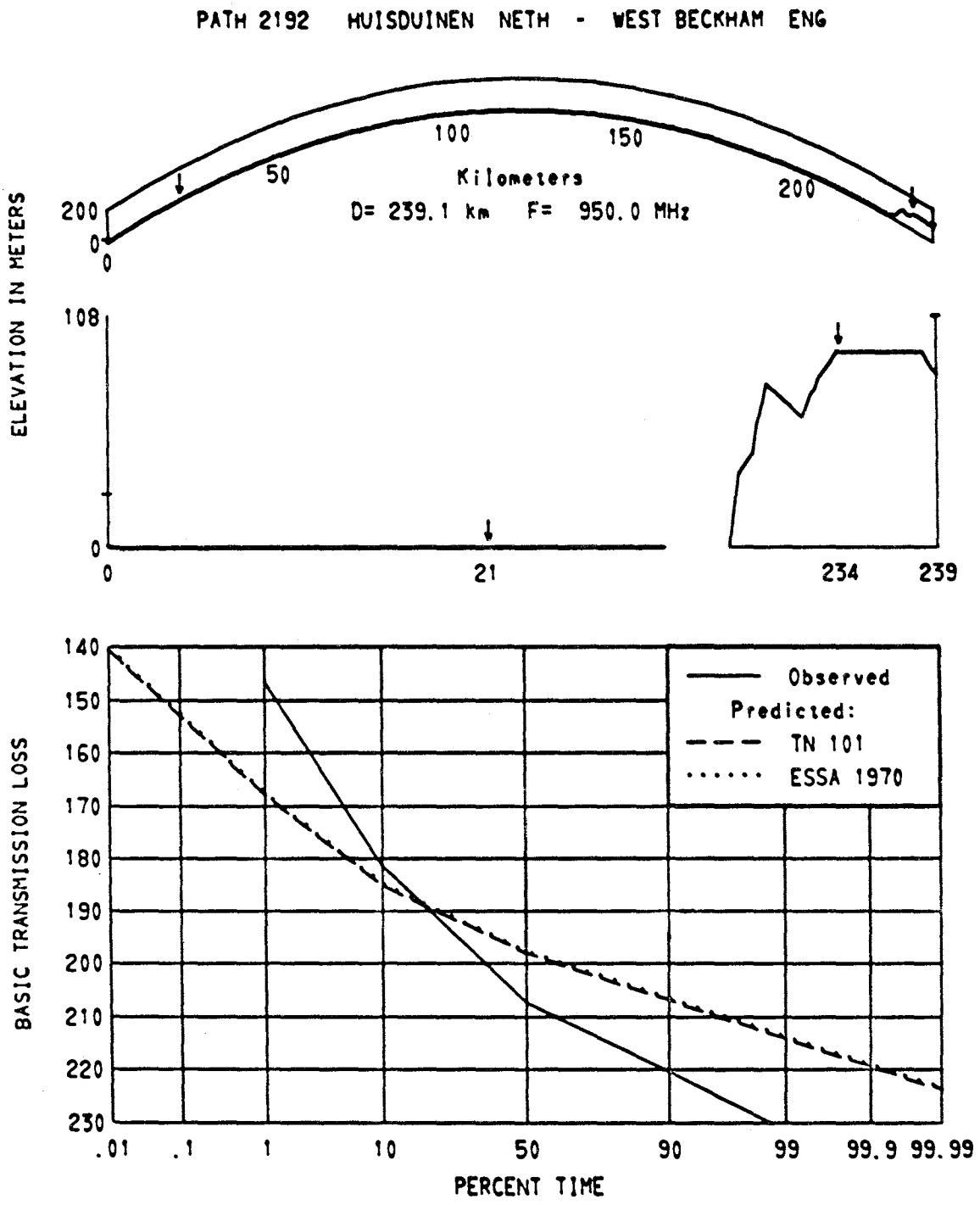


Figure 3.141 Path 2192

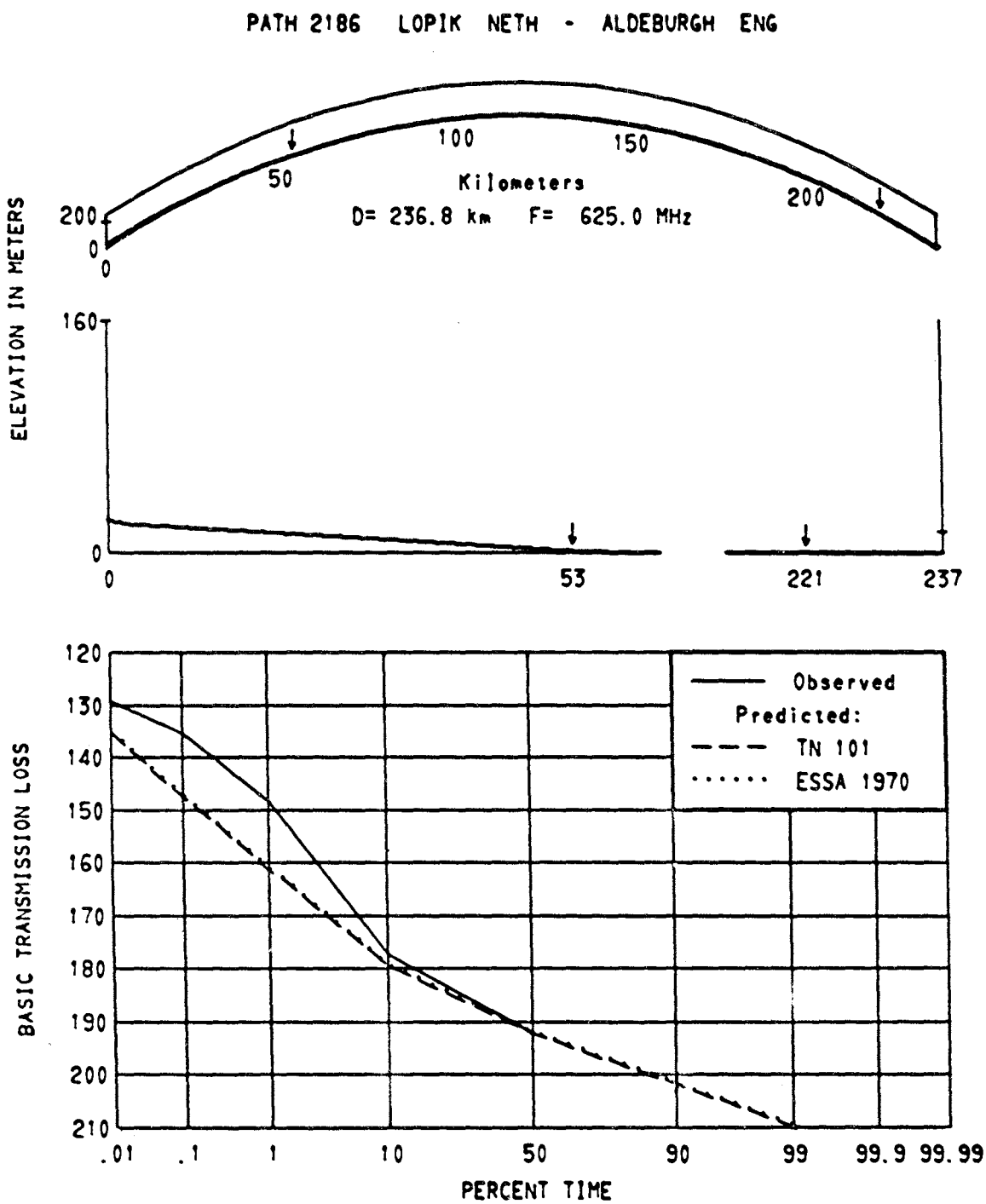


Figure 3.142 Path 2186

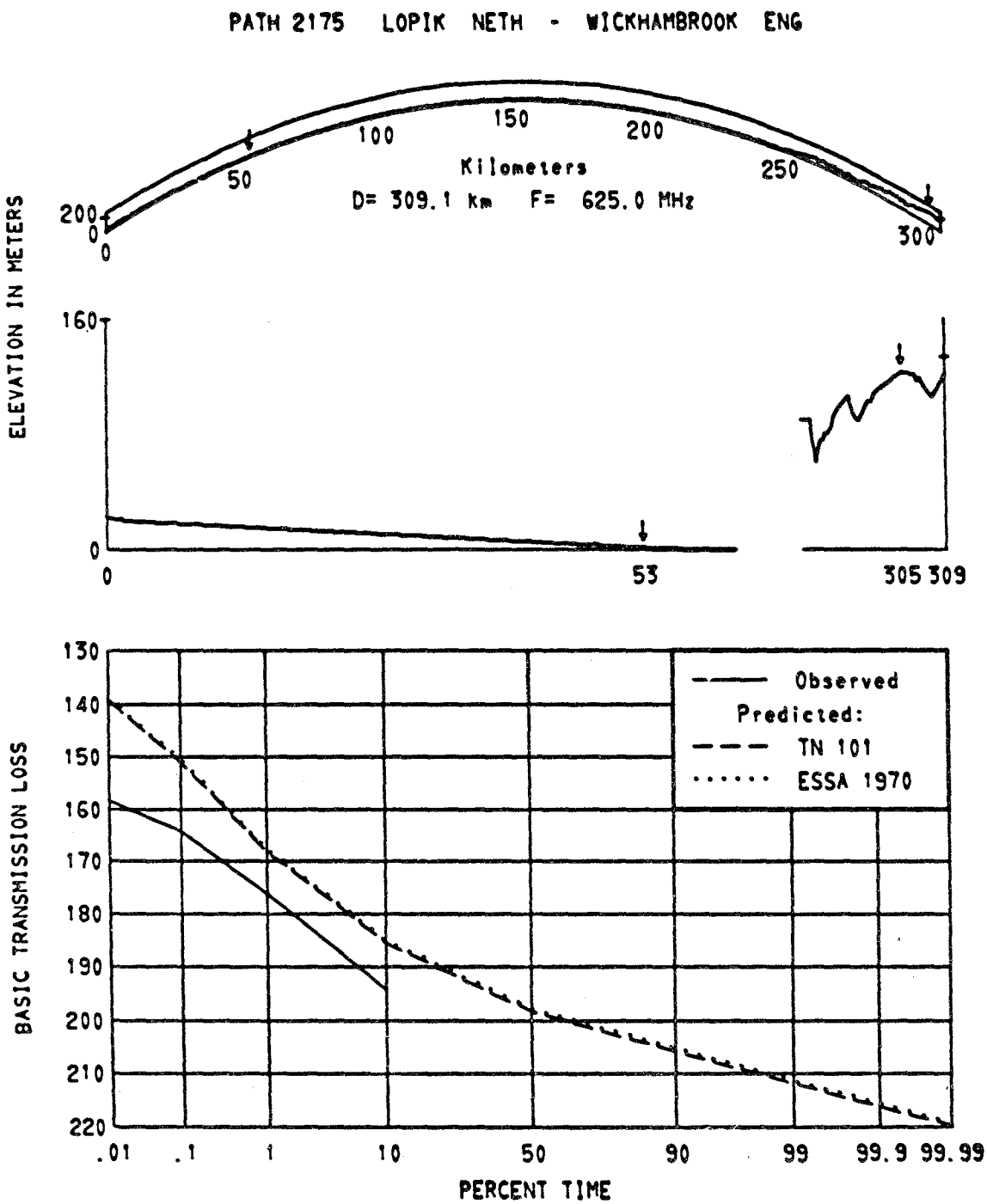
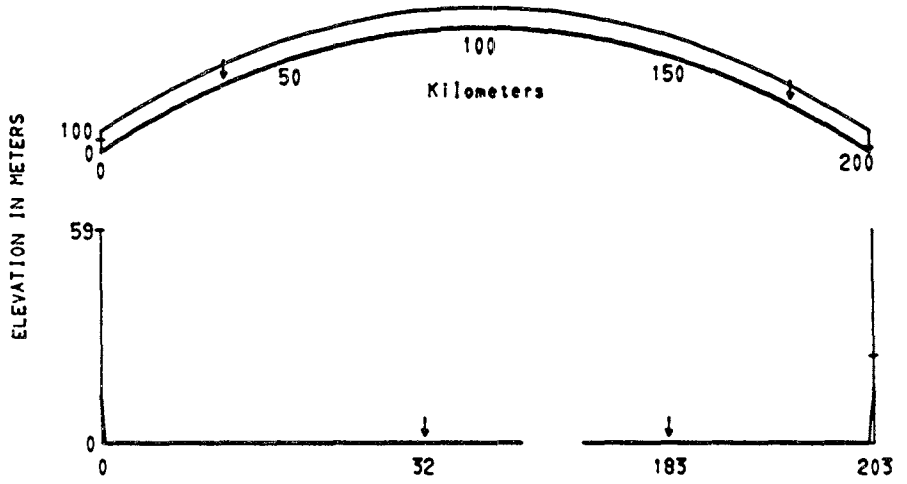
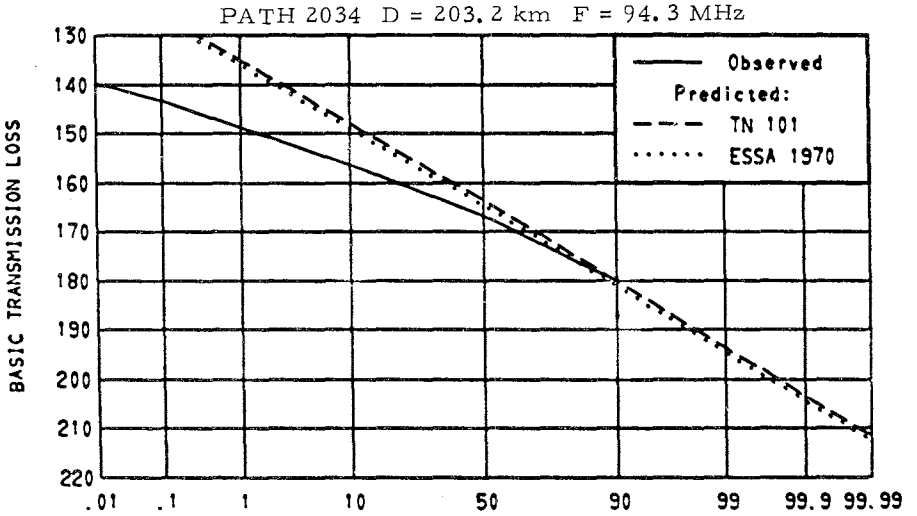


