

Geology
GJBX-70-70

GJBX- 70 '80

GEOLOGY

Airborne Gamma - Ray Spectrometer
and
Magnetometer Survey

Birmingham Quadrangle
(Alabama)

Final Report
Volume II

GEOLOGICAL SURVEY OF WYOMING

prepared by

HIGH LIFE HELICOPTERS, Inc. / QEB, Inc.

Puyallup, Washington

Hayward, California

Prepared for the U. S. Department of Energy
Grand Junction Office
Grand Junction, Colorado

under

Subcontract No. DE-AC13-79GJO1692

metadc958600

DISCLAIMER STATEMENT

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Department of Energy, nor any of their employees, nor any of their contractors, subcontractors, or their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

TABLE OF CONTENTS

VOLUME II

AIRBORNE GAMMA-RAY SPECTROMETER

AND

MAGNETOMETER SURVEY

BIRMINGHAM QUADRANGLE, ALABAMA

VOLUME II

Prepared by:

High Life Helicopters, Inc./QEB, Inc.
Puyallup, Washington Hayward, California

September, 1979

Prepared for the U. S. Department of Energy
Grand Junction Office
Grand Junction, Colorado
under

Small Business Administration Subcontract No. DE-AC13-79GJ01692

	<u>Page</u>
INTRODUCTION	1
GEOLOGY	1
GEOPHYSICAL DATA INTERPRETATION	7
REFERENCES CITED	15
APPENDICES	
APPENDIX A - FLIGHT LINE MAP	
APPENDIX B - GEOLOGY MAP	
APPENDIX C - EXPLANATION OF GEOLOGIC LEGEND	
APPENDIX D - FLIGHT LINE/GEOLOGY MAP	
APPENDIX E - PSEUDO CONTOUR MAPS	
APPENDIX F - STACKED PROFILES	
APPENDIX G - ANOMALY MAPS	
APPENDIX H - GEOLOGIC HISTOGRAMS	
APPENDIX I - SPEED AND ALTITUDE HISTOGRAMS	
APPENDIX J - STATISTICAL TABLES	
APPENDIX K - MAGNETIC AND ANCILLARY PROFILES	
APPENDIX L - TEST LINE DATA	

TABLES

VOLUME II

BIRMINGHAM QUADRANGLE

	<u>Page</u>
Table 1 - Summary of U Anomalies	9

FIGURES

VOLUME II

Figure 1 - Location Map, Birmingham Quadrangle	2
Figure 2 - Tectonic Map, Birmingham Quadrangle	3
Figure 3 - Uranium Interpretation Anomaly Map	8

INTRODUCTION

The geologic map on which the statistical analysis and interpretation are based was provided by BFEC. Formation descriptions included in Appendix C are derived principally from the map and from Copeland and Beg (1979). In general, the Birmingham 1⁰ by 2⁰ NTMS quadrangle, located in northern Alabama, is divisible into a number of physiographic provinces which have strong structural connotations: (1) East Gulf Coastal Plain, (2) Appalachian Plateaus, (3) Valley and Ridge, and (4) Piedmont.

Elevations are low in the western part of the quadrangle (100-800 feet) with minimal relief. In the eastern part of the quadrangle, narrow valleys and broad uplands separate many elongate ridges. Ridge elevations range from 1,000 to 1,912 feet, with valley floors at 500-600 feet. Some of the uplands occur at elevations of as much as 1,000 feet. Relief is greater in the eastern part of the quadrangle than the western part.

GEOLOGY

In general much of the detailed information regarding the quadrangle stems from published and unpublished reports of the Geological Survey of Alabama (GSA). Present work is being performed by the GSA under the auspices of the U.S. Geological Survey for both environmental and coal resource purposes.

Gently dipping Coastal Plain sediments of Late Cretaceous age overlap Paleozoic strata in the western part of the quadrangle. Gently dipping Pennsylvanian rocks occupy the Appalachian Plateaus section of the central quadrangle with Late Cambrian, Early Ordovician to Mississippian rocks exposed in major anticlinal folds in east central areas. These

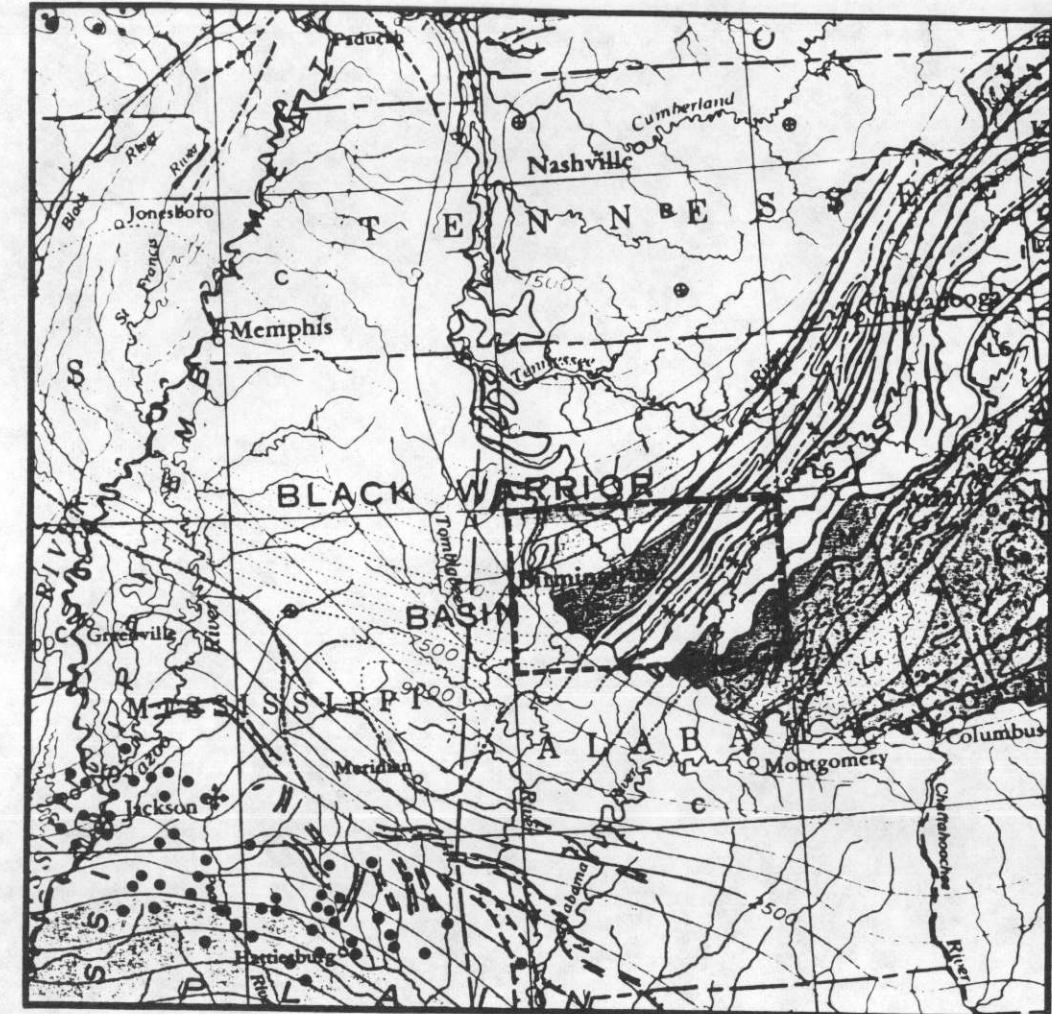
LOCATION MAP
BIRMINGHAM QUADRANGLE
ALABAMA



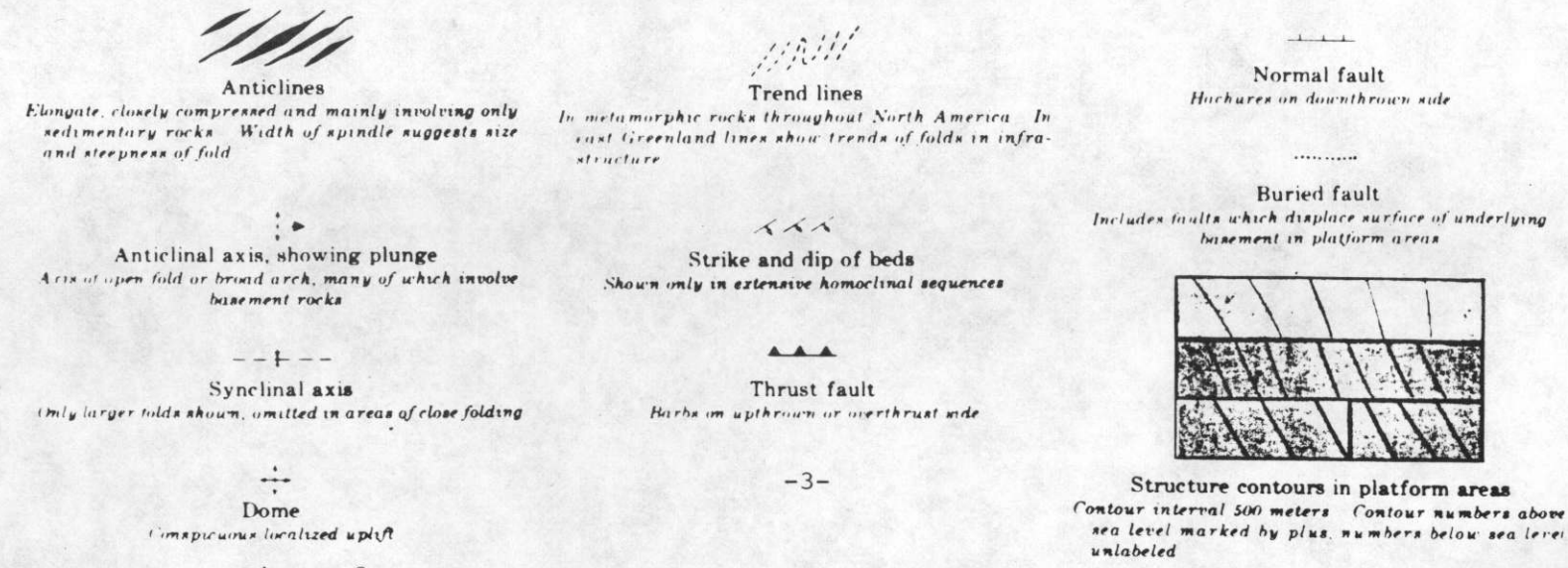
Scale, 1:2,500,000

-2-

TECTONIC MAP
BIRMINGHAM AREA
ALABAMA



Scale, 1:5,000,000



-3-

Figure 1

Based on U.S. Geologic Survey map of the United States. Edition 1972

Figure 2

Based on Tectonic Map of North America. Compiled by P. B. King.

grade into the valley and Ridge province, occupying the eastern part of the quadrangle, which is characterized by highly folded and faulted rocks organized into northeast-southwest trending ridges separated by narrow valleys. These anticlinal folds are generally asymmetric with the northwest limbs dipping relatively more steeply. Overturning and thrust faulting occur, which gives considerable displacement in places and causes great complexities in the regional picture. Rocks exposed in these structural convolutions range from Early Cambrian to Pennsylvanian. Intensely folded and faulted high and low grade metamorphic and igneous rocks occur in the Piedmont province occupying the southeastern part of the quadrangle.

The east Gulf Coastal Plain is superficially characterized by relatively unconsolidated sediments of the Tuscaloosa Group and Eutaw Formation (Late Cretaceous) unconformably overlying indurated beds of the Pottsville Formation (Pennsylvanian). Oil and gas test wells have encountered formations of Late Cambrian and Early Ordovician age. Faulting is known, through drilling, to offset the older sub-surface units which do not displace the overlying exposed units.

The Appalachian Plateau province is characterized by the absence of thrust faults and the gentle symmetrical folding of the surface units (Colton 1970). Near the southeastern province boundary, folding becomes more severe (tighter and more closely spaced) parallel to the regional trend of the Appalachian structural front. Three major anticlinal folds are exposed at the surface in this region with corresponding synclinal elements in the sub-surface to the southwest (Kidd and Shannon, 1977). Westward of the major folds, minor undulation of the surface units are characteristic. Rocks of the Middle to Early Ordovician age are exposed within the axial portion of the major anticline, with Middle Ordovician to Mississippian age rocks comprising the flanks. The bulk of the area is underlain by the Pottsville Formation (Pennsylvanian).

The sedimentary sequence is reported as some 11,060 feet thick. Colton (1970) provides a thorough description of the valley and ridge province. Axes of folds and traces of faults are closely parallel to the NE - SW axes of the basin. Within the province, folding becomes progressively more gentle and more broadly spaced towards the west. Overturning and thrusting are common on the western flanks of the folds. In general, thrusting is directed northwestward. Major structural elements of the province include the Birmingham anticlinorium, Cahaba syncline, Helena thrust block, Coosa synclinorium, and Coosa deformed belt (Thomas and Drahovzal, 1974) and the eastern Coosa block (Bearce, 1978). Sedimentary rocks in the region are more than 10,000 feet thick. The eroded core of the Birmingham anticlinorium contains Cambrian to Early Ordovician rocks, while the flanks consist of Middle Ordovician to Mississippian rocks. The Cahaba syncline contains Mississippian and Pennsylvanian rocks. The Helena thrust fault (which creates the Helena block) juxtaposes Early Cambrian-Ordovician rocks (within the block) against Pennsylvanian rocks. The Coosa synclinorium includes principally Pennsylvanian rocks in the axes with some rocks as old as Cambrian on the flanks. The Coosa deformed belt is defined as a narrow linear belt of deformed complex structures consisting of narrow imbricate thrust slices moved northwestward. Most of the belt is underlain by the Floyd-Parkwood (Mississippian - Pennsylvanian) and older formations (Ordovician to Mississippian) exposed in long narrow strips within the thrust slices (Thomas and Drahovzal, 1974). The eastern Coosa Valley is largely underlain by the Knox groups - (Late Cambrian to Early Ordovician), and other early Paleozoic formations (Bearce, 1978). These schists have also been deformed by folding and thrust faulting.

The Piedmont Province consists primarily of metasedimentary rocks lying between the Brevard fault zone and the edge of the Valley and Ridge Province. These rocks have undergone polyphase tectonism and syntectonic metamorphism and have been intruded by both mafic rocks

and a wide variety of granitic igneous rocks. The metamorphic units are divided into two distinct belts (1) the low rank Talladega belt (mostly greenschist facies) and (2) the high rank Wedowee belt (greenschist and amphibolite facies). The Elkhatchee Quartz Diorite gneiss makes up the bulk of the Pinkneyville granite complex. A complex of dikes and small stocks of granite, known as the Rockford Granite, is included within this province.

Uranium Mineralization

A pegmatite-rich district occurs in Coosa County within the quadrangle boundaries. It is suspected that uranium mineralization may be associated with the Rockford Granite and pegmatites which intrude the Hatchet Creek and Wedowee Groups. Neatherly (1974) has reported moderate scintillometer counts from traverses in the vicinity of scattered pegmatites. Associated columbite-tantalite, and possible uraninite have been reported from some of the pegmatites. Extent and hence importance of these occurrences is uncertain.

There is some knowledge of past Aero-Radiometric Surveys primarily by private groups. Neatherly (1976) reports anomalies of up to 650 cps (background 250 cps) over the Talladega slates and phyllites in northeast Chilton and southeast Chilton Counties and over the Wedowee Group schists (intruded by pegmatites) in Coosa County.

The Chatanooga shale, which occurs in the Appalachian Plateau portion of the quadrangle, has long been considered a potential source of uranium. Glover (1959) reports samples in the northeast part of the quadrangles containing some 0.003% uranium. These were collected on the margins of structural features.

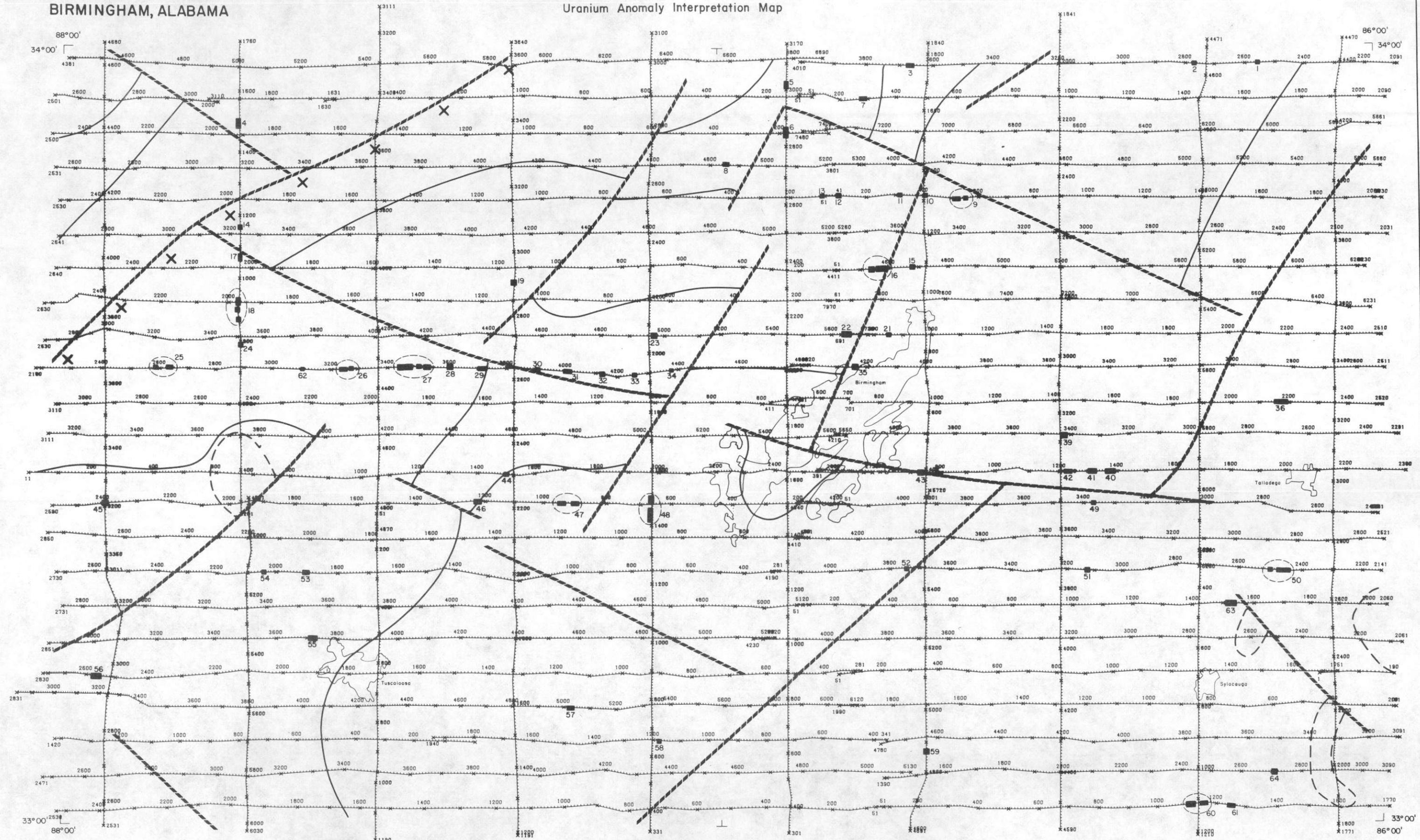
GEOPHYSICAL DATA INTERPRETATION

Radiometric Data

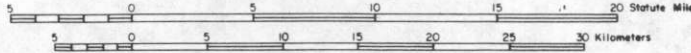
After an initial screening process to reject cultural effects, a total of 64 uranium anomalies met the minimum statistical requirements as defined in Volume I. These anomalies are depicted on the Uranium Interpretation Anomaly map (Figure 3), and are also summarized in Table I. This map also includes location of major cultural features (cities), and the results of interpretation of the Potassium, Uranium, Thorium, and Magnetic pseudo-contour maps. These maps are presented in Appendix E. Stacked profiles depicting geologic strip maps along each flight line, in addition to the various sensor data, are included as Appendix F. Geologic units and descriptions are presented in Appendix C. The anomalies are distributed throughout the quadrangle, although a few tend to cluster near pseudo-contour uranium highs, in particular, those associated with metasediments and crystalline rocks in the southeast quadrant.

The majority of the anomalies are associated with the Paleozoic Pottsville Formation and its members. This unit is also a source of coal, and the terrain underlain by it has been subjected to extensive strip mining. Such activity has produced much surface disturbance. Some disturbed areas are shown on the 1:250,000 scale NTMS map, but many more are probably not. Many of the statistical anomalies appear spatially related to such features, but such proximity should not be reason for the rejection of a specific anomaly. For example, grading of access or service roads, or strip mining may have exposed a legitimate exploration target.

Some anomalies which meet the statistical criteria are suspect due to their close proximity to man made surface features. These anomalies include 3, 7, 10, 12, 16, 21, 22, 23, 33, 34, 35, 42, and 52. For the most part, they appear near various improved roads. The statistical



TUPELO	GADSDEN	ROME
WEST POINT	BIRMINGHAM	ATLANTA
MERIDIAN	MONTGOMERY	PHENIX CITY



- X X X Magnetic province boundary
- Magnetic discontinuity or fault
- Boundary of major magnetic bodies
- - - Boundary of shallow magnetic bodies

FIGURE 3

TABLE I

SUMMARY OF U ANOMALIES
BIRMINGHAM QUADRANGLE

<u>Anomaly Number</u>	<u>Flight Line Number</u>	<u>Geologic Unit</u>	<u>Number of individual samples having N positive standard deviations above the mean</u> N= 1, 2, 3, 4, 5, >5		
1	23	OC	2		
2	23	OEV/OC	2		
3	23	MB	3	1	
4	TLI	KCK	2	3	
5	22	PVP/PBY	2	2	
6	TL6	PVP/PBY	3	1	1
7	22	MHS	2	1	
8	20	QAL/PVP	2	1	
9	19	MB/MHS/MTM/OEK	3	2	1
10	19	PVP	2	1	
11	19	PLC/PVP		1	
12	19	PLC/PVP	2	1	
13	19	PVP		2	
14	TL-1	PVP/KCK	1	2	
15	17	PVP	1	1	
16	17	PVP	5	3	
17	TL-1	PVP	2	1	
18	TL-1	KCK	3	5	
19	TL-4	PVP/QAL	1	1	1
20	16	PVP	1	2	
21	15	OCK		1	
22	15	PVP	2	2	
23	15	PVP	2	1	
24	TL-1	KCK	2	2	
25	14	KCK	5	1	1
26	14	PVP	3	2	
27	14	PVP	2	1	

<u>Anomaly Number</u>	<u>Flight Line Number</u>	<u>Geologic Unit</u>	<u>Number of individual samples having N positive standard deviations above the mean</u> N = 1, 2, 3, 4, 5, >5			
28	14	PVP	2	1		
29	14	PVP	3	2		
30	14	PVP	1	2		
31	14	PVP		2	3	
32	14	PVP	1		1	
33	14	PVP				1
34	14	PVP	1	2		
35	14	PMC		1	1	
36	13	OCV	3	4		
37	12	PVP	2		1	
38	12	PVP	2	1		
39	12	PVP	1			1
40	11	OEU/MFM	1	2	1	1
41	11	MF	1	2	1	
42	11	MF	3	2	1	
43	11	PVP	1	2		
44	11	PVP	2	1		
45	TL-1	KG	2		1	
46	10	PVP		2	1	
47	10	PVP	4	4		
48	TL5	PVP	6	4	1	
49	10	MF		1	1	
50	8	TA/OEU/TSC	4	4	1	
51	8	ONL	1	2		
52	8	PBY				1
53	8	KCK	2	1		
54	8	KCK		2		
55	6	QT	2	1	1	
56	4	KG	2	1		
57	4	KT	2	1		
58	3	KT				1

<u>Anomaly</u> <u>Number</u>	<u>Flight Line</u> <u>Number</u>	<u>Geologic</u> <u>Unit</u>	<u>Number of individual samples</u> <u>having N positive standard</u> <u>deviations above the mean</u> N = 1, 2, 3, 4, 5, >5			
---------------------------------	-------------------------------------	--------------------------------	---	--	--	--

59	TL-7	TA				1
60	1	HS/AA	5	4		
61	1	AA	3	2		
62	14	PVP	2	1		
63	7	TA	2	1	1	1
64	2	AA	2			1

expression may be due to imported road base material or to the application of asphalt, oil, or concrete to the surfaces.

Anomalies 5, 6, 8, 10, 12, 13, 14, 15, 16, 17, 20, 22, 23, 26, 34, 37, 39, 39, 44, 46, 48, and 62 occur within the Pottsville Formation. This dominance of anomaly distribution relative to other units cannot be totally explained by the unit's extensive occurrence (represented by some 45,000 samples in the statistical compilation). The formation is not cited by Copeland and Beg (1979) as being a potential uranium source host rock. It consists primarily of shales and sandstone, warped into the gently undulating folds of the Gulf Coastal Plain. The extensive surface area exhibits good drainage with well dissected interfluves. Anomalies may be the result of contrasts between stream bottoms and ridge crests.

A large number of strip mines are indicated on the topographic map. Many are in terrain underlain by the Pottsville Formation. In fact, the flight lines intersect several of the mapped mines. Anomalies 5, 11, 48, 49, 58, and 31 seem to be highly correlated with mapped mines. It is suspected that many other anomalies within the Pottsville Formation may be related to unmapped strip mines, pit exposures, or spoils piles providing a radioelement contrast to mapped units. The Pottsville Formation should probably be reconsidered in terms of uranium possibilities.

Anomaly 9 occurs in the Prospect Mountain area of the north central part of the quadrangle. It is interesting because it extends across thin steeply dipping units (Bangor, Hartshell, Knox, and Tuscaubia). The fact that, when taken together, these dissimilar lithologies create a common statistical anomaly, indicates a probable common source. This could simply consist of a single unit shedding higher eU-ppm material over the units. Conversely, this feature may be the result of unrecorded prior activity (e.g. strip mining).

The Chattanooga shale is cited by many investigators including Swanson (1961) and Copeland and Beg (1979) as a potential uranium source. It is noted for containing most of the identified domestic uraniumiferous black shale resources. Values for U_3O_8 are as high as .007%. Typically such black shales are rich in organic matter and accumulate under reducing conditions, a plus in uranium accumulation. The upper member of the Chattanooga shale is some 12 to 18 feet thick over 4,000 square miles, thus presenting a small target when exposed in steeply dipping structures such as in the Birmingham Quadrangle. Interestingly, none of the statistical anomalies appear to occur in the Chattanooga shale. However, several occur in adjacent units, and may be the result of weathered Chattanooga material being spread over adjacent units. More subtle treatment of the data over smaller subsets of the Chattanooga might produce better definition.

Another suggested target for the Birmingham Quadrangle has been the metamorphic igneous terrain of the Piedmont province. Located in the southeastern corner of the quadrangle are a number of metasedimentary formations which have been intruded by granitic and pegmatitic bodies. These appear as a distinct regional high on the uranium pseudo-contour map, and are discretely bounded by pseudo-contour patterns. Anomalies 60, 61, and 64 occur in the Ashland mica schist and anomalies 50 and 63 occur in the Talladega Slate. Only one granitic body is shown on the base map. It is statistically inadequate, with too few samples to be considered with anomalies. A 1:250,000 map showing possible sources for uranium mineralization, prepared by the Geological Survey of Alabama (1978), indicates granitic-pegmatitic bodies occurring in a northeast-southwest trending swarm. Anomalies 60 and 64 seem to be associated with this swarm in both a spatial and genetic sense. These bodies are micaceous pegmatites and are associated with tin deposits, perhaps containing tantalite-columbite.

It is interesting to note that the Wedowee Formation, believed by many

investigators to be a potential uranium source, has no statistical anomalies. The Talladega Mountain also has no statistical anomalies, but it is a regional uranium pseudo-contour map high. The distinctive, relatively high uranium contour patterns, and specific eU ppm statistical anomaly (64 at 6 eU ppm) makes the Piedmont area interesting for exploration.

Magnetic Data

The Magnetic pseudo-contour map parallels the regional physiographic/structural province division of the quadrangle. A distinct set of magnetic discontinuities separates the Piedmont Valley and Ridge, and Appalachian Plateau province. Higher frequency, relatively shallower features characterize the Piedmont relative to the other provinces. Large deeper bodies, strong northeast - southwest faulting, and surprisingly strong, lengthy east - west magnetic discontinuities characterize the Appalachian Plateau and Valley Ridge provinces. Deeper, lower frequency features coupled with less intensive faulting are displayed within the East Gulf Coast Plain province. Small high frequency, relatively shallower features may represent intrusives. The northeast - southwest faulting displayed in the contours is compatible with the directions of regional folding and overthrust alignment. However, the east - west discontinuities have no real counterparts in the mapped surface geology.

REFERENCES CITED

Bearce , D. N. , 1978 , Structure of the eastern Coosa Valley, Alabama : Am. Jour. Sci. V. 258, 461 - 478.

Colton, G. W. , 1970 , The Appalachian Basin - its depositional sequences and their geologic relationships : in studies of Appalachian Geology : central and southeastern , ed. G. W. Fisher et al : John Wiley and Sons, New York , 548p.

Copeland C. W. and Beg M. A. , 1979 , Description of the Birmingham quadrangle : Alabama Geol. Sur. , Report prepared for E. I. Dupont and Company , Savannah River Plant , 32p.

Geological Survey of Alabama , 1979 , Location of selected Elements and Minerals in the Birmingham quadrangle.

Glover , L. , 1959 , Stratigraphy and uranium content of the Chattanooga Shale in northeastern Alabama , northwestern Georgia, and eastern Tennessee : U. S. Geol. Survey Bull. 1087- E , P. 133-168.

Kidd , J. T. and Shannon S. W. , 1977 , Preliminary areal geology maps of the Valley and Ridge province , Jefferson Co. Alabama : Geol. Surv. Atlas Series 10 , 46p.

Neatherly , T. L. , 1974 , Mineral occurrence of Coosa County, Alabama : Alb. Geol. Survey Spec. Map 152 with accompanying text.

Neatherly , T. L. , Bentley R. D. , Higgins M. W. , and Zeitz I. , 1976 , Preliminary interpretation of aeromagnetic and aeroradio - activity maps of the Alabama Piedmont : Geology V. 4 , P. 375 - 381.

Swanson , V. E. , 1901 , Geology and geochemistry of uranium in marine black shales , a review : U.S. Geol. Surv. Prof. Paper 356 - C , P. 67 - 112.

Thomas W. A. and Drahovzal J. A. , 1974 , Geologic map of the Coosa deformed belt , Alabama : Alabama Geol. Soc. Guidebook , 12th. Annual Field trip , 96p.

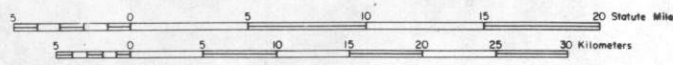
APPENDIX A - FLIGHT LINE MAP

1900

BIRMINGHAM, ALABAMA



TUPELO	GADSDEN	ROME
WEST POINT	BIRMINGHAM	ATLANTA
MERIDIAN	MONTGOMERY	PHENIX CITY



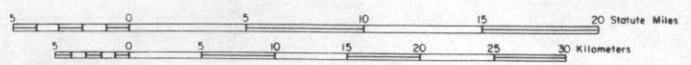
APPENDIX B - GEOLOGY MAP

APPENDIX B - GROUNDWATER

BIRMINGHAM, ALABAMA



TUPELO	GADSDEN	ROME
WEST POINT	BIRMINGHAM	ATLANTA
MERIDIAN	MONTGOMERY	PHENIX CITY



BY

INTERNATIONAL EXPLORATION 577 SACKETTSFORD ROAD IVYLAND, PENNA 18974

APPENDIX C - EXPLANATION OF GEOLOGIC
LEGEND

THE UNIVERSITY OF CHICAGO

EXPLANATION OF GEOLOGIC LEGEND

BIRMINGHAM QUADRANGLE

<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>
QAL	Qal	ALLUVIUM & LOW TERRACE DEPOSITS (QUATERNARY)-Unconsolidated gravel, sand, and silt with chert and quartz fragments. In Marion and Green Counties includes high terrace deposits.
QT	Qt	HIGH TERRACE DEPOSITS (QUATERNARY)- Sand and gravel with rounded cobbles up to 6" in diameter.
KE	Ke	EUTAW FORMATION (CRETACEOUS)-Gray to greenish-gray, fine to medium-grained glauconitic sand with layers dark clay.
KM	Km	McSHAN FORMATION (CRETACEOUS)-Light-gray laminated clay beds alternating with thin, fine to coarse-grained glauconitic sand beds.
KG	Kg	GORDO FORMATION (CRETACEOUS)-Fine to coarse-grained sand with some mottled clay.
KCK	Kck	COKER FORMATION (CRETACEOUS)-Sand and gravel with irregular carbonaceous lenses and clay beds. White to pink, fine to coarse-grained micaceous sand, locally with some siliceous gravel. Crossbedding in upper part.

<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>
KT	Kt	TUSCALOOSA FORMATION - (CRETACEOUS) Undifferentiated Coker and Gordo sandstones.
PVP	Pvp	POTSVILLE FORMATION - PENNSYLVANIAN)
PBR	Pbr	-BREMEN SHALE (PBr) includes
PSR	Psr	STRAIGHT RIDGE (Psr),
PCN	Pcn	CHESTNUT (Pcn), and
PWR	Pwr	WOLFRIDGE (Pwr) SANDSTONES.
PBY	Pby	-BOYLES(Pby) includes
PPI	Ppi	PINE (Ppi),
PLC	Plc	LICK CREEK (Plc),
PPS	Pps	SHADES (Pps) SANDSTONES, and
PSN	Psn	STRAVEN (Psn) CONGLOMERATE
PMC	Pmc	Undifferentiated MISSISSIPPIAN and PENNSYLVANIAN.
MP	Mp	PARKWOOD FORMATION (MISSISSIPPIAN)- Light to medium-gray sandstone with interbedded dark-gray micaceous shales and mudstones.
MPP	Mpp	PENNINGTON AND PARKWOOD FORMATIONS (MISSISSIPPIAN) - composed of interbedded red and tan shale, and cherty limestone.
MF	Mf	FLOYD SHALE (MISSISSIPPIAN) - Dark-gray clay shale, fine-grained sandstone with thin ferruginous beds.

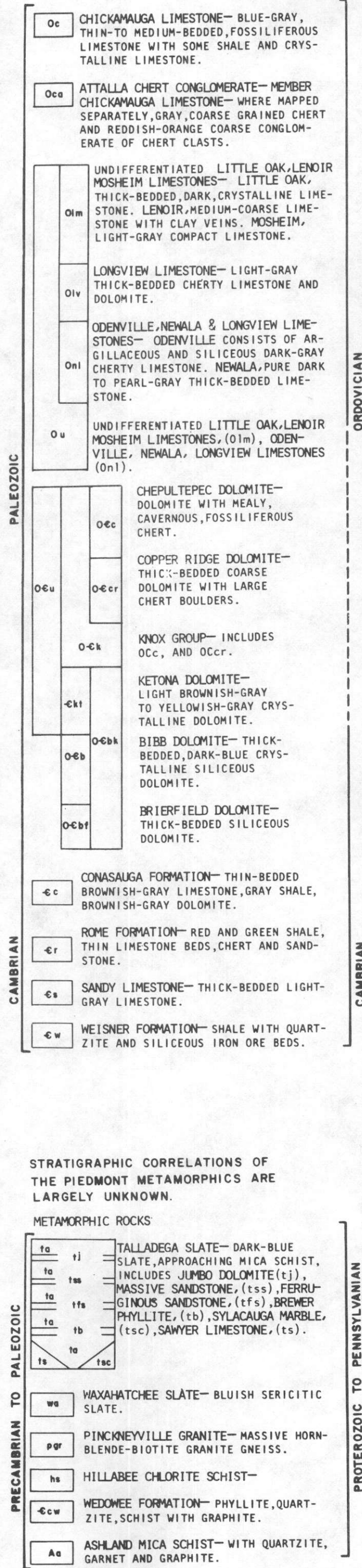
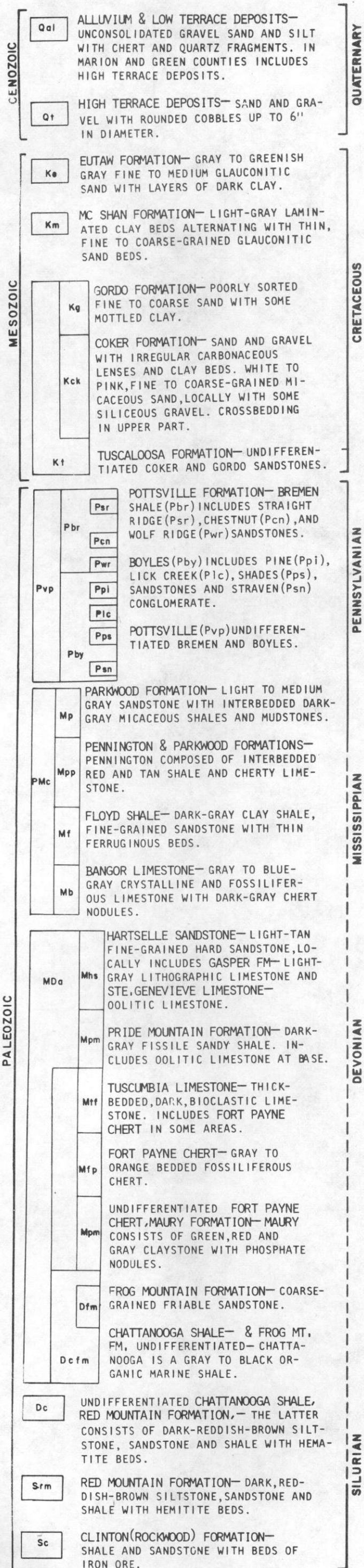
<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>	<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>
MB	Mb	BANGOR LIMESTONE (MISSISSIPPIAN)- Gray to blue-gray, crystalline fossiliferous limestone.	DCFM	Dcfm	CHATANOOGA SHALE AND FROG MOUNTAIN FORMATION (DEVONIAN)-Chatanooga is a gray to black organic marine shale.
MDA	MDa	Undifferentiated MISSISSIPPIAN and DEVONIAN.	DC	Dc	UNDIFFERENTIATED CHATANOOGA SHALE and RED MOUNTAIN FORMATION (DEVONIAN - SILURIAN) - The latter consists of dark-reddish-brown siltstone, sandstone and shale with hematite beds.
MHS	Mhs	HARTSELLE SANDSTONE (MISSISSIPPIAN)- Light-tan, fine-grained, hard sandstone, locally includes GASPER FORMATION - light-gray lithographic limestone; and STE. GENEVIEVE LIMESTONE - oolitic limestone.	SRM	Srm	CLINTON (ROCKWOOD) FORMATION (SILURIAN) - Shale and sandstone with beds of iron ore.
MPM	Mpm	PRIDE MOUNTAIN FORMATION (MISSISSIPPIAN)- Dark-gray, fissile, sandy shale.	OC	Oc	CHICKAMAUGA LIMESTONE (ORDOVICIAN) - Blue-gray, thin-to-medium-bedded, fossiliferous limestone with some shale and crystalline limestone.
MTM	Mtm	Includes oolitic limestone at base. (Mtm)			
MTF	Mtf	TUSCUMBIA LIMESTONE (MISSISSIPPIAN)- Thick bedded, dark, bioclastic limestone. Includes Fort Payne Chert in some areas.	OCA	Oca	ATTALLA CHERT - CONGLOMERATE MEMBER OF CHICKAMAUGA LIMESTONE (ORDOVICIAN) - Where mapped separately, consists of gray, coarse-grained chert and reddish- orange, coarse conglomerate with cherty clasts.
MFP	Mfp	FORT PAYNE CHERT (MISSISSIPPIAN)- Gray to orange, bedded fossiliferous chert.			
MPM	Mpm	Undifferentiated FORT PAYNE CHERT. MAURY FORMATION (Mfm)-(MISSISSIPPIAN). consists of red, green, and gray with phosphate nodules.	OLM	Olm	Undifferentiated LITTLE OAK,LENOIR, and MOSHEIM LIMESTONES (ORDOVICIAN) - LITTLE OAK: thick-bedded, dark, crystalline limestone. LENOIR: medium - coarse grained limestone with clay veins. MOSHEIM: light-gray, compact limestone.
DFM	Dfm	FROG MOUNTAIN FORMATION (DEVONIAN)- Coarse-grained, friable sandstone.			

<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>	<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>
OLV	Ol _v	LONGVIEW LIMESTONE (ORDOVICIAN) - Light-gray, thick-bedded cherty limestone and dolomite.	OCBF	O6 _{bf}	BRIERFIELD DOLOMITE (CAMBRIAN-ORDOVICIAN) - Thick-bedded, siliceous dolomite.
ONL	On _l	ODENVILLE, NEWALA, AND LONGVIEW LIMESTONES (ORDOVICIAN) - ODENVILLE consists of argillaceous, siliceous, dark-gray, cherty limestone. NEWALA consists of pure dark to pearl-gray, thickbedded limestone.	OCBK	O6 _{bk}	Undifferentiated KETONA, BIBB and BRIERFIELD DOLOMITES (CAMBRIAN-ORDOVICIAN).
OCU	O6 _u	Undifferentiated upper CAMBRIAN and ORDOVICIAN rocks	CC	6 _c	CONASAUGA FORMATION (CAMBRIAN) - Thin- bedded, brownish-gray limestone, grayshale, brownish-gray dolomite.
OCC	O6 _c	CHEPULTEPEC DOLOMITE (CAMBRIAN-ORDOVICIAN) - Dolomite with mealy, cavernous, fossiliferous chert.	CR	6 _r	ROME FORMATION (CAMBRIAN) - Red and green shale, thin limestone beds, chert and sandstone.
OCCR	O6 _{cr}	COPPER RIDGE DOLOMITE (CAMBRIAN-ORDOVICIAN) - Thick-bedded, coarse dolomite with large chert boulders.	CS	6 _s	SANDY LIMESTONE (CAMBRIAN) - Thick- bedded, light gray, limestone.
OCC/COK	O6 _k /60 _k	KNOX GROUP (CAMBRIAN-ORDOVICIAN).- Includes CHEPULTEPEC and COPPER RIDGE DOLOMITE	CW	6 _w	WEISNER FORMATION (CAMBRIAN) - Shale with quartzite and siliceous iron ore beds.
CKT	6 _{kt}	KETONA DOLOMITE (CAMBRIAN-ORDOVICIAN) - Light-brownish-gray to yellowish-gray crystalline limestone.	<u>METAMORPHIC ROCKS</u>		
O6B	O6 _b	BIBB DOLOMITE - CAMBRIAN-ORDOVICIAN) - Thick-bedded, dark blue, crystalline, siliceous dolomite.	TA	ta	TALLADEGA SLATE - Dark blue slate, approaching mica-schist; includes JUMBO
			TS	ts	DOLOMITE (tj), MASSIVE SANDSTONE (tss),
			TJ	tj	FERRUGINOUS SANDSTONE (tfs), BREWER
			TSS	tss	PHYLLITE (tb)
			TFS	tfs	SYLACAUGA MARBLE (tsc)
			TB	tb	SAWYER LIMESTONE (ts)
			TSC	tsc	Undifferentiated schist.
			TCA	tca	
			WA	wa	WACAHATCHEE SLATE - Bluish sericitic slate.

<u>Computer Symbol</u>	<u>Map Symbol</u>	<u>Description of unit.</u>
PGR	pgr	PINCKNEYVILLE GRANITE - Massive hornblende - biotite granite gneiss.
HS	hs	HILLABEE CHLORITE SCHIST
CCW	ccw	WEDOWEE FORMATION - Phyllite, quartzite, schist with graphite.
AA	Aa	ASHLAND MICA SCHIST with garnet and graphite QUARTZITE.

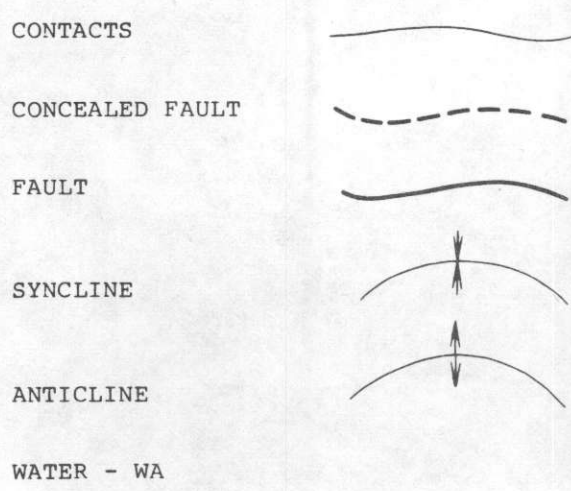
STRATIGRAPHIC CORRELATIONS WITHIN THE PIEDMONT METAMORPHIC ROCKS ARE LARGELY UNKNOWN.

GEOLOGY OF THE BIRMINGHAM QUADRANGLE



ORDOVICIAN
CAMBRIAN
PROTEROZOIC TO PENNSYLVANIAN

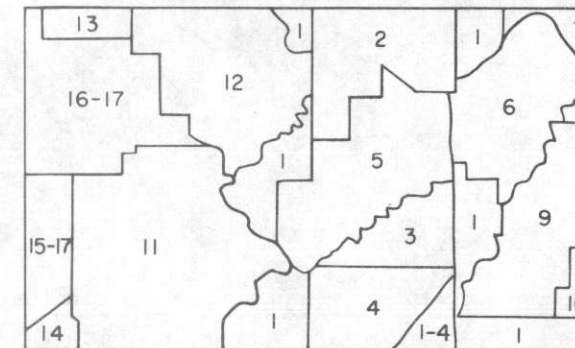
SYMBOLS



SOURCE OF GEOLOGIC INFORMATION

1. ADAMS, G.I (et al) GEOLOGICAL MAP OF ALABAMA, GEOL. SURVEY OF ALABAMA, 1:500,000 1926
2. BUTTS, C. DESCRIPTION OF BIRMINGHAM QUAD., U.S.G.S. ATLAS, FOLIO 175, 1:125,000, 1910
3. BUTTS, C. DESCRIPTION OF BESSEMER AND VAN DIVER QUADS., U.S.G.S. ATLAS, FOLIO 221, 1:62,500 1927
4. BUTTS, C. DESCRIPTION OF MONTEVALLO AND COLUMBIANA QUADS., U.S.G.S. ATLAS, FOLIO 226, 1:62,500 1940
5. KIDD, J.T., SHANNON S.W., PRELIMINARY AREAL GEOLOGIC MAPS OF THE VALLEY AND RIDGE PROVINCE, JEFFERSON COUNTY GEOLOGIC SURVEY OF ALABAMA, ATLAS SERIES 10, 1:48,000 1977
6. CAUSEY, L.V. GENERALIZED GEOLOGIC MAP OF ST. CLAIR COUNTY, GEOLOGIC SURVEY OF ALABAMA, MAP 21, 1:63,360 1963
7. CAUSEY, L.V. GROUND-WATER RESOURCES OF ETOWAN COUNTY, GEOL. SURVEY OF ALABAMA, INF. SERIES 25, 1:63,360 1961
8. WARMAN, J.C., CAUSEY, L.V. GEOLOGY MAP OF CALHOUN COUNTY, GEOL. SURVEY OF ALABAMA, MAP 17, 1:63,360 1962
9. CAUSEY, L.V. GEOL. ROCK-TYPE MAP OF TALLEDAGA COUNTY, GEOL. SURVEY OF ALABAMA, MAP 38, 1:126,720 1965
10. PROUTY, W.F. GEOLOGICAL MAP OF CLAY COUNTY, GEOL. SURVEY OF ALABAMA, 1:63,360 1922
11. DRENNEN, C.W. GEOL. MAP OF TUSCALOOSA COUNTY, GEOL. SURVEY OF ALABAMA, MAP 16, 1:63,360 1961
12. WAHL, K.D., O' REAR, D.M. GEOL. MAP OF WALKER COUNTY, GEOL. SURVEY OF ALABAMA, MAP 123, 1:126,720 1972
13. HARRIS, W.F. Jr., CAUSEY, L.V. GEOL. MAP OF MARION COUNTY, GEOL. SURVEY OF ALABAMA, MAP 104, 1:126,720
14. WAHL, K.D., GEOL. MAP OF GREENE COUNTY, GEOL. SURVEY OF ALABAMA, MAP 37, 1:126,720 1966
15. WAHL, K.D., GEOL. MAP OF PICKENS COUNTY, GEOL. SURVEY OF ALABAMA, MAP 40, 1:63,360 1966
16. DRENNEN, C.W., STRATIGRAPHY AND STRUCTURE OF OUTCROPPING COASTAL PLAIN BEDS OF FAYETTE AND LAMAR COUNTIES. U.S.G.S. CIRC. 264, 1:250,000 1953
17. DRENNEN, C.W. PRELIMINARY UNPUBLISHED GEOLOGIC MAP OF PORTIONS OF LAMAR, FAYETTE AND PICKENS COUNTIES. GEOL. SURVEY OF ALABAMA, 1:250,000

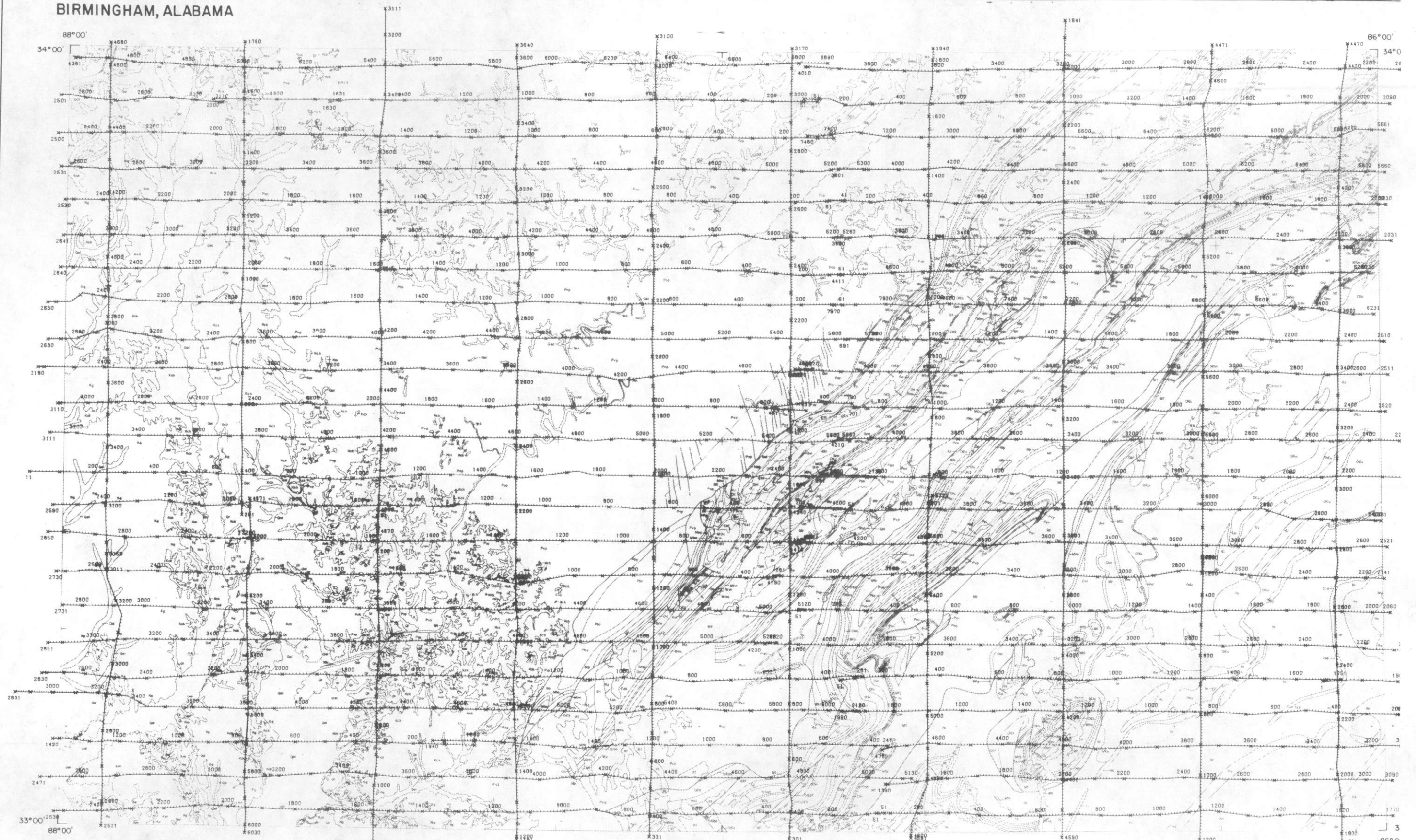
GEOLOGIC SOURCE DATA MAP



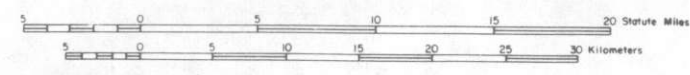
APPENDIX D - FLIGHT LINE/GEOLOGY MAP

APR 20 1950 - WEST VIRGINIA STATE

BIRMINGHAM, ALABAMA



TUPELO	GADSDEN	ROME
WEST POINT	BIRMINGHAM	ATLANTA
MERIDIAN	MONTGOMERY	PHENIX CITY



APPENDIX E - PSEUDO CONTOUR MAPS

2015-2016

BIRMINGHAM



MAGNETIC PSEUDO-CONTOUR MAP

LISTER PLOT UNIT - GAMMAS

CONTOUR INTERVAL = 50.00 REFERENCE CONTOUR (50000) =

53750.00

BIRMINGHAM



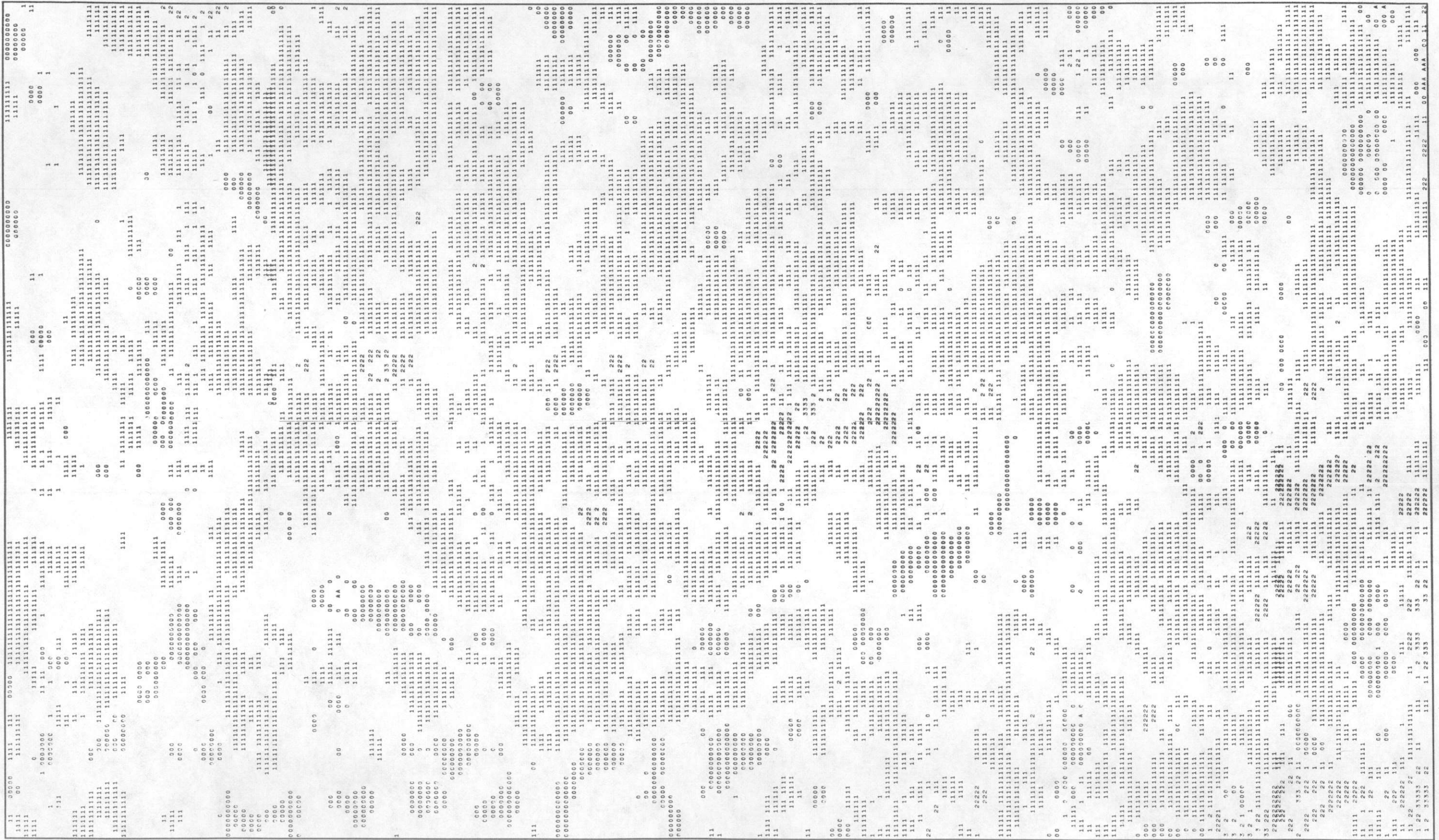
TOTAL COUNT
PSEUDO-CONTOUR MAP

LISTR PLOT LAITS - COUNTS PER SECOND

CONTOUR INTERVAL =
REFERENCE CONTOUR (10000) =

251.00
501.00

BIRMINGHAM



BISMUTH
PSEUDO-CONTOUR MAP

LISTER FLOT UNITS - PARTS PER MILLION - EQUIVALENT U

CONTCUR INTERVAL =
REFERENCE CONTCUR (00000) =

1.50
1.00

BIRMINGHAM

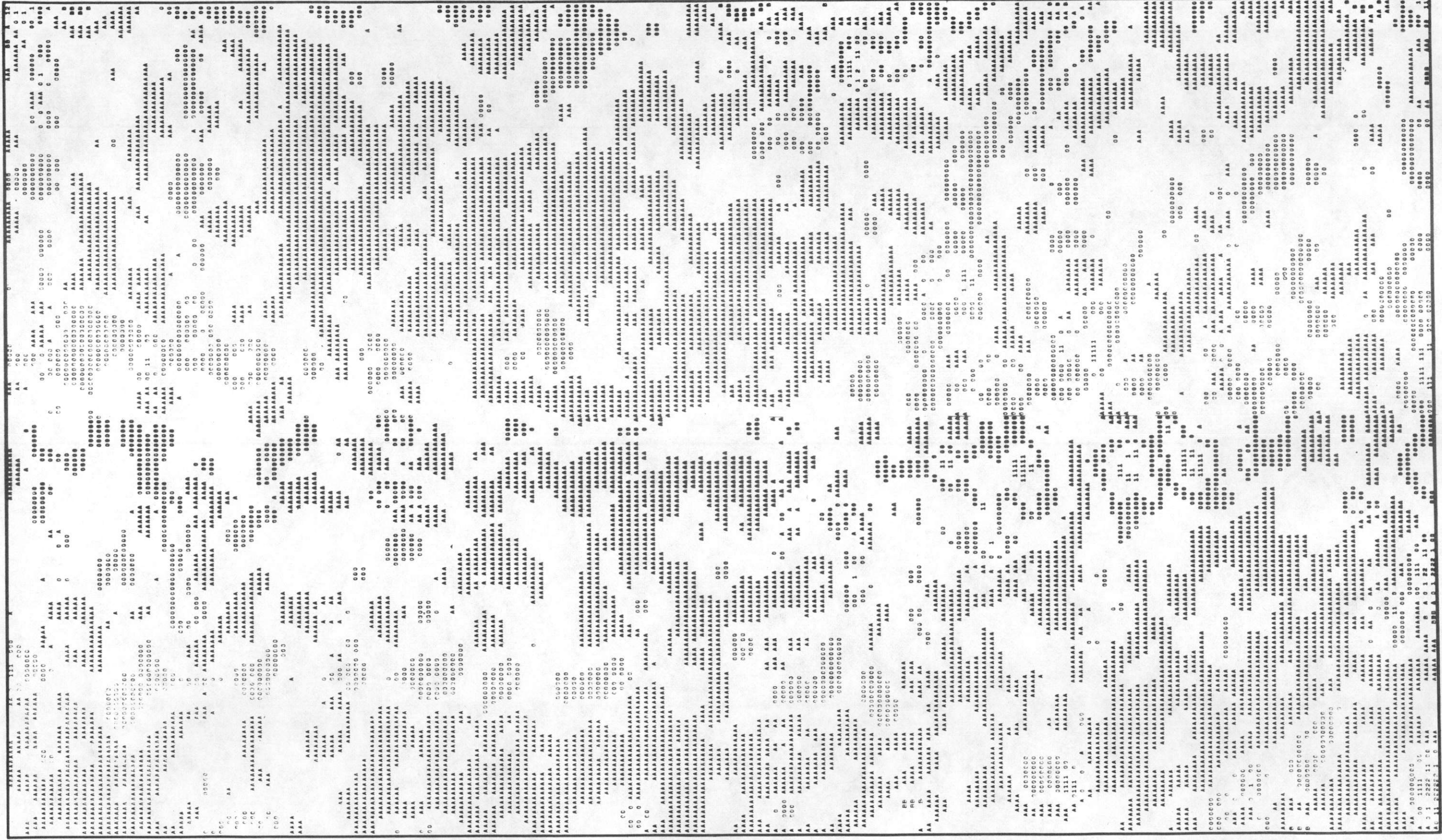


THORIUM PSEUDO-CONTOUR MAP

LISTER PLOT UNITS - PARTS PER MILLION - EQUIVALENT TH

CONTOUR INTERVAL = REFERENCE CONTOUR (2000) =

BIRMINGHAM

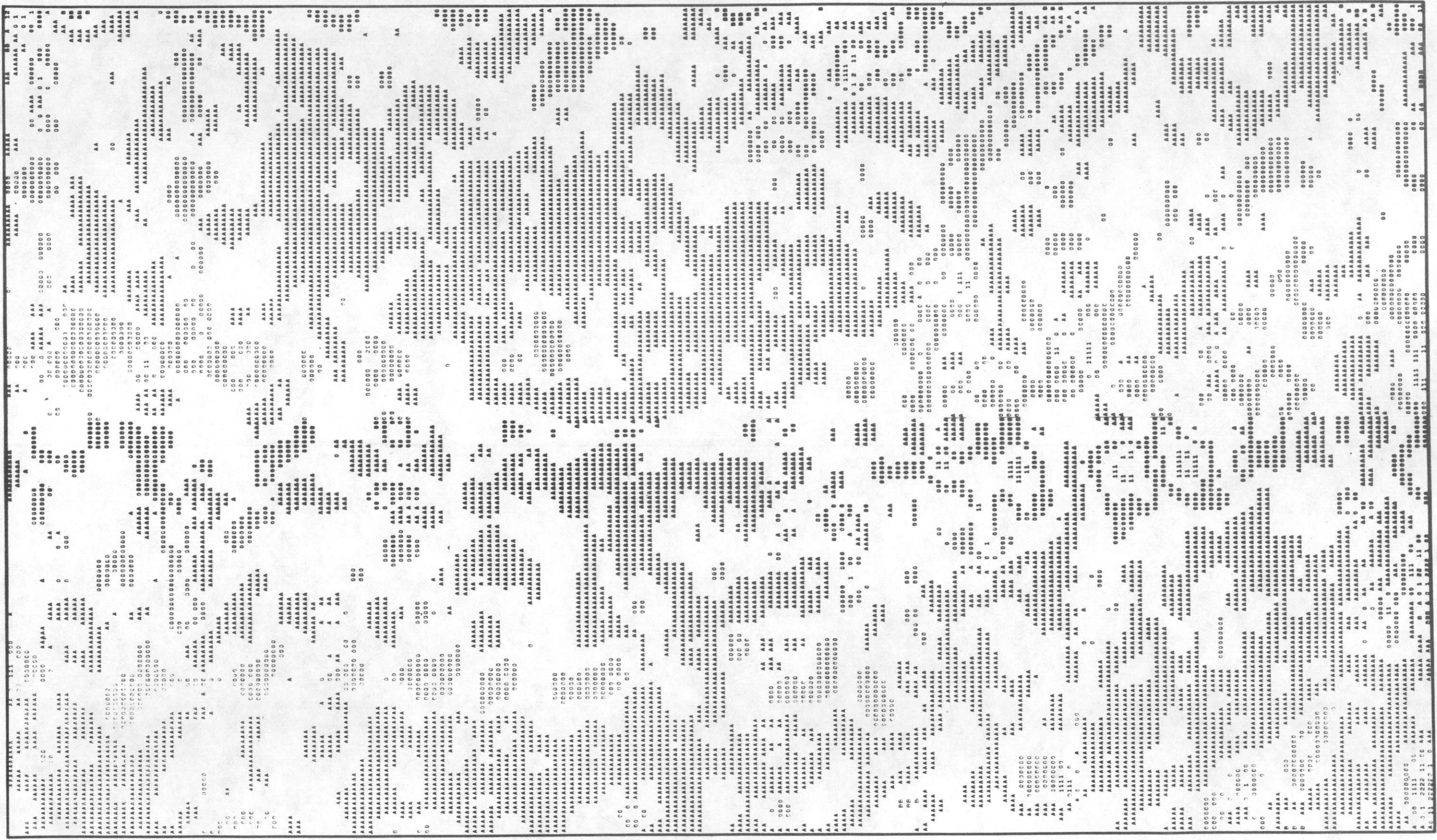


URANIUM / THORIUM RATIO
PSEUDO-CONTOUR MAP

LISTER PLOT UNITS - PPM EQUIVALENT U / PPM EQUIVALENT TH

CONTOUR INTERVAL =
REFERENCE CONTOUR (0000) =

BIRMINGHAM



URANIUM / THORIUM RATIO
PSEUDO-CONTOUR MAP

LISTER PLOT UNITS = PPM EQUIVALENT U / PPM EQUIVALENT TH

CONTOUR INTERVAL =
REFERENCE CONTOUR (00000) =

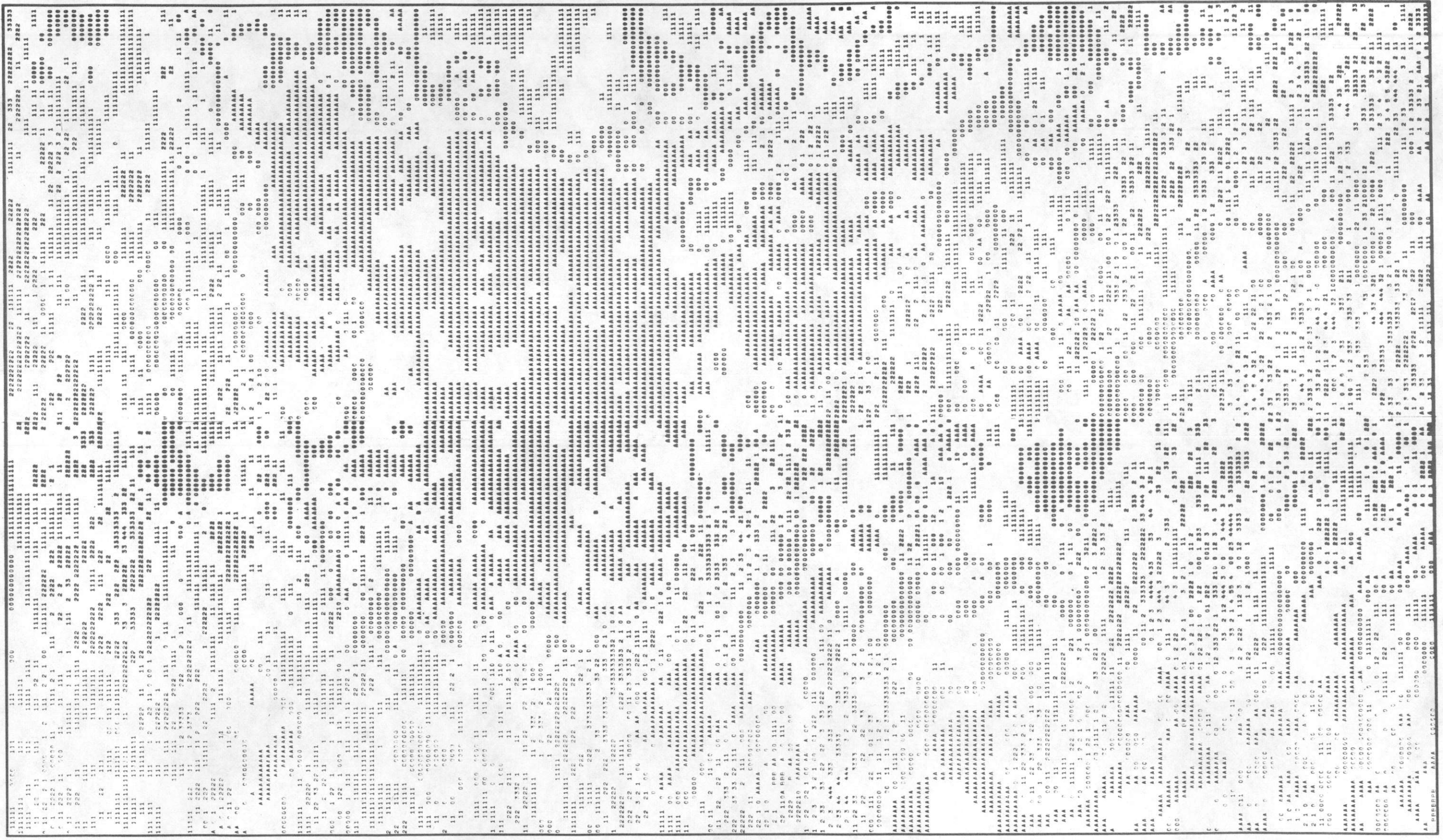
BIRMINGHAM



GRANUM / POTASSIUM 40 RATIO
PSEUDO-CONTOUR MAP

LISTER PLOT UNITS - PPM EQUIVALENT U / PERCENT K

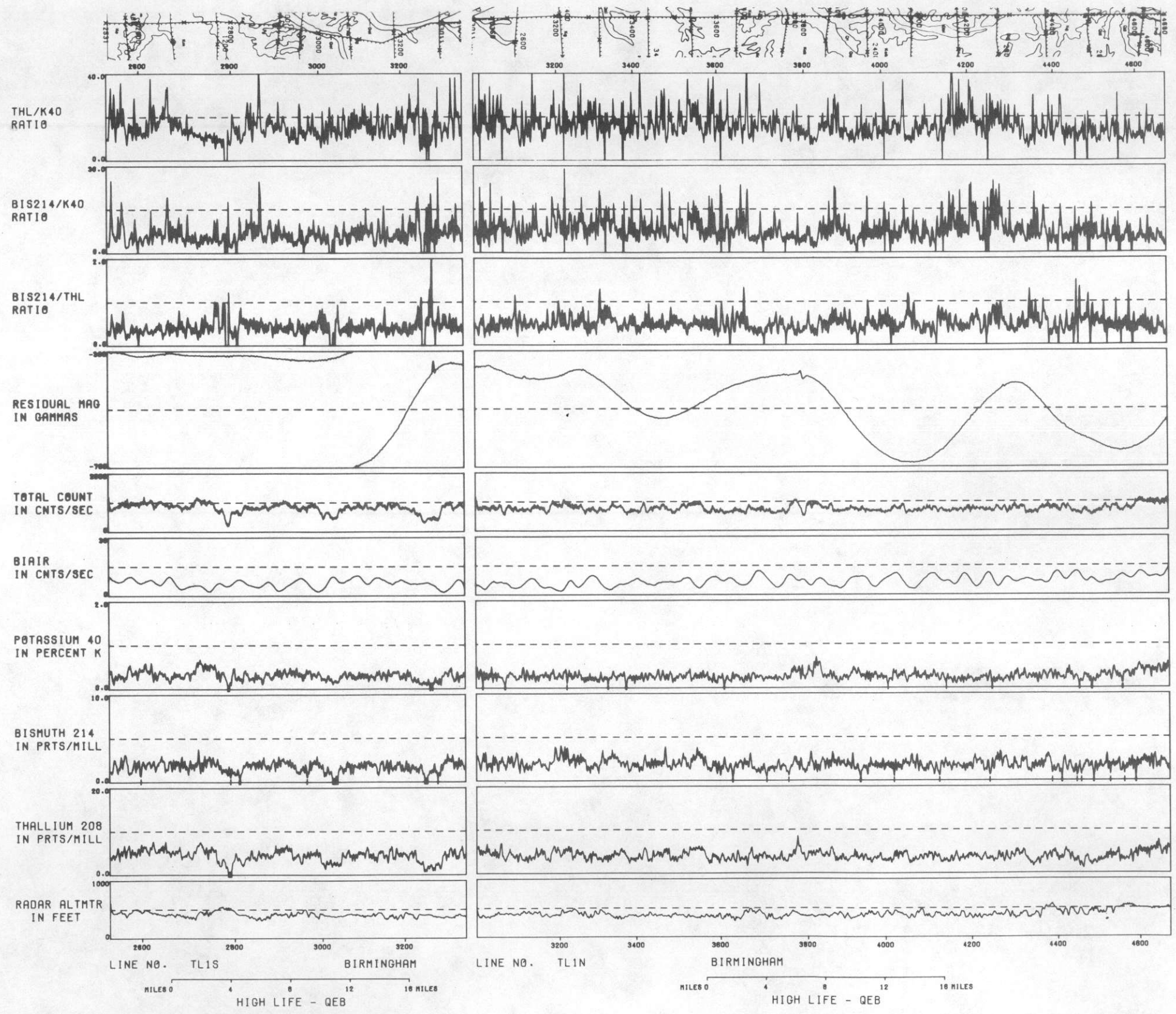
CONTOUR INTERVAL =
REFERENCE CONTOUR (1700) =

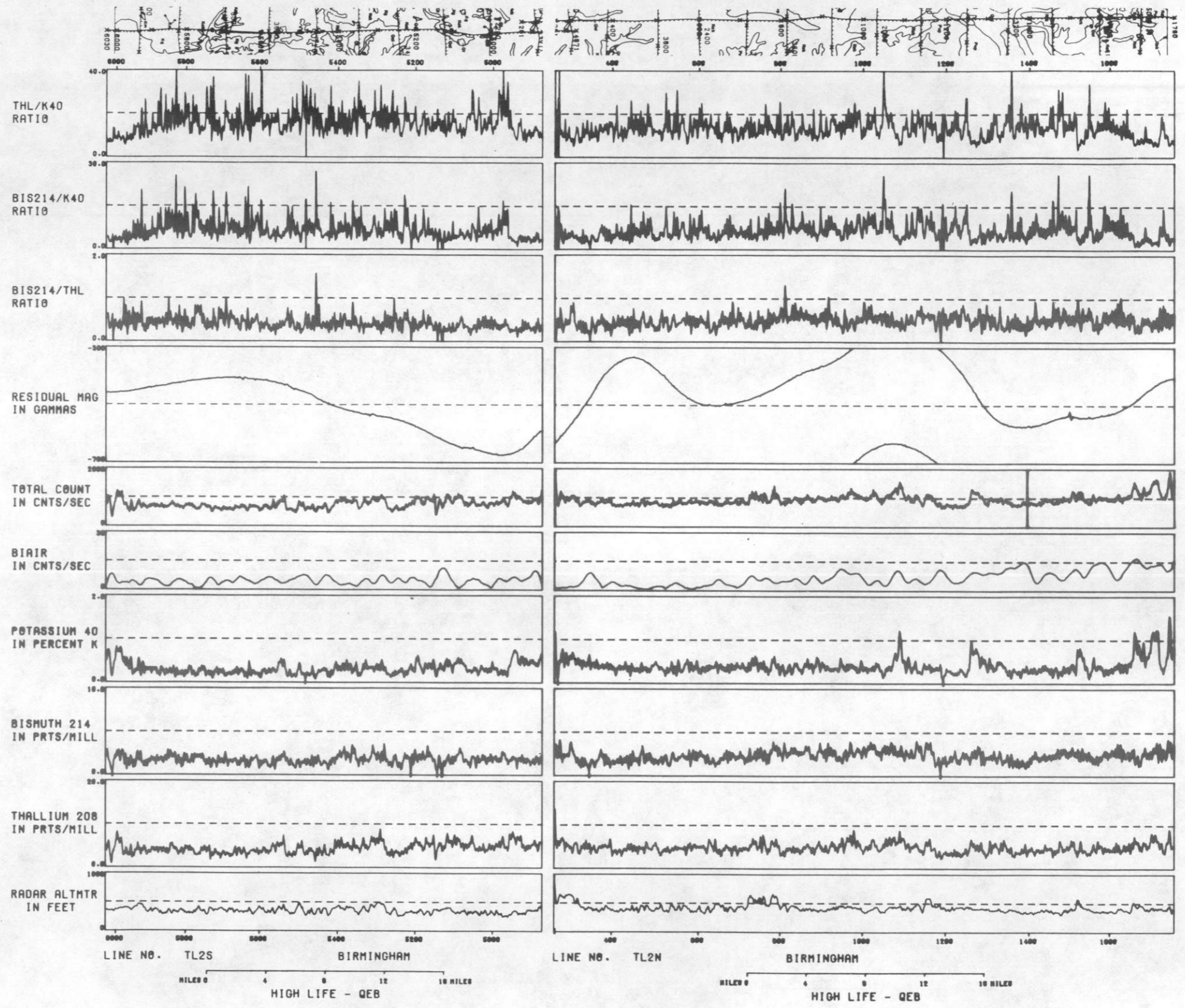


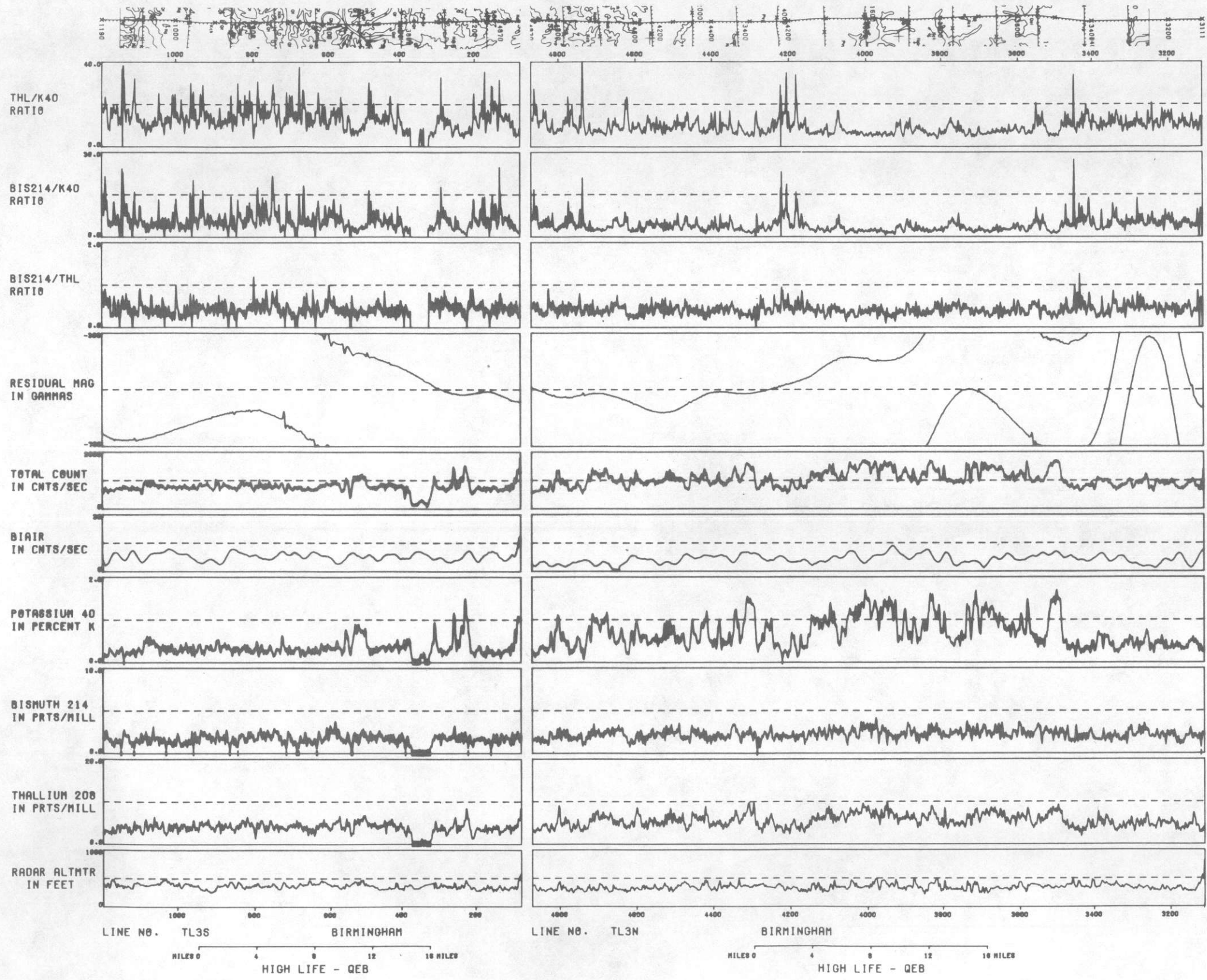
THORIUM / POTASSIUM 40 RATIO
 PSEUDO-CONTOUR MAP