Figure 3.143 Path 2175

SCHEVENINGEN NETH - HAPPISBURGH ENG
PATHS 1987 2034 2050 2085 2109



PATH 2034 D = 203.2 km F = 94.3 MHz



PATH 2050 D = 203.2 km F = 187.0 MHz

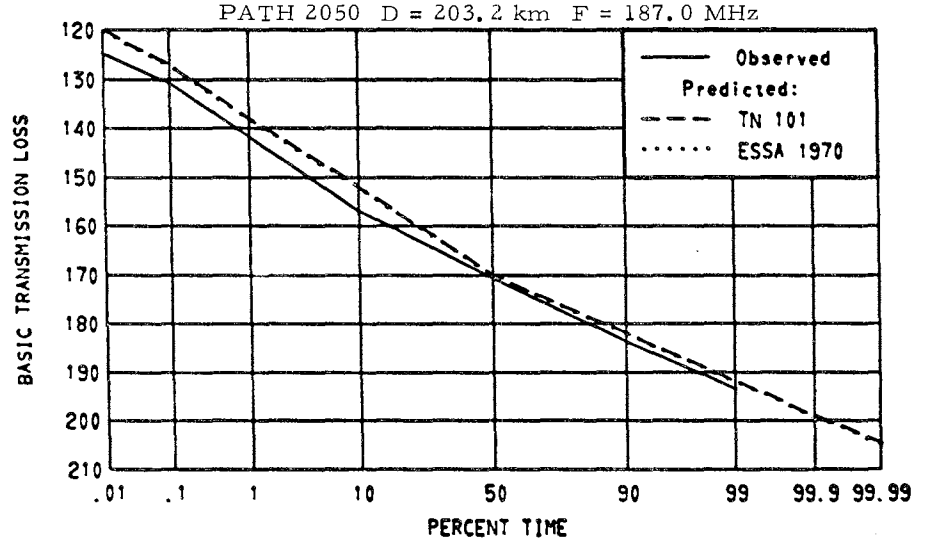


Figure 3.144 Paths 2034 2050

SCHEVENINGEN NETH - HAPPISBURGH ENG

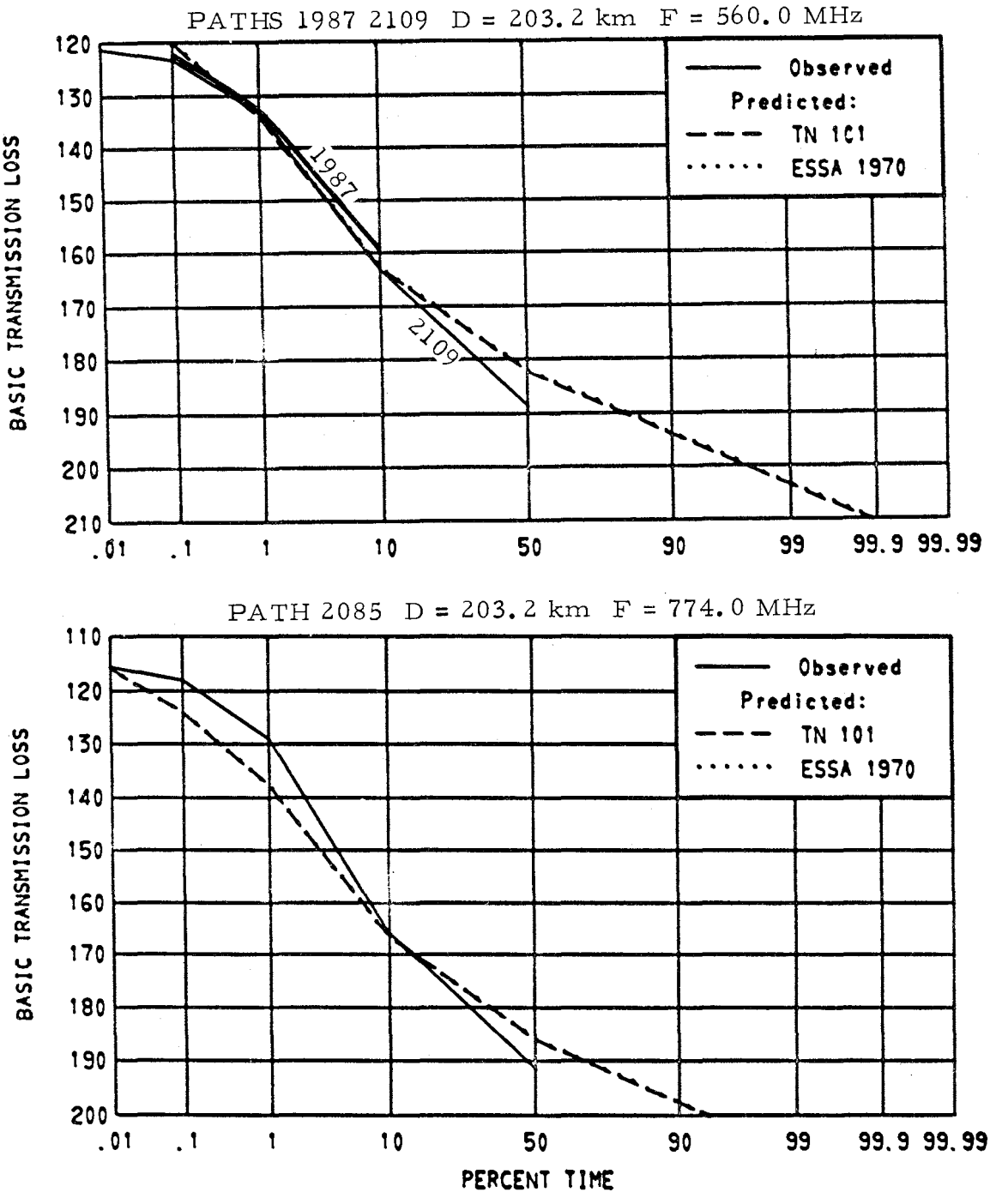


Figure 3.145 Paths 1987 2085 2109

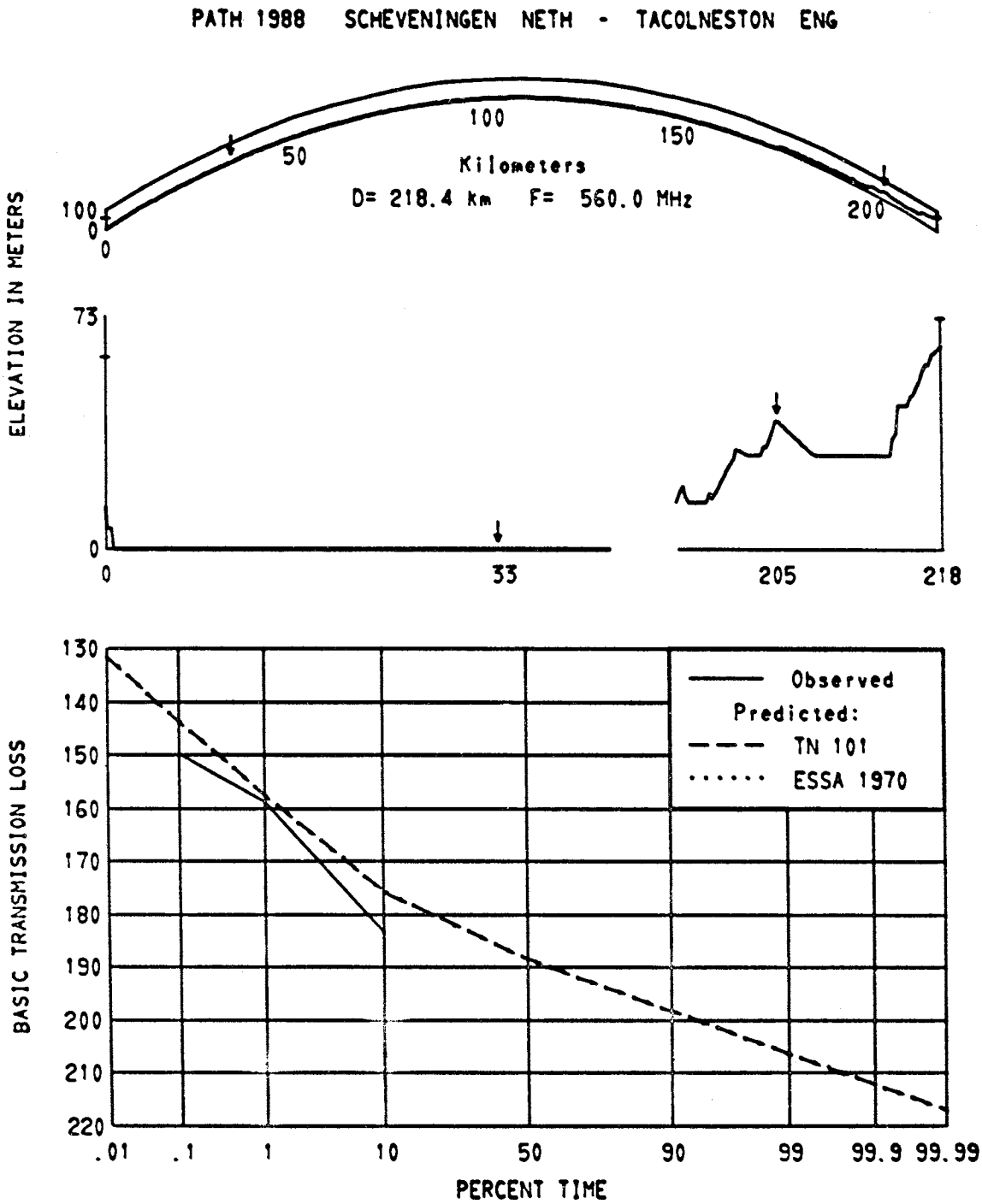


Figure 3.146 Path 1988

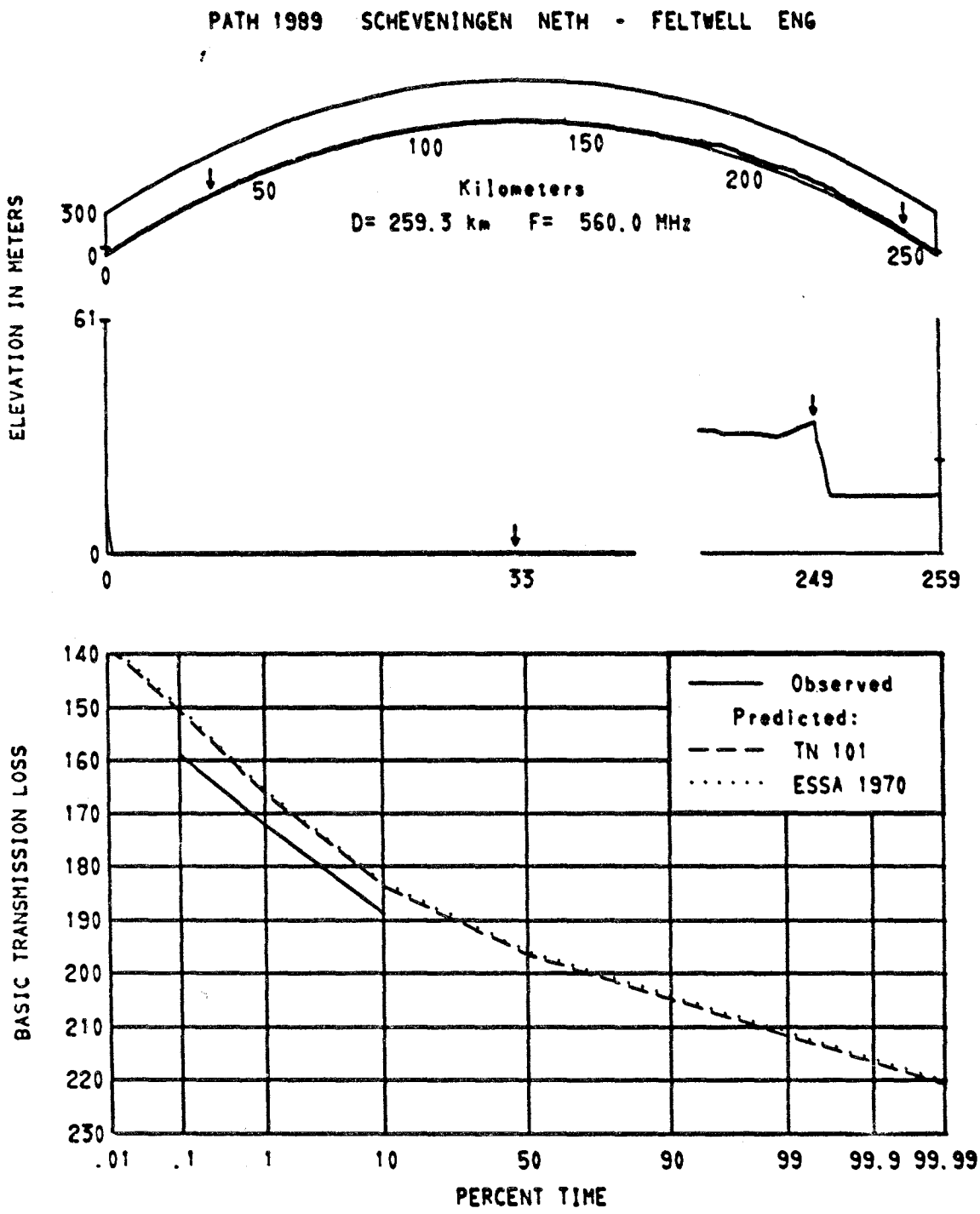


Figure 3.147 Path 1989

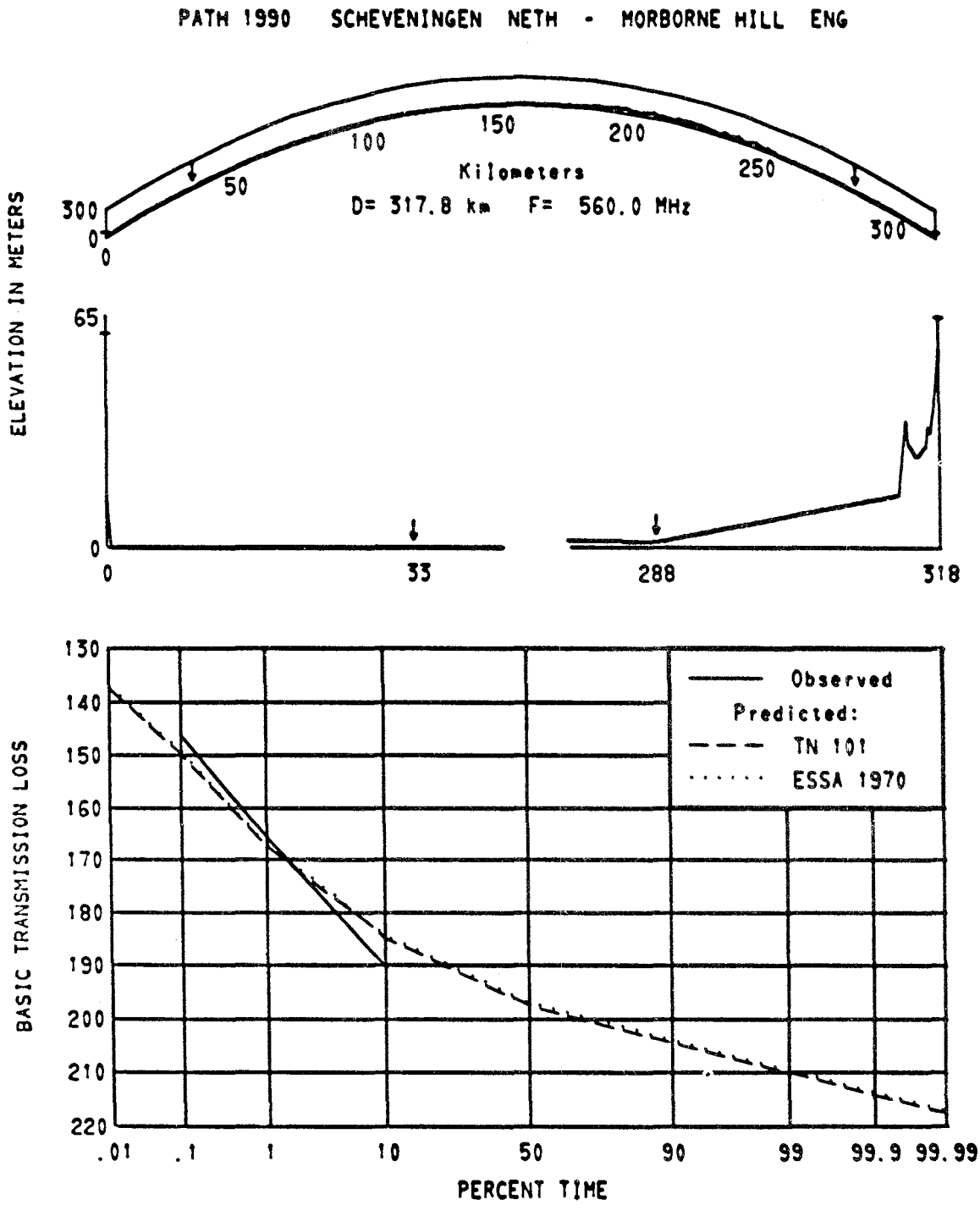


Figure 3.148 Path 1990

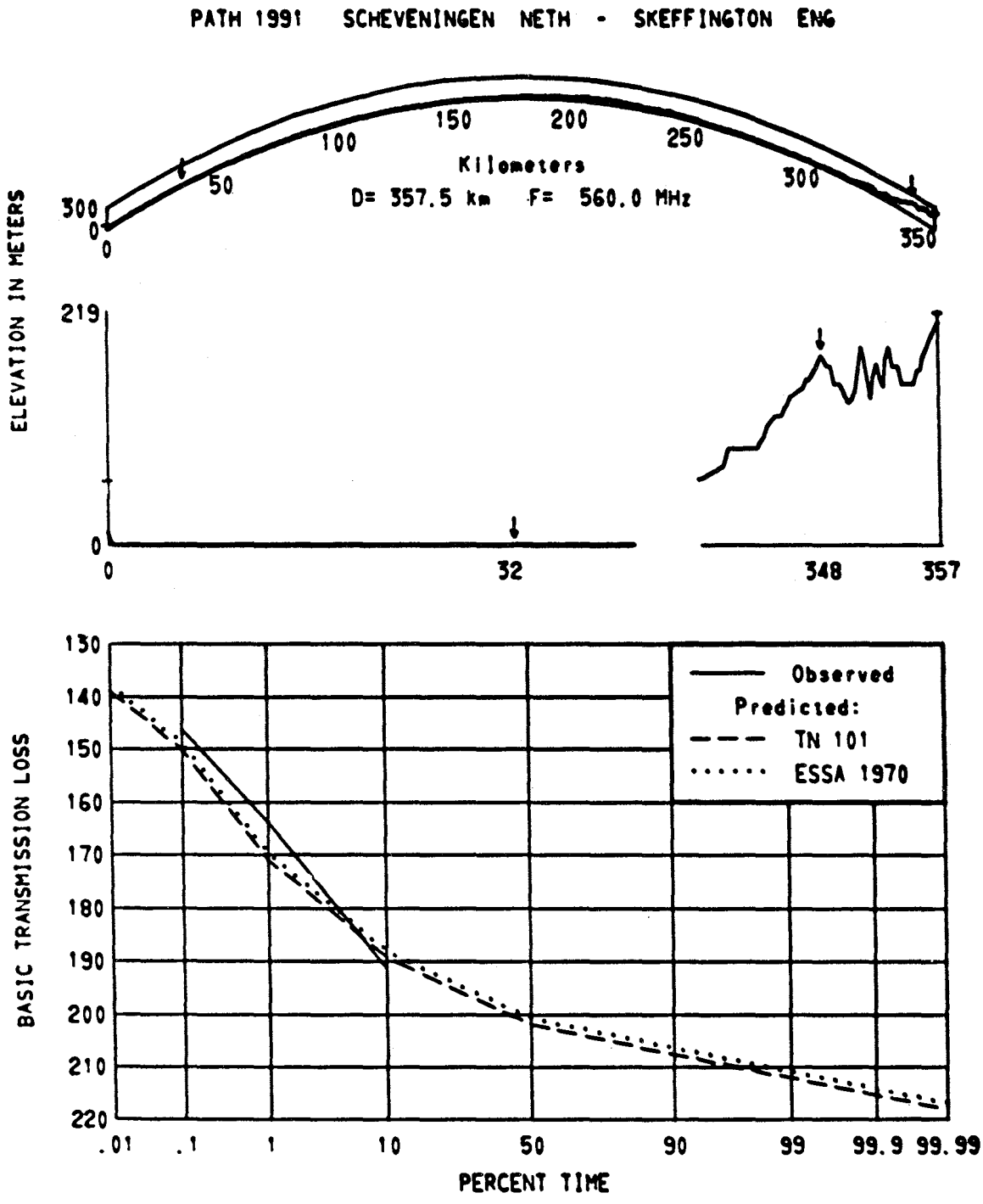


Figure 3.149 Path 1991

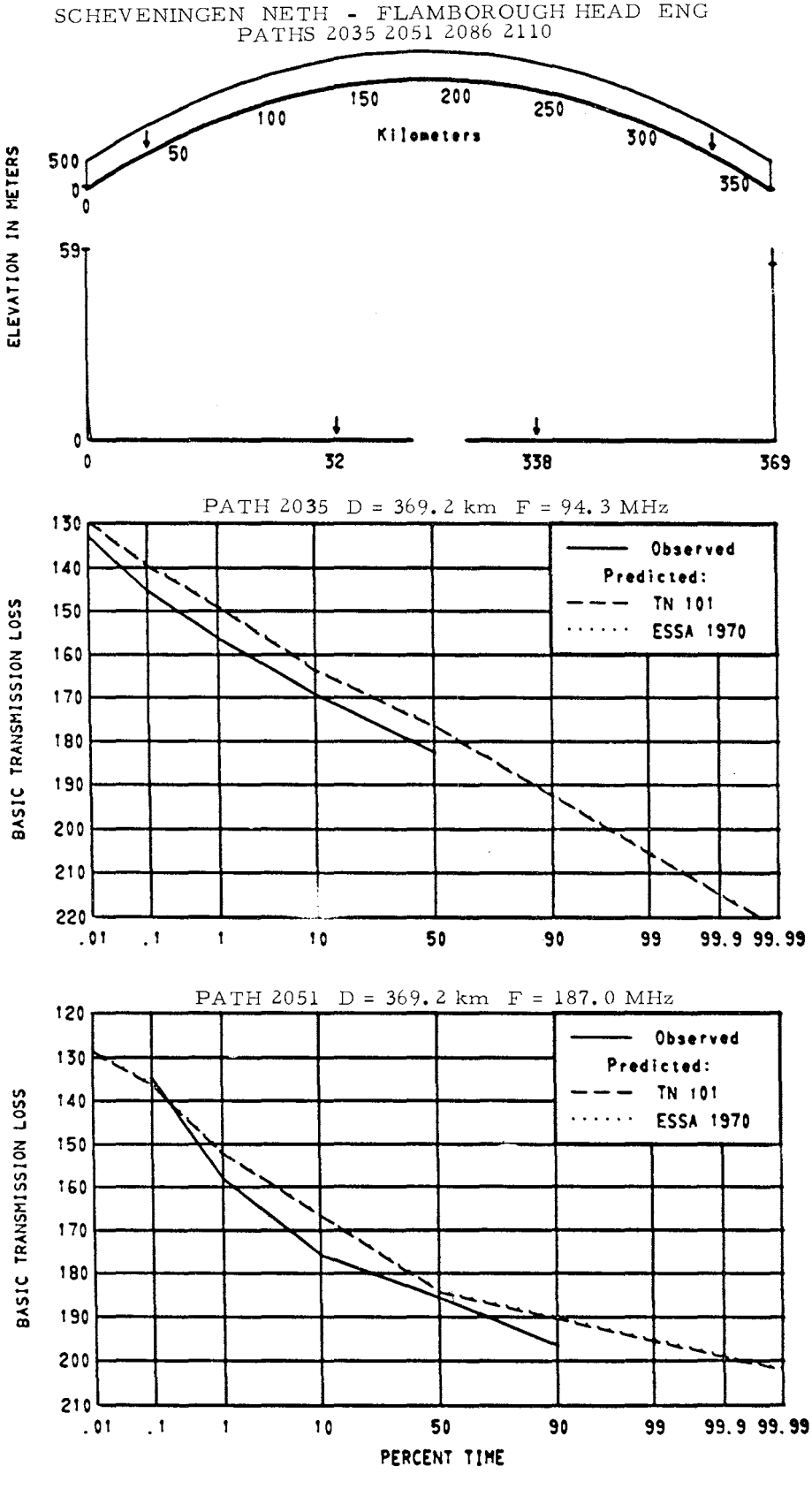


Figure 3.150 Paths 2035 2051

SCHEVENINGEN NETH - FLAMBOROUGH HEAD ENG

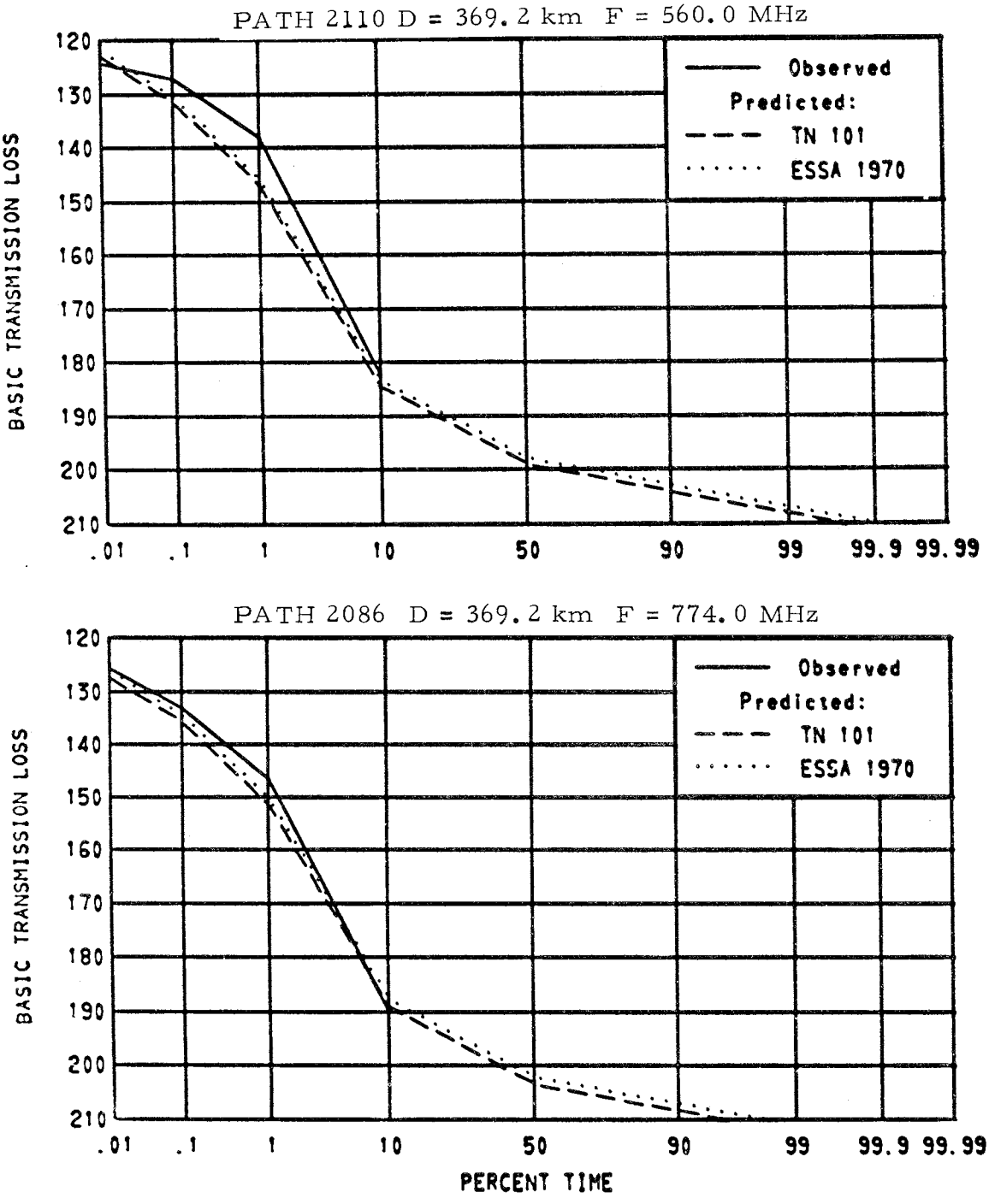


Figure 3.151 Paths 2086 2110

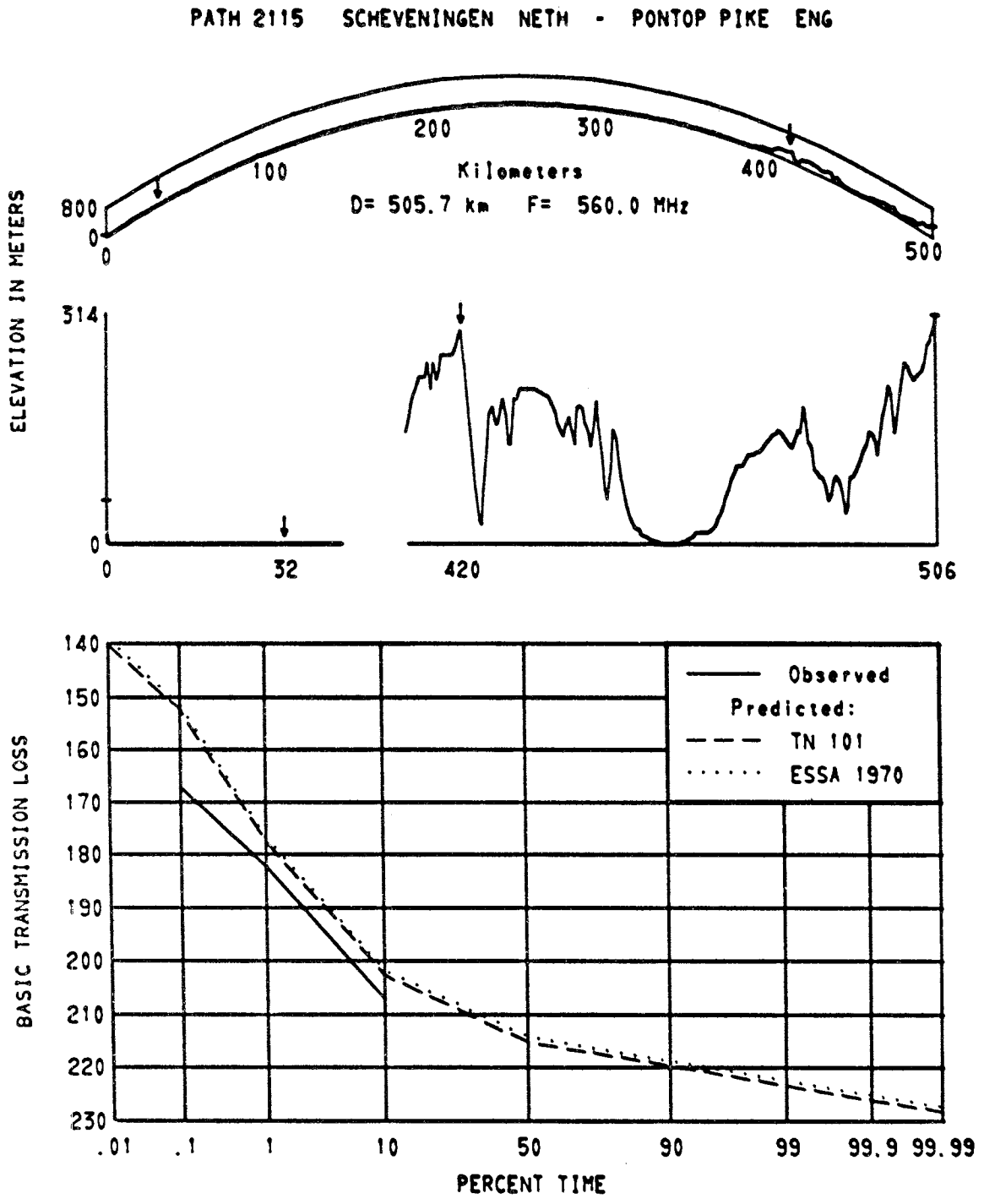
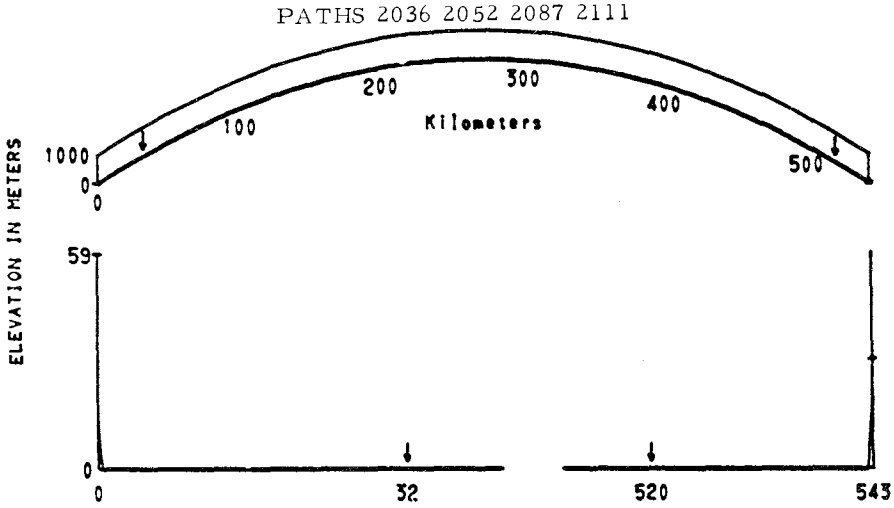
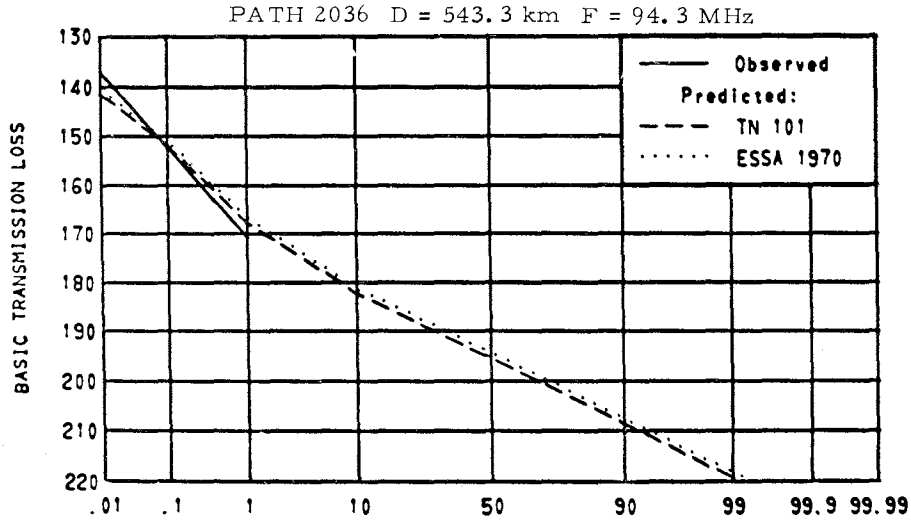


Figure 3.152 Path 2115

SCHEVENINGEN NETH - NEWTON-BY-THE-SEA ENG
PATHS 2036 2052 2087 2111



PATH 2036 D = 543.3 km F = 94.3 MHz



PATH 2052 D = 543.3 km F = 187.0 MHz

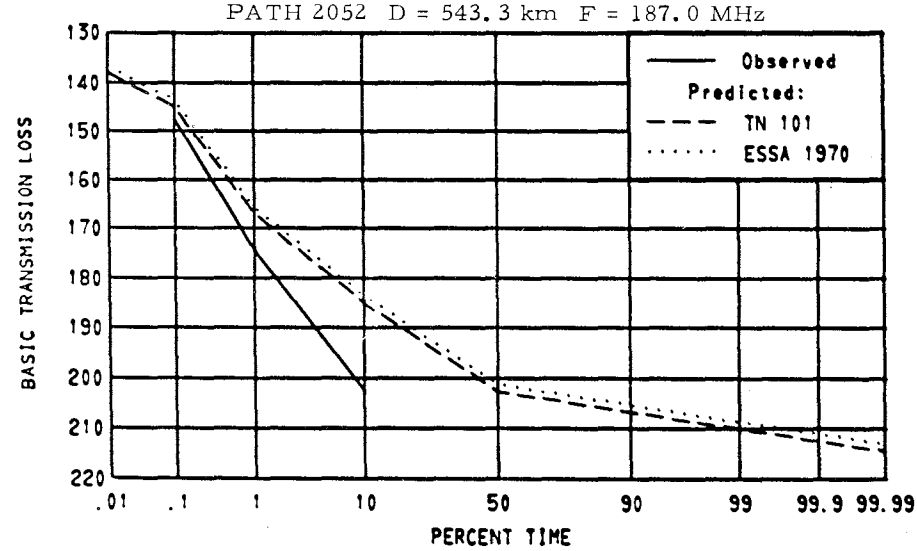


Figure 3.153 Paths 2036 2052

SCHEVENINGEN NETH - NEWTON-BY-THE-SEA ENG

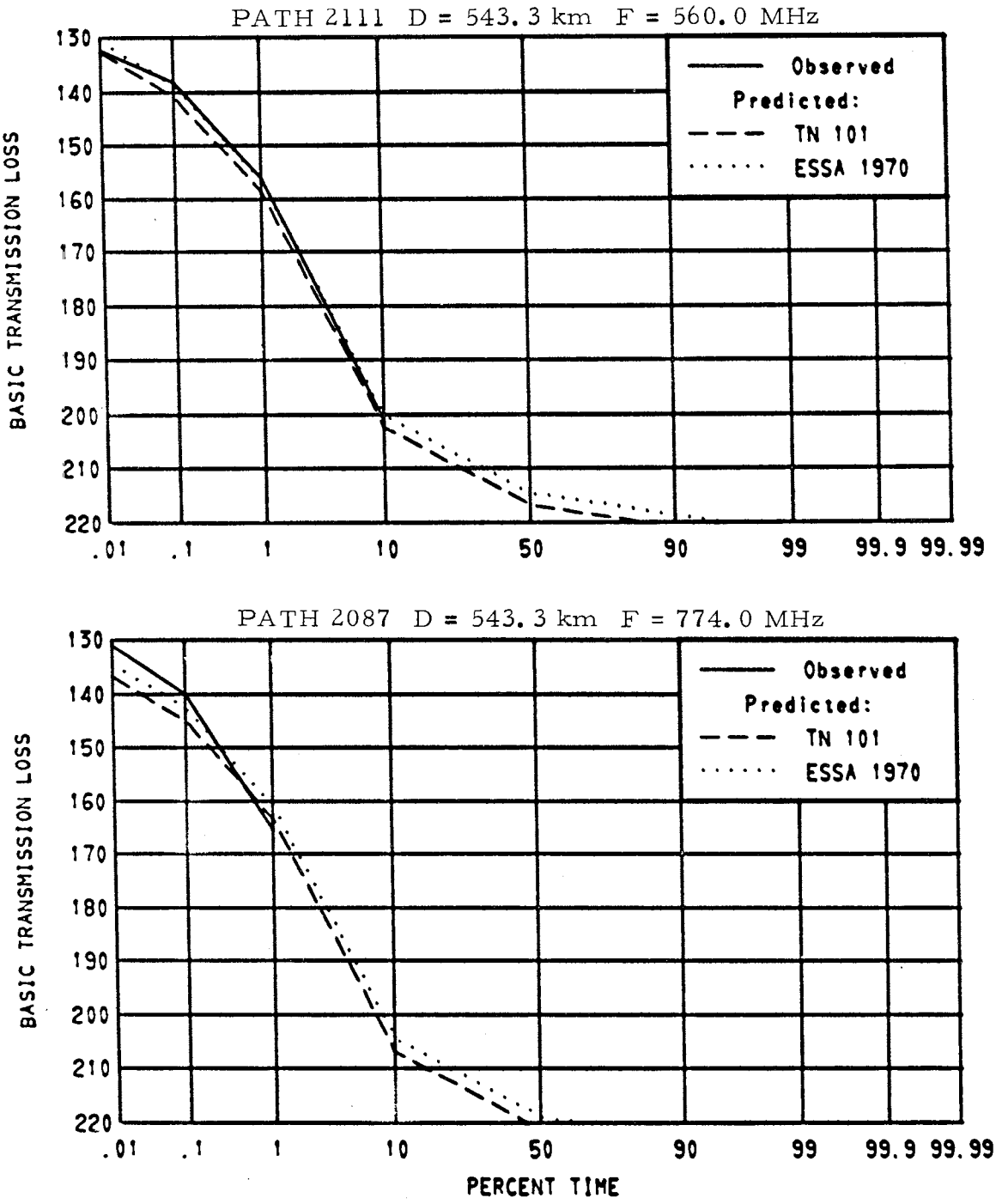
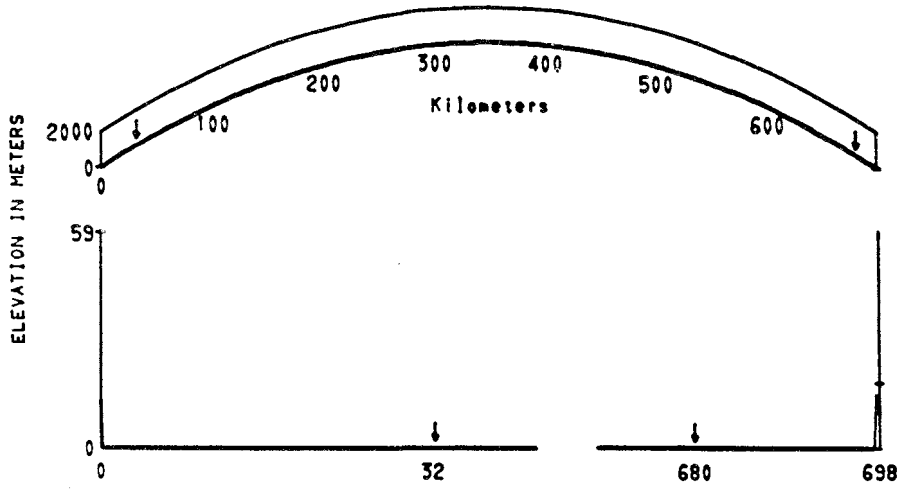
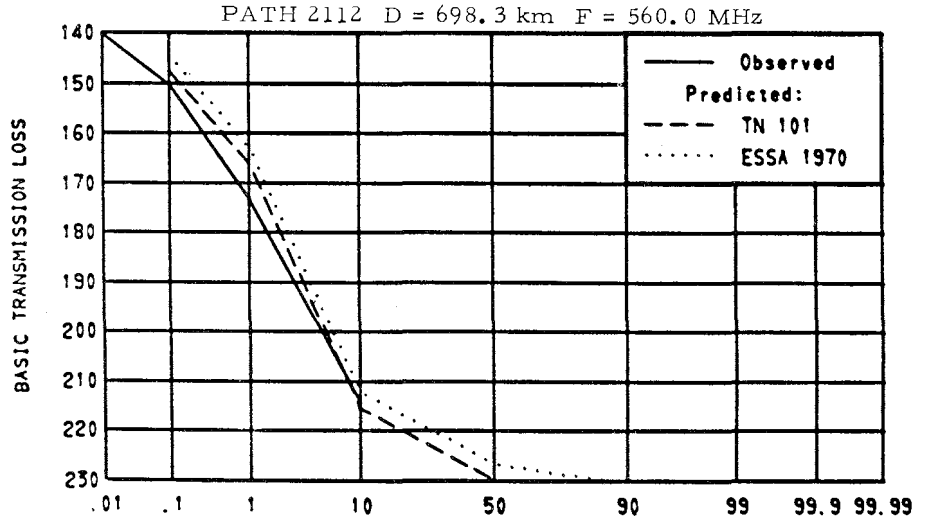


Figure 3.154 Paths 2087 2111

PATHS 2088 2112 SCHEVENINGEN NETH - BRIDGE OF DON SCOT





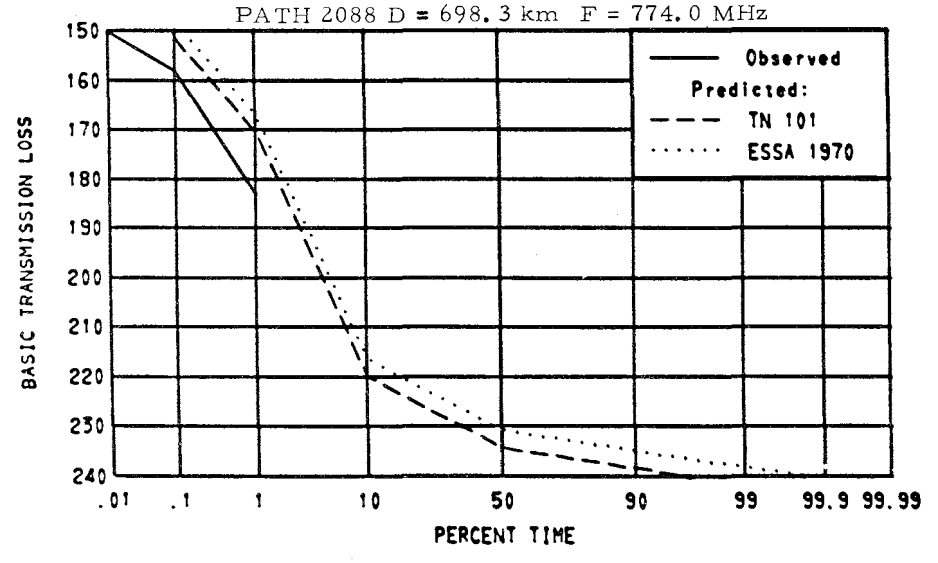


Figure 3.155 Paths 2088 2112

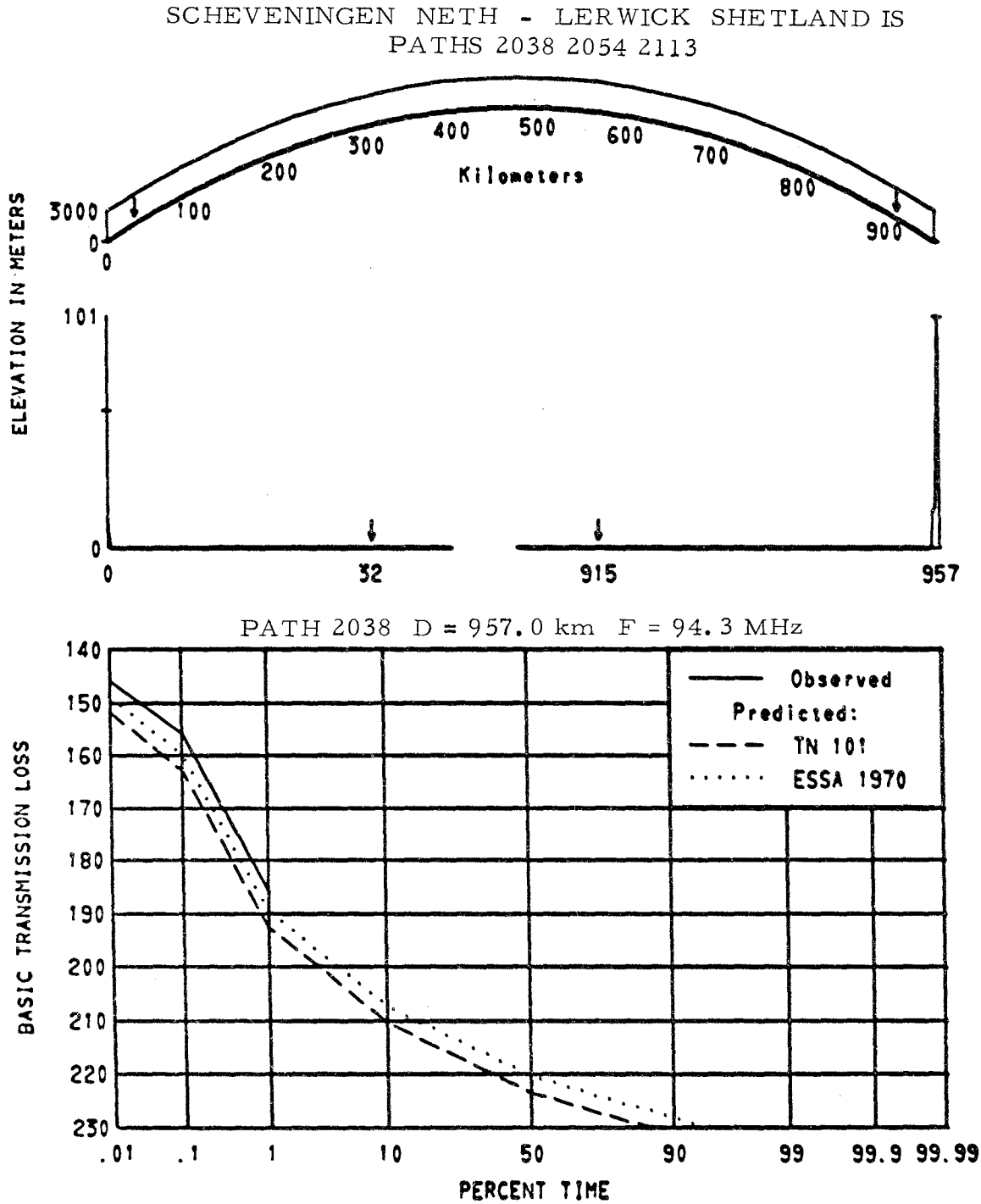


Figure 3.156 Path 2038

SCHEVENINGEN NETH - LERWICK SHETLAND IS

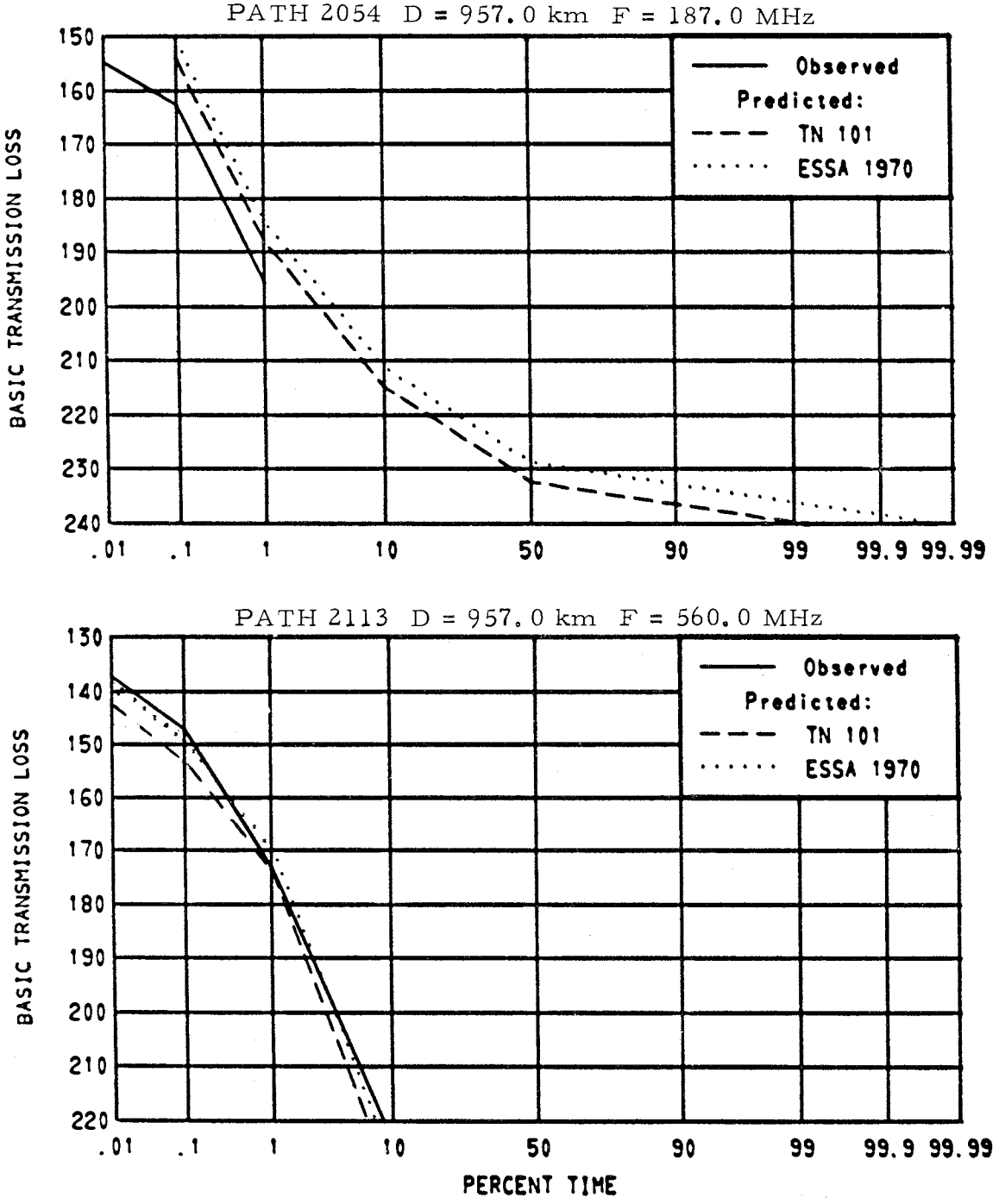


Figure 3.157 Paths 2054 2113

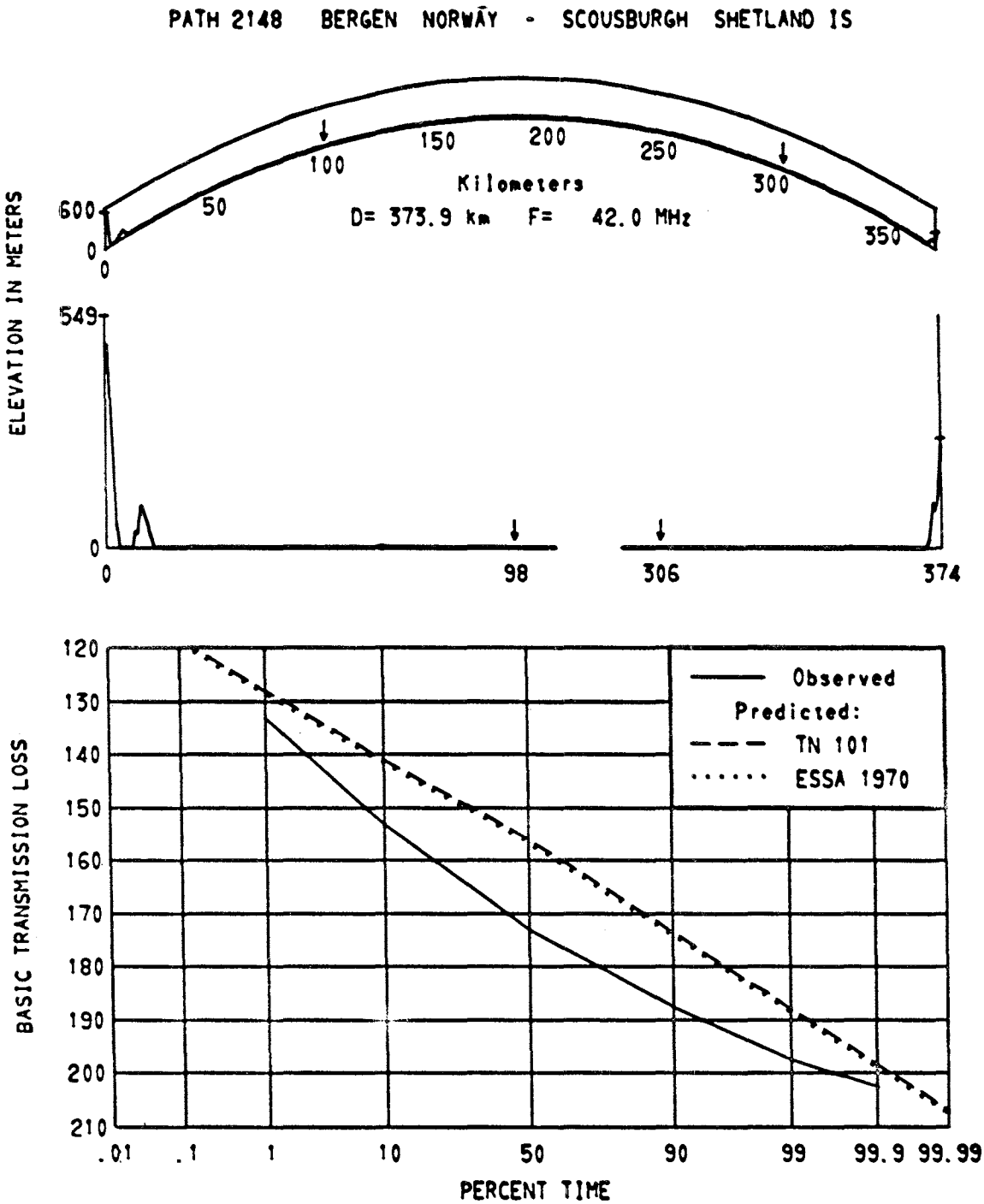


Figure 3.158 Path 2148

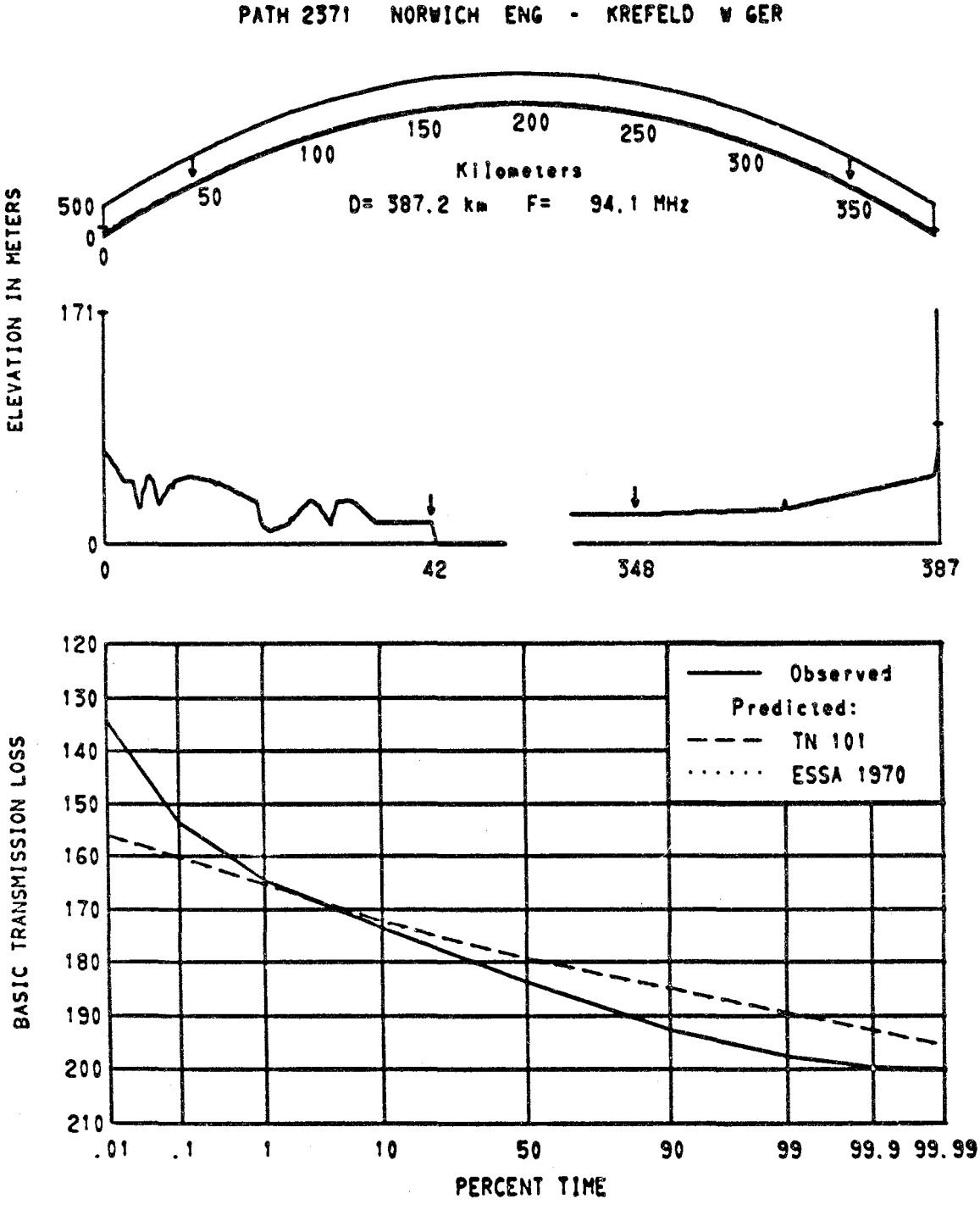


Figure 3.159 Path 2371

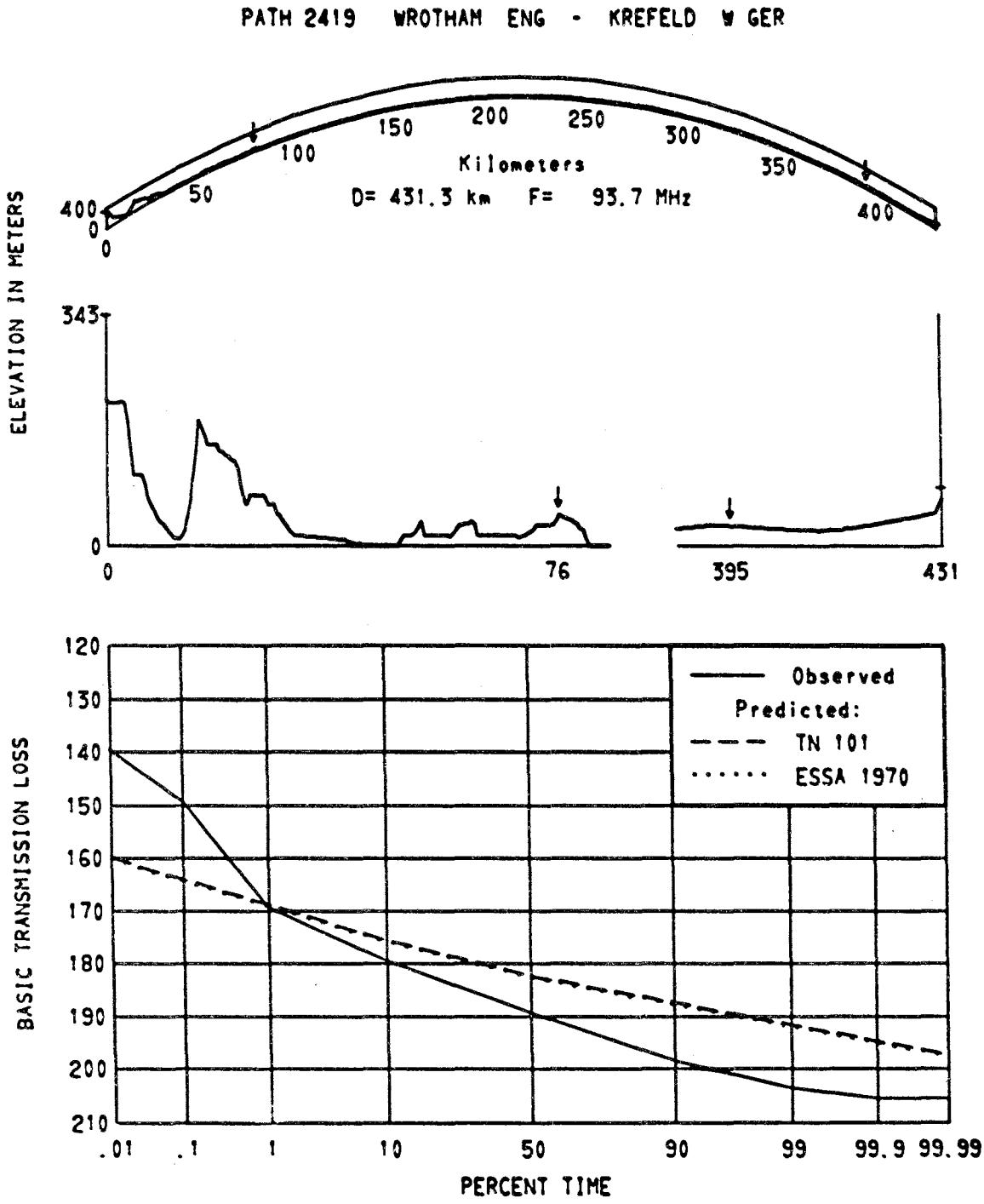


Figure 3.160 Path 2419

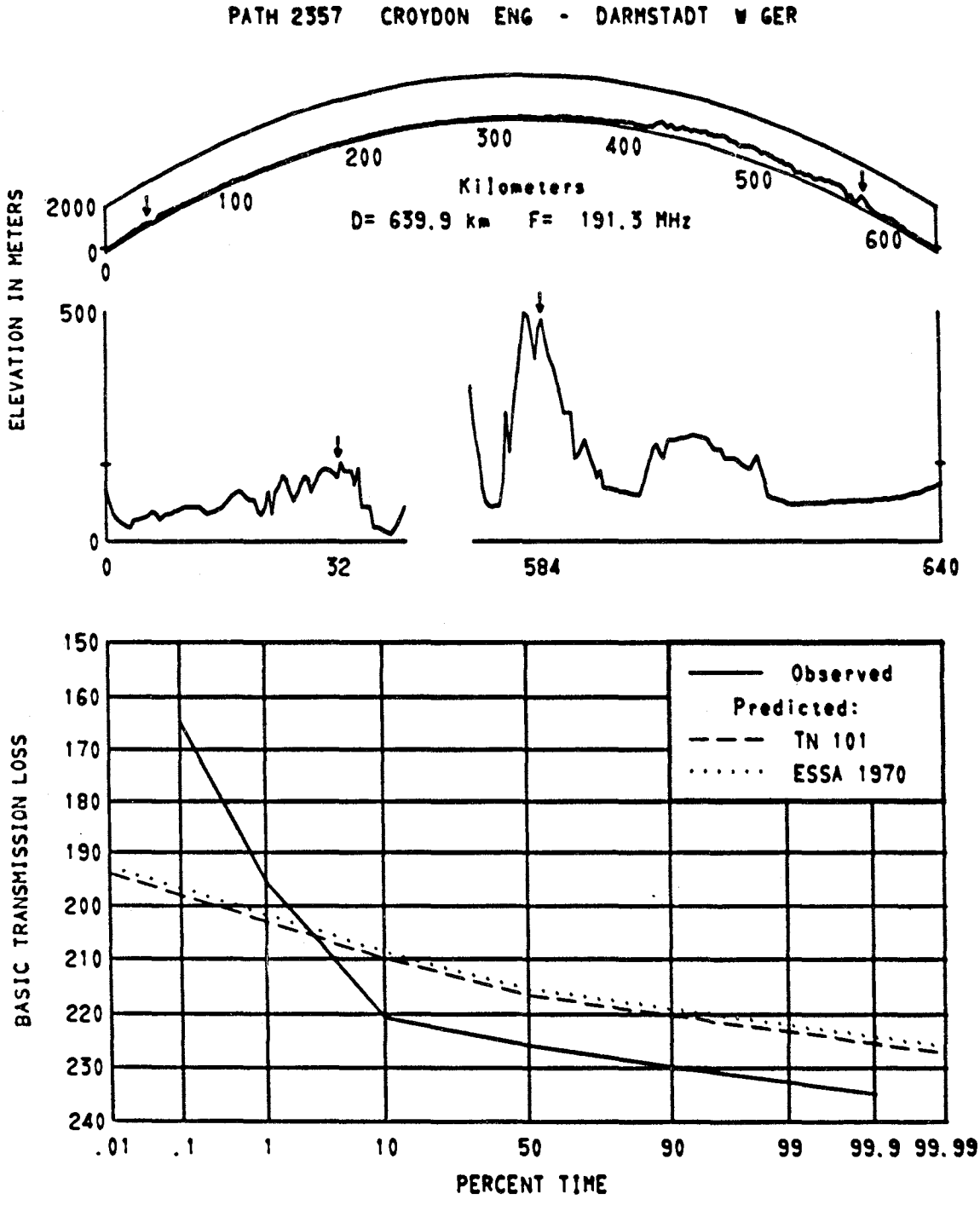
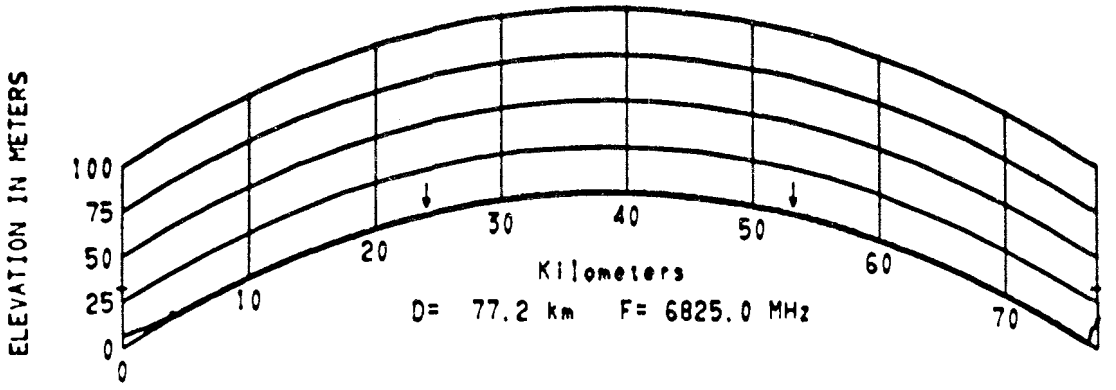