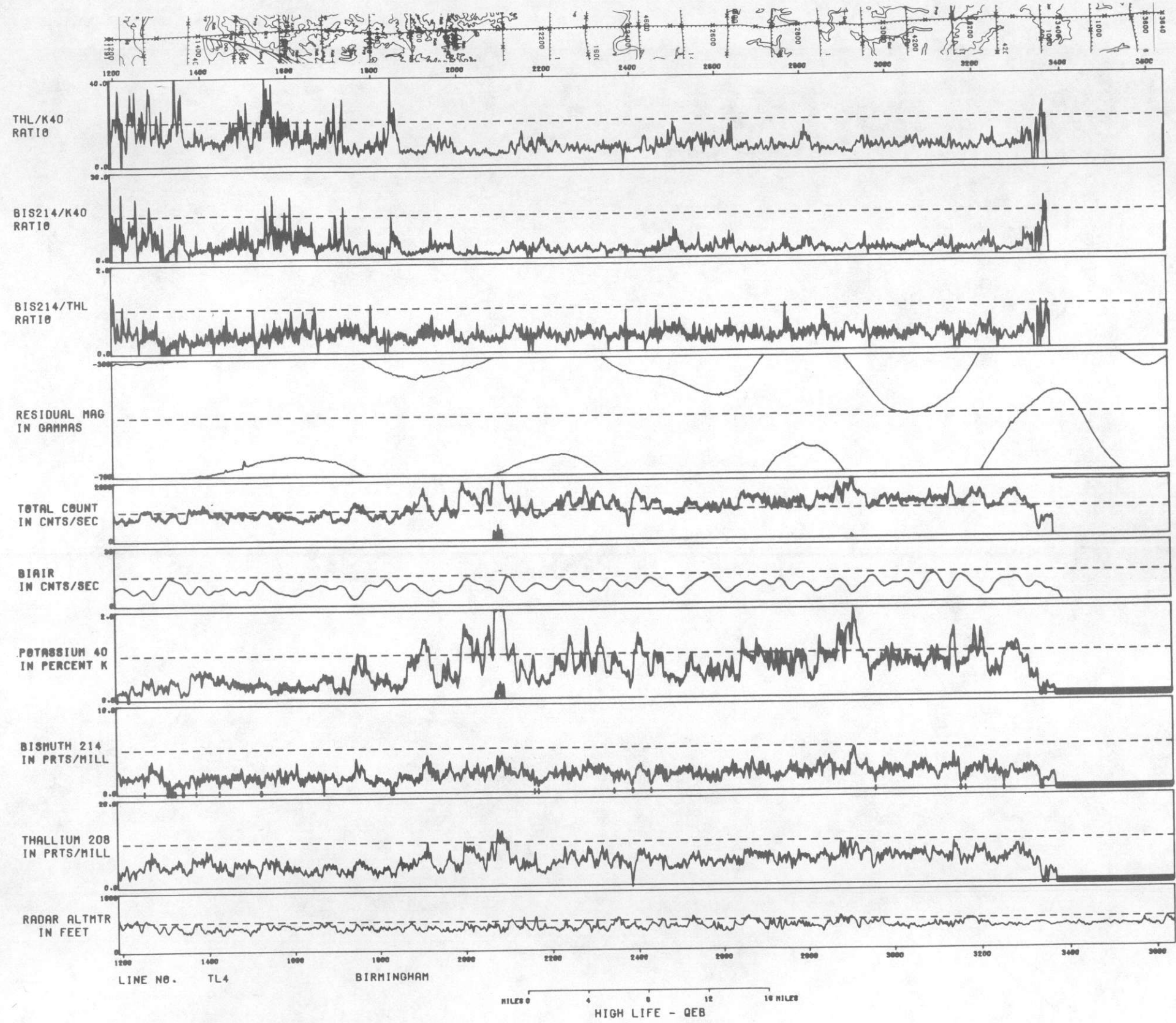
LISTER PLOT UNITS - PPM EQUIVALENT TH / PERCENT K
 REFERENCE CONTOUR (1000) =

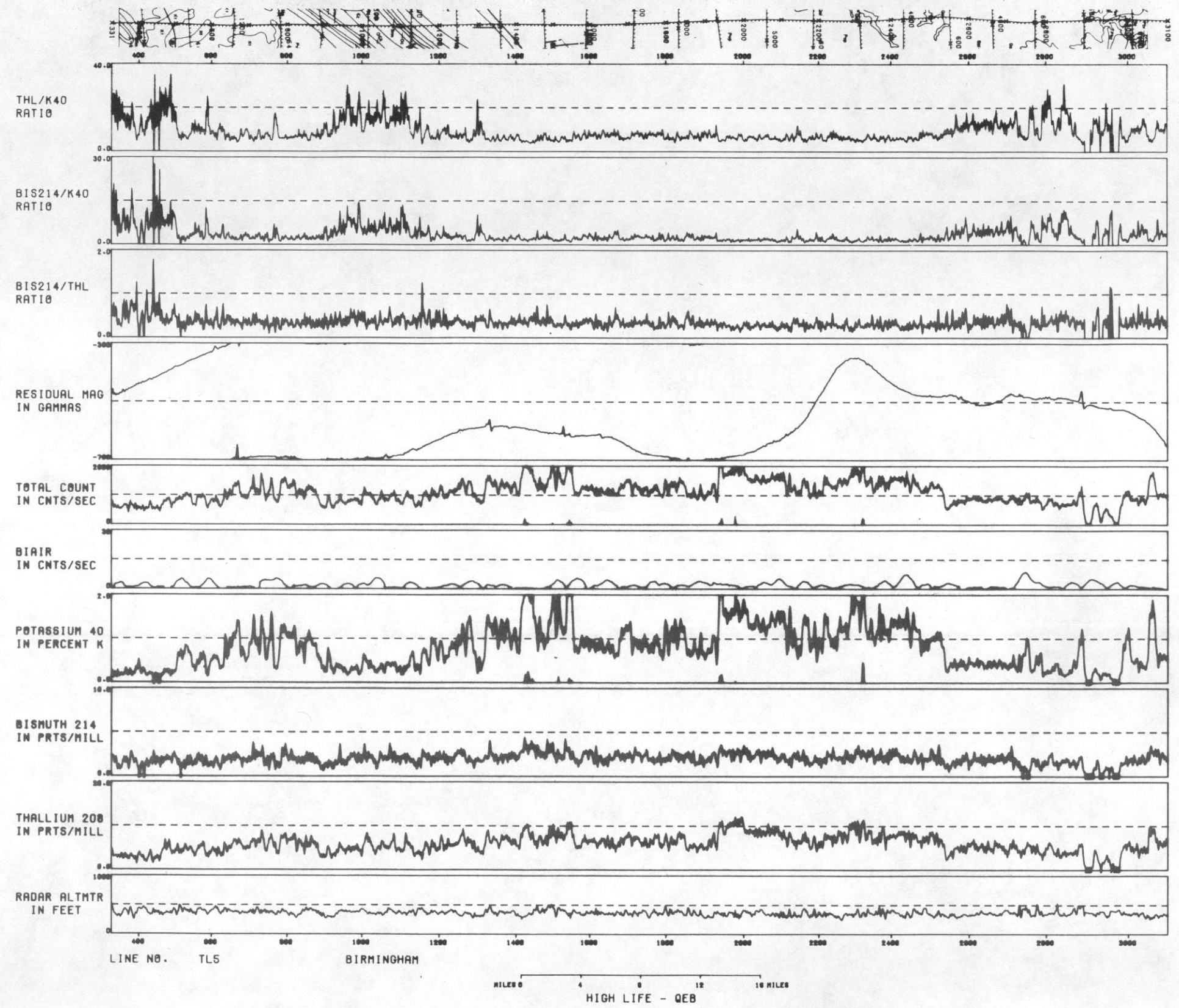
APPENDIX F - STACKED PROFILES

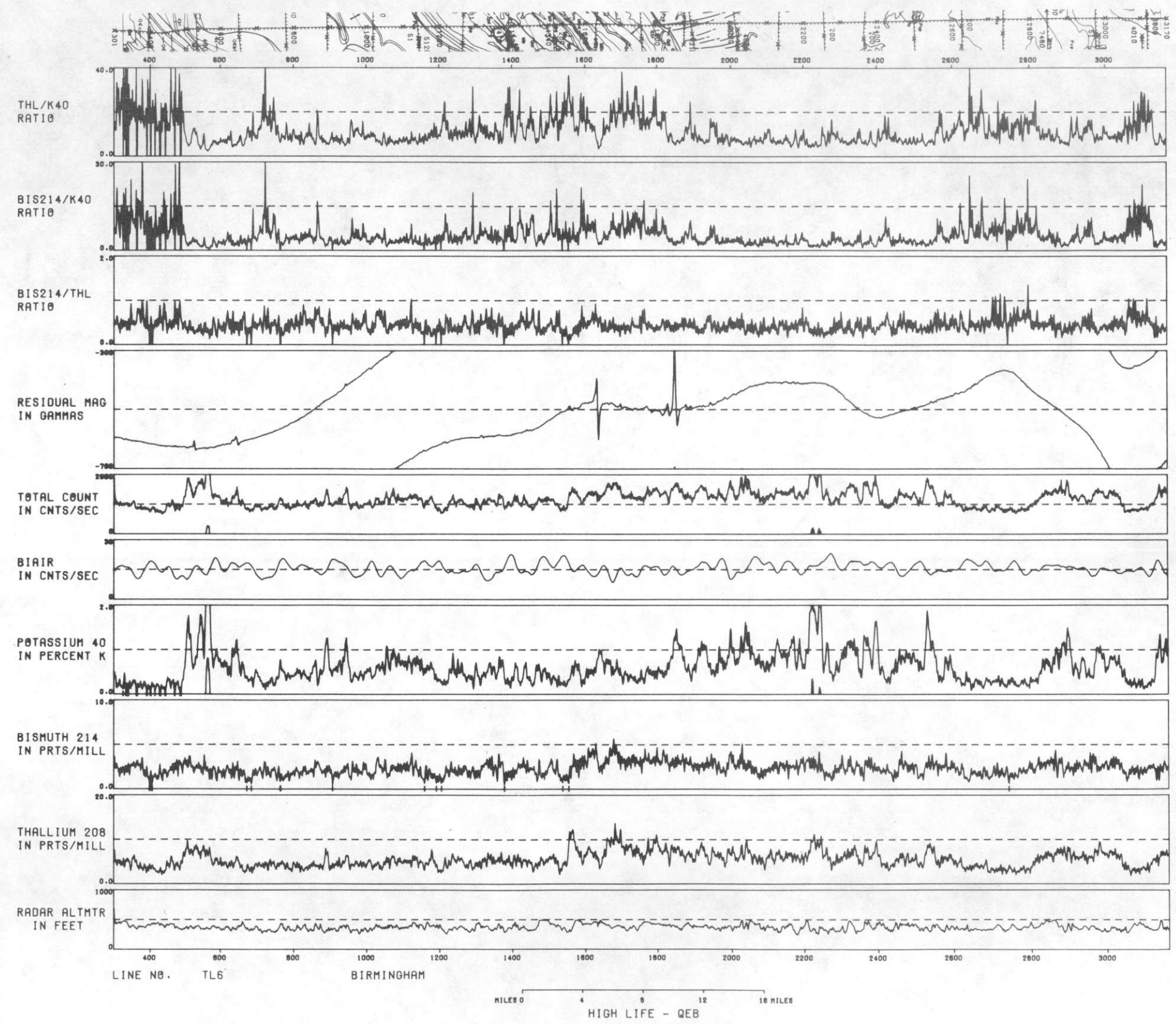


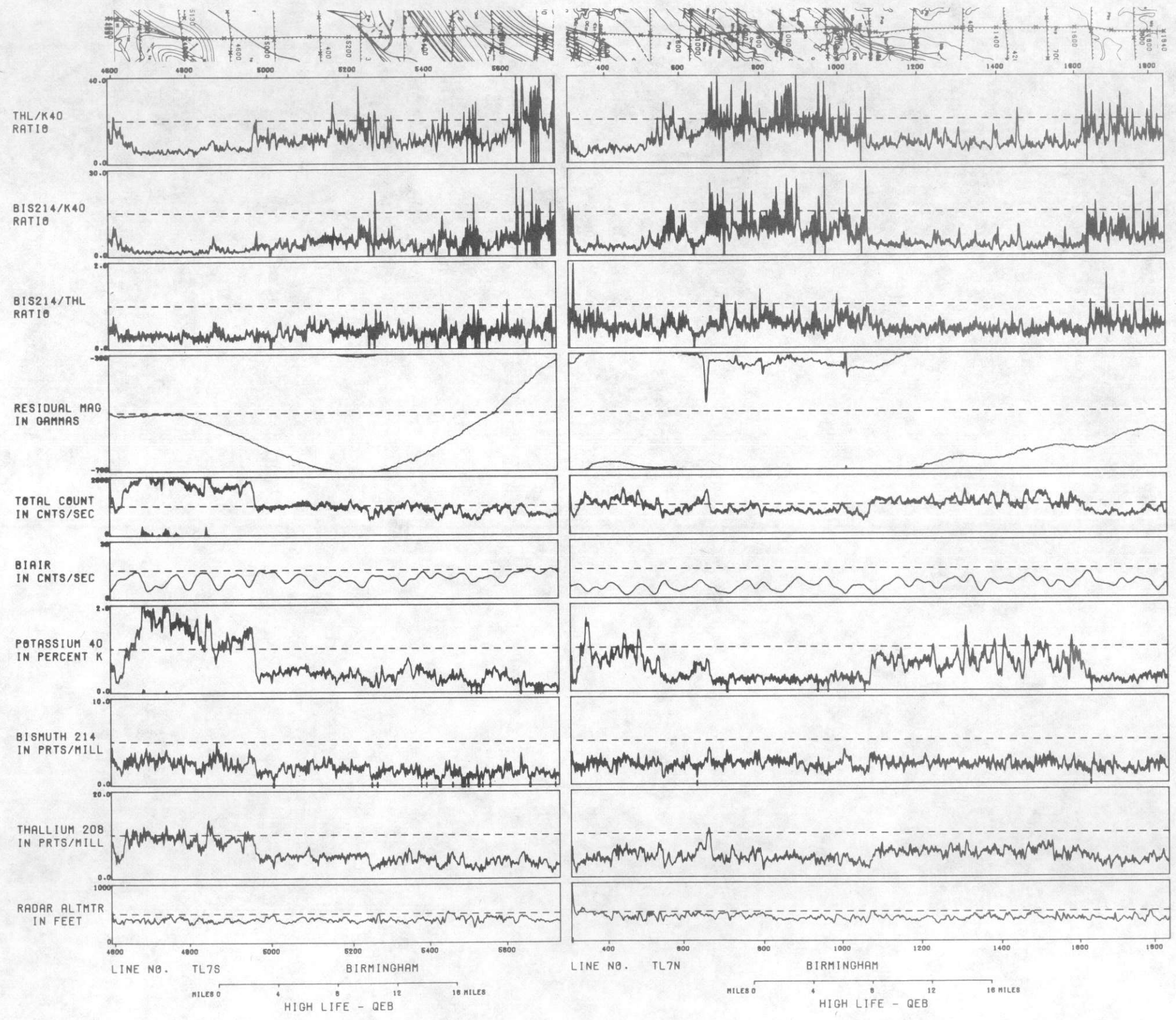


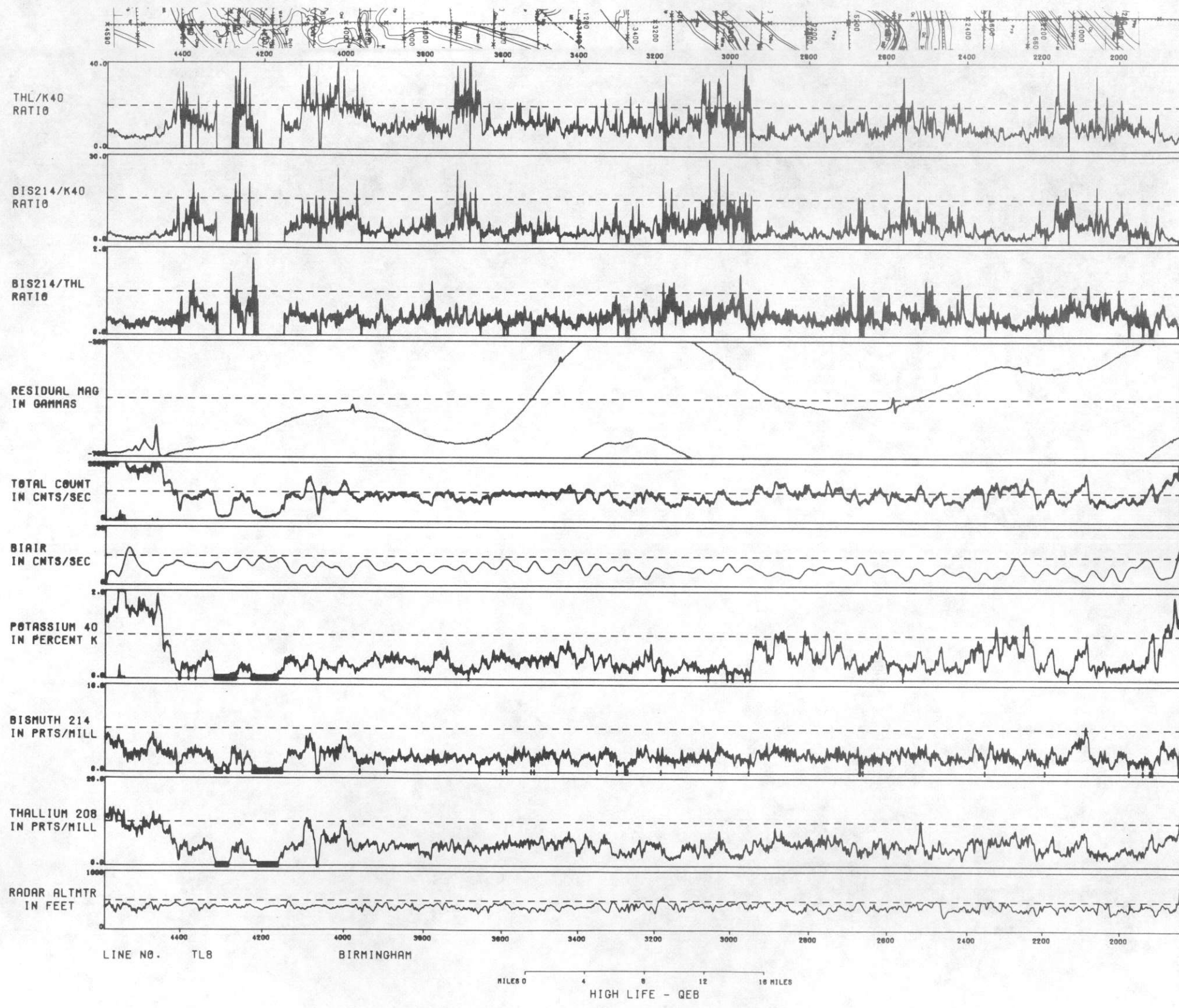


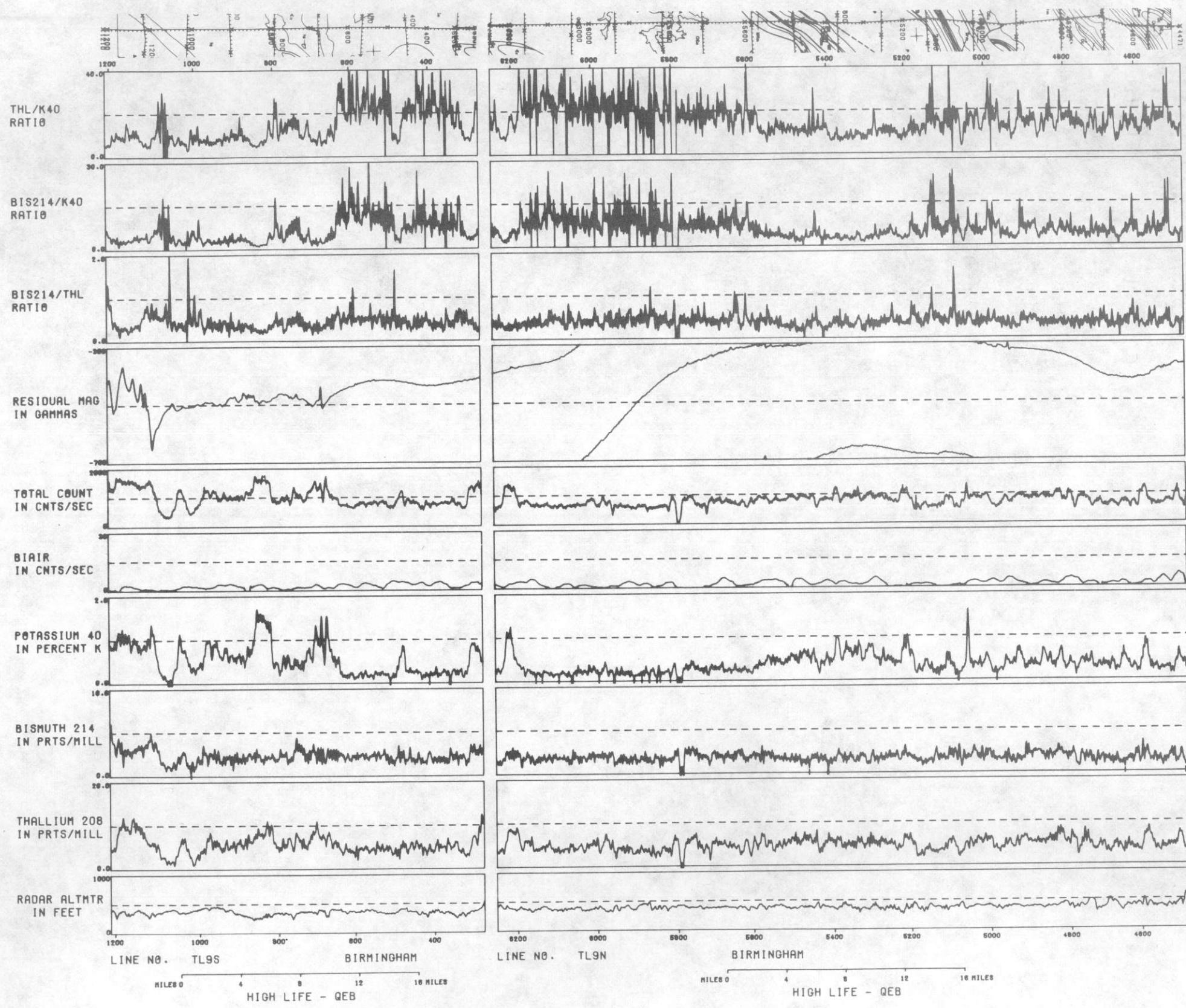


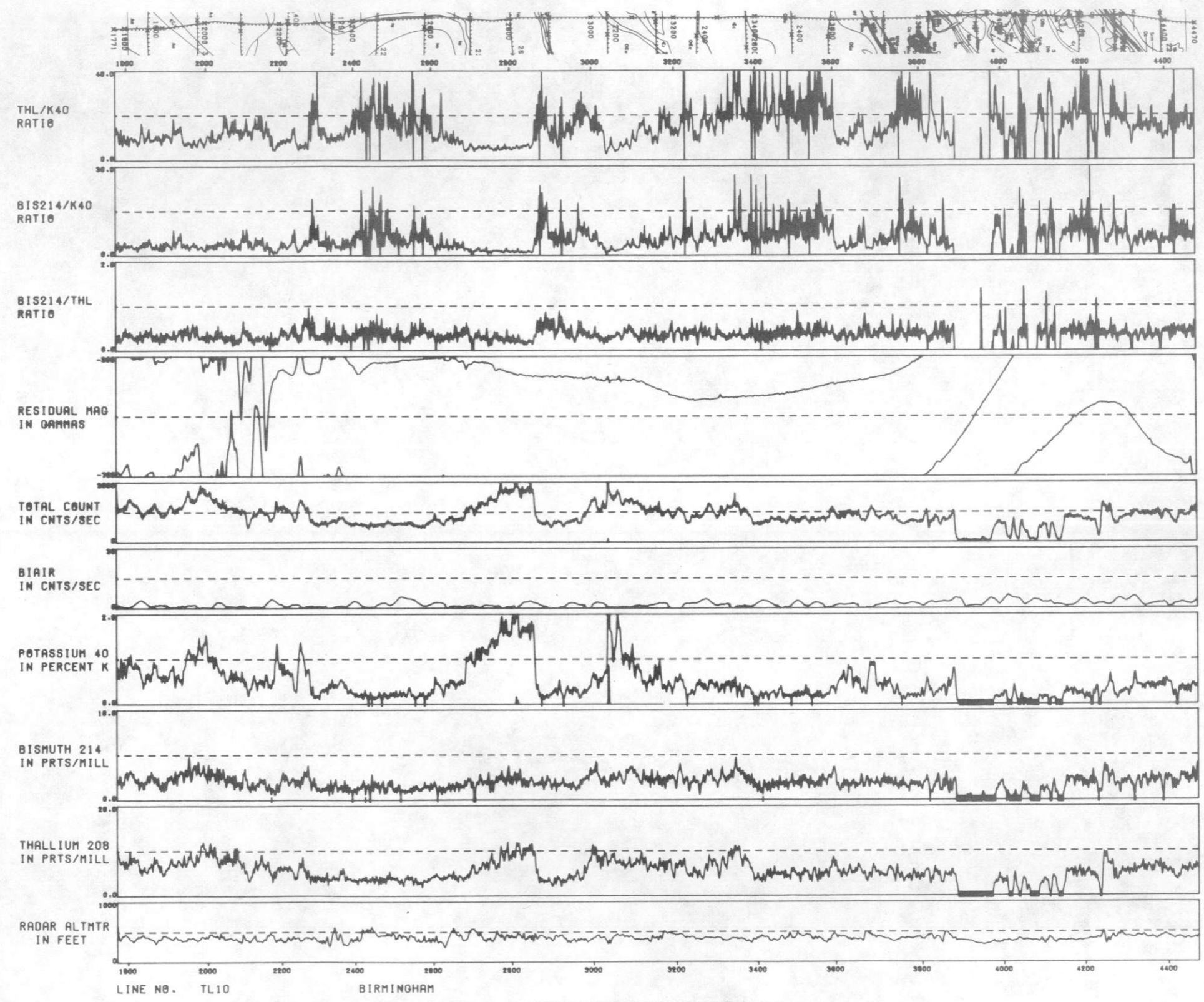


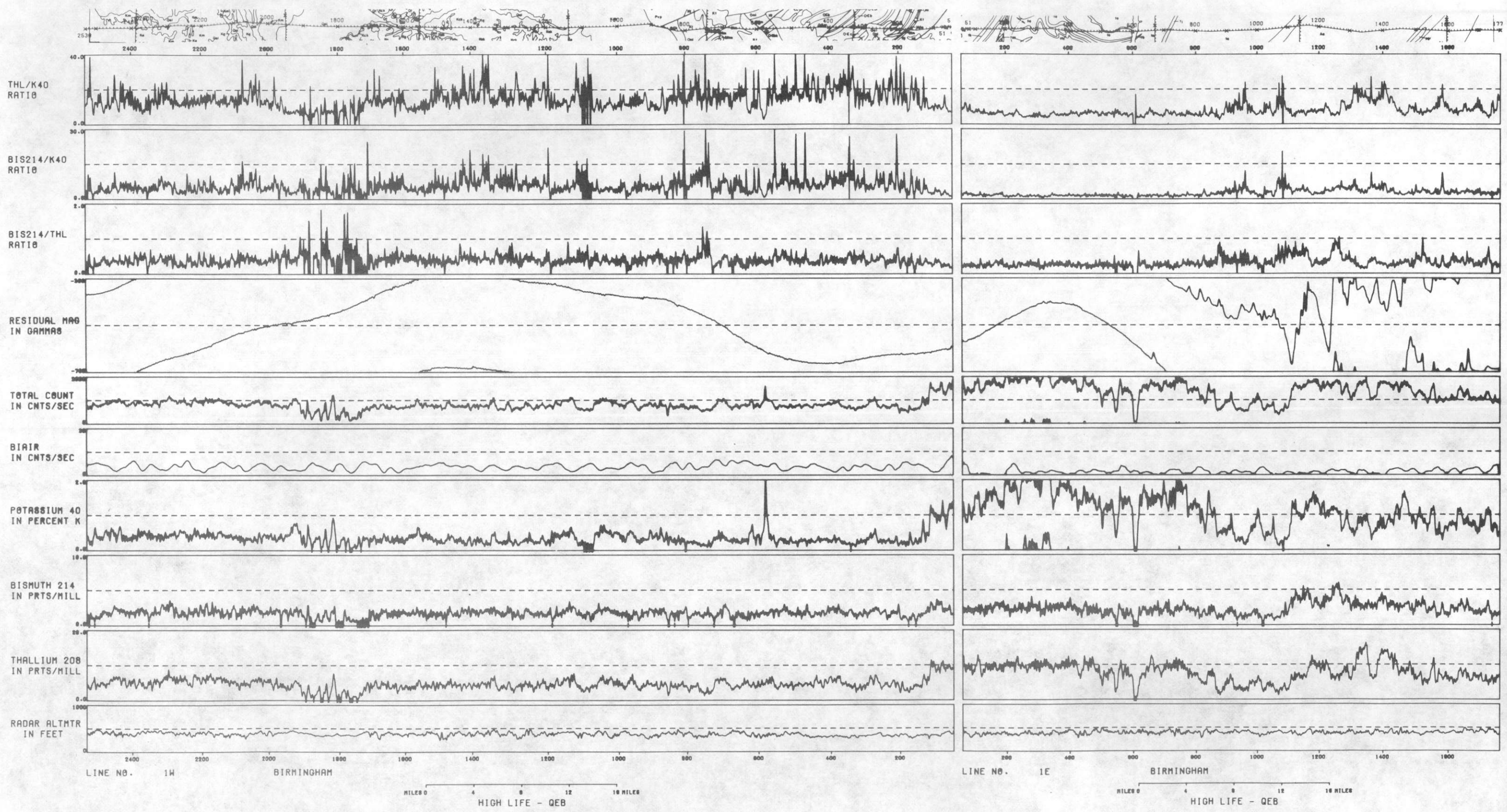


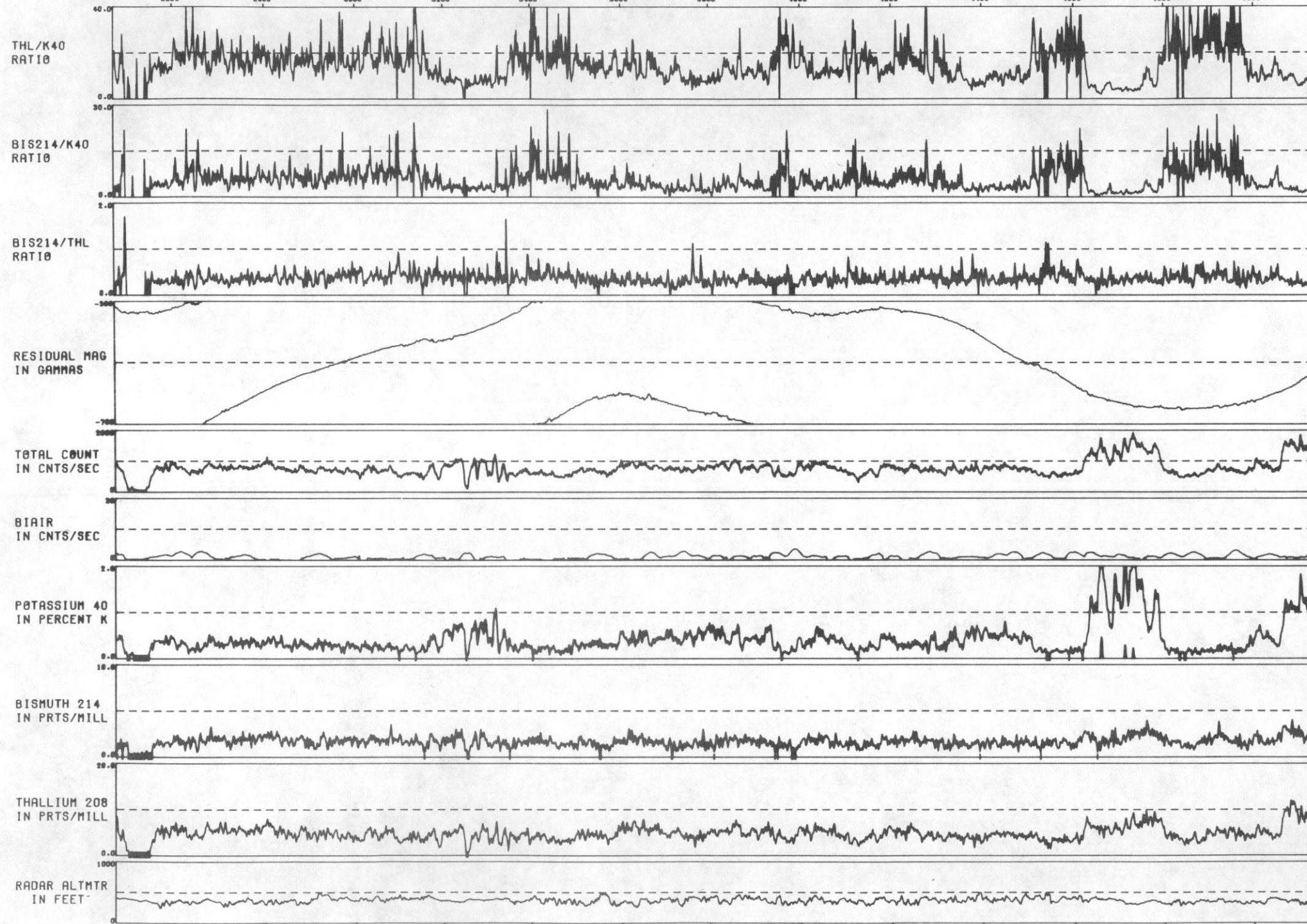
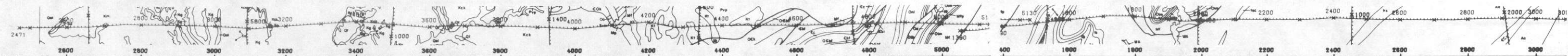




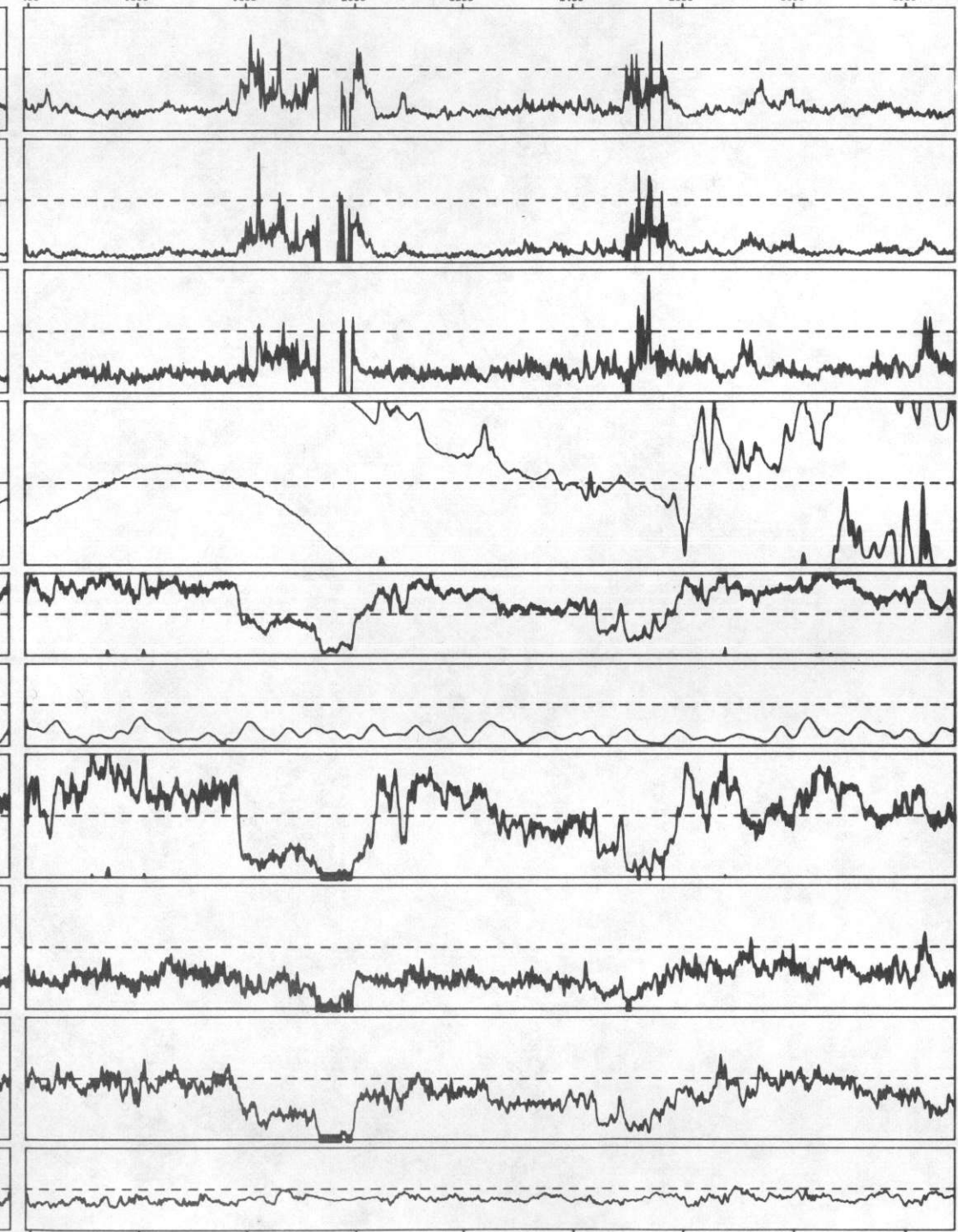
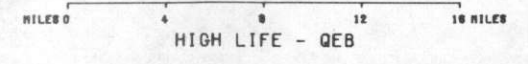




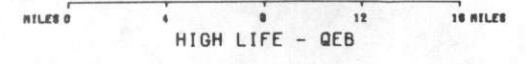


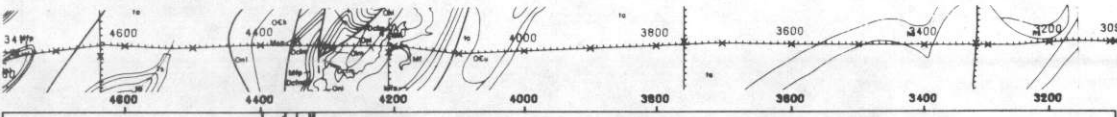
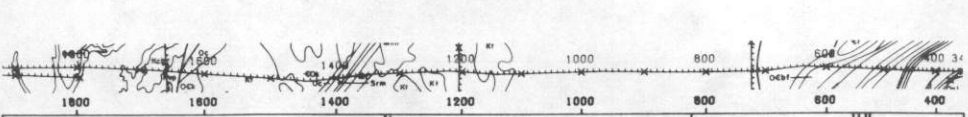


LINE NO. 2H BIRMINGHAM

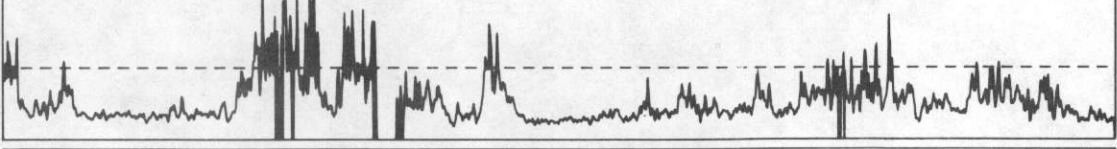
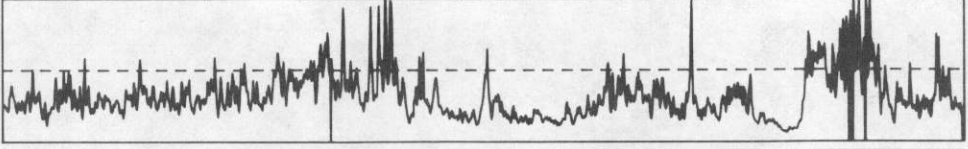
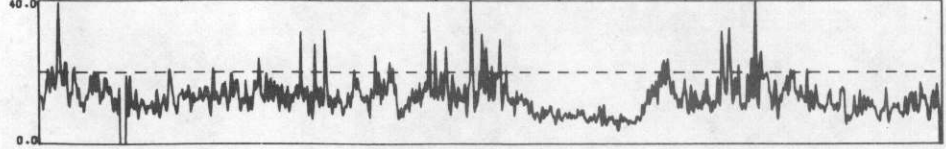


LINE NO. 2E BIRMINGHAM

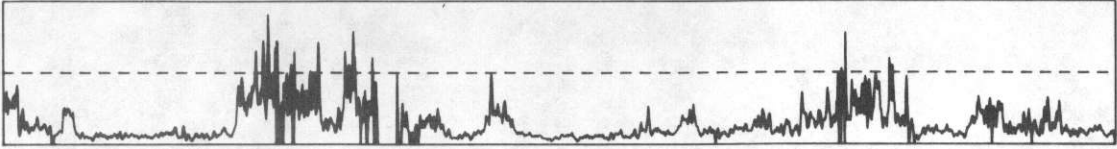
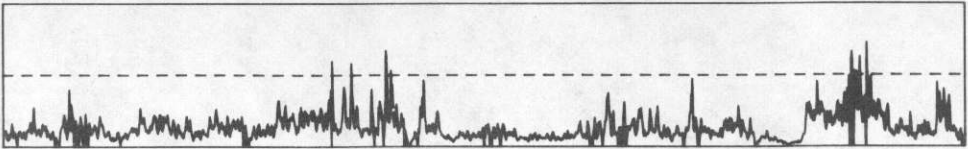
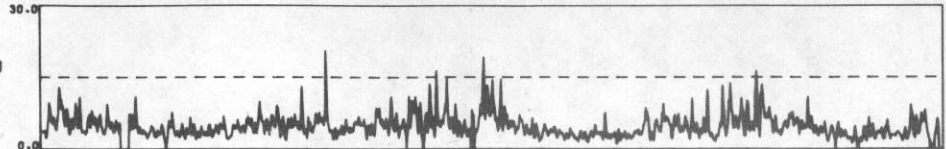




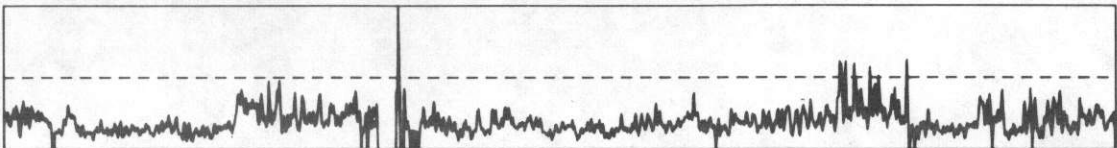
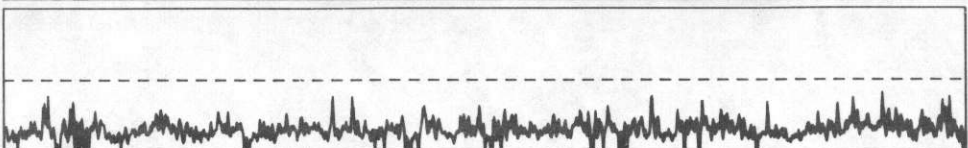
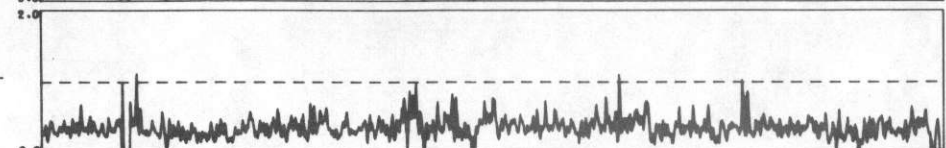
THL/K40
RATIO



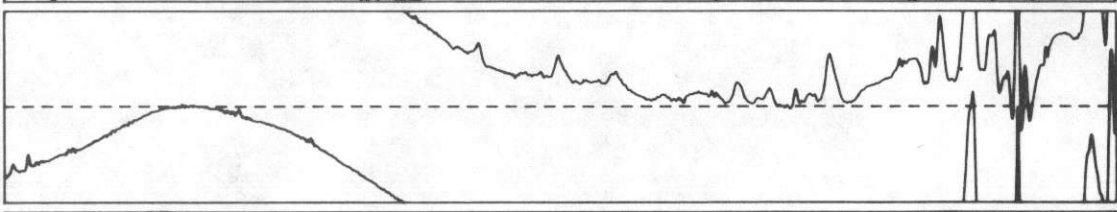
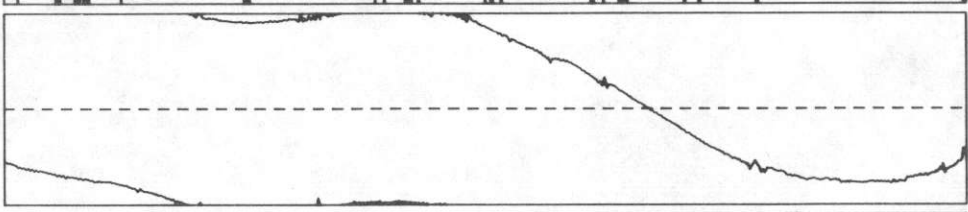
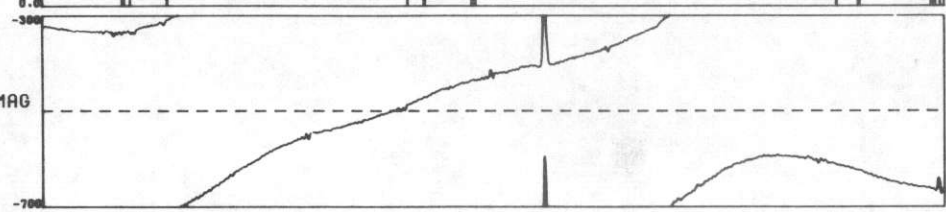
BIS214/K40
RATIO



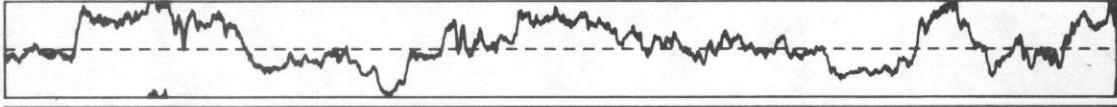
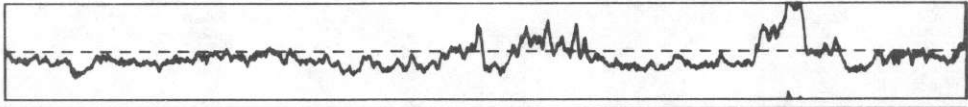
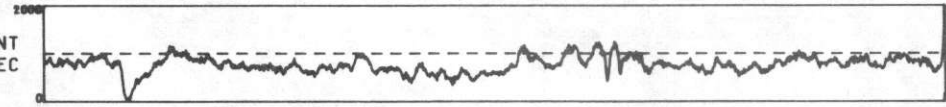
BIS214/THL
RATIO



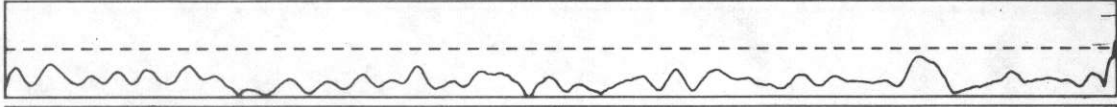
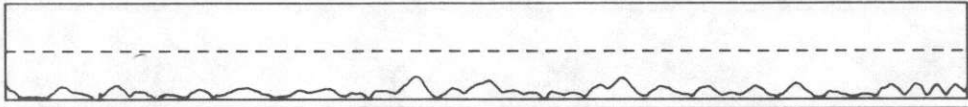
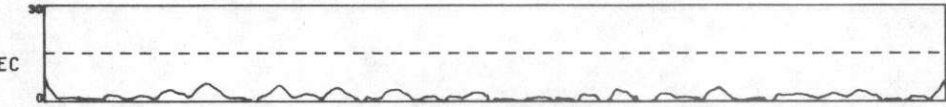
RESIDUAL MAG
IN GAMMAS



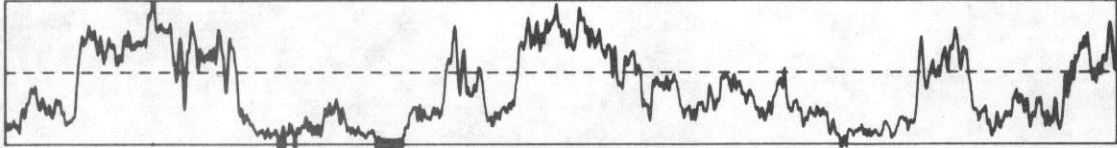
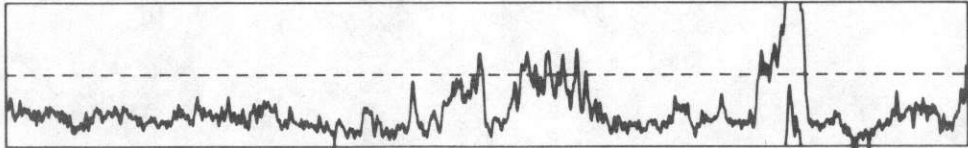
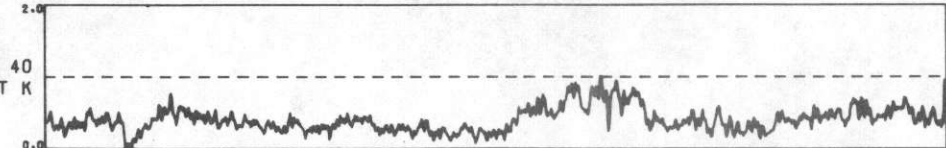
TOTAL COUNT
IN CNTS/SEC



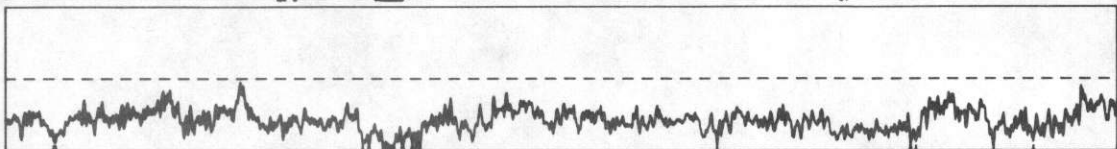
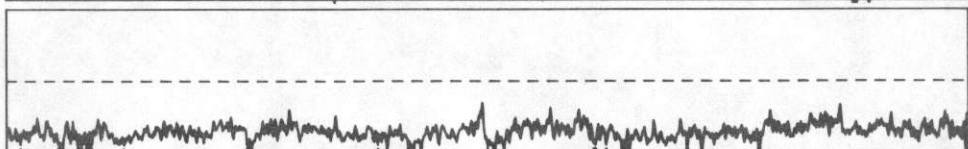
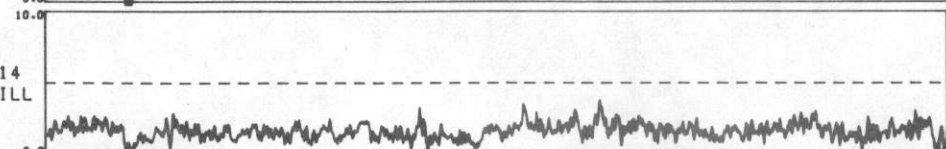
BIAR
IN CNTS/SEC



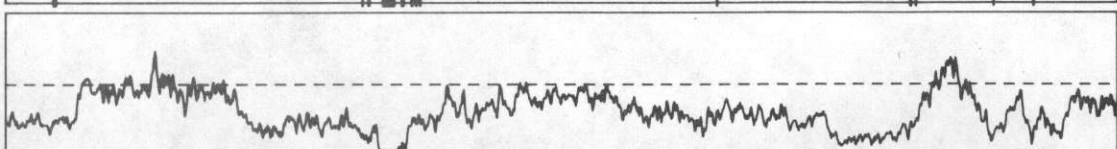
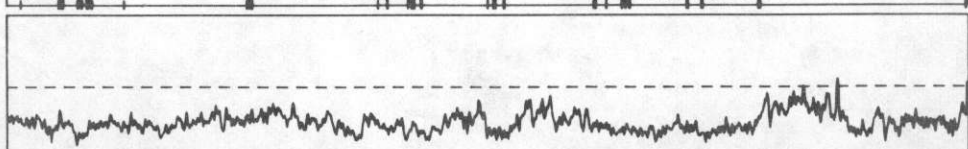
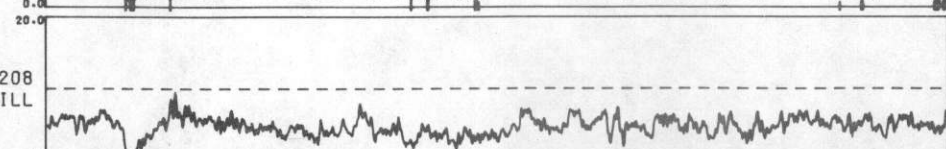
POTASSIUM 40
IN PERCENT K



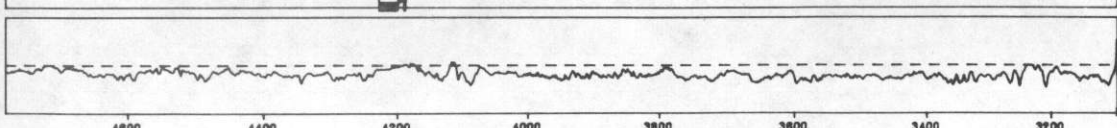
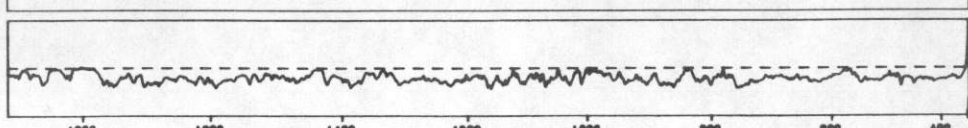
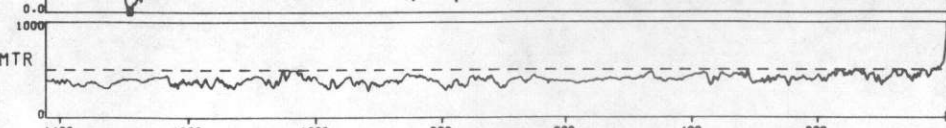
BISMUTH 214
IN PRPTS/MILL



THALLIUM 208
IN PRPTS/MILL



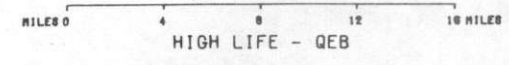
RADAR ALTMTR
IN FEET

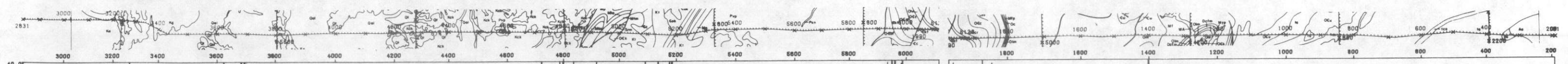


LINE NO. 3W BIRMINGHAM

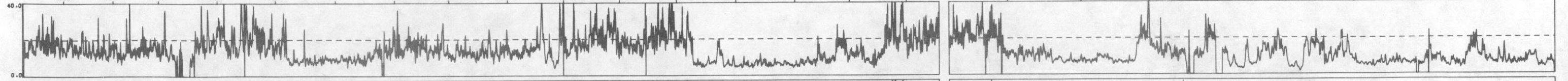
LINE NO. 3C BIRMINGHAM

LINE NO. 3E BIRMINGHAM

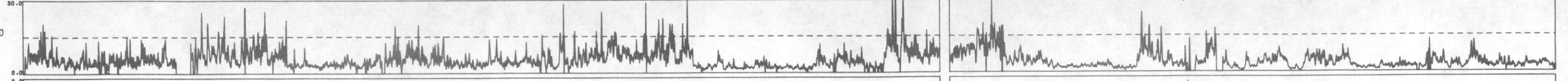




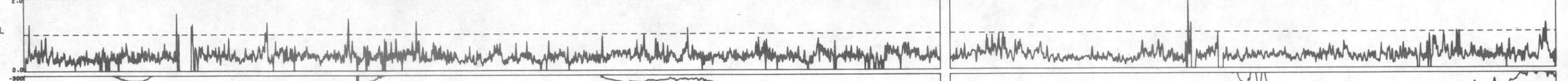
THL/K40 RATIO



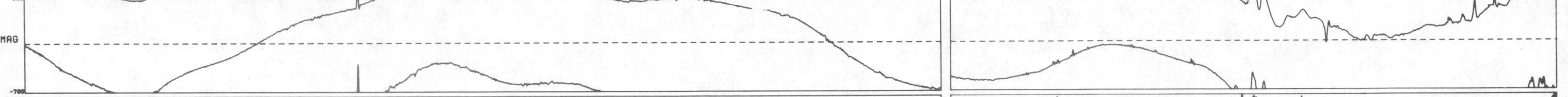
BIS214/K40 RATIO



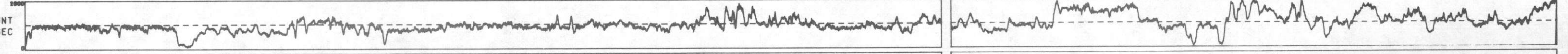
BIS214/THL RATIO



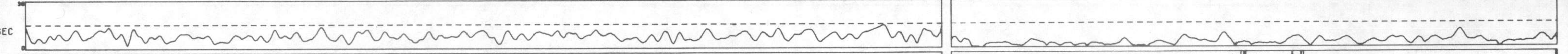
RESIDUAL MAG IN GAMMAS



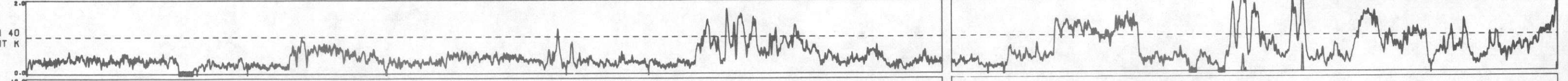
TOTAL COUNT IN CNTS/SEC



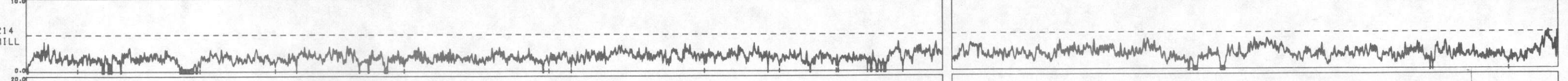
BIAIR IN CNTS/SEC



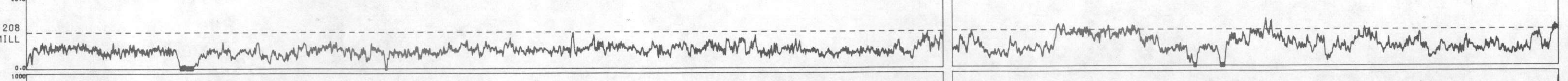
POTASSIUM 40 IN PERCENT K



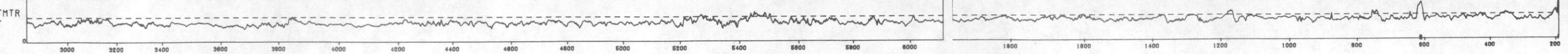
BISMUTH 214 IN PRPTS/MILL



THALLIUM 208 IN PRPTS/MILL



RADAR ALTMTR IN FEET



LINE NO. 4W BIRMINGHAM

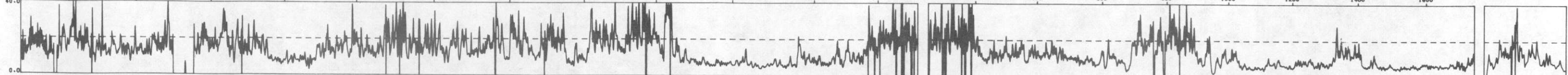
LINE NO. 4E BIRMINGHAM

HIGH LIFE - QEB

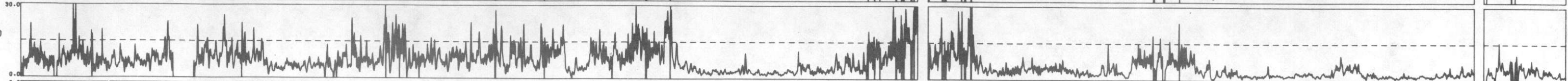
HIGH LIFE - QEB



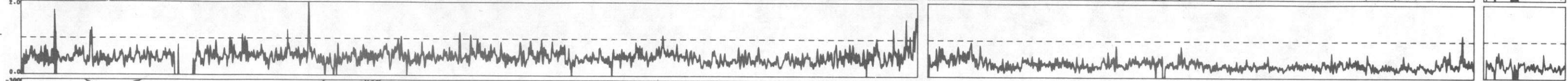
THL/K40
TI0



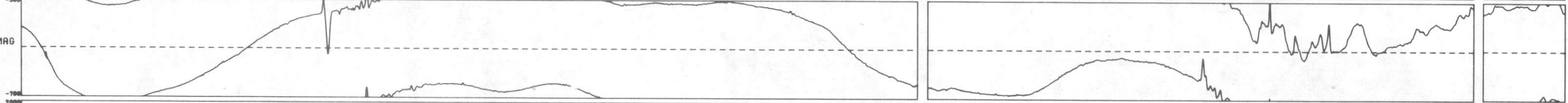
S214/K40
TI0



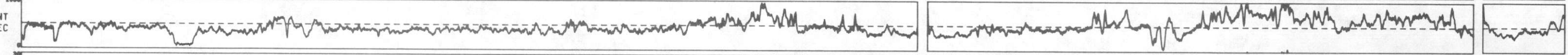
BIS214/THL
RATIO



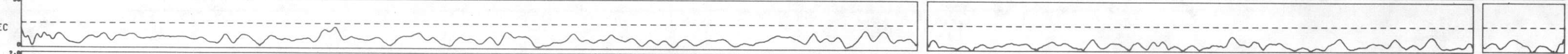
SIDUAL MAG
GAMMAS



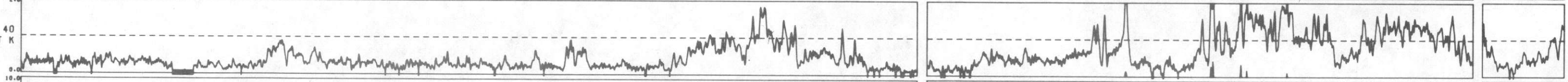
TOTAL COUNT
IN CNTS/SEC



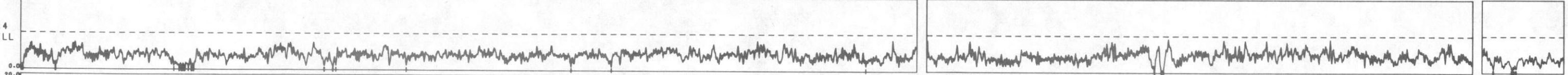
BIAIR
IN CNTS/SEC



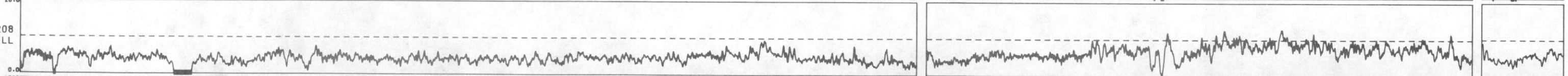
POTASSIUM 40
PERCENT K



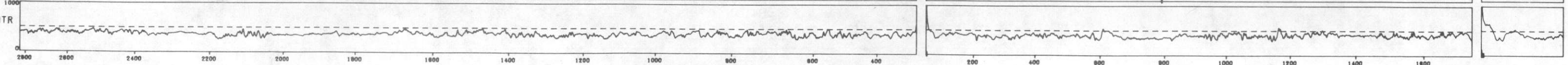
SMUTH 214
PRTS/MILL



THALLIUM 208
PRTS/MILL



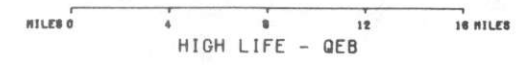
RADAR ALTMTR
IN FEET



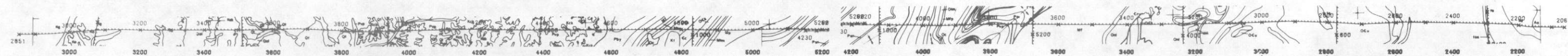
LINE NO. SW BIRMINGHAM



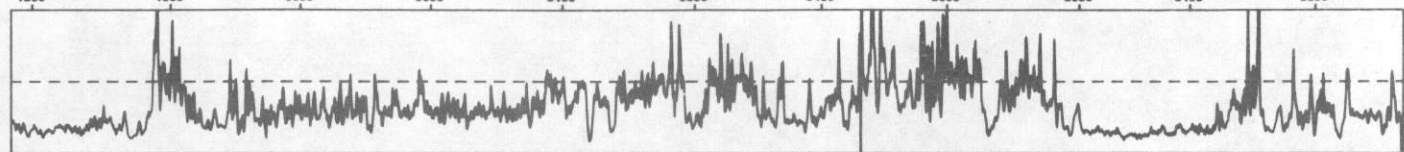
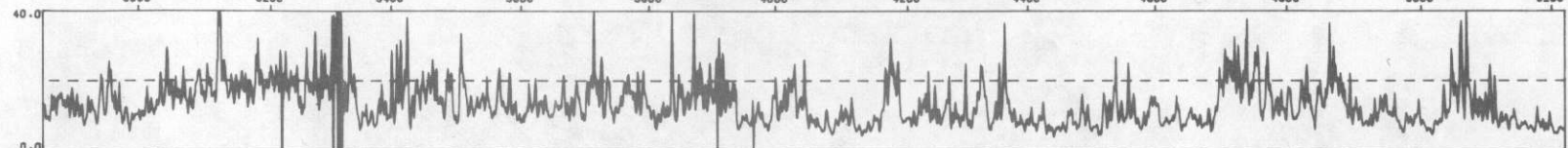
LINE NO. SE BIRMINGHAM



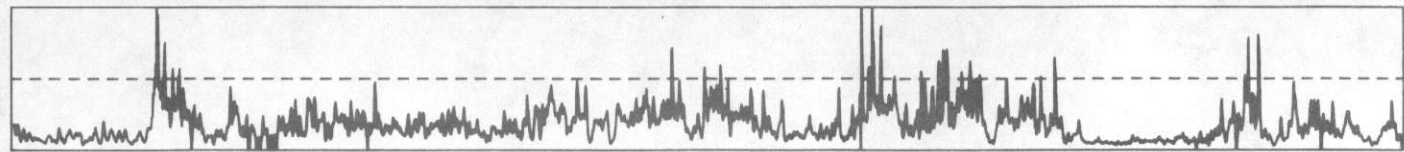
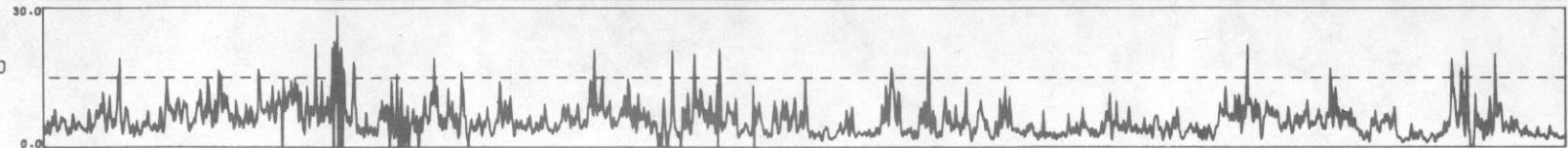
LINE NO. SE



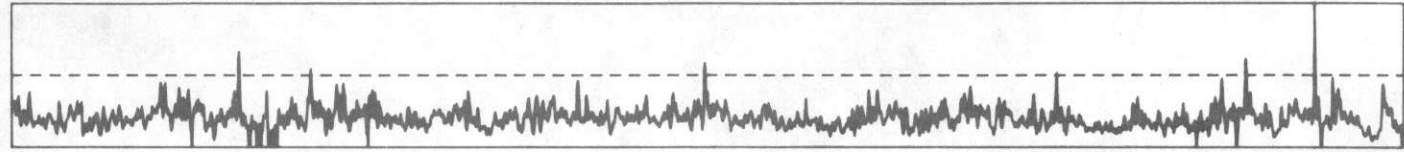
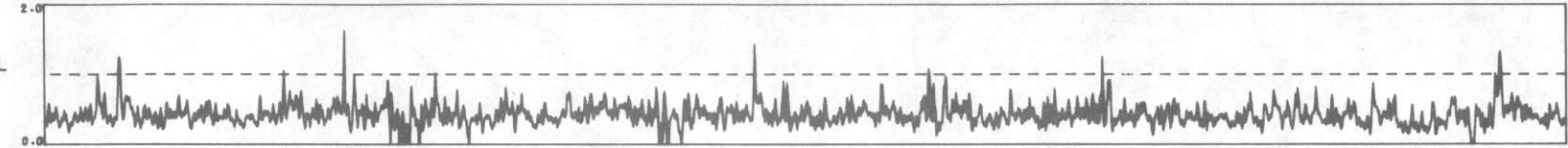
THL/K40
RATIO



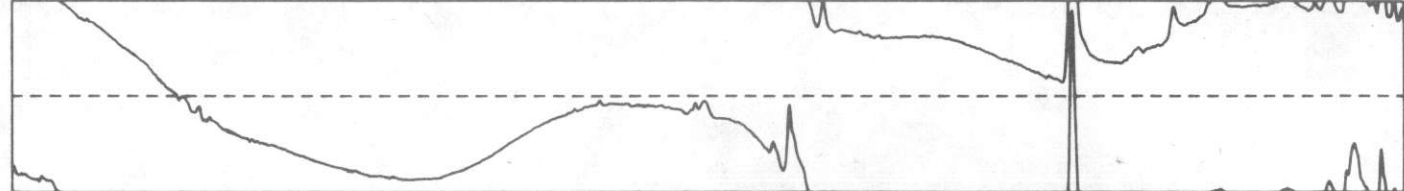
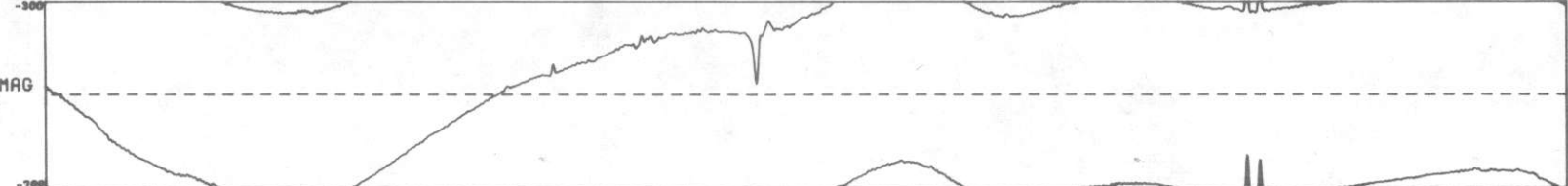
BIS214/K40
RATIO



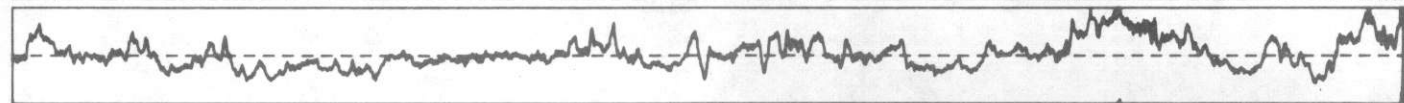
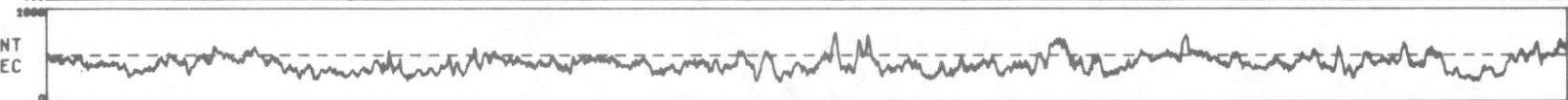
BIS214/THL
RATIO



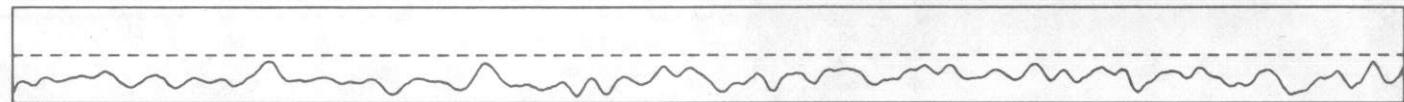
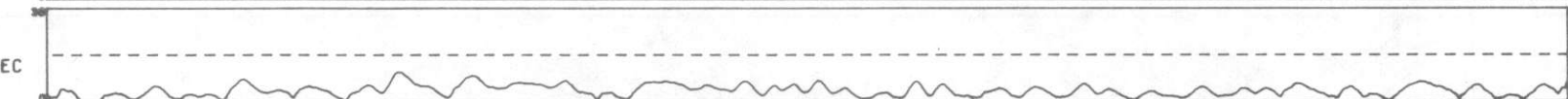
RESIDUAL MAG
IN GAMMAS



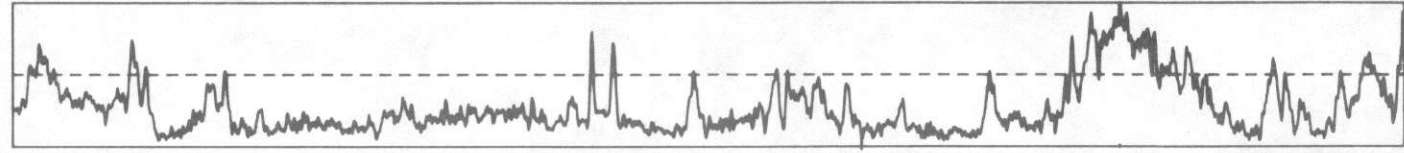
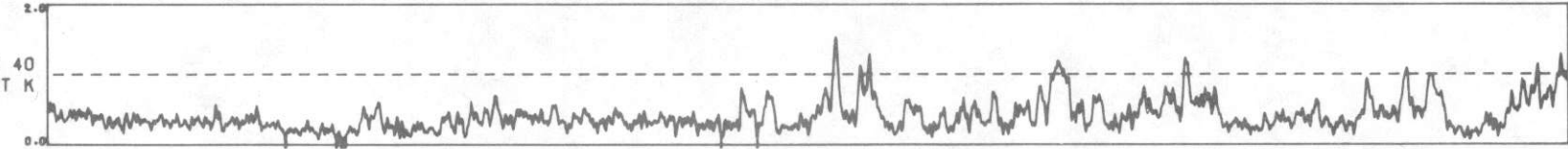
TOTAL COUNT
IN CNTS/SEC



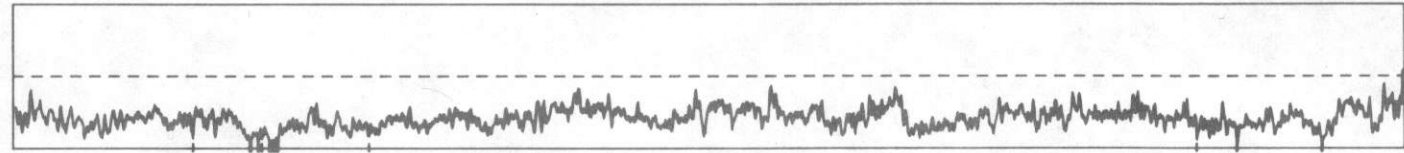
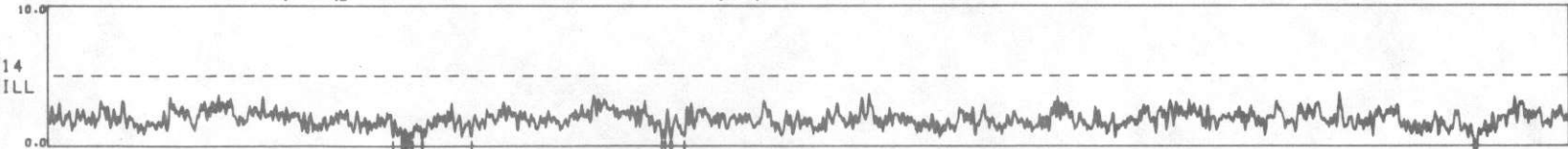
BIAIR
IN CNTS/SEC



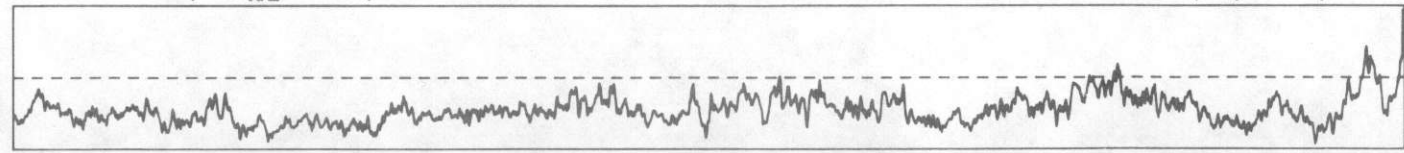
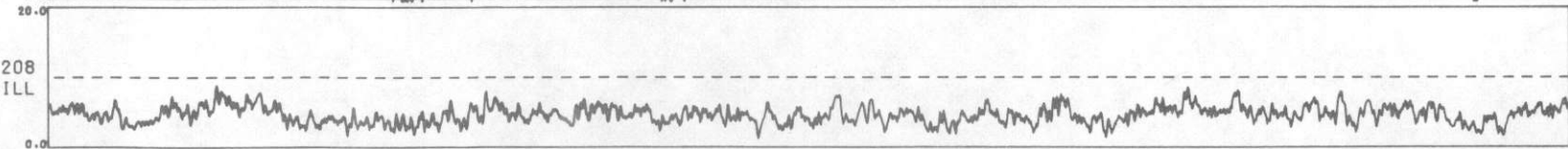
POTASSIUM 40
IN PERCENT K



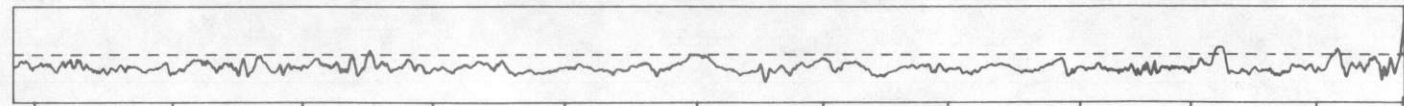
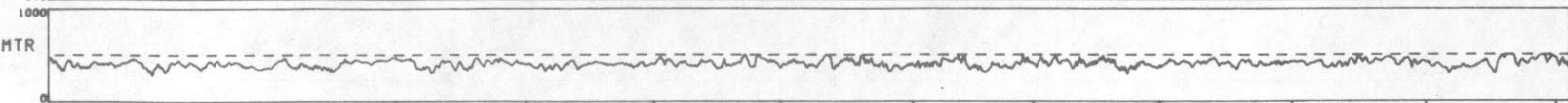
BISMUTH 214
IN PRTS/MILL



THALLIUM 208
IN PRTS/MILL

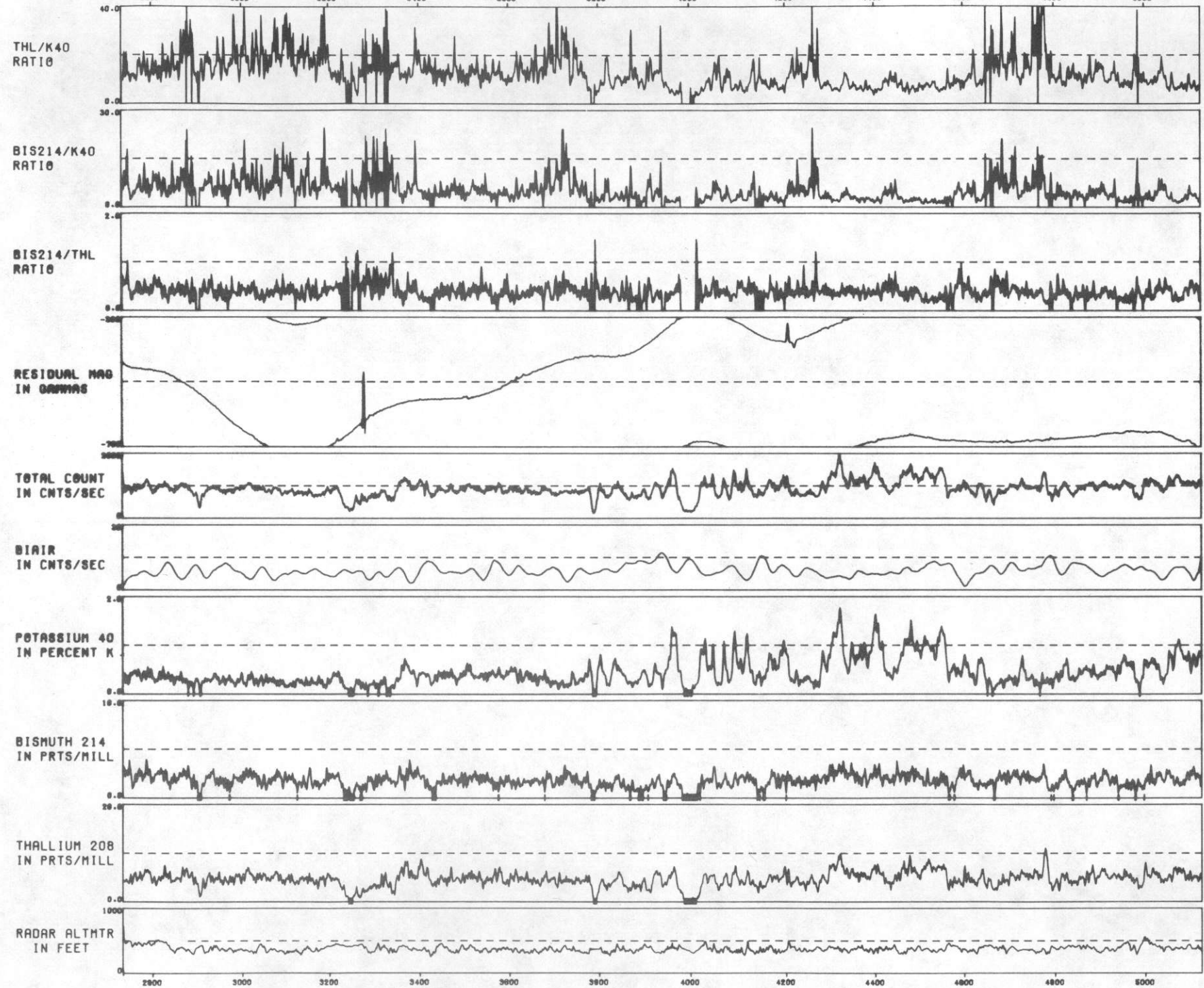
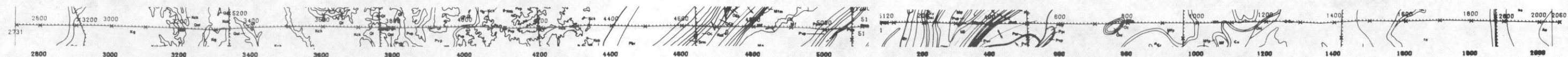