Figure 3.161 Path 2357

PATHS 2372 2383 WEDDEWARDEN W GER - HELGOLAND W GER



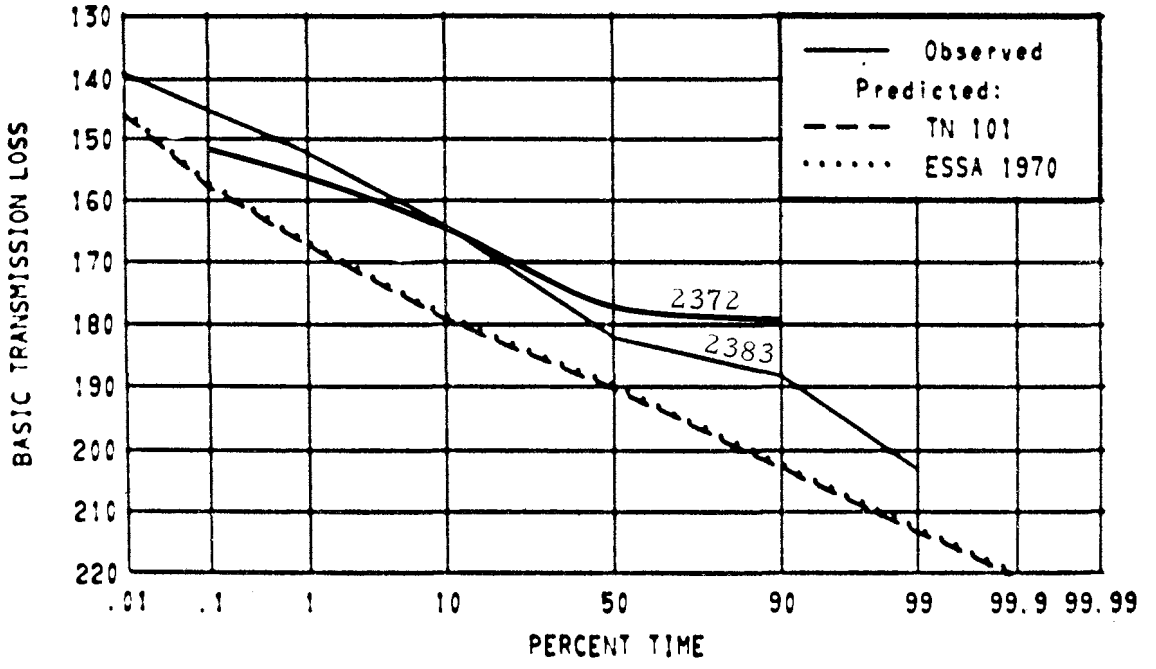


Figure 3.162 Paths 2372 2383

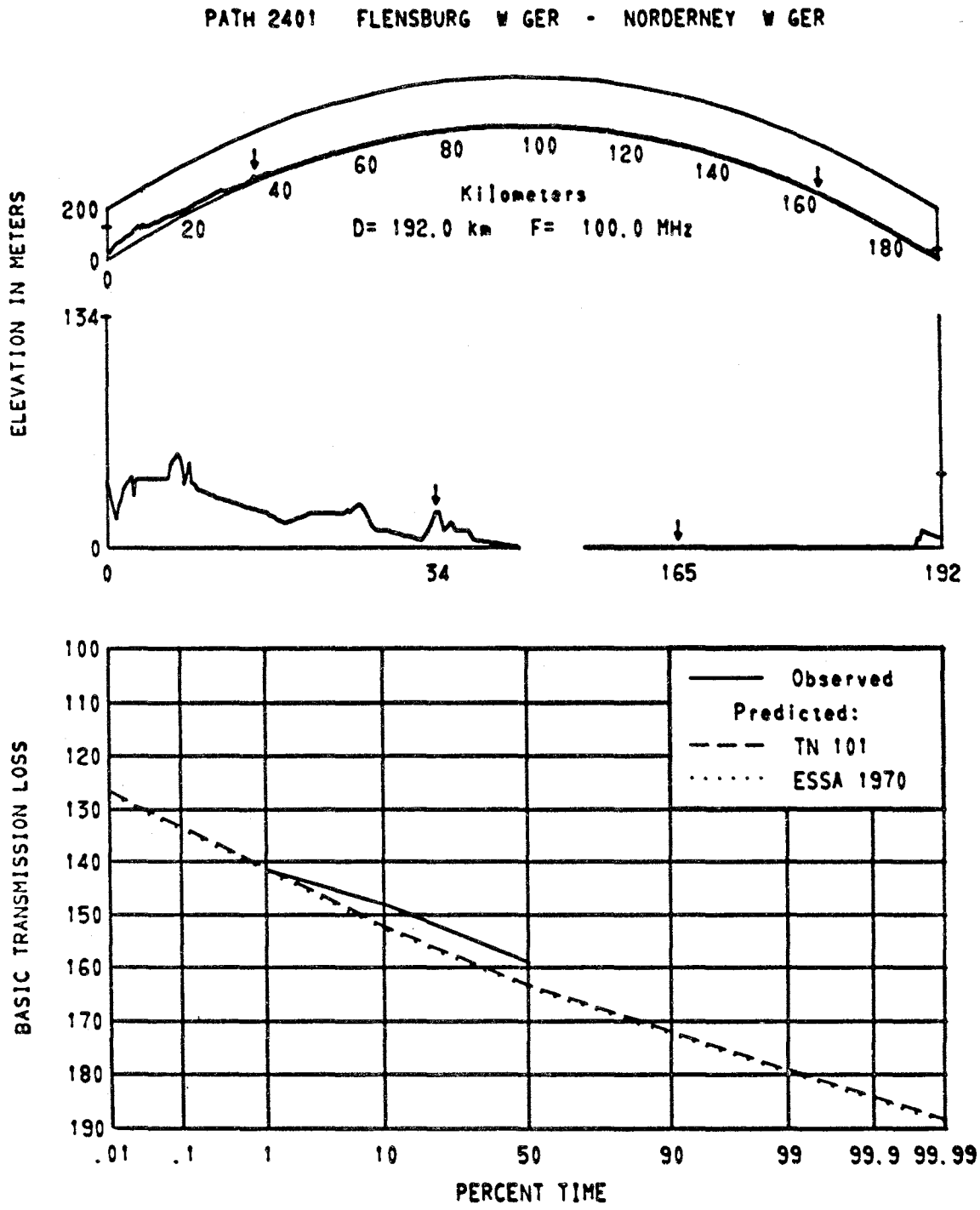


Figure 3.163 Path 2401

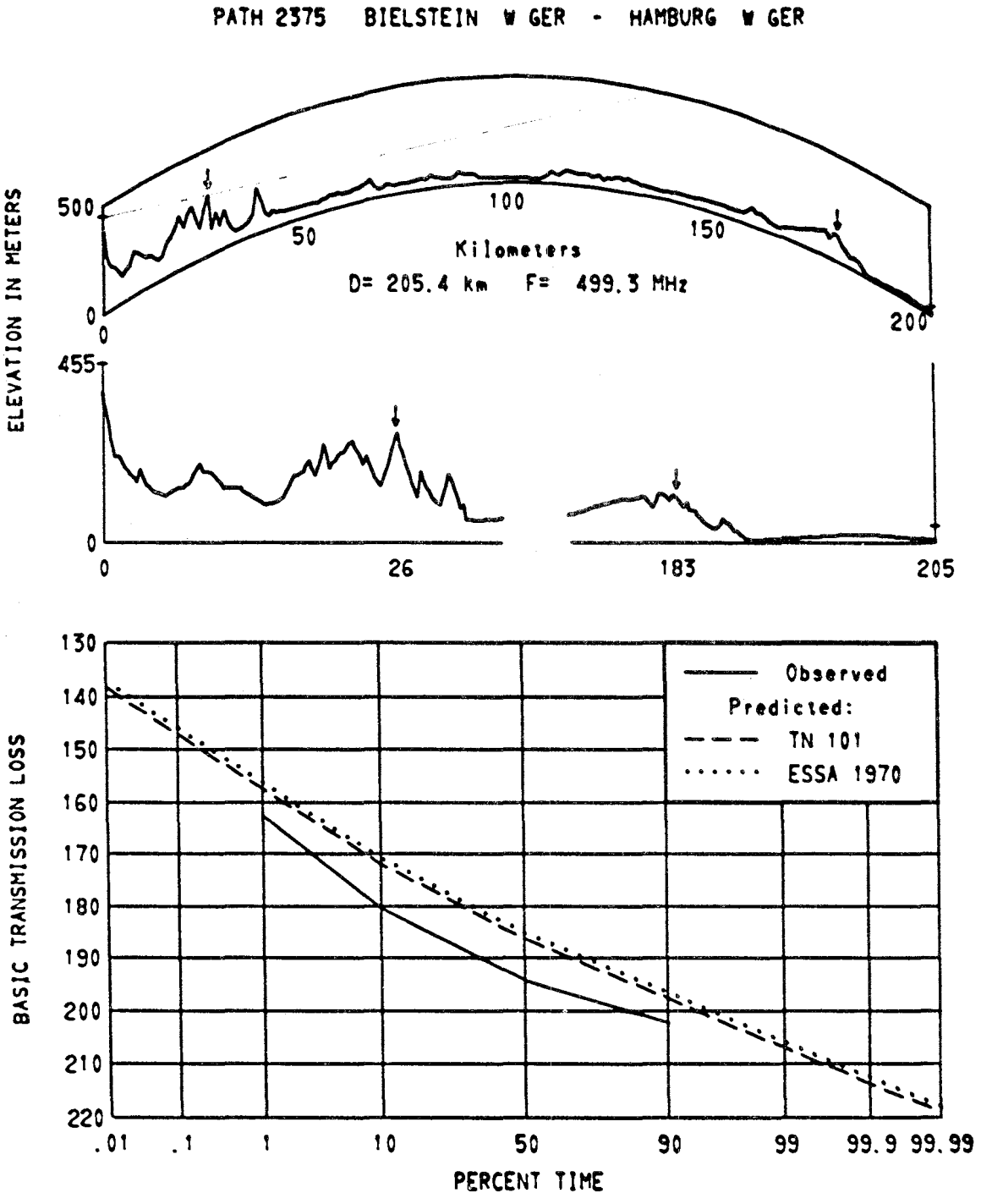


Figure 3.164 Path 2375

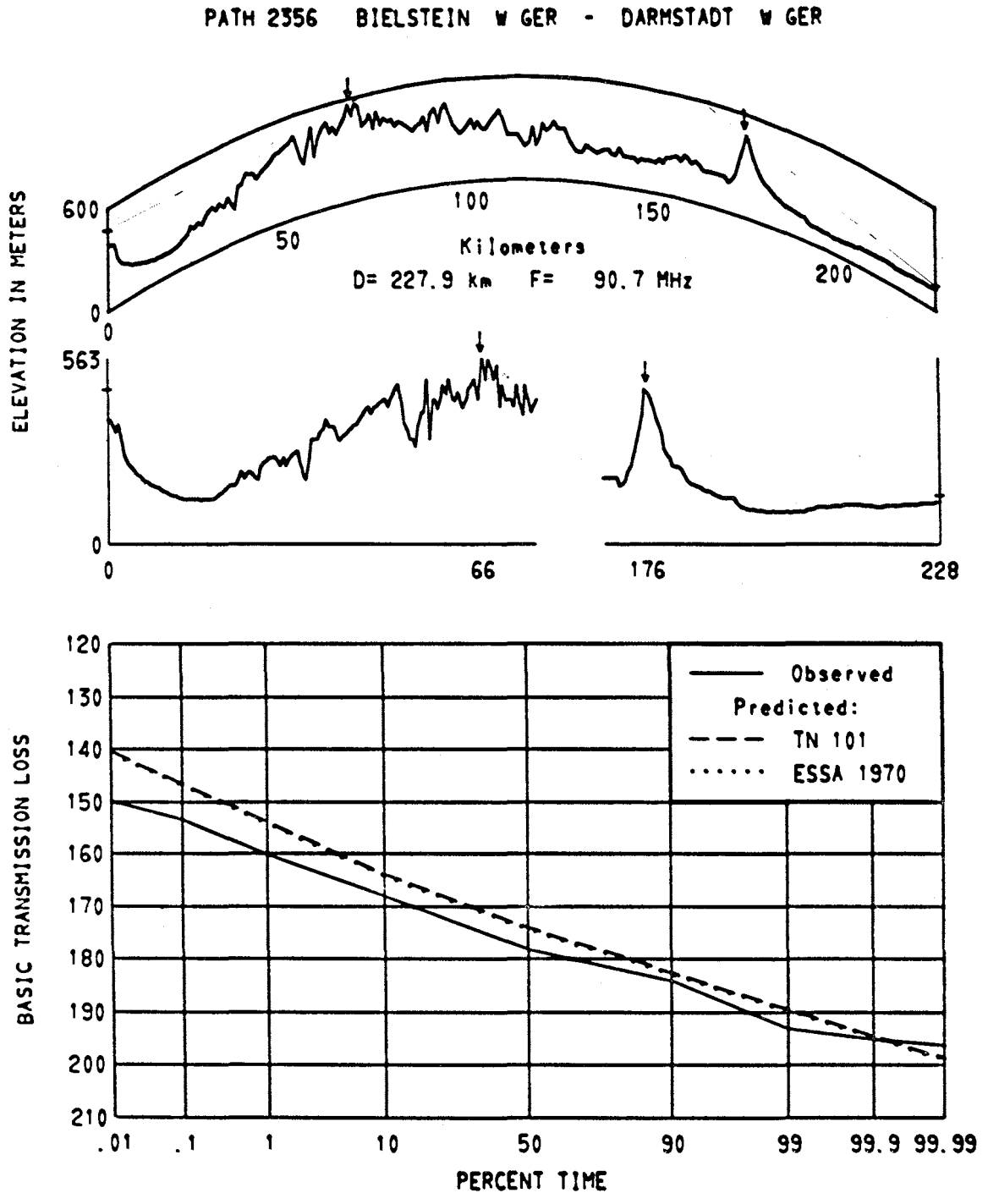


Figure 3.165 Path 2356

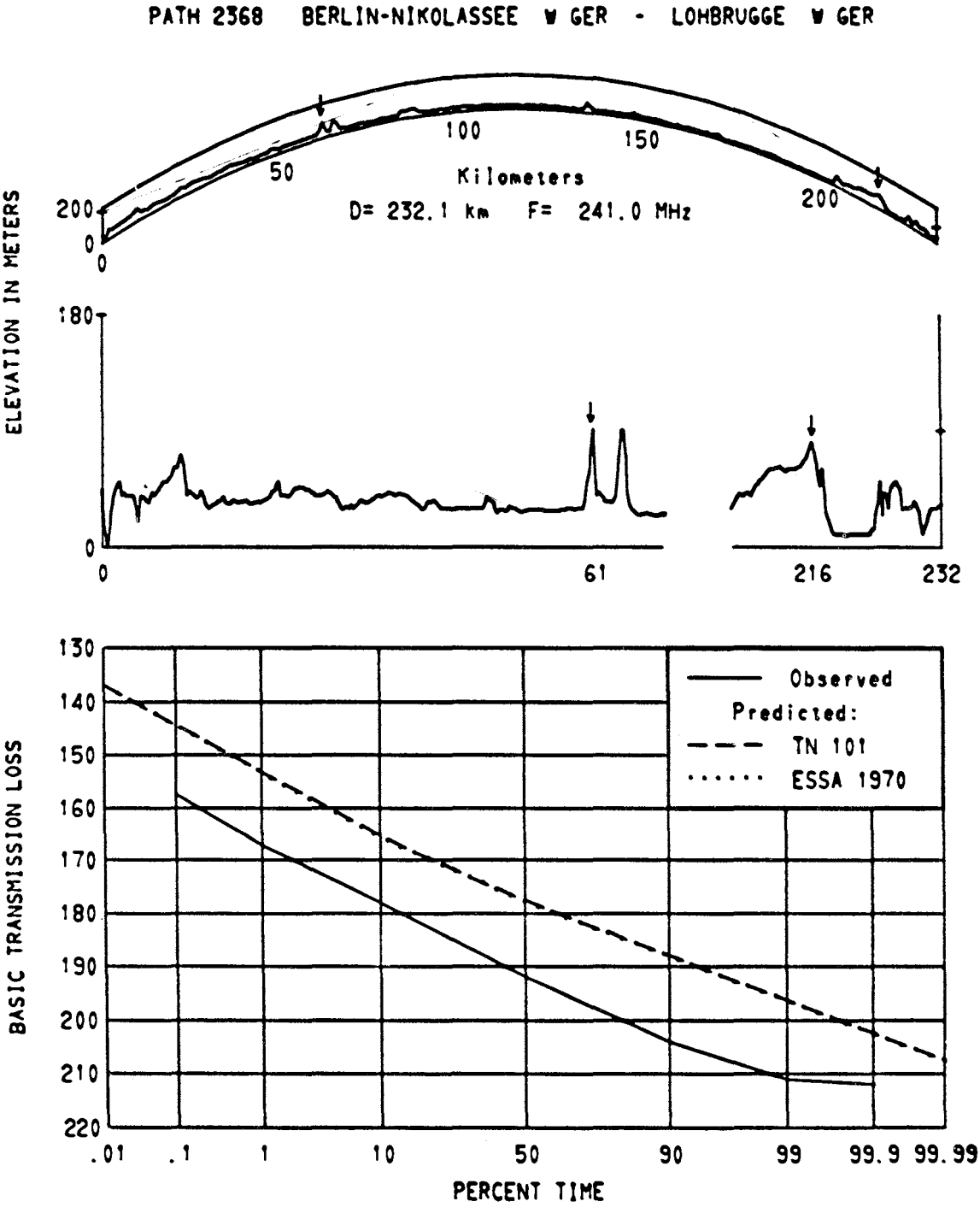
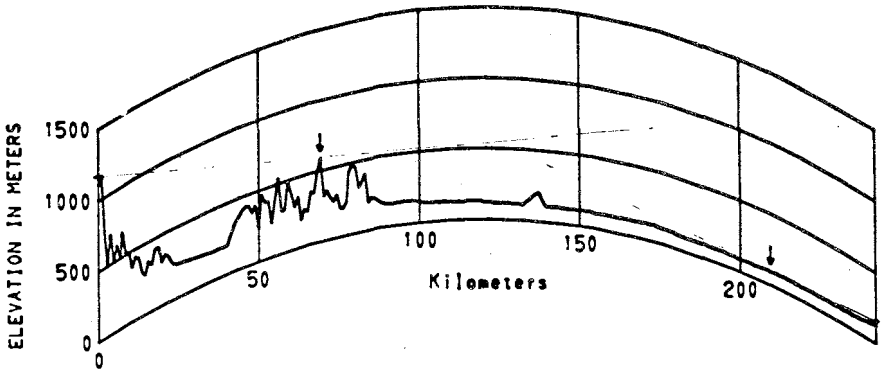
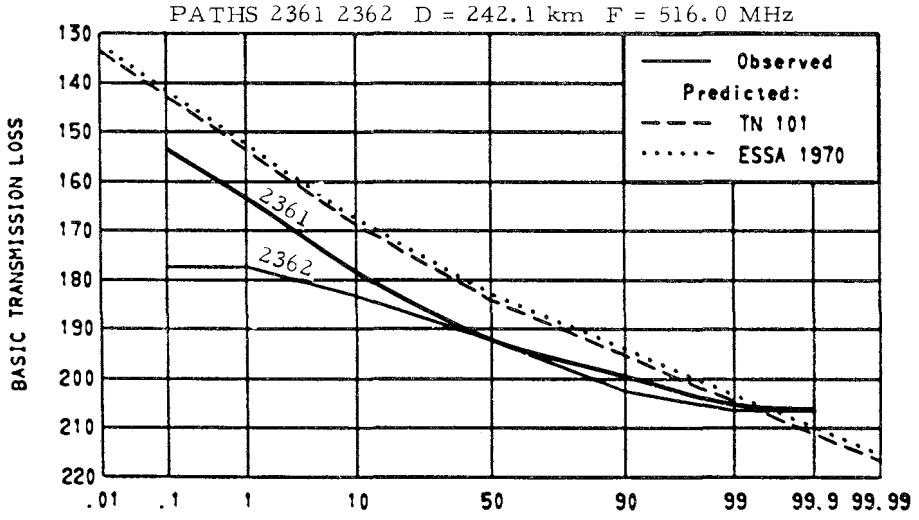


Figure 3.166 Path 2368

PATHS 2360 TO 2362 HOCHBLAUEN W GER - DARMSTADT W GER





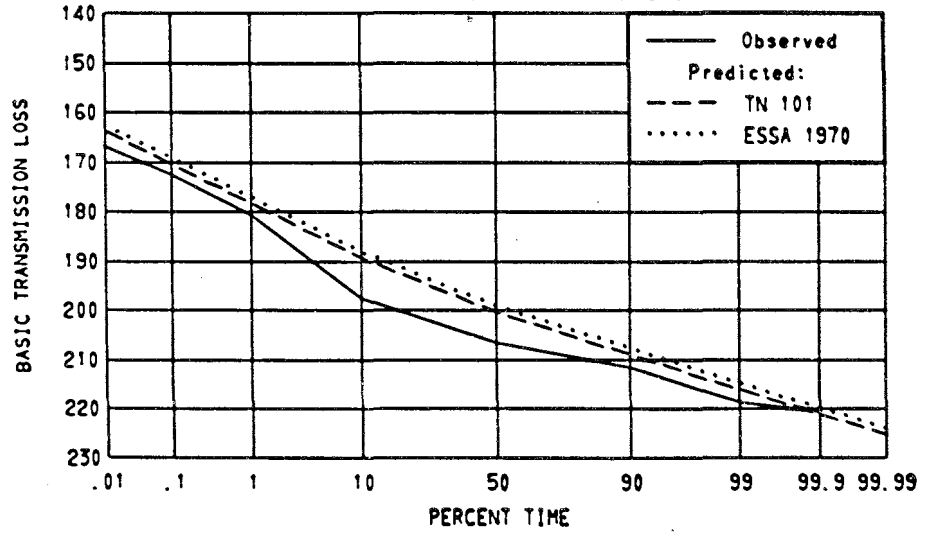


Figure 3.167 Paths 2360 to 2362

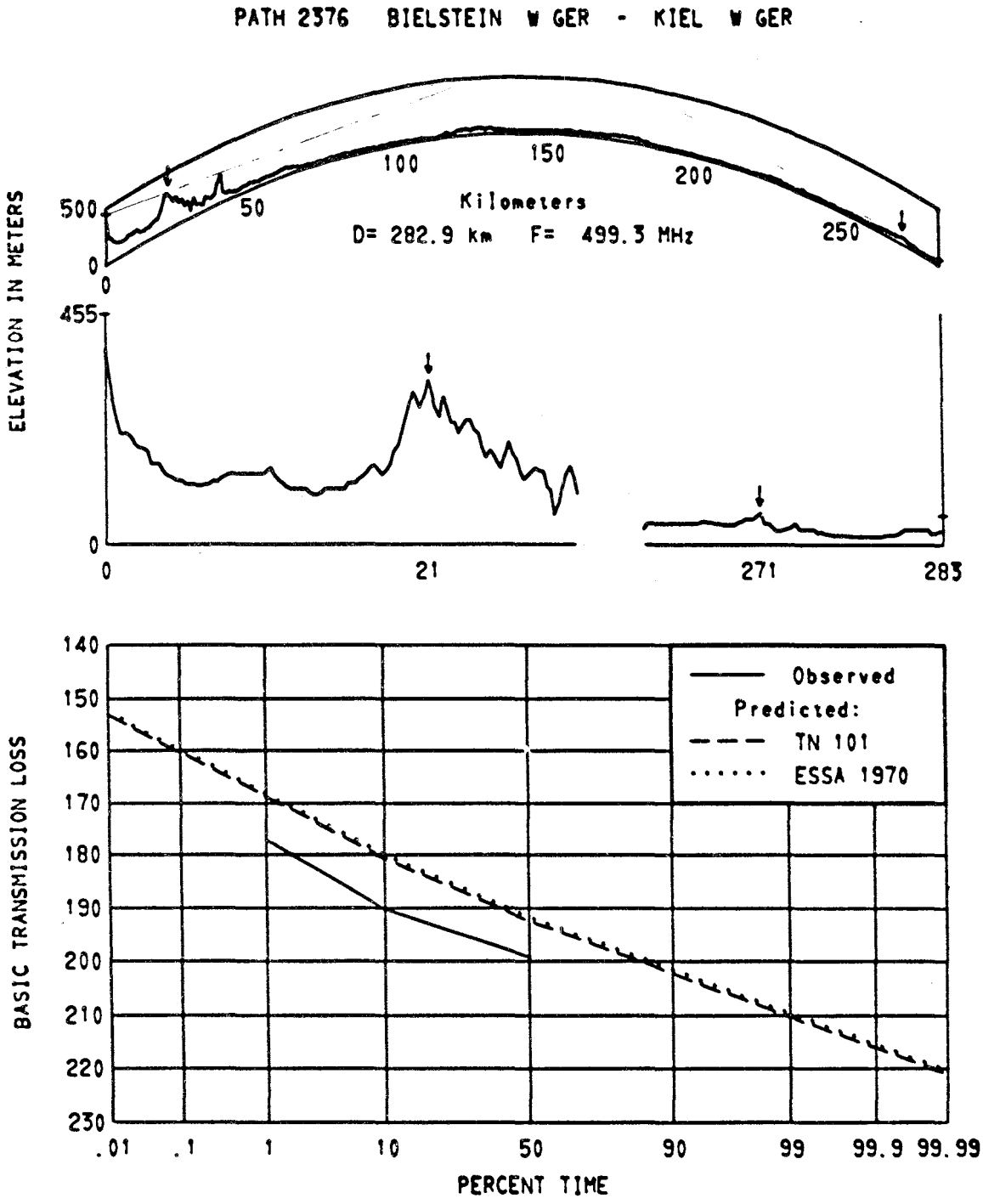


Figure 3.168 Path 2376

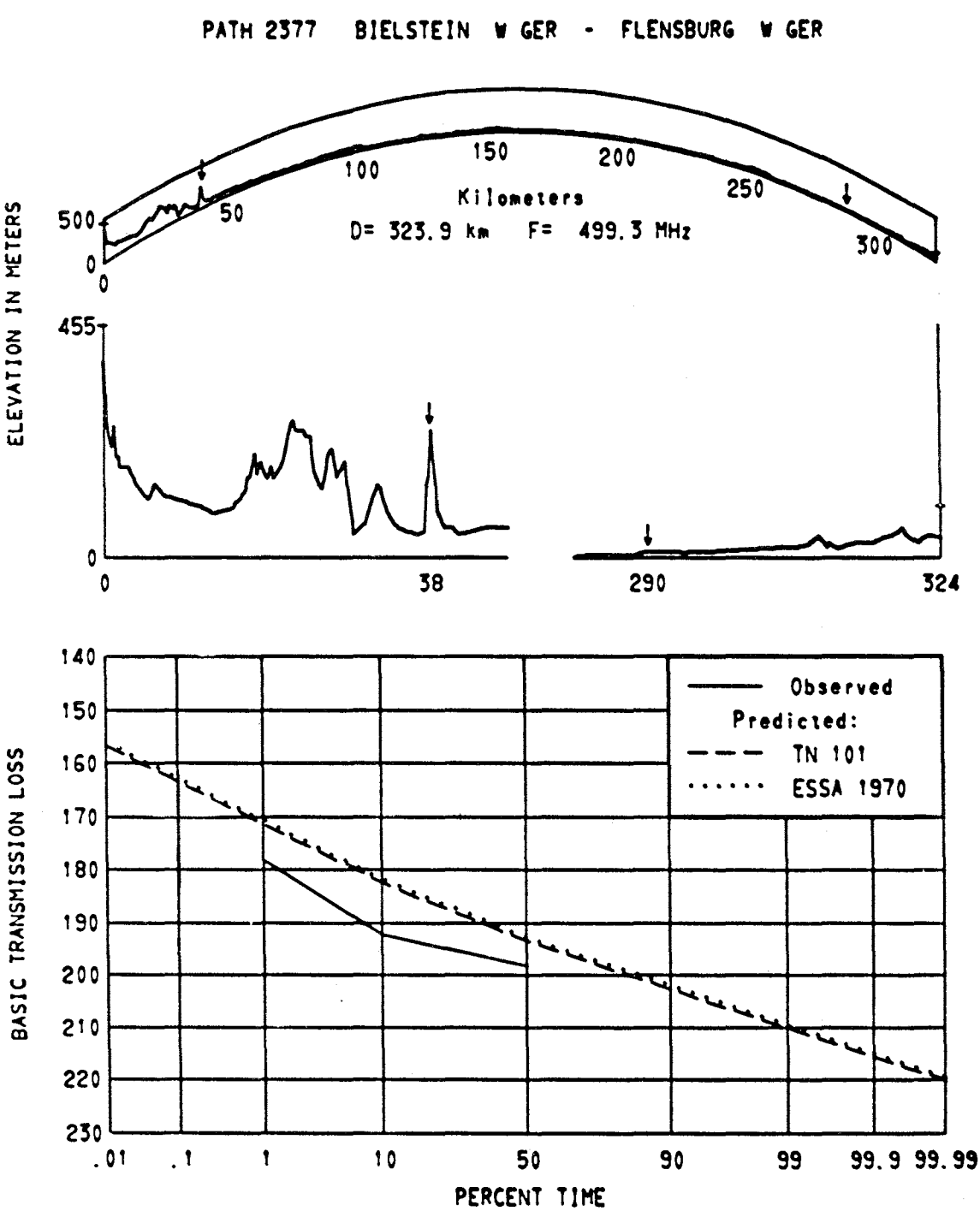


Figure 3.169 Path 2377

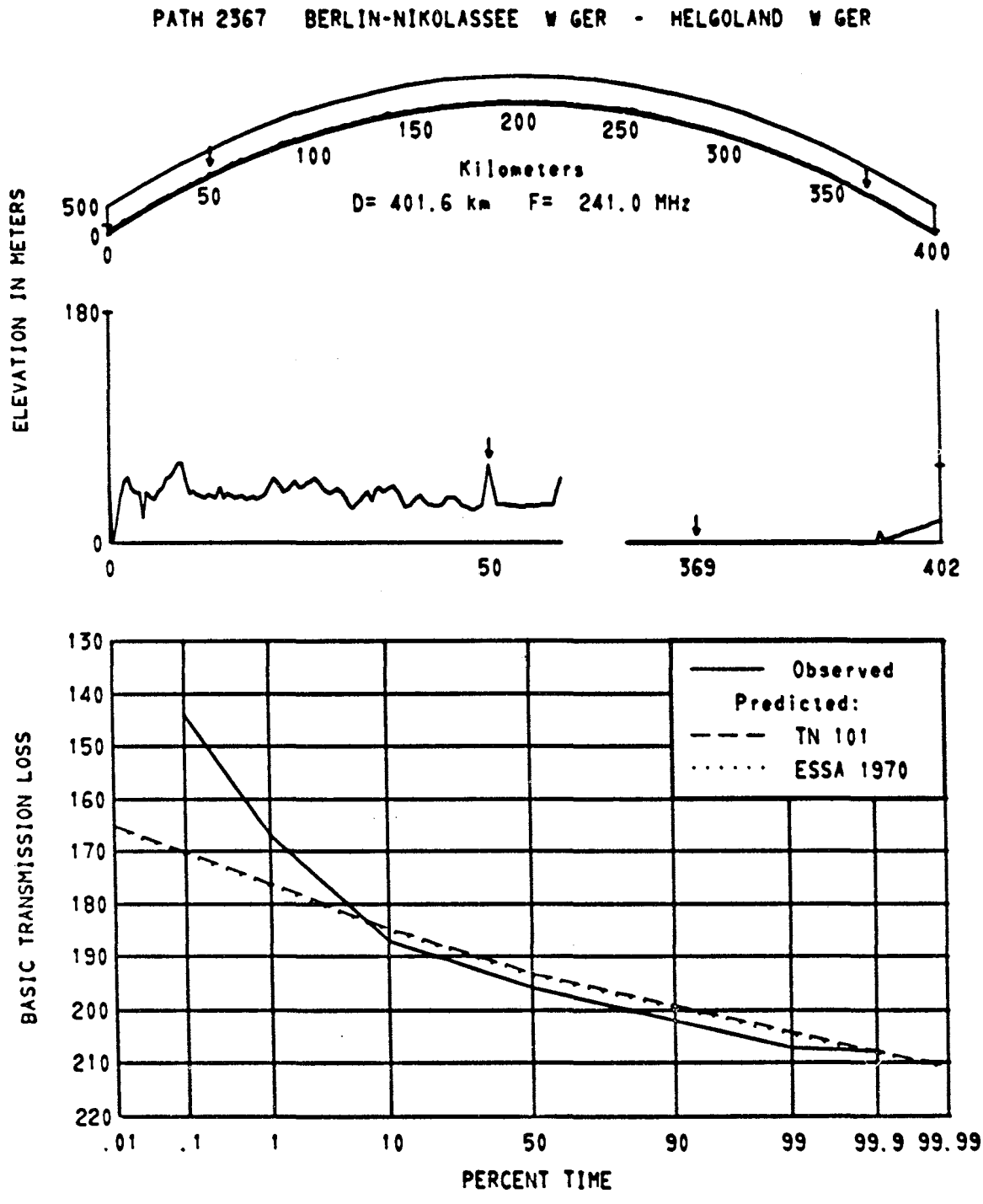


Figure 3.170 Path 2367

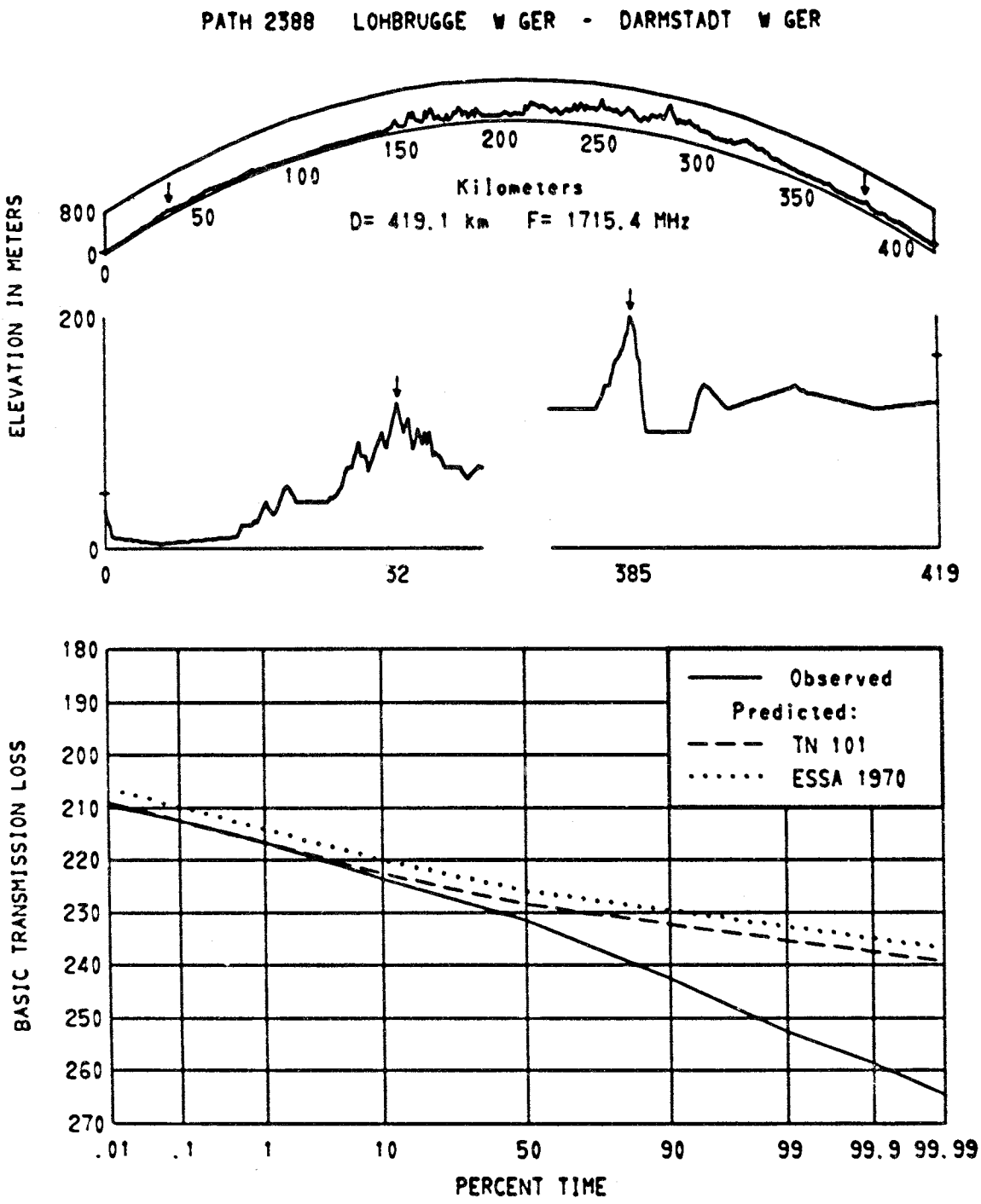
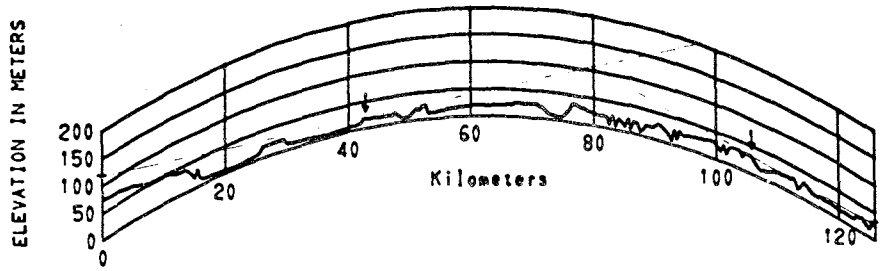
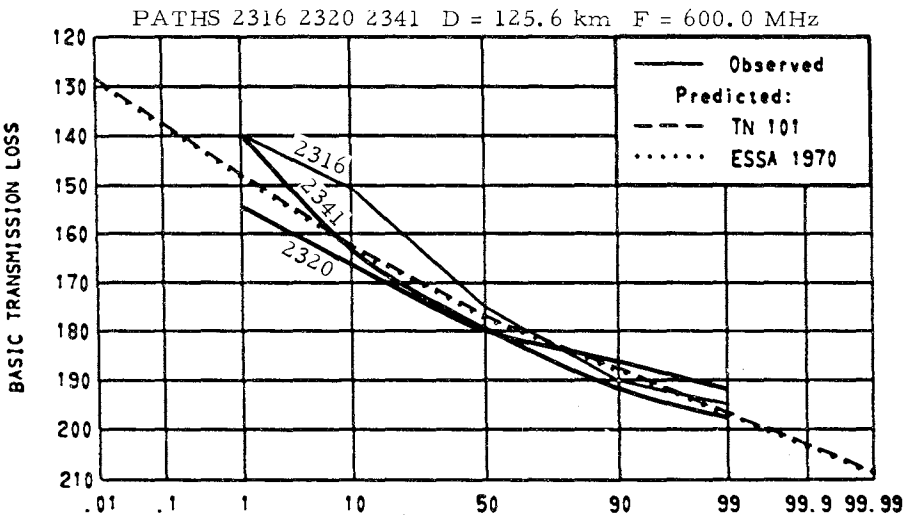


Figure 3.171 Path 2388

PATHS 2316 2320 2341 2349 KOKUBUNJI JAPAN - HIRAISO JAPAN





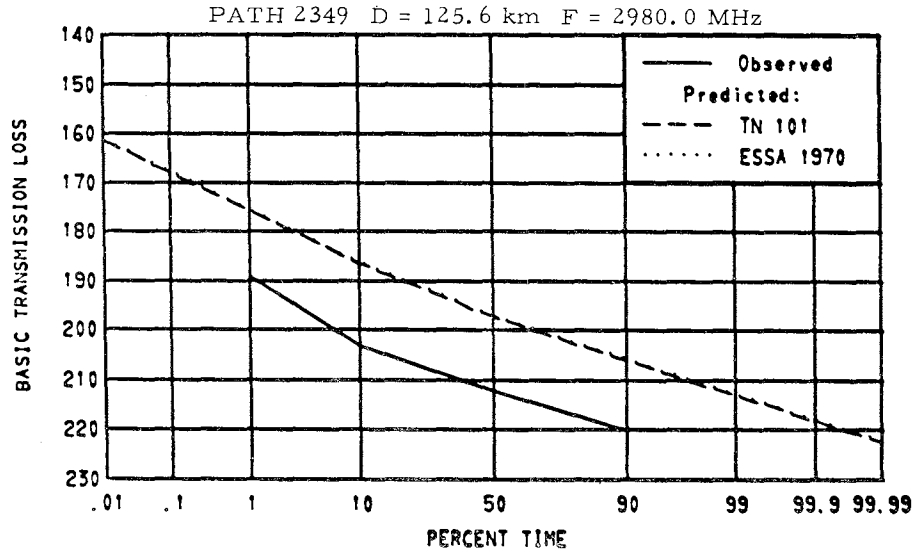


Figure 3.172 Paths 2316 2320 2341 2349

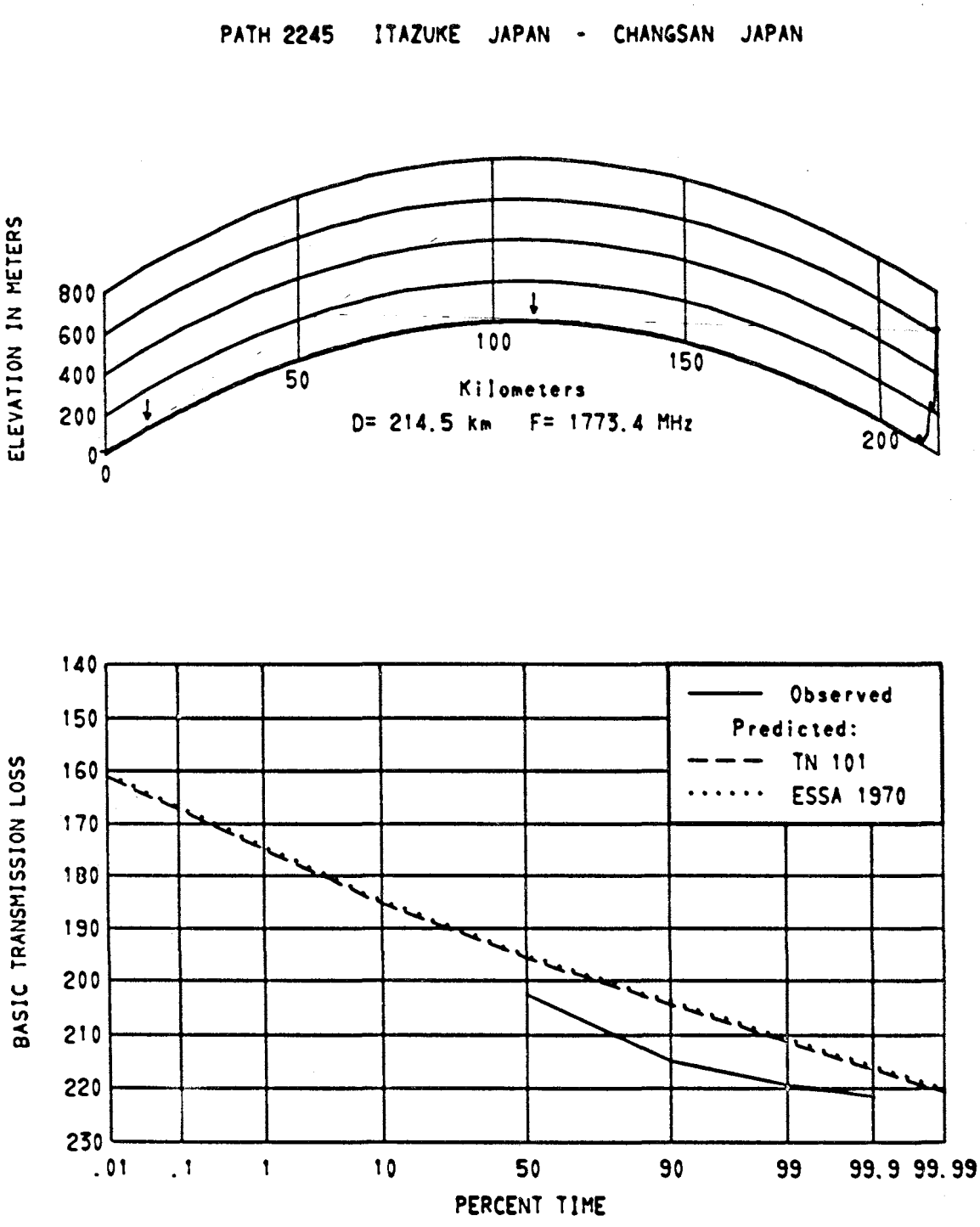


Figure 3.173 Path 2245

PATHS 2302 2303 2305 2307 KOKUBUNJI JAPAN - NIHONMATSU JAPAN

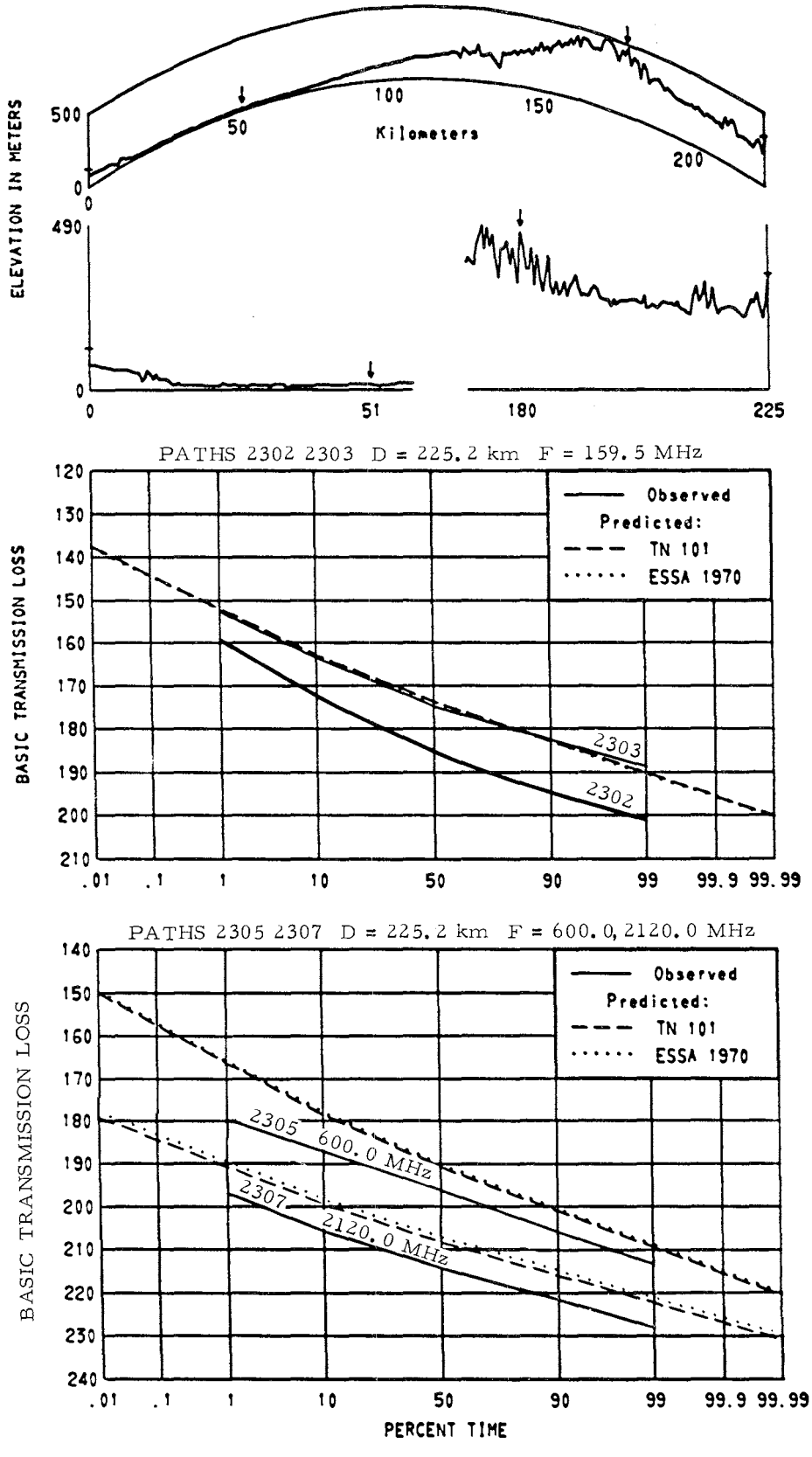


Figure 3.174 Paths 2302 2303 2305 2307

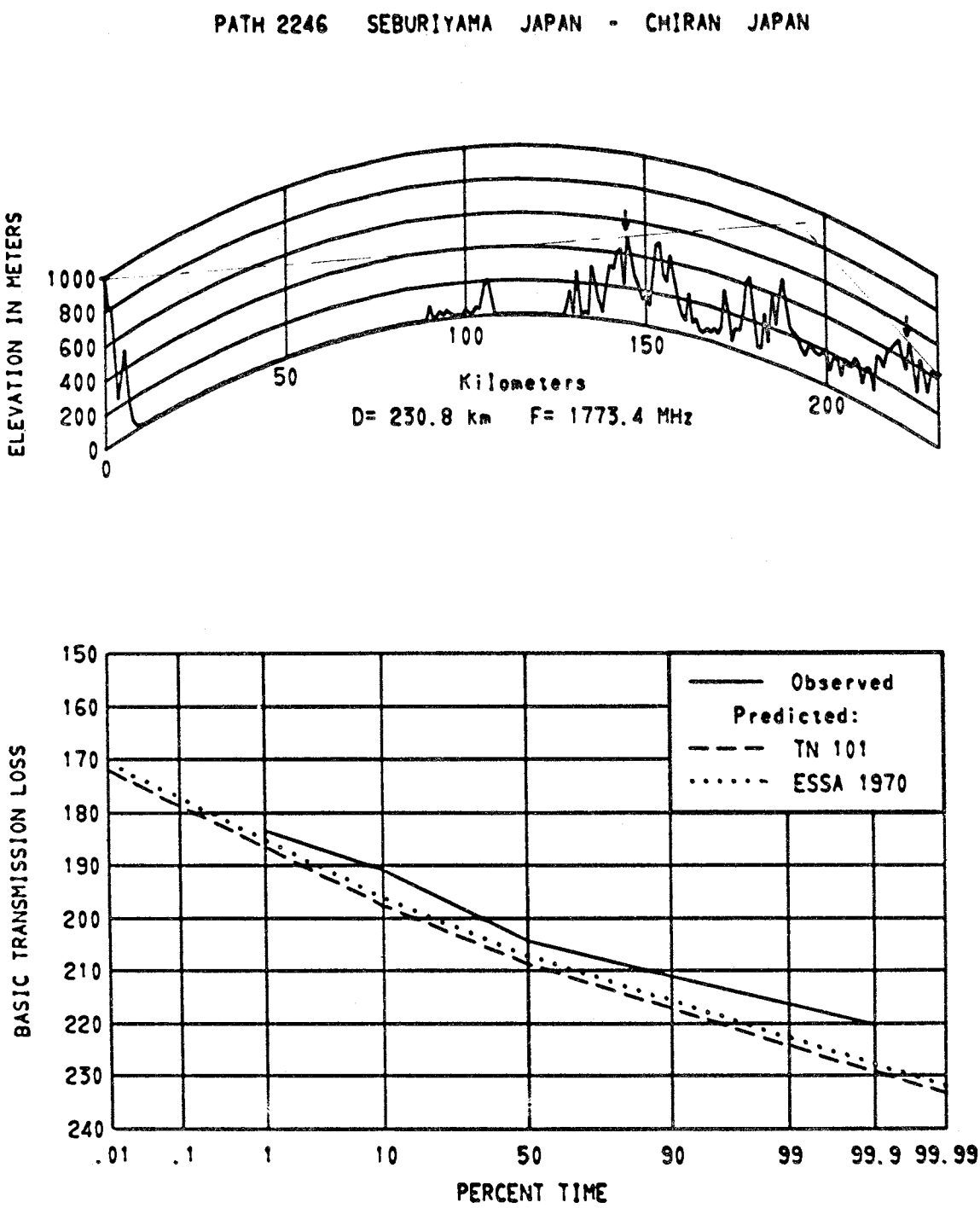


Figure 3.175 Path 2246

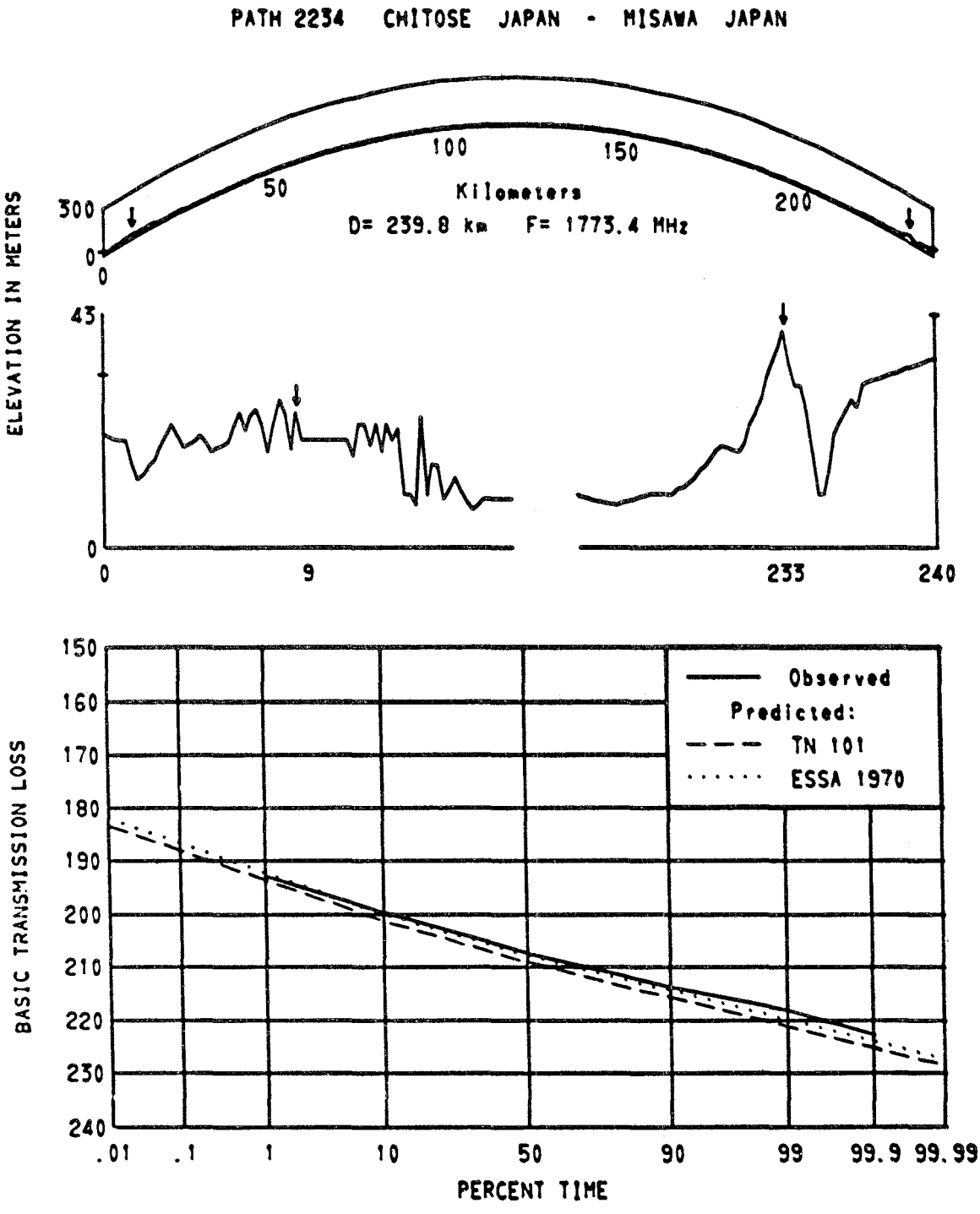


Figure 3.176 Path 2234

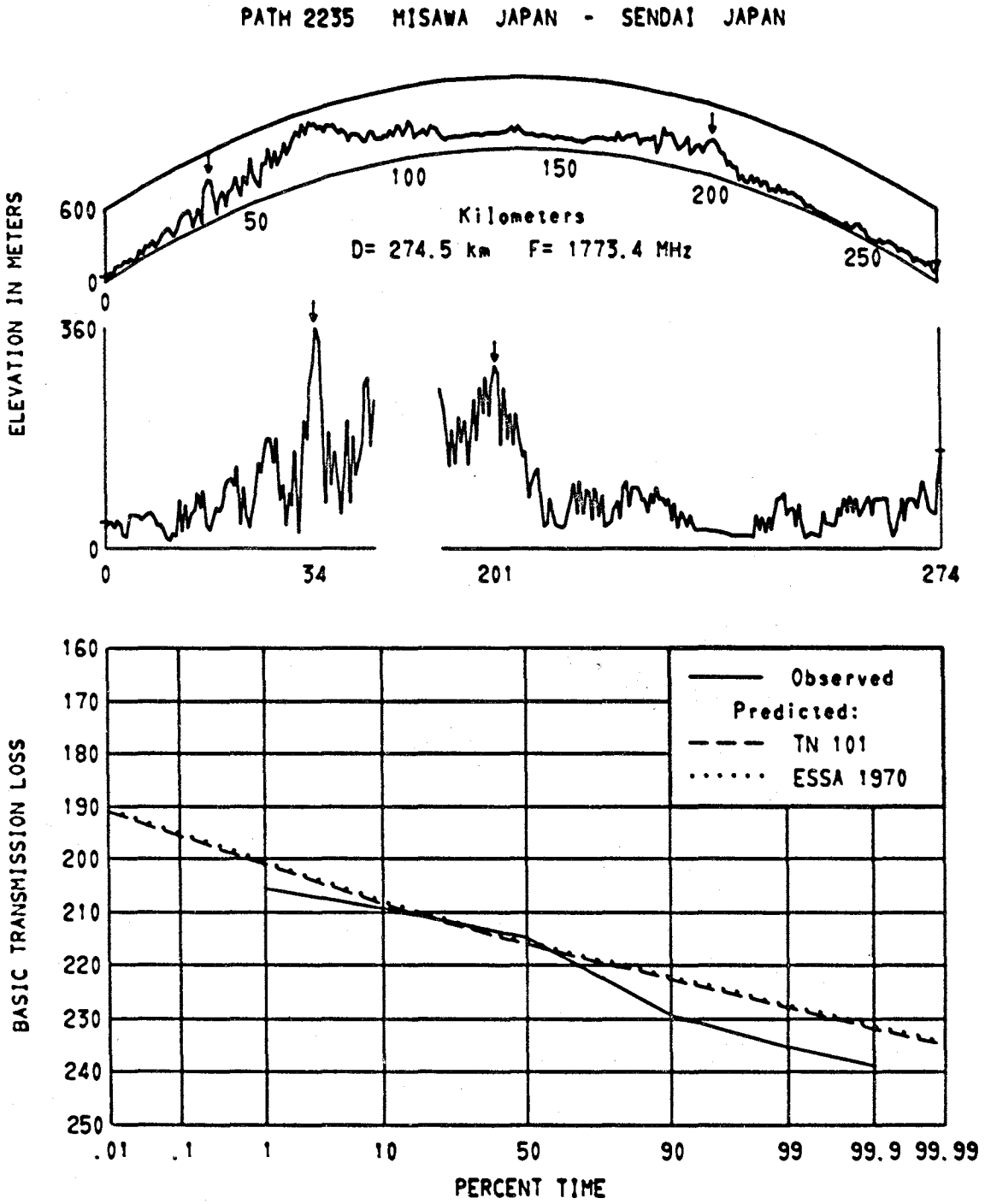


Figure 3.177 Path 2235

PATHS 2266 2267 TOKYO JAPAN - HACHIJO JAPAN

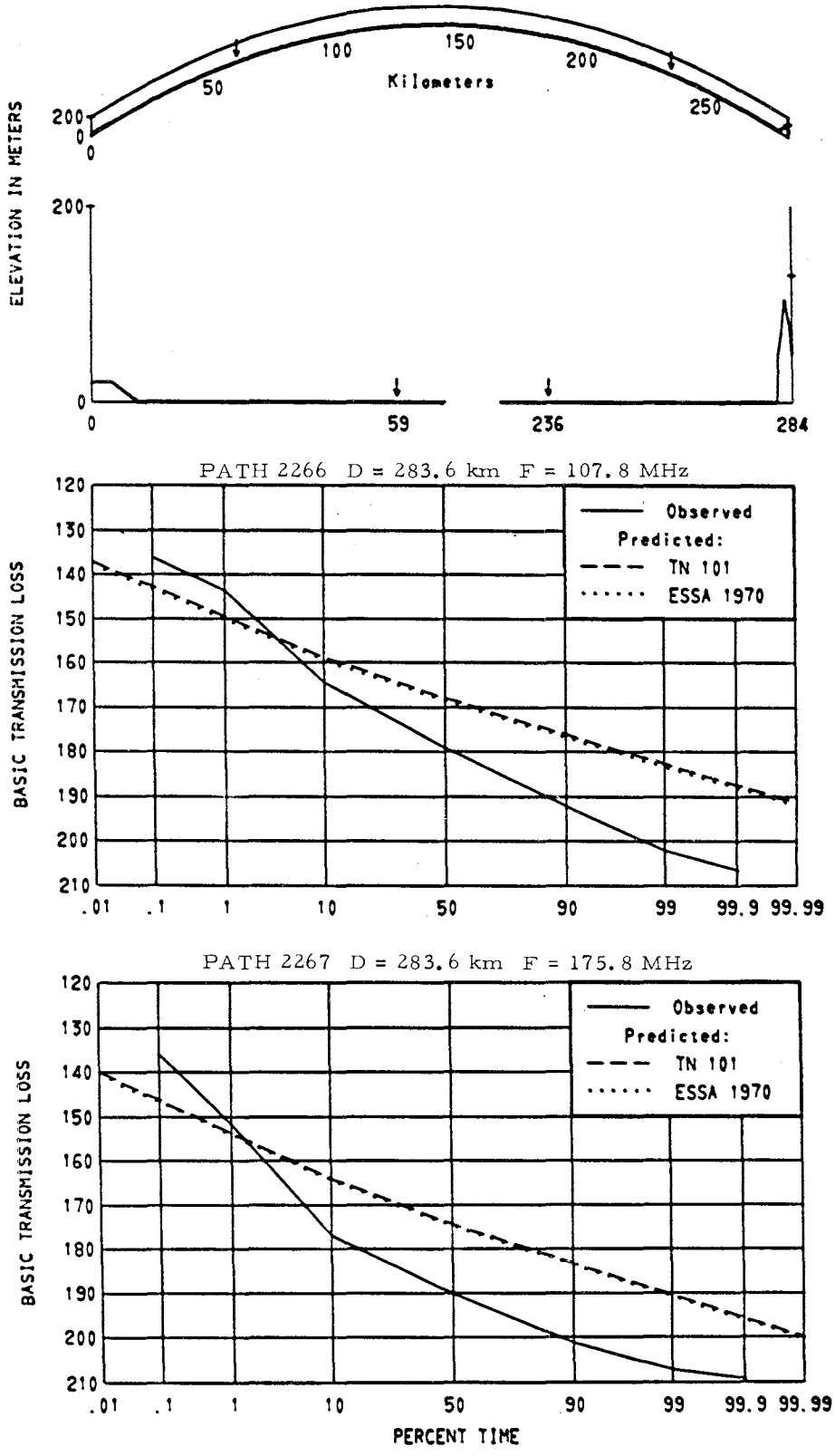


Figure 3.178 Paths 2266 2267

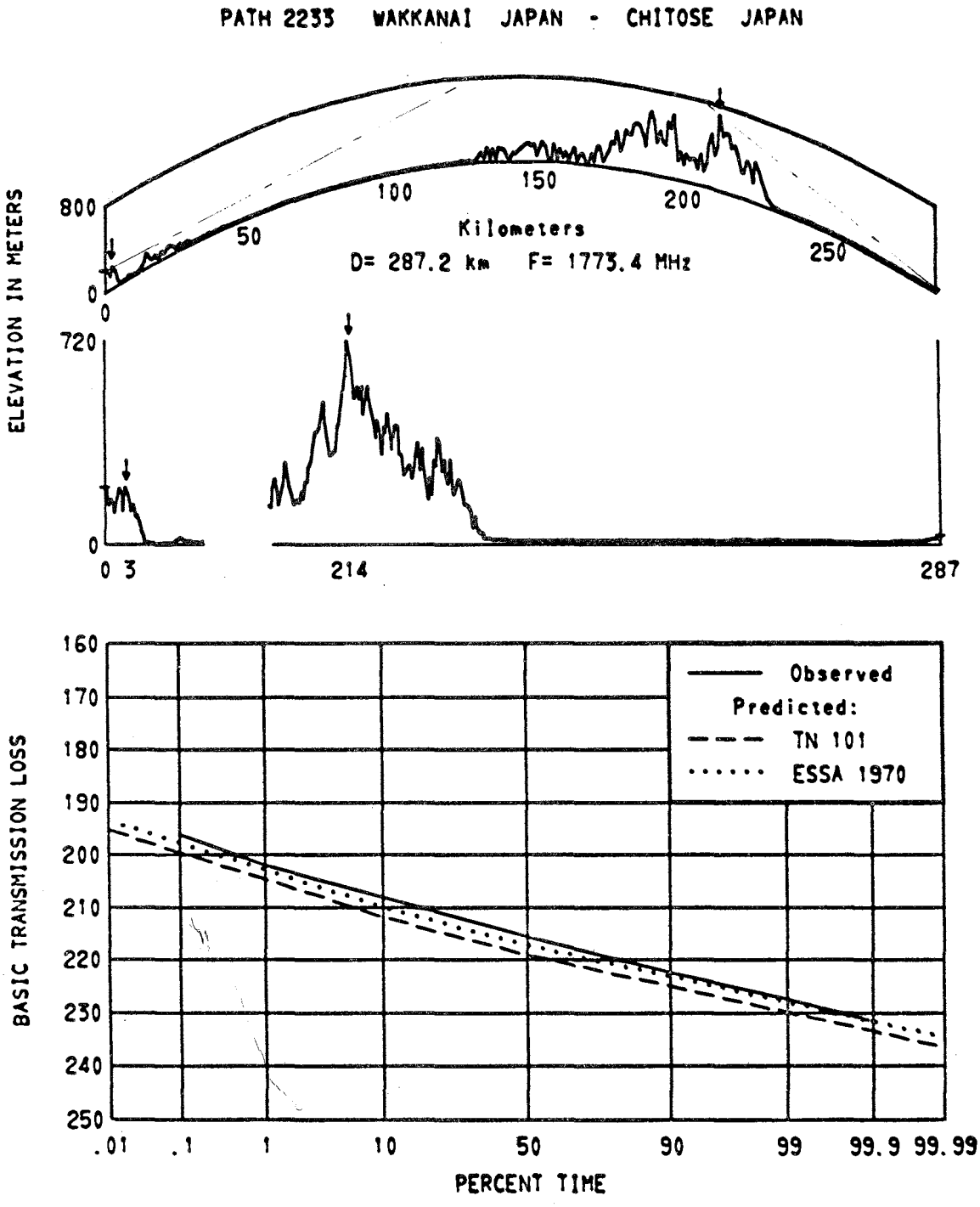