RADAR ALTMTR
IN FEET

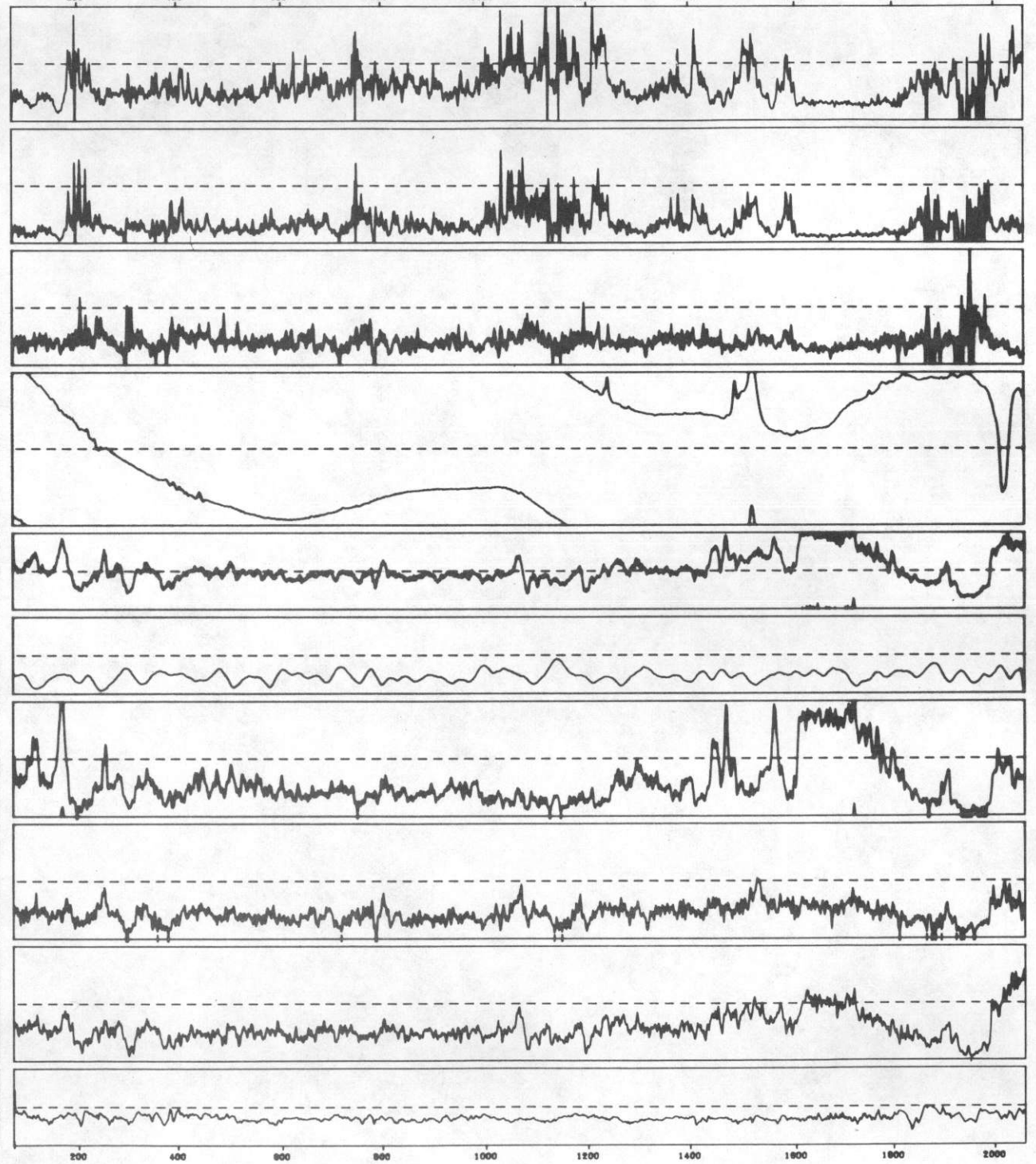


LINE NO. 6W BIRMINGHAM
NILES 0 4 8 12 16 NILES
HIGH LIFE - QEB

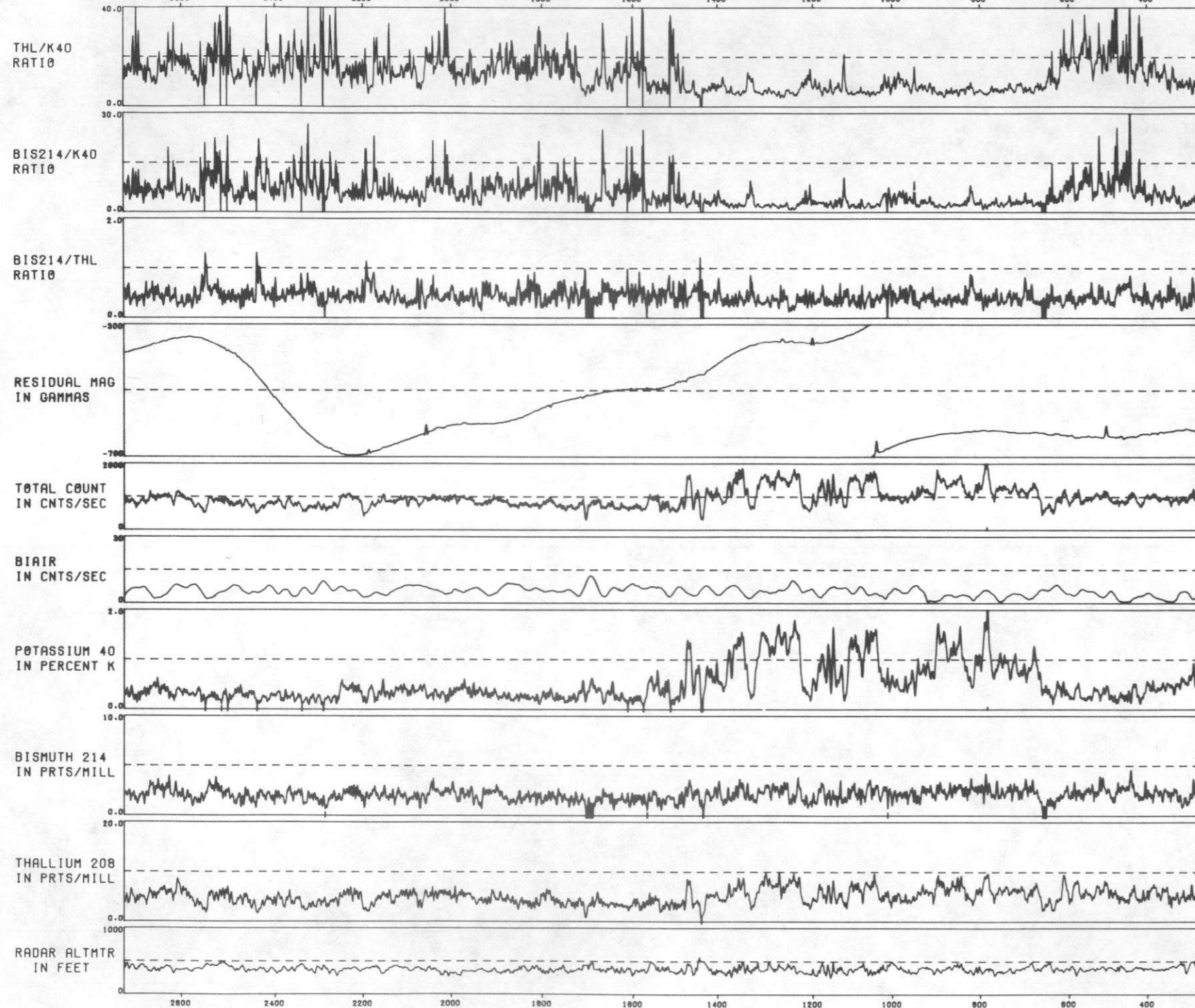
LINE NO. 6E BIRMINGHAM
NILES 0 4 8 12 16 NILES
HIGH LIFE - QEB



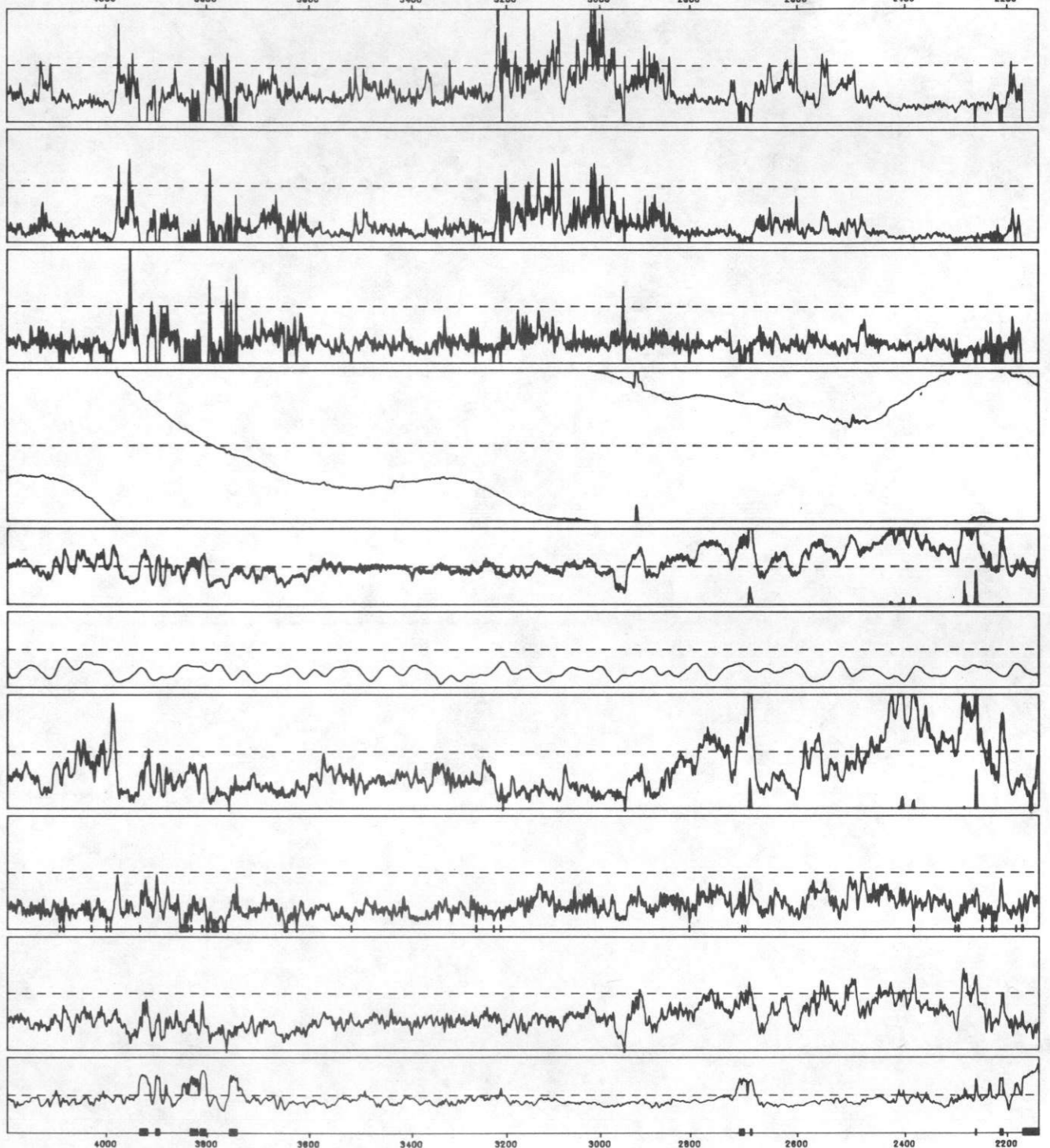
LINE NO. 7H BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



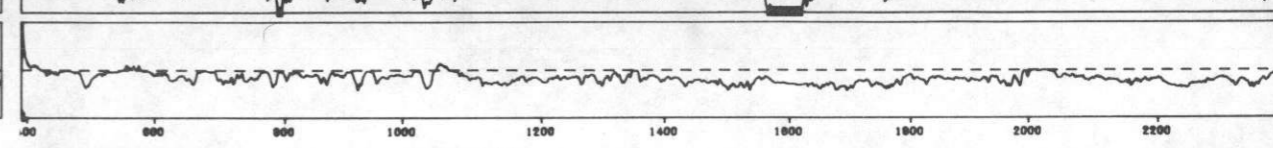
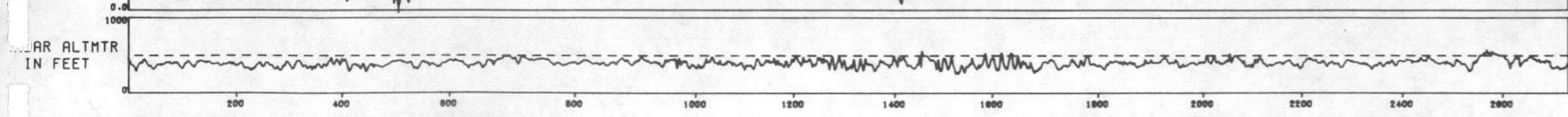
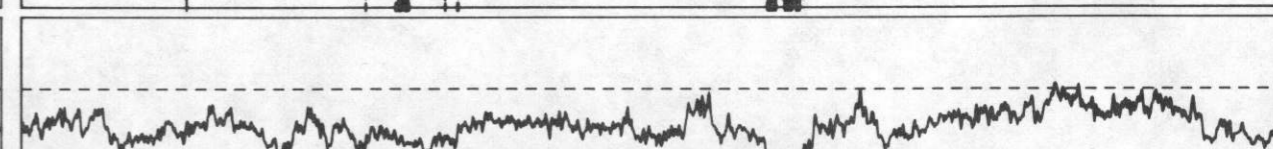
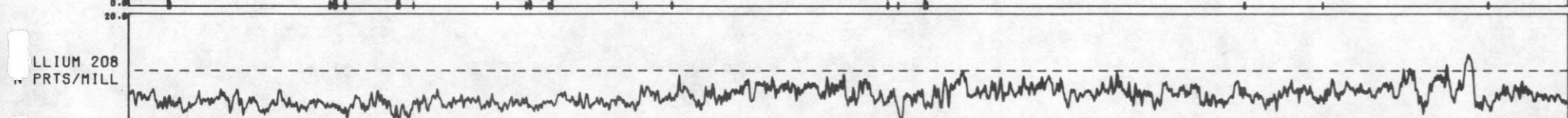
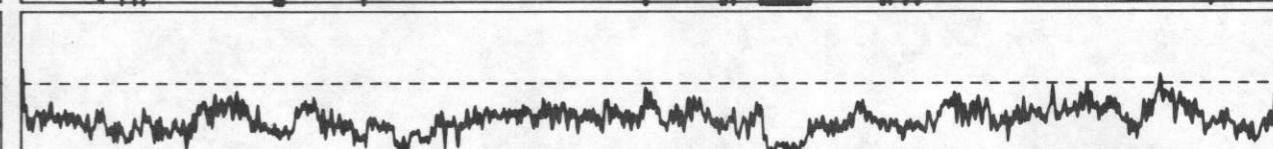
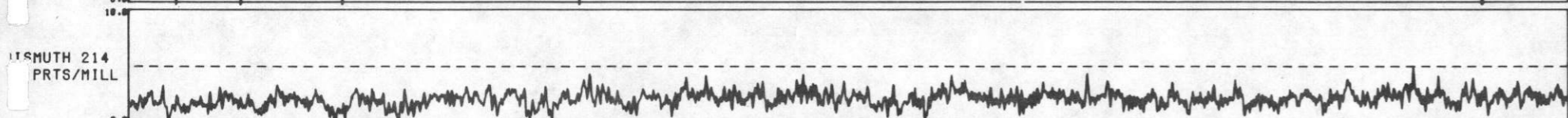
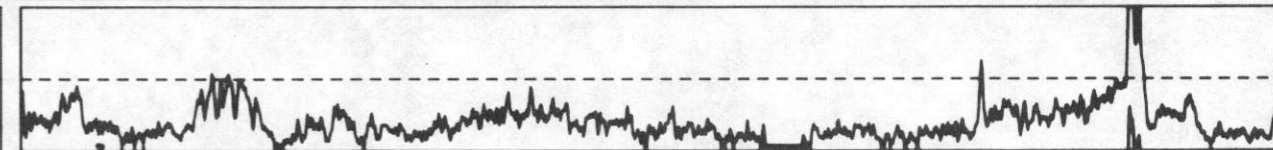
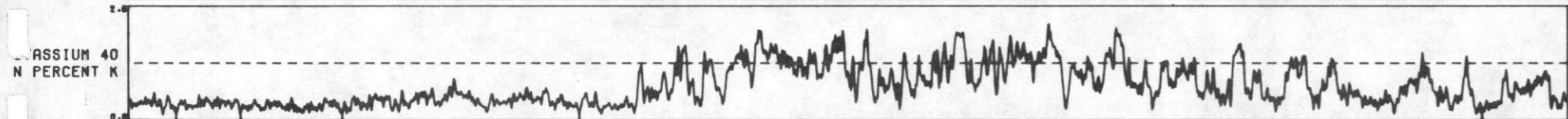
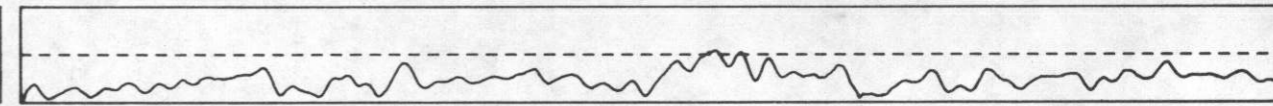
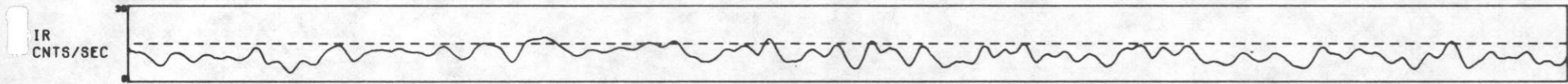
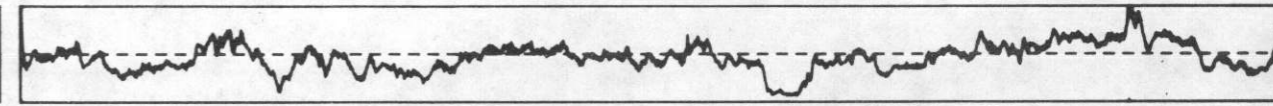
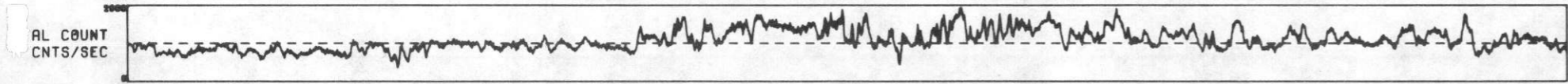
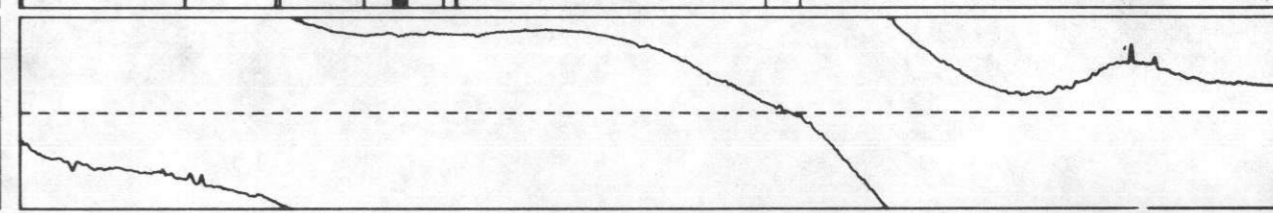
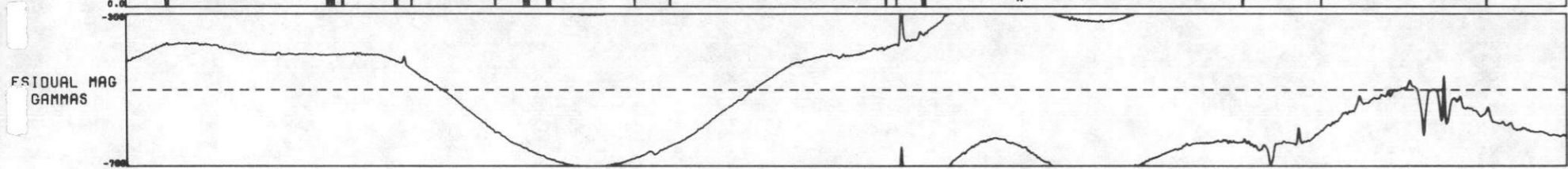
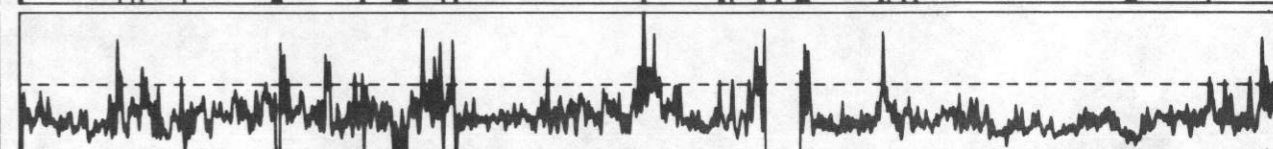
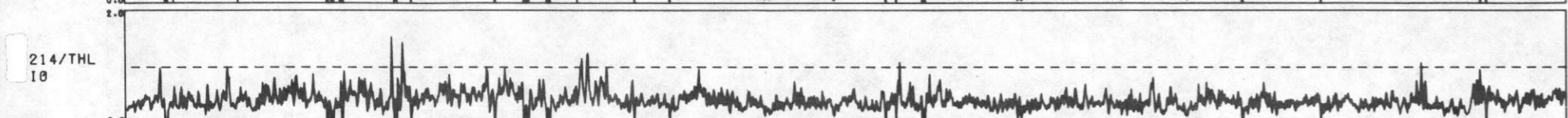
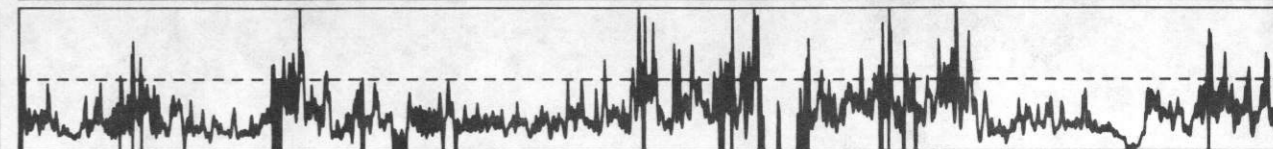
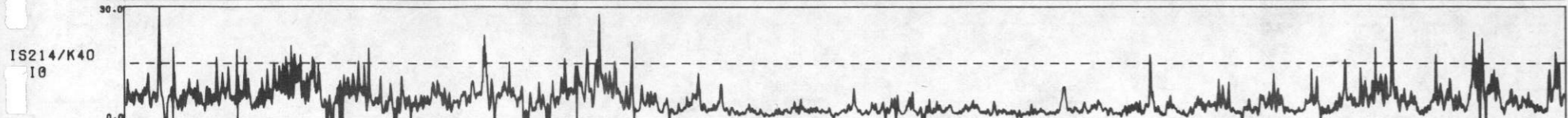
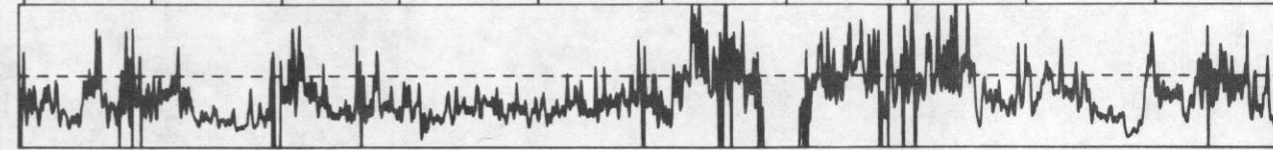
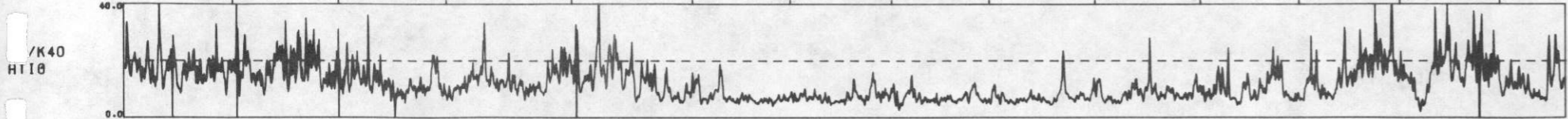
LINE NO. 7E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



LINE NO. 8W BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB



LINE NO. 8E BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB

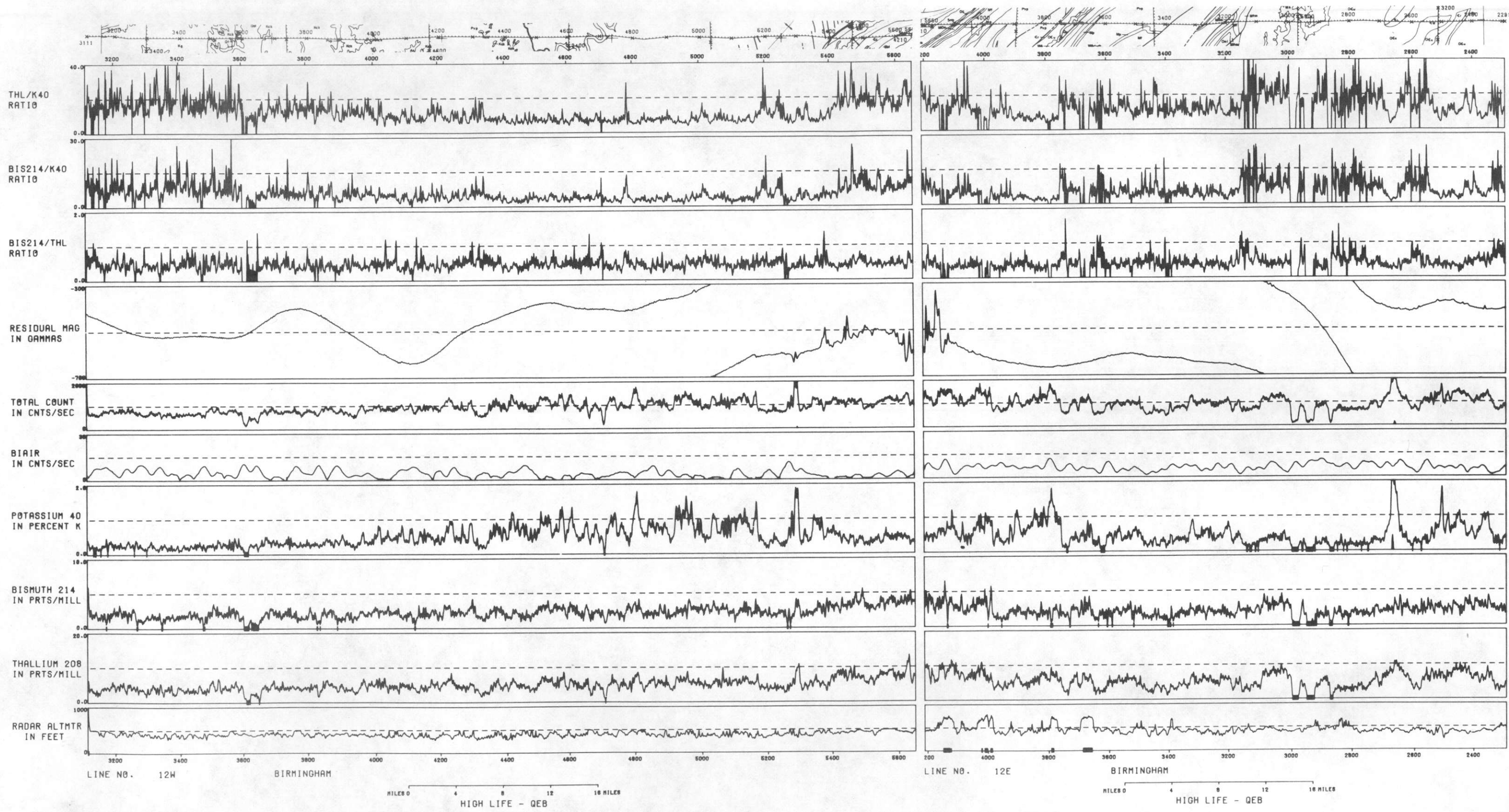


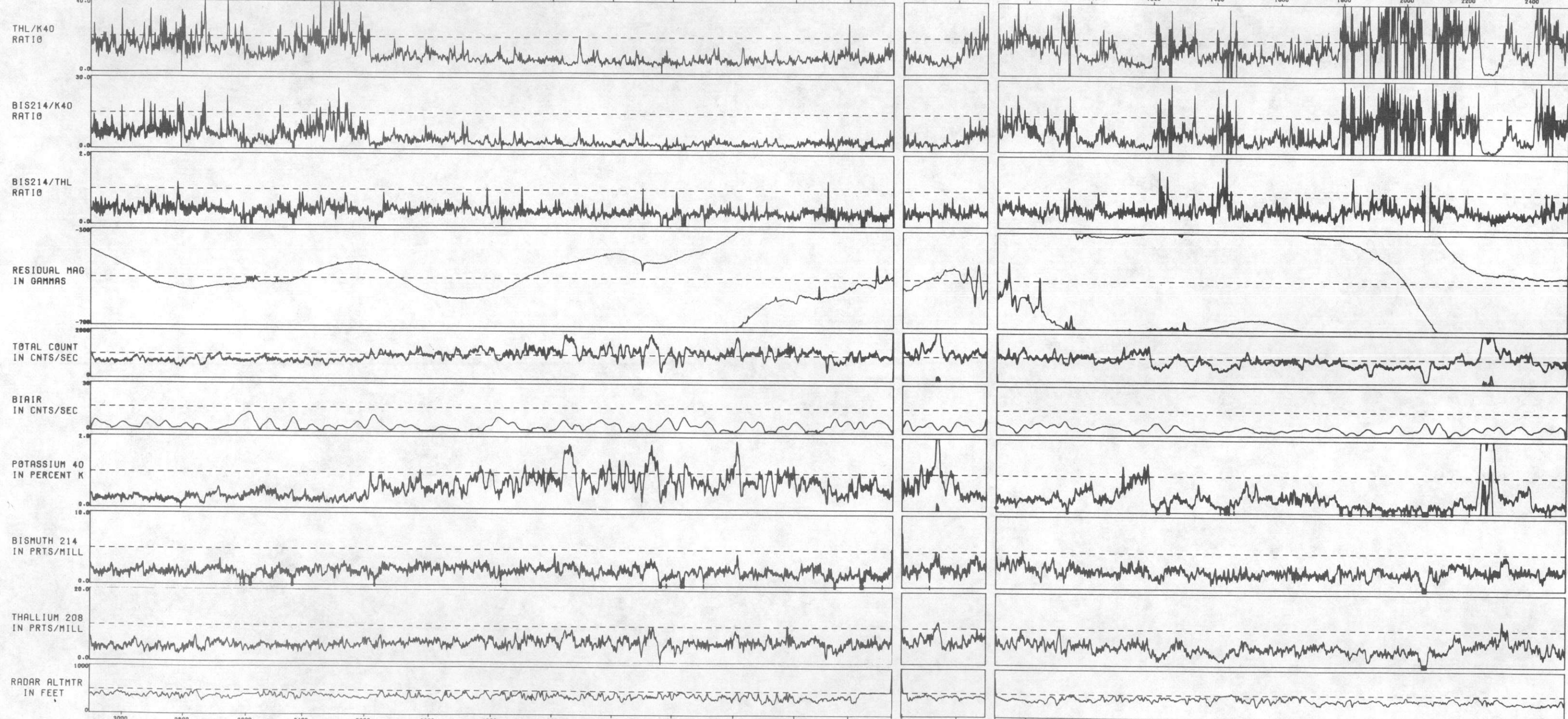
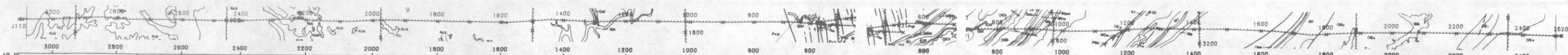
LINE NO. 11W BIRMINGHAM

LINE NO. 11E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

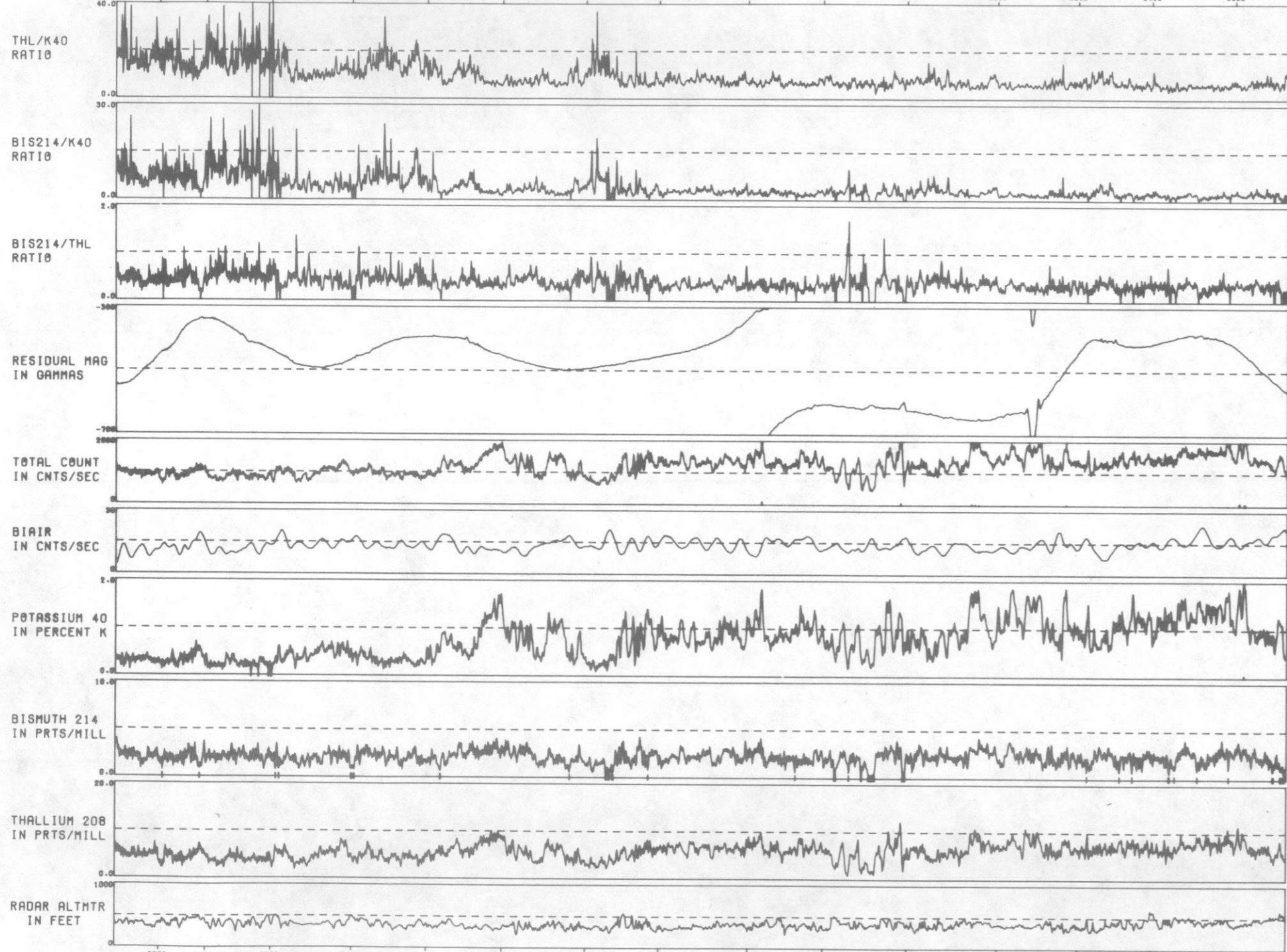
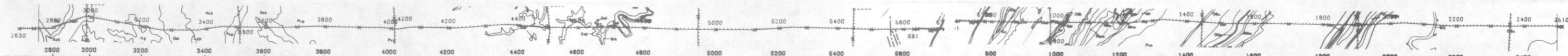
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB





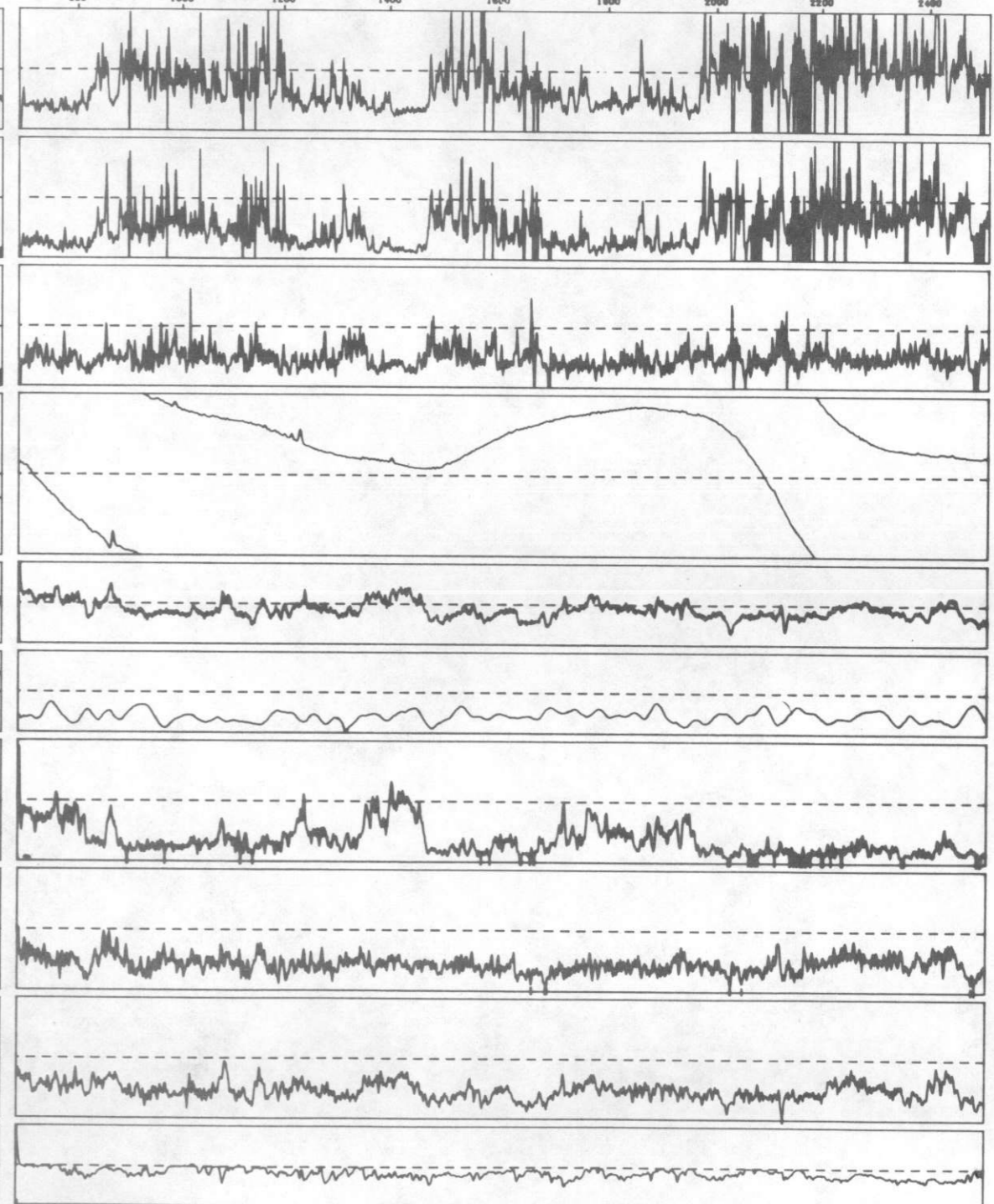
LINE NO. 13W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 13C LINE NO. 13E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



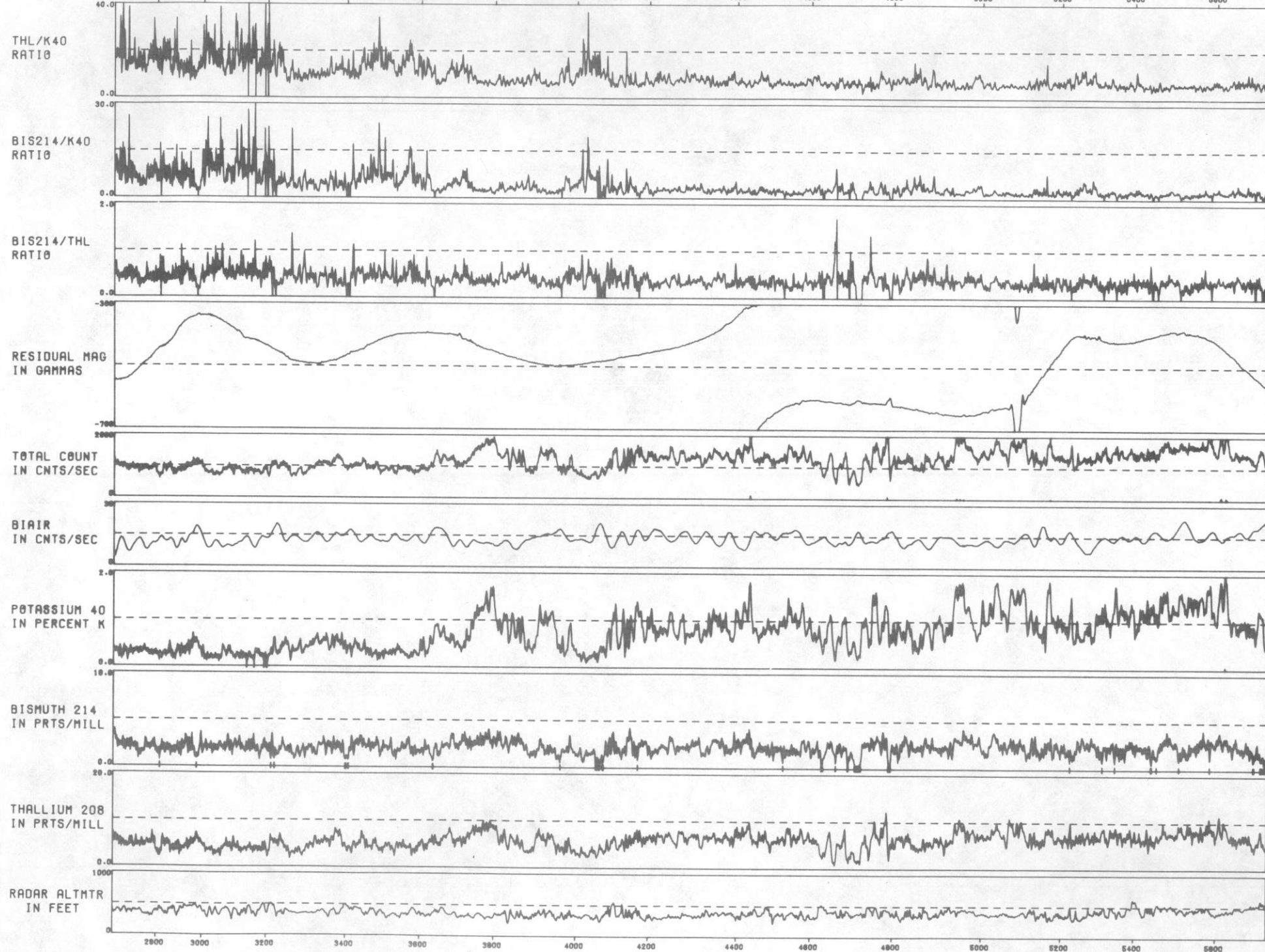
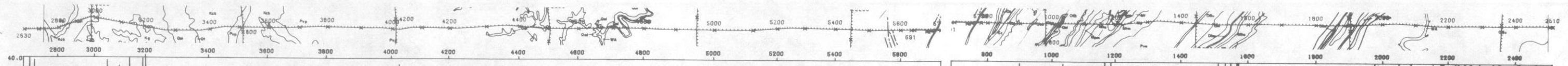
LINE NO. 15W BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

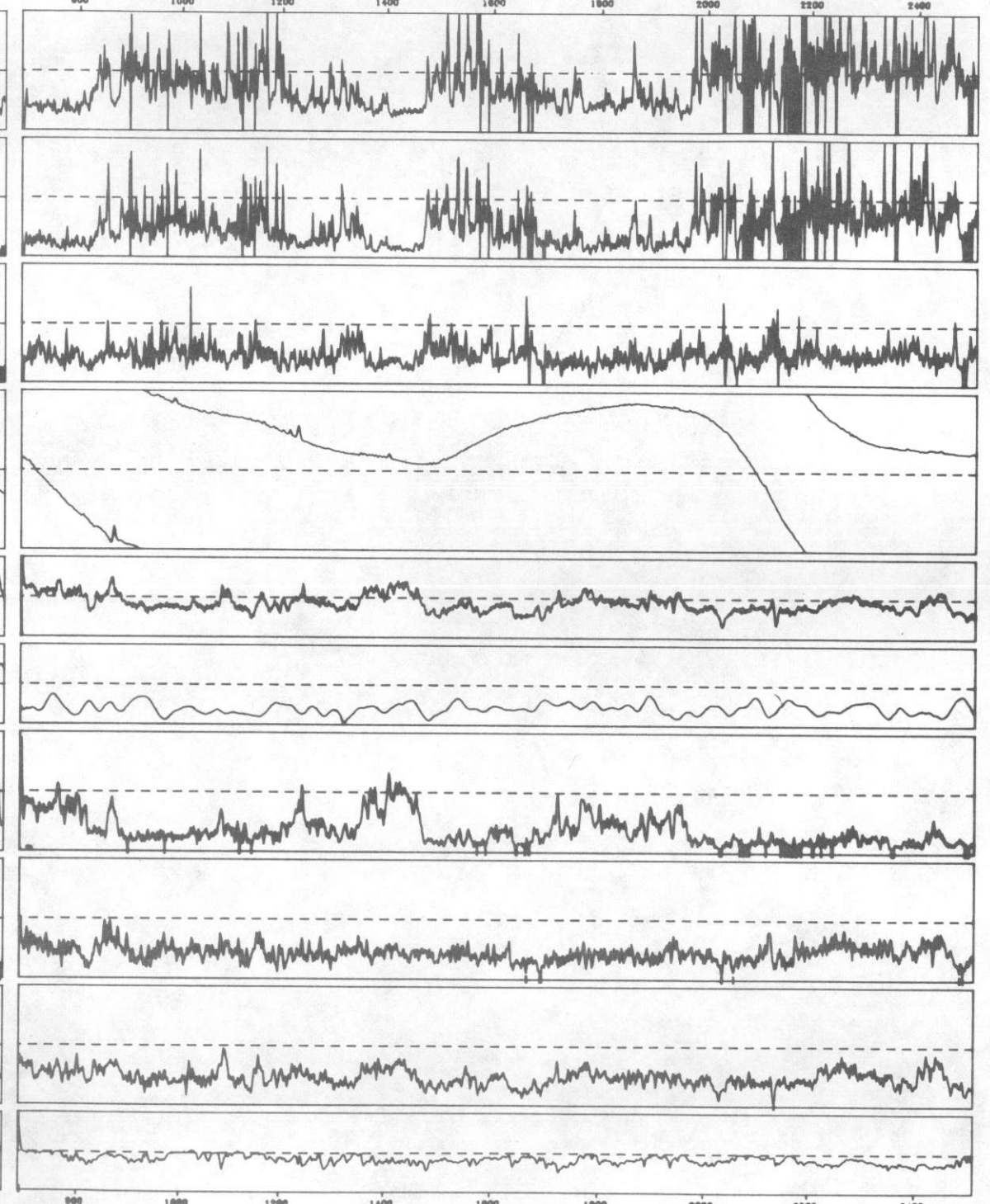


LINE NO. 15E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



LINE NO. 15W BIRMINGHAM

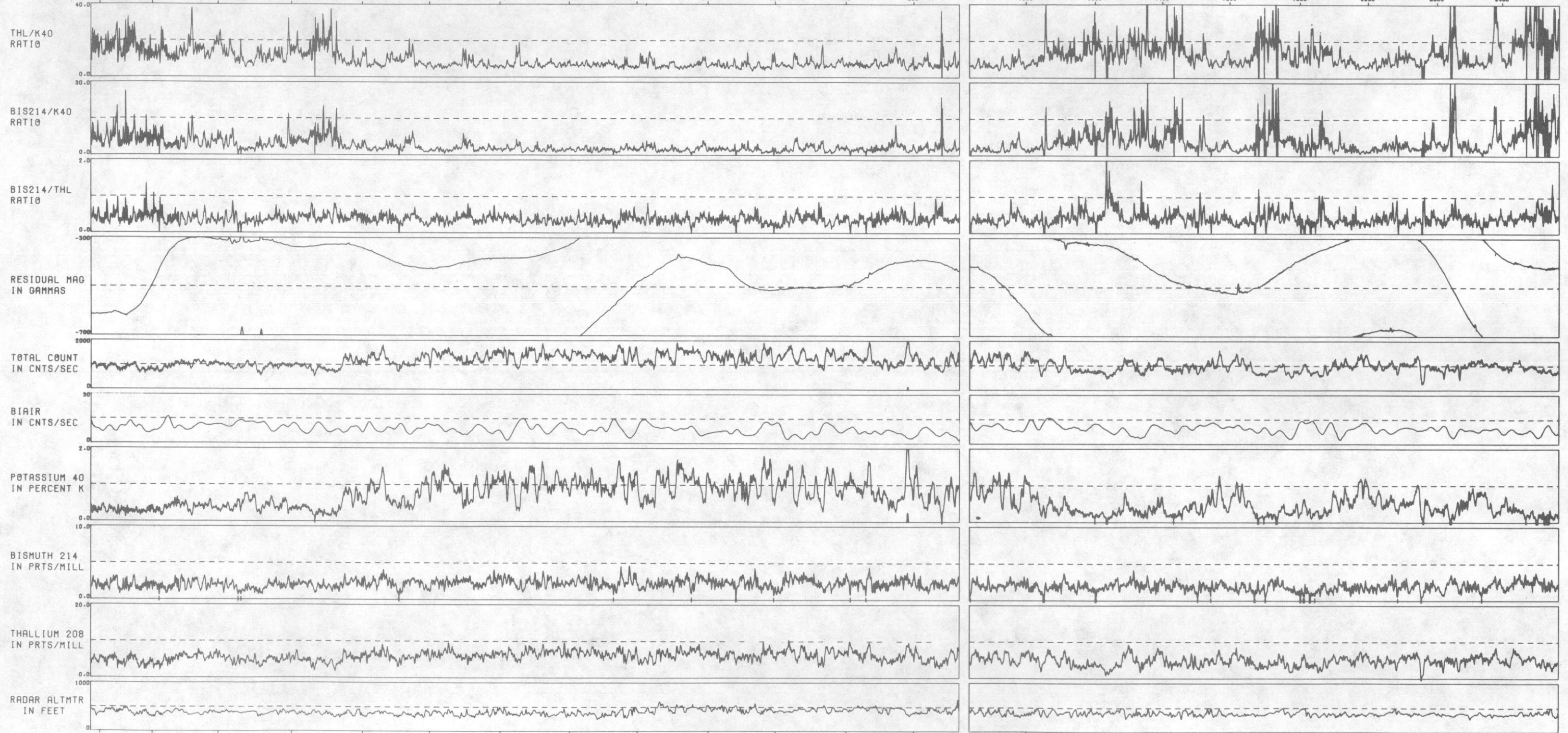
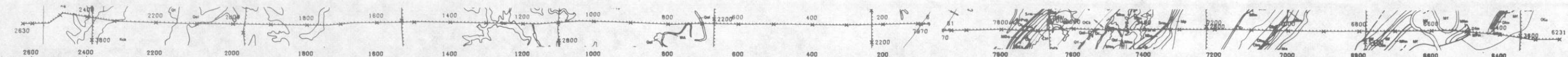


LINE NO. 15E BIRMINGHAM



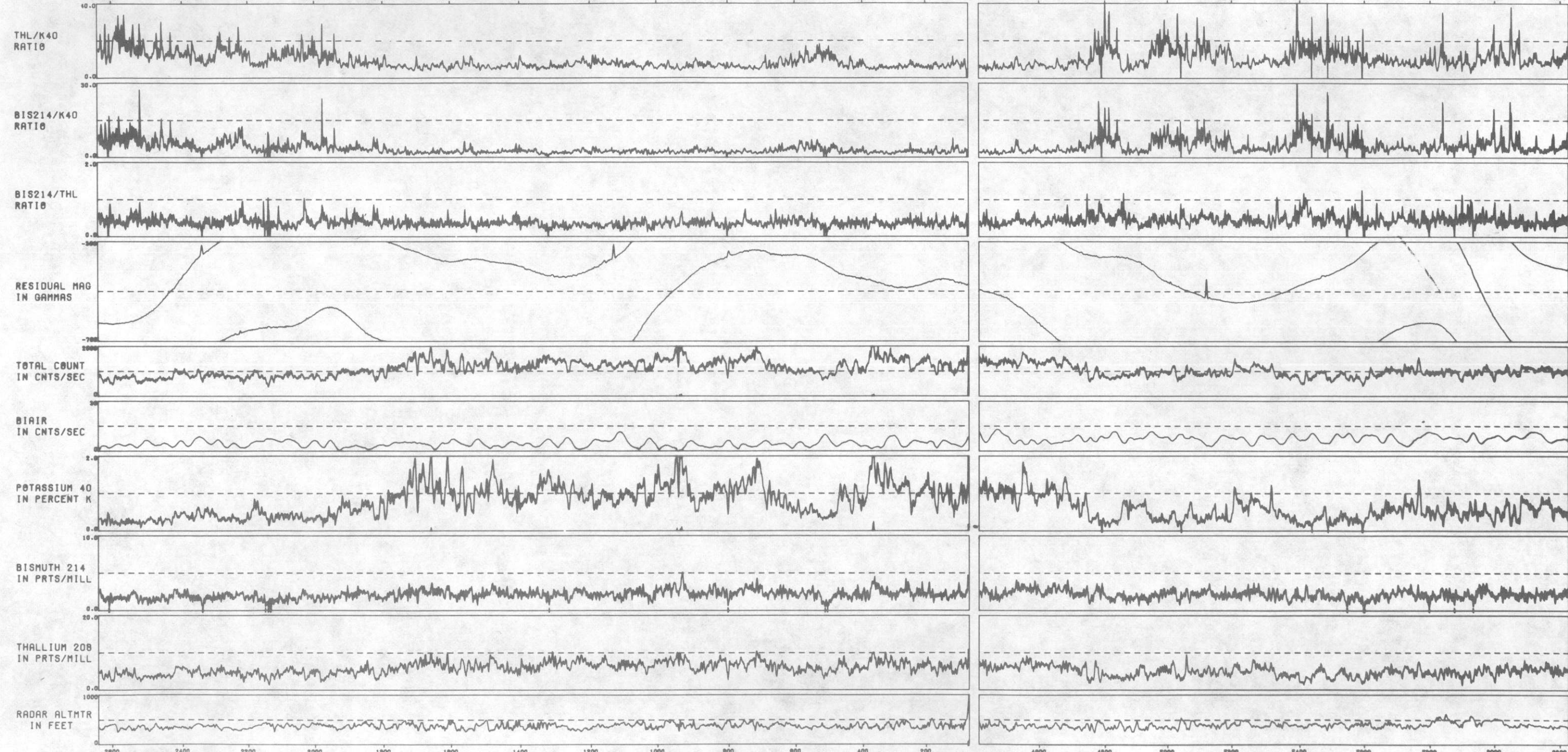
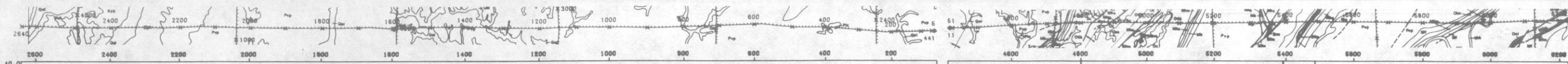
HIGH LIFE - QEB

HIGH LIFE - QEB



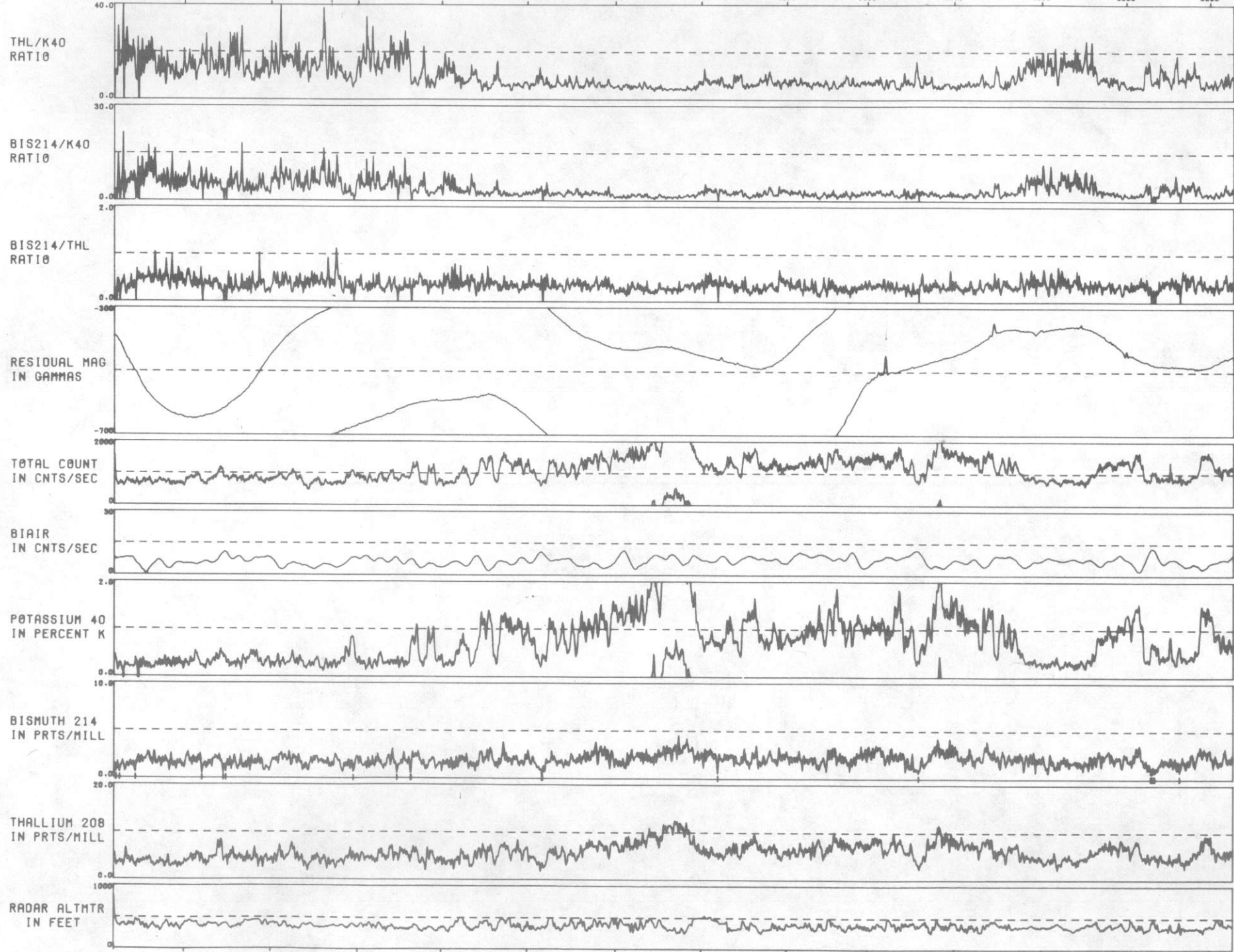
LINE NO. 16W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 16E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

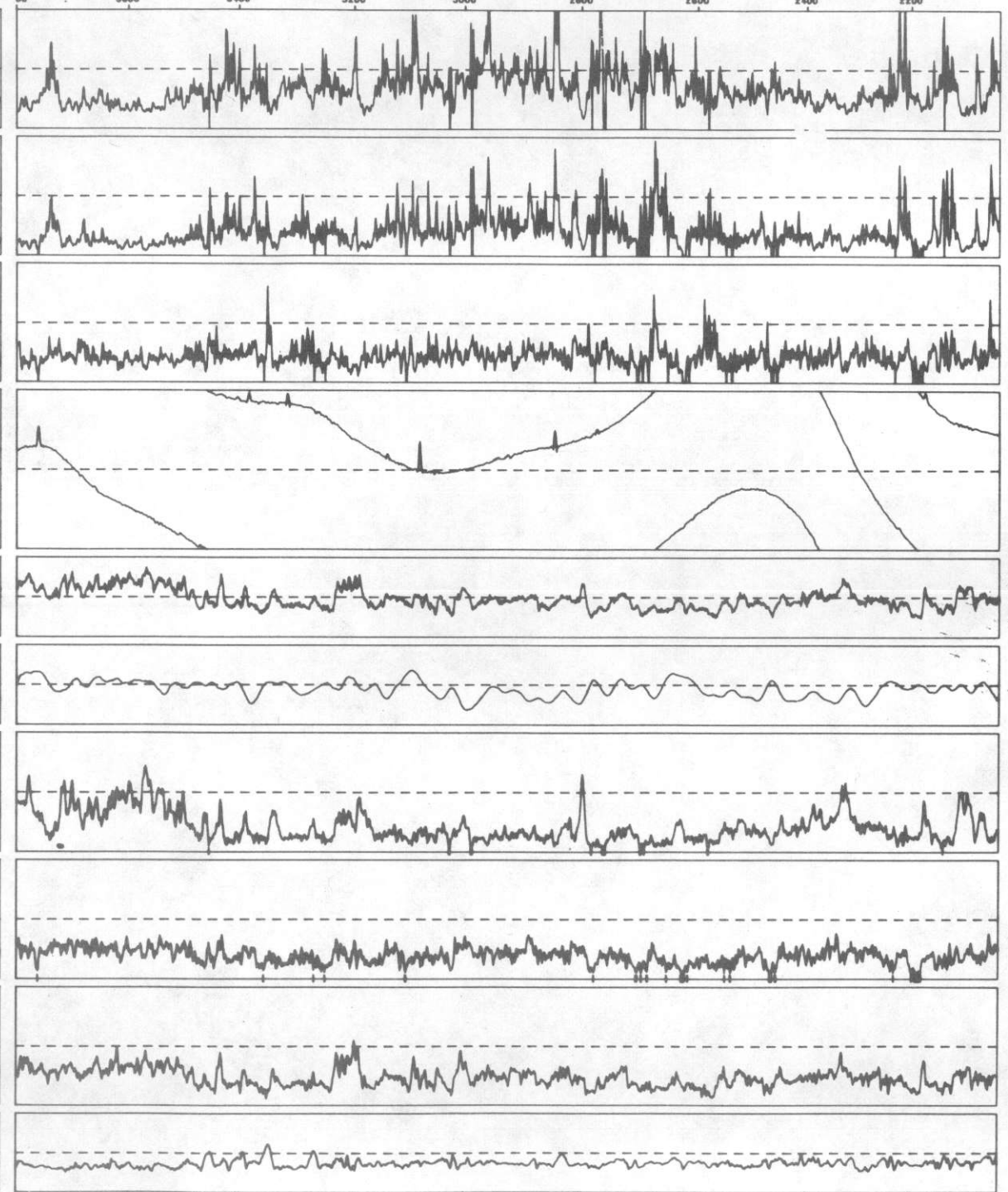


LINE NO. 17W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

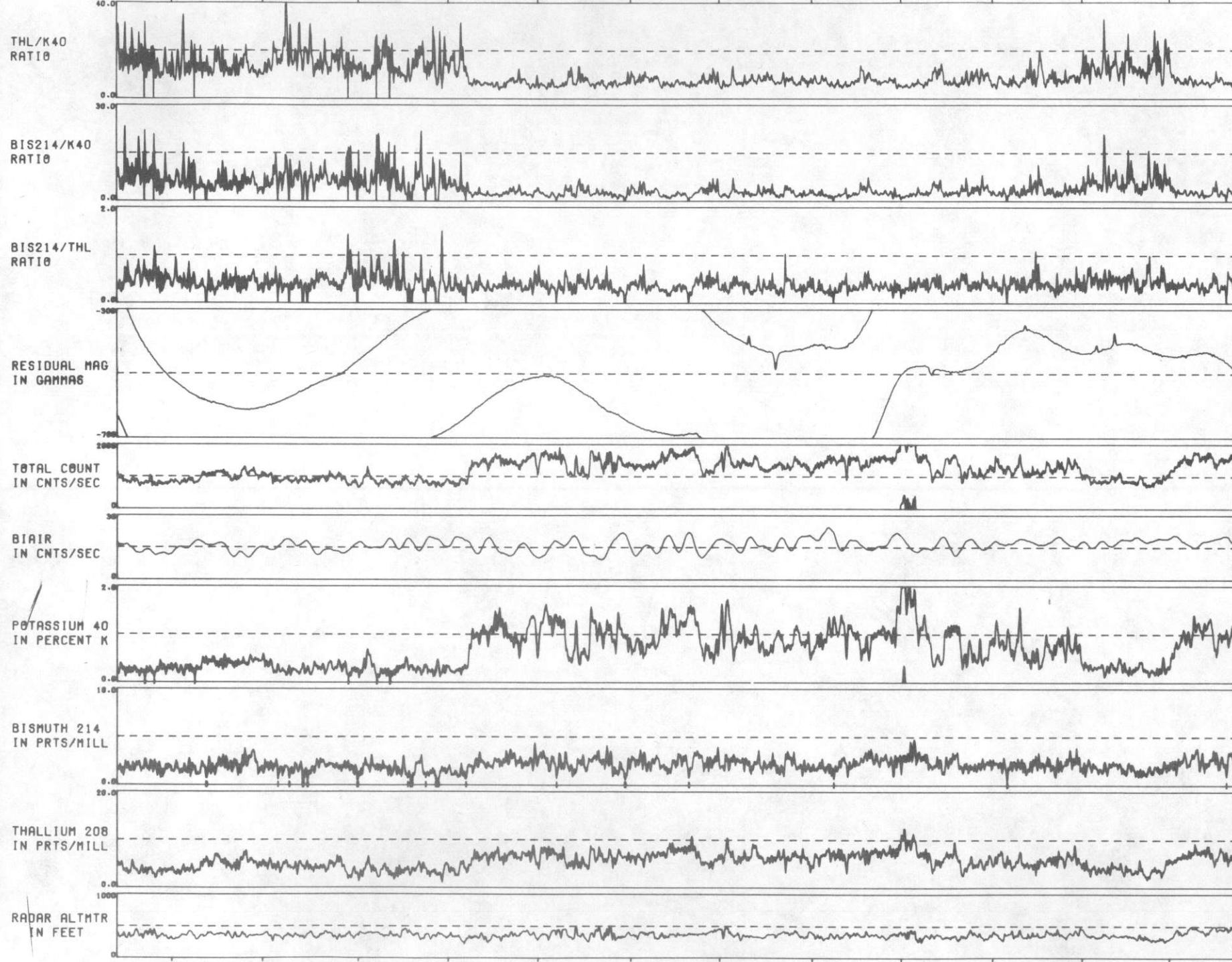
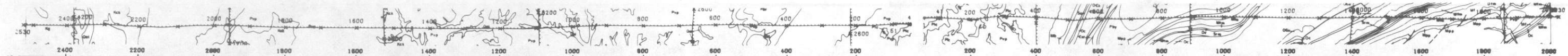
LINE NO. 17E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



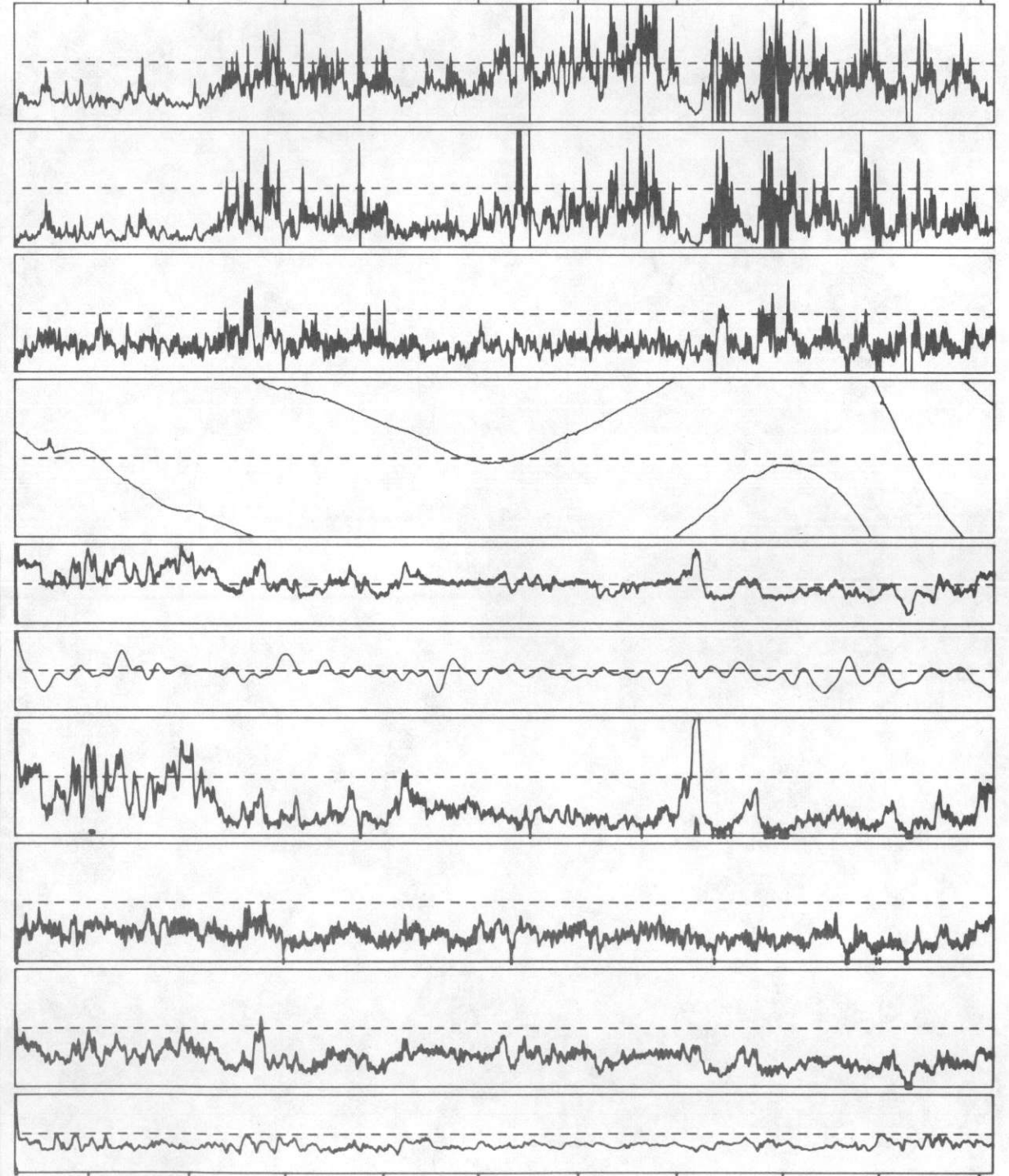
LINE NO. 18W BIRMINGHAM
 NILES 0 4 8 12 16 NILES
 HIGH LIFE - QEB



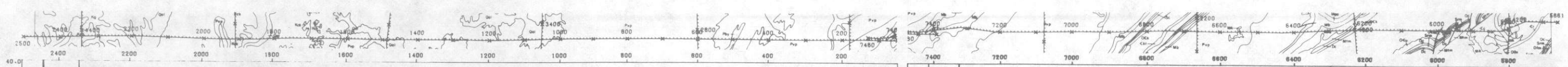
LINE NO. 18E BIRMINGHAM
 NILES 0 4 8 12 16 NILES
 HIGH LIFE - QEB



LINE NO. 19W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



LINE NO. 19E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



THL/K40 RATIO

BIS214/K40 RATIO

BIS214/THL RATIO

RESIDUAL MAG IN GAMMAS

TOTAL COUNT IN CNTS/SEC

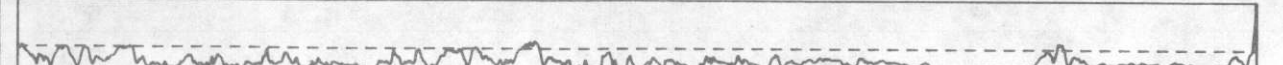
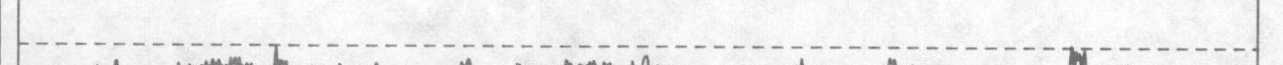
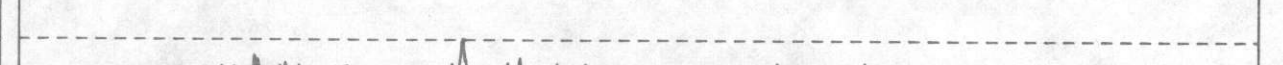
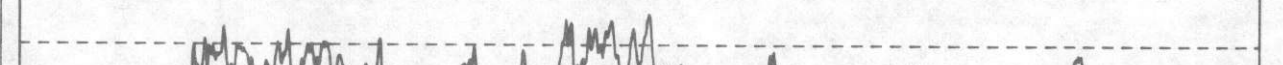
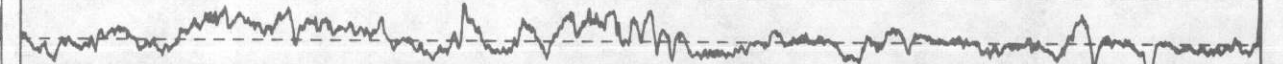
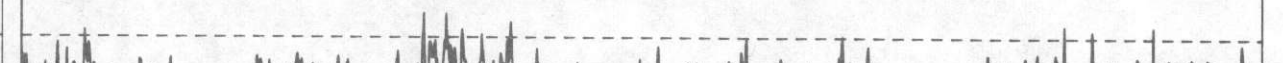
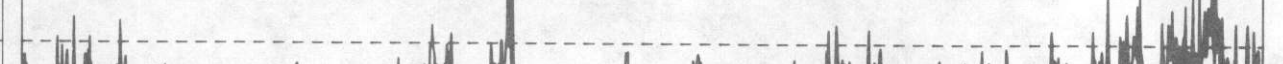
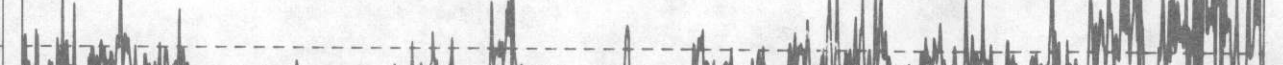
BIAIR IN CNTS/SEC

POTASSIUM 40 IN PERCENT K

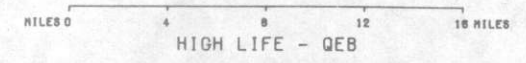
BISMUTH 214 IN PRPTS/MILL

THALLIUM 208 IN PRPTS/MILL

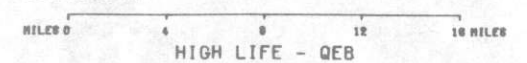
RADAR ALTMTR IN FEET

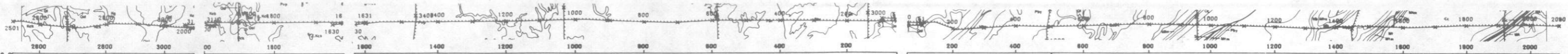


LINE NO. 21W BIRMINGHAM

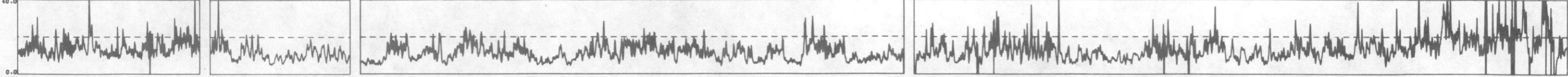


LINE NO. 21E BIRMINGHAM

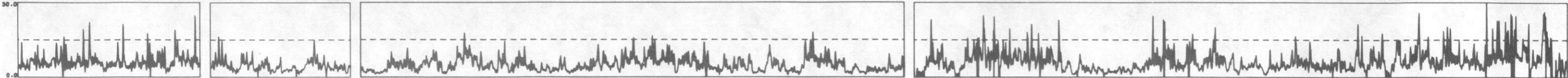




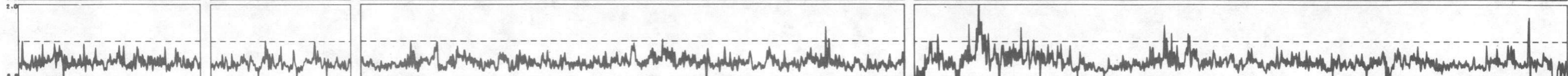
HL/K40
RATIO



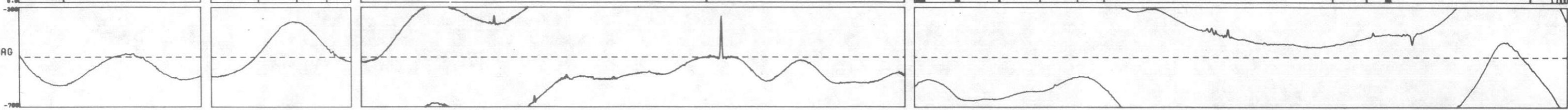
BIS214/K40
RATIO



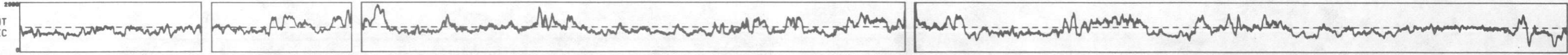
BIS214/THL
RATIO



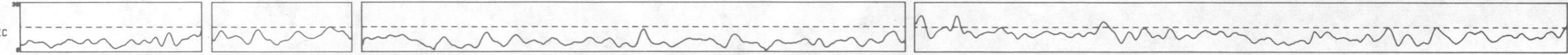
RESIDUAL MAG
IN GAMMAS



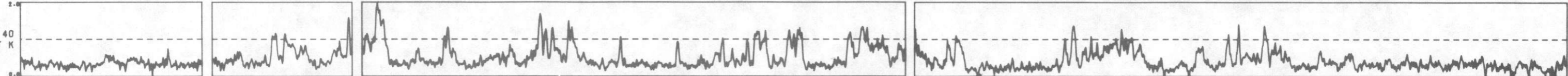
TOTAL COUNT
IN CNTS/SEC



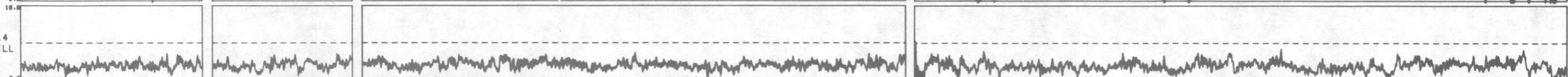
BIAIR
IN CNTS/SEC



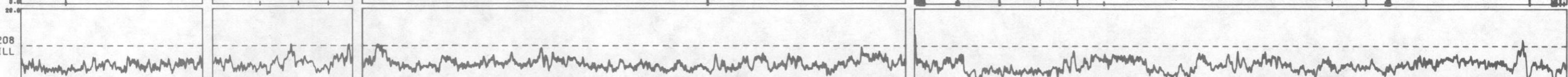
POTASSIUM 40
IN PERCENT K



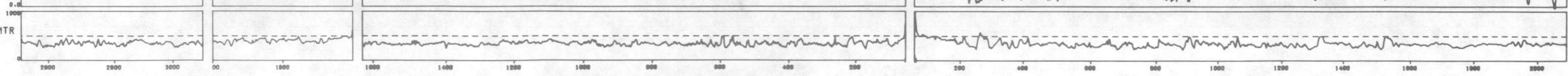
BISMUTH 214
IN PRTS/MILL



THALLIUM 208
IN PRTS/MILL



RADAR ALTMTR
IN FEET



LINE NO. 22W

LINE NO. 22W

LINE NO. 22C

BIRMINGHAM

LINE NO. 22E

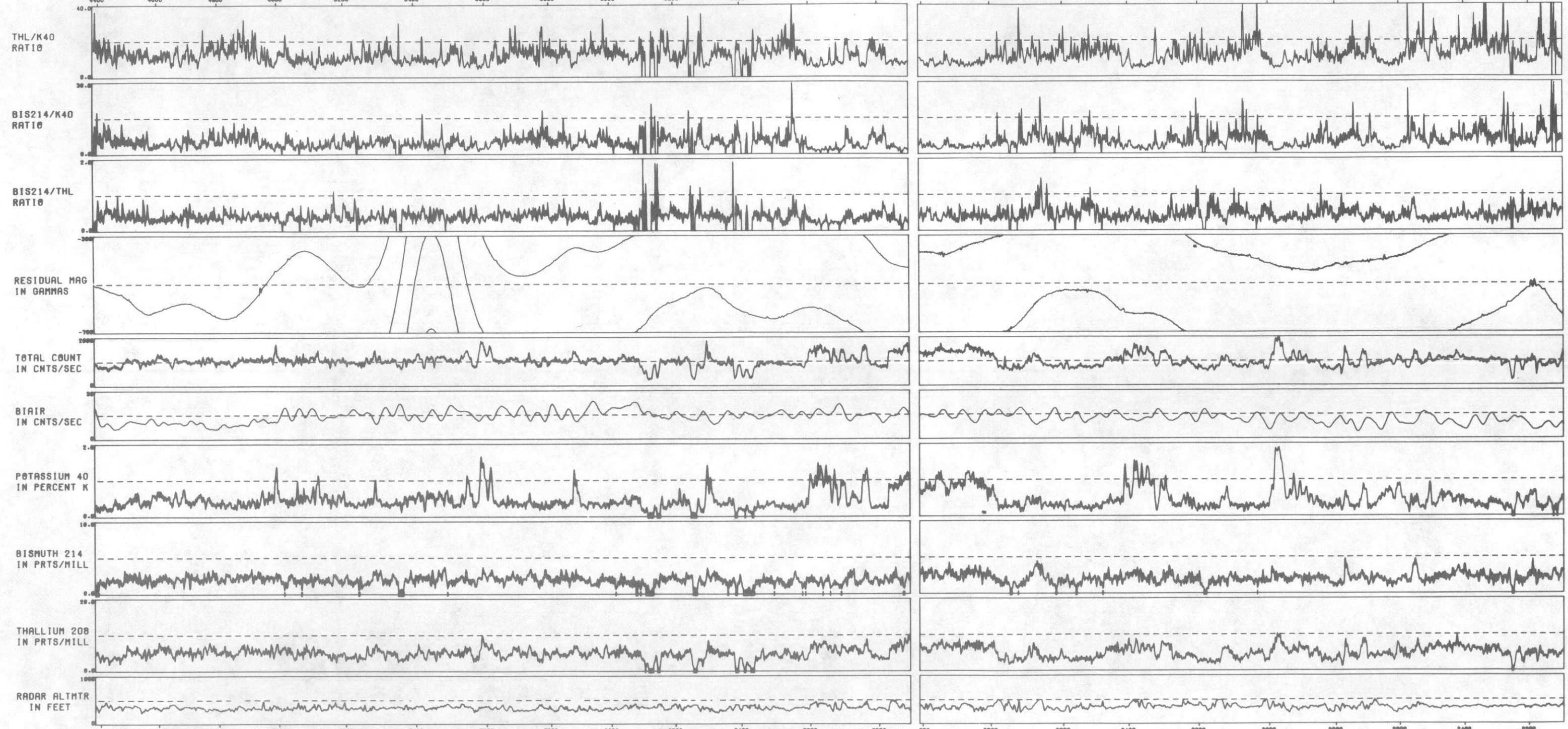
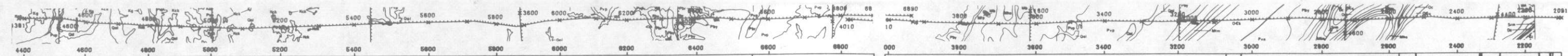
BIRMINGHAM