Figure 3.179 Path 2233

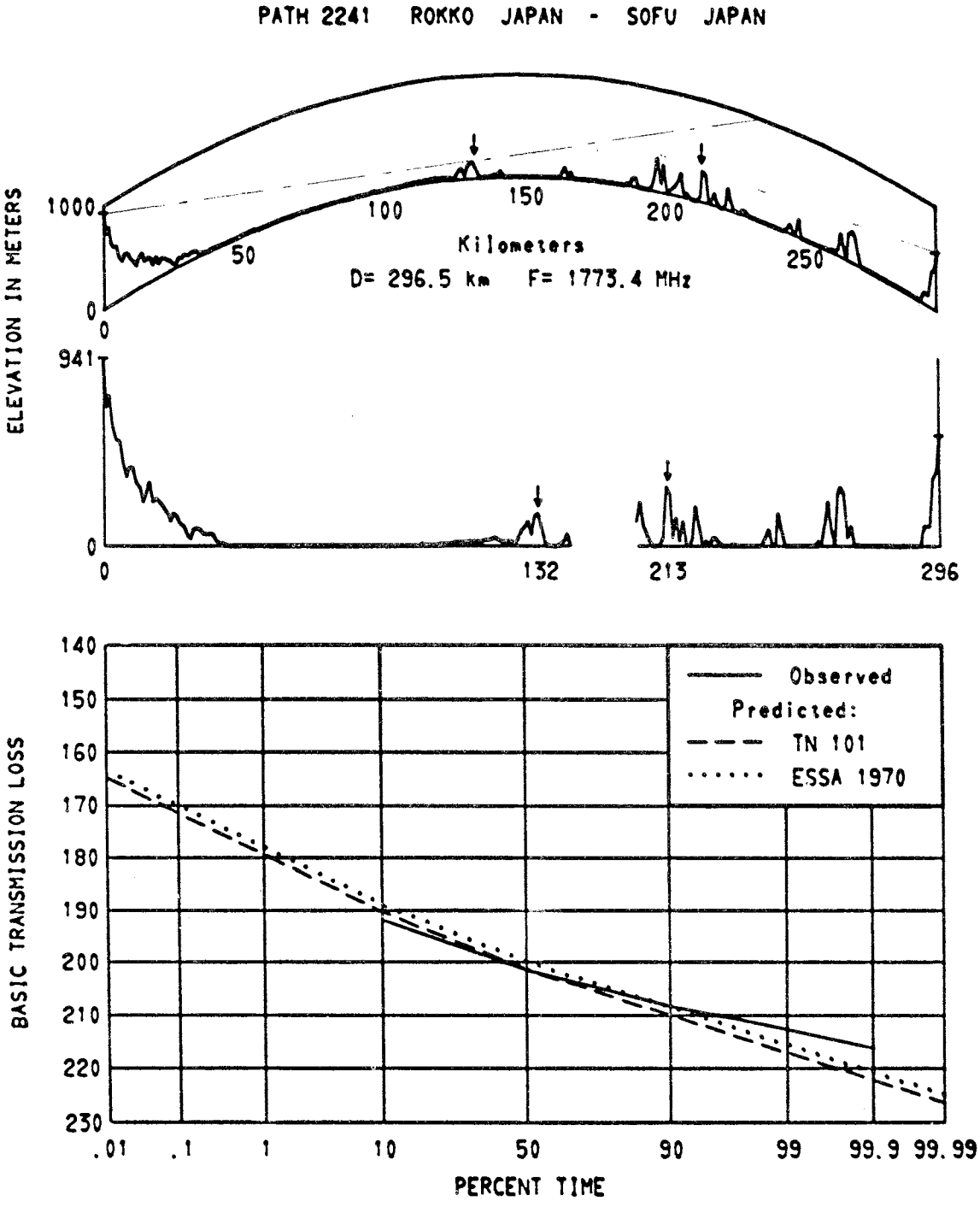


Figure 3.180 Path 2241

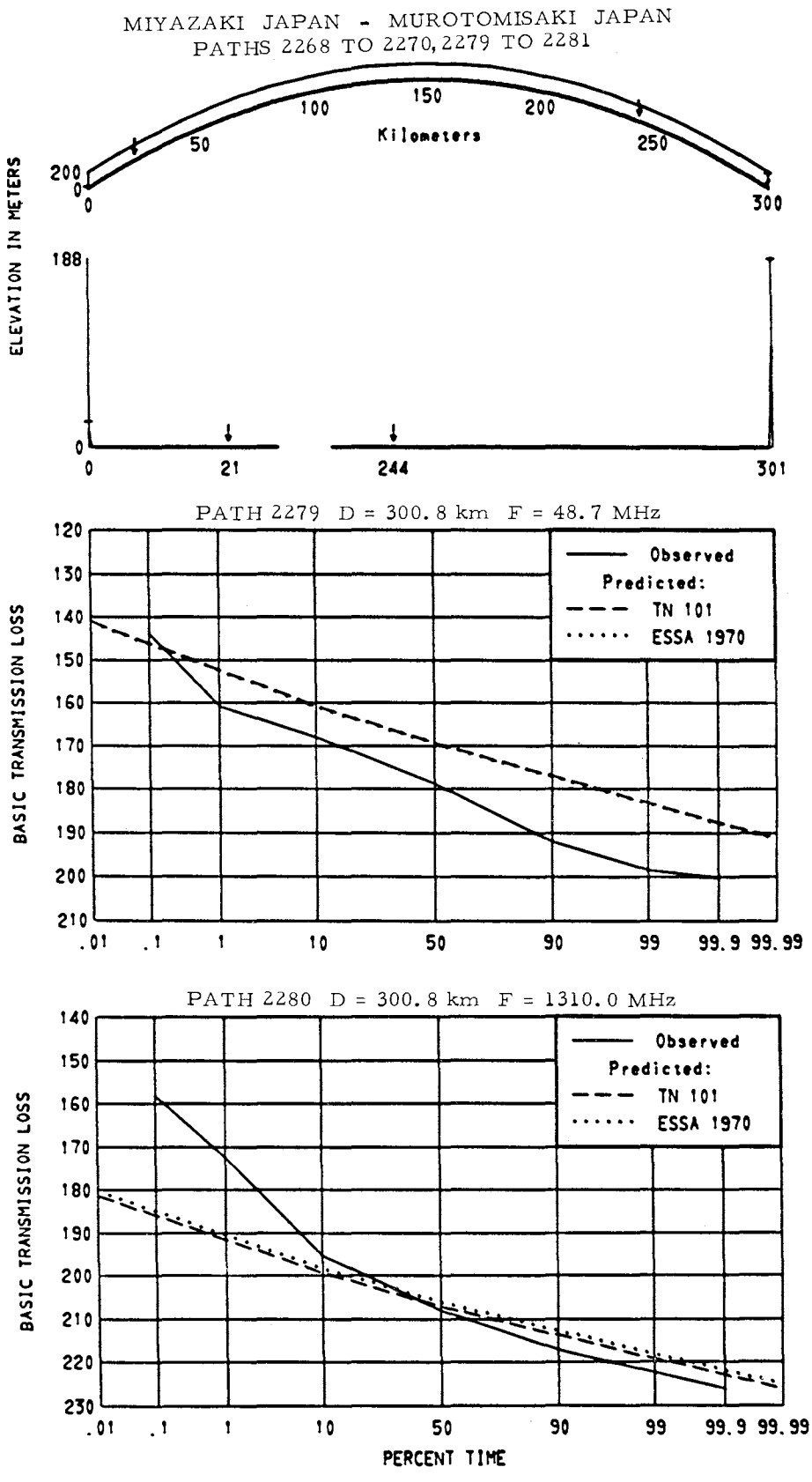


Figure 3.181 Paths 2279 2280

MIYAZAKI JAPAN - MUROTOMISAKI JAPAN

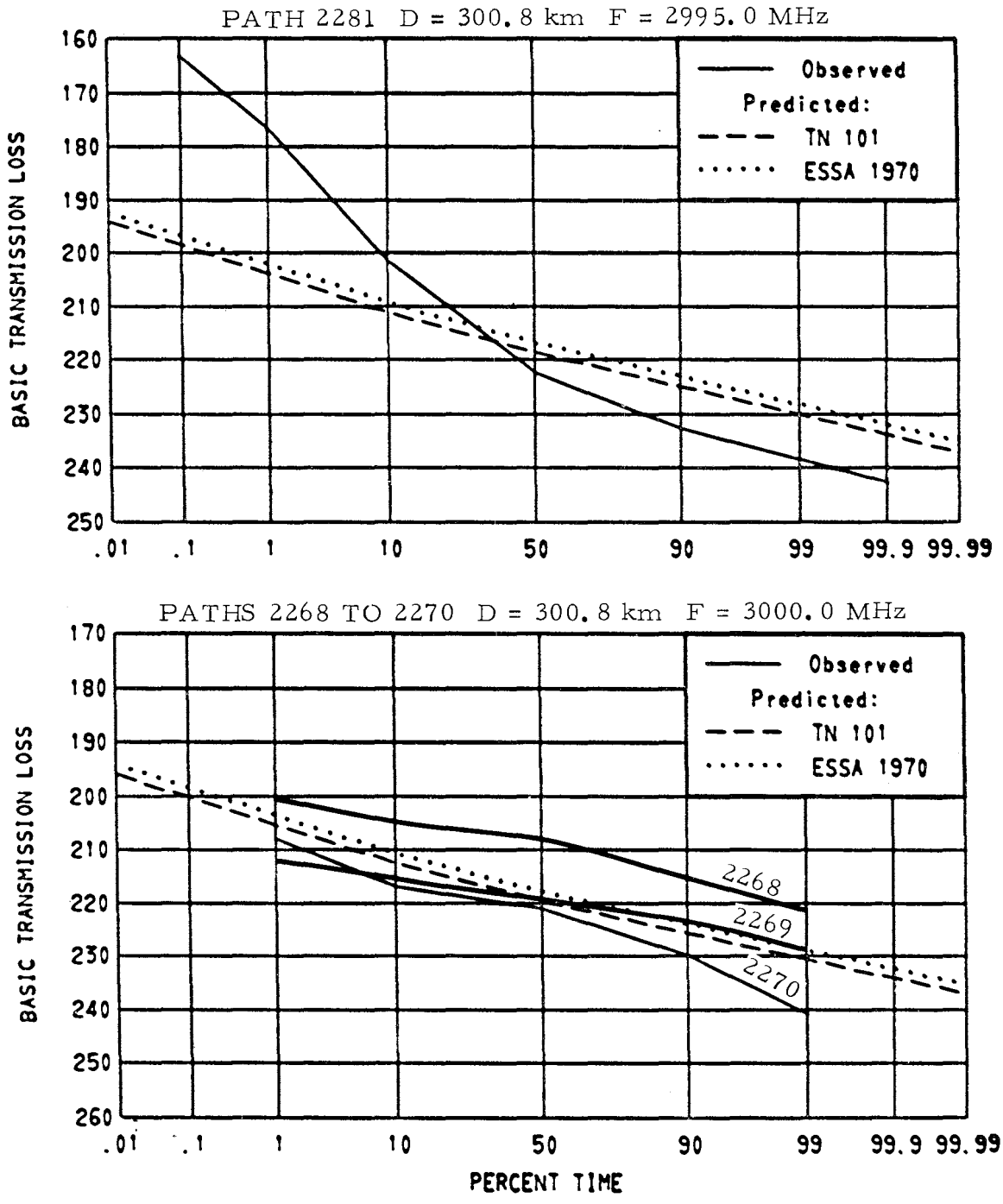


Figure 3.182 Paths 2268 to 2270, 2281

PATHS 2271 TO 2273 KOKUBUNJI JAPAN - SENDAI JAPAN

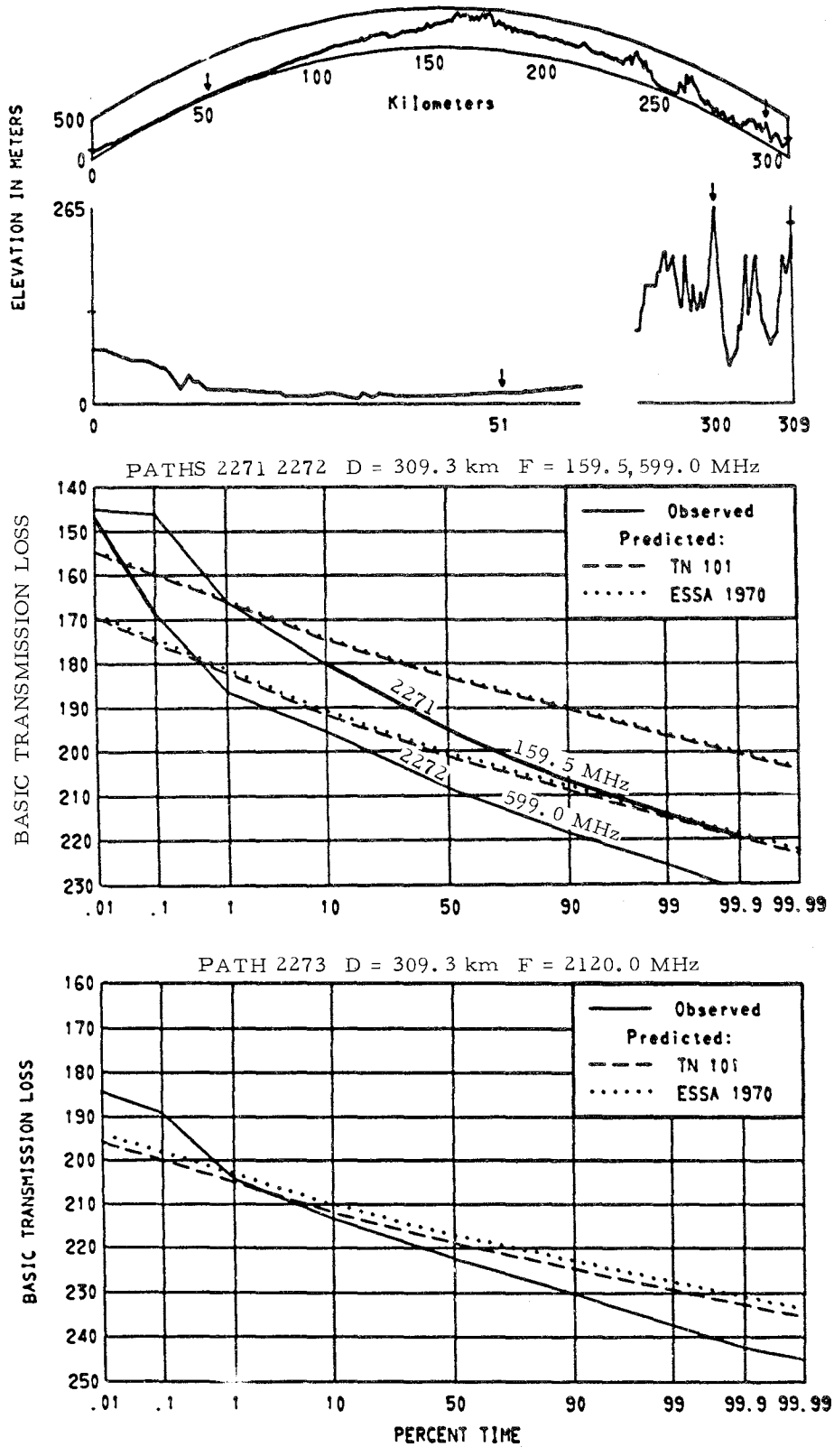


Figure 3.183 Paths 2271 to 2273

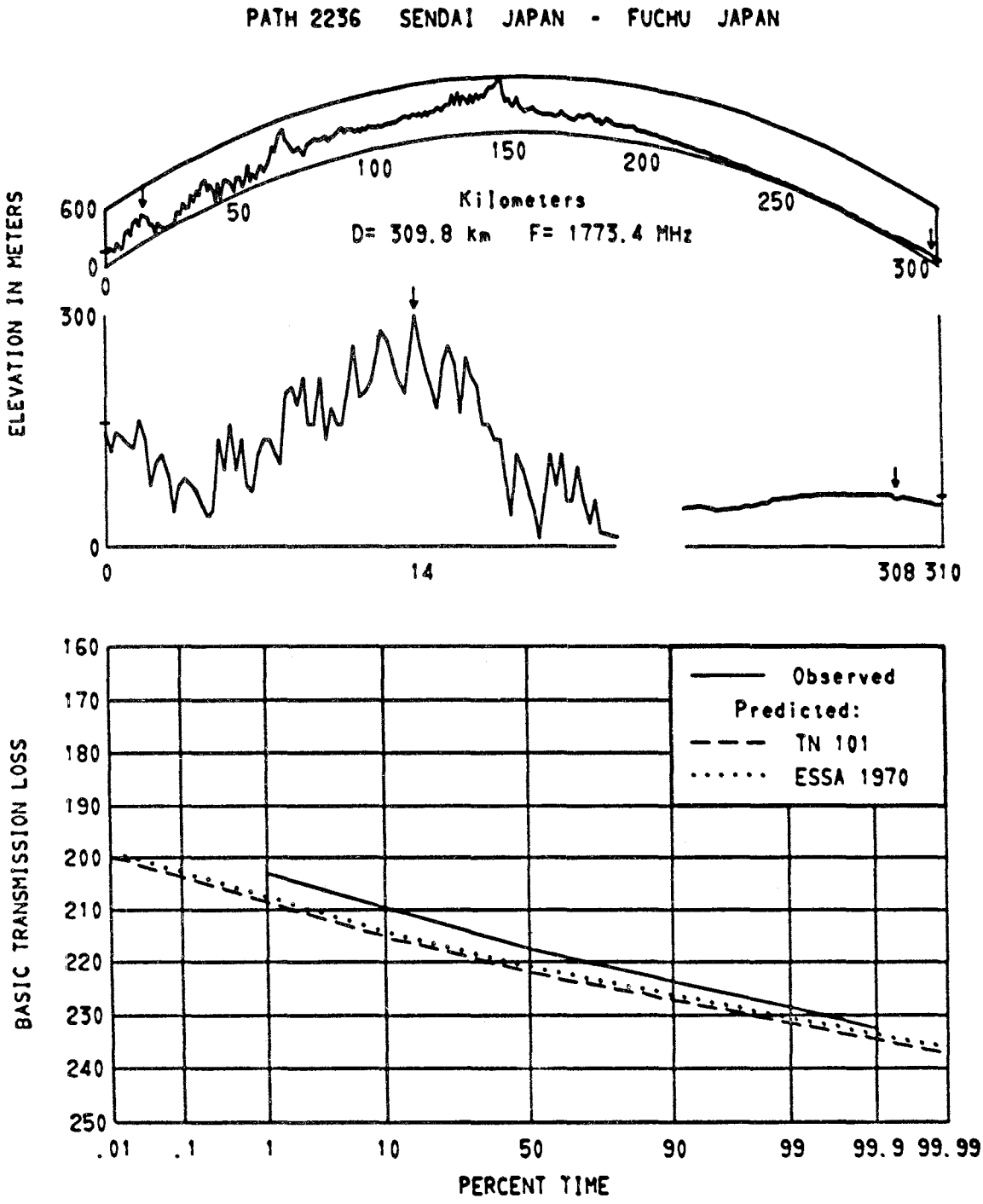
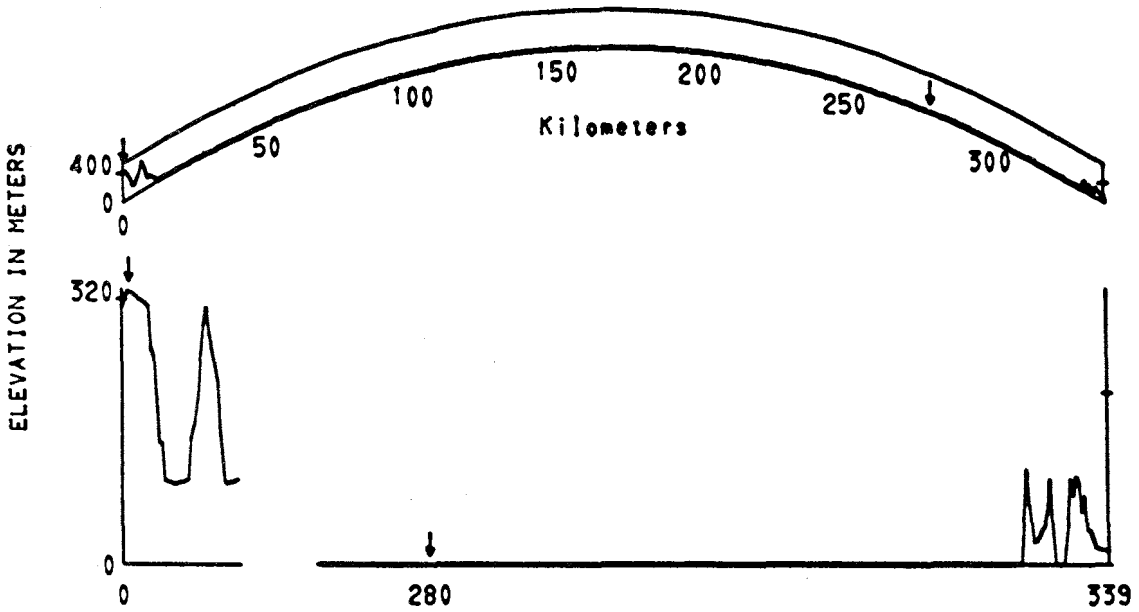


Figure 3.184 Path 2236

PATHS 2289 TO 2291 ASATO JAPAN - IBUSUKI JAPAN



PATHS 2289 TO 2291 D = 339.2 km F = 48.7, 209.0 MHz

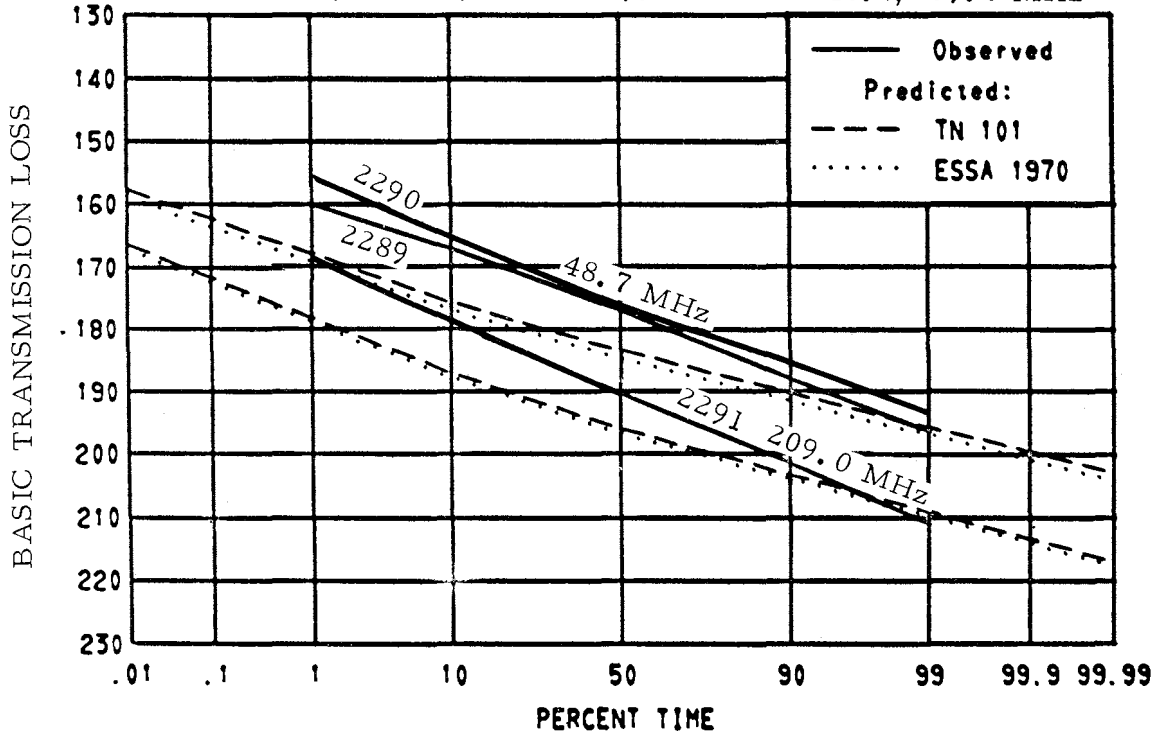
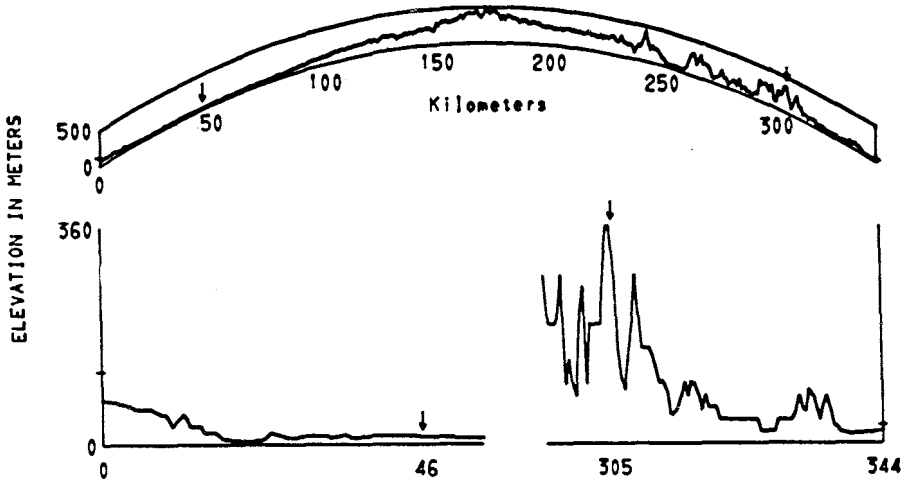
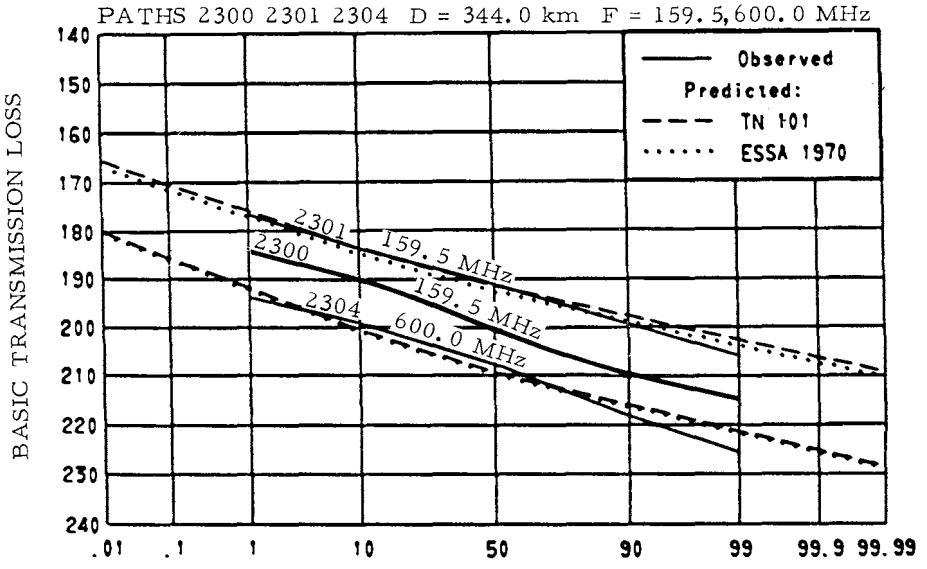


Figure 3.185 Paths 2289 to 2291

PATHS 2300 2301 2304 2306 KOKUBUNJI JAPAN - FURUKAWA JAPAN





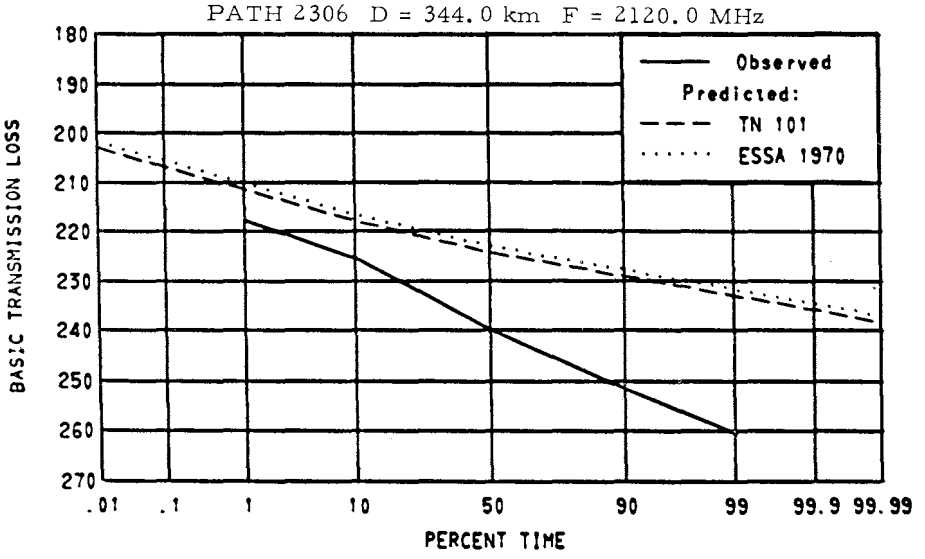


Figure 3.186 Paths 2300 2301 2304 2306

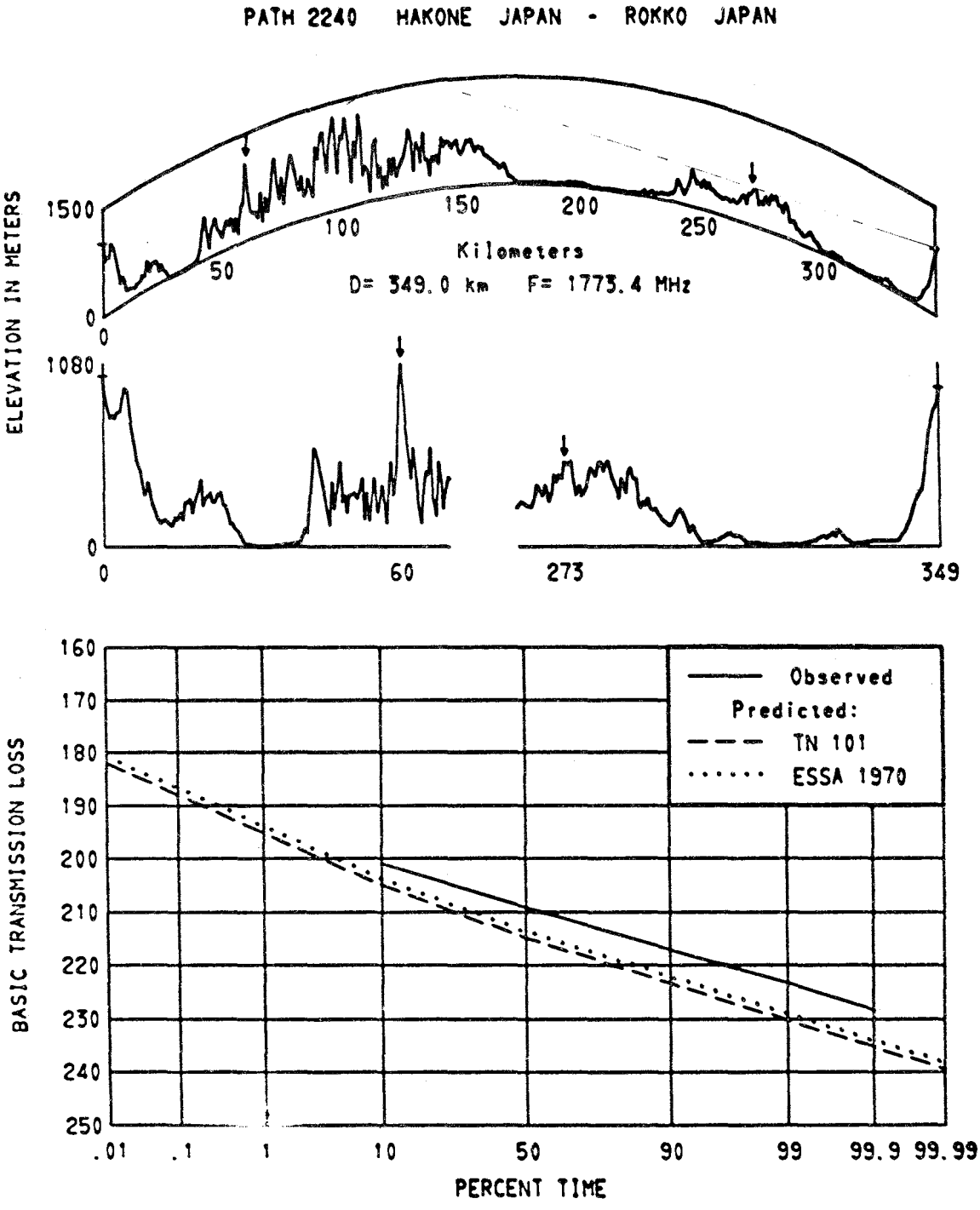


Figure 3.187 Path 2240

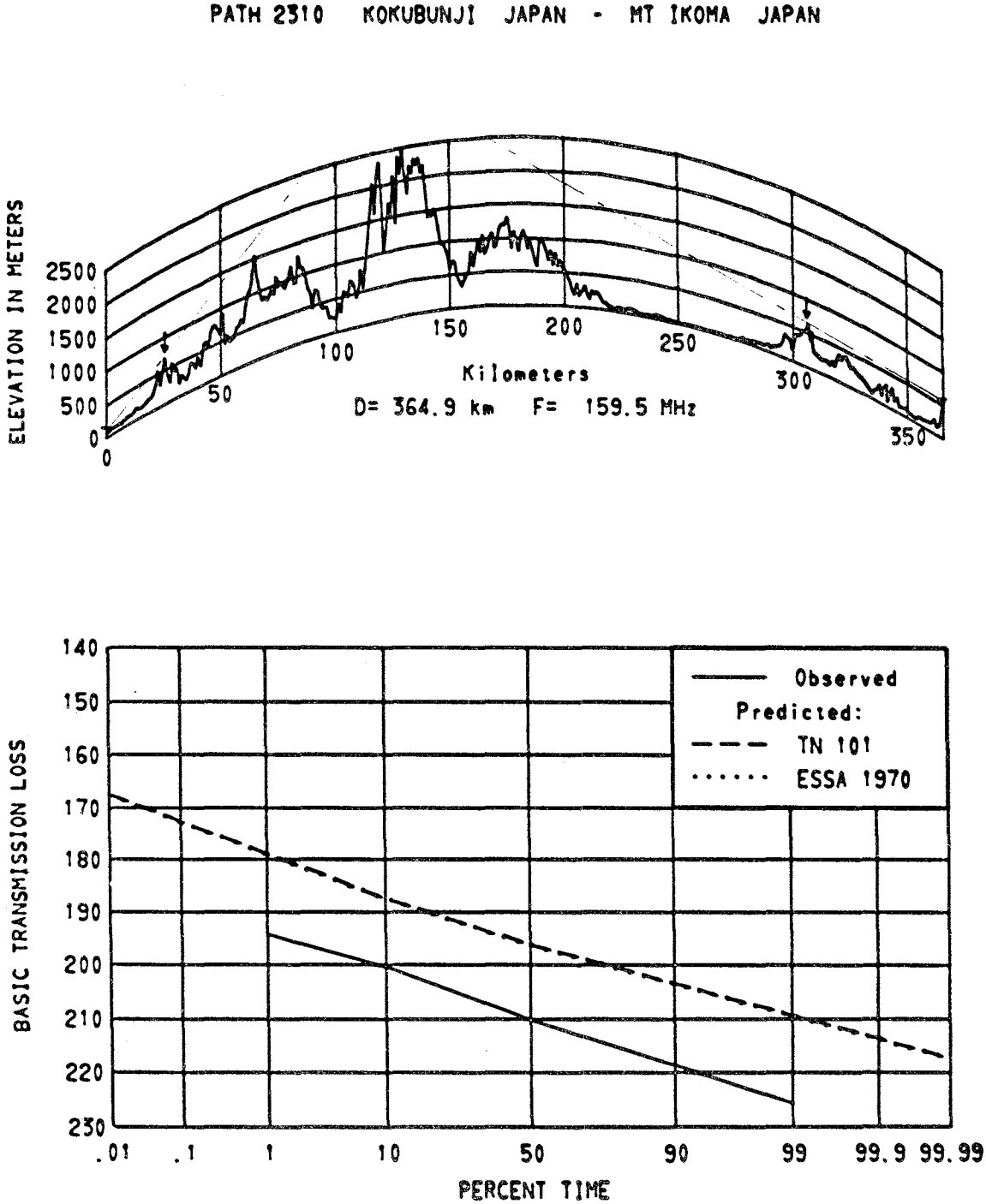
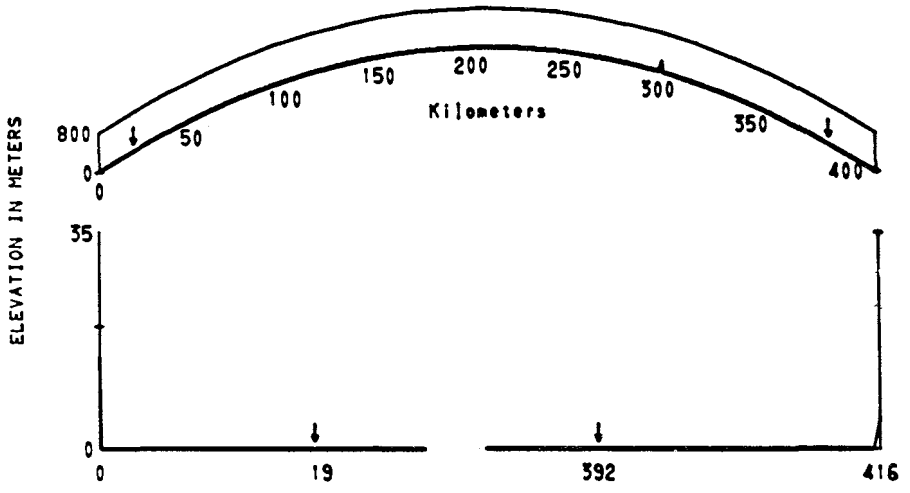
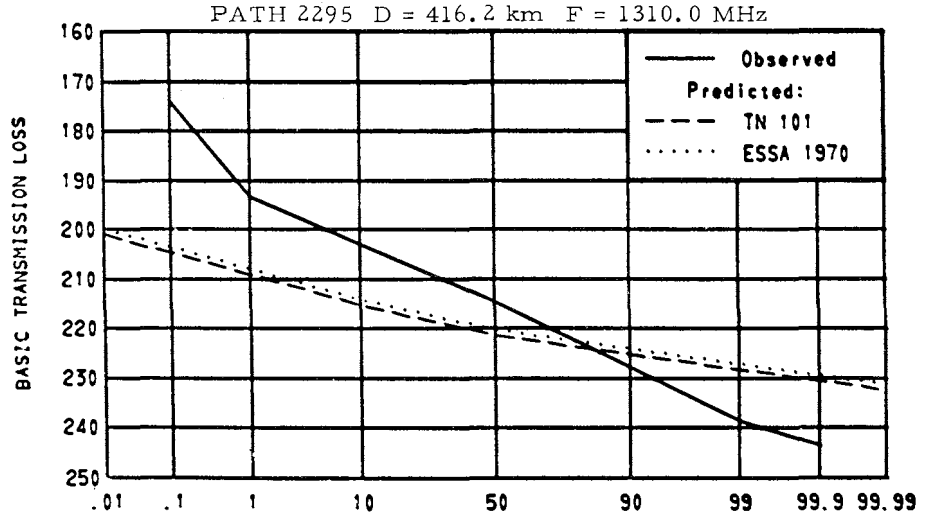


Figure 3.188 Path 2310

PATHS 2295 2296 MIYAZAKI JAPAN - INAMI JAPAN



PATH 2295 D = 416.2 km F = 1310.0 MHz



PATH 2296 D = 416.2 km F = 2995.0 MHz

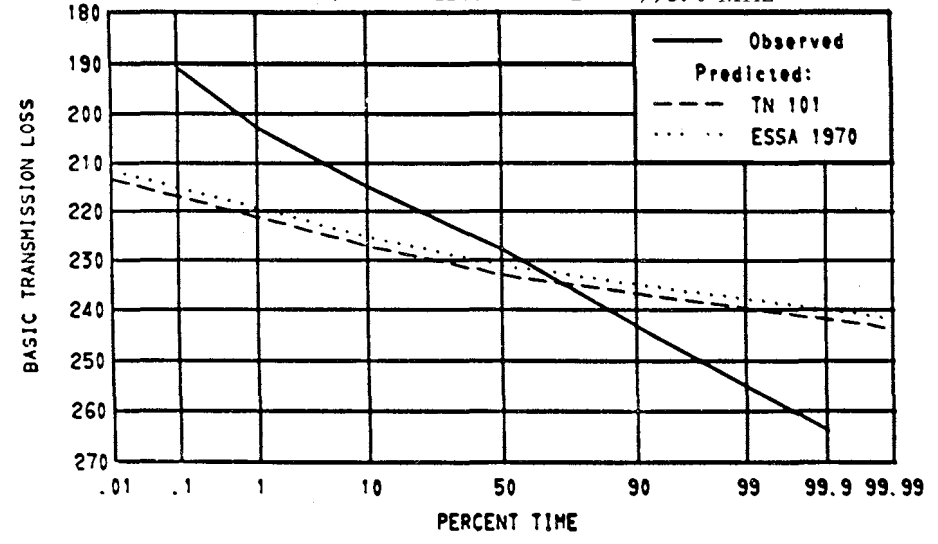


Figure 3.189 Paths 2295 2296

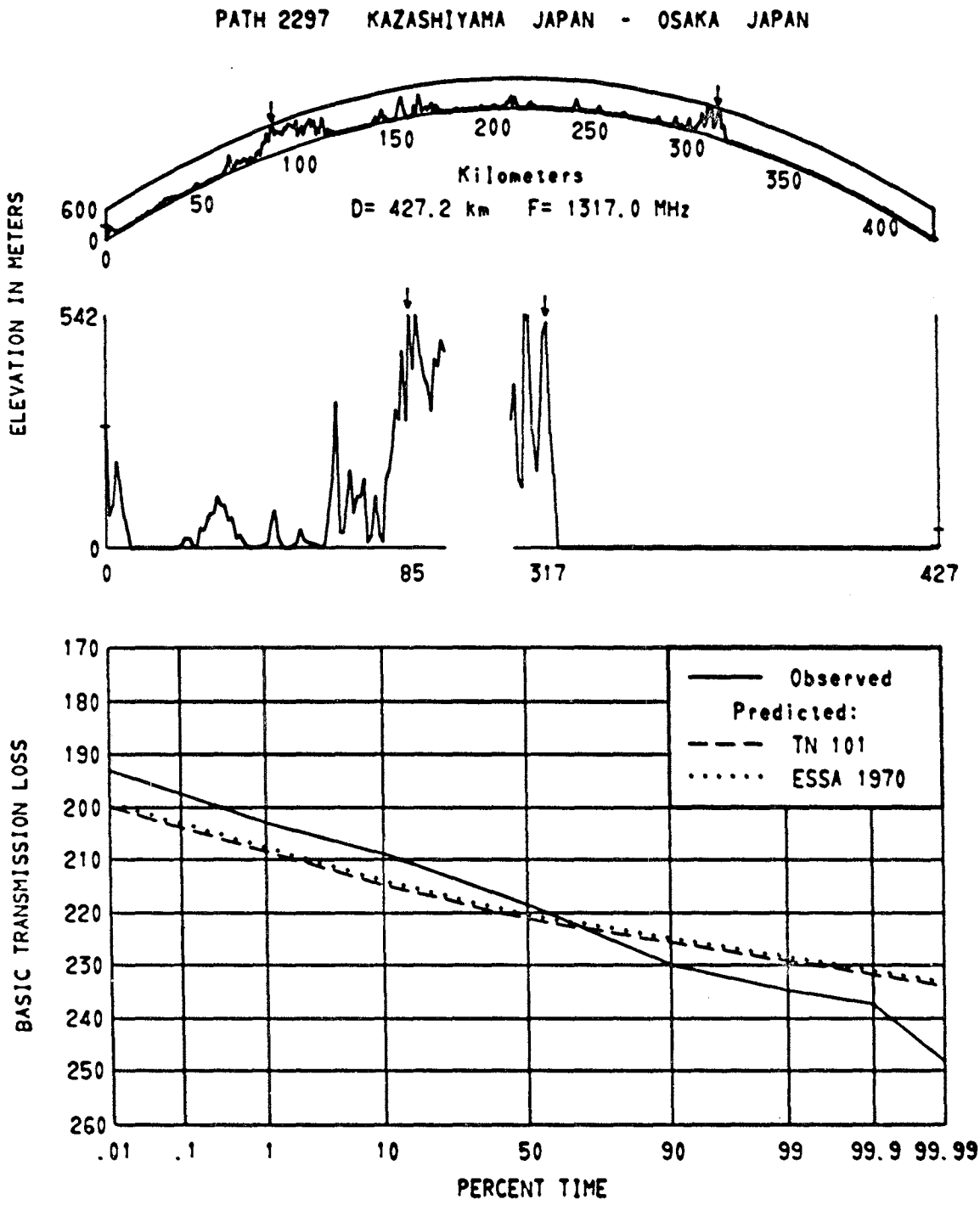
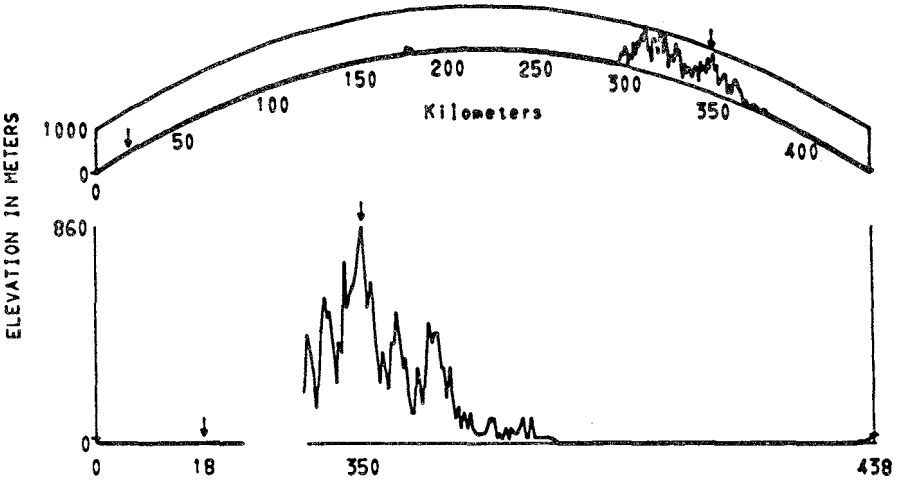
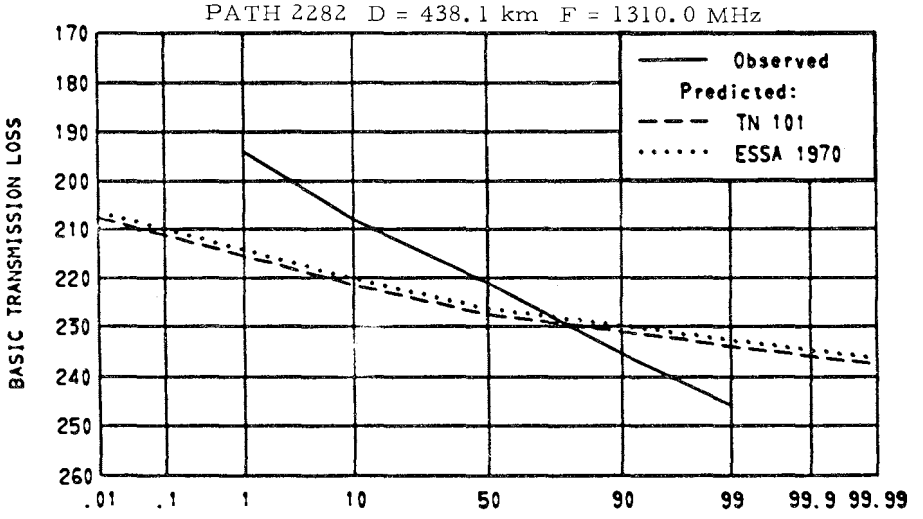


Figure 3.190 Path 2297

PATHS 2282 2283 MIYAZAKI JAPAN - WAKAYAMA JAPAN



PATH 2282 D = 438.1 km F = 1310.0 MHz



PATH 2283 D = 438.1 km F = 2995.0 MHz

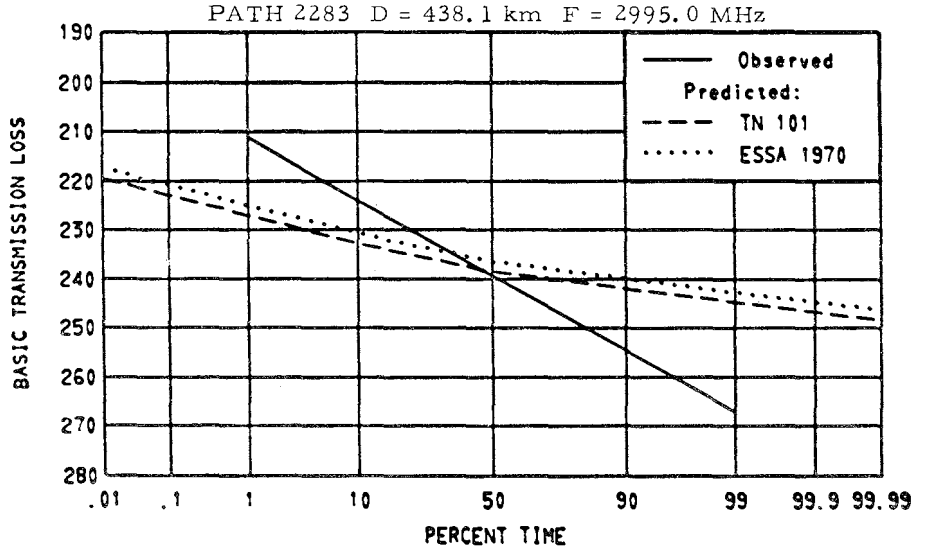


Figure 3.191 Paths 2282 2283

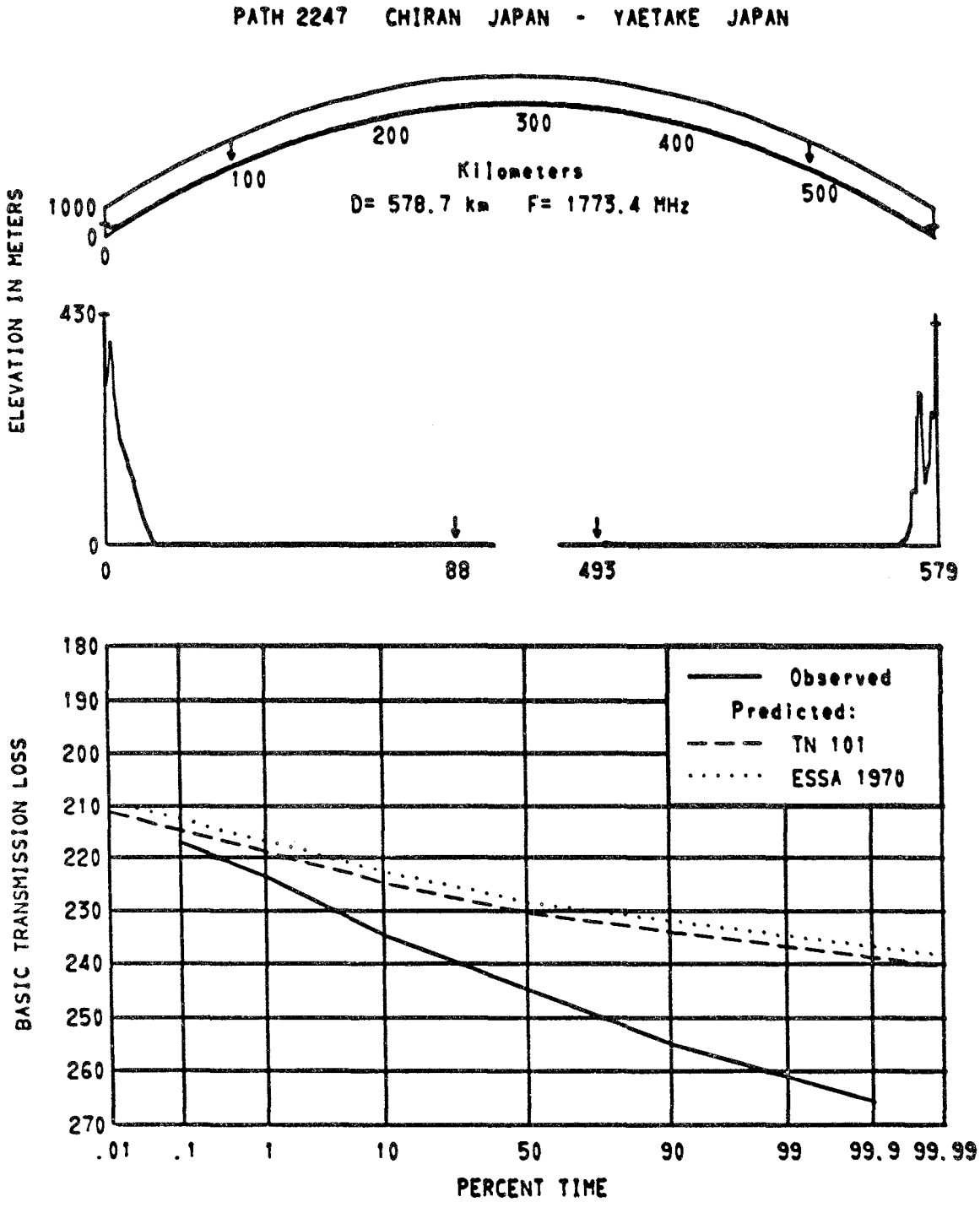
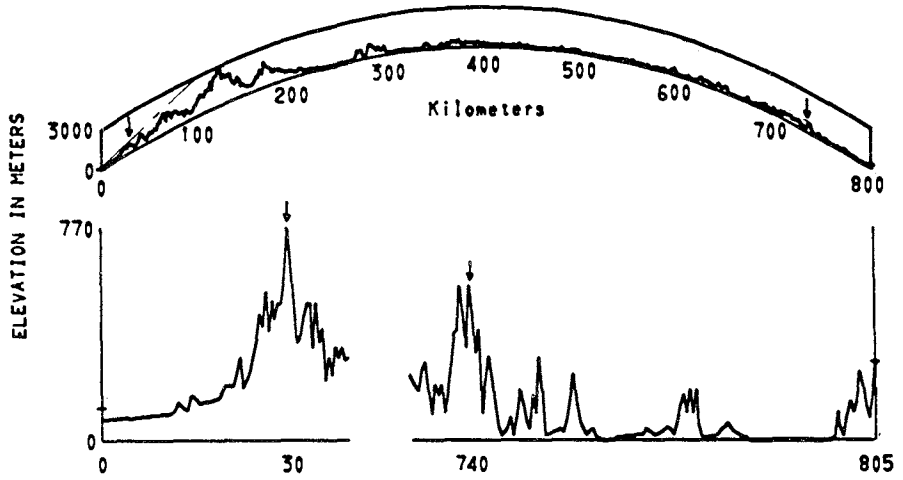
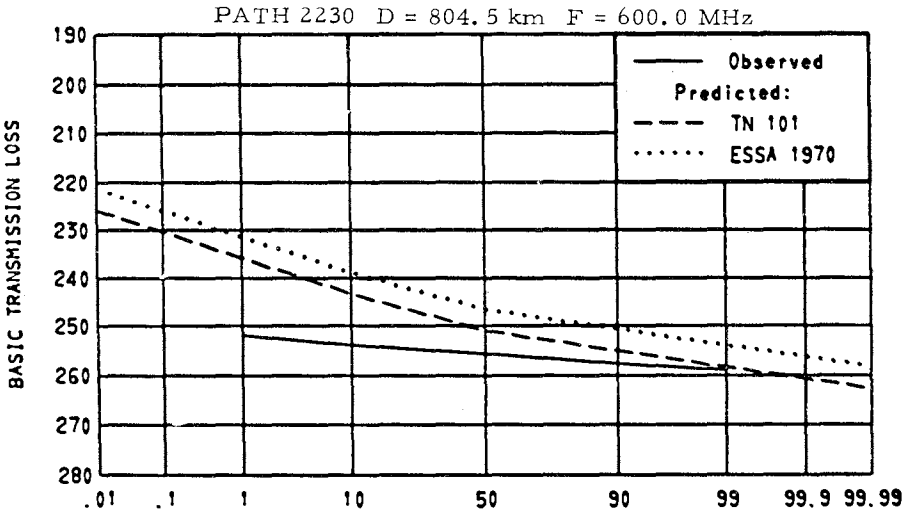


Figure 3.192 Path 2247

PATHS 2230 2231 KOKUBUNJI JAPAN - MT KAZASI JAPAN





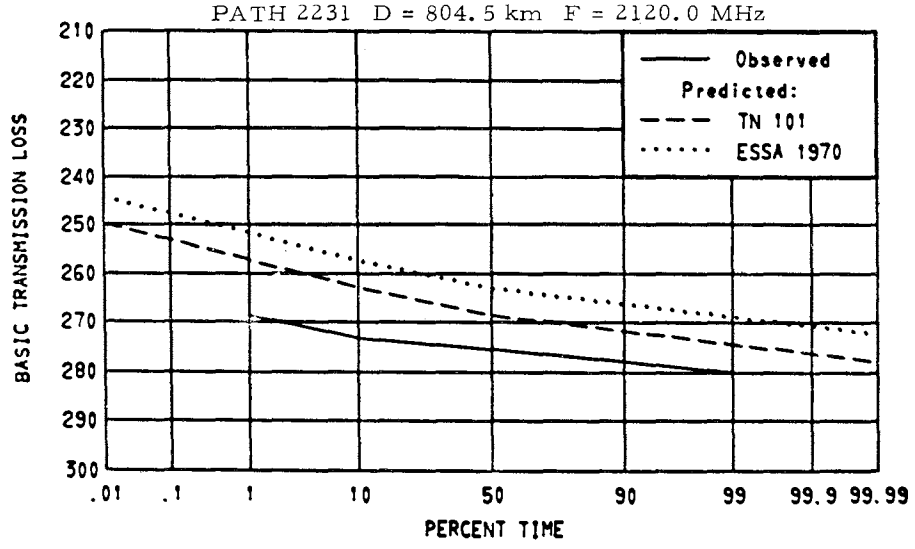
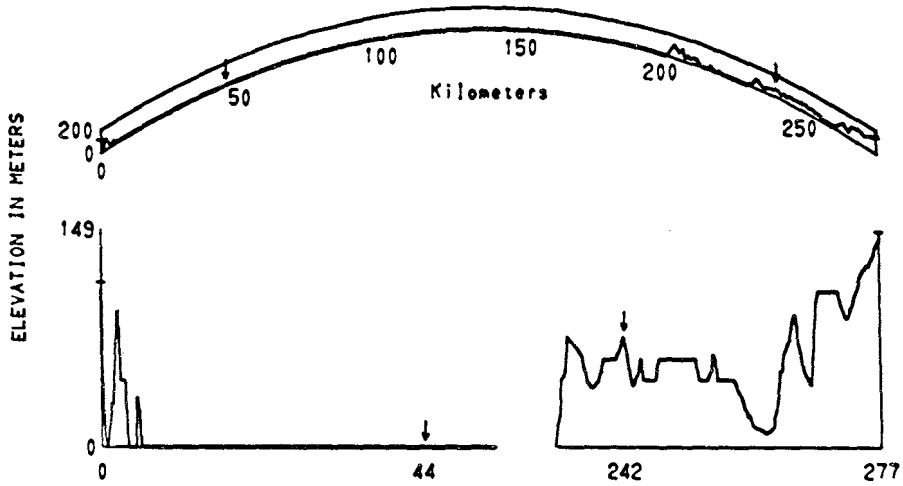
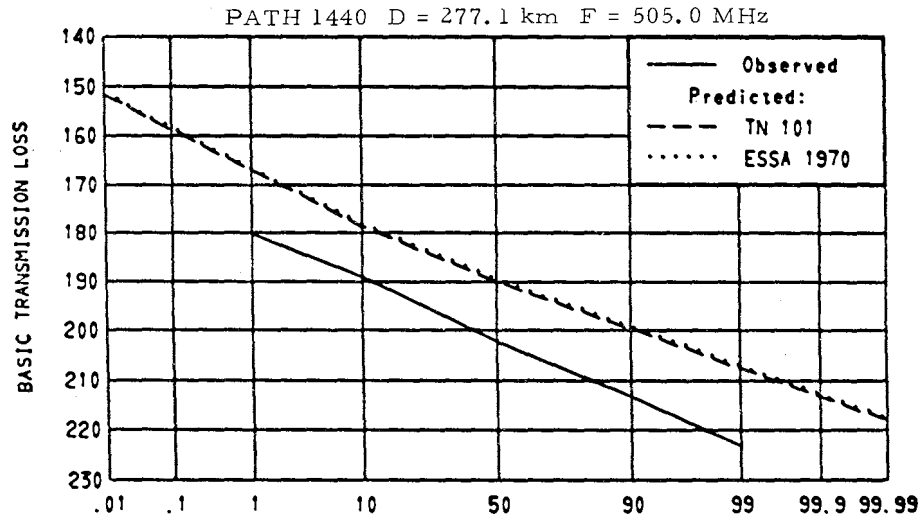