HIGH LIFE - QEB



HIGH LIFE - QEB

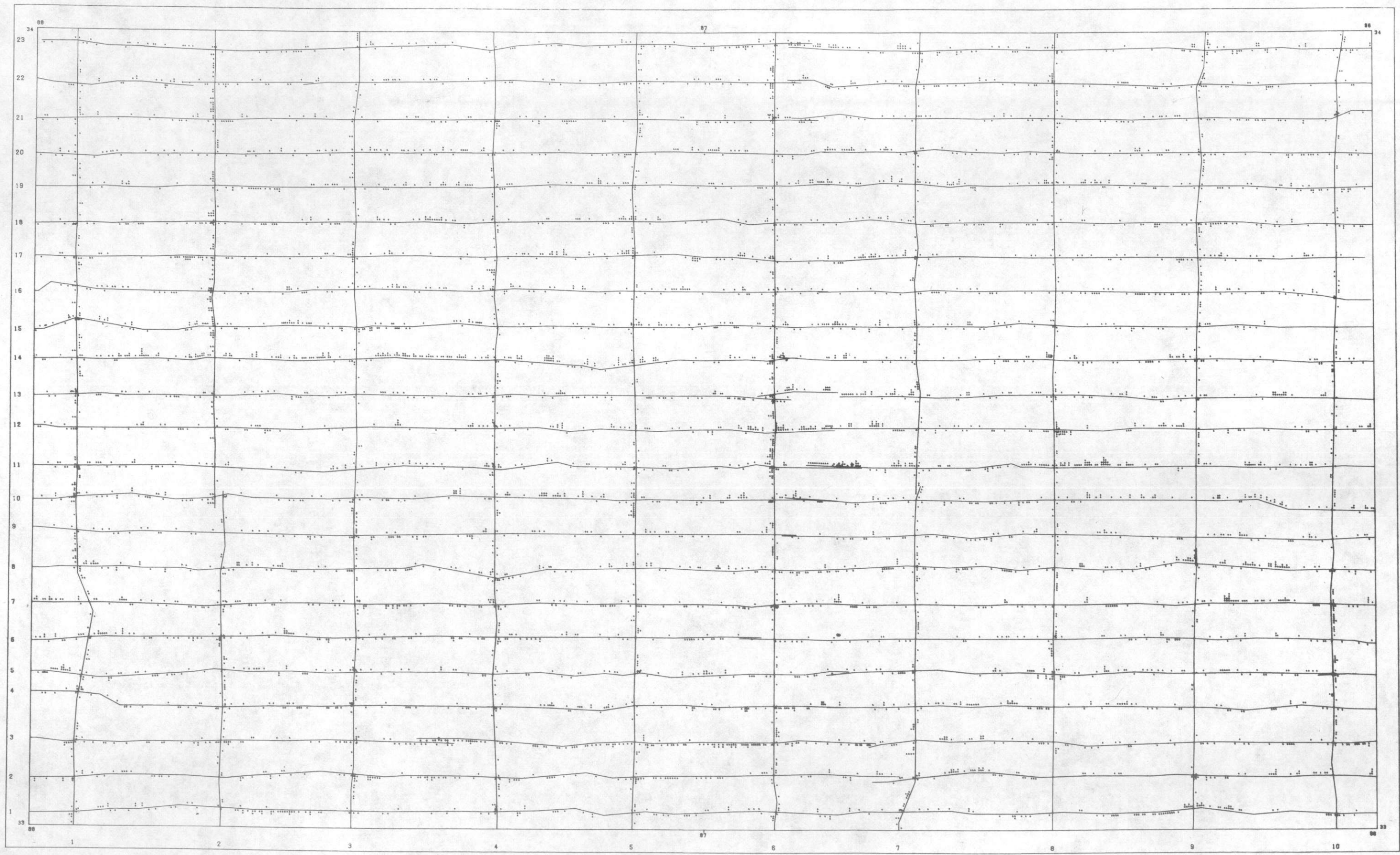


LINE NO. 23W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 23E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

APPENDIX G - ANOMALY MAPS

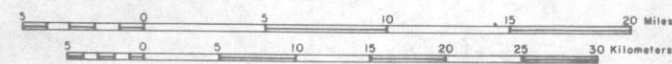
STAN YIANGMA - 2010

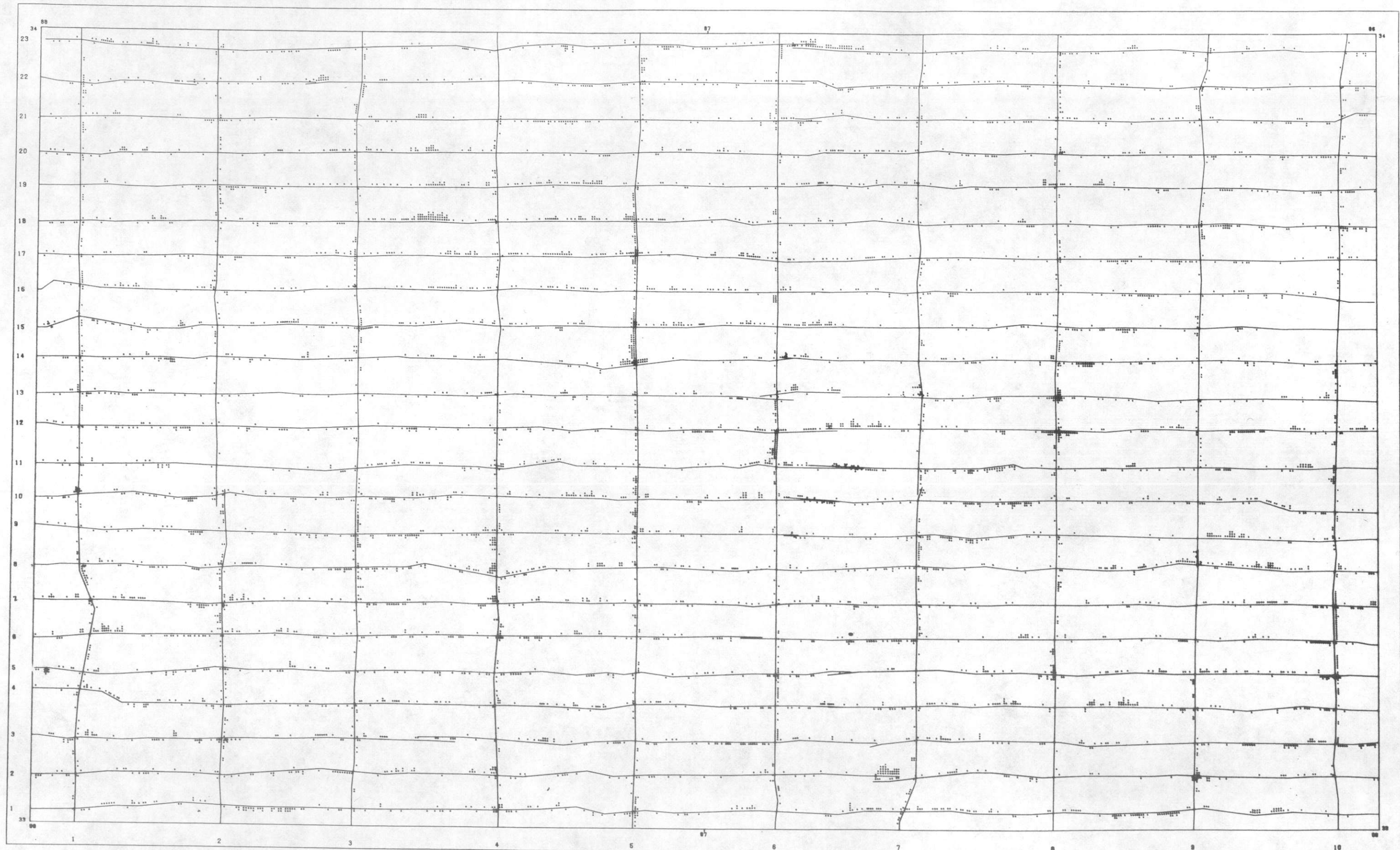


BIRMINGHAM

EU

HIGH LIFE - QEB

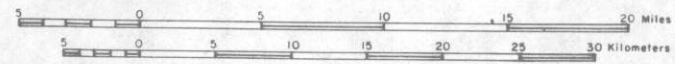


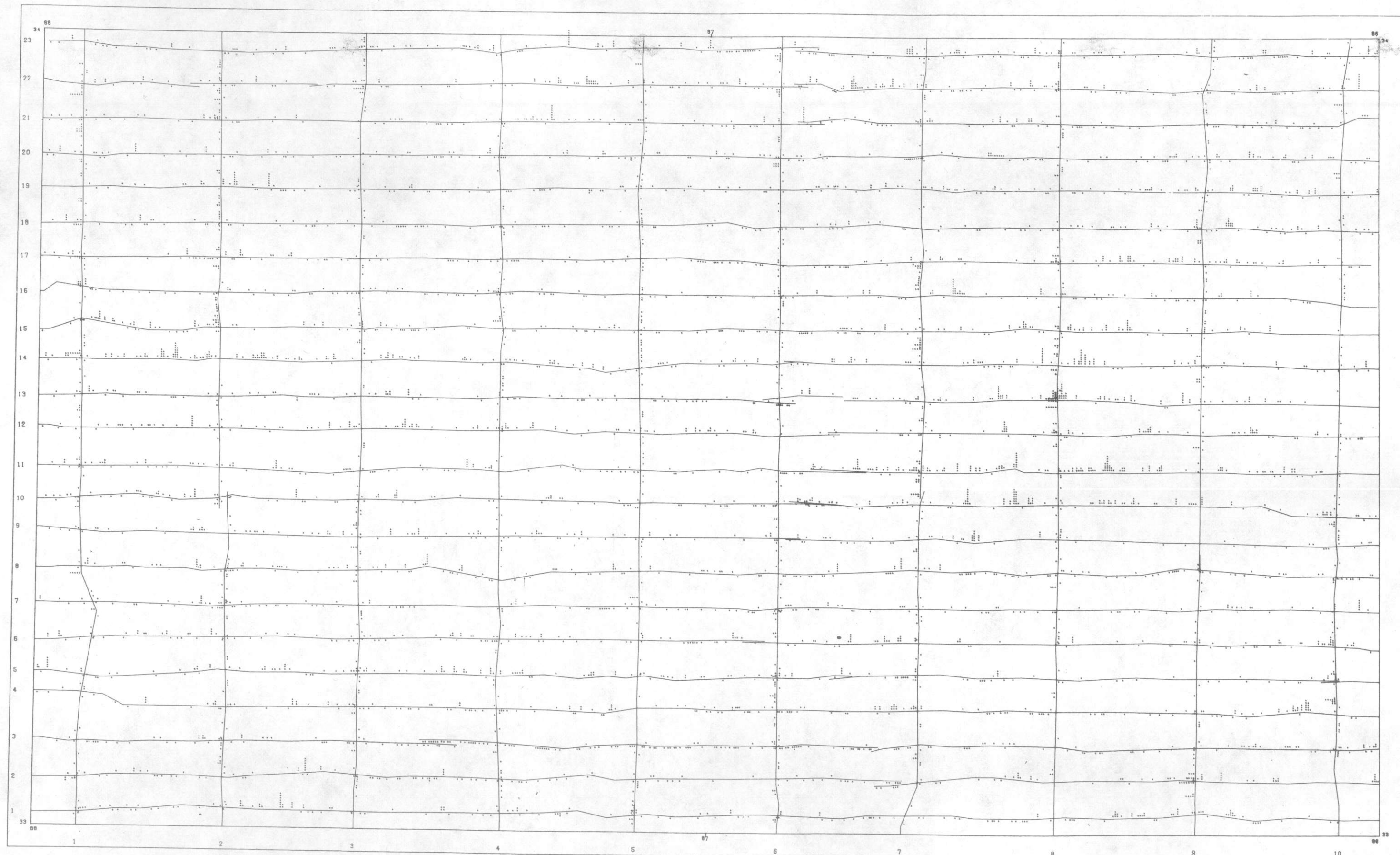


BIRMINGHAM

ETH

HIGH LIFE - QEB

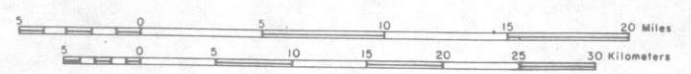


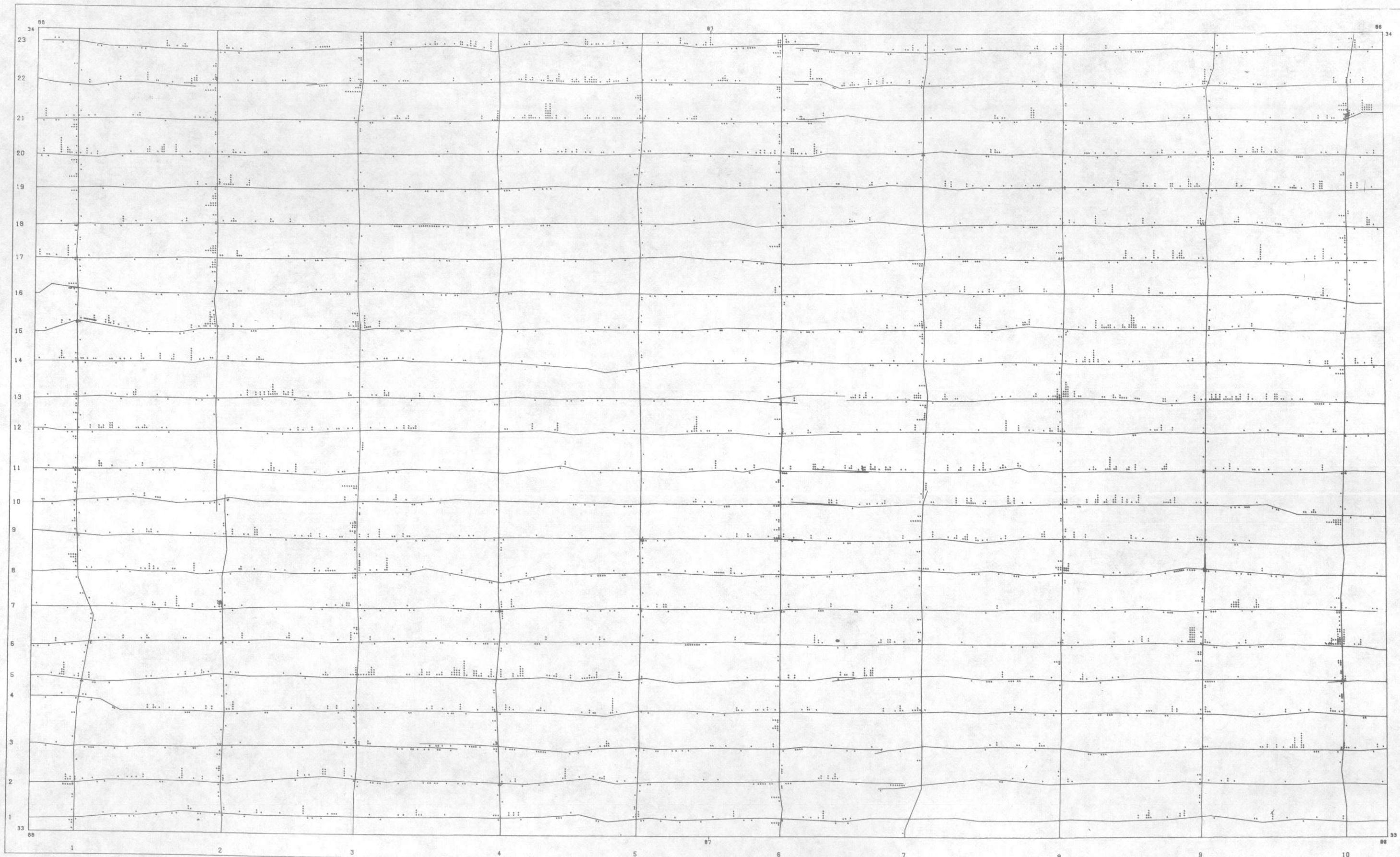


BIRMINGHAM

EU/ETH

HIGH LIFE - QEB

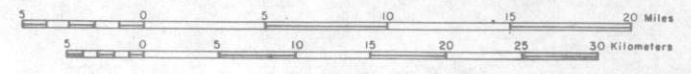


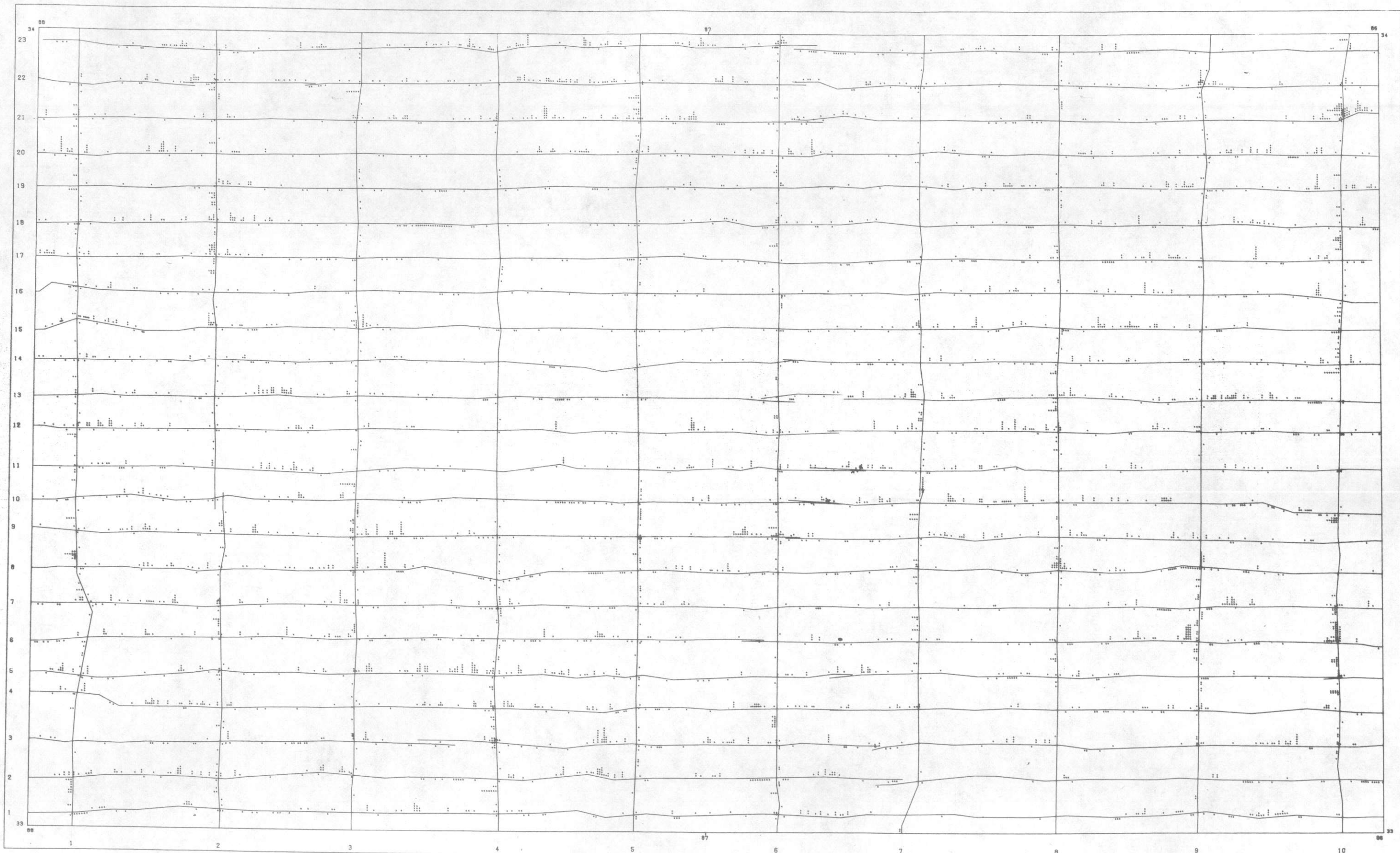


BIRMINGHAM

EU/K

HIGH LIFE - QEB

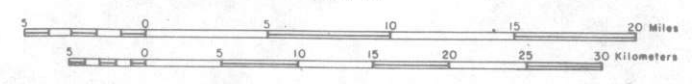




BIRMINGHAM

ETH/K

HIGH LIFE- QEB

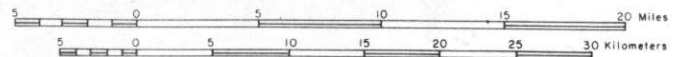




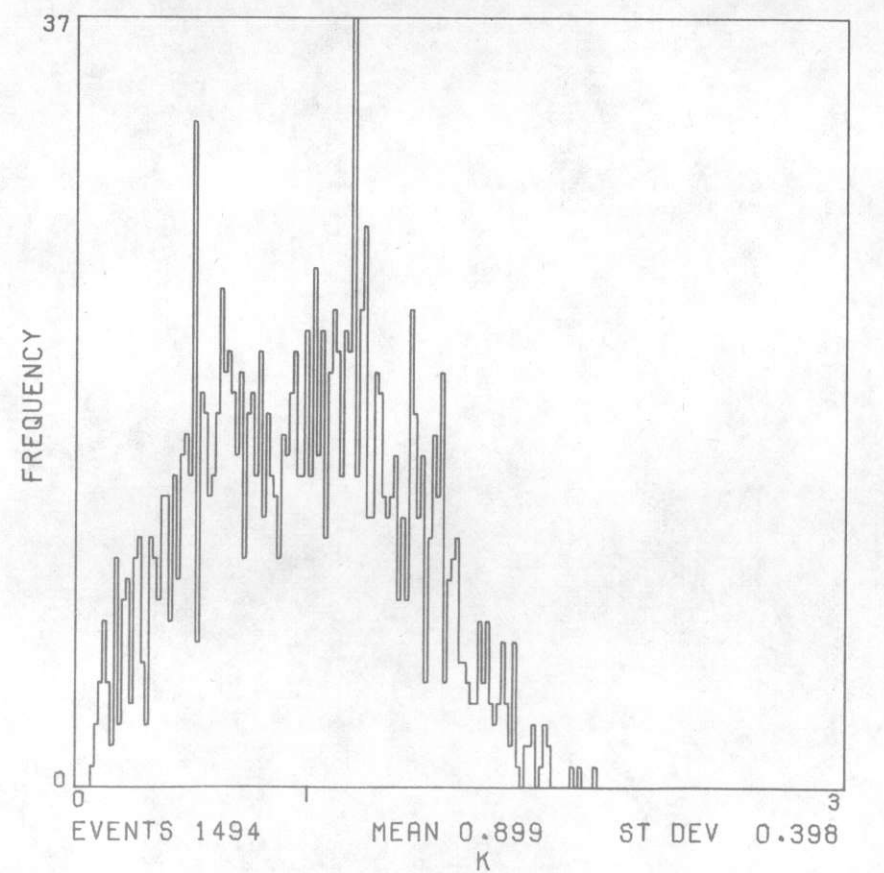
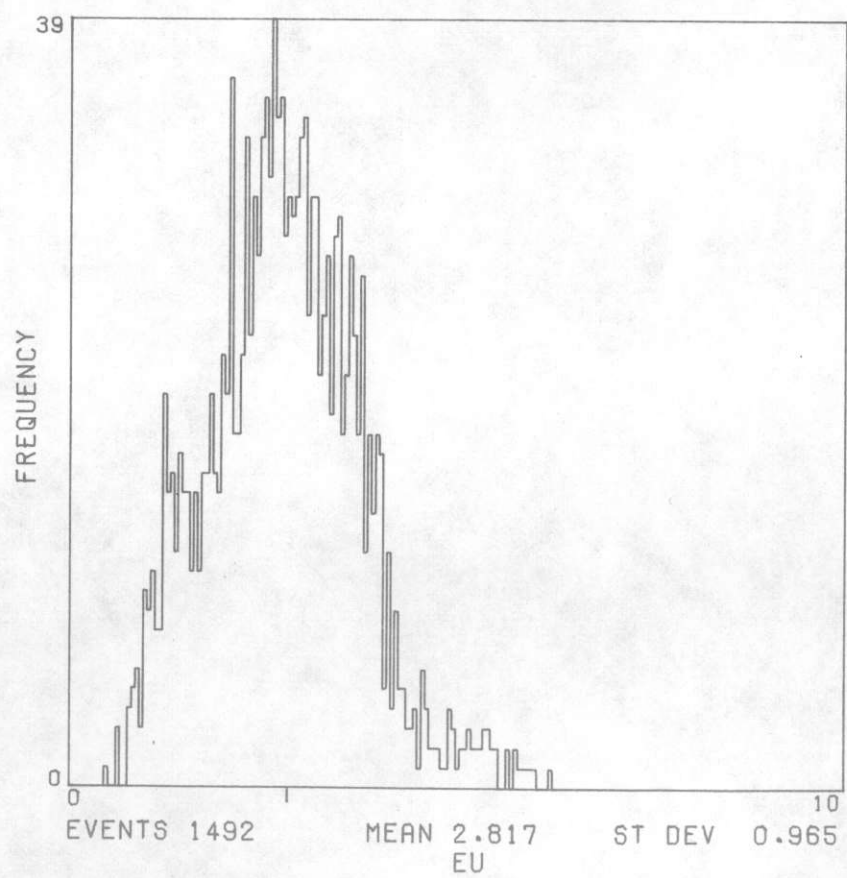
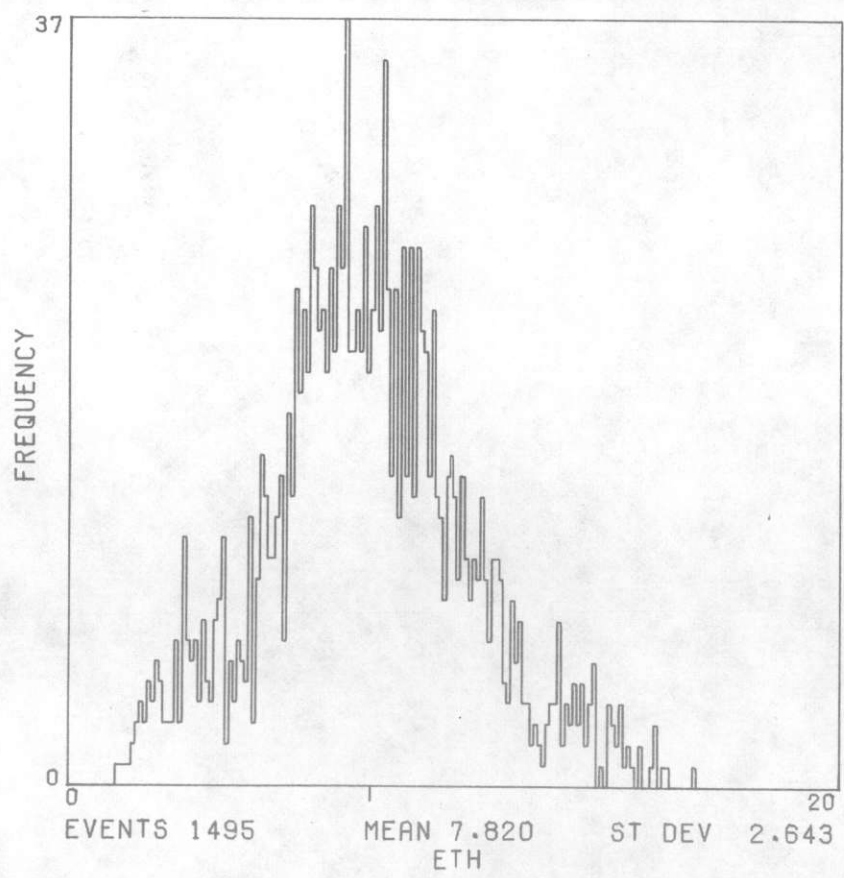
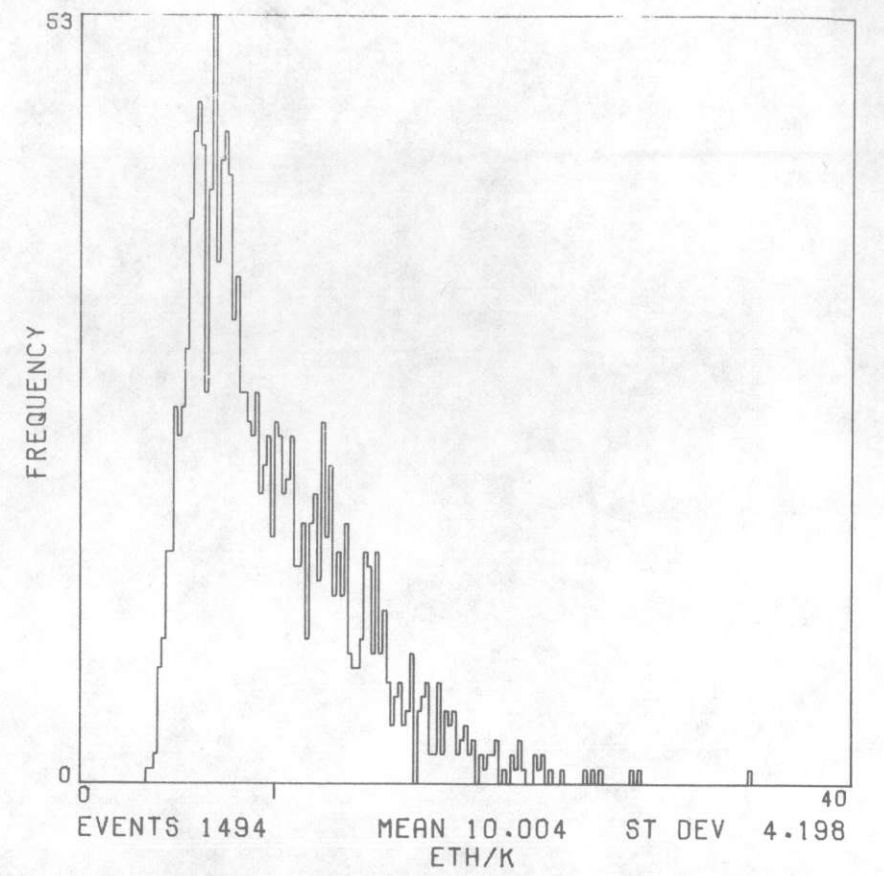
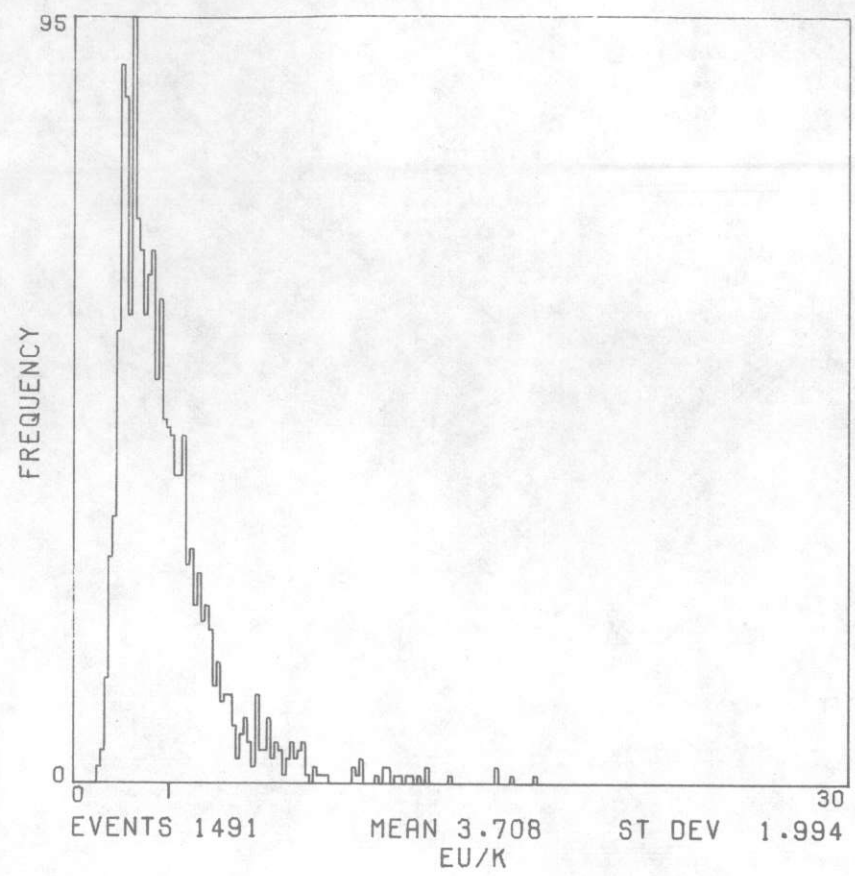
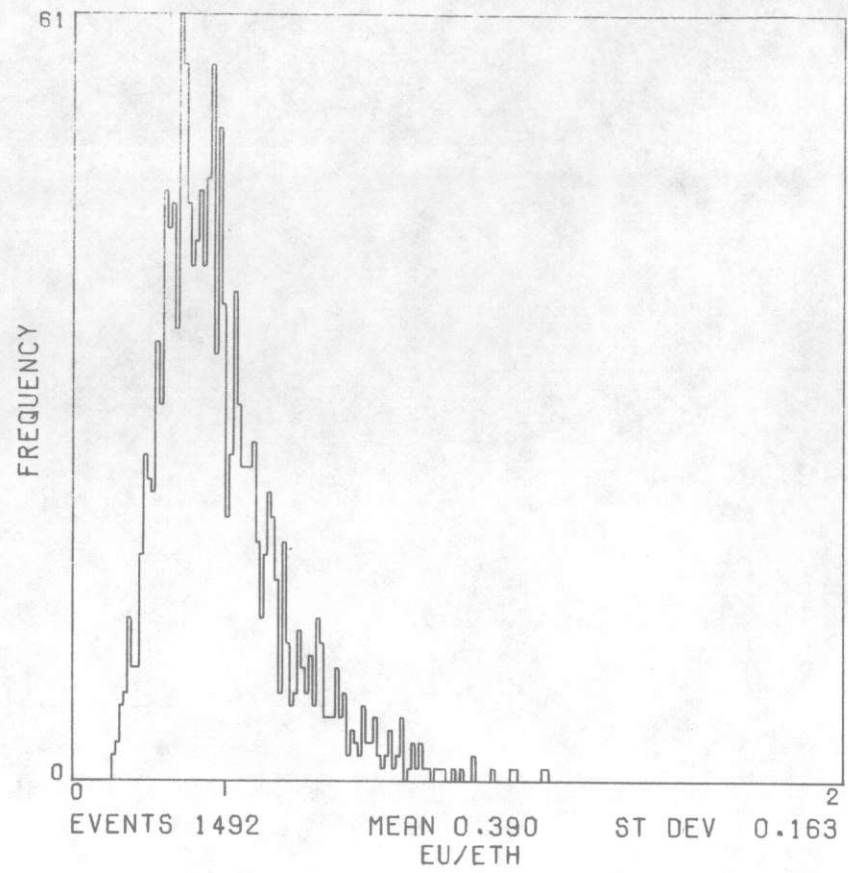
BIRMINGHAM

K

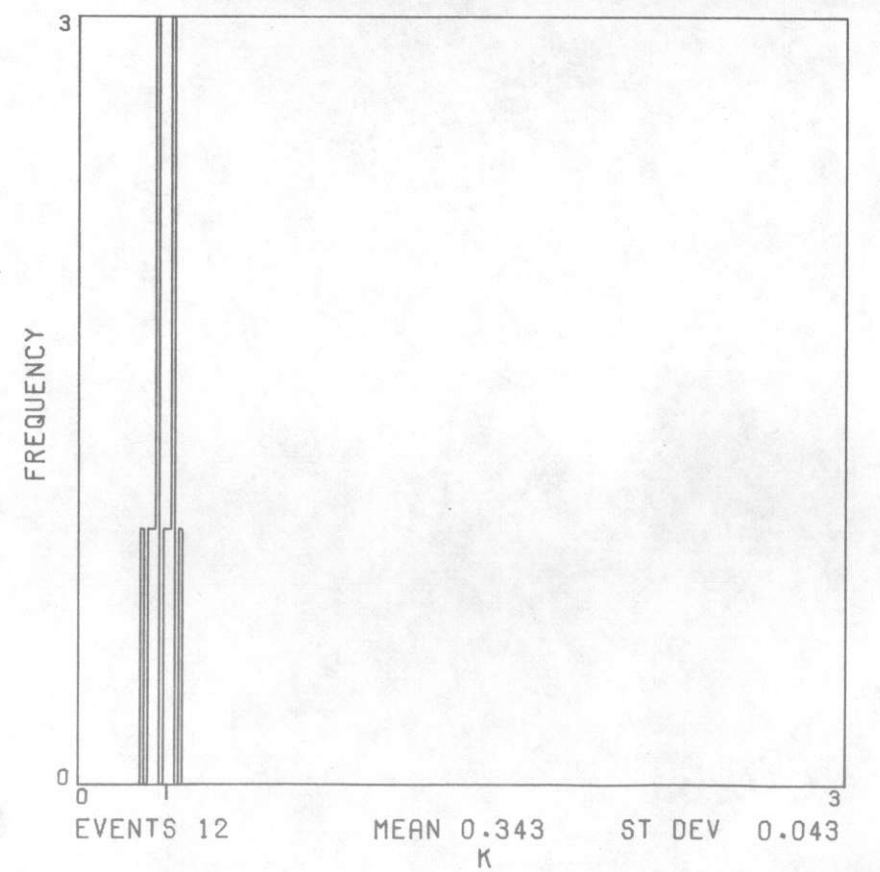
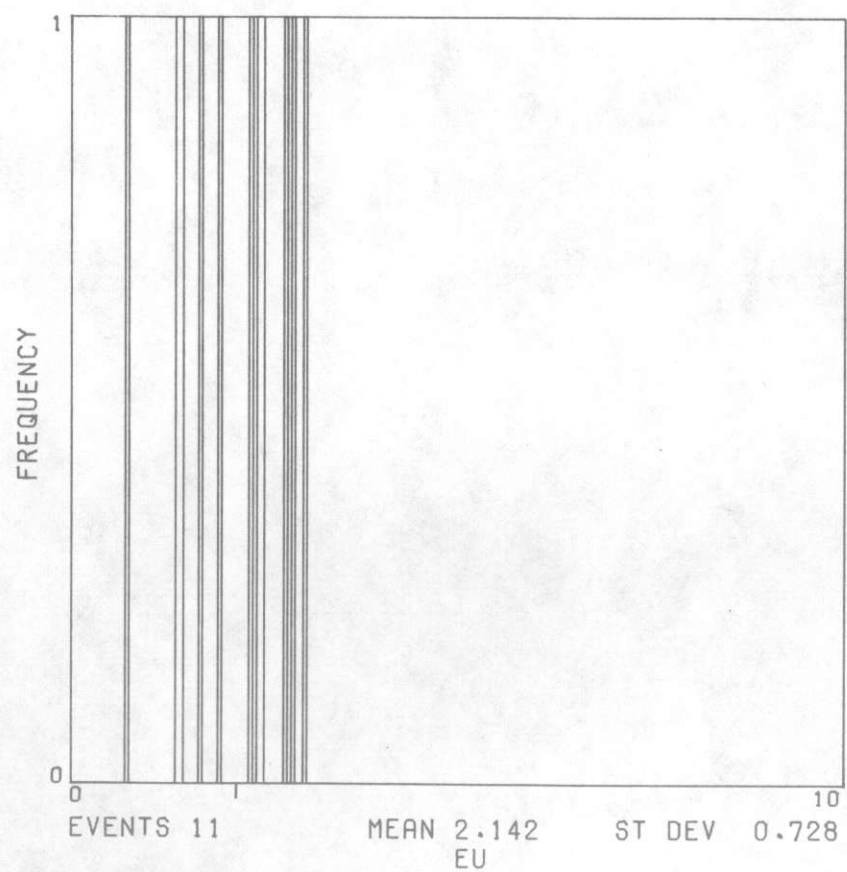
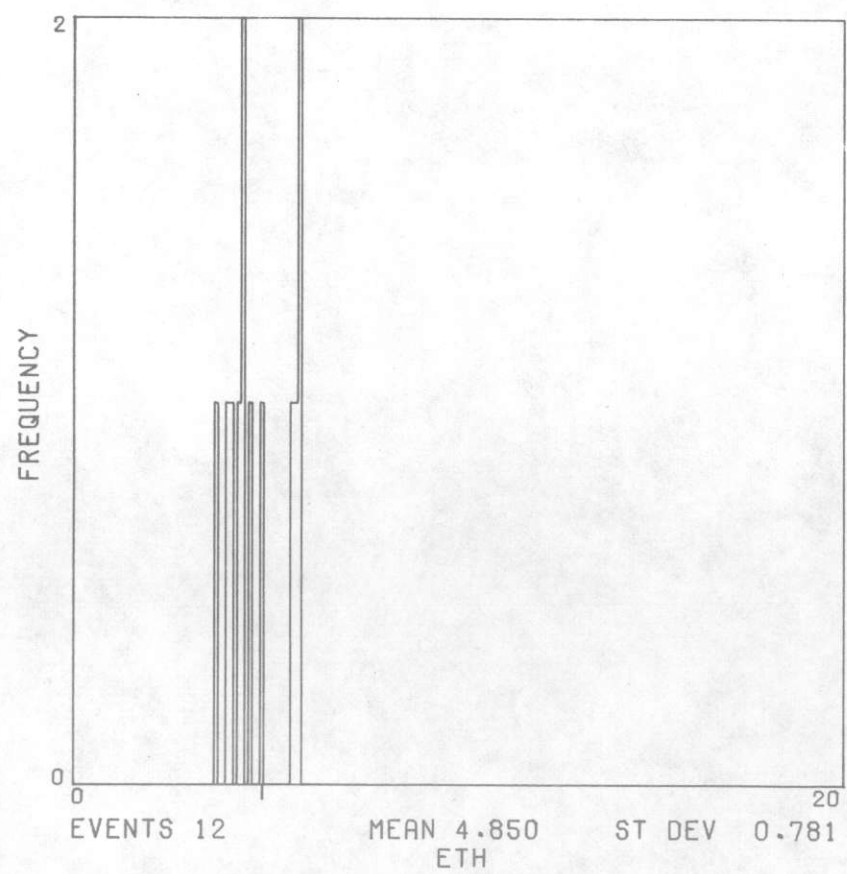
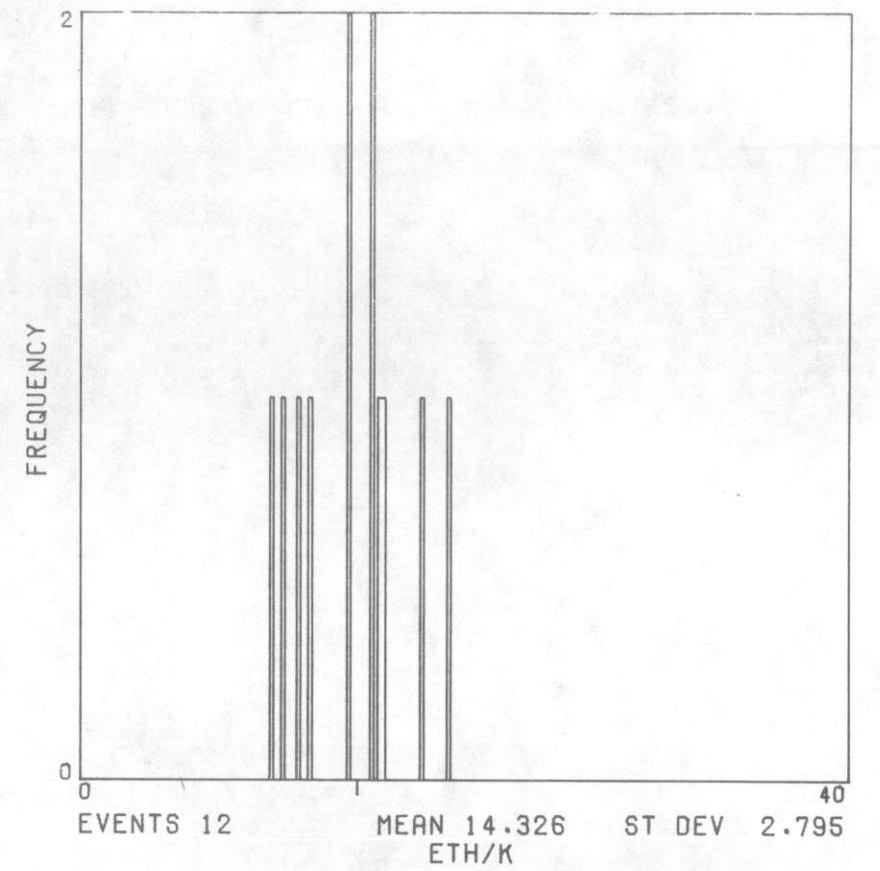
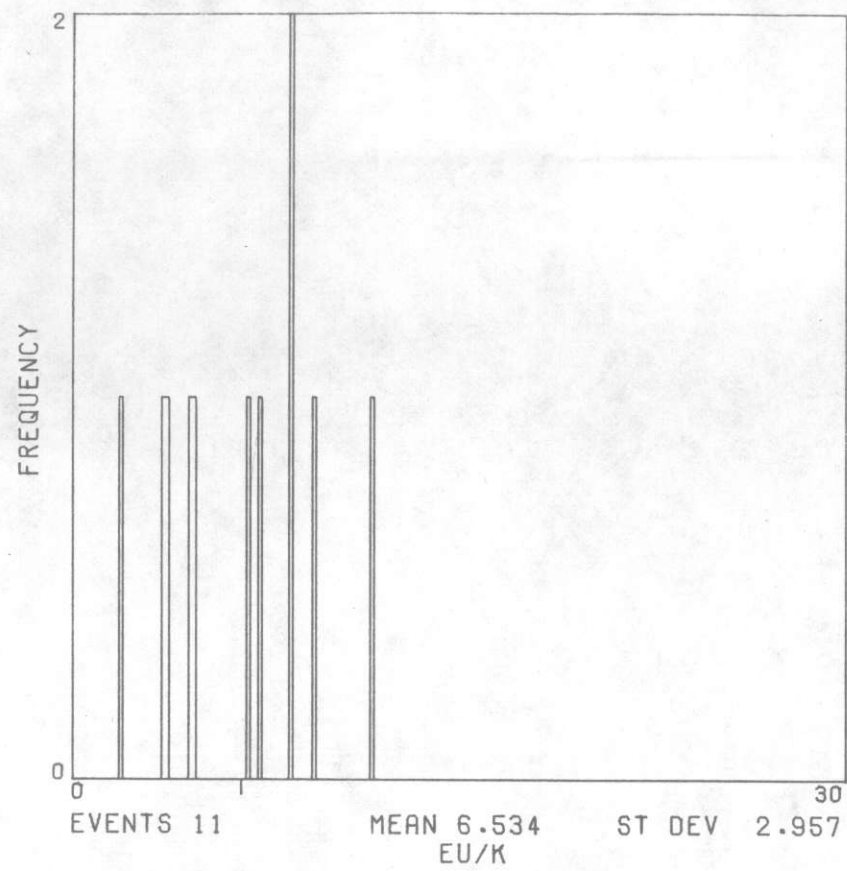
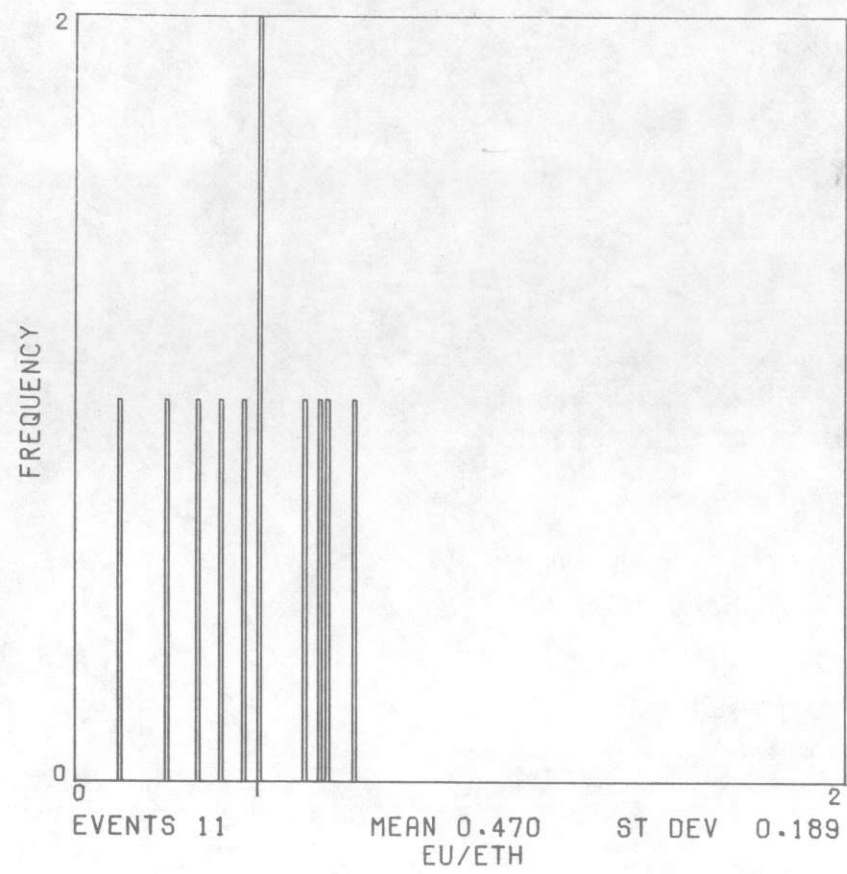
HIGH LIFE - QEB



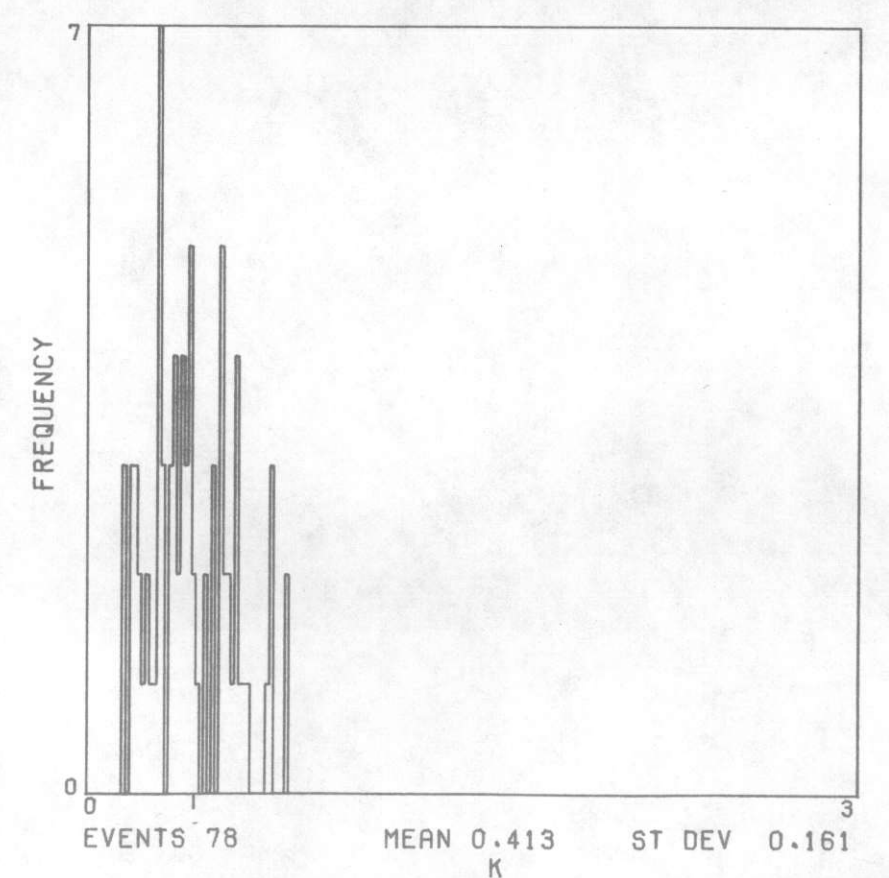
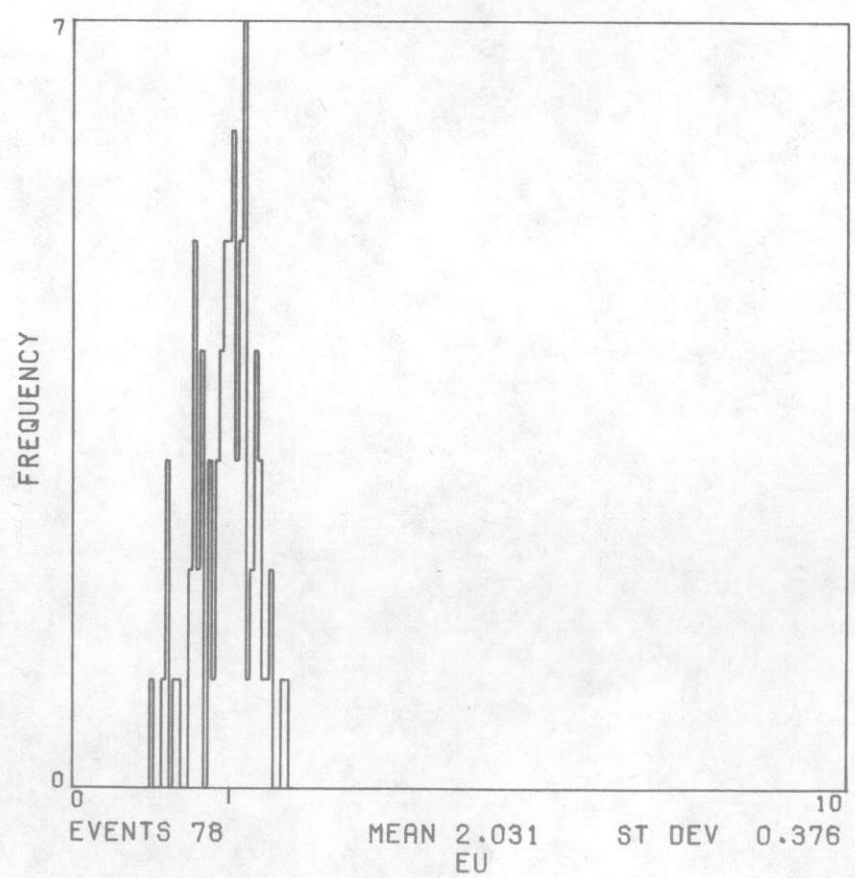
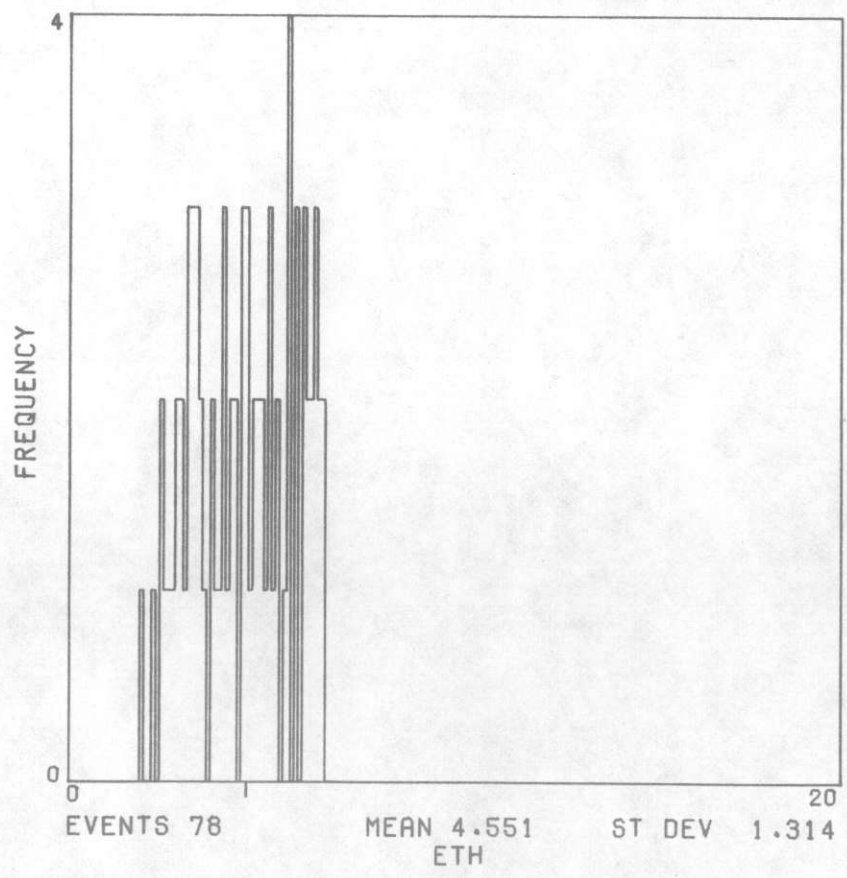
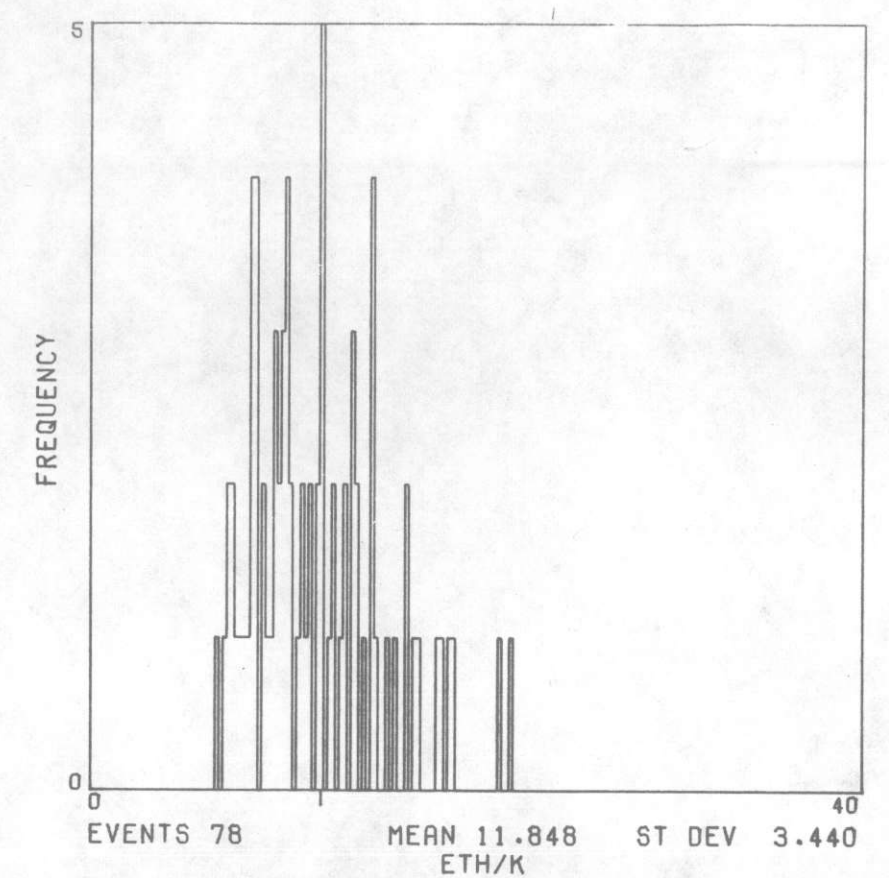
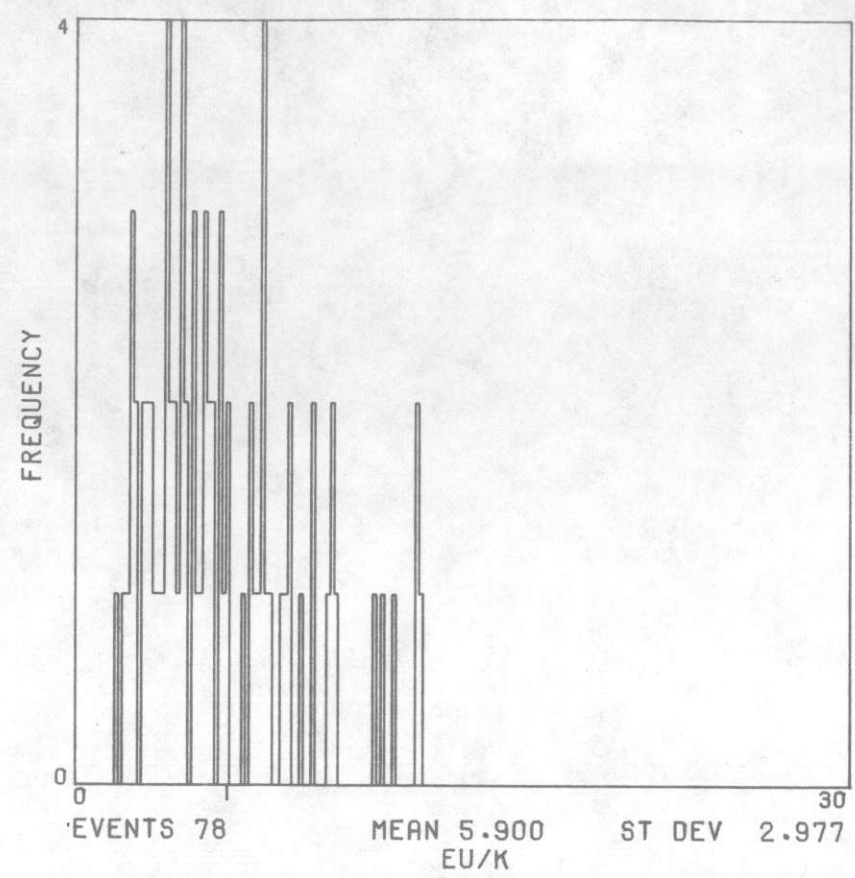
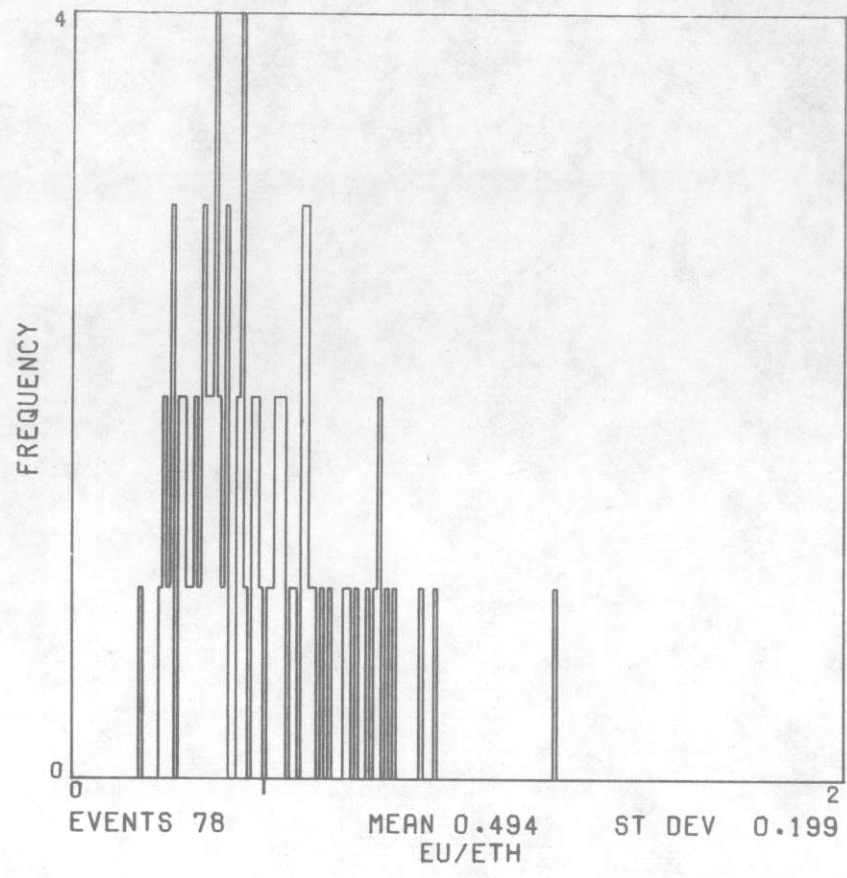
APPENDIX H - GEOLOGIC HISTOGRAMS



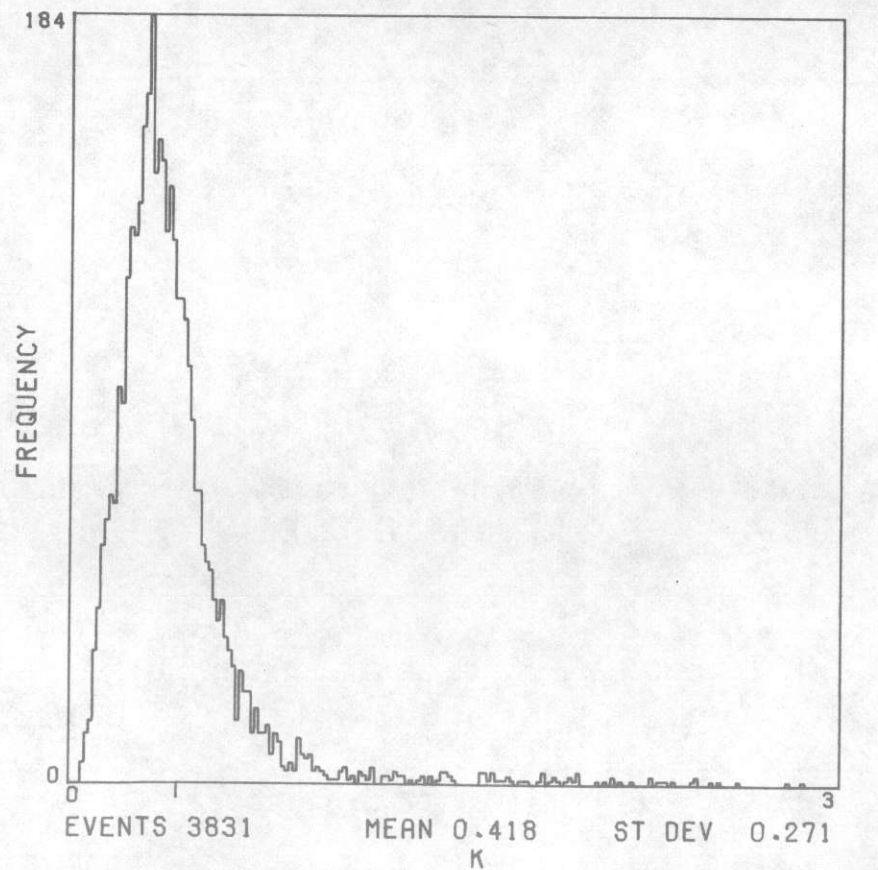
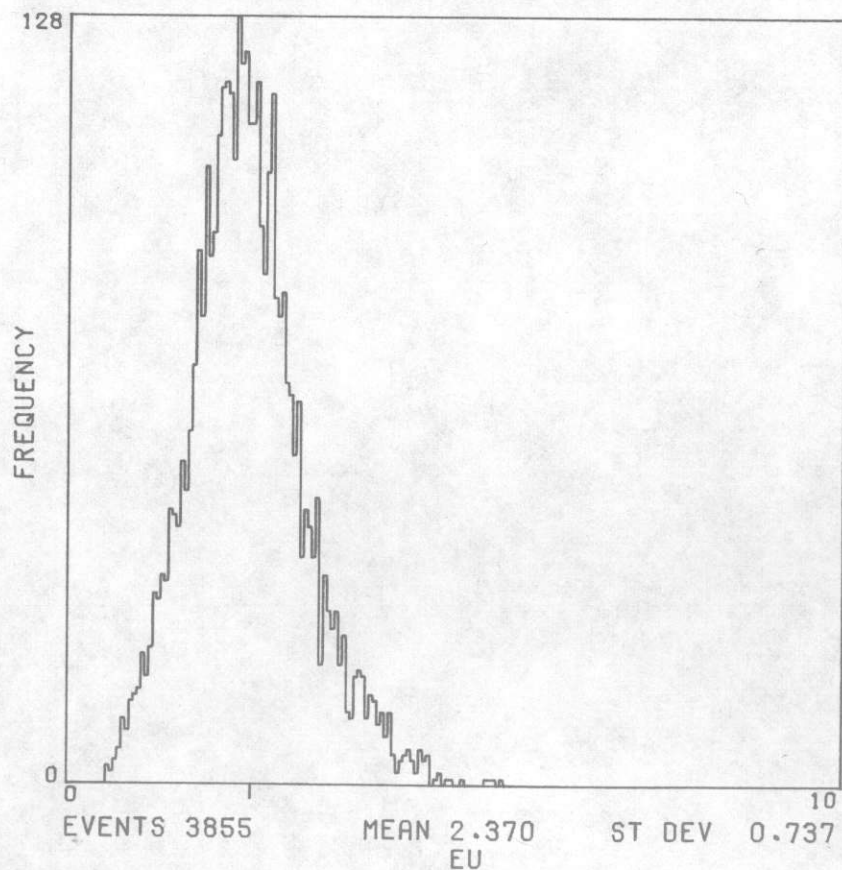
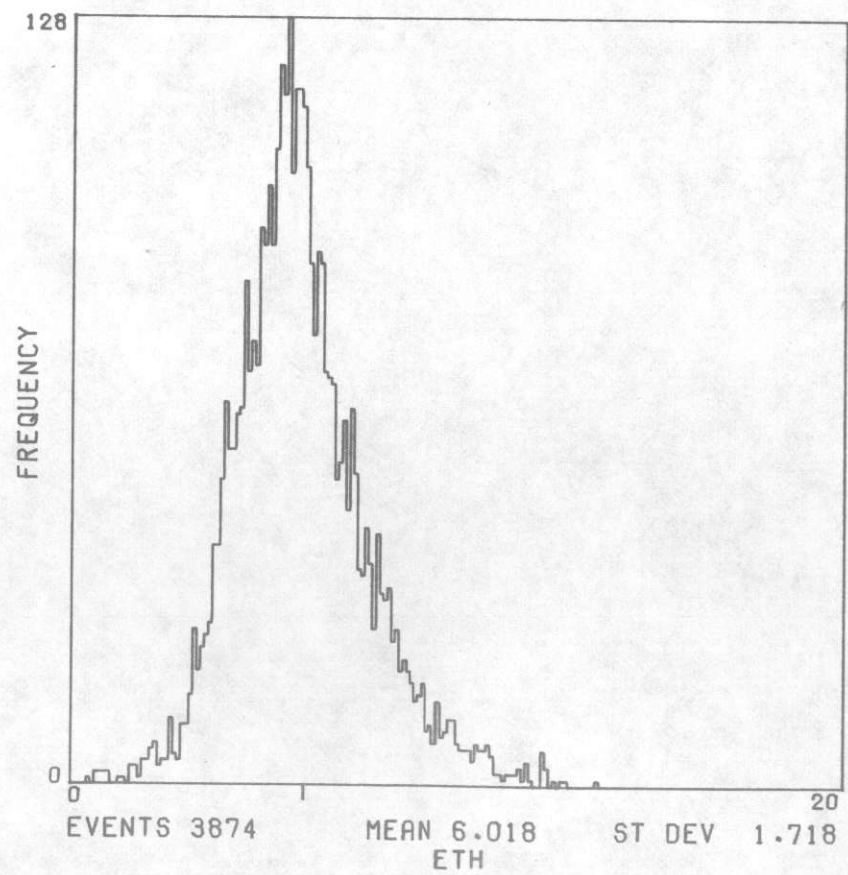
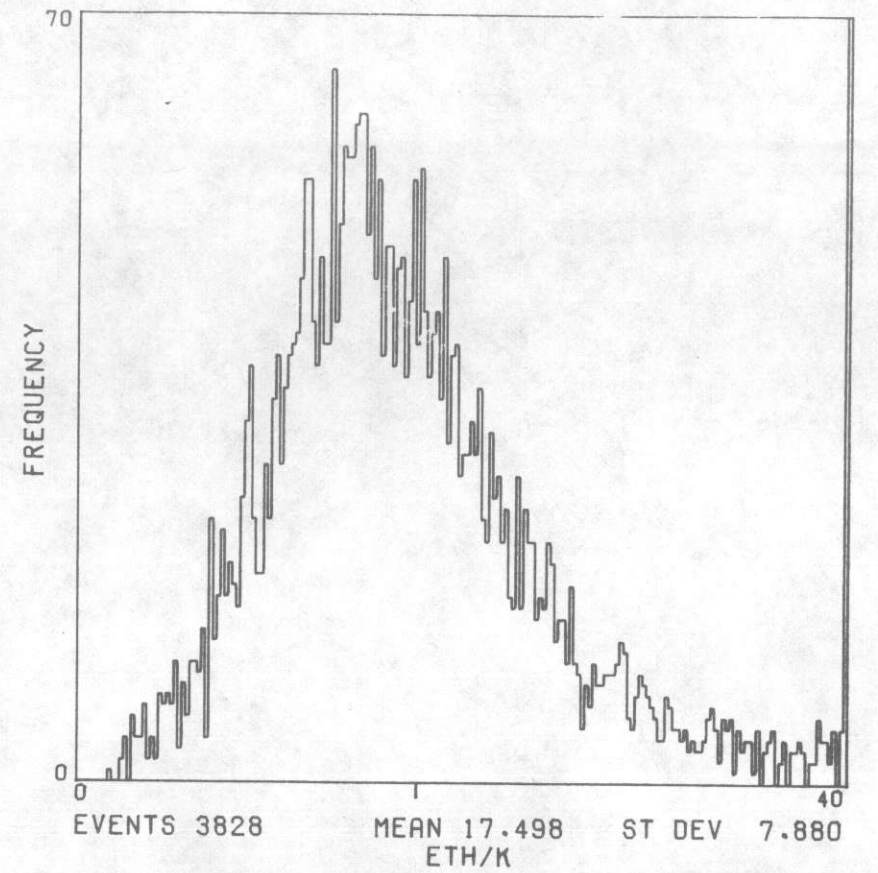
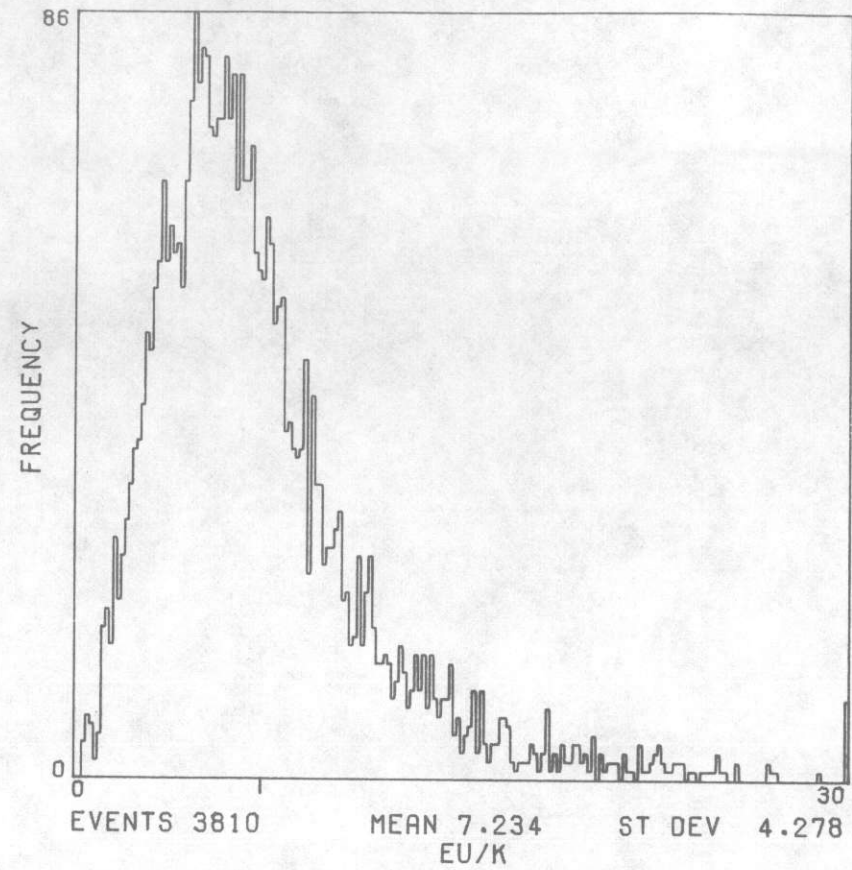
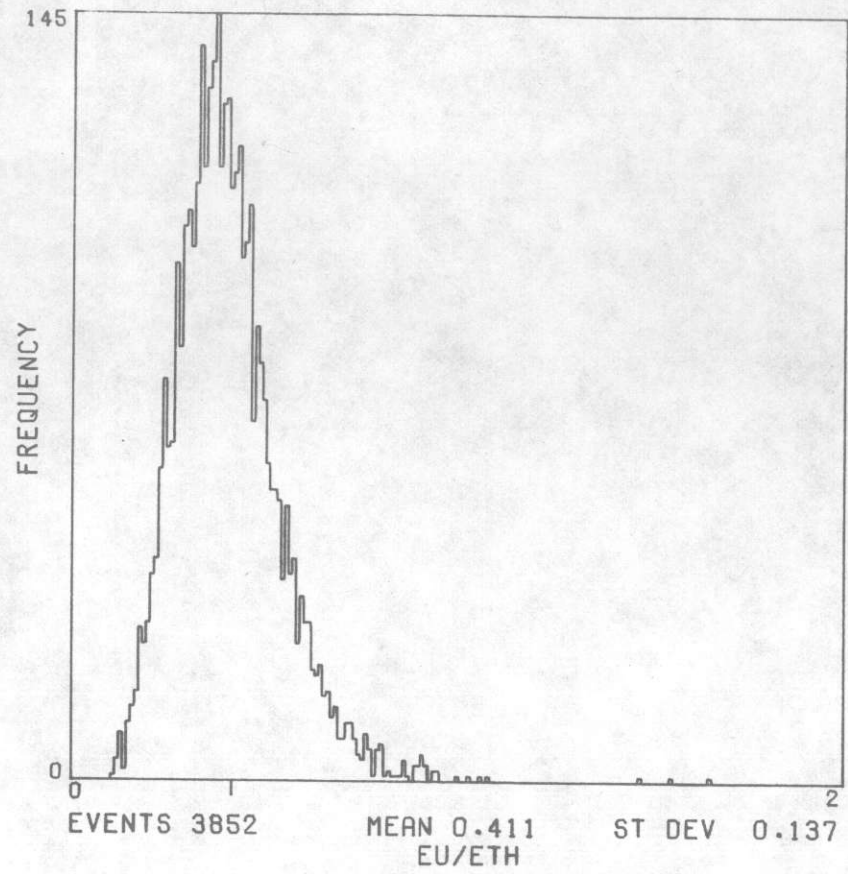
UNIT AA



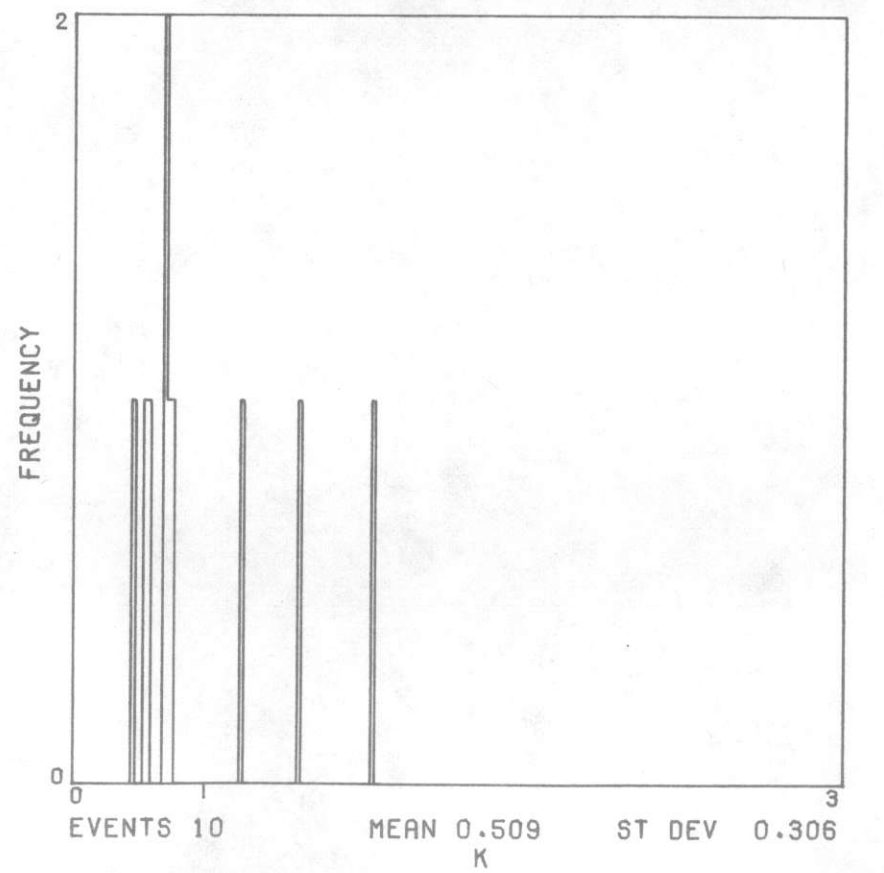
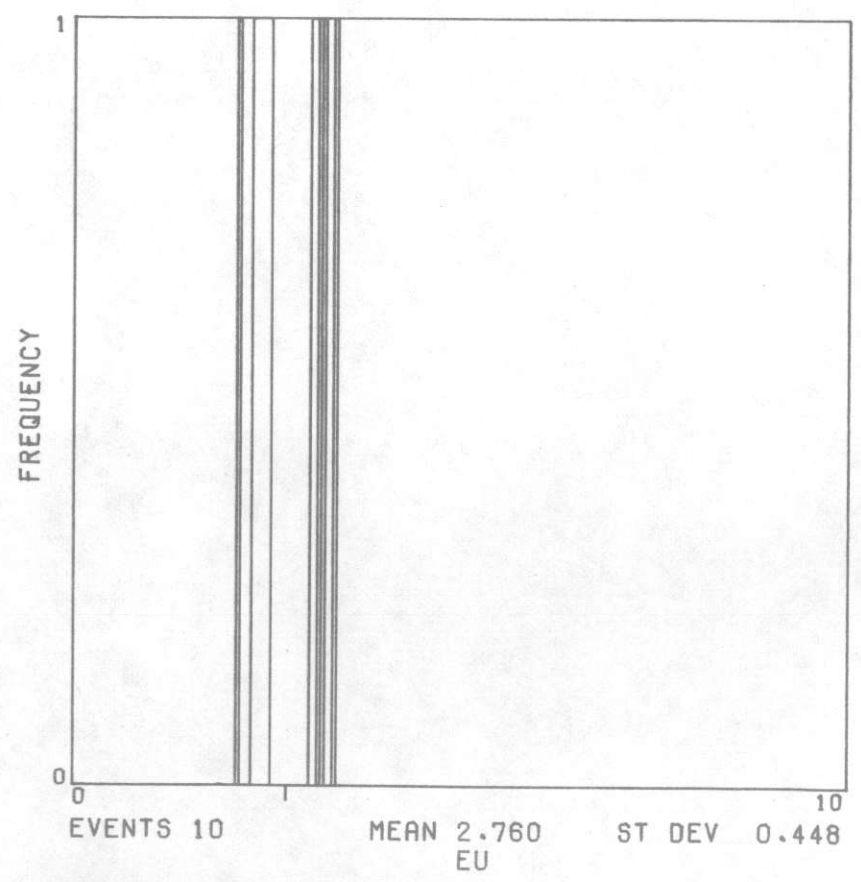
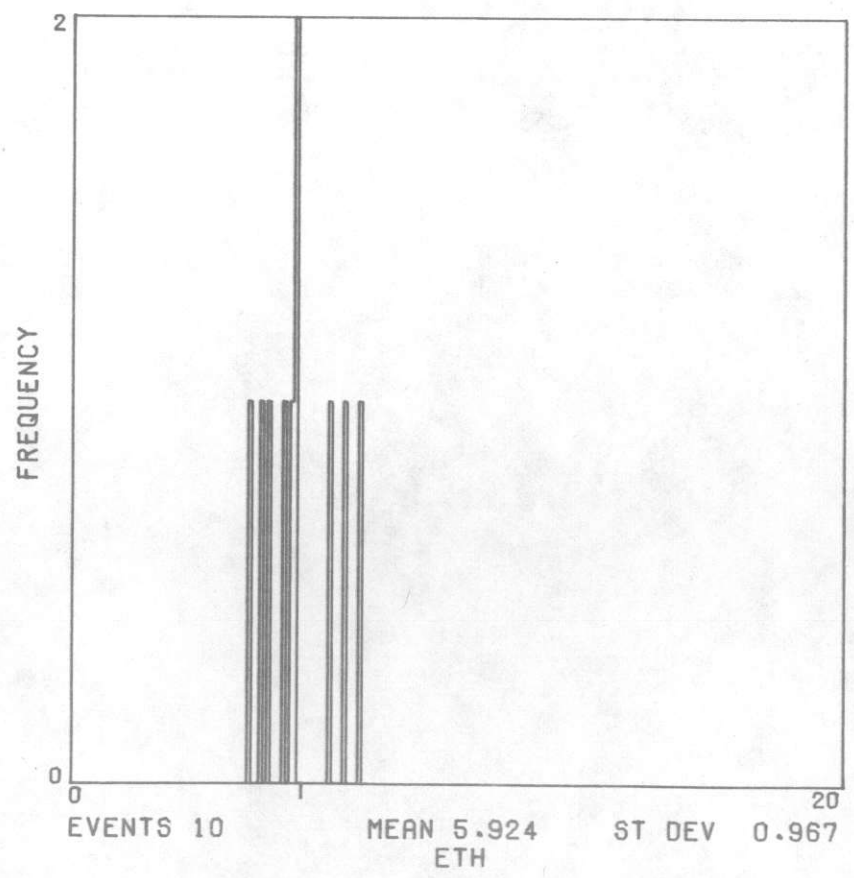
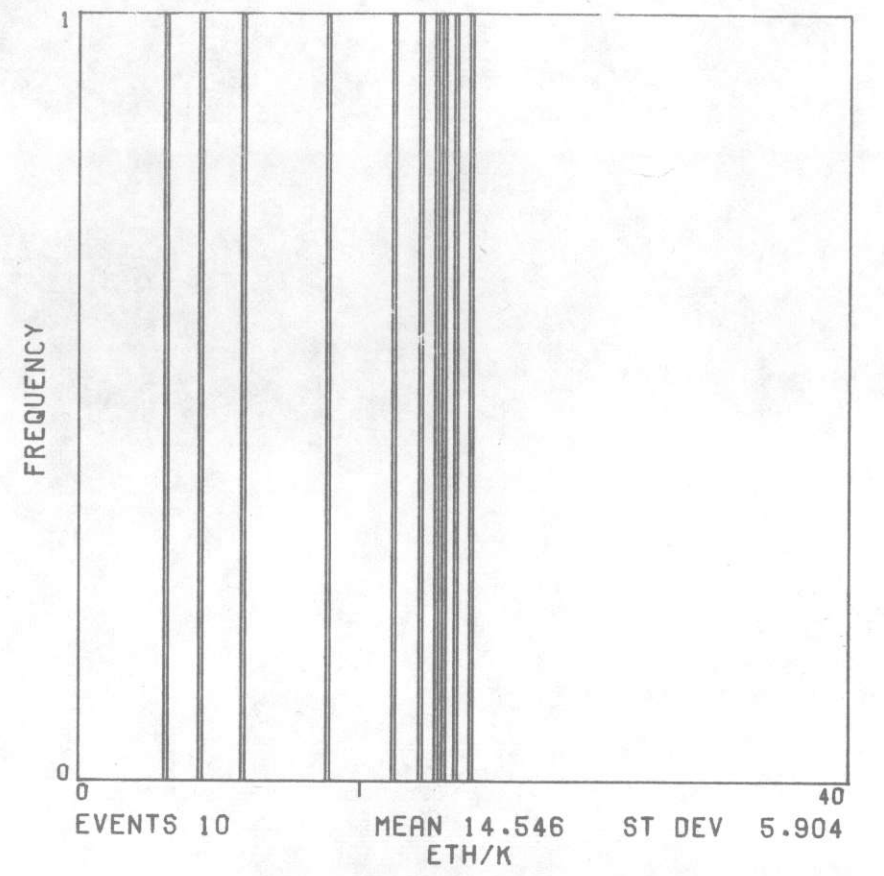
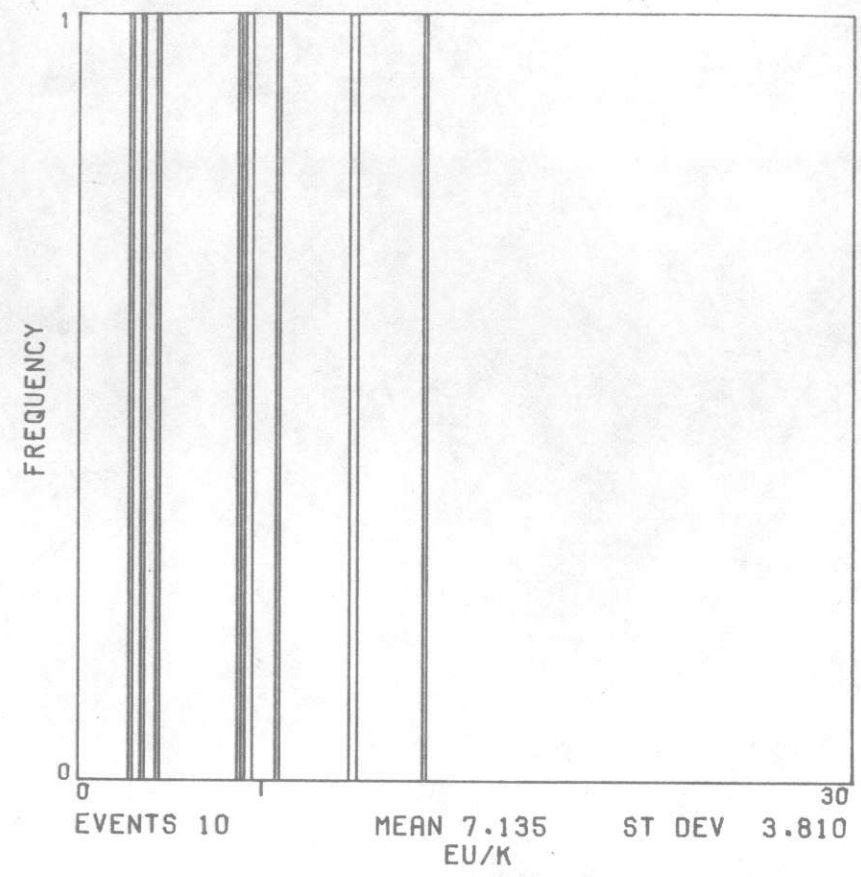
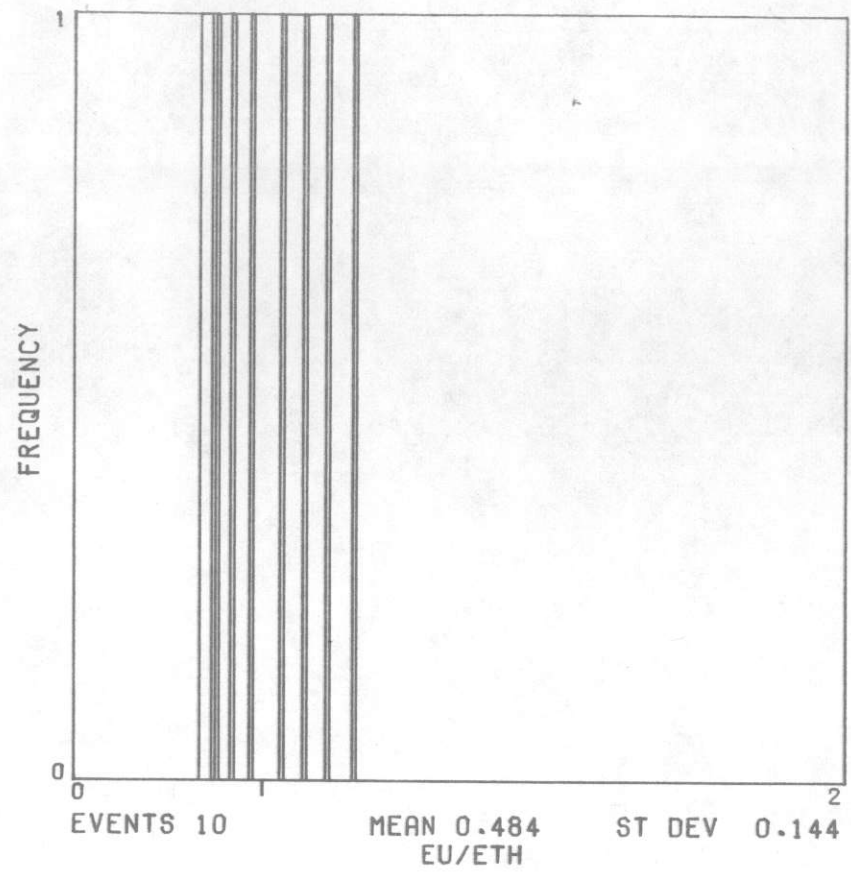
UNIT ACK



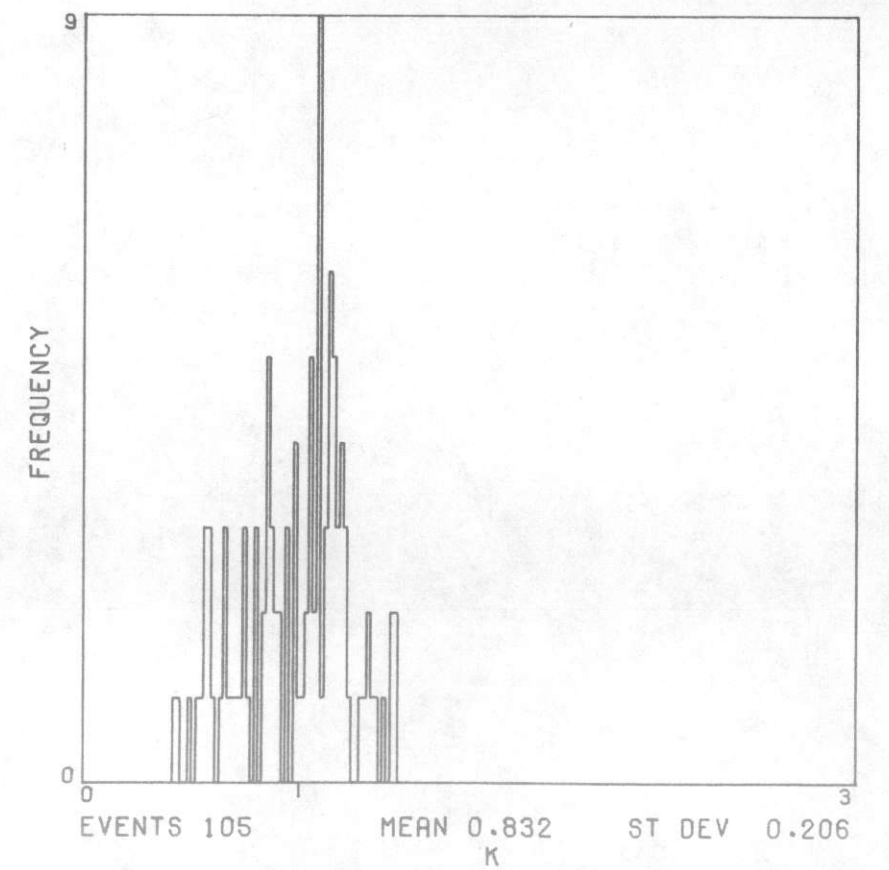
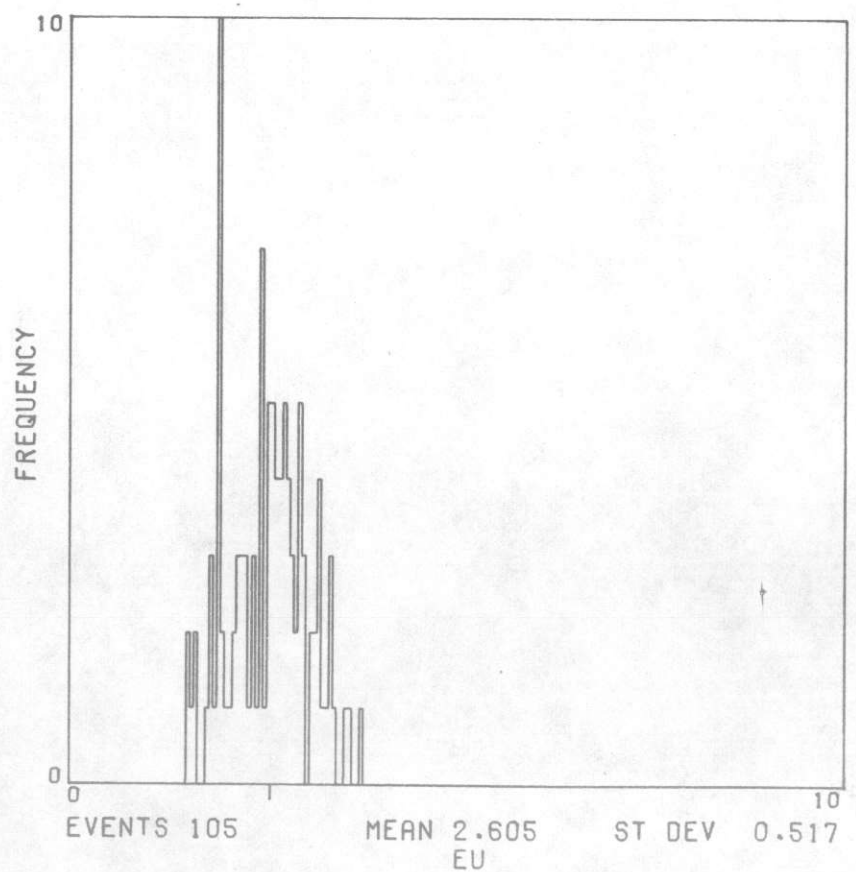
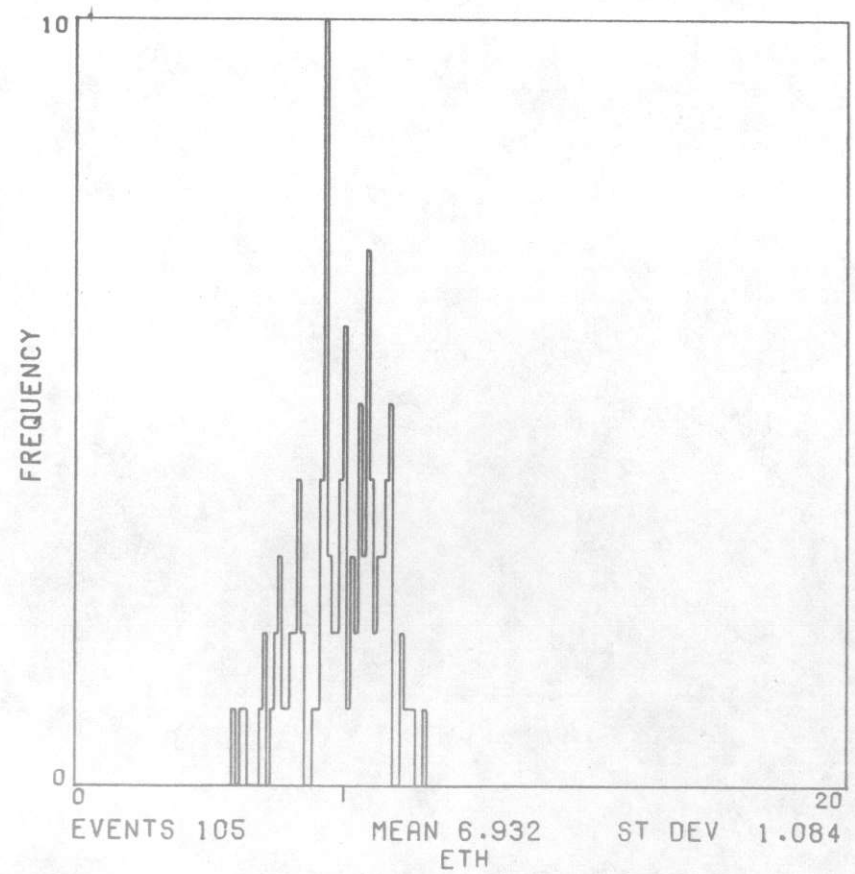
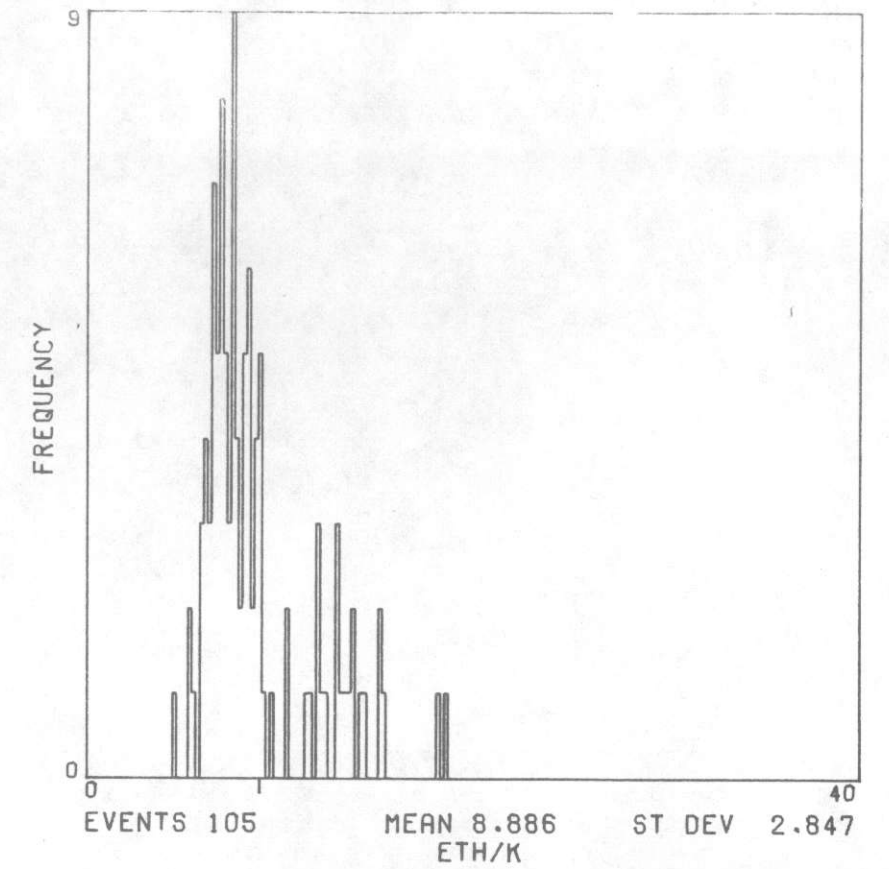
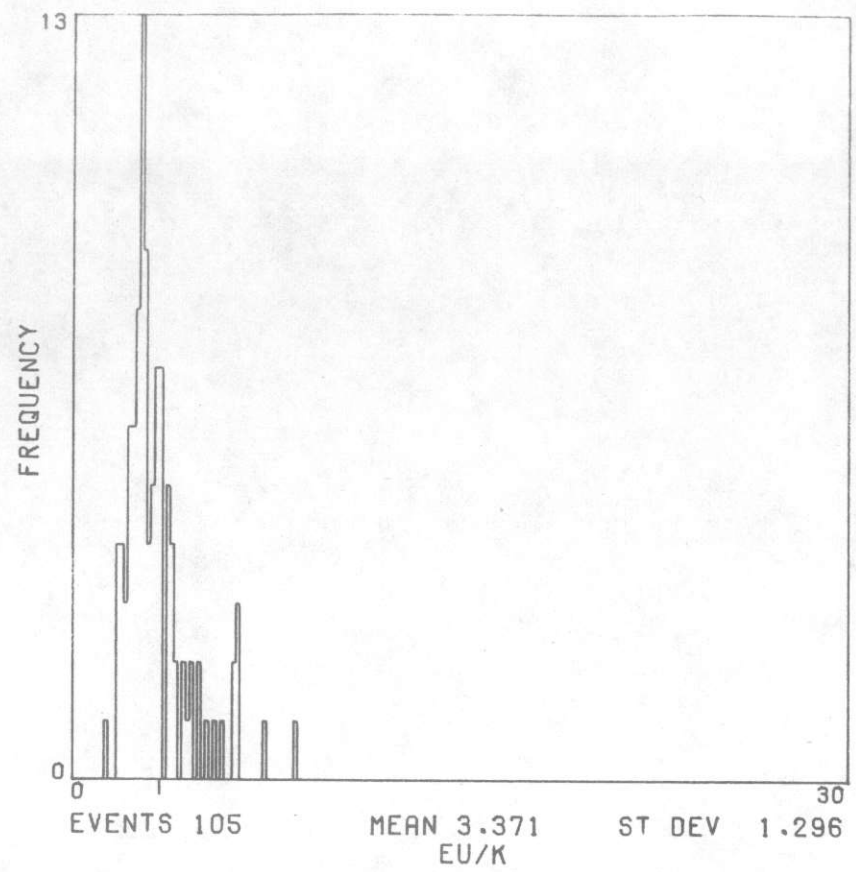
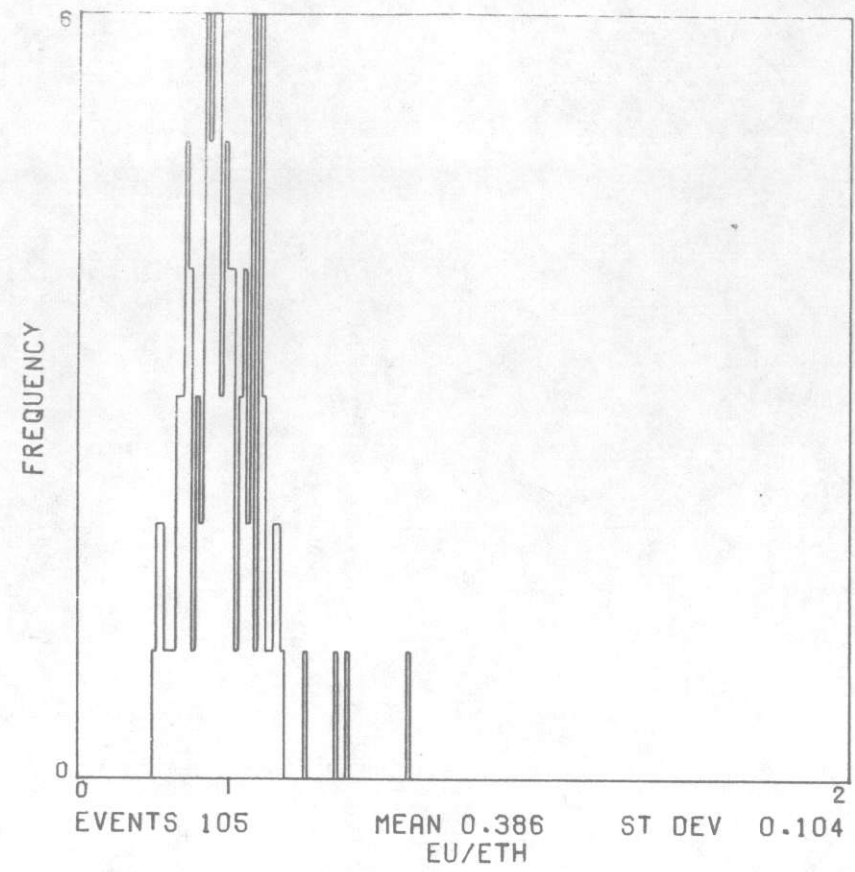
UNIT BPY

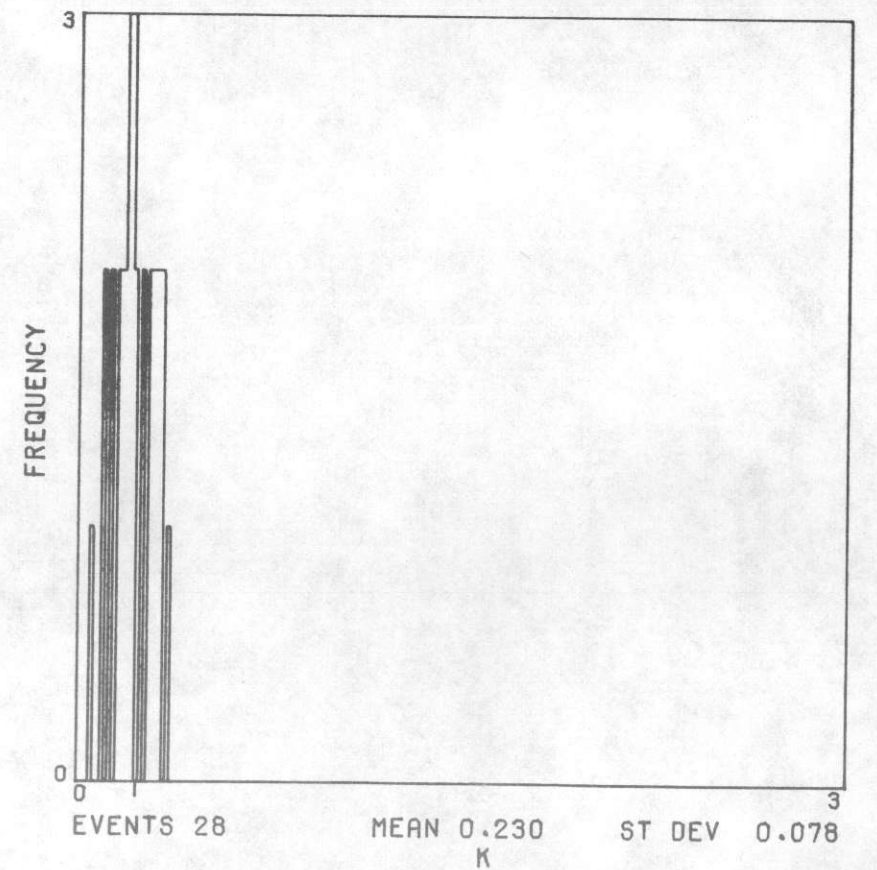
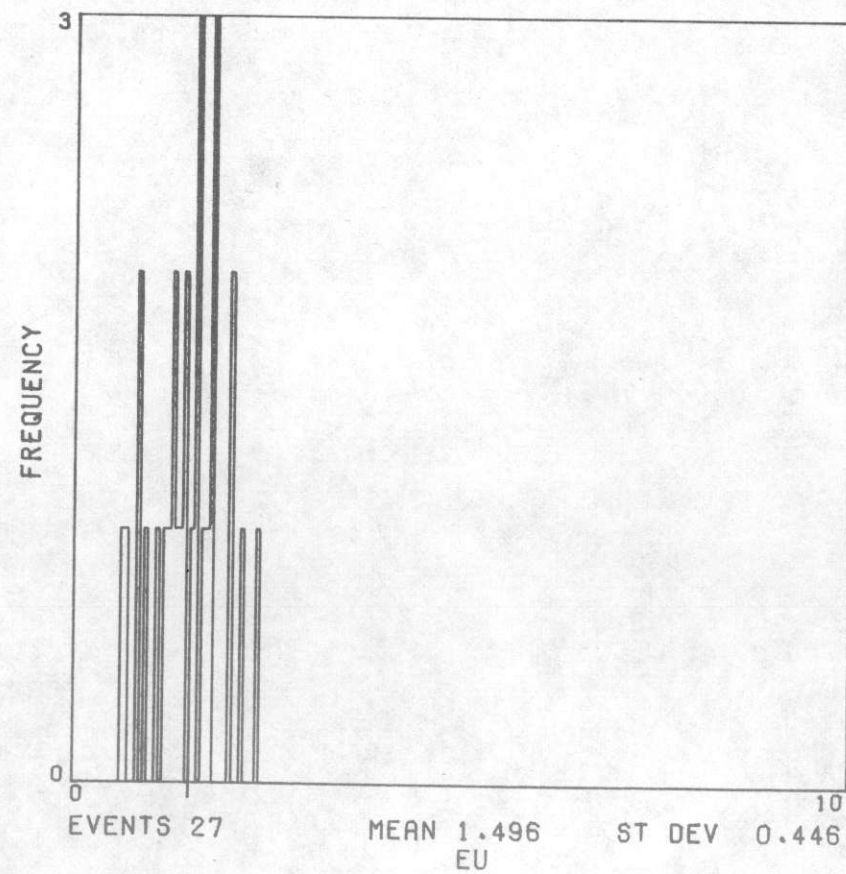
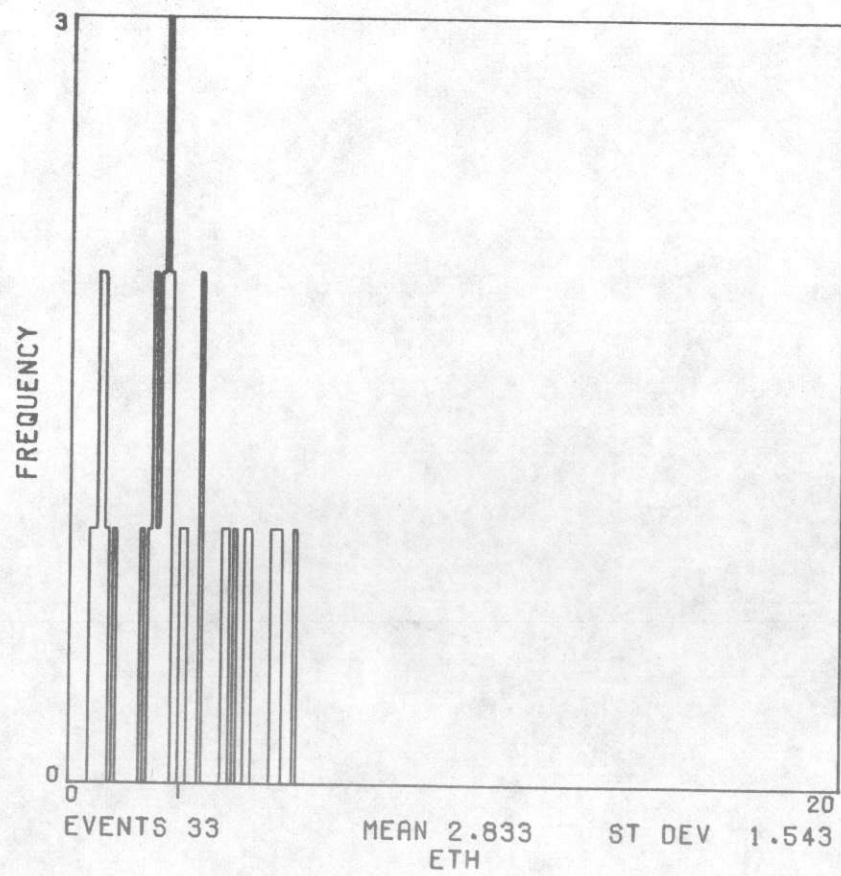
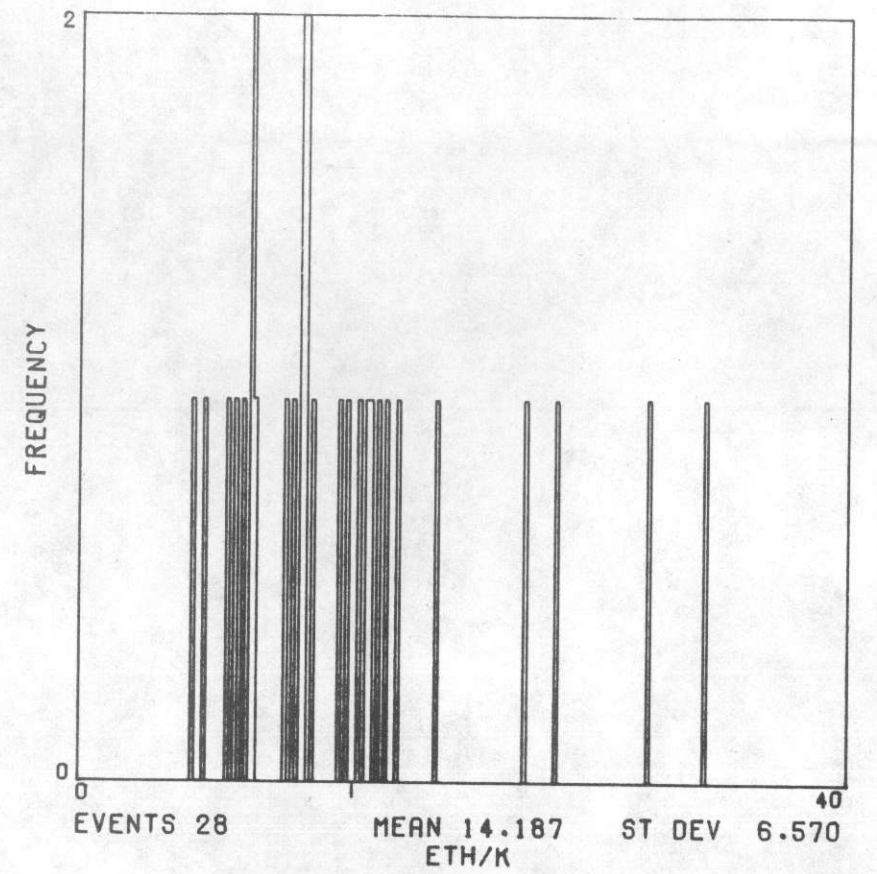
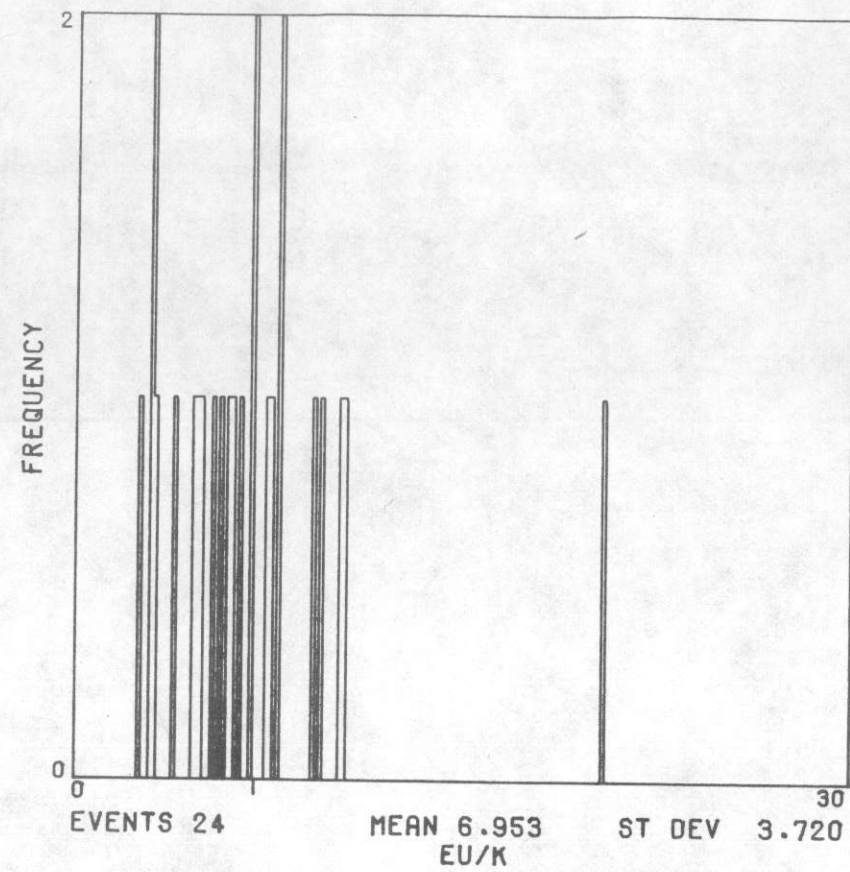
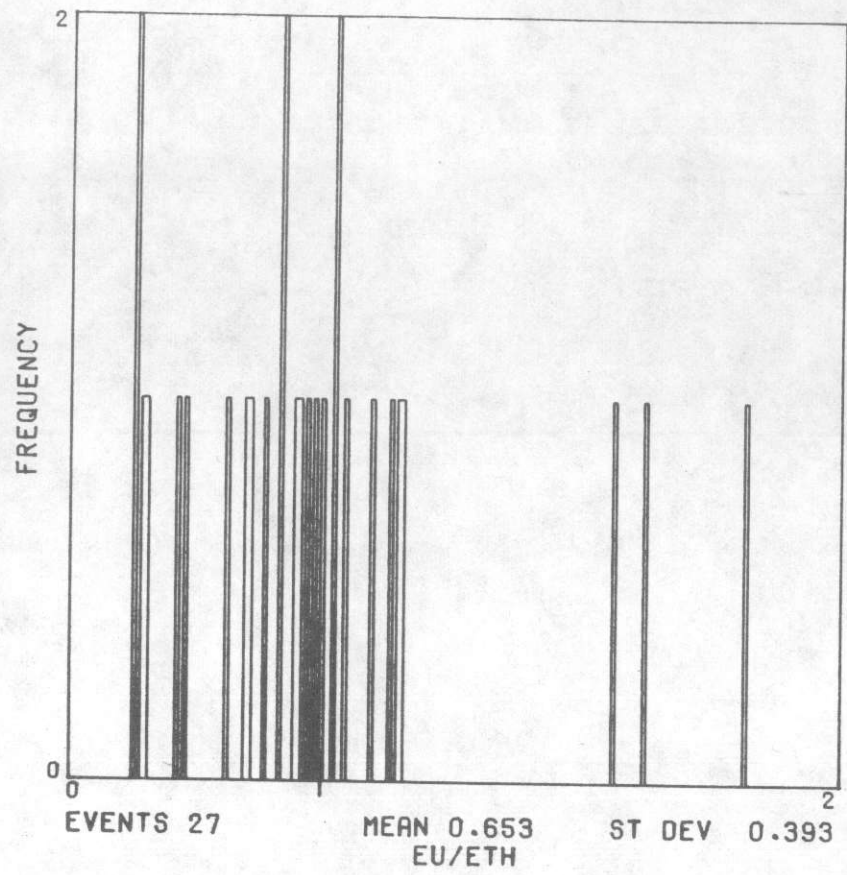


UNIT CC

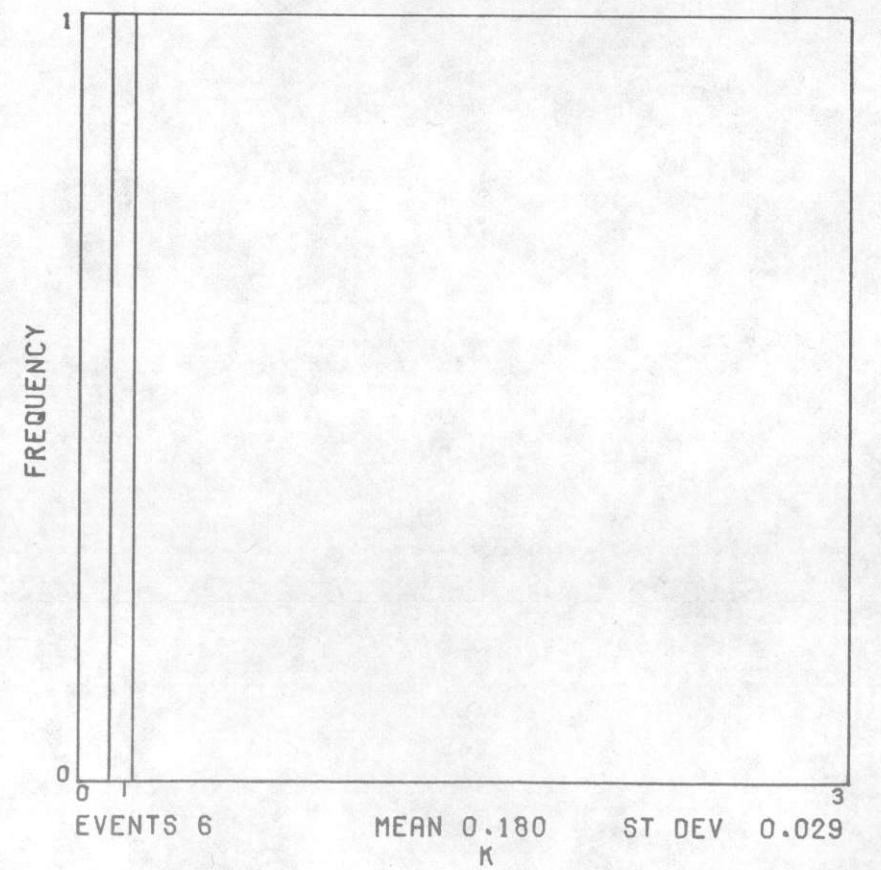
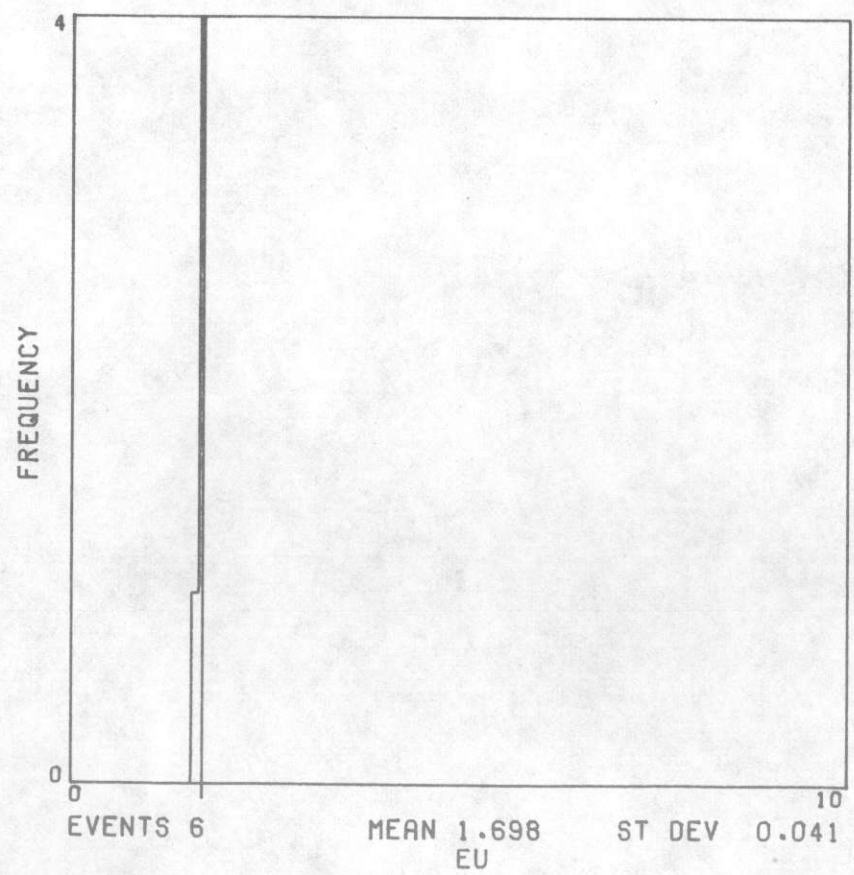
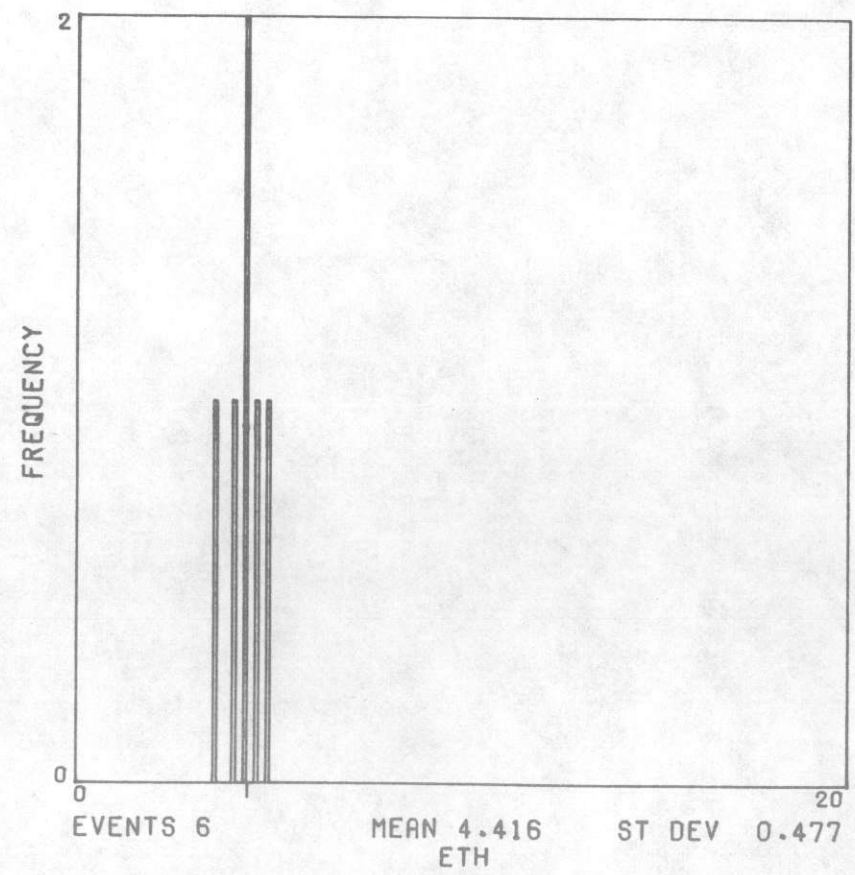
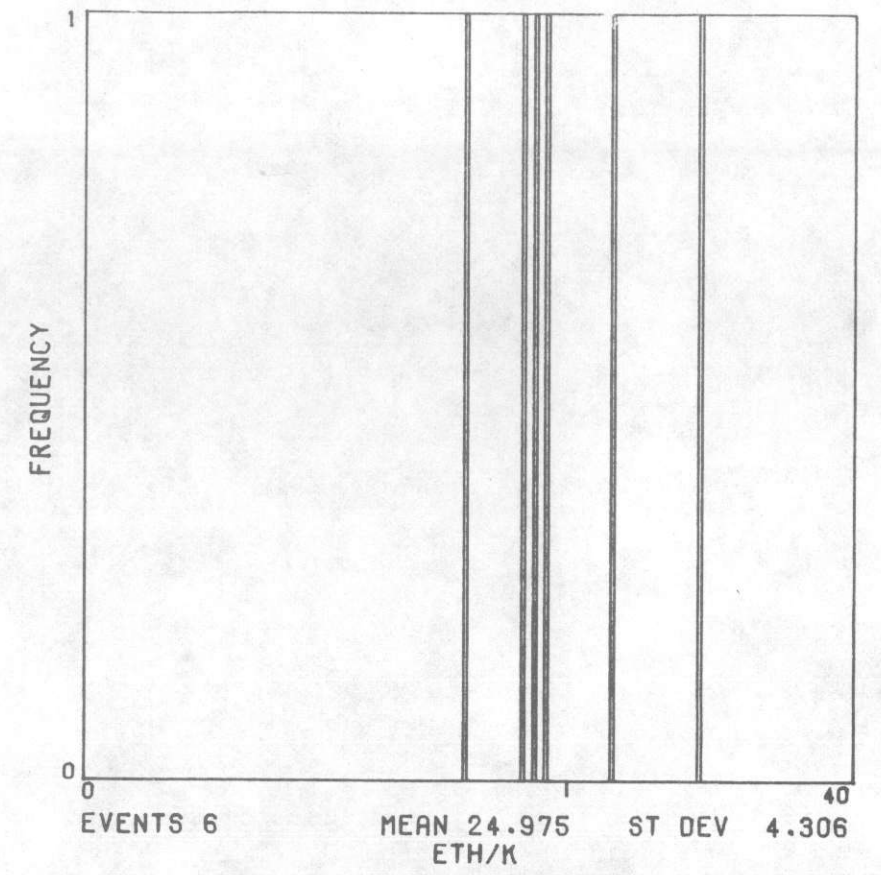
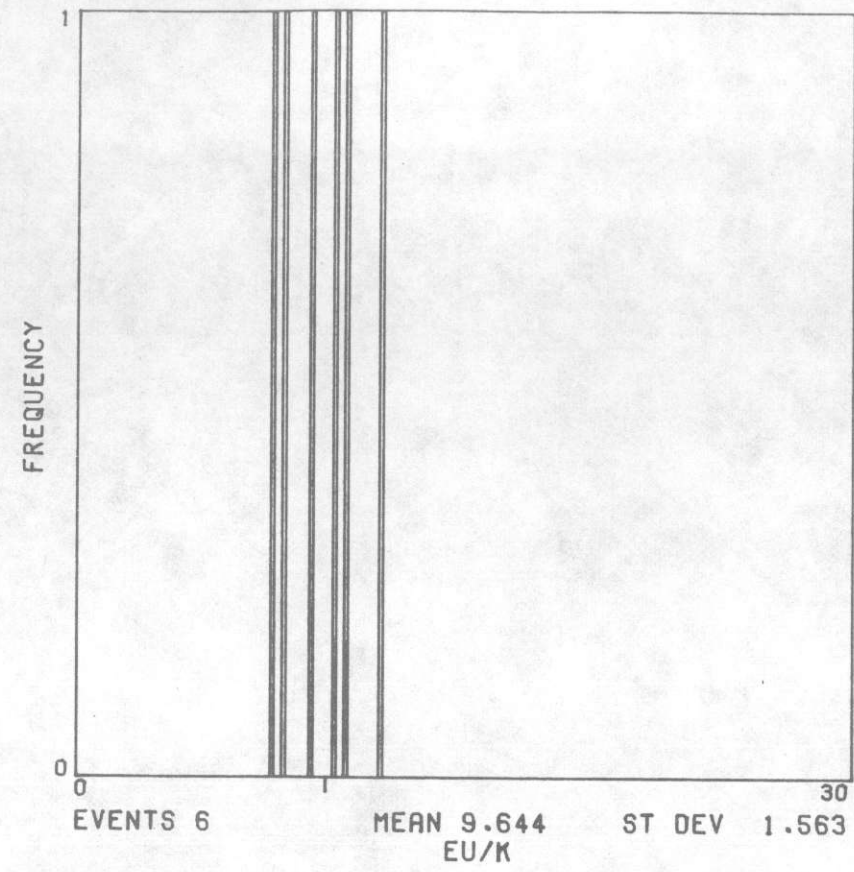
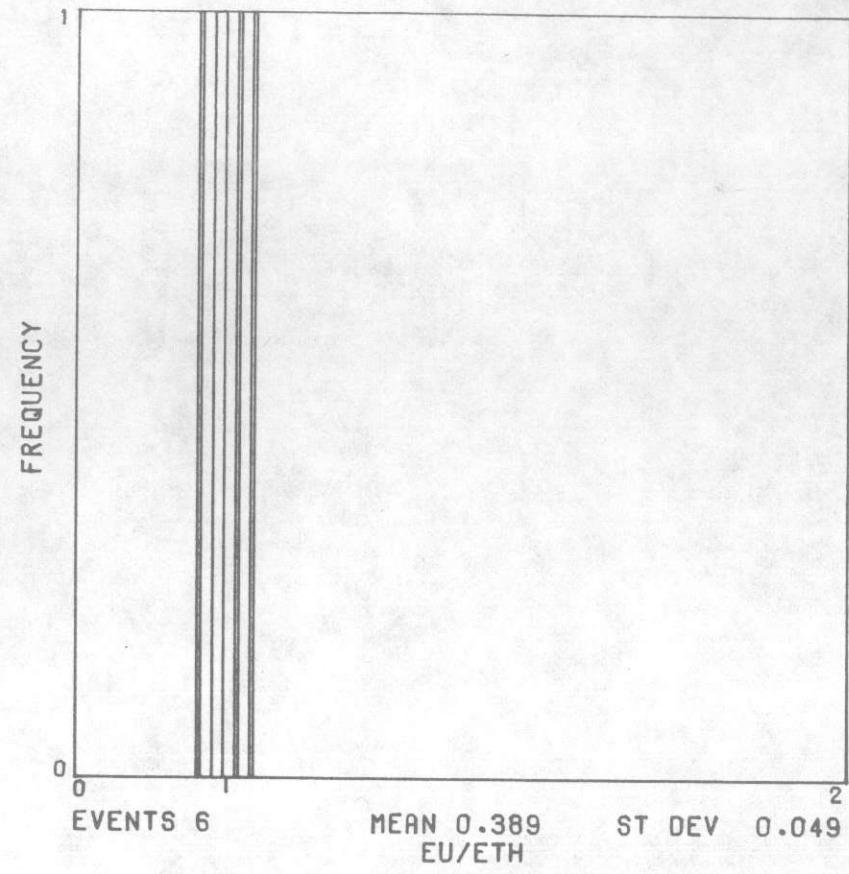


UNIT CCK

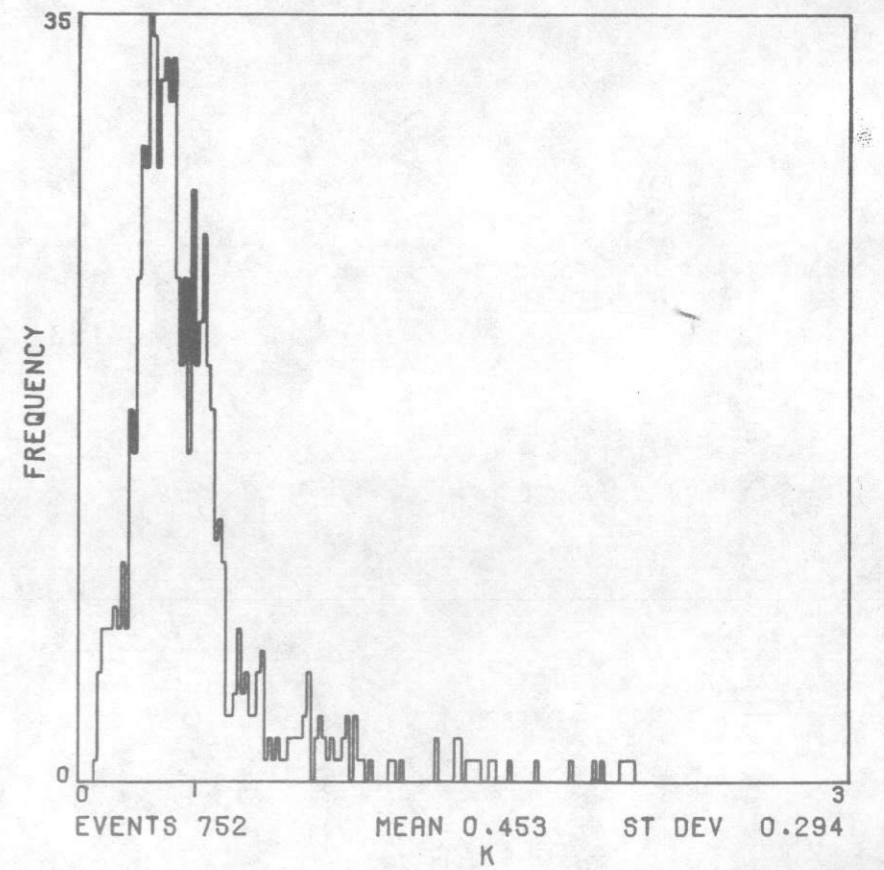
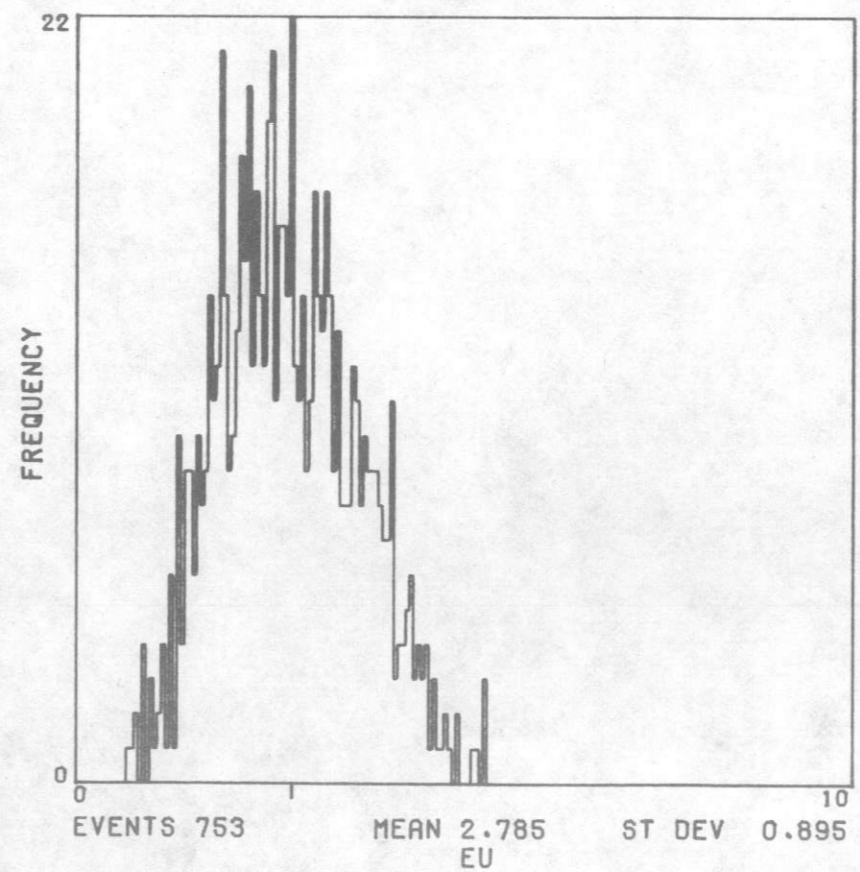
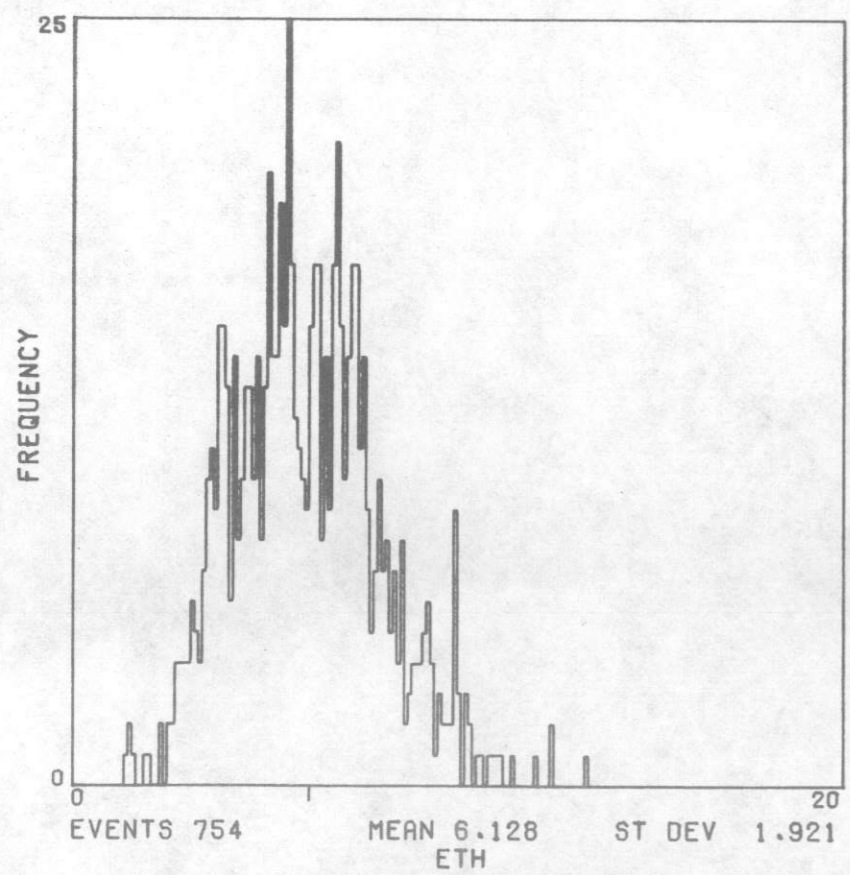
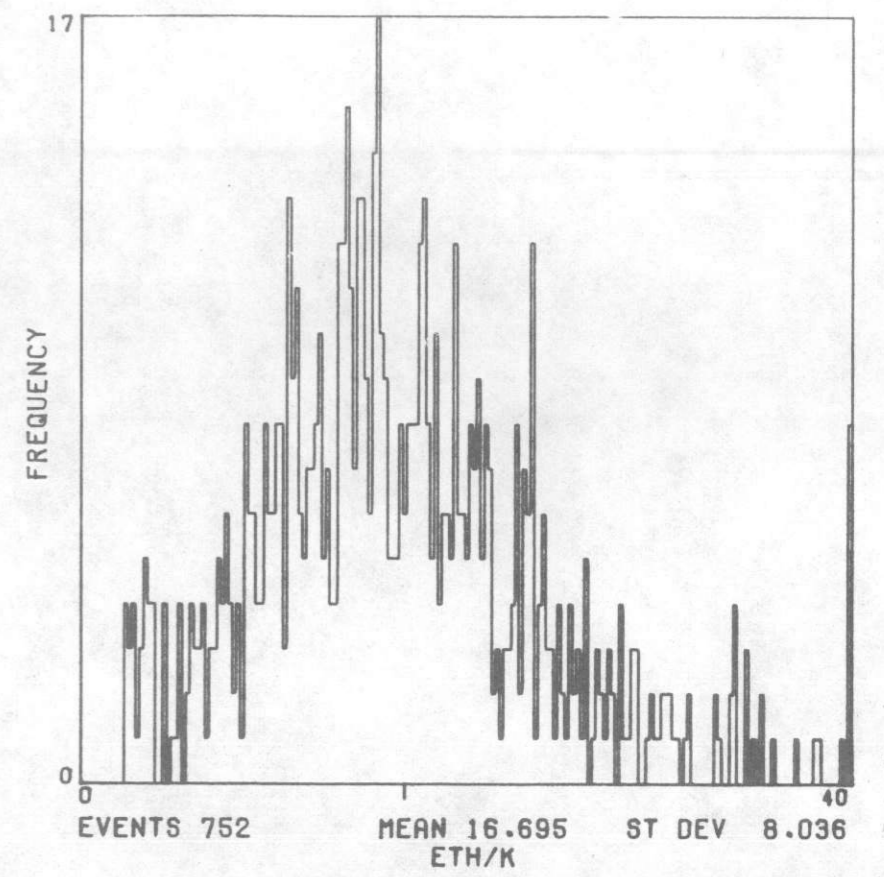
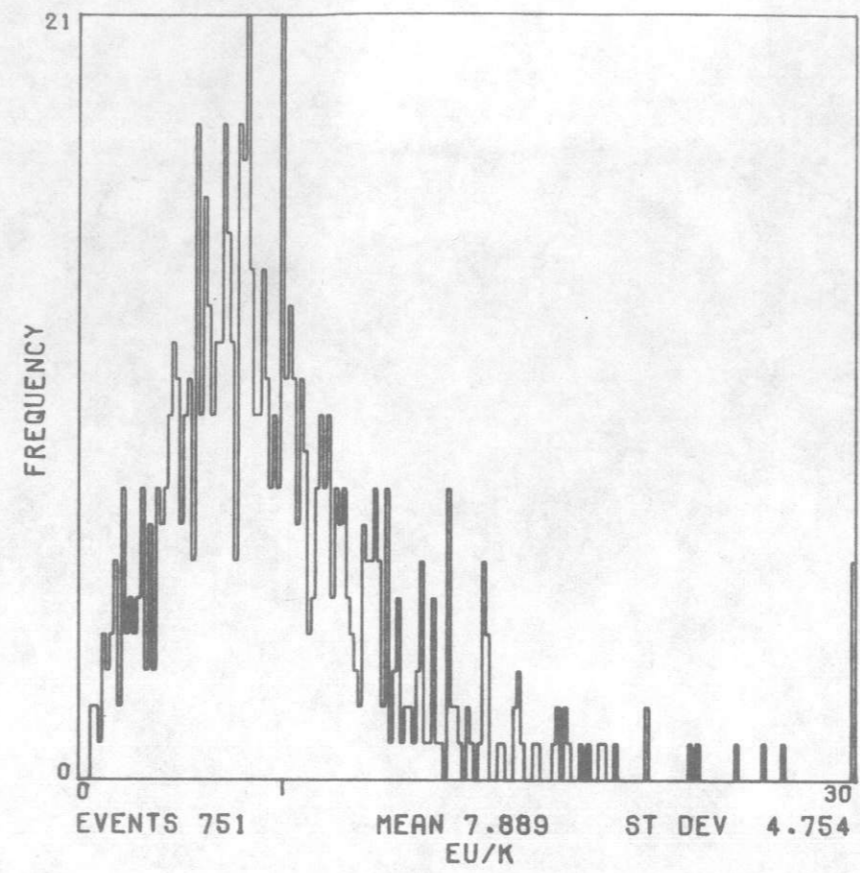
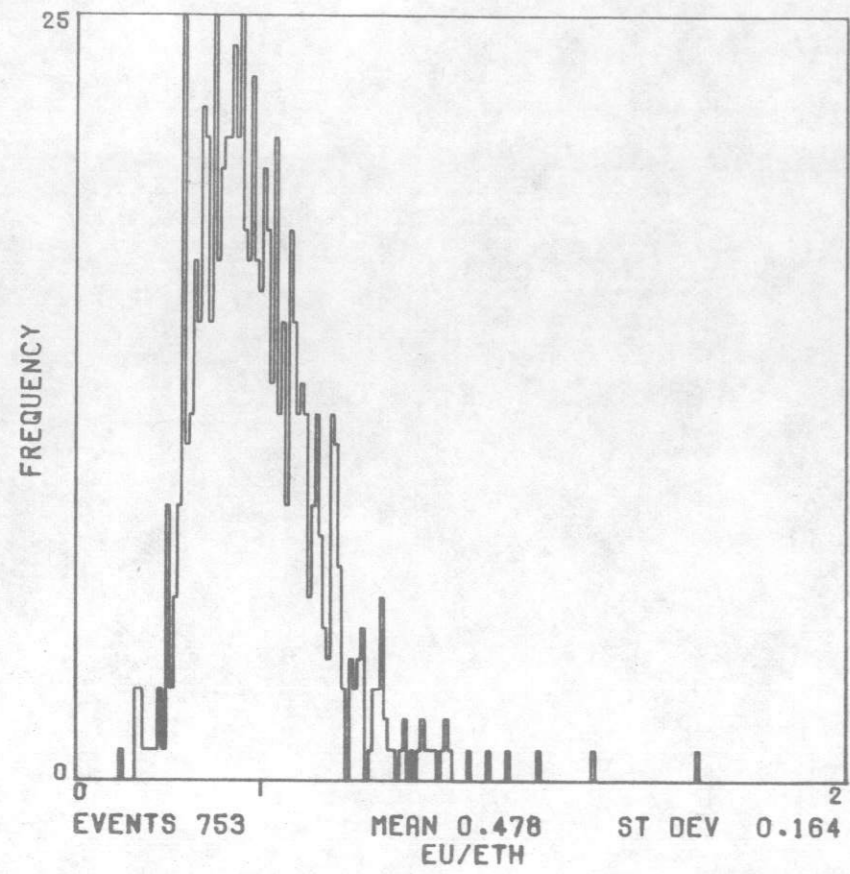


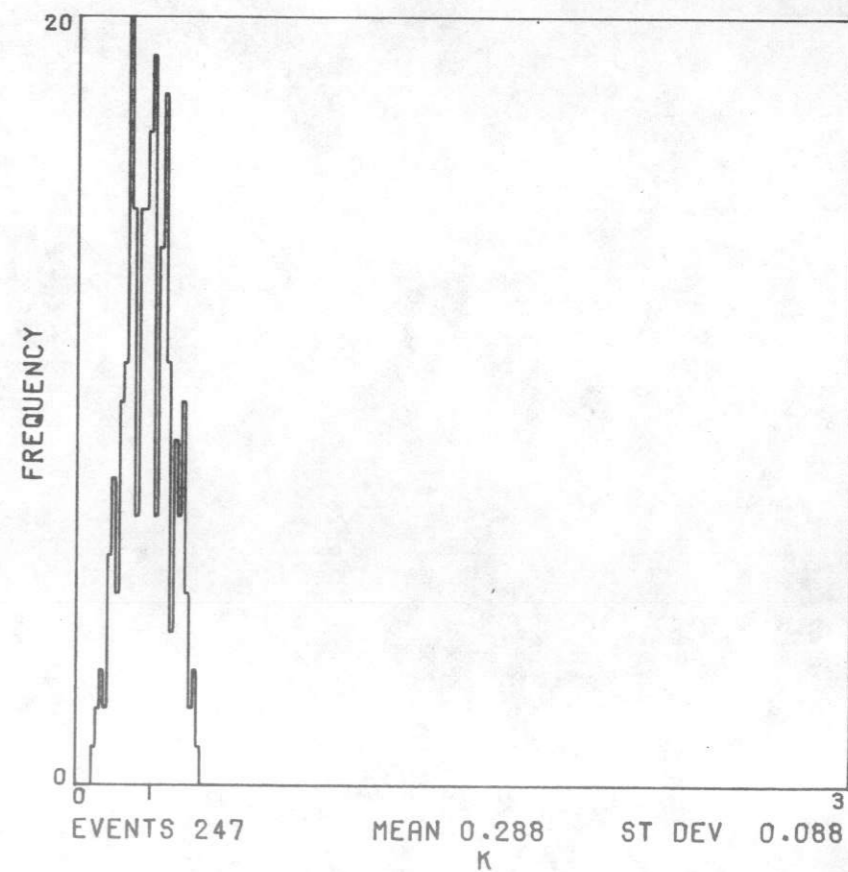
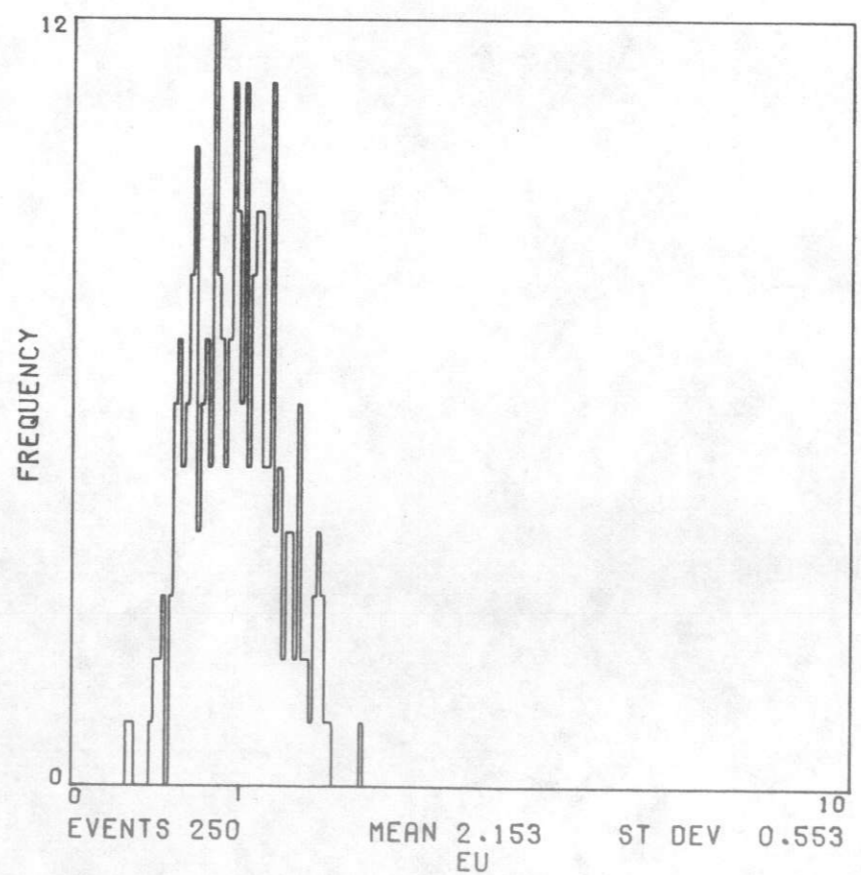
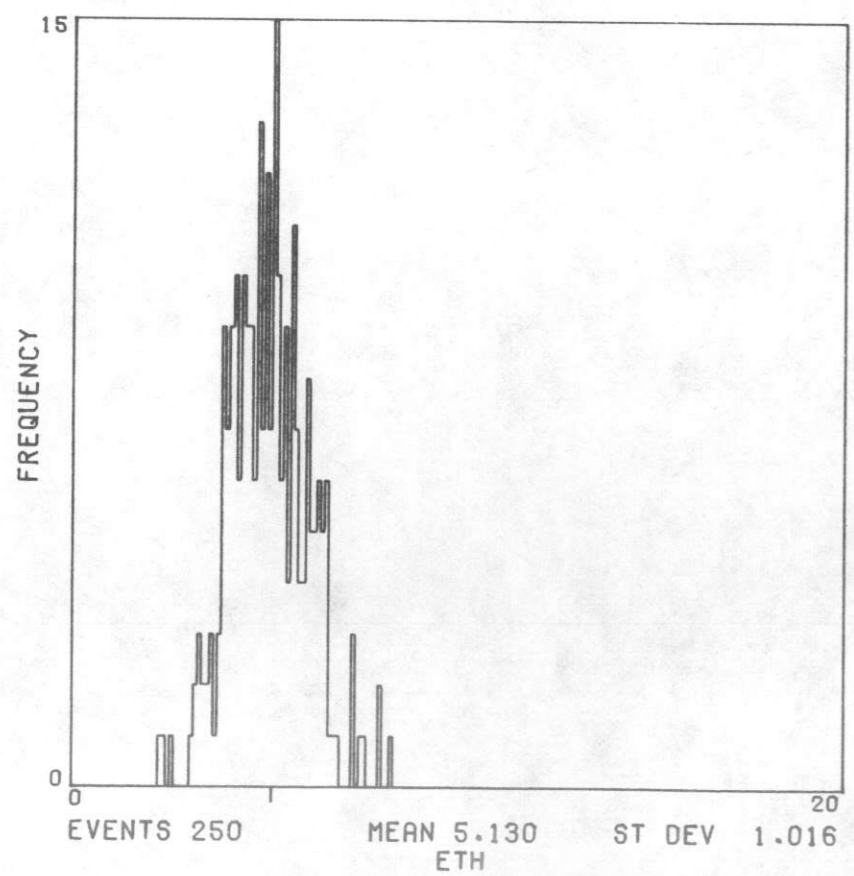
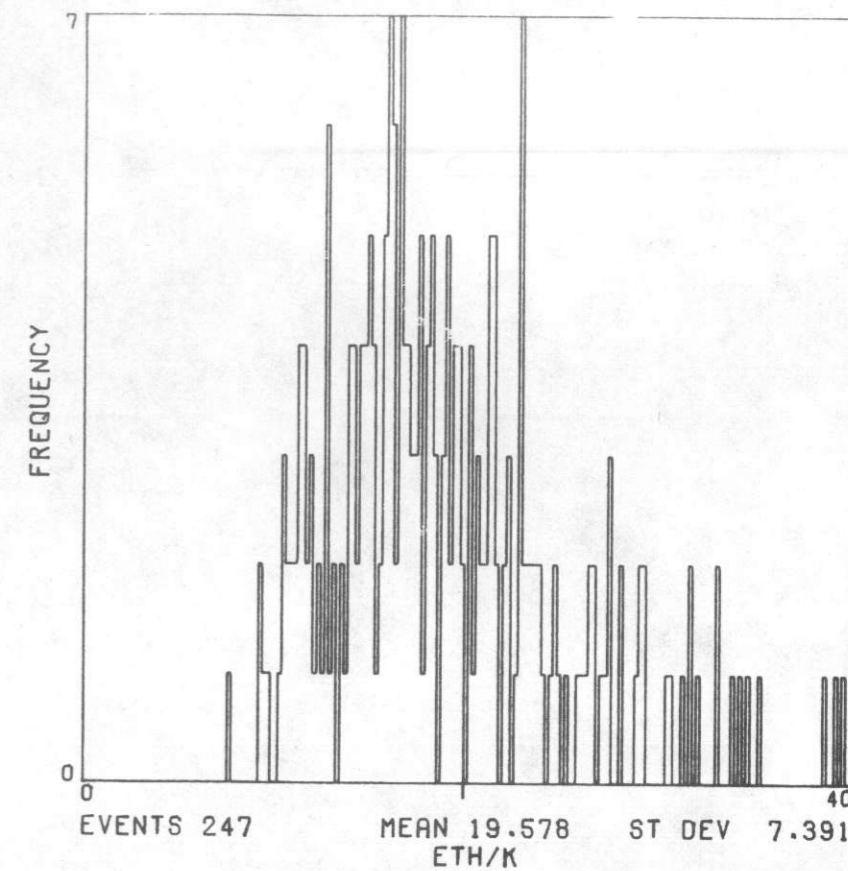
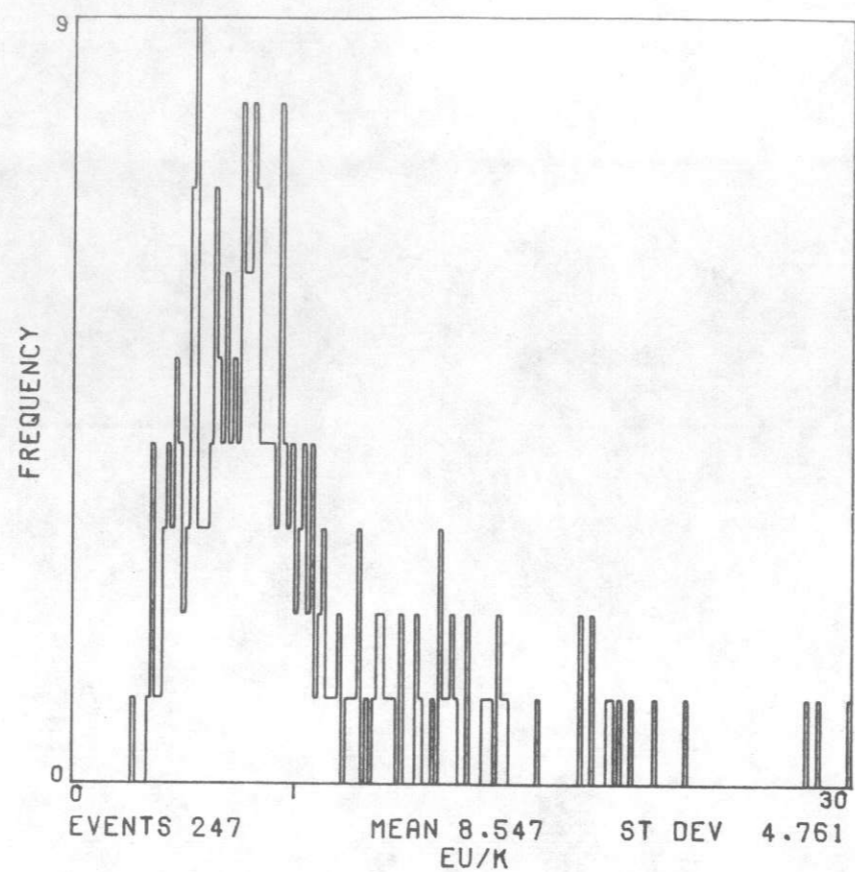
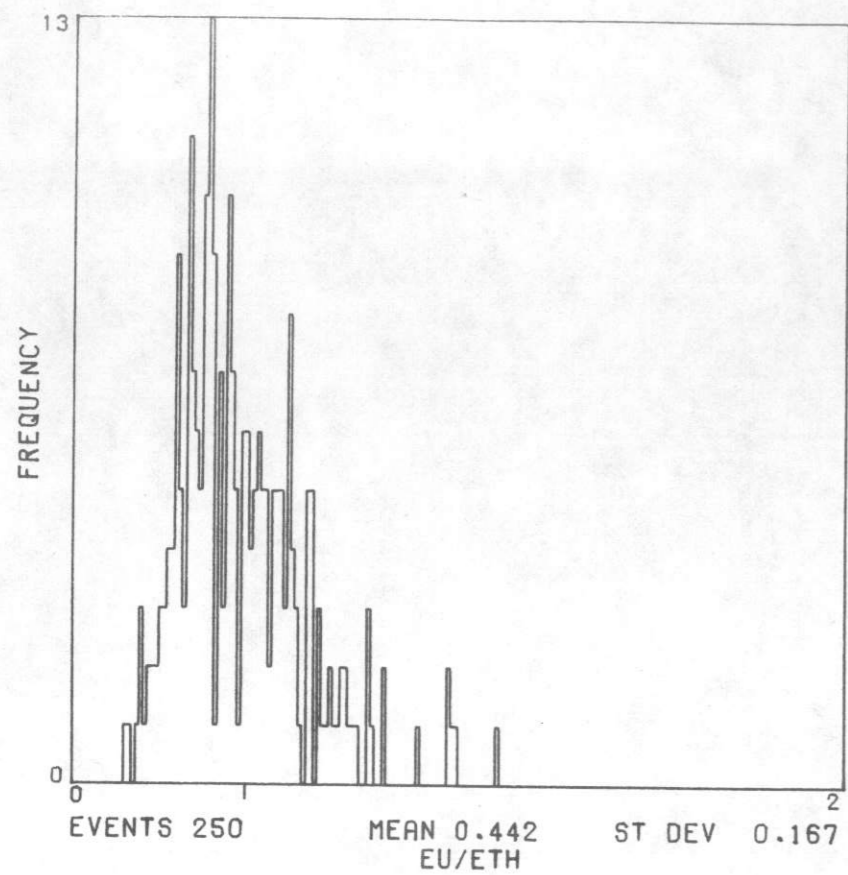


UNIT CK

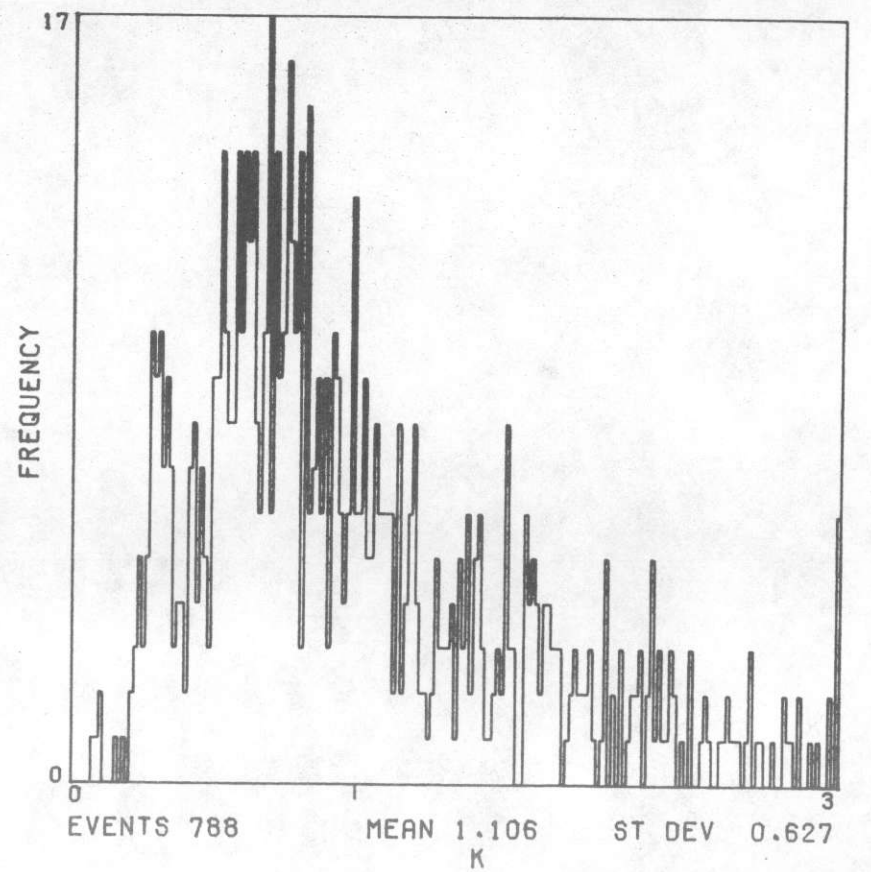
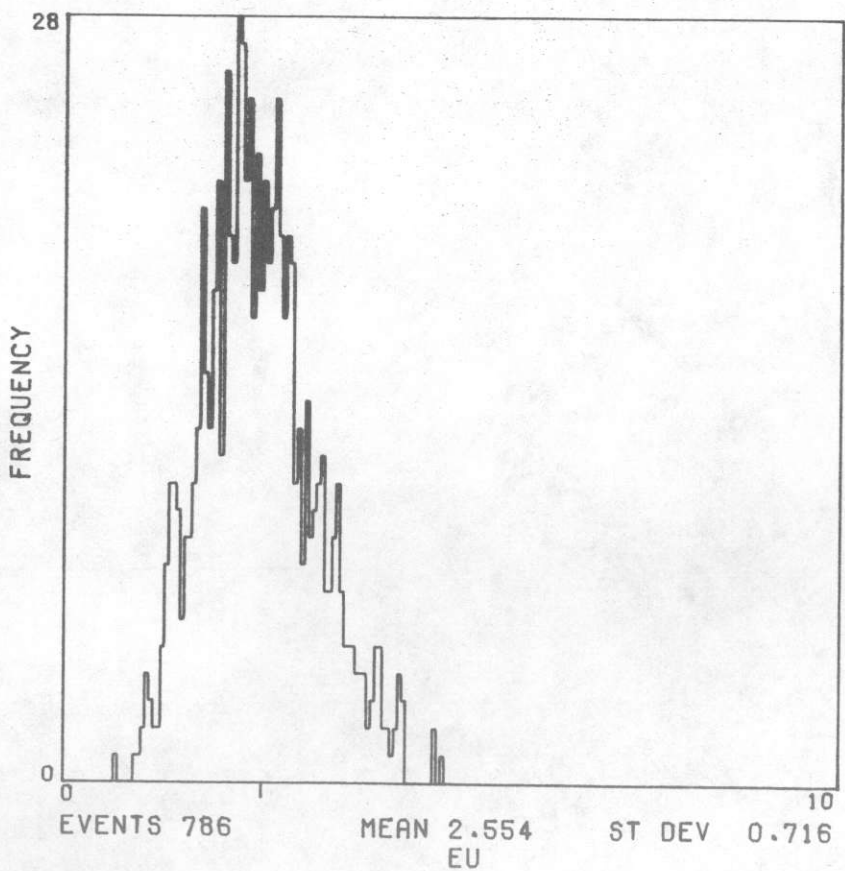
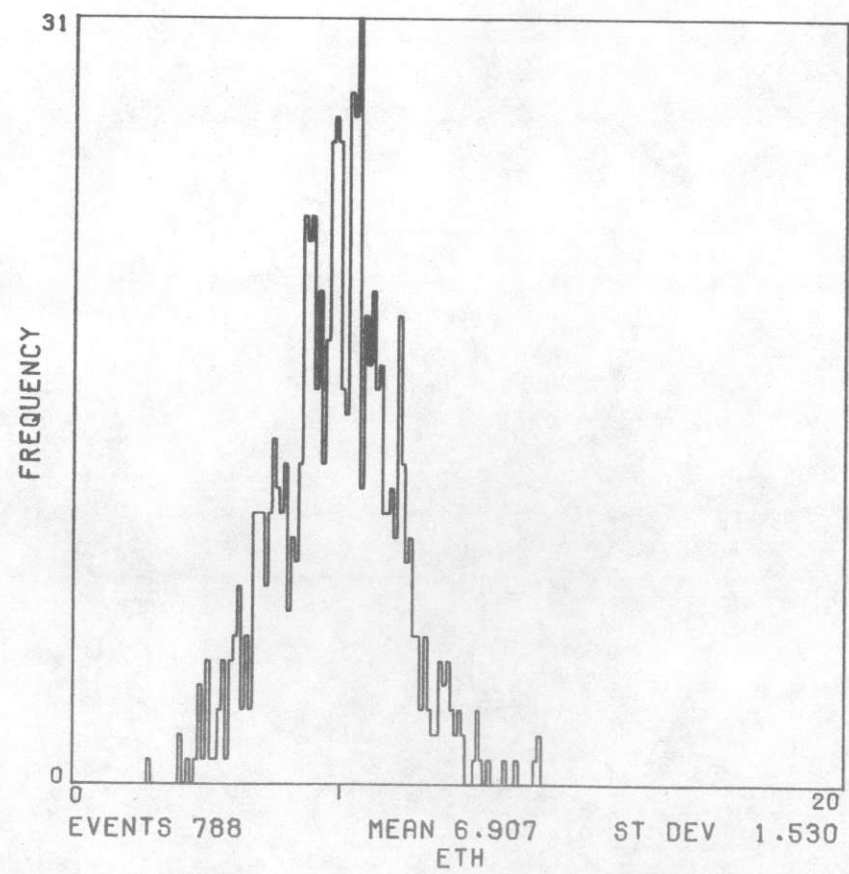
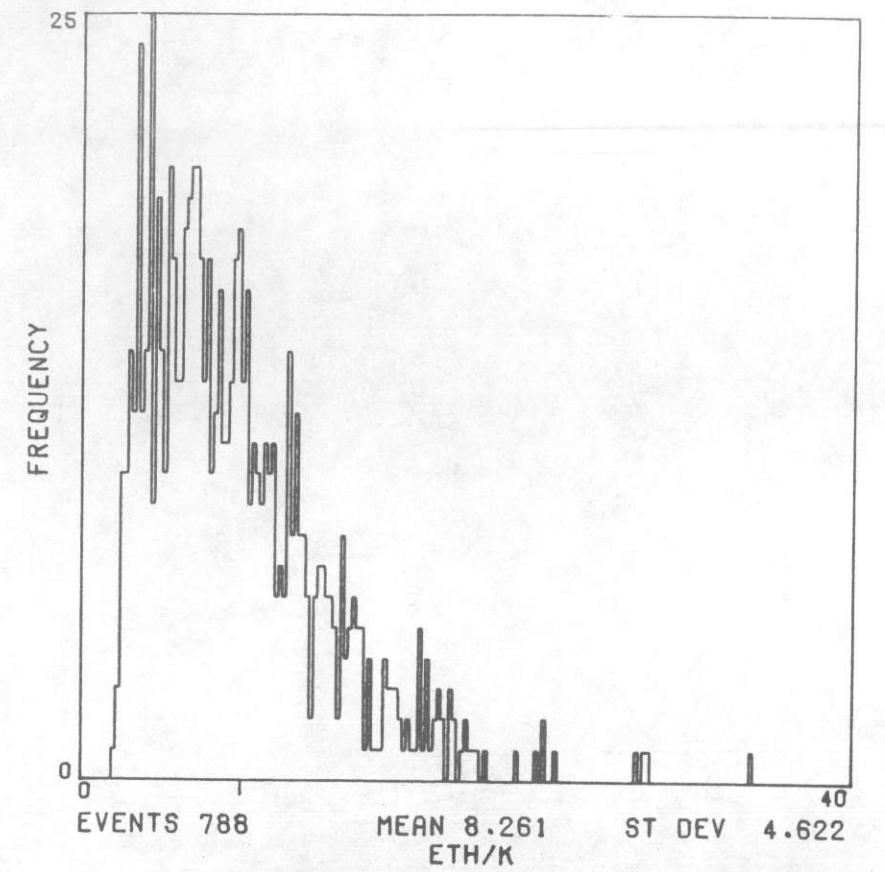
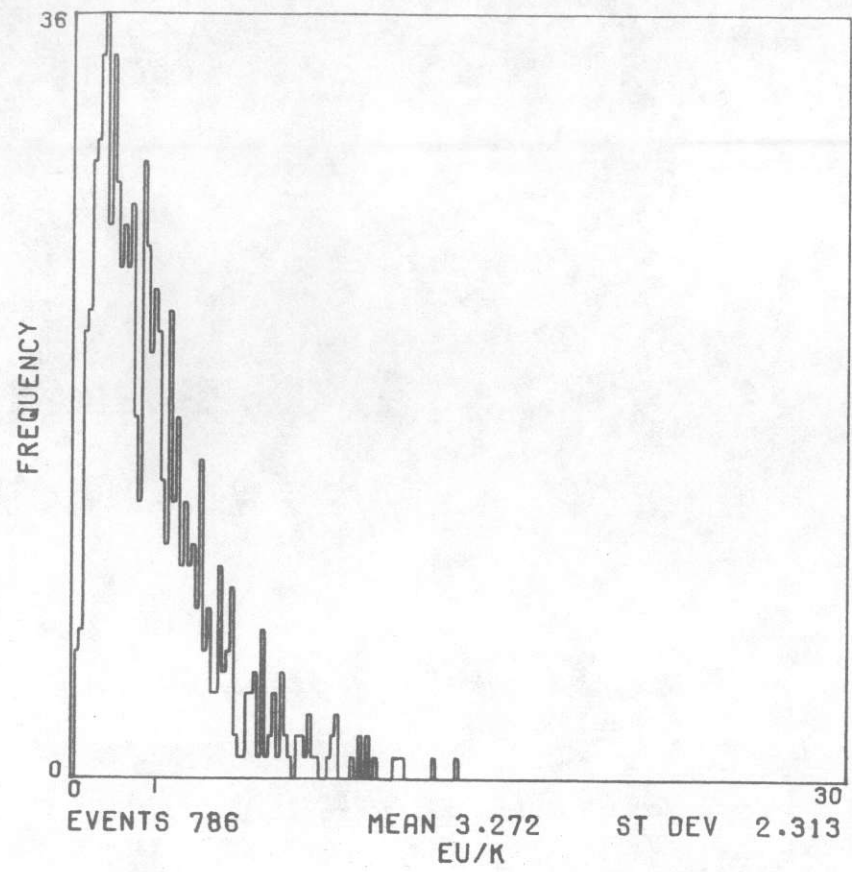
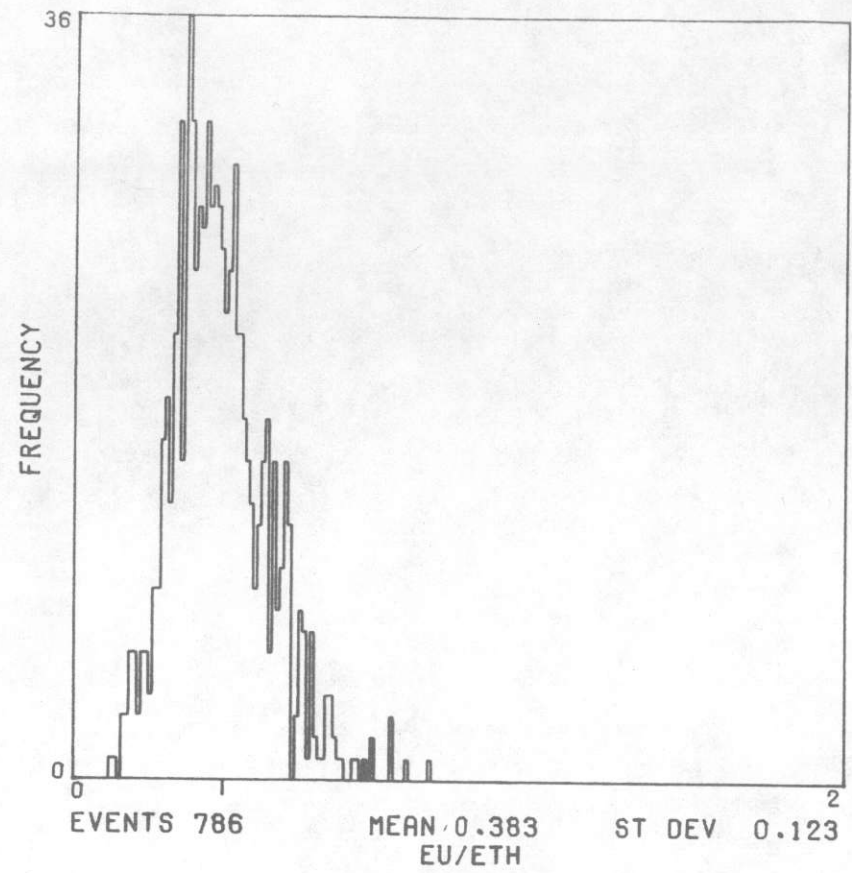


UNIT CKP

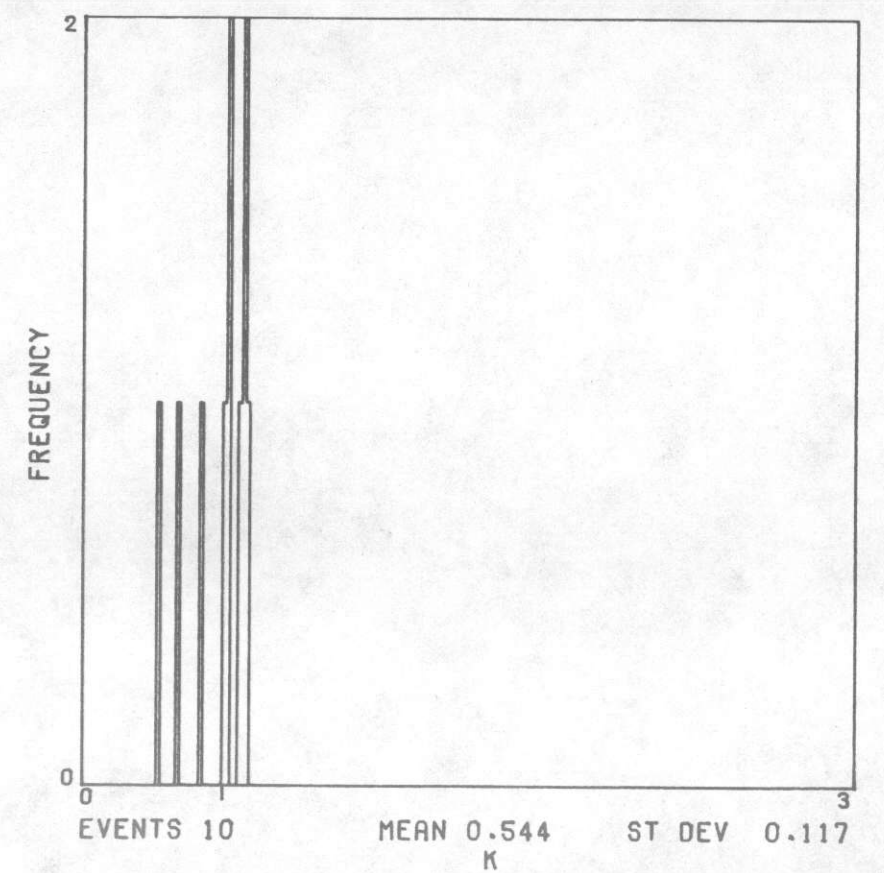
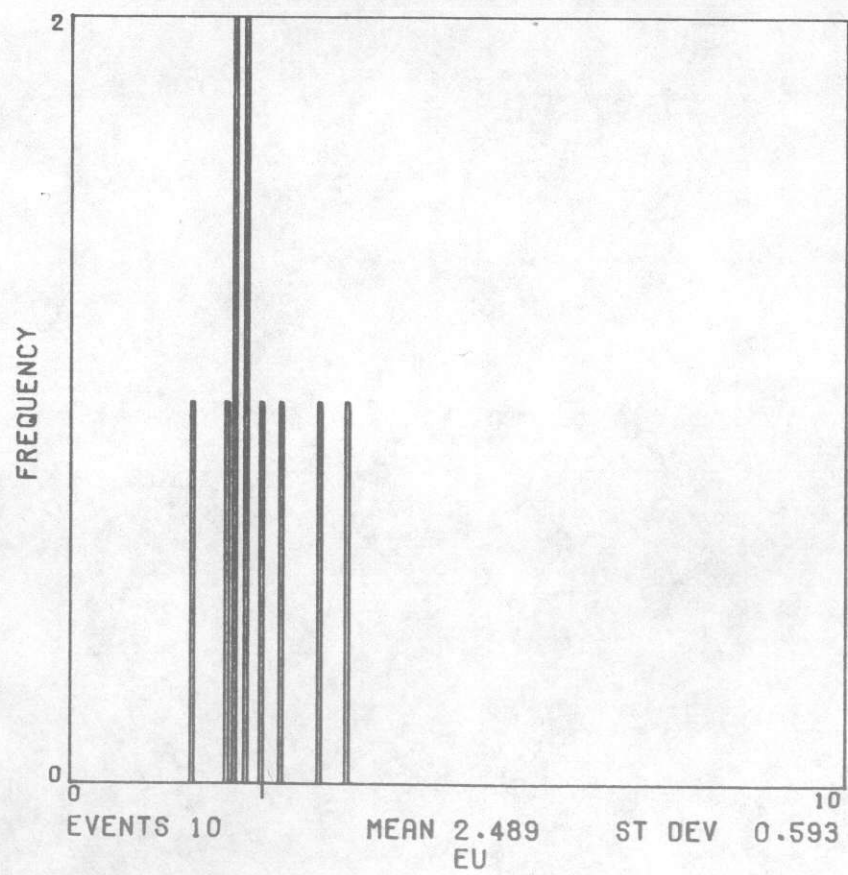
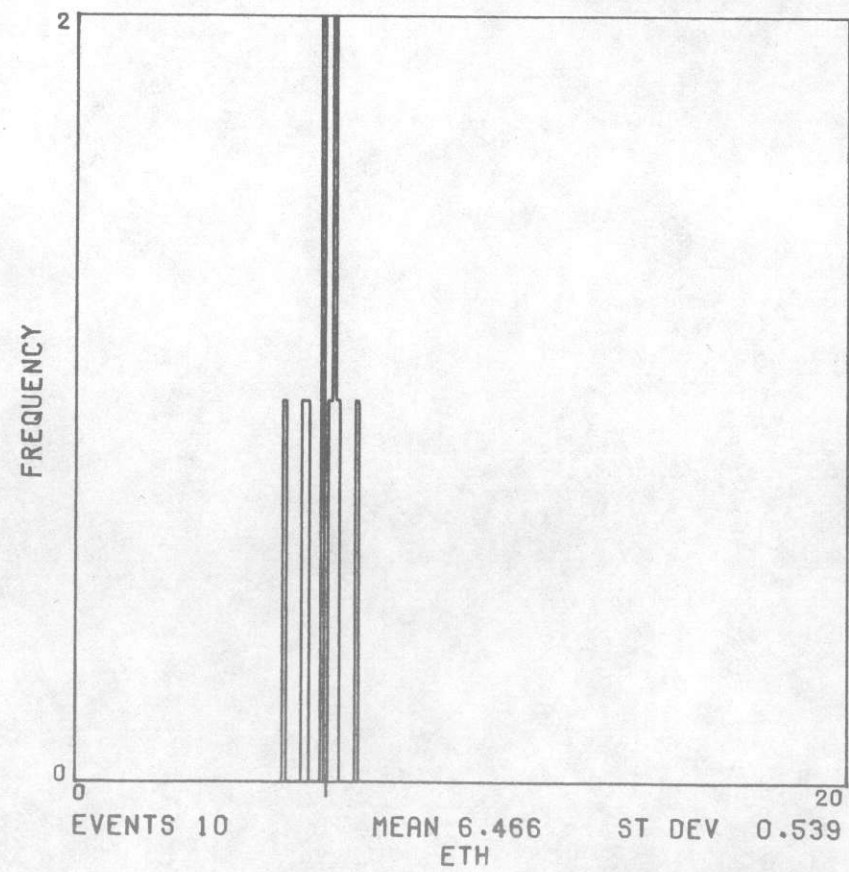
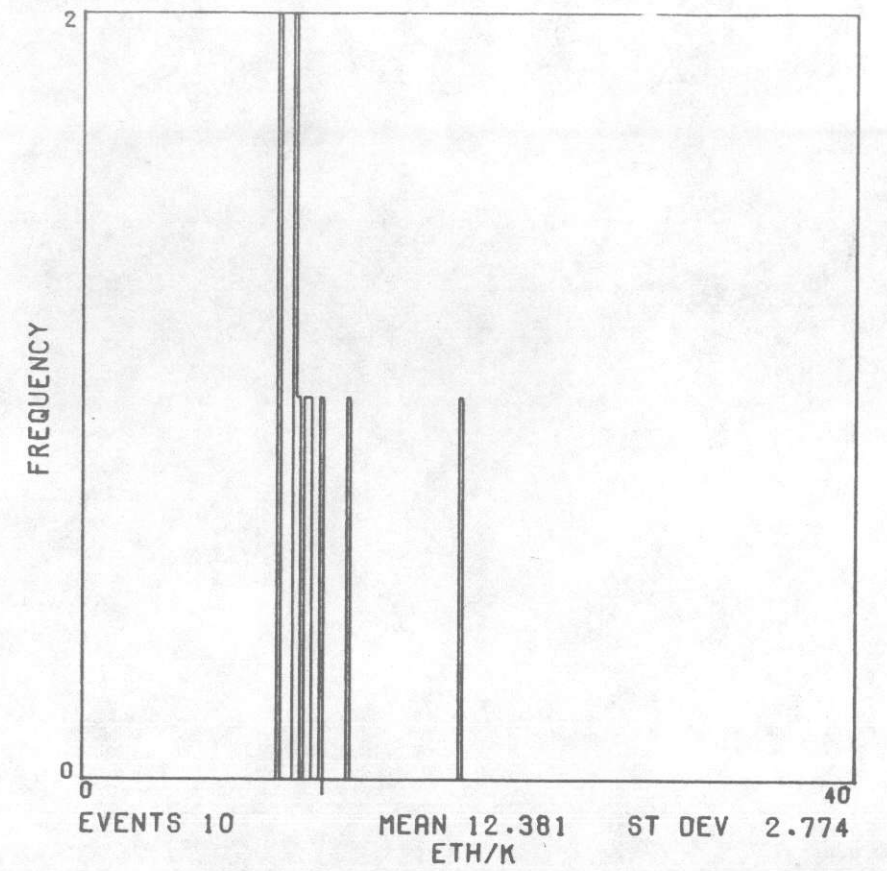
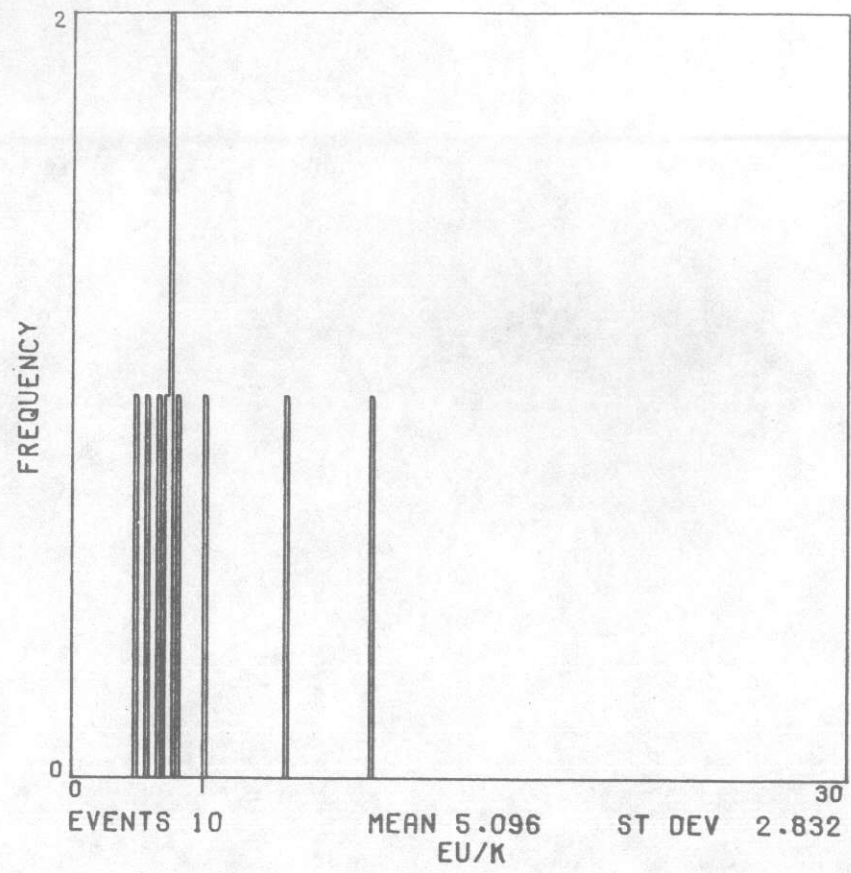
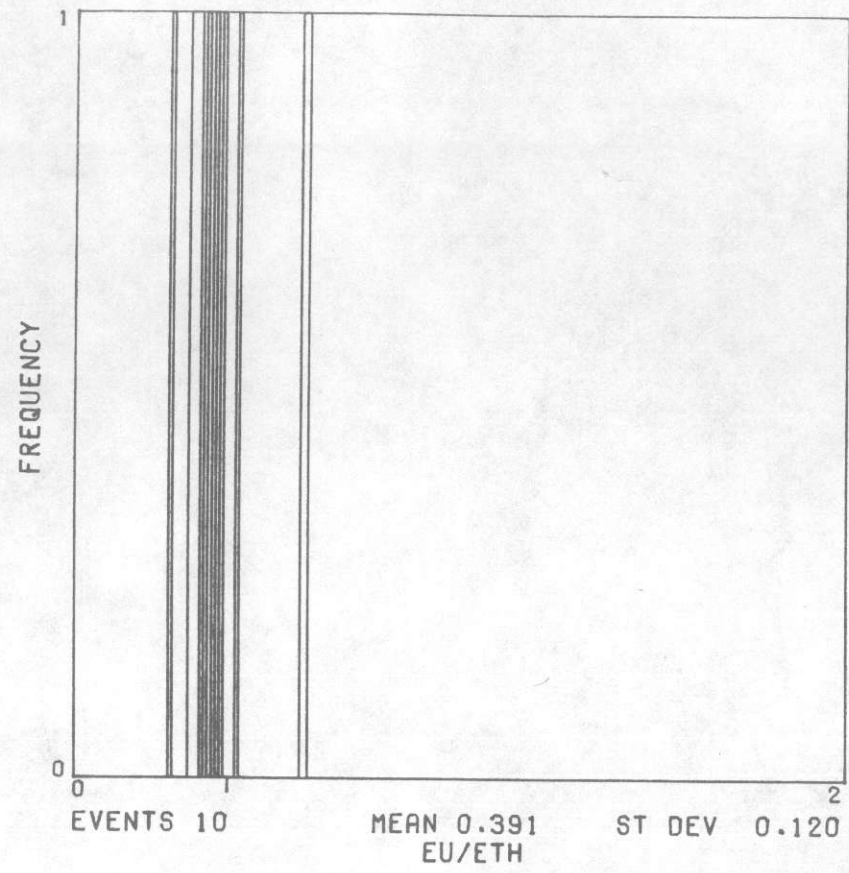




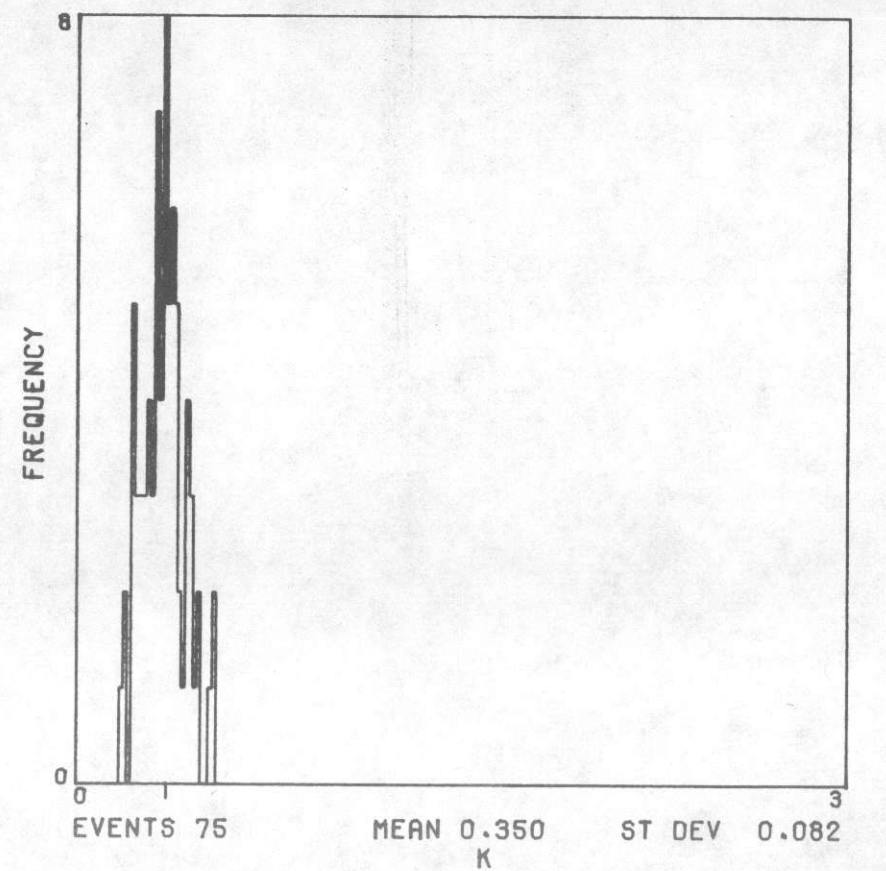
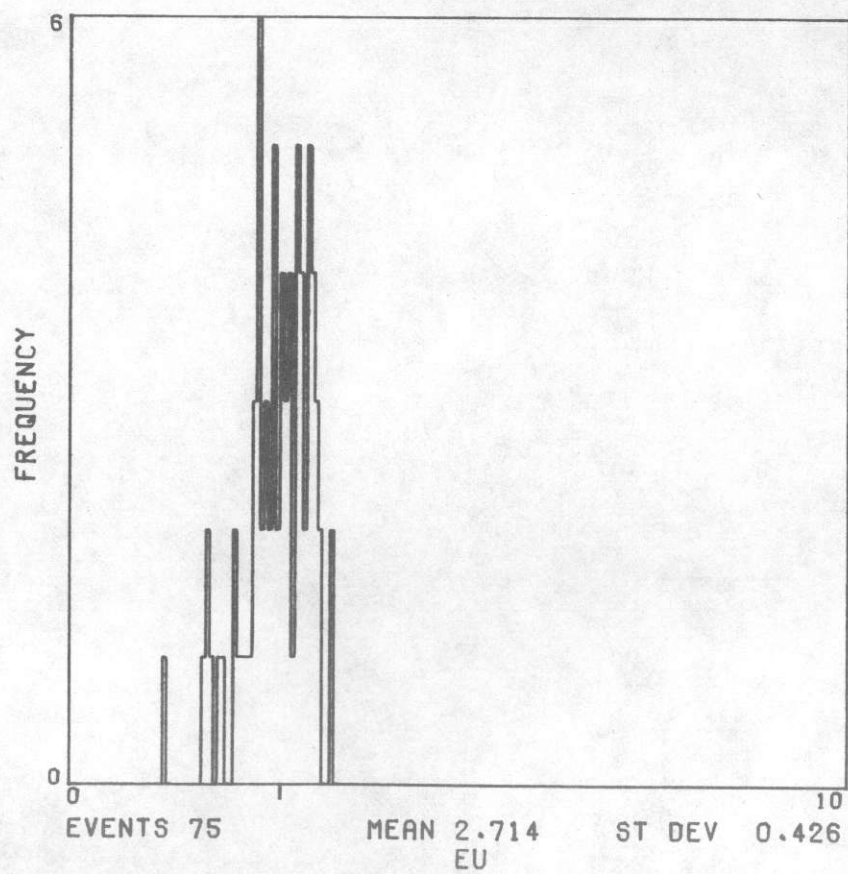
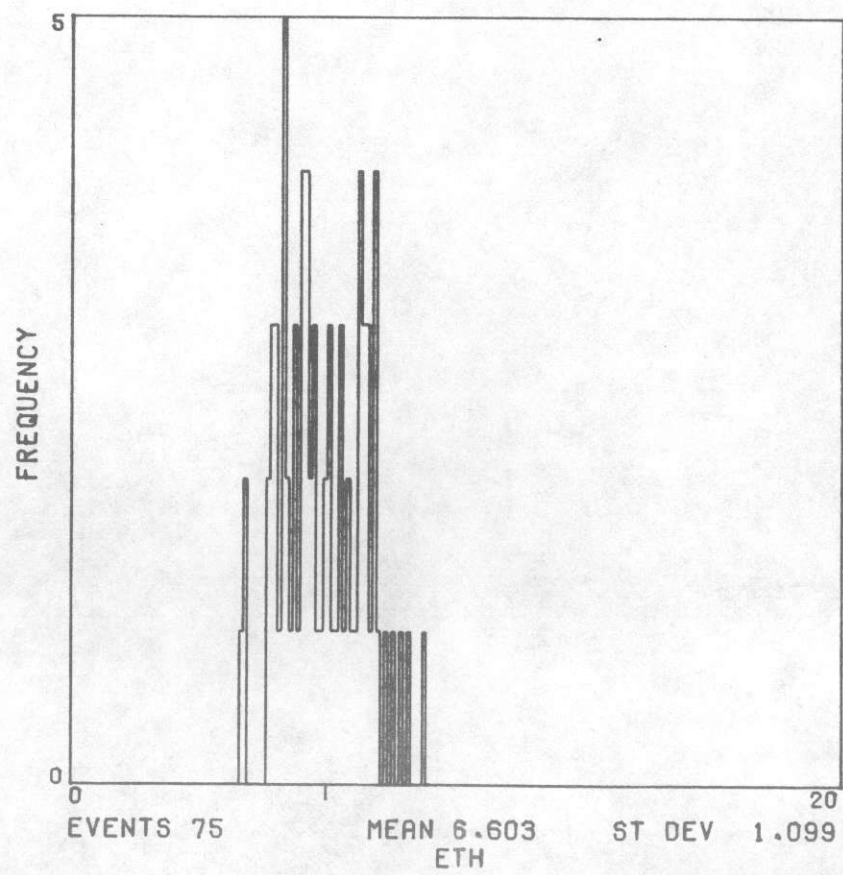
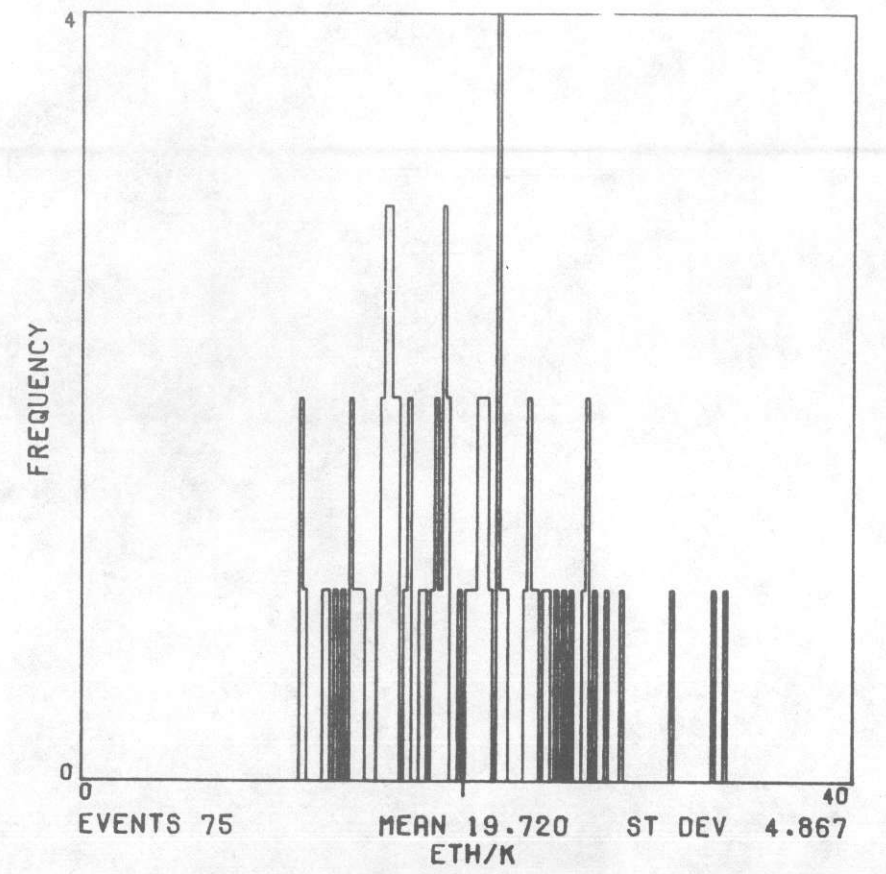
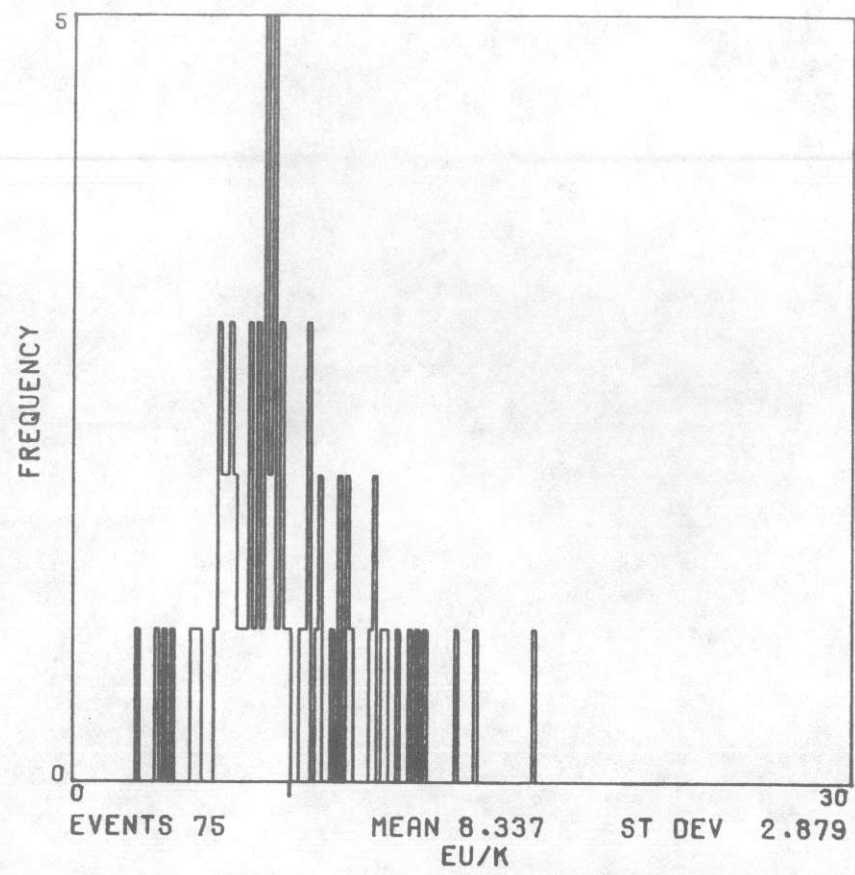
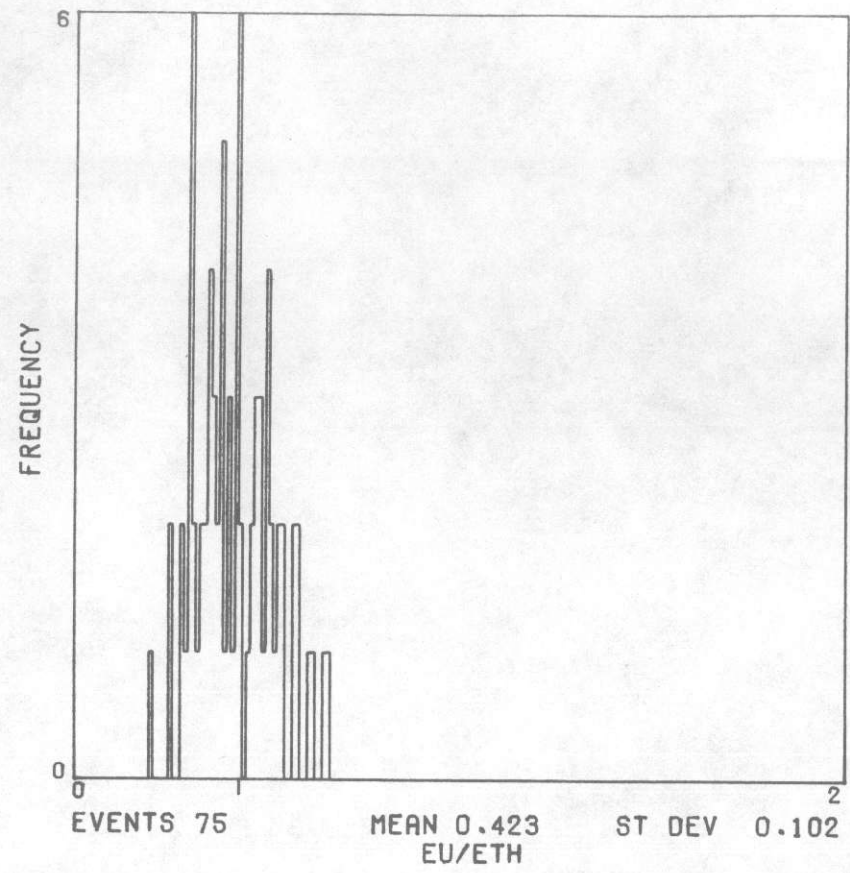
UNIT COK



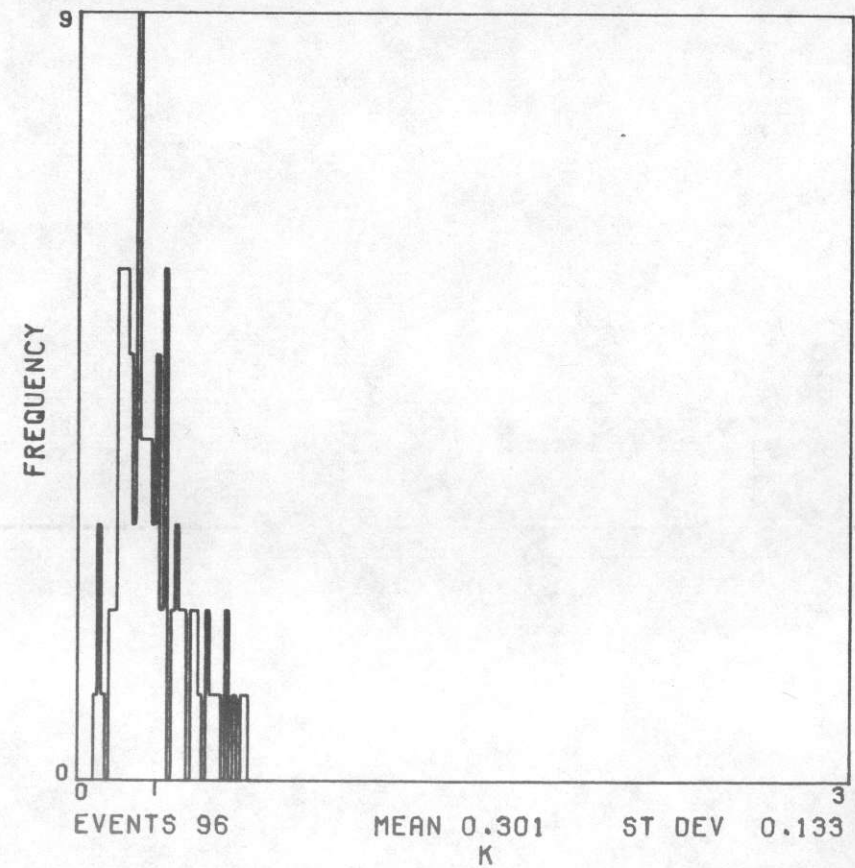
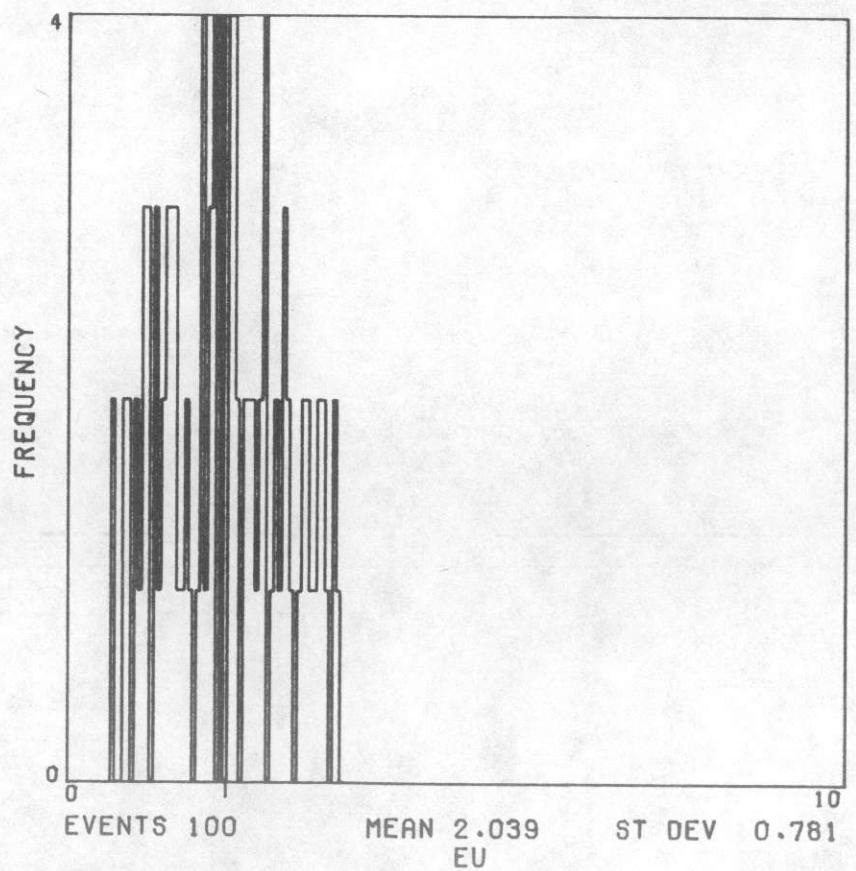
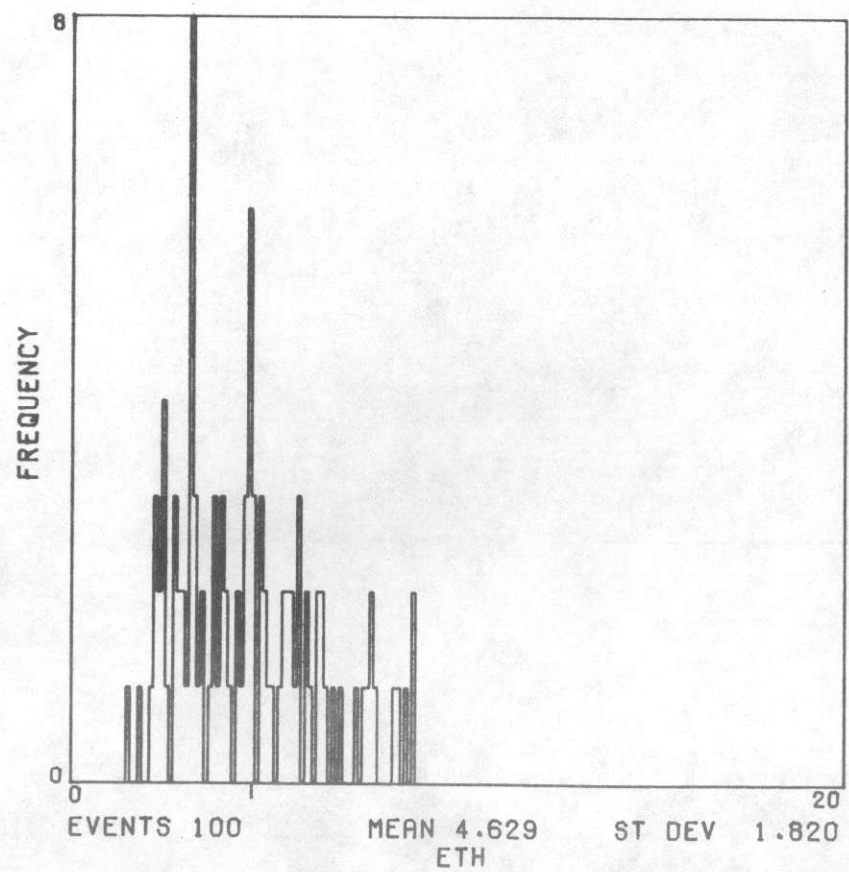
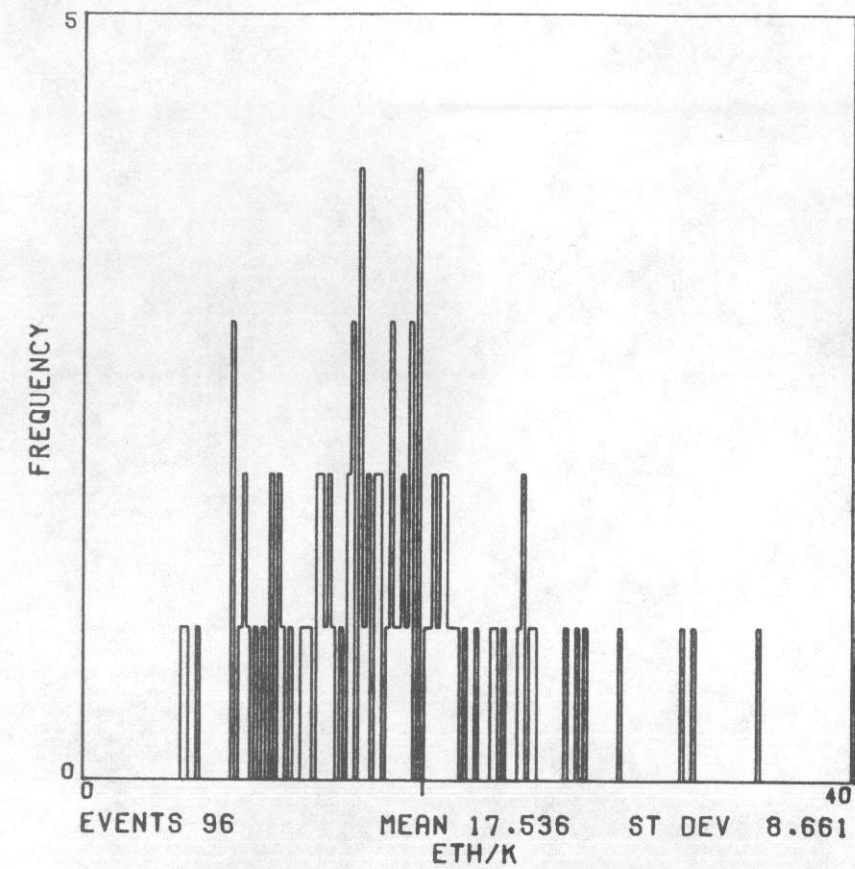
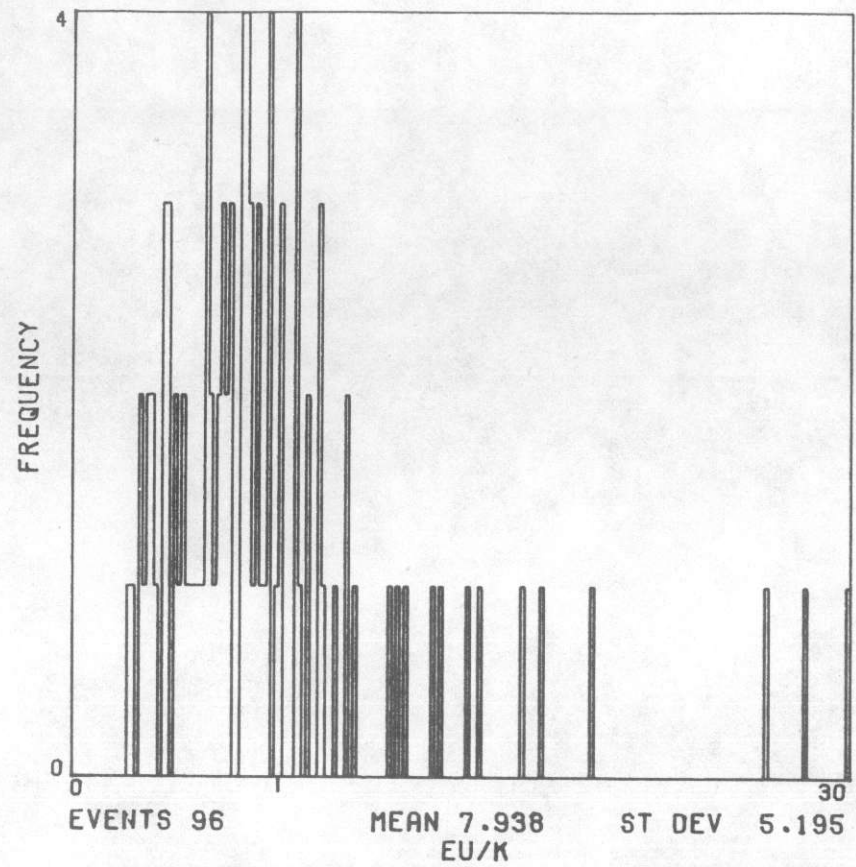
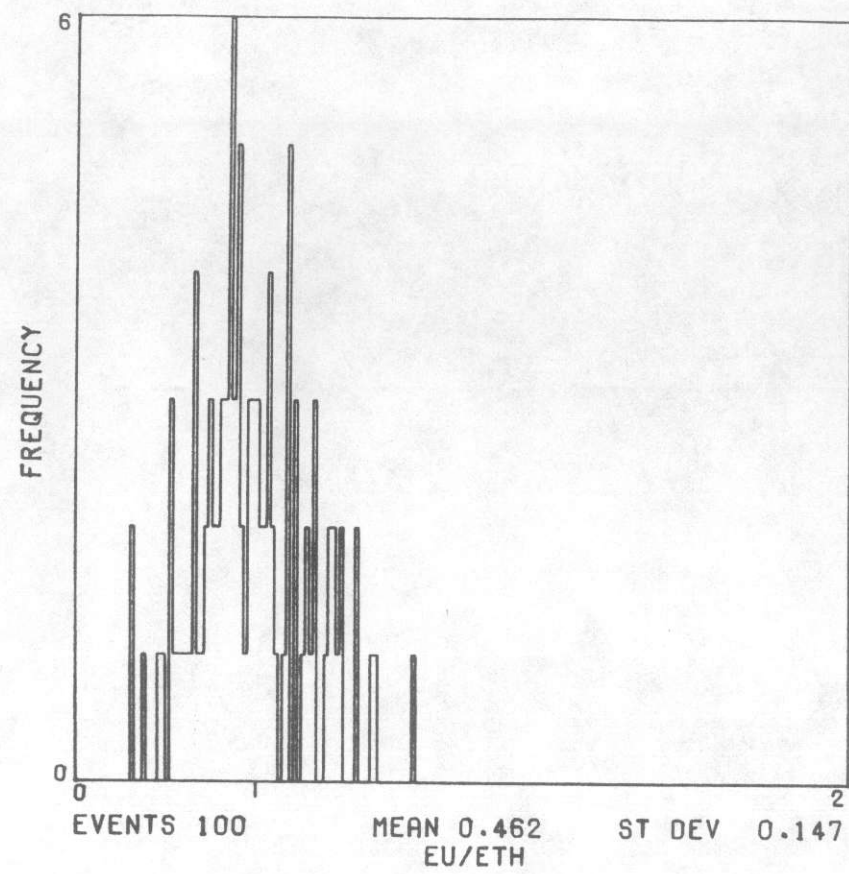
UNIT CR



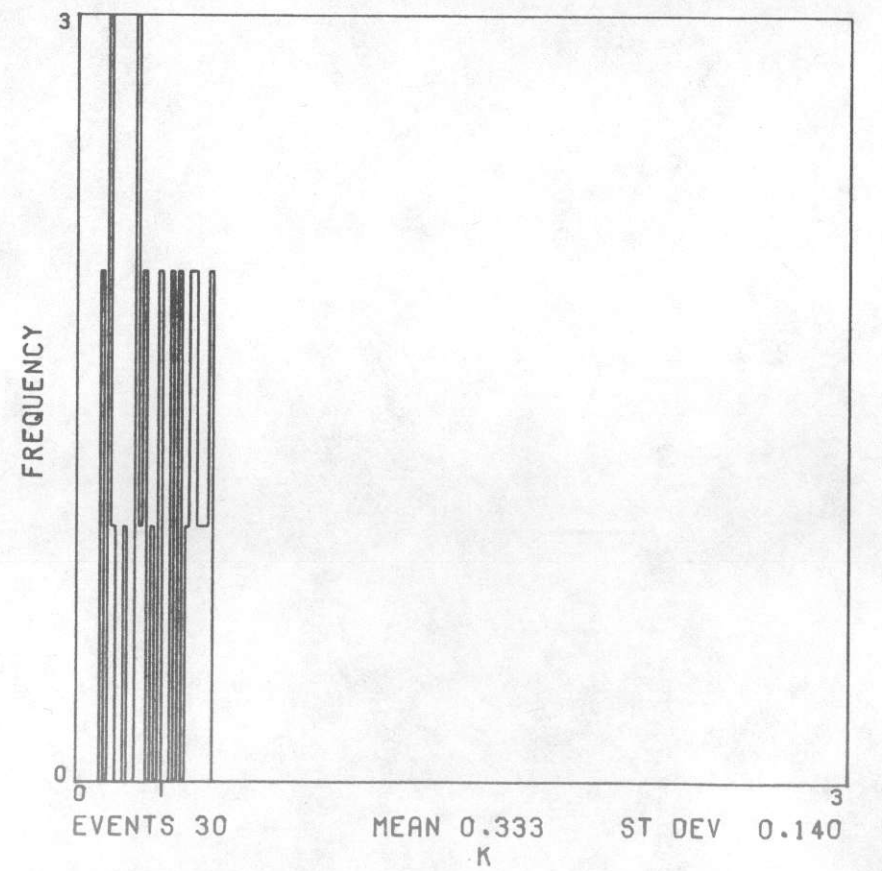
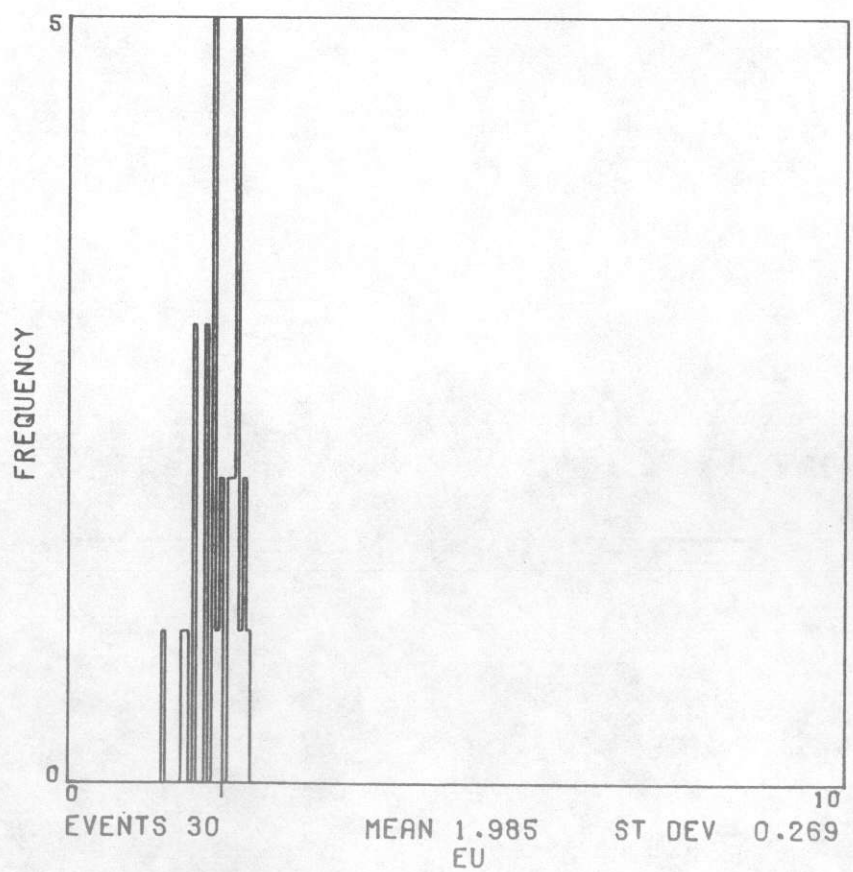
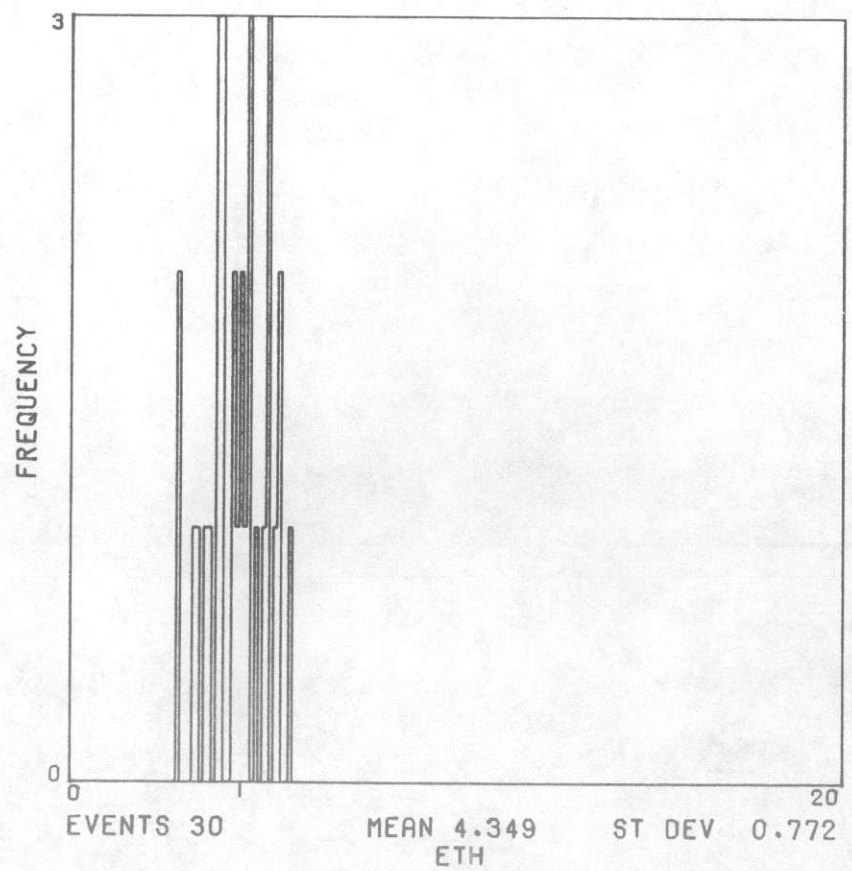
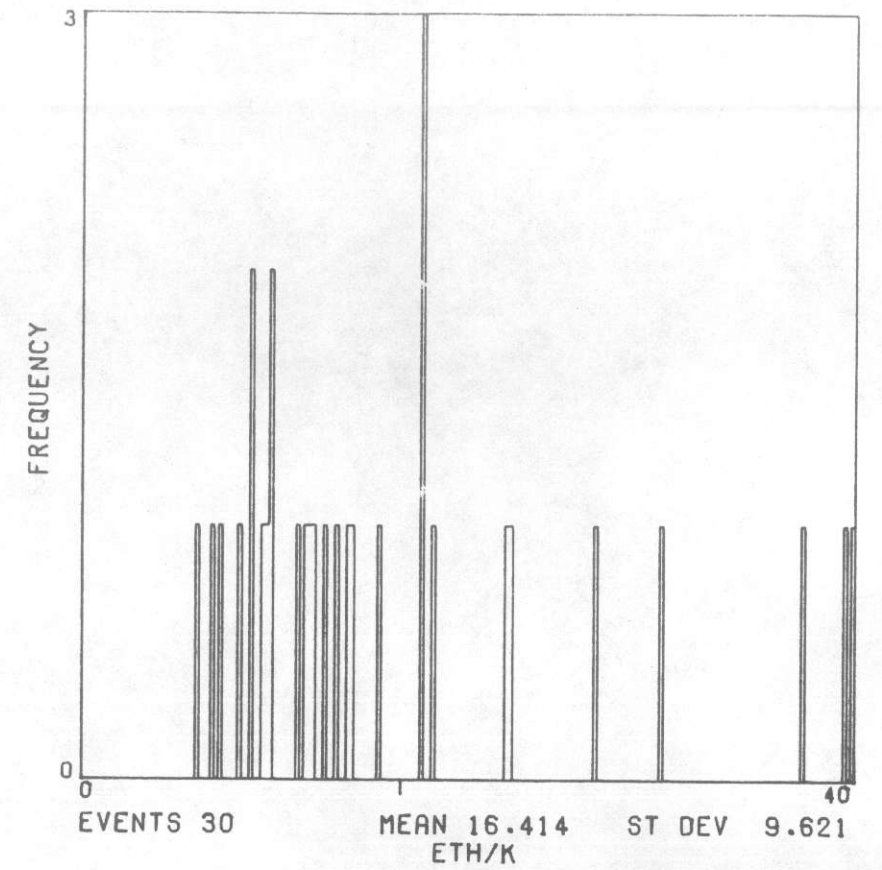
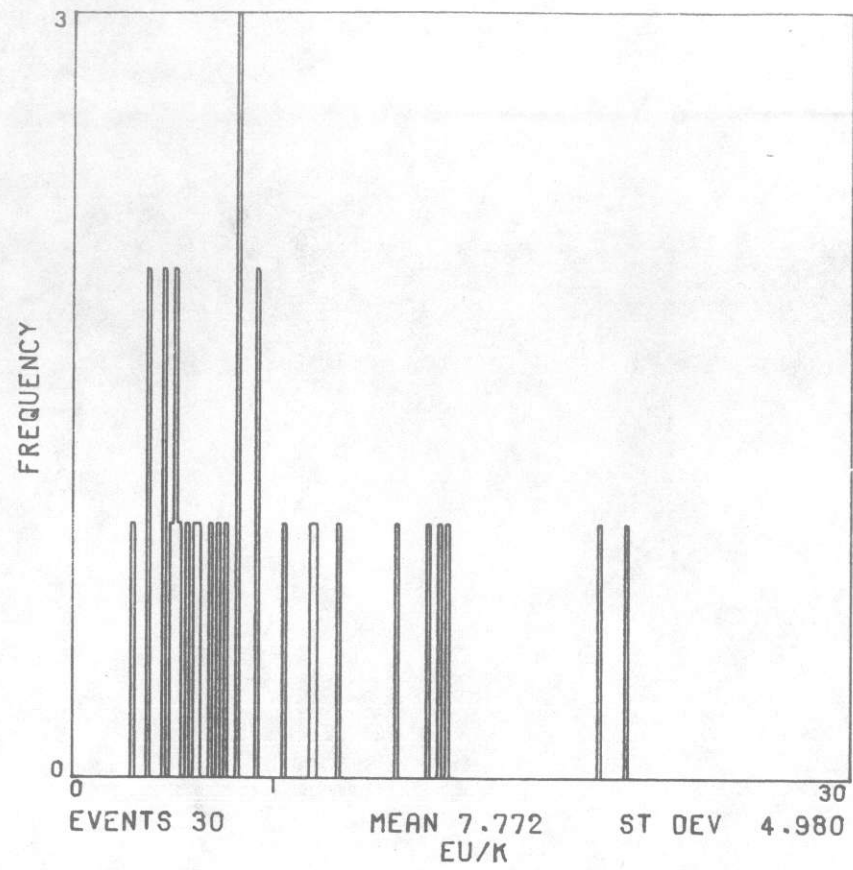
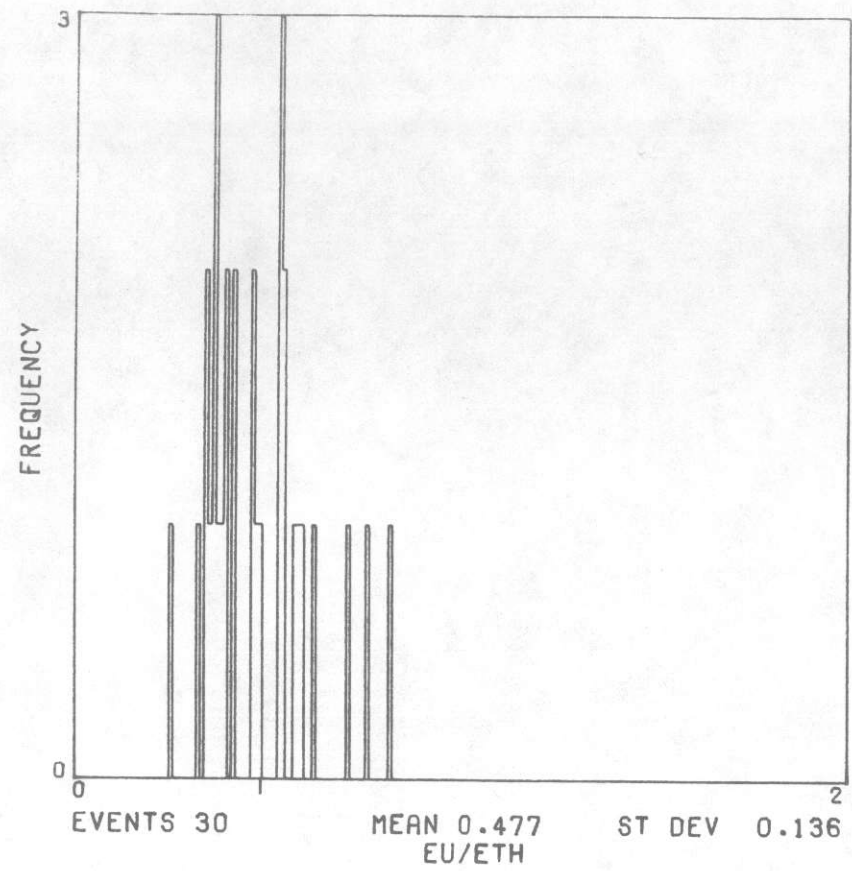
UNIT CS



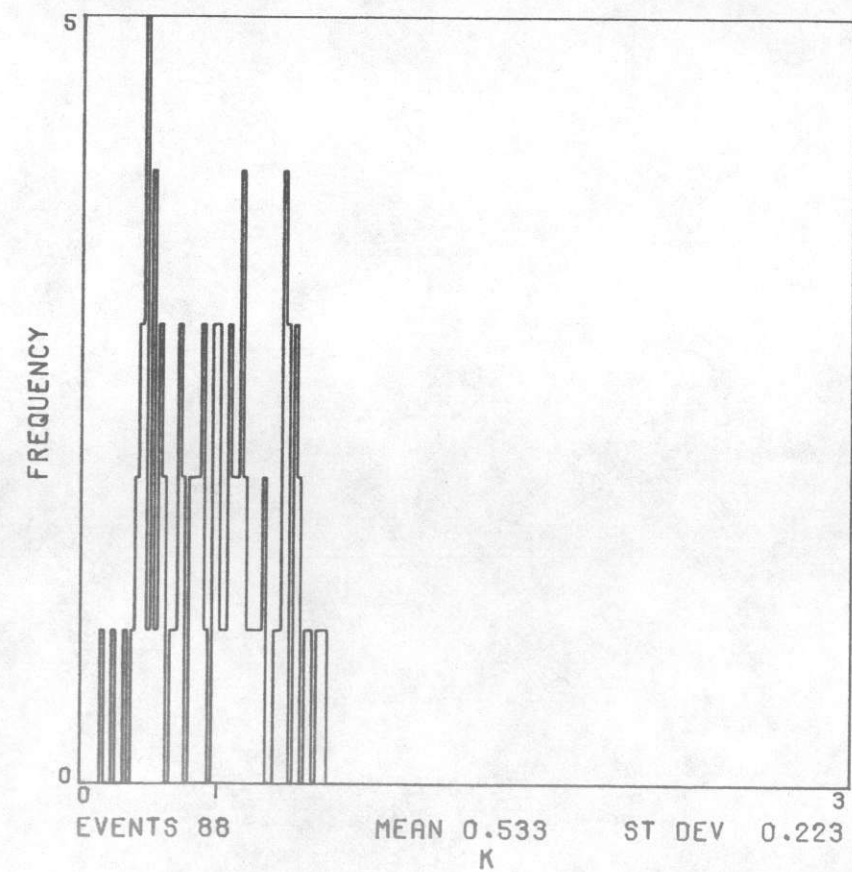
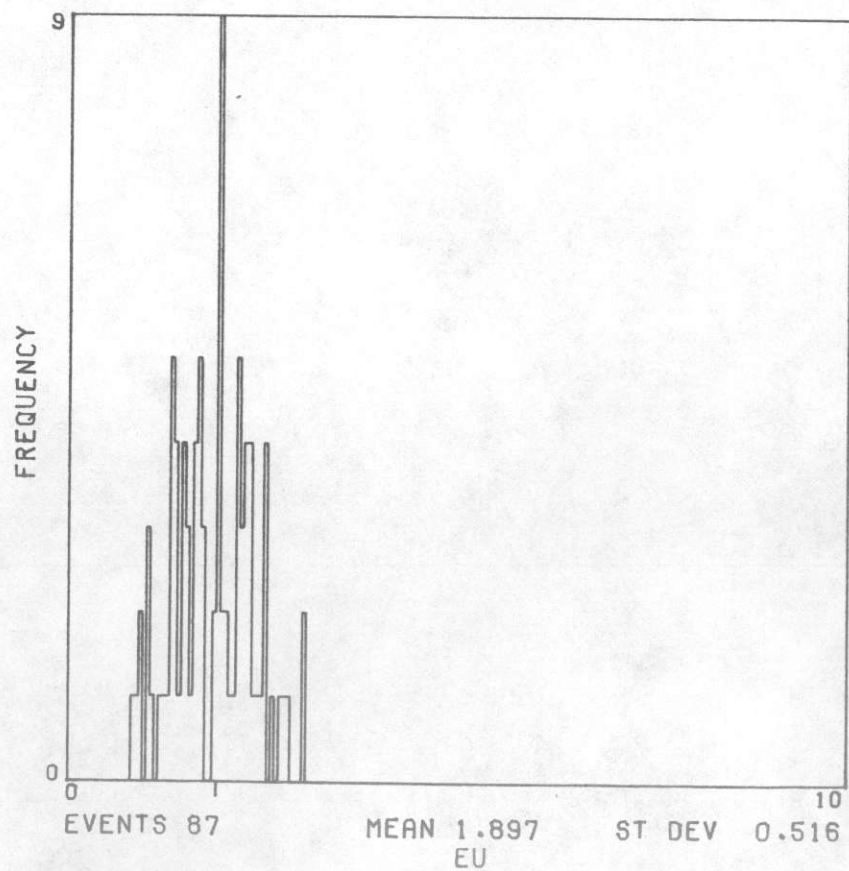
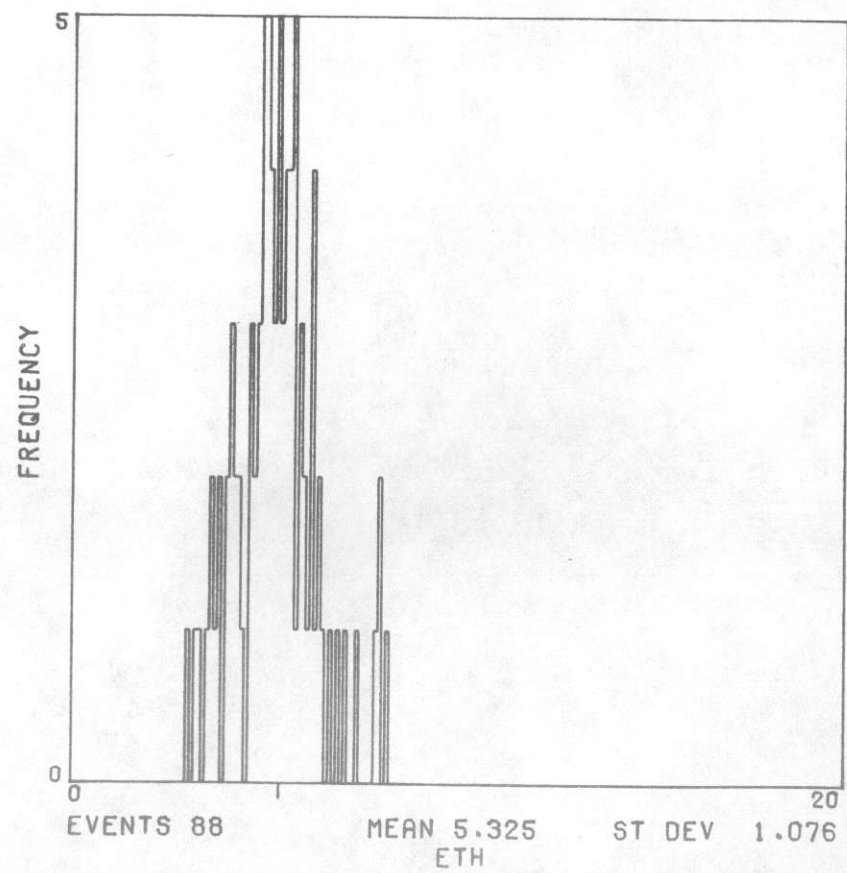
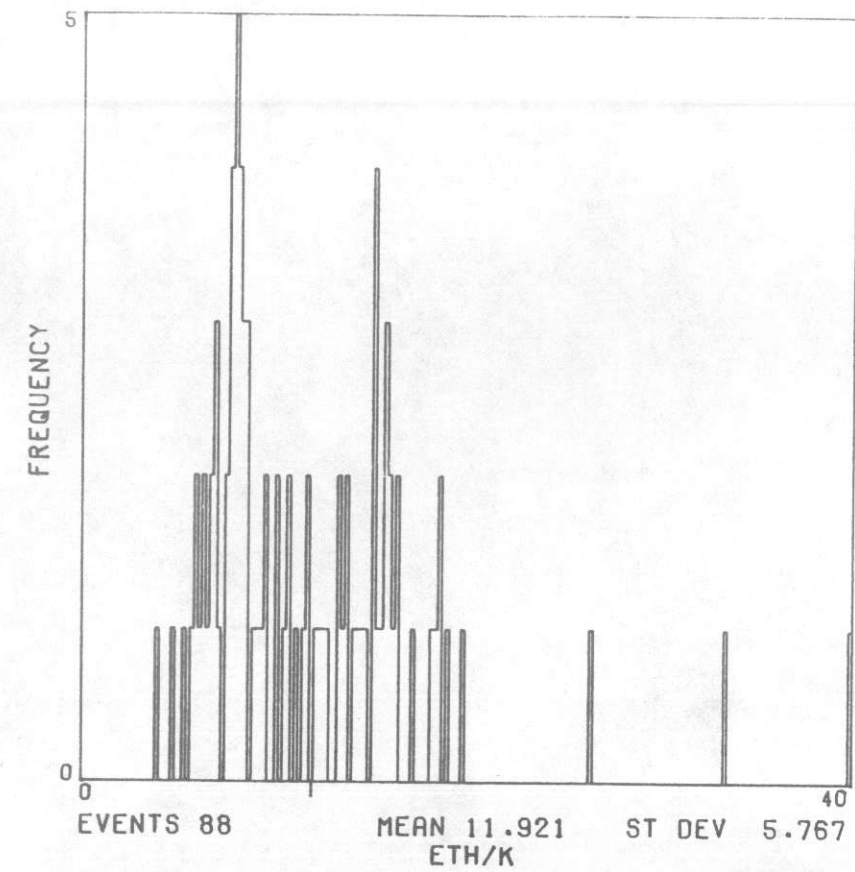
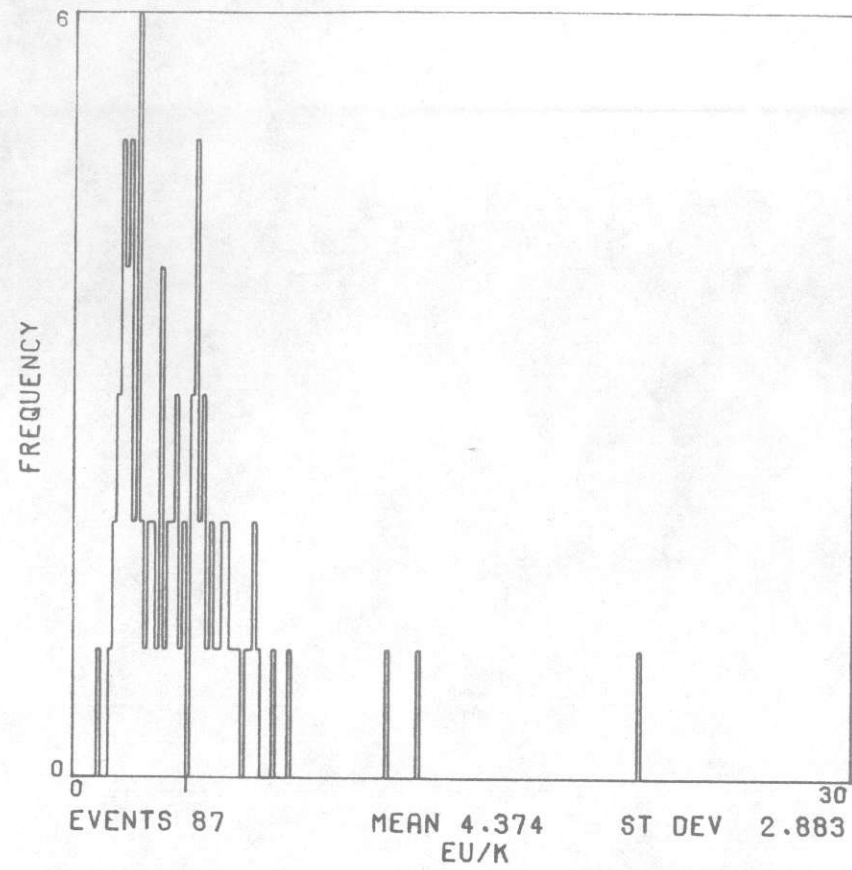
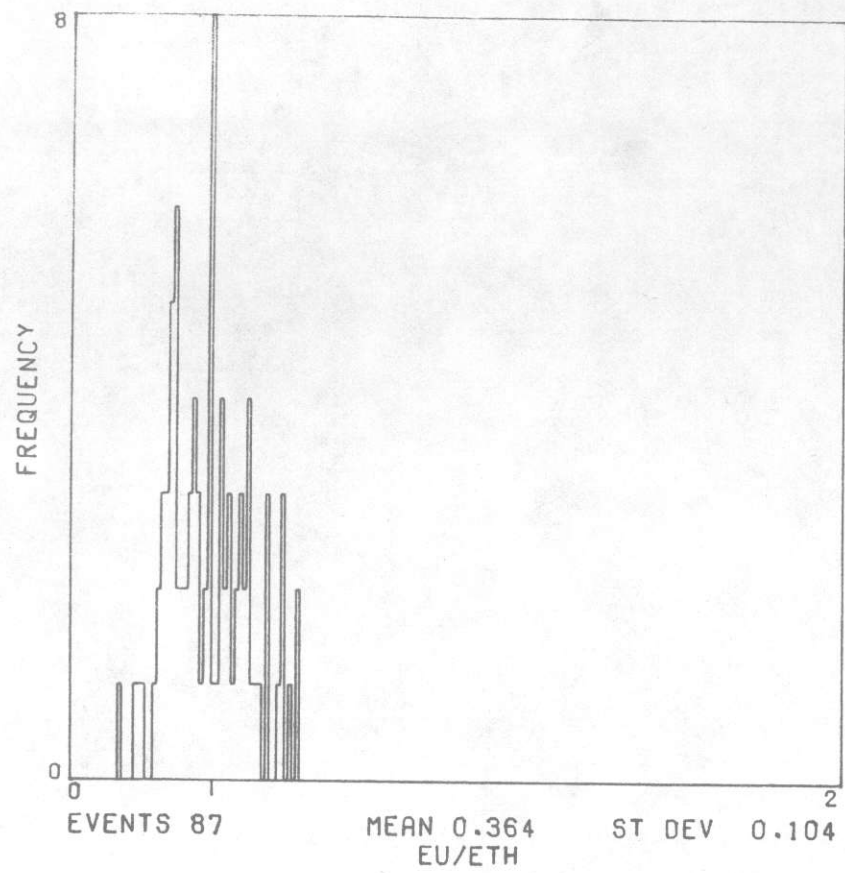
UNIT CU



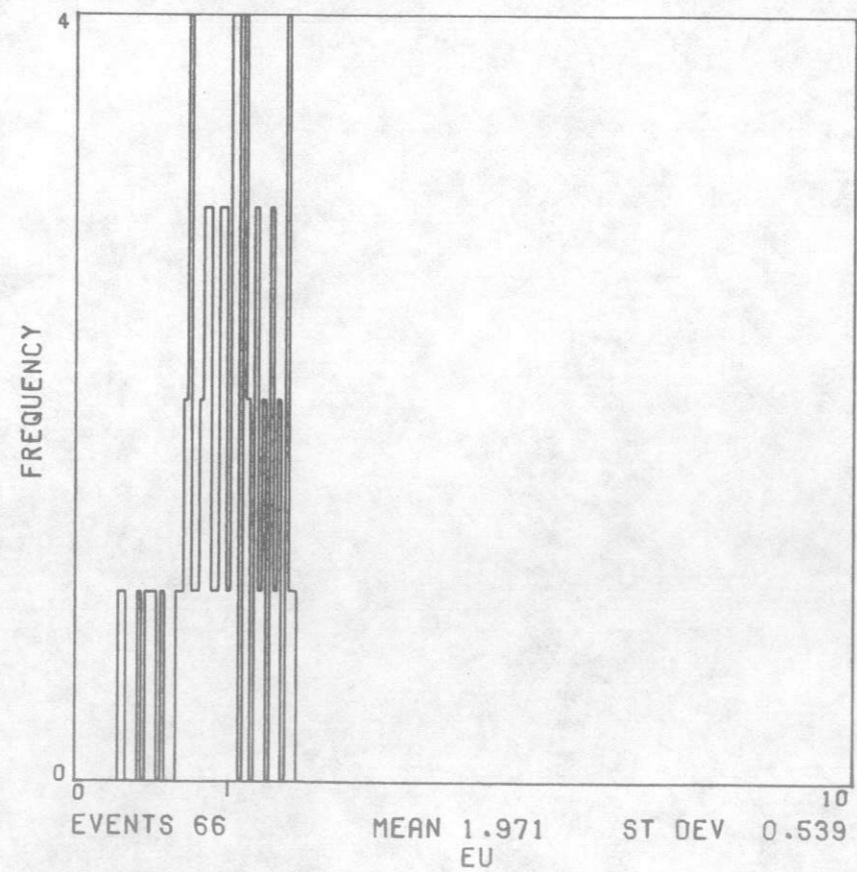
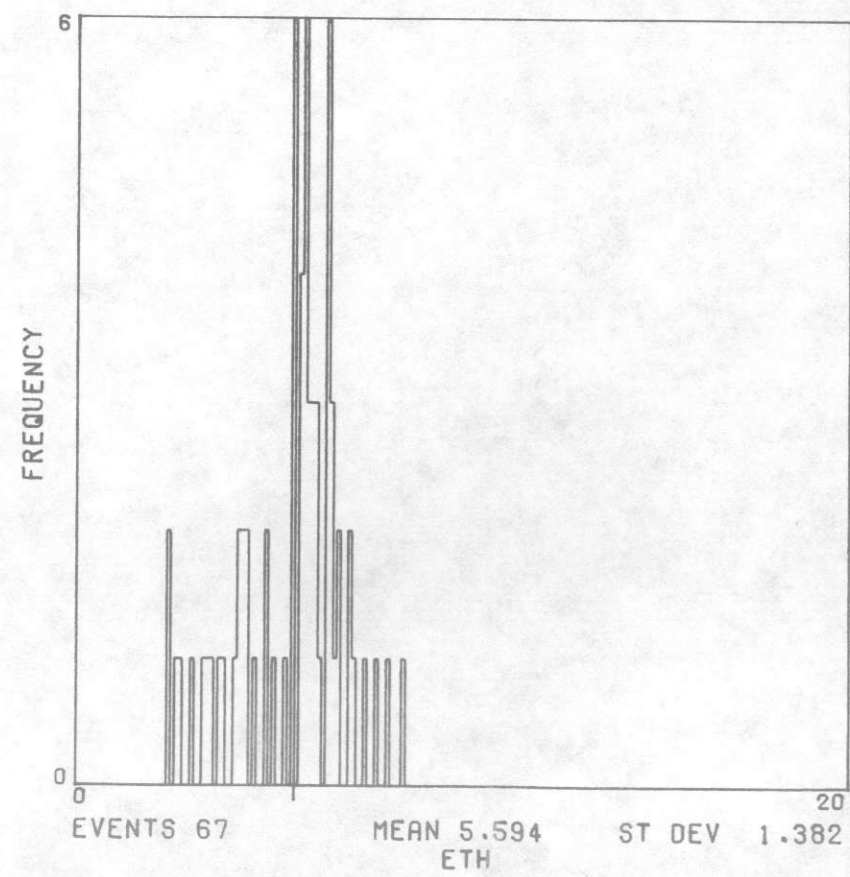
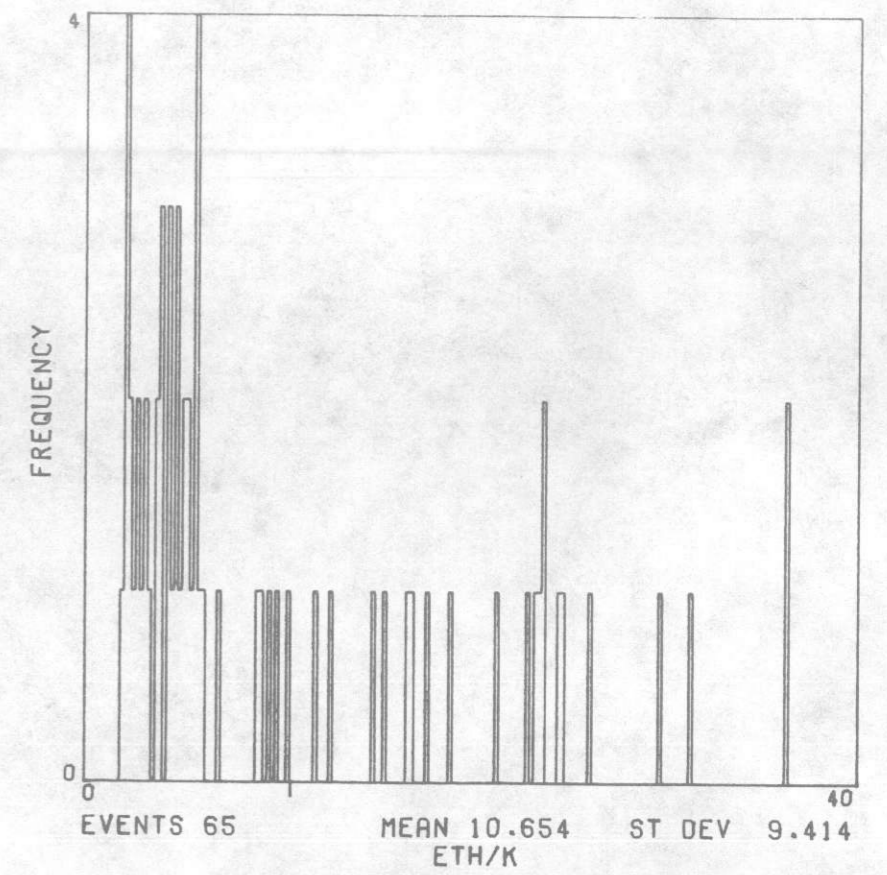
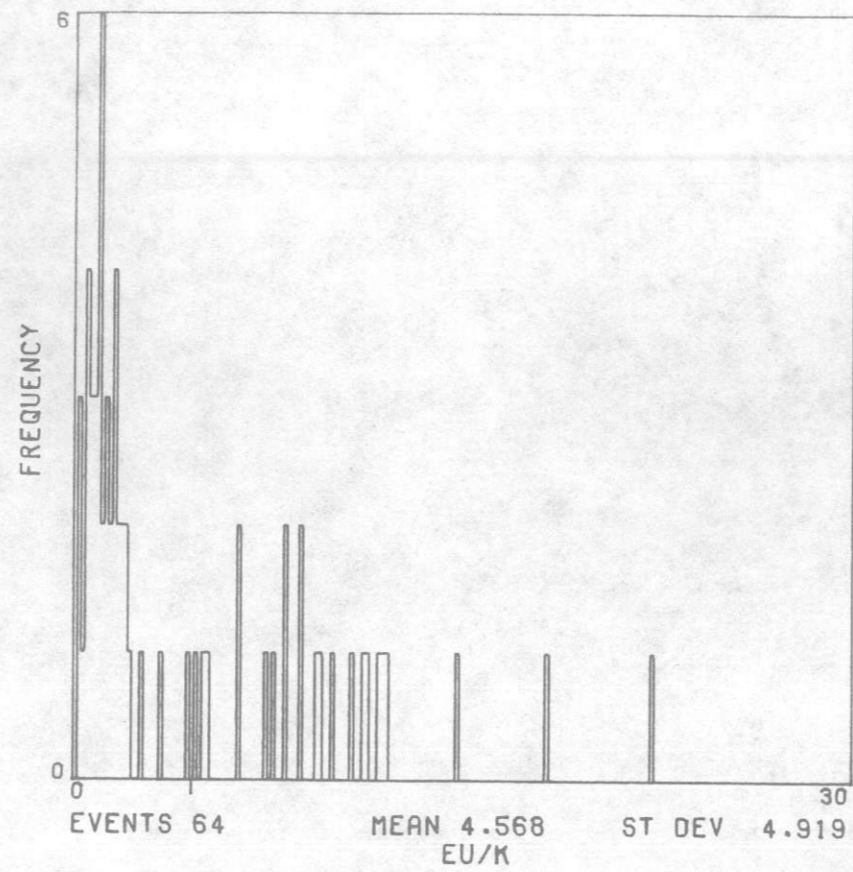
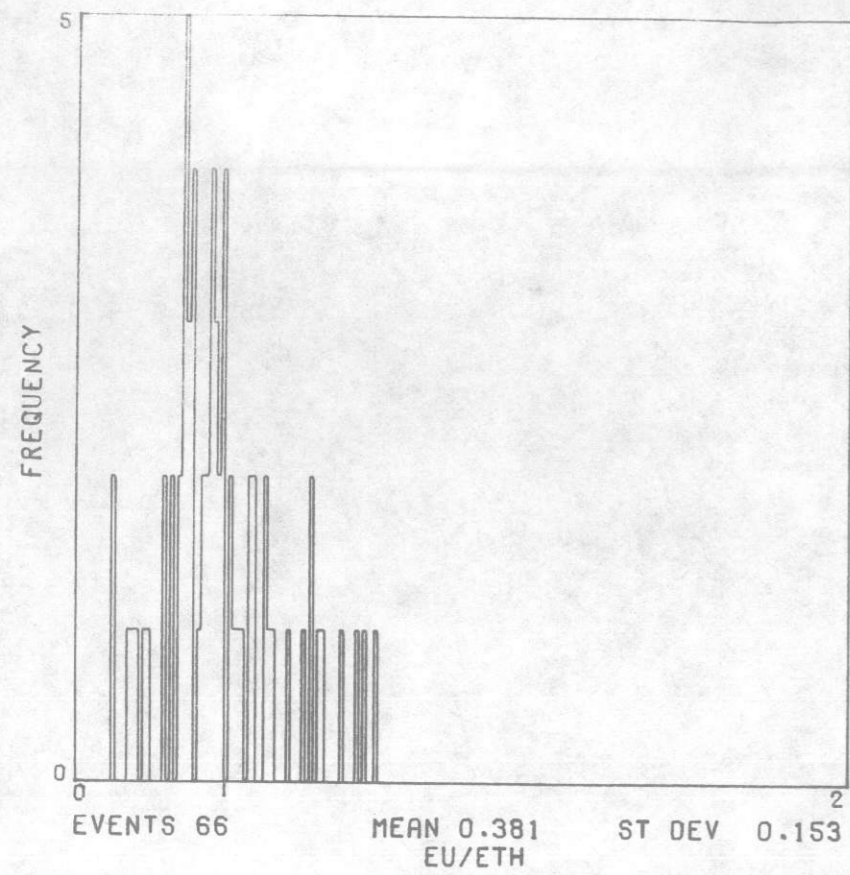
UNIT DC



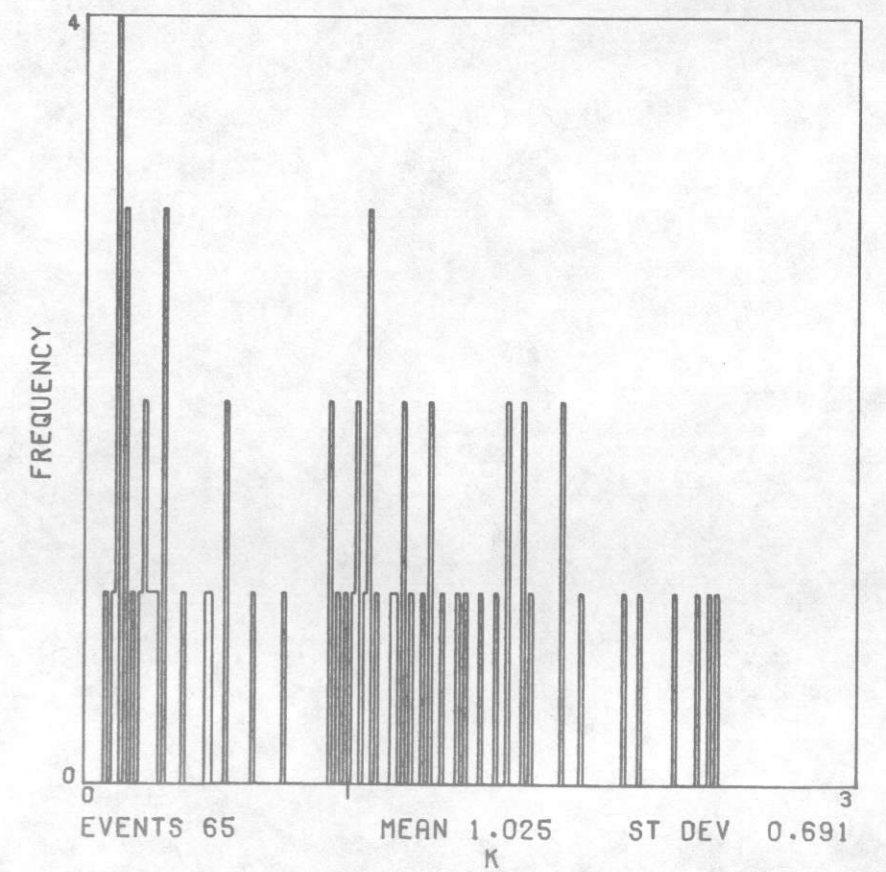
UNIT DCFM

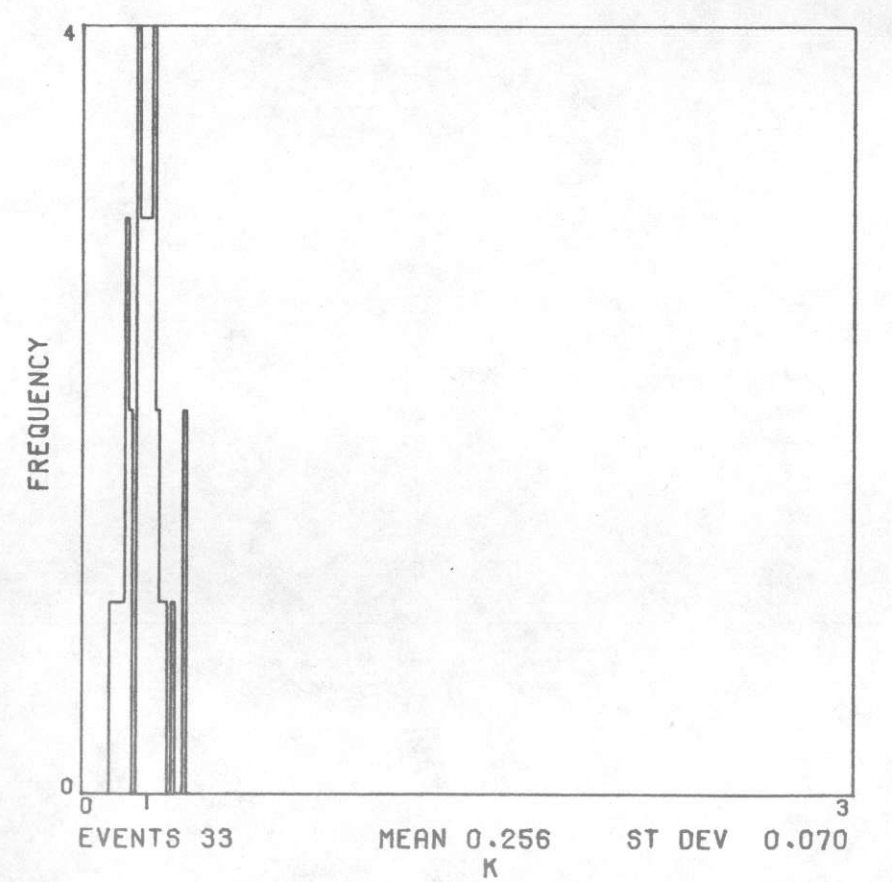
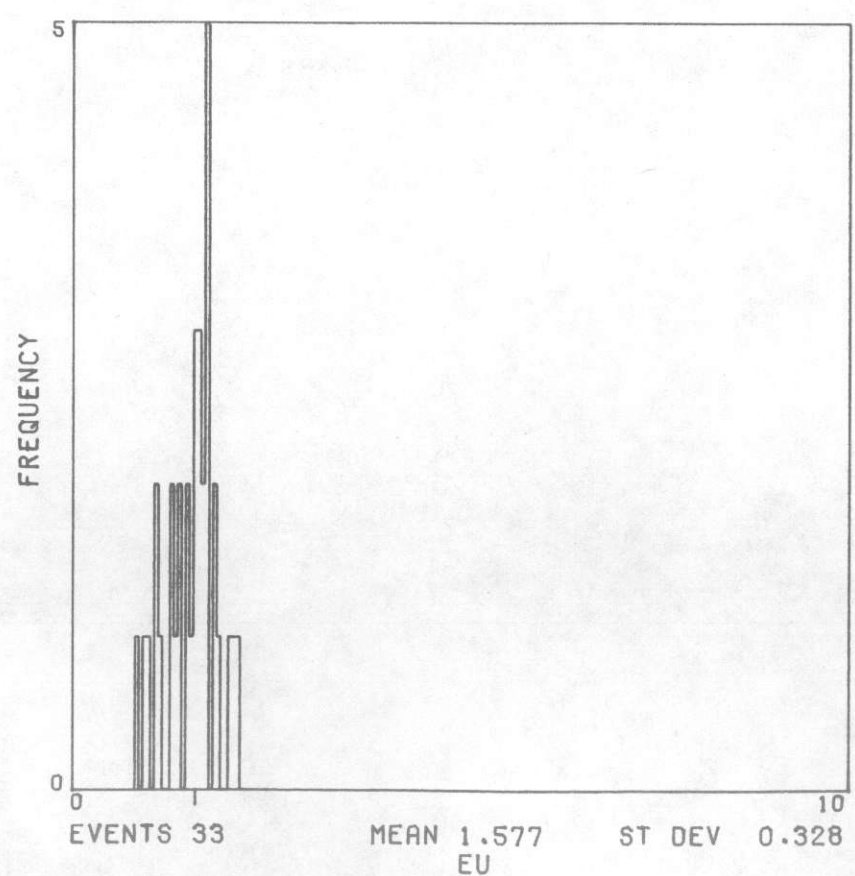
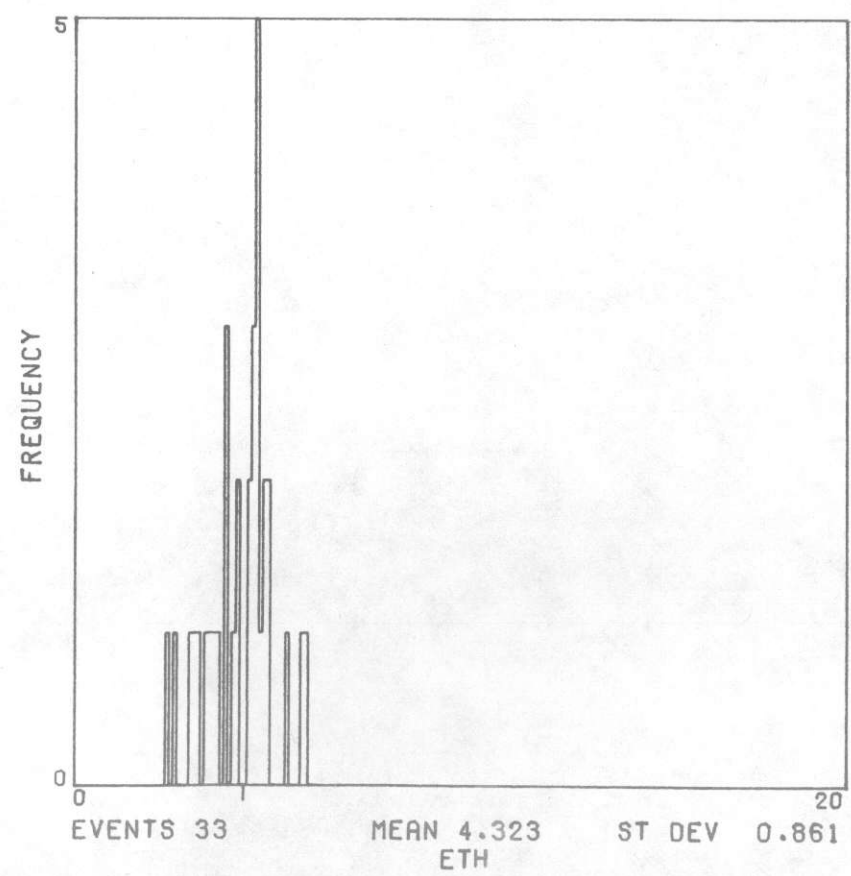
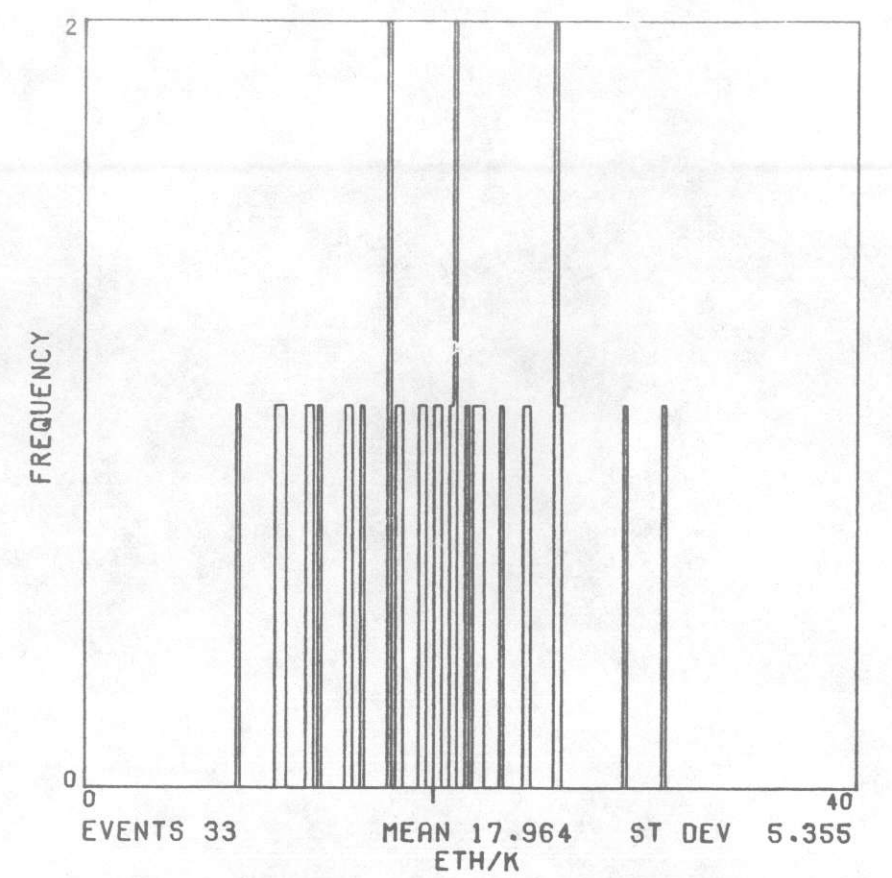
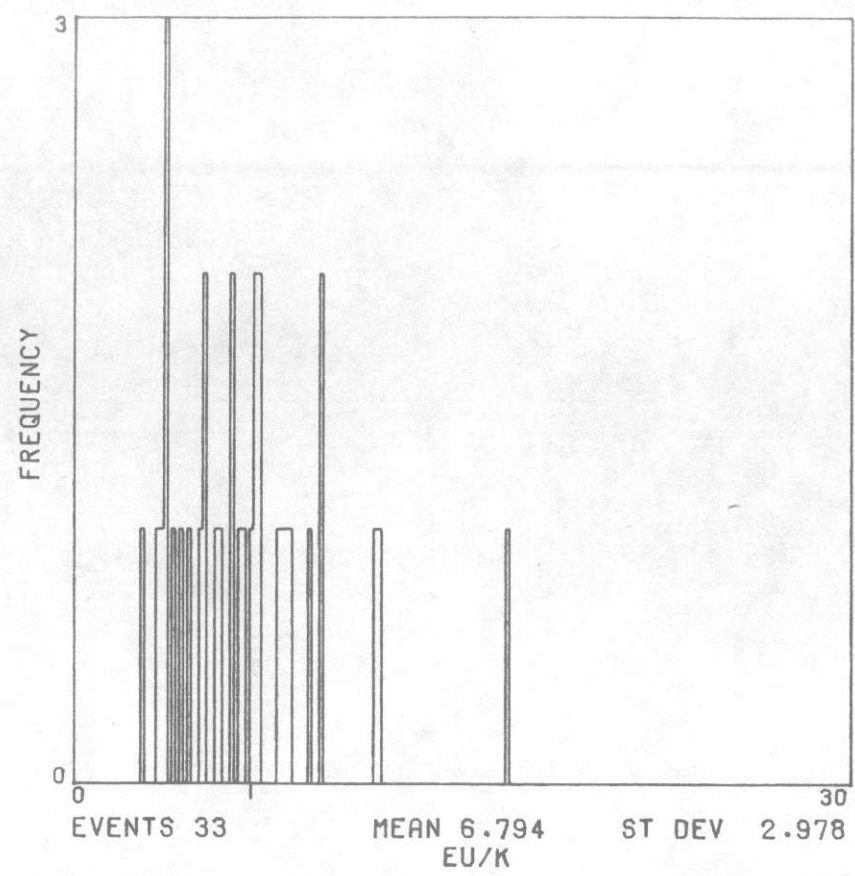
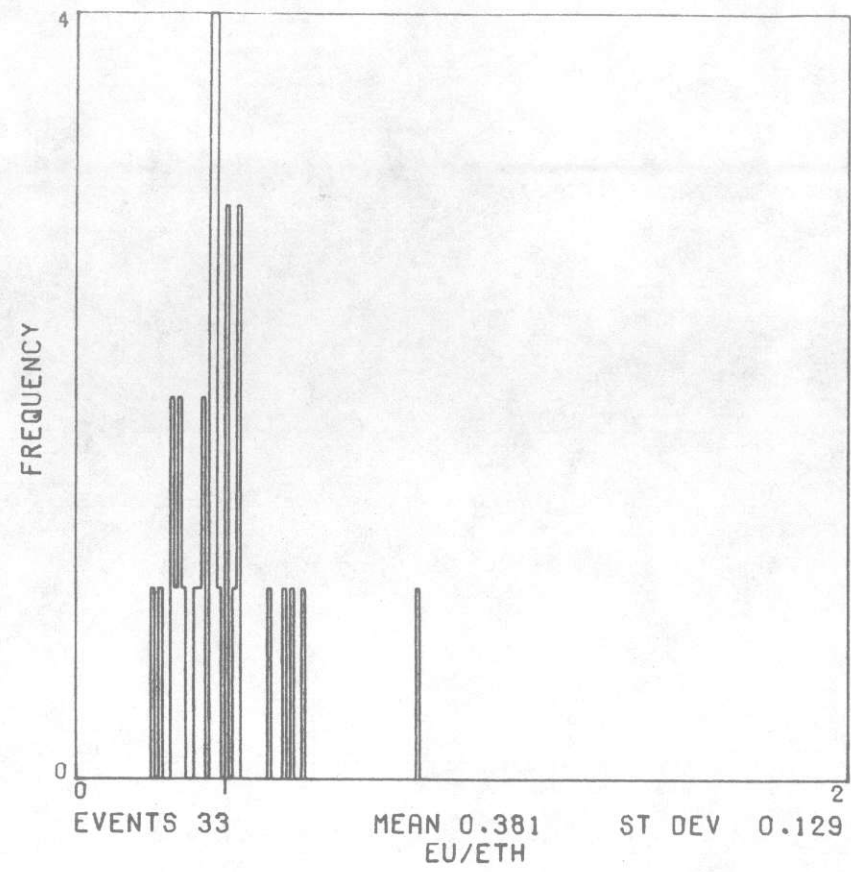


UNIT DFM

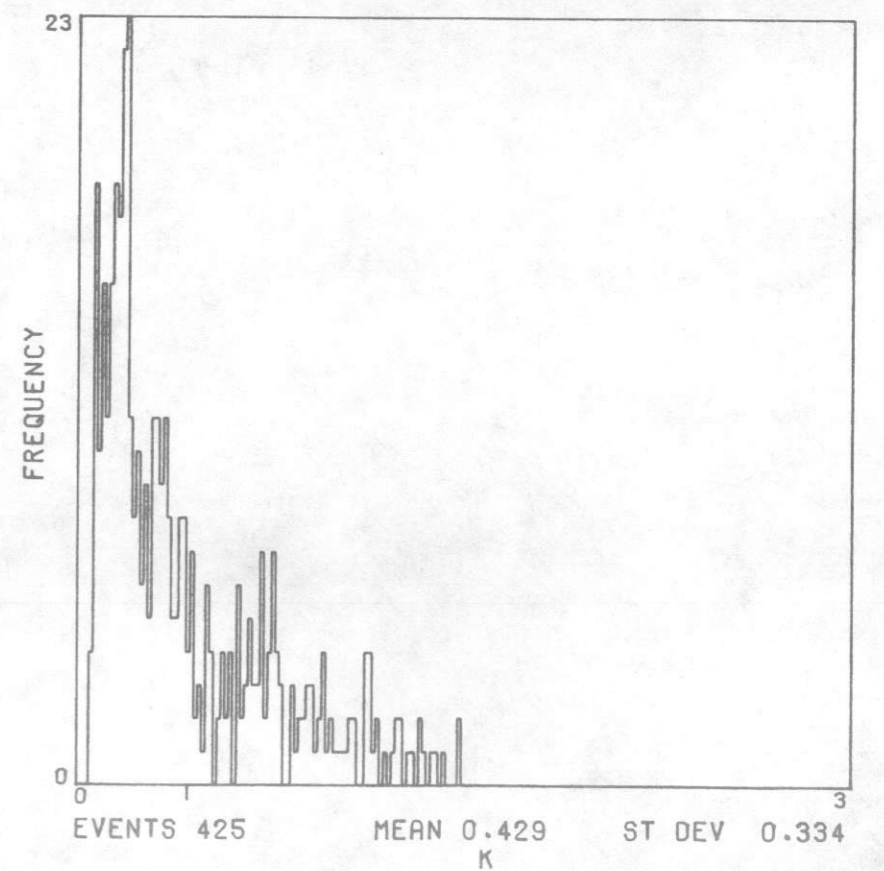
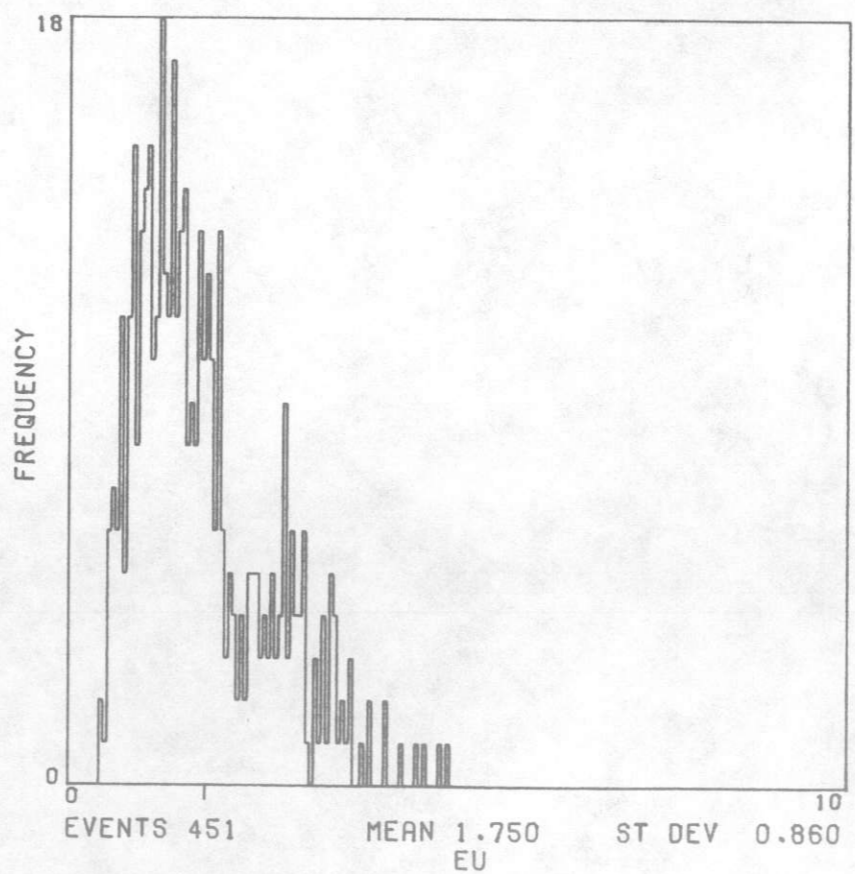
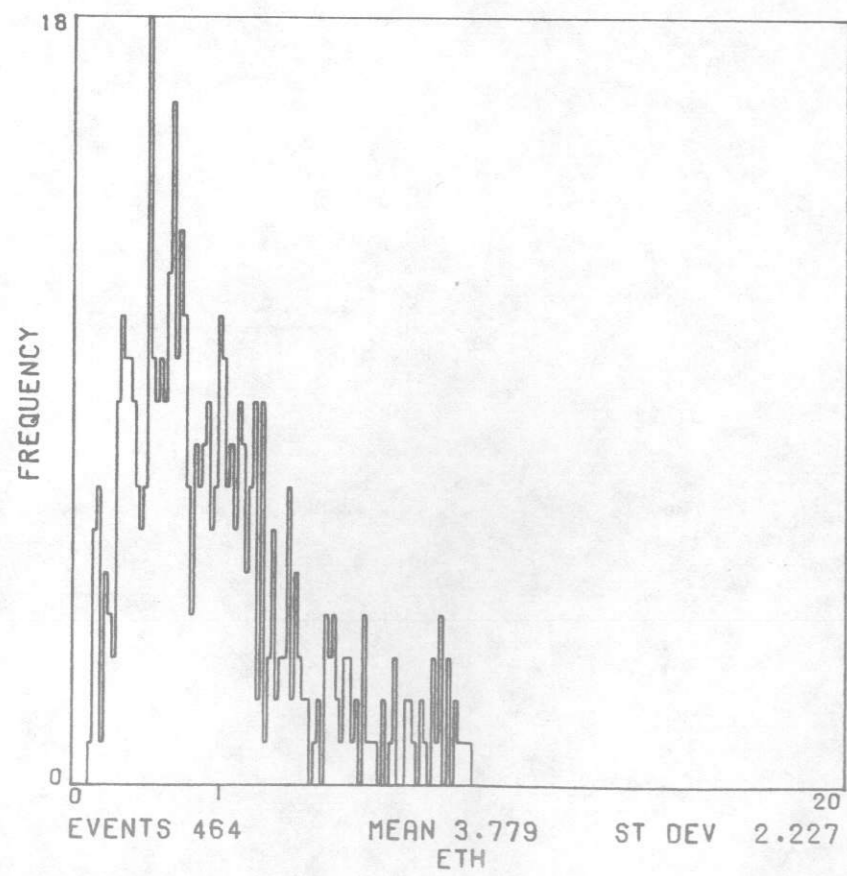
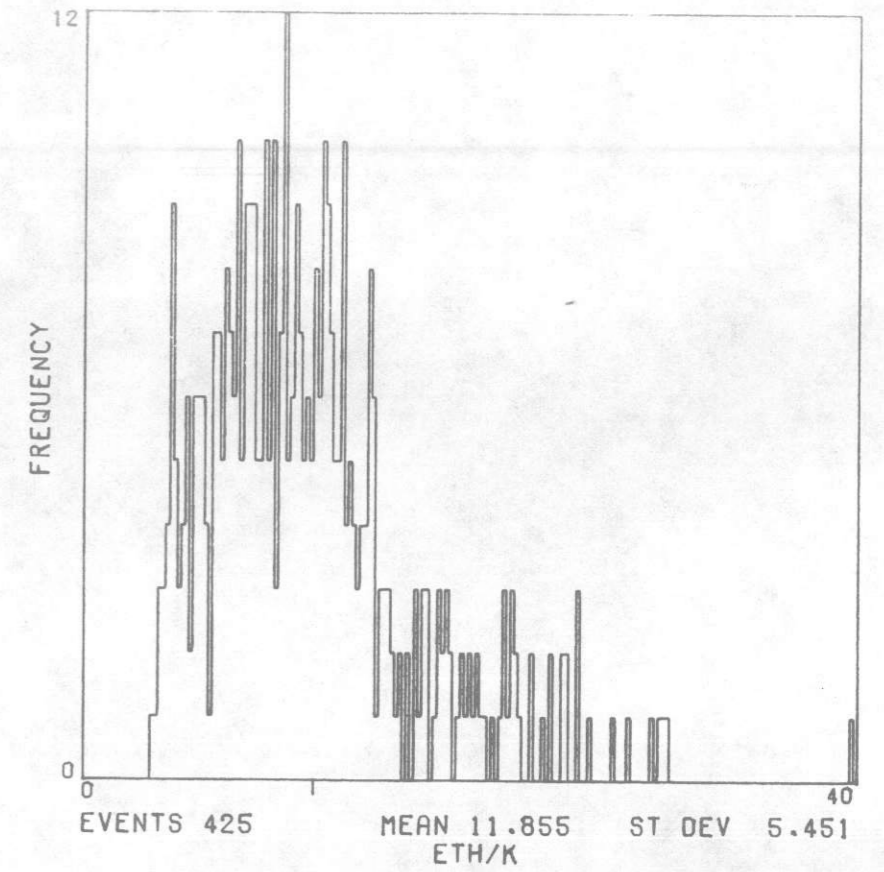
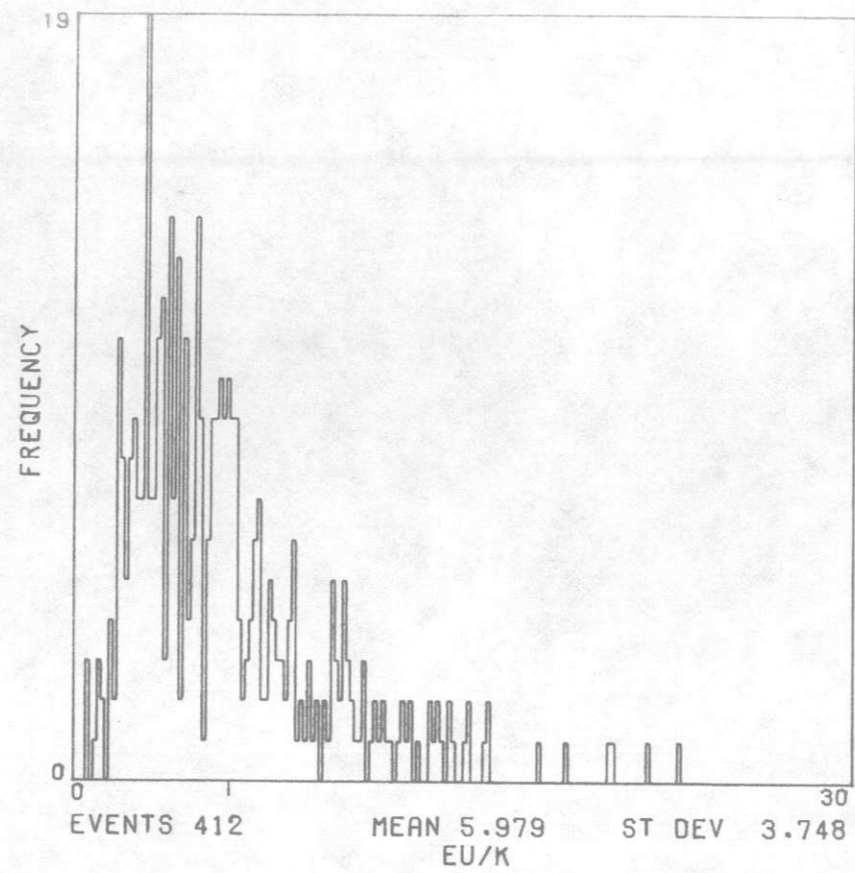
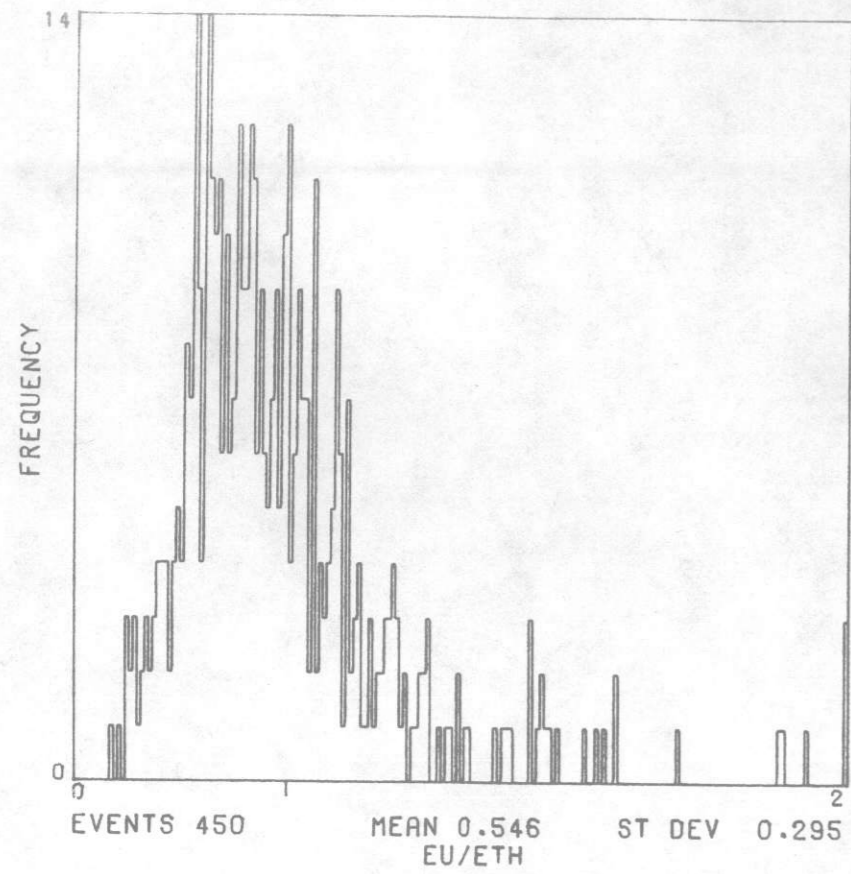


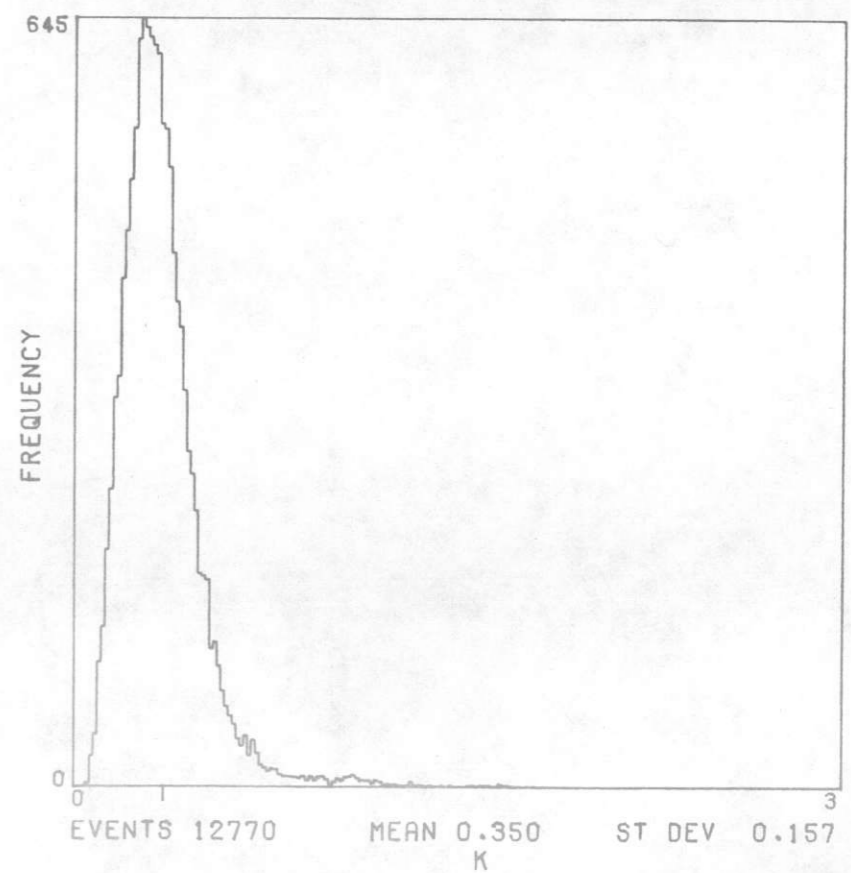
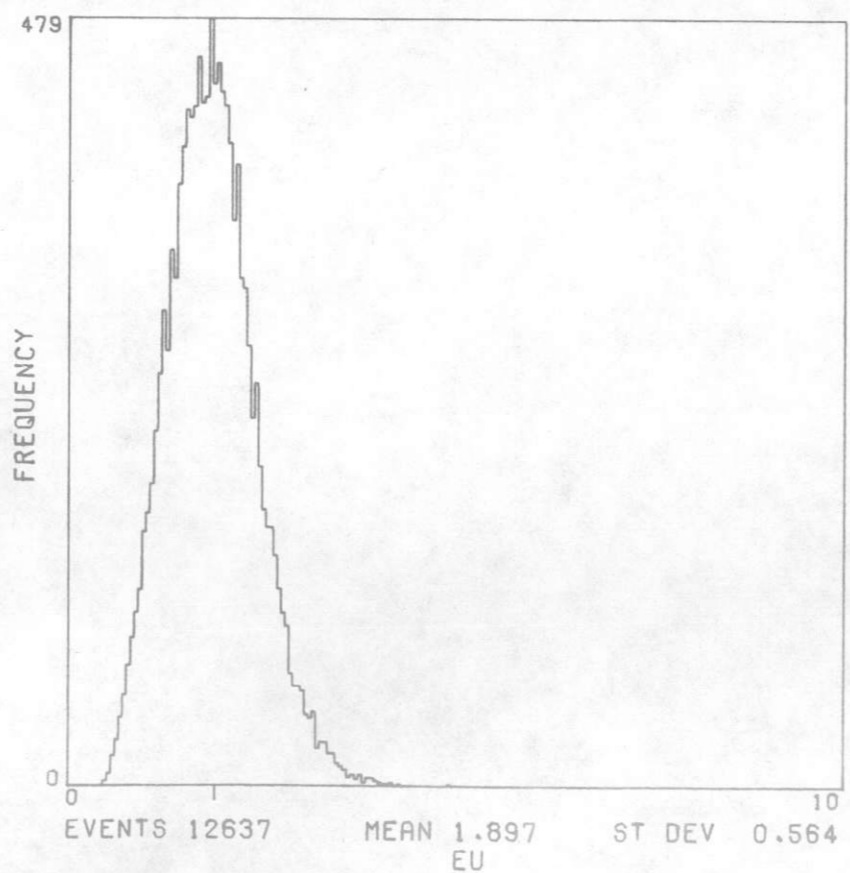
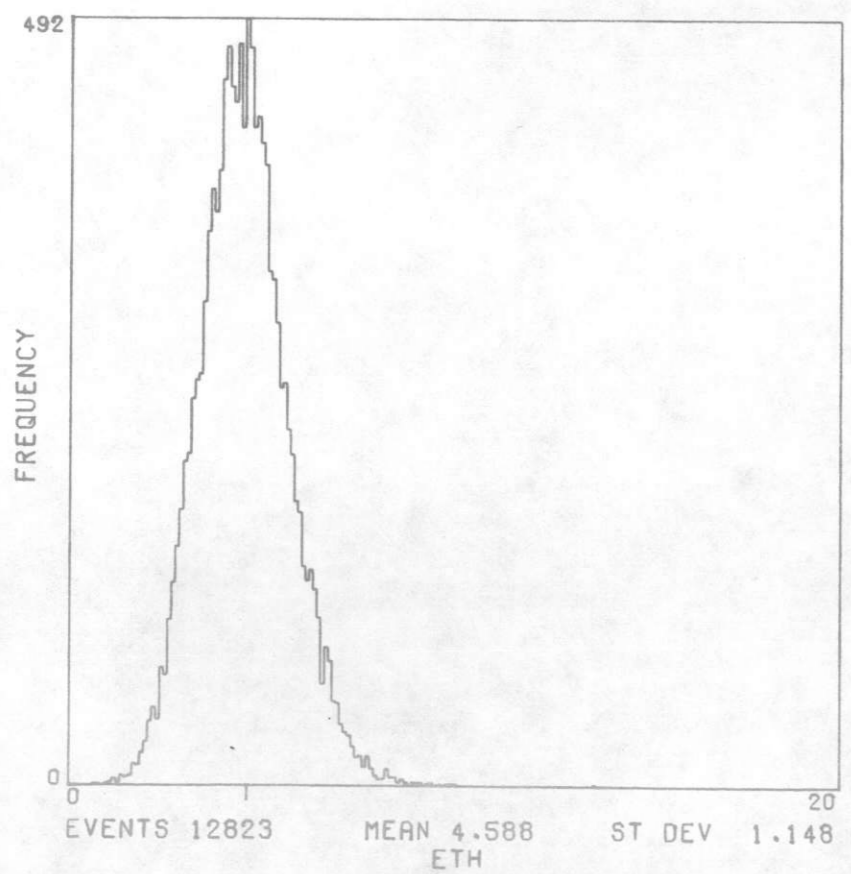
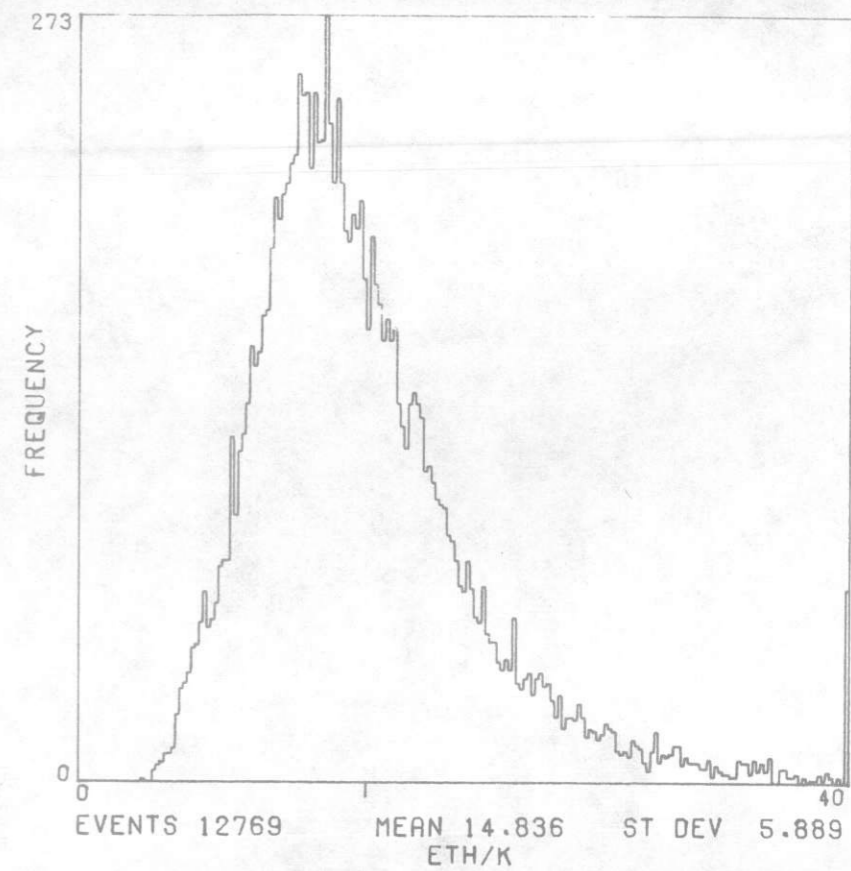
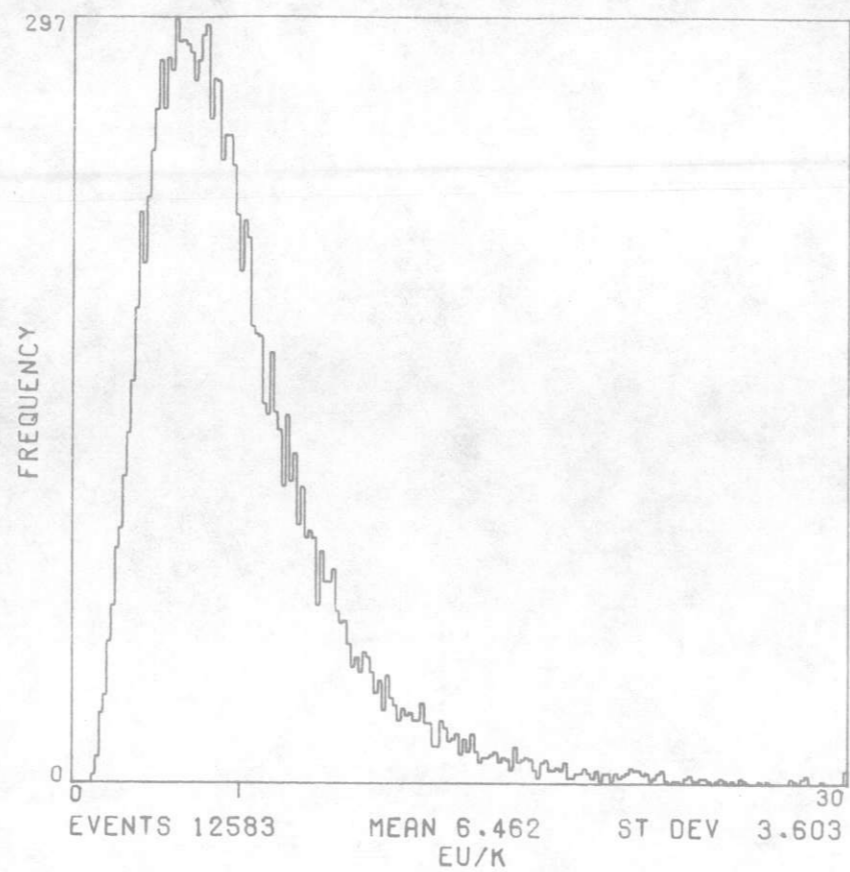
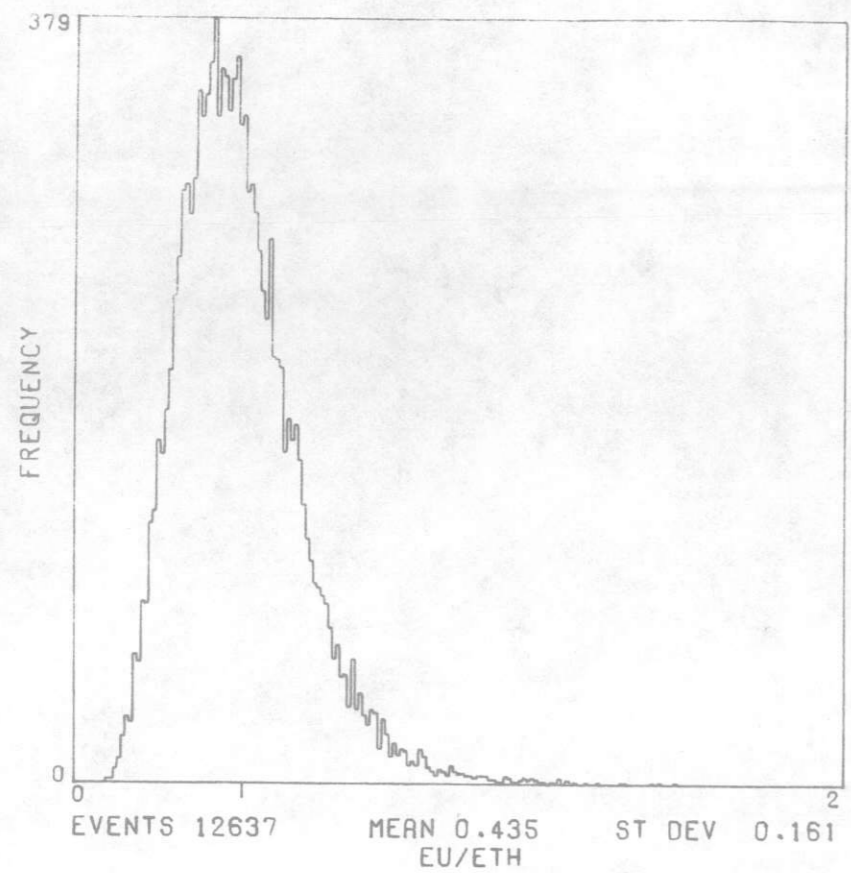
UNIT EKT



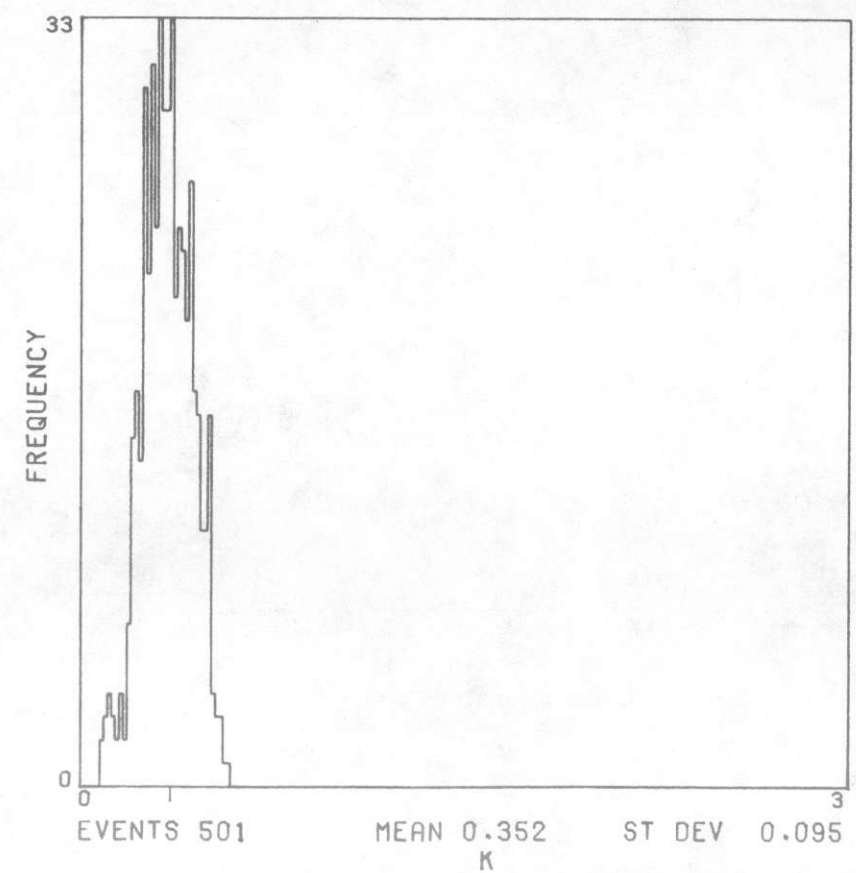
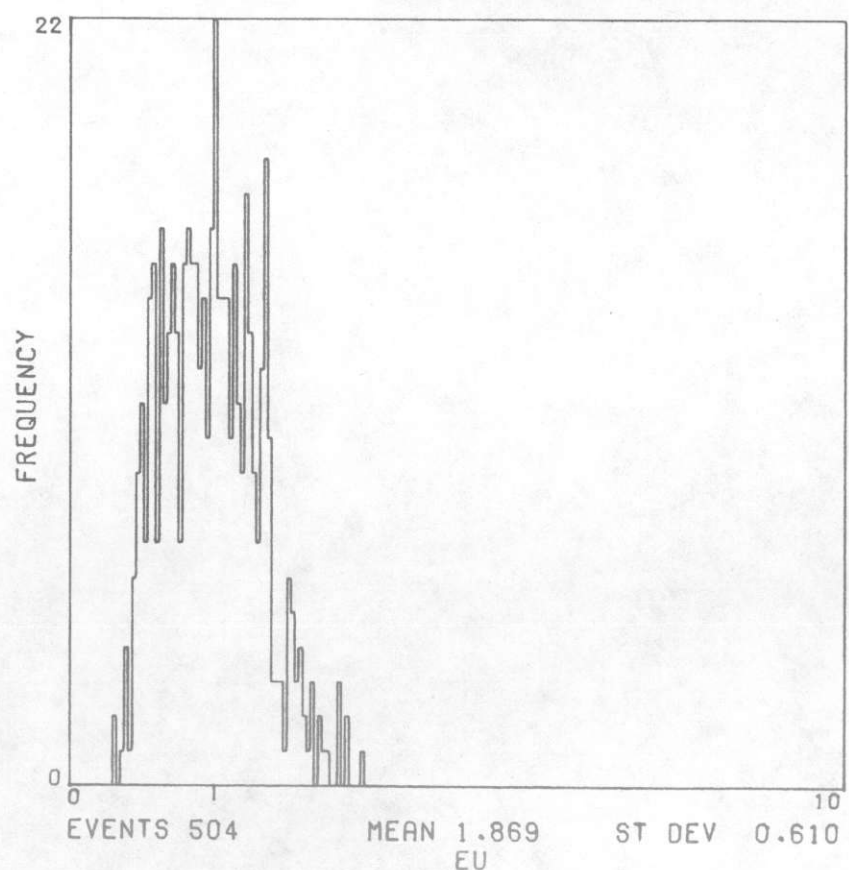
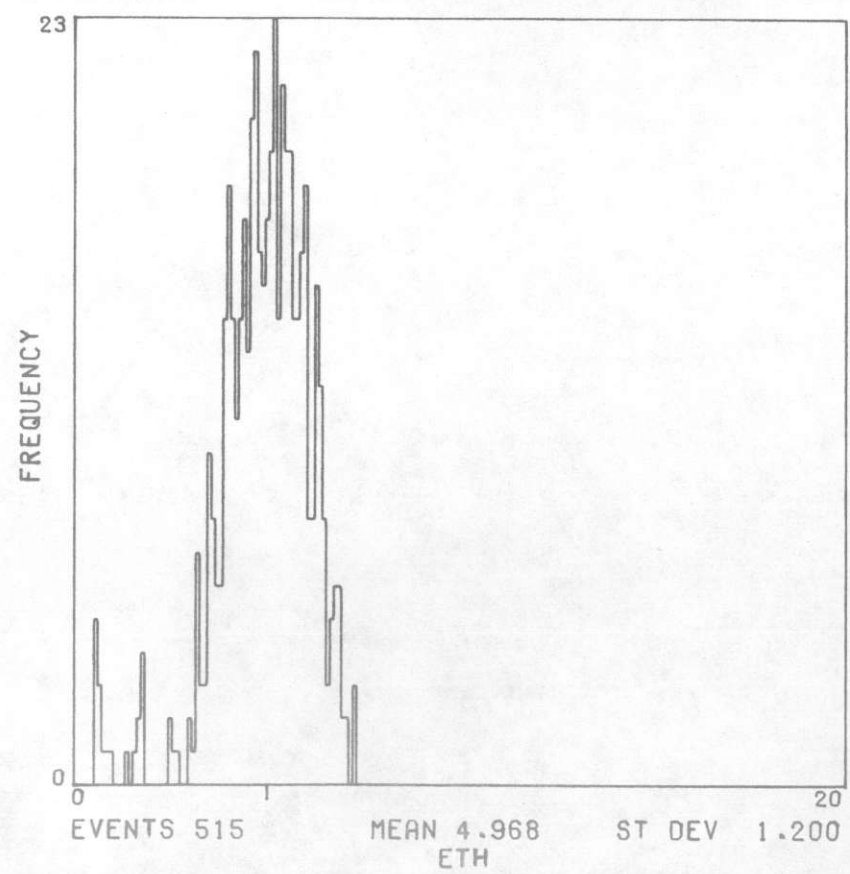
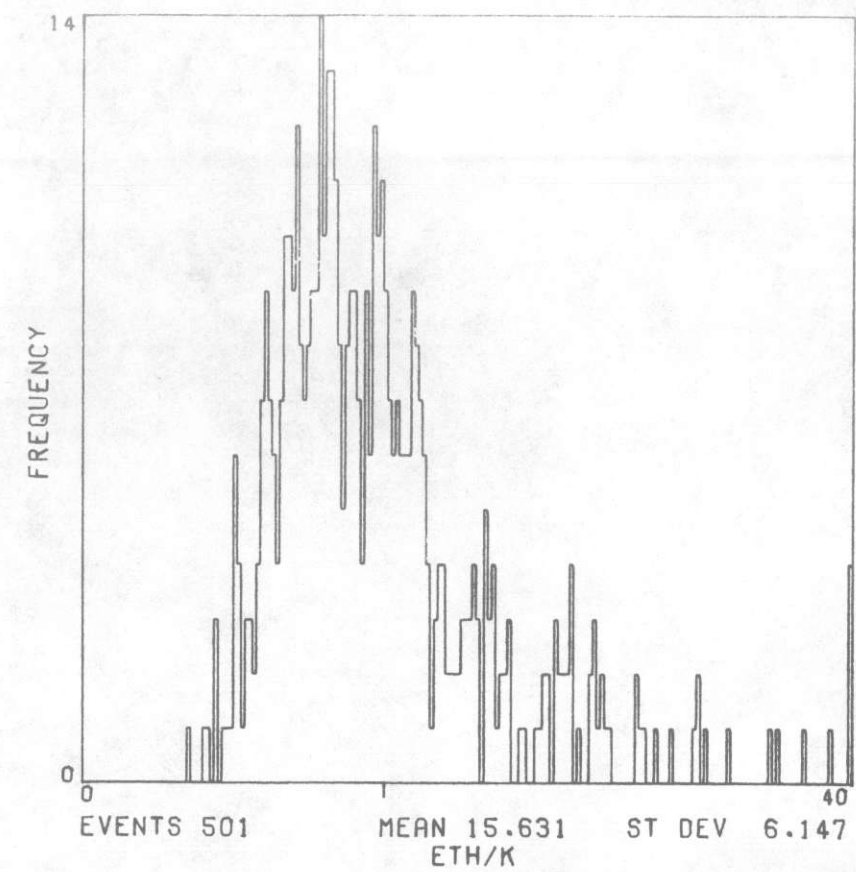
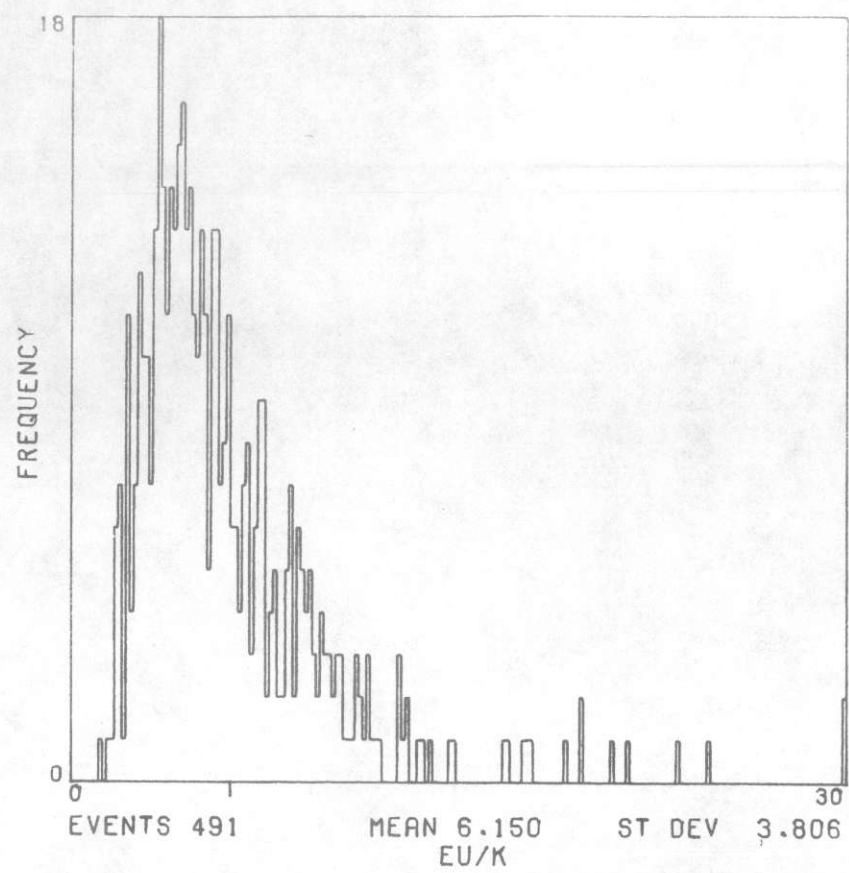
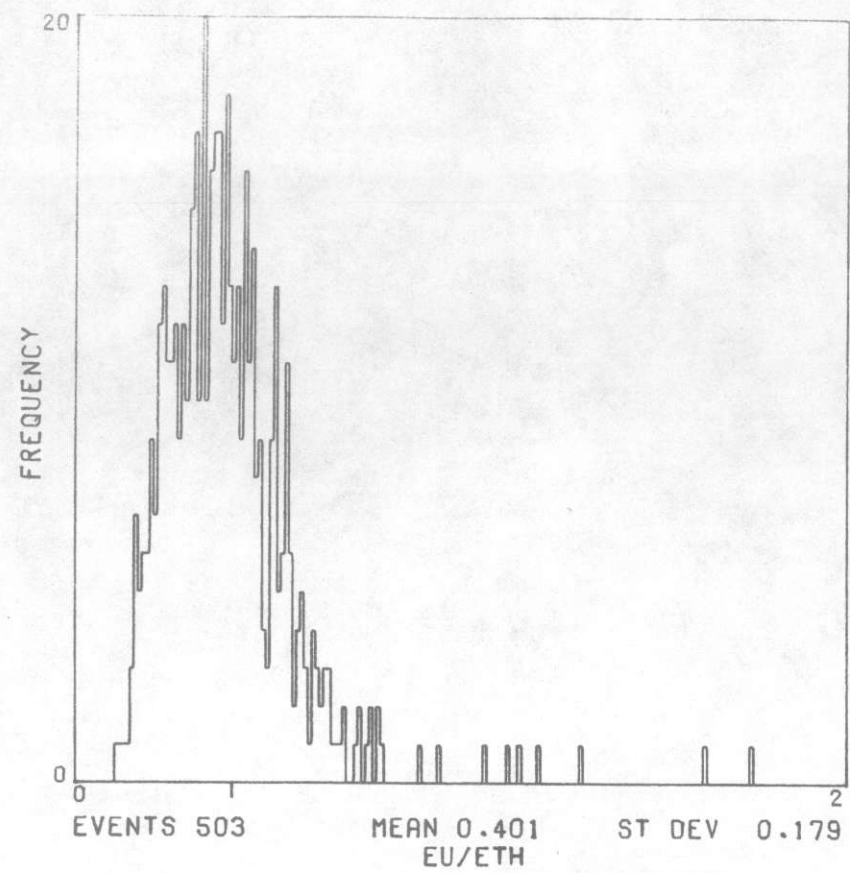


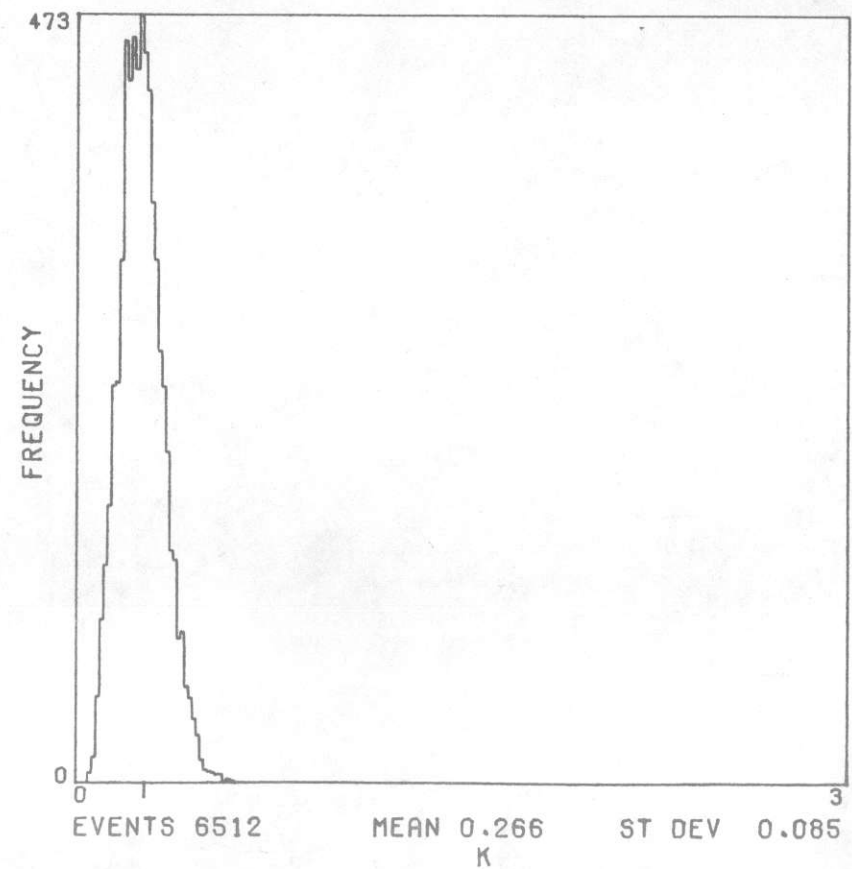
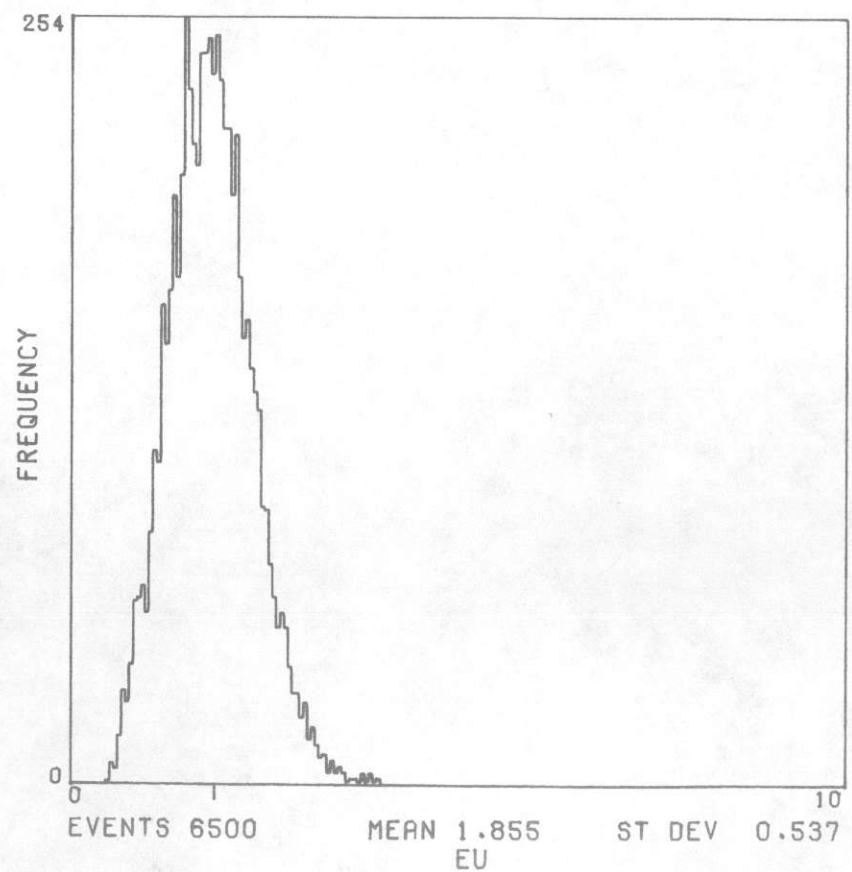
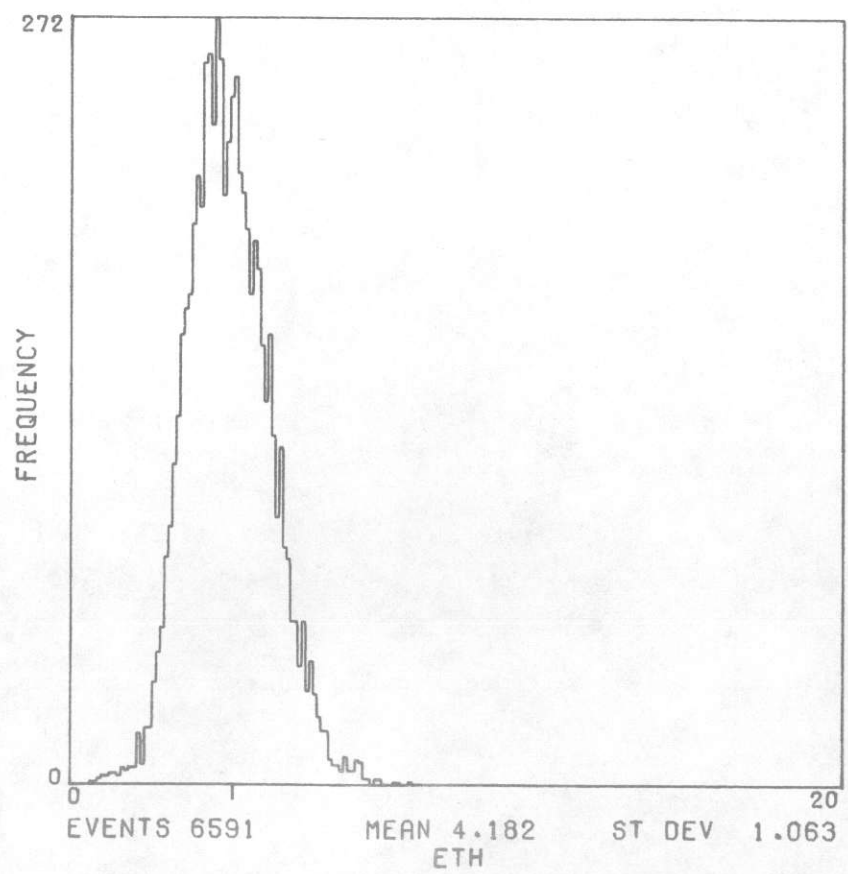
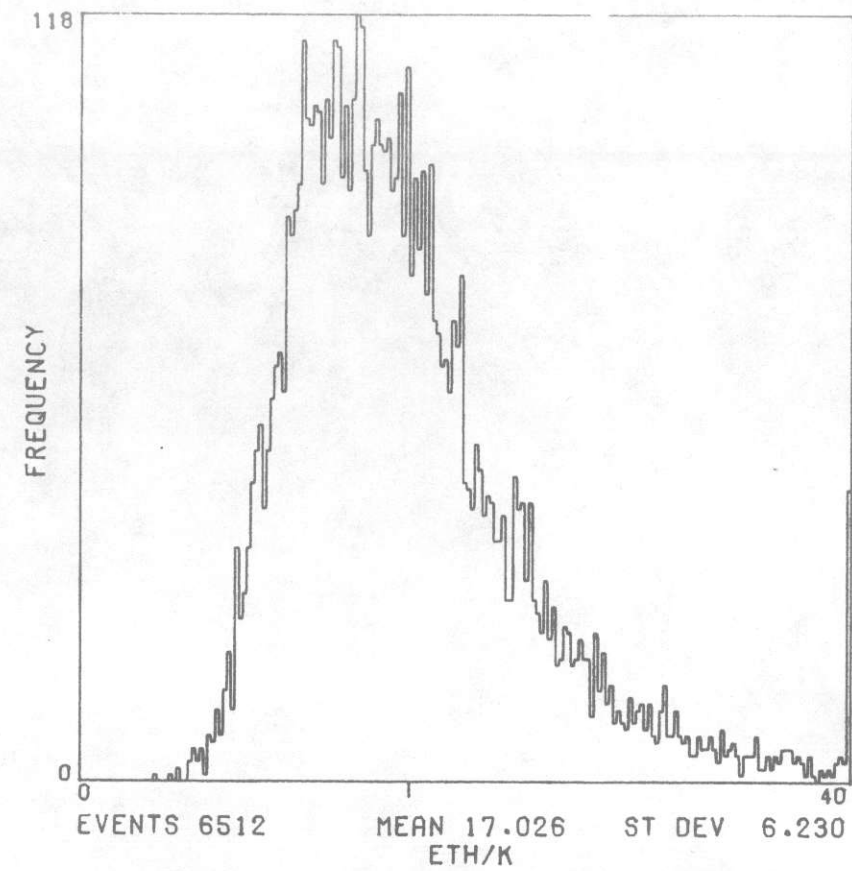
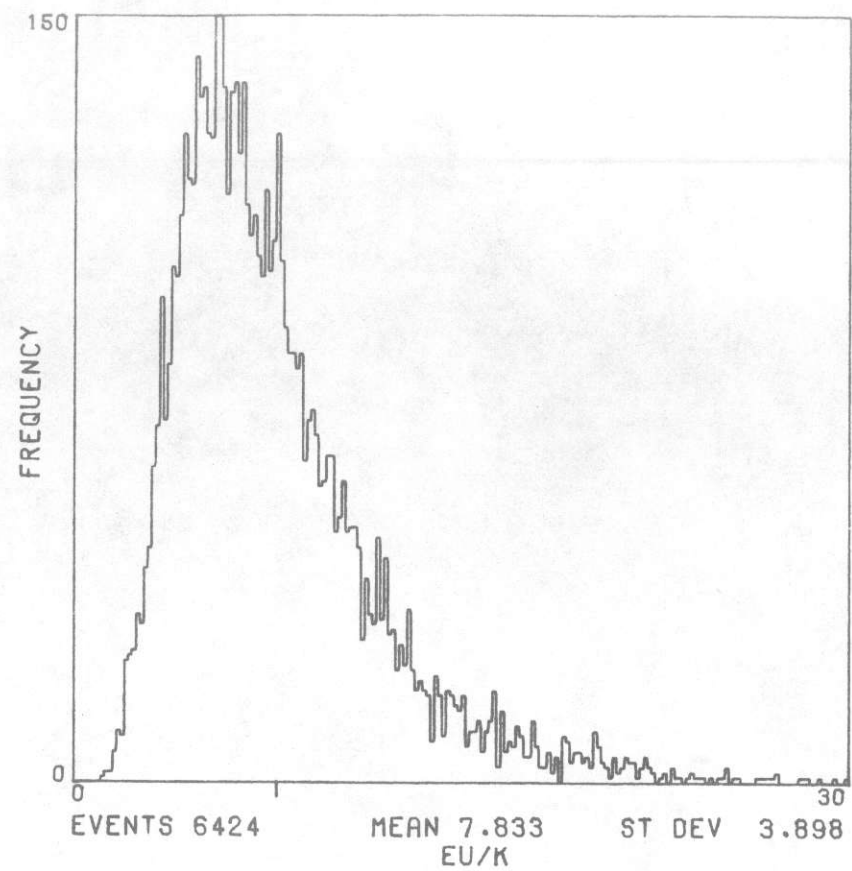
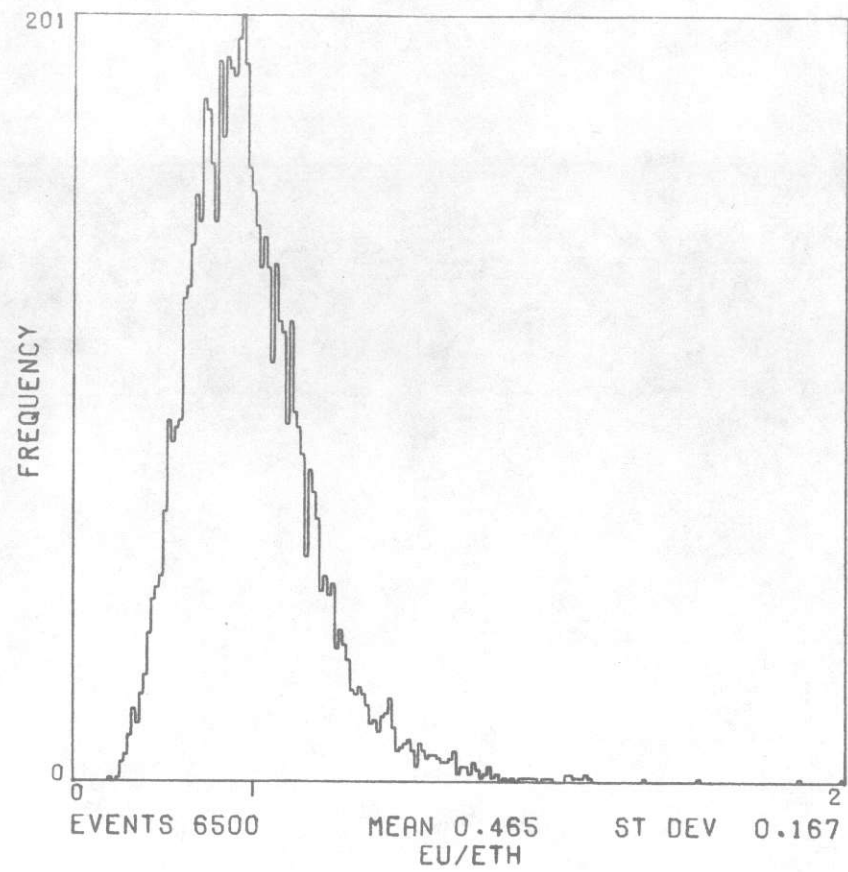
UNIT GT



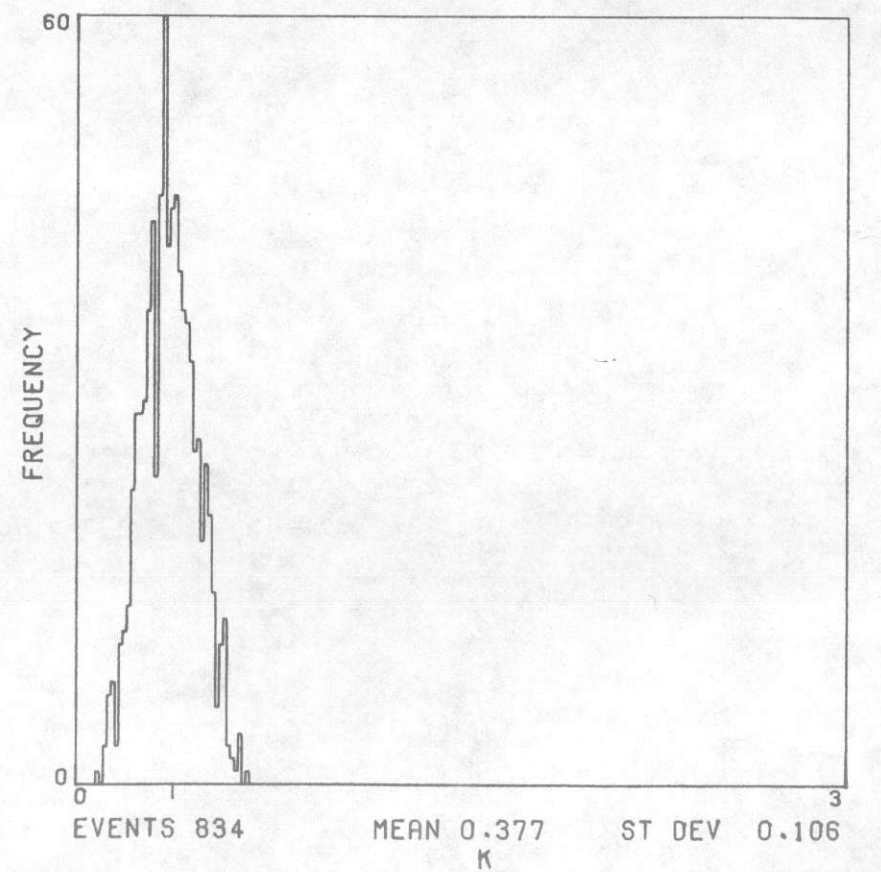
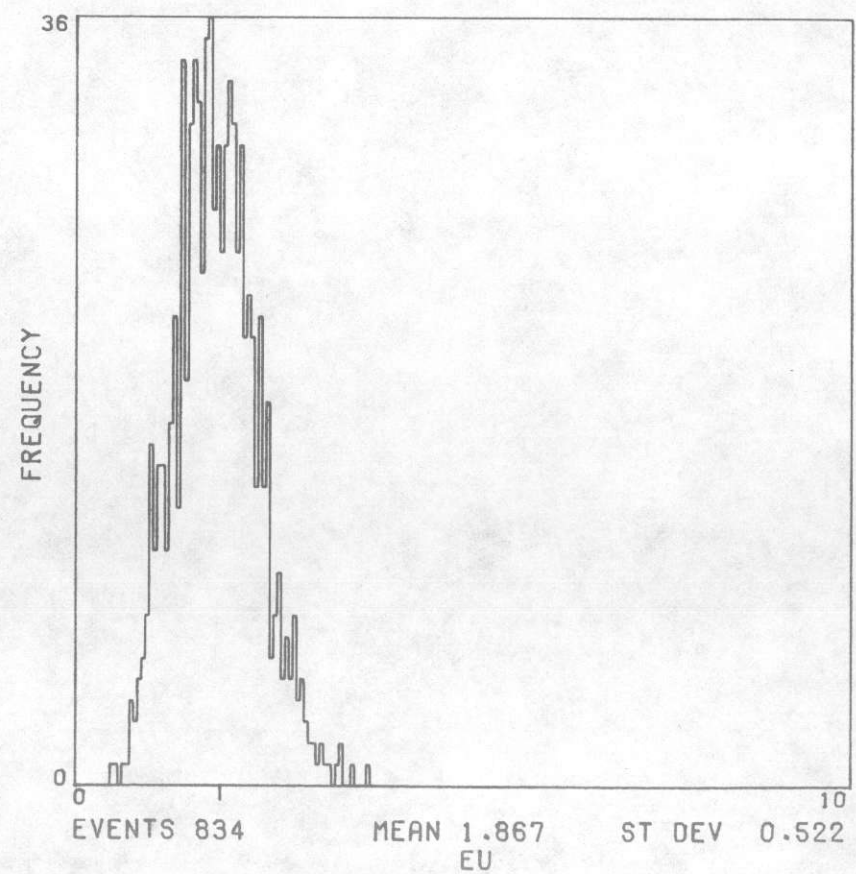
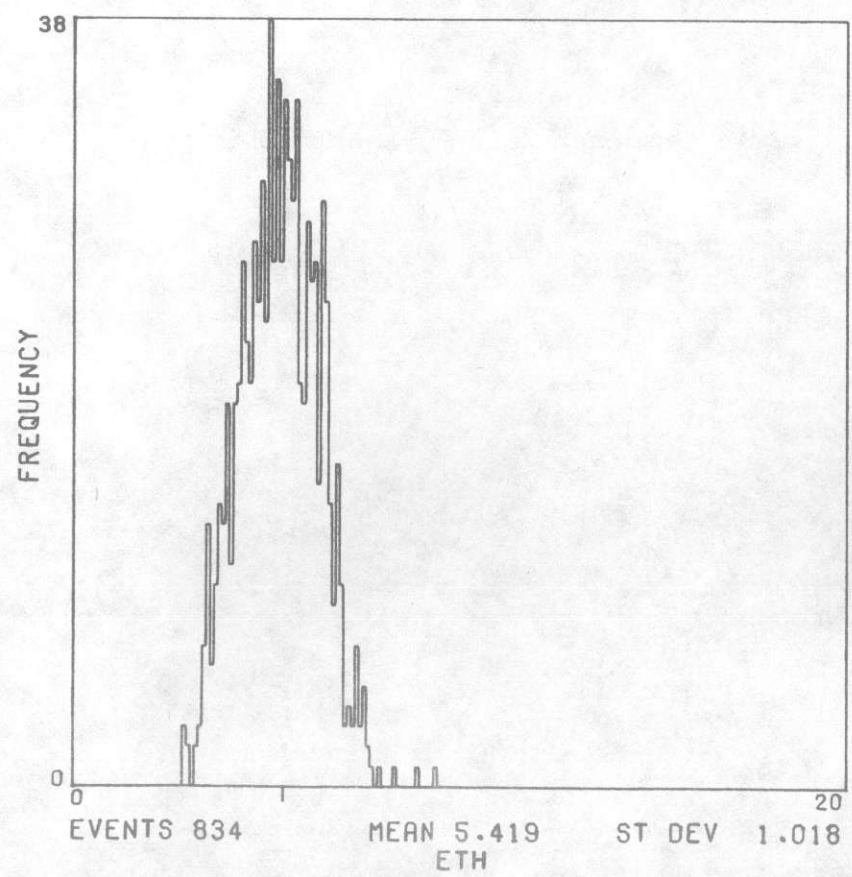
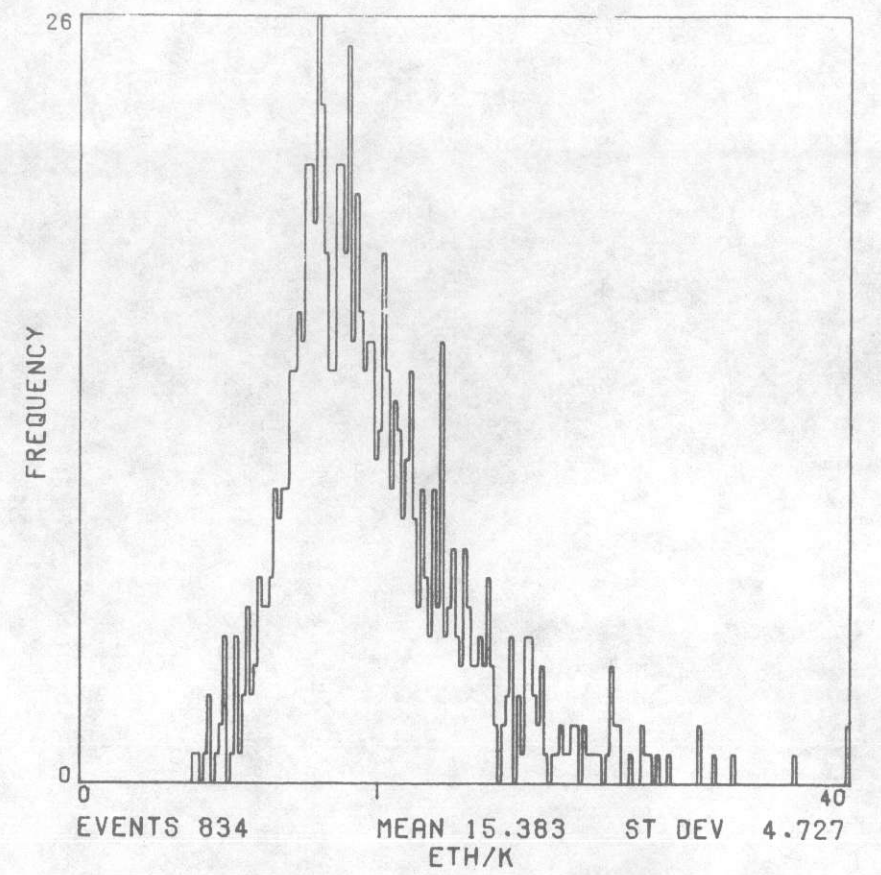
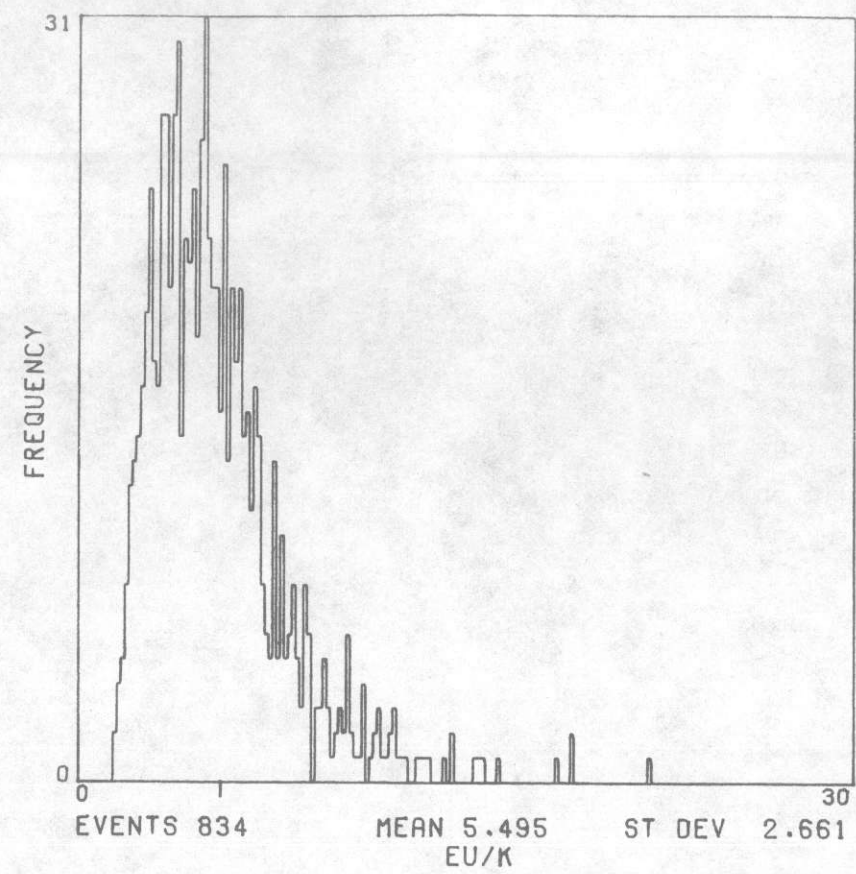
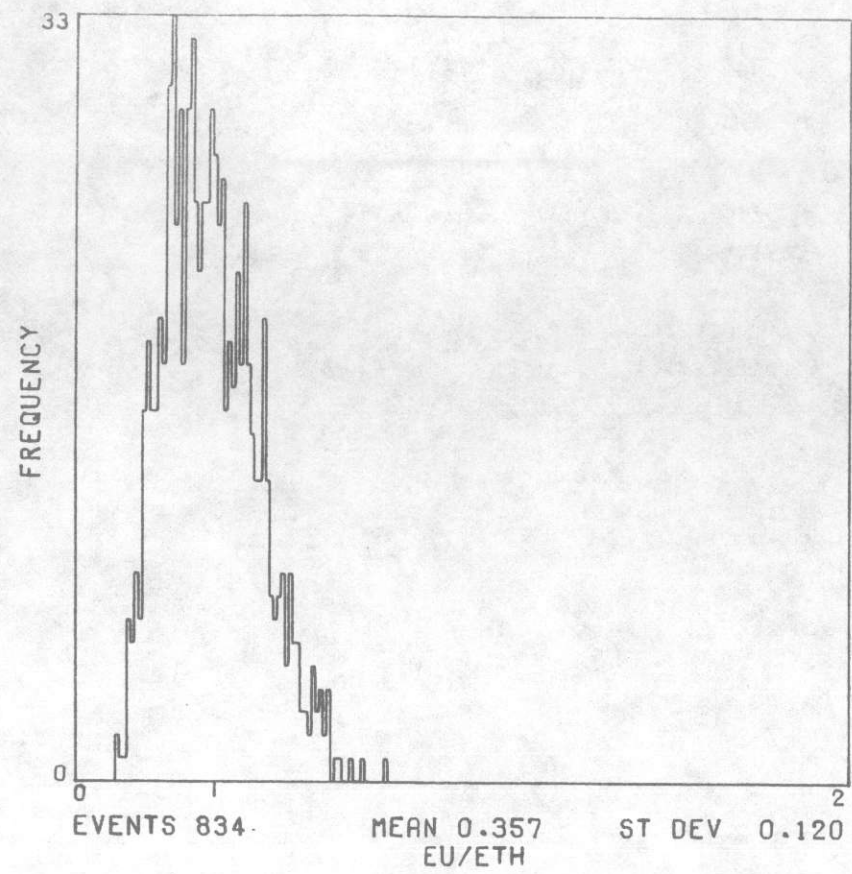


UNIT KCK

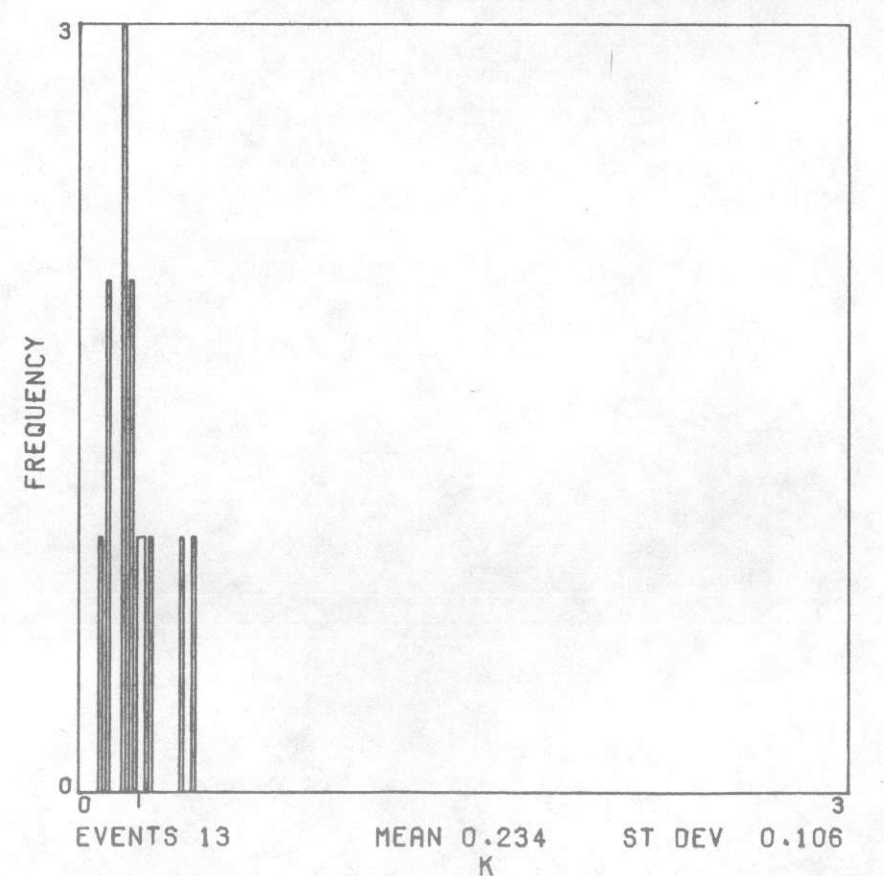
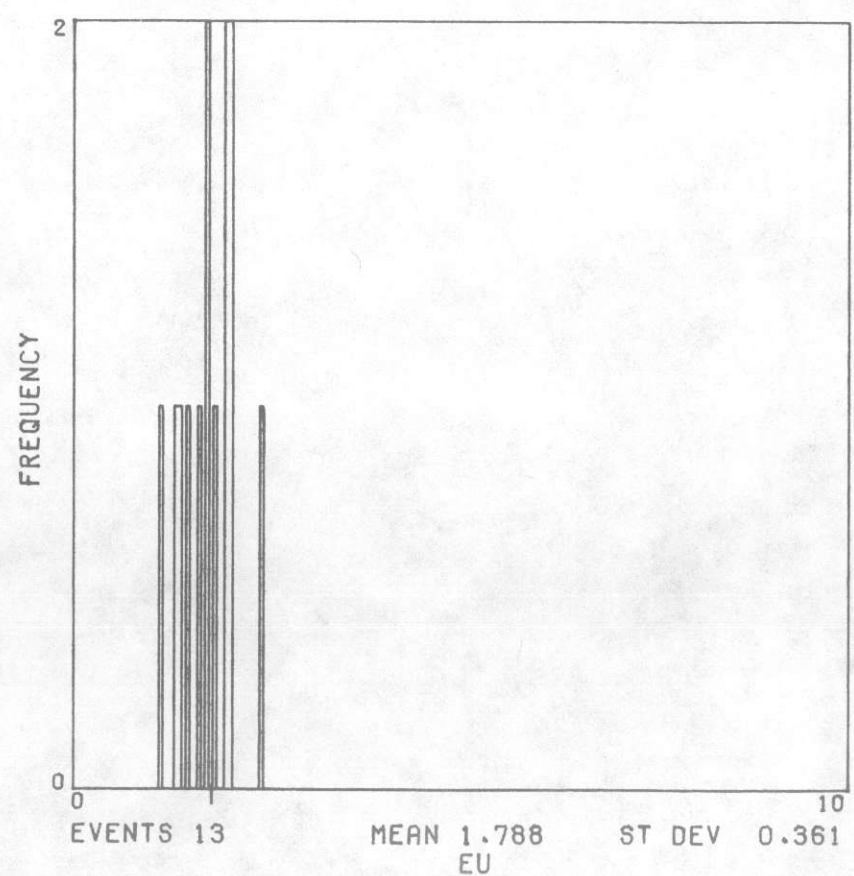
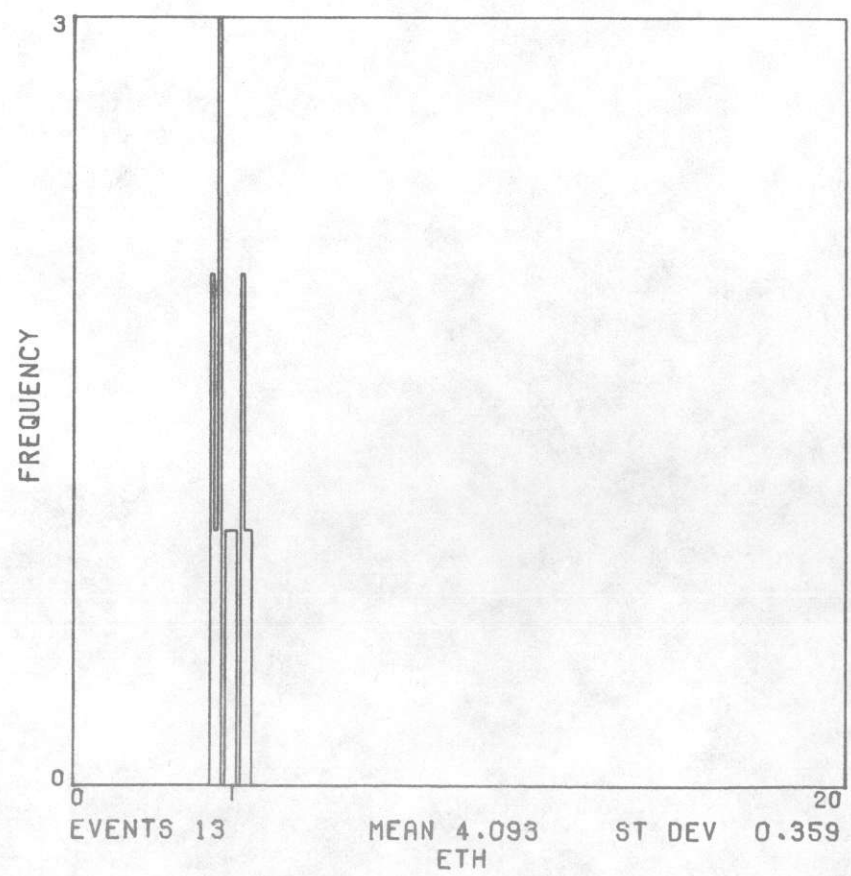
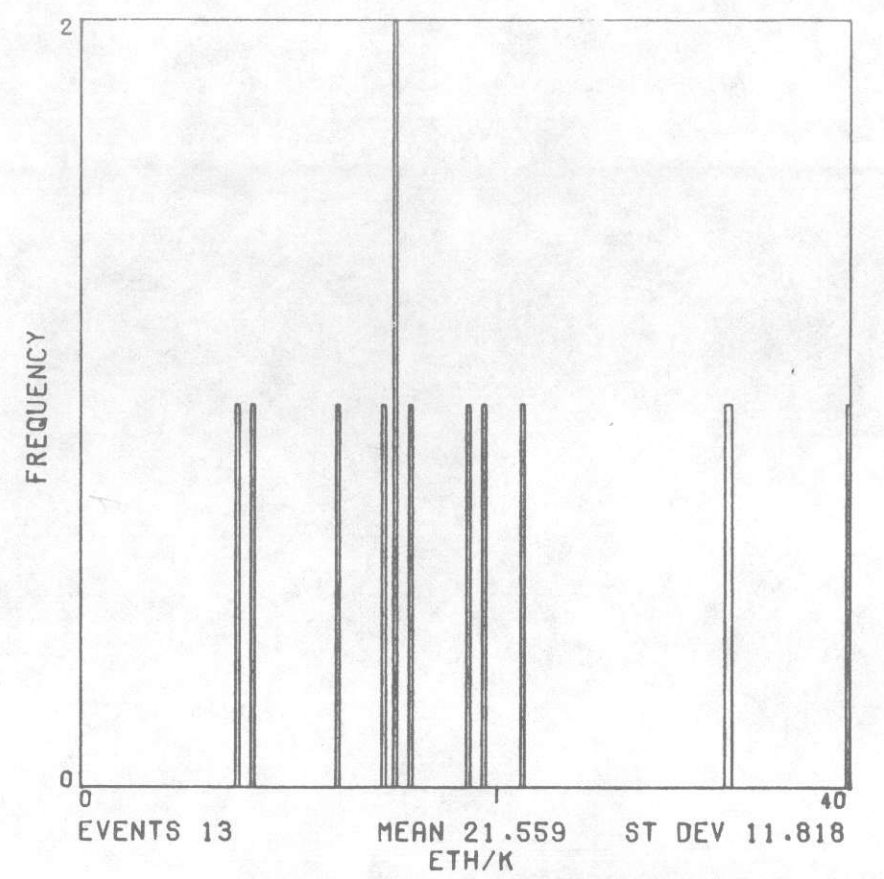
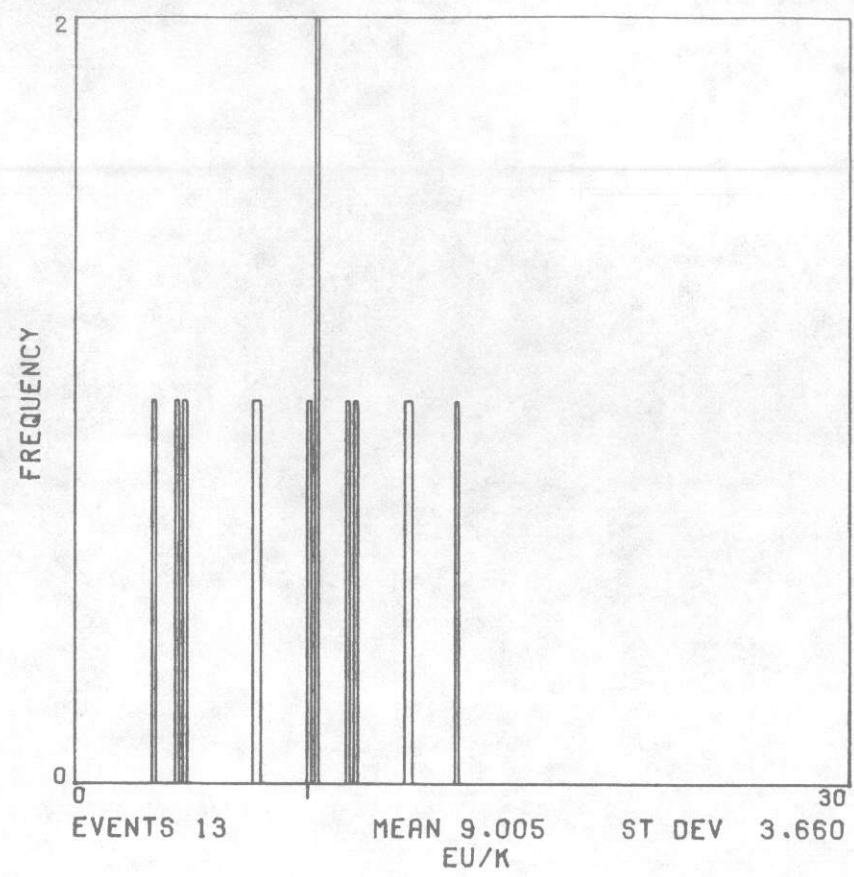
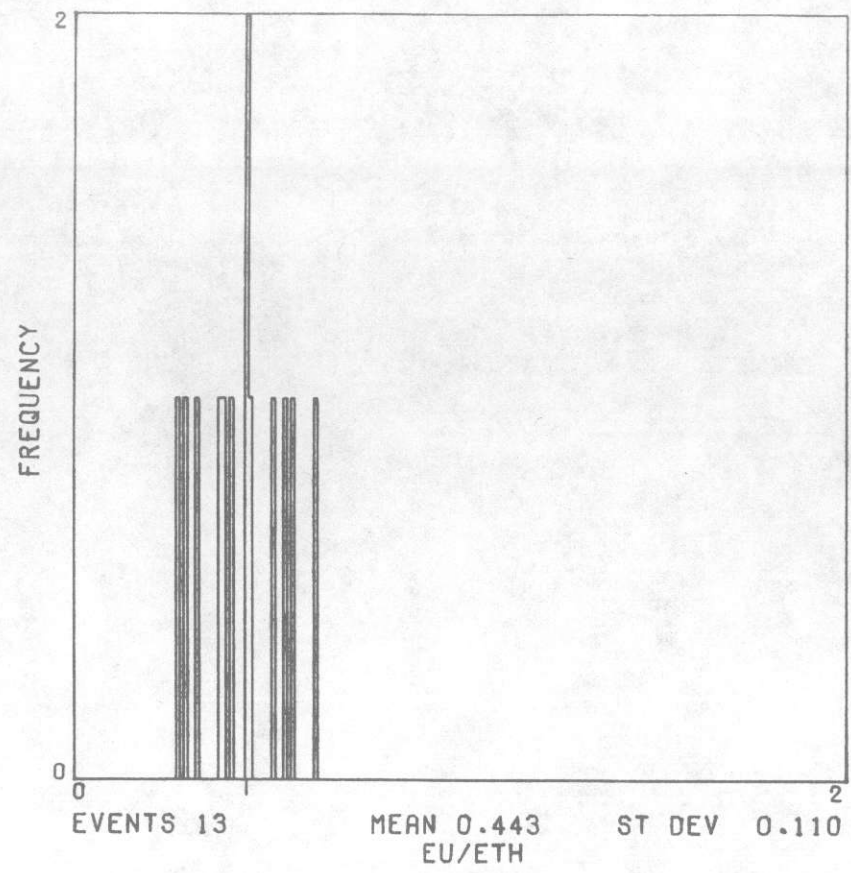


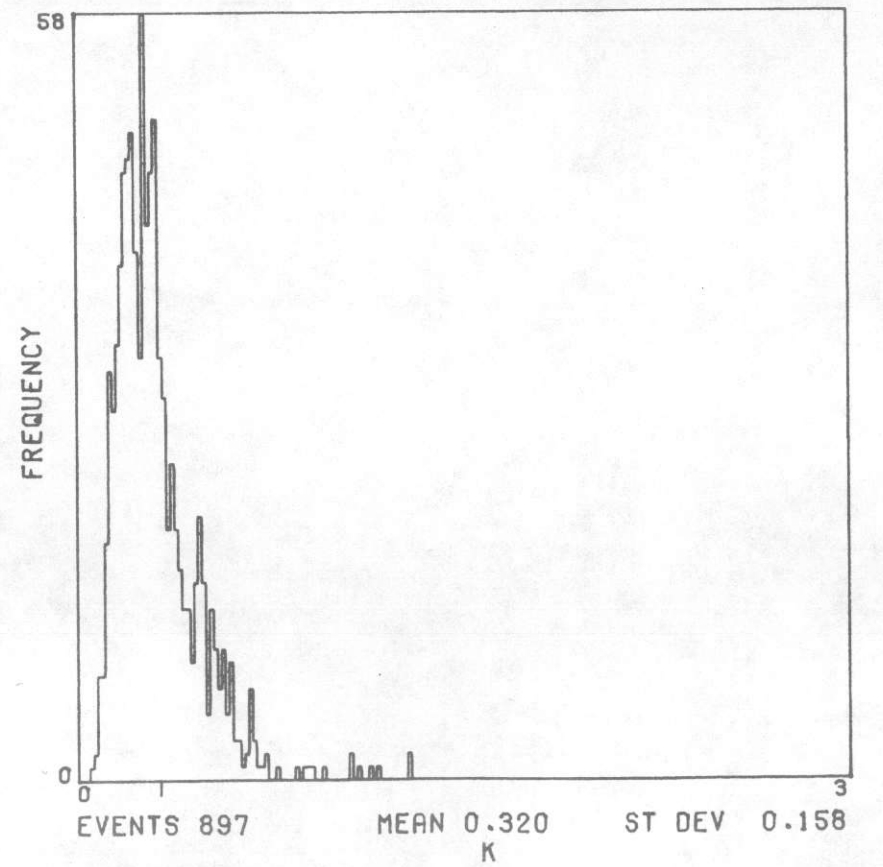
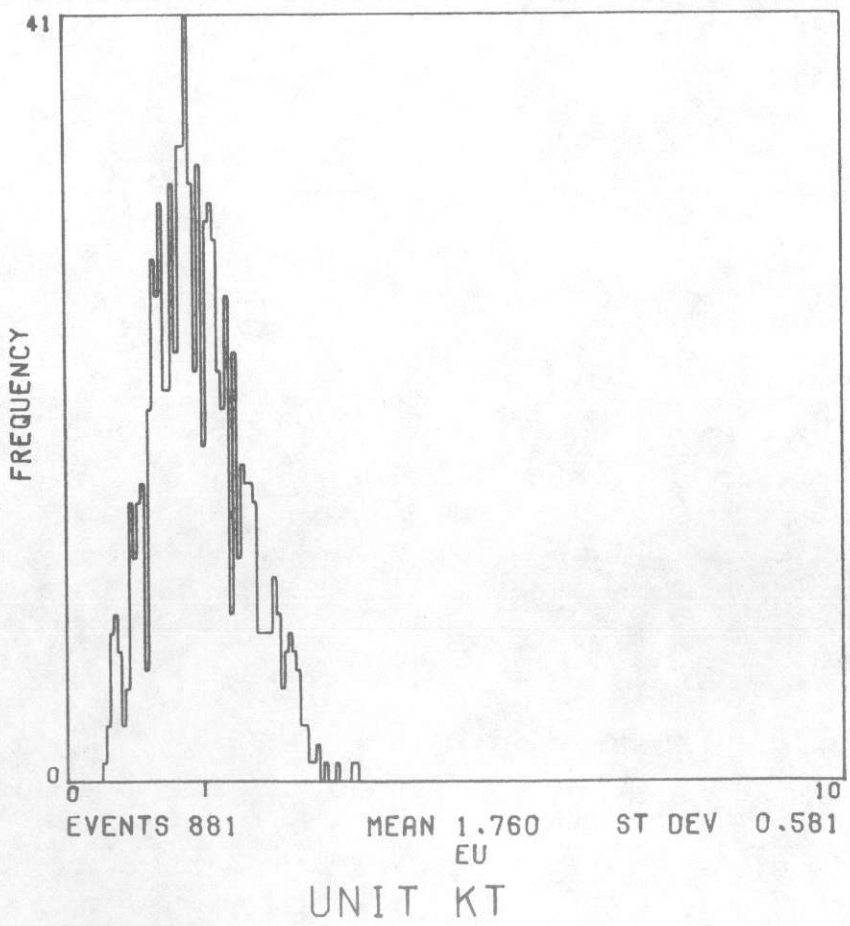
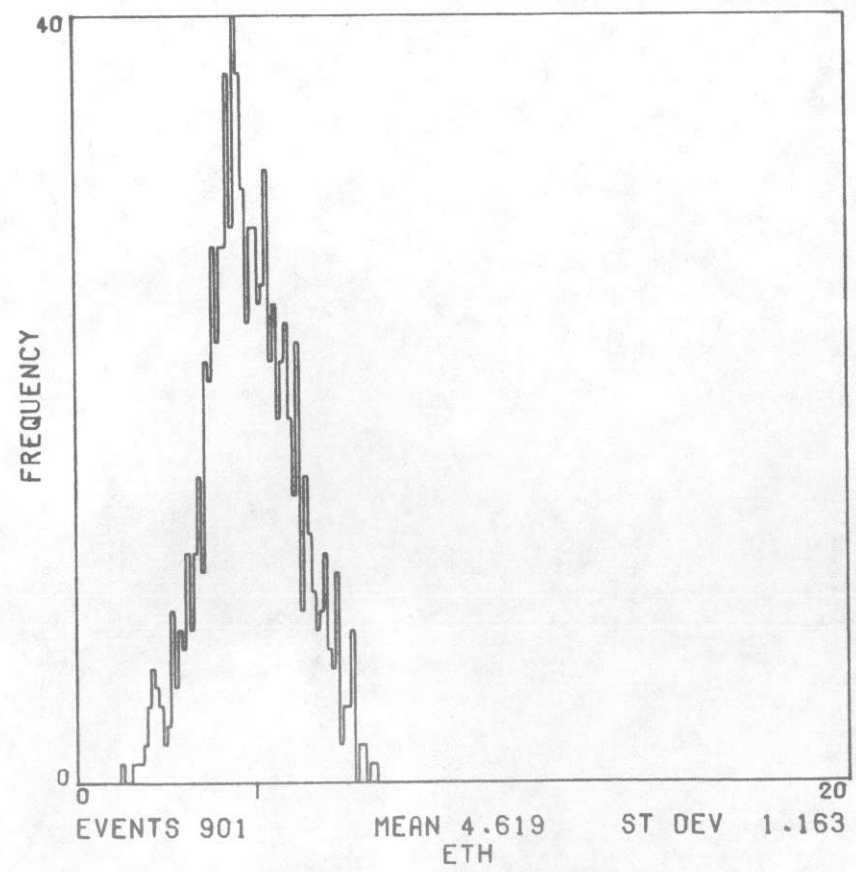
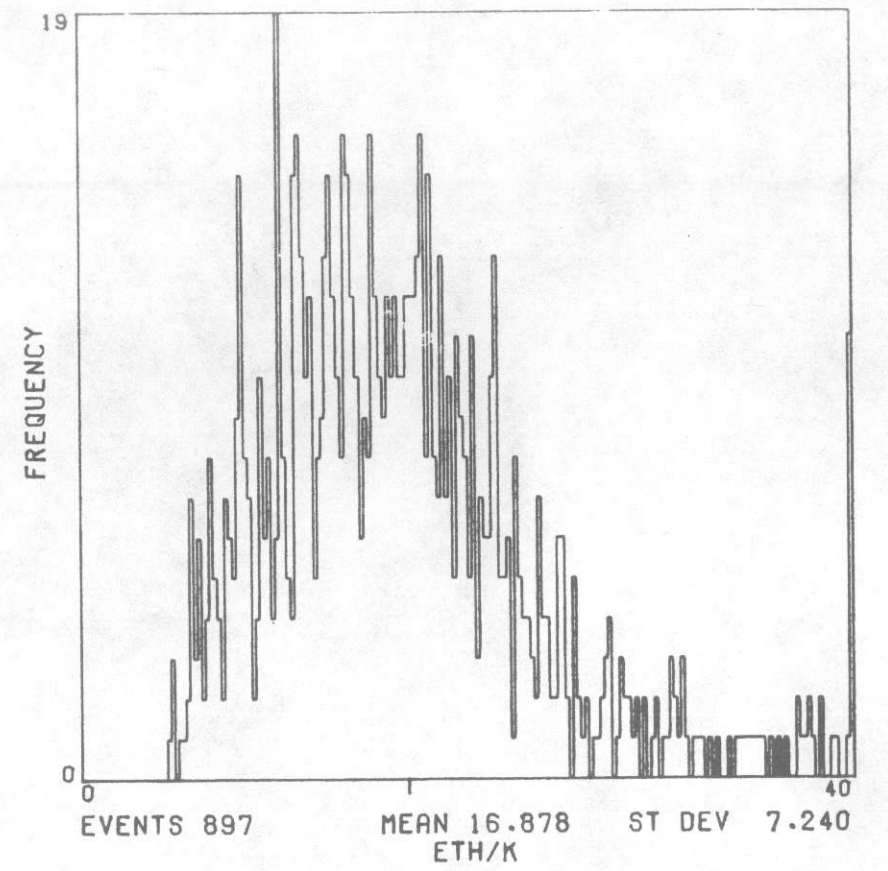
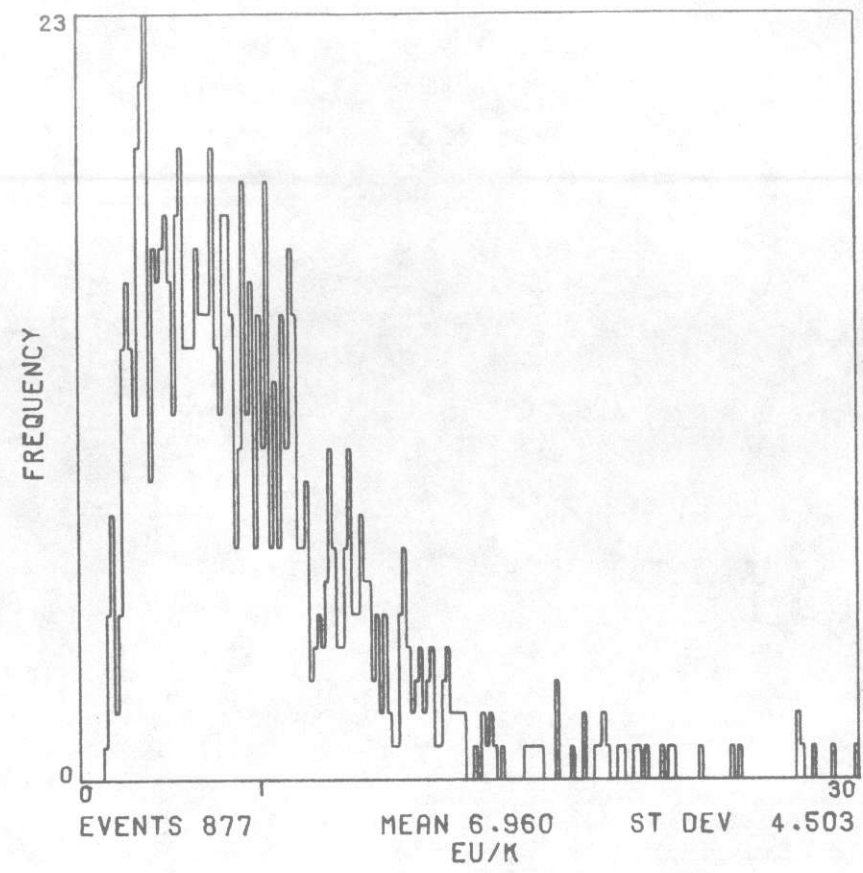
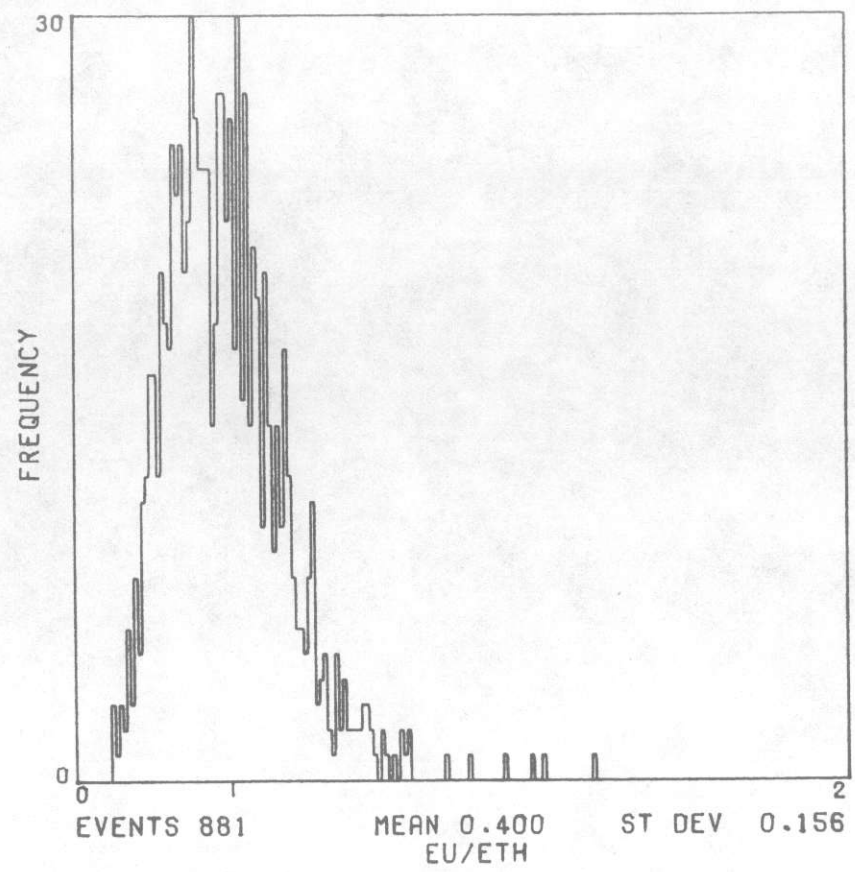


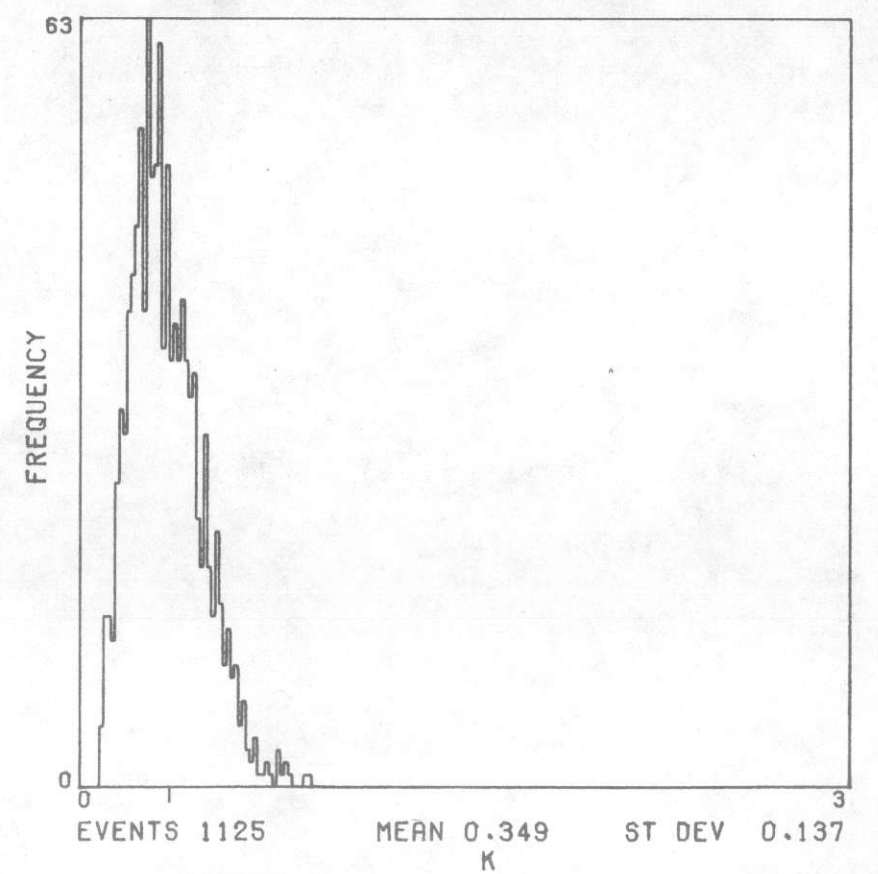
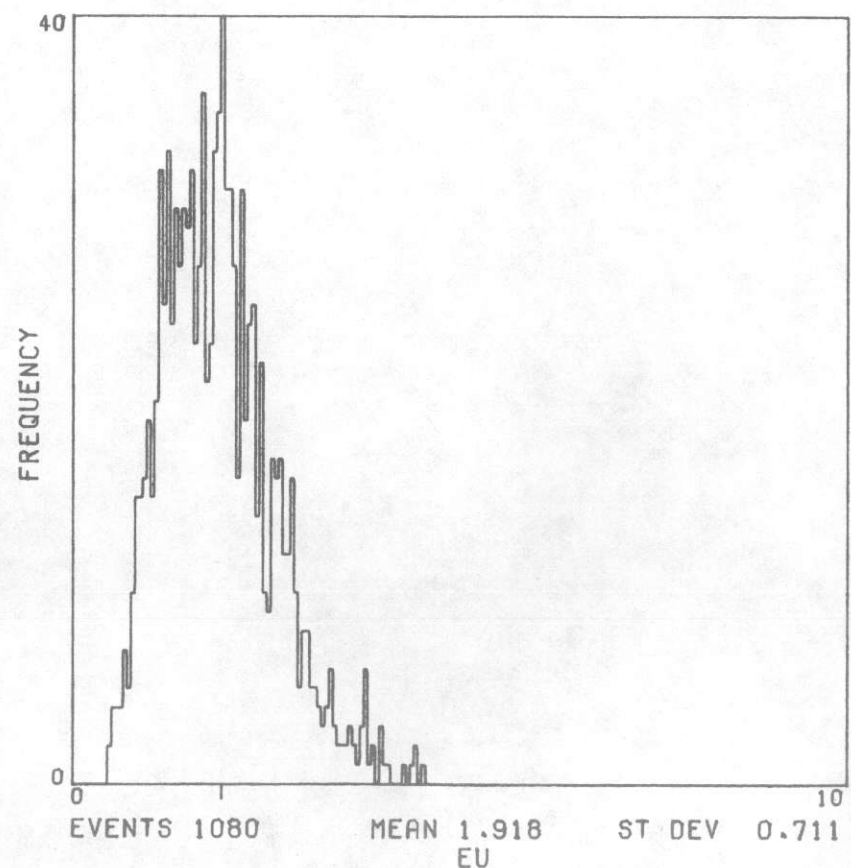
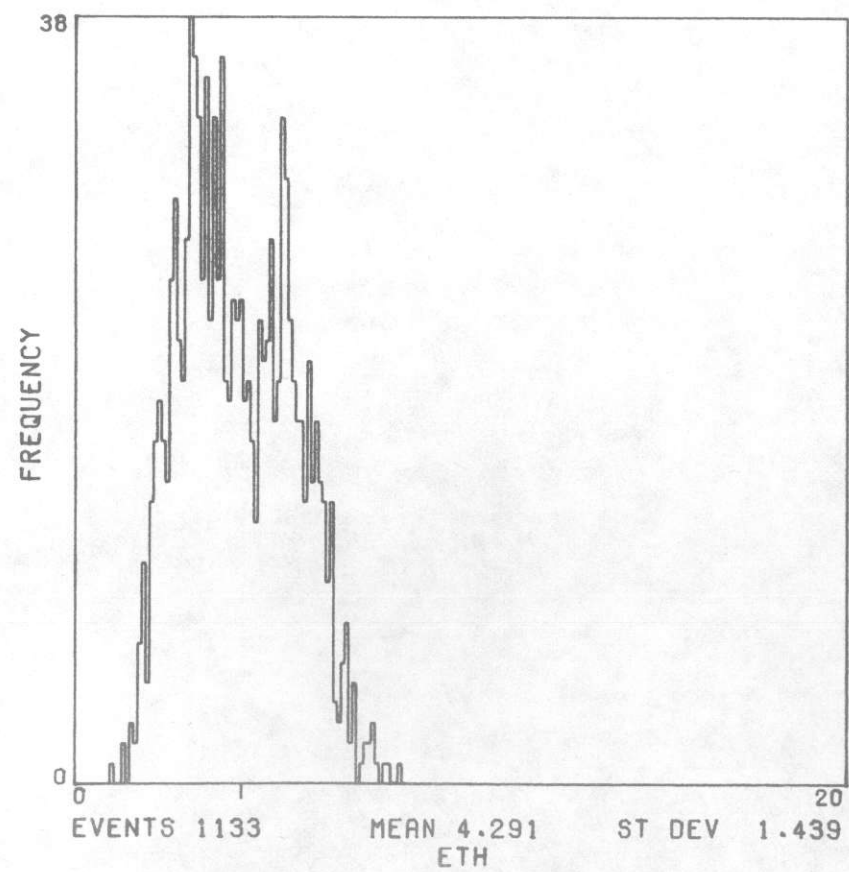
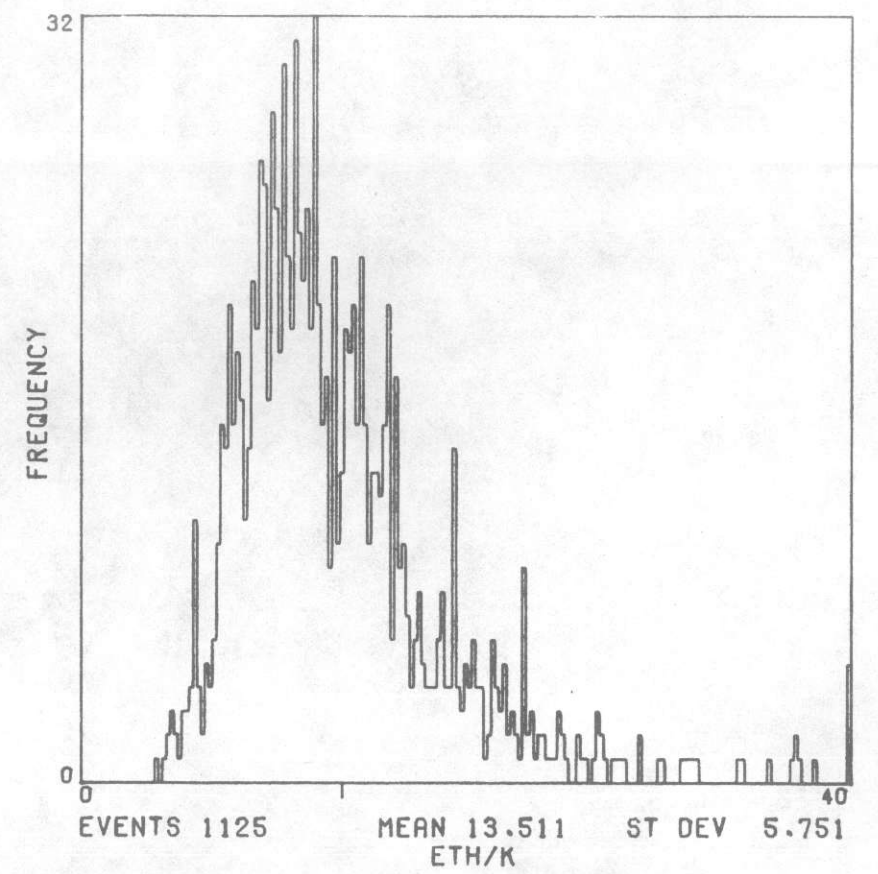
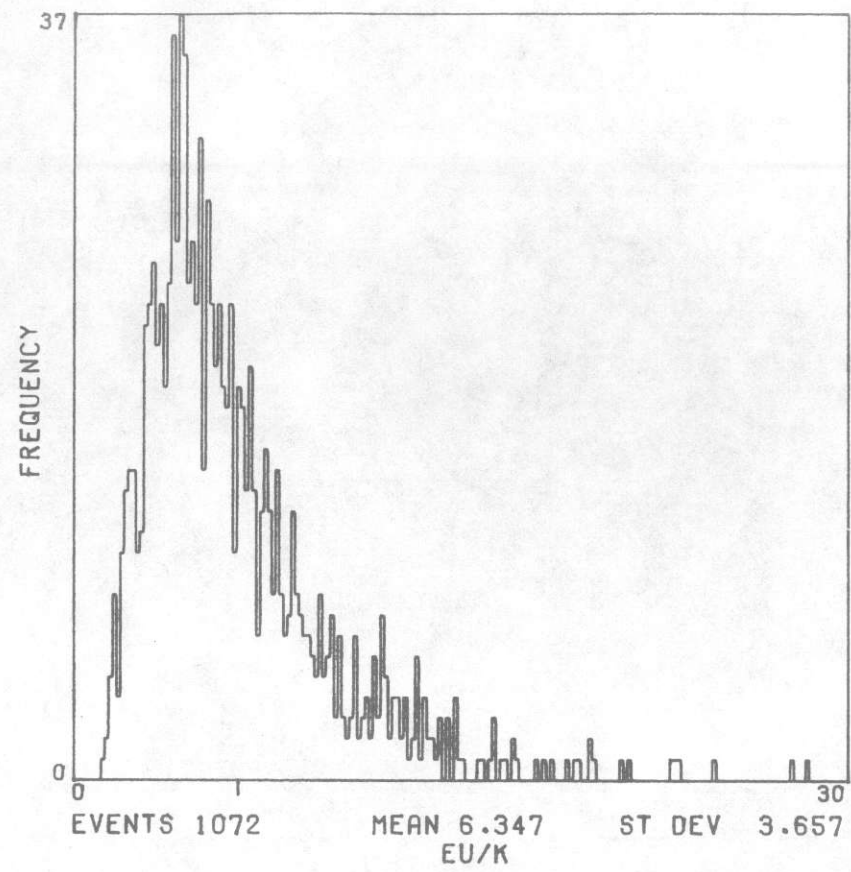
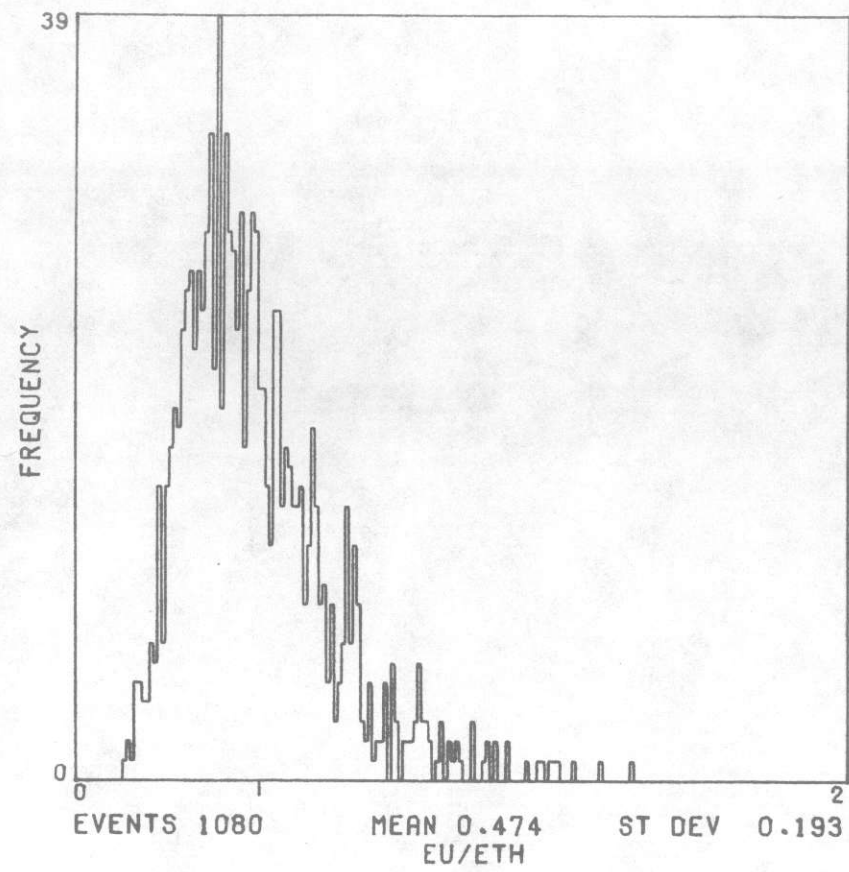
UNIT KG



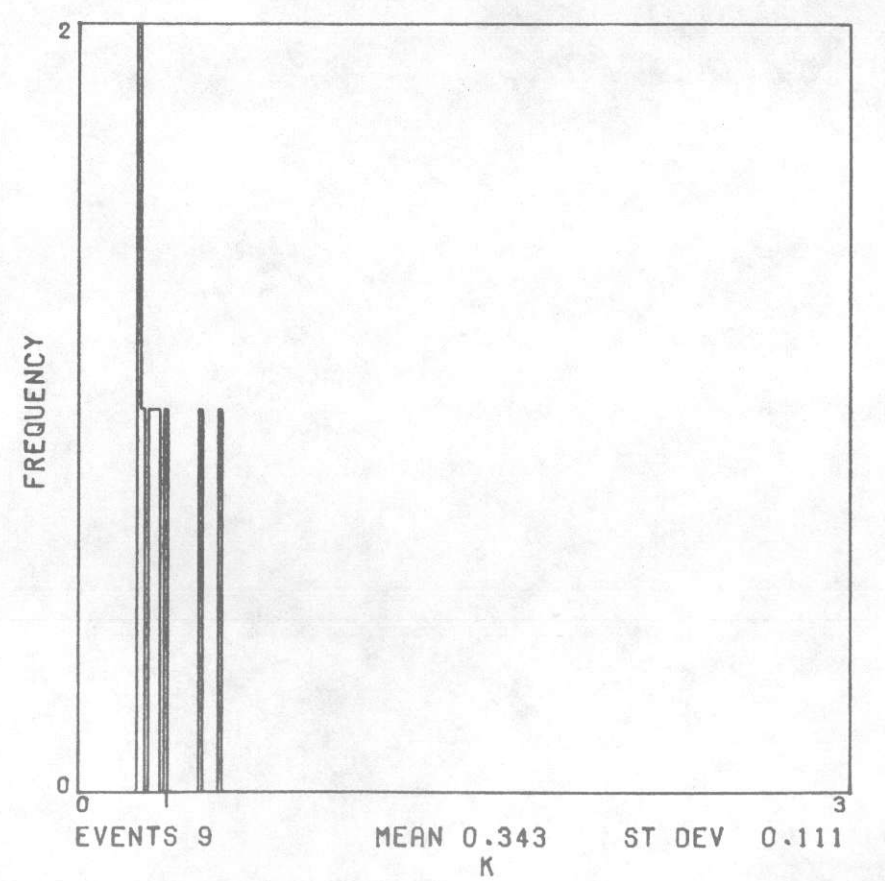
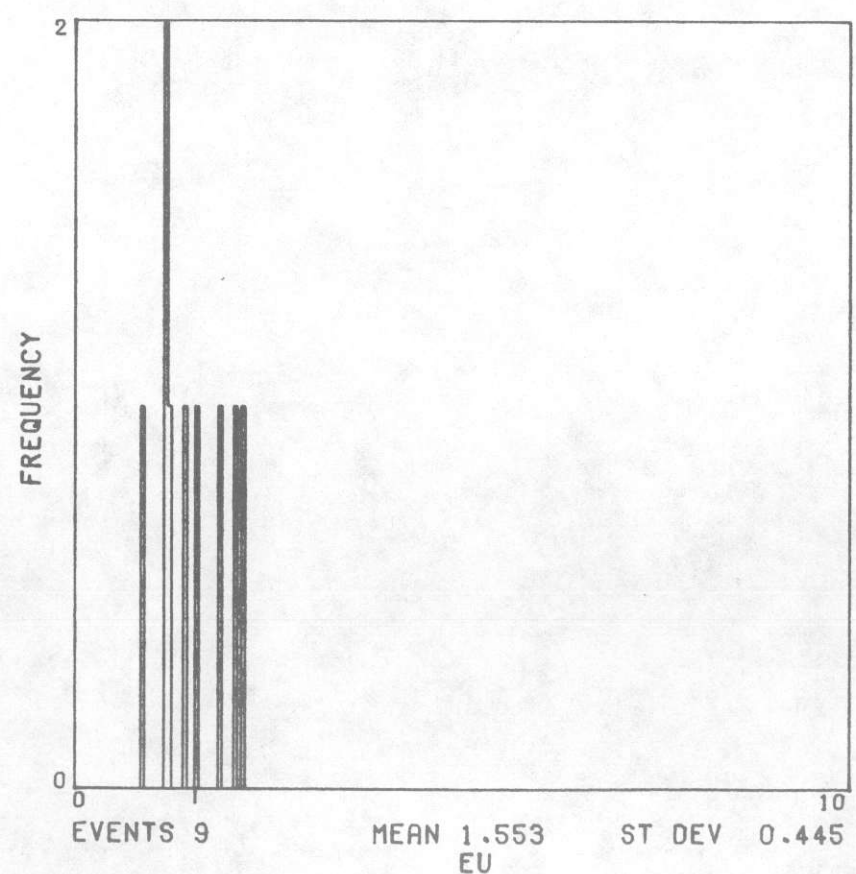
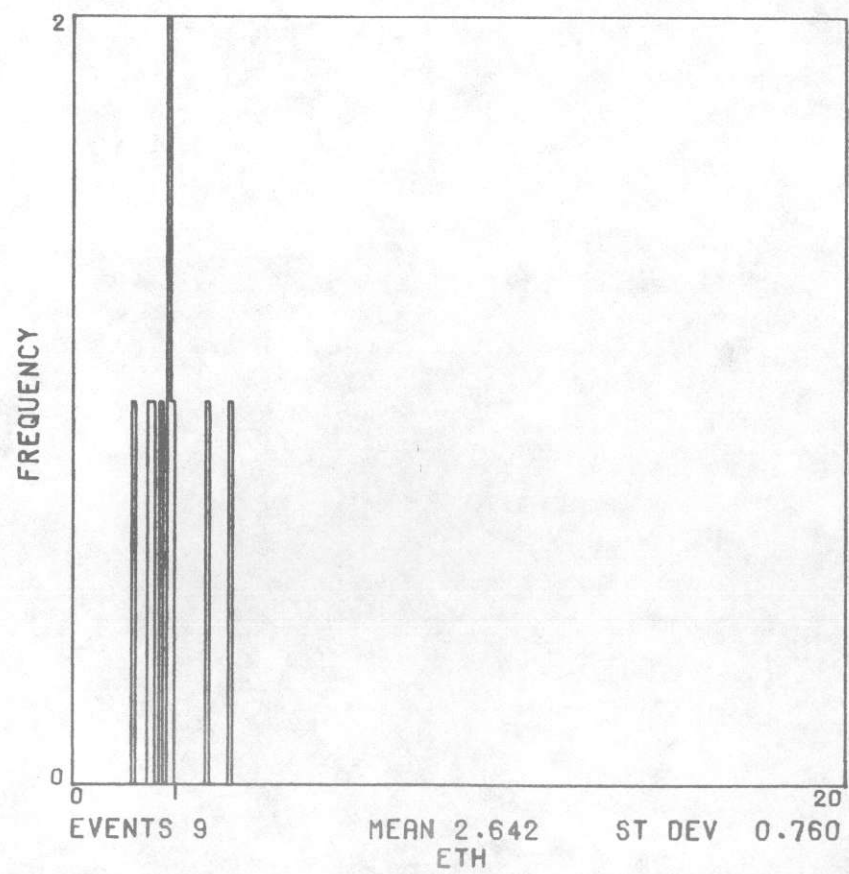