Figure 3.193 Paths 2230 2231

PATHS 1440 1441 ST ANTHONY CAN - GANDER CAN





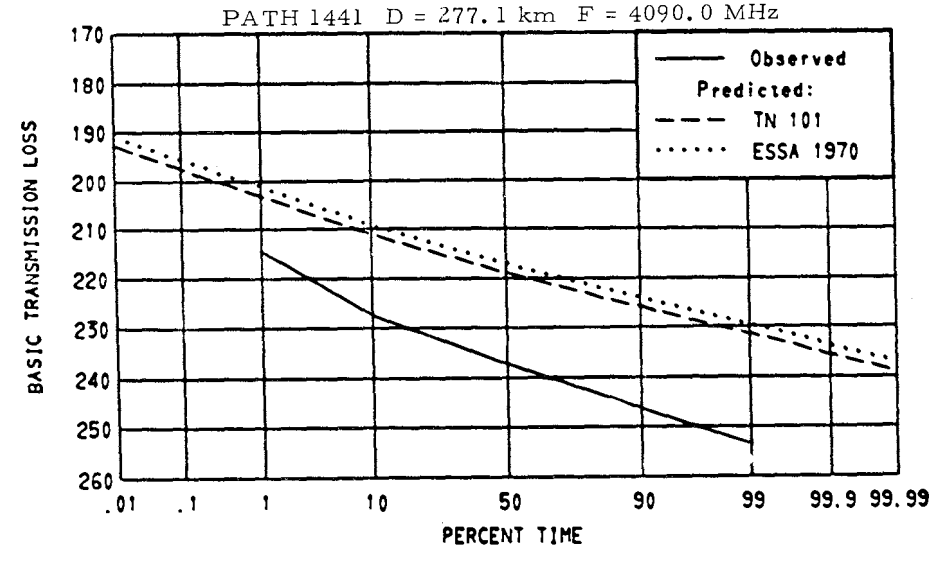


Figure 3.194 Paths 1440 1441

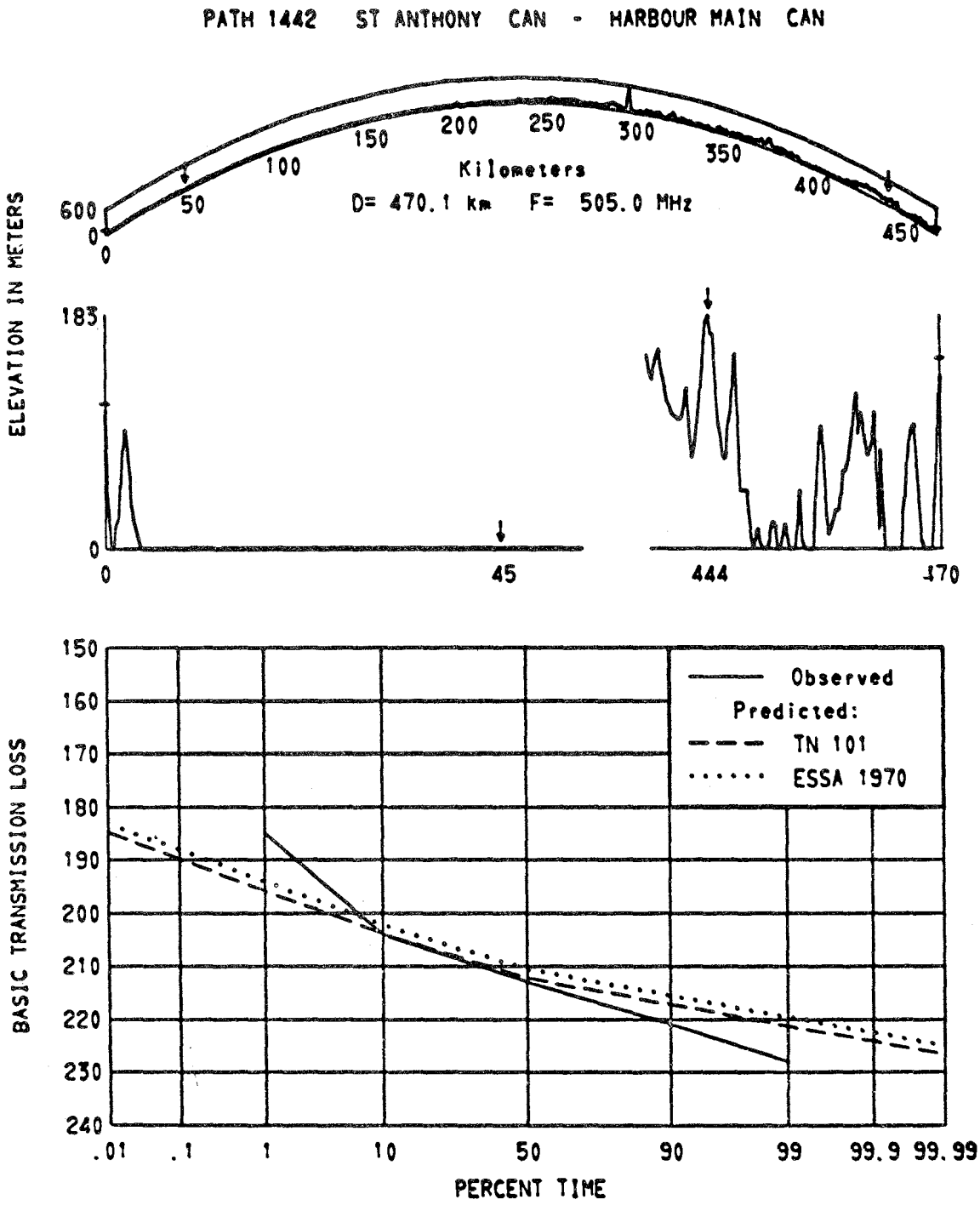


Figure 3.195 Path 1442

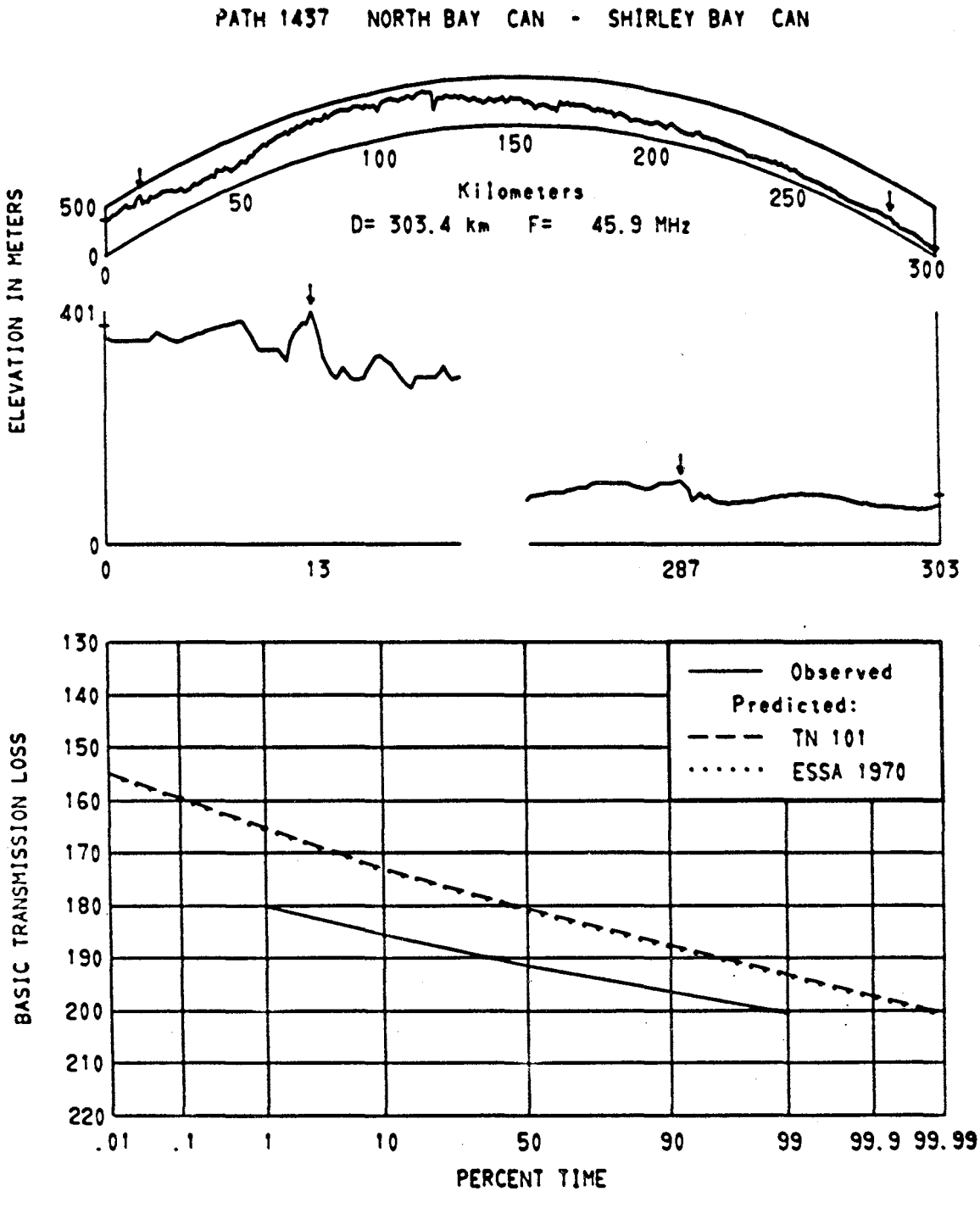


Figure 3.196 Path 1437

PATHS 1438 1439 OTTAWA CAN - TORONTO CAN

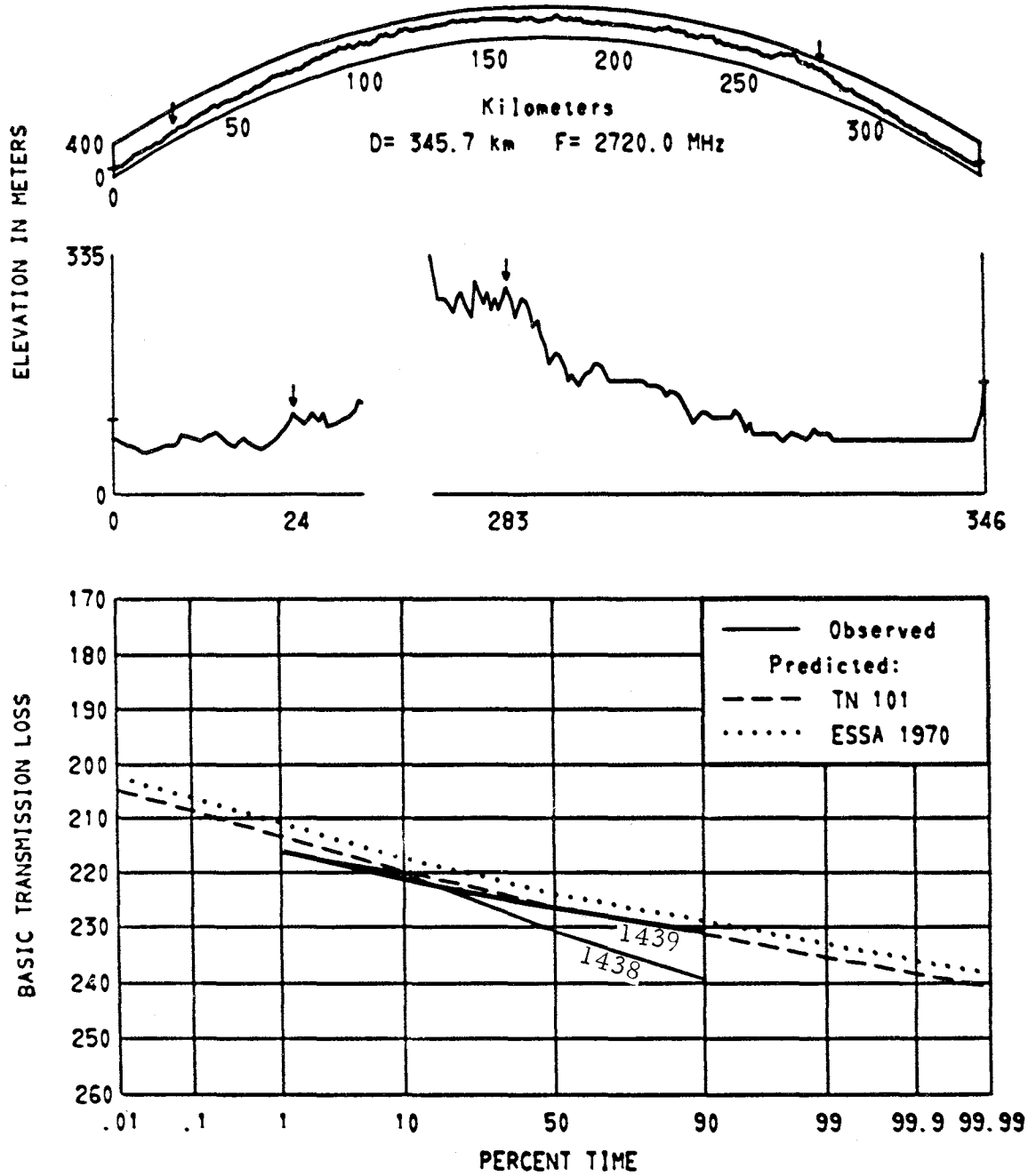


Figure 3.197 Paths 1438 1439

PATHS 2636 2637 LANNION FR - VILLEDIEU FR

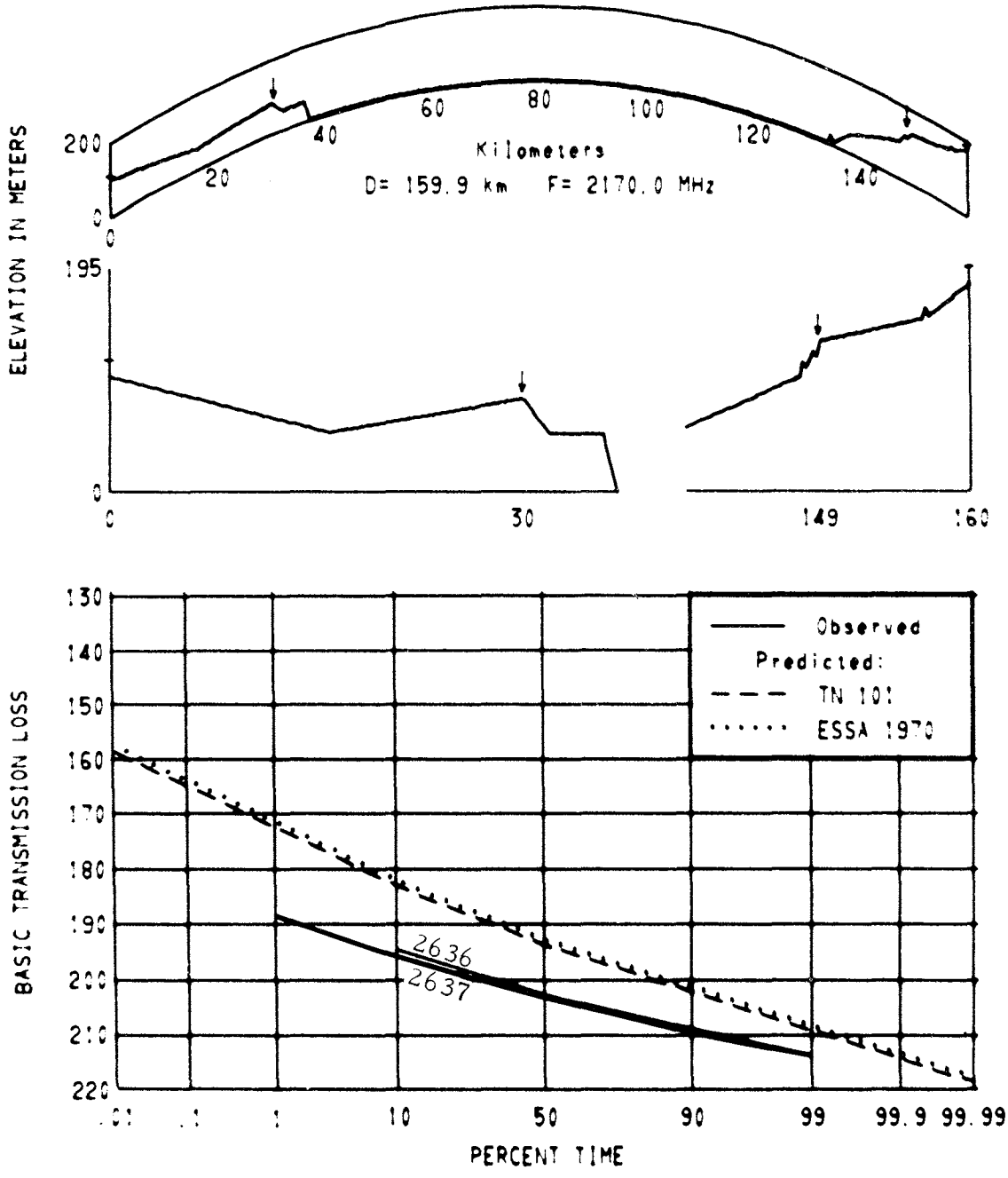
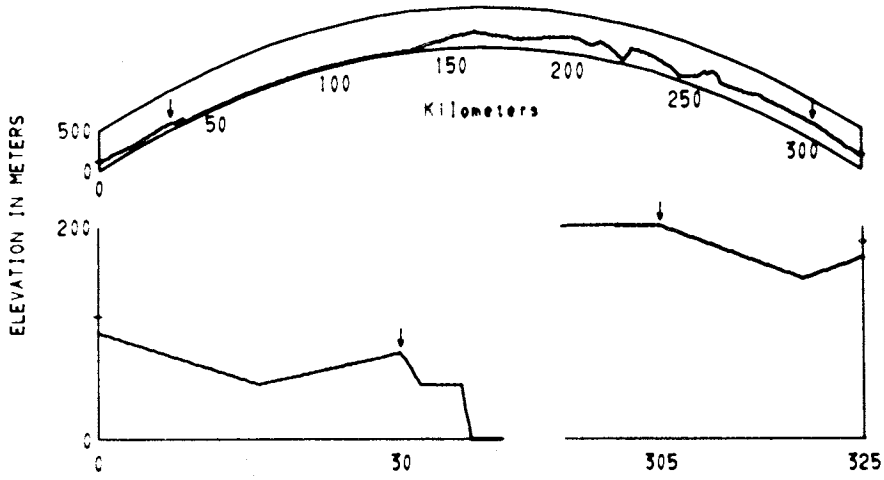
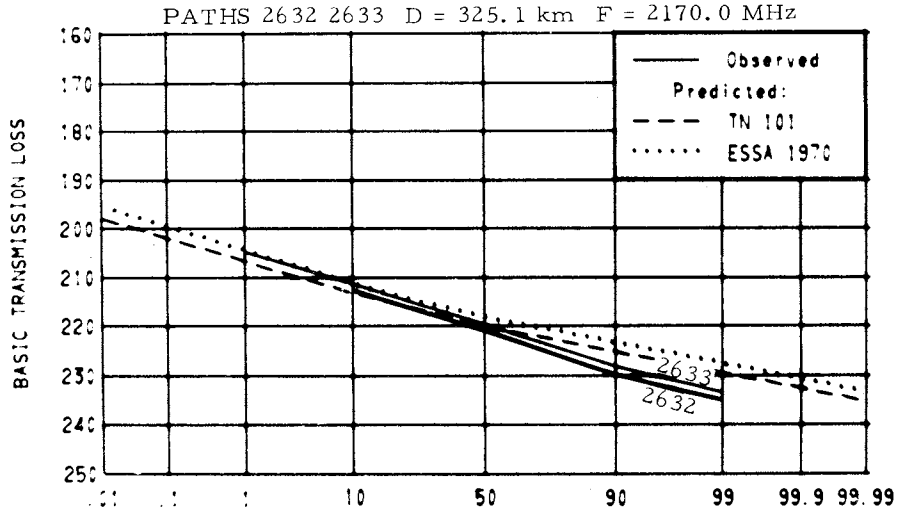


Figure 3.198 Paths 2636 2637

PATHS 2632 TO 2635 LANNION FR - CONCHES FR



PATHS 2632 2633 D = 325.1 km F = 2170.0 MHz



PATHS 2634 2635 D = 325.1 km F = 2170.0 MHz

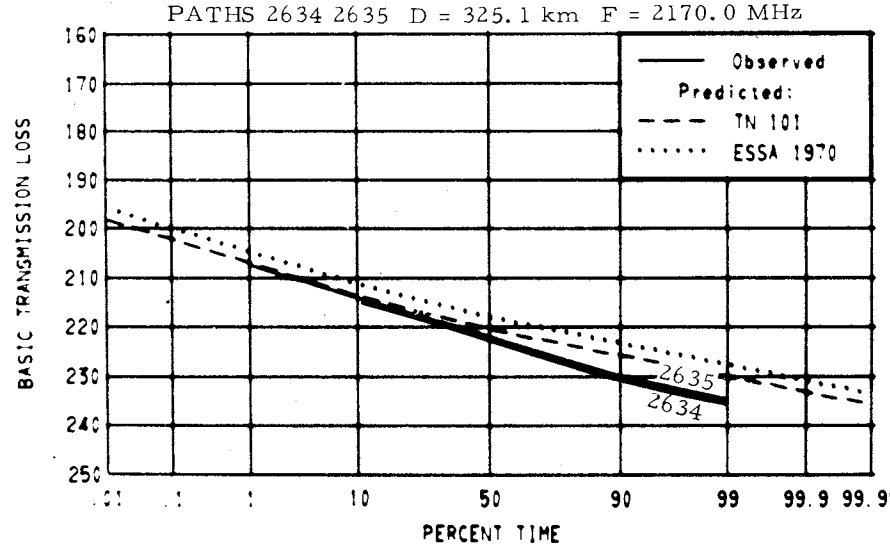


Figure 3.199 Paths 2632 to 2635

PATHS 2638 2639 LANNION FR - LAFERTE SOUS JOUARRE FR

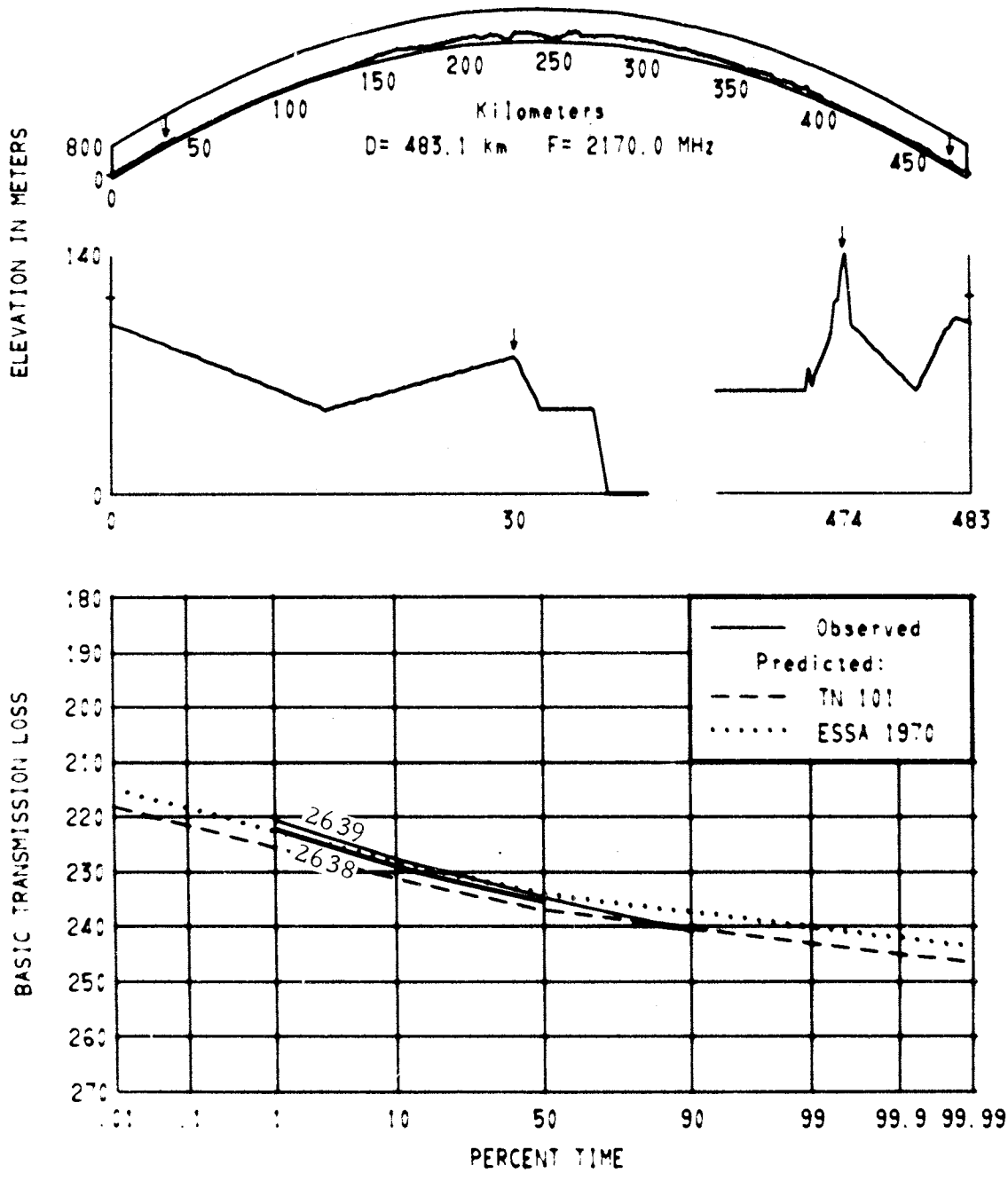


Figure 3.200 Paths 2638 2639

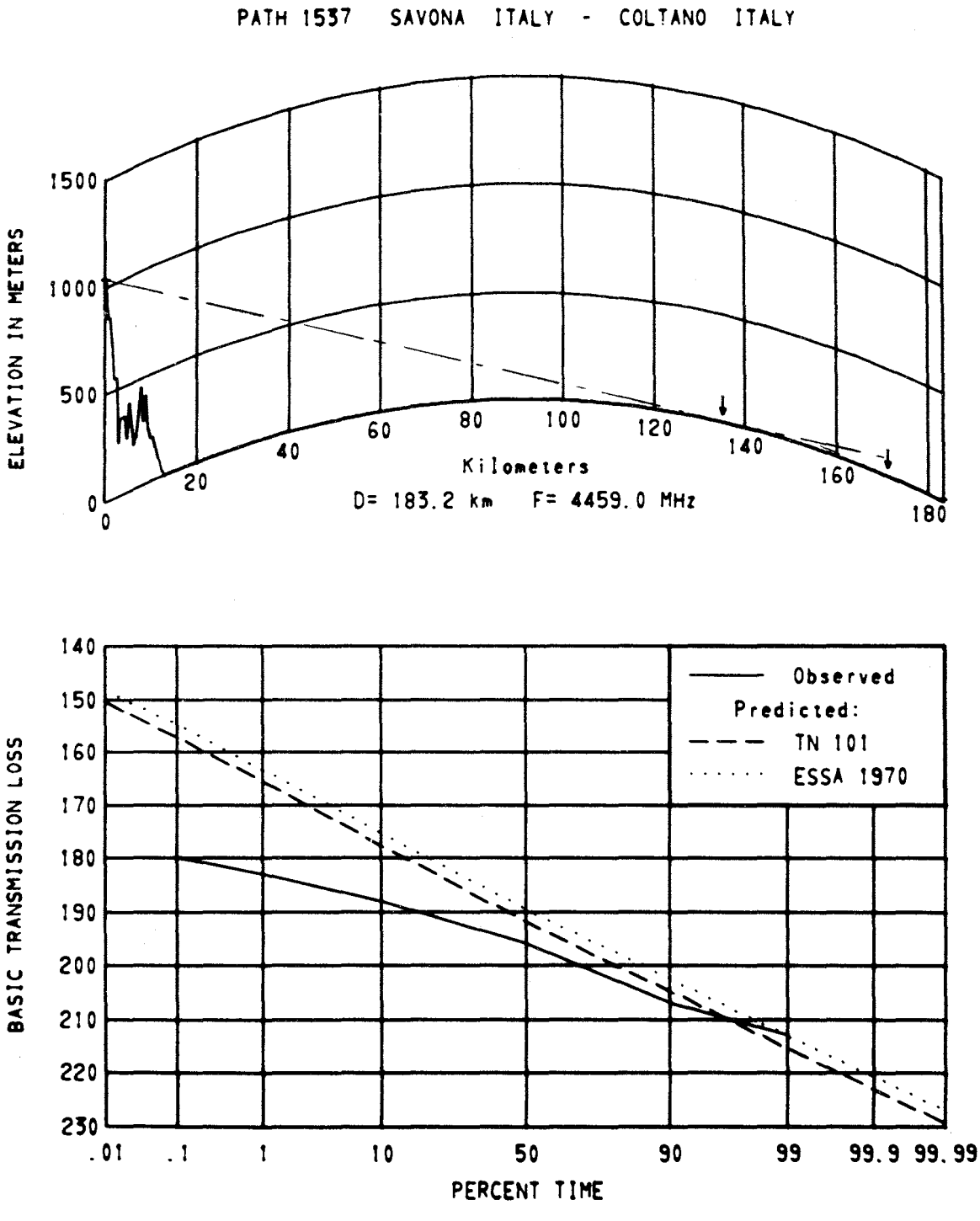


Figure 3.201 Path 1537

GPO 836-790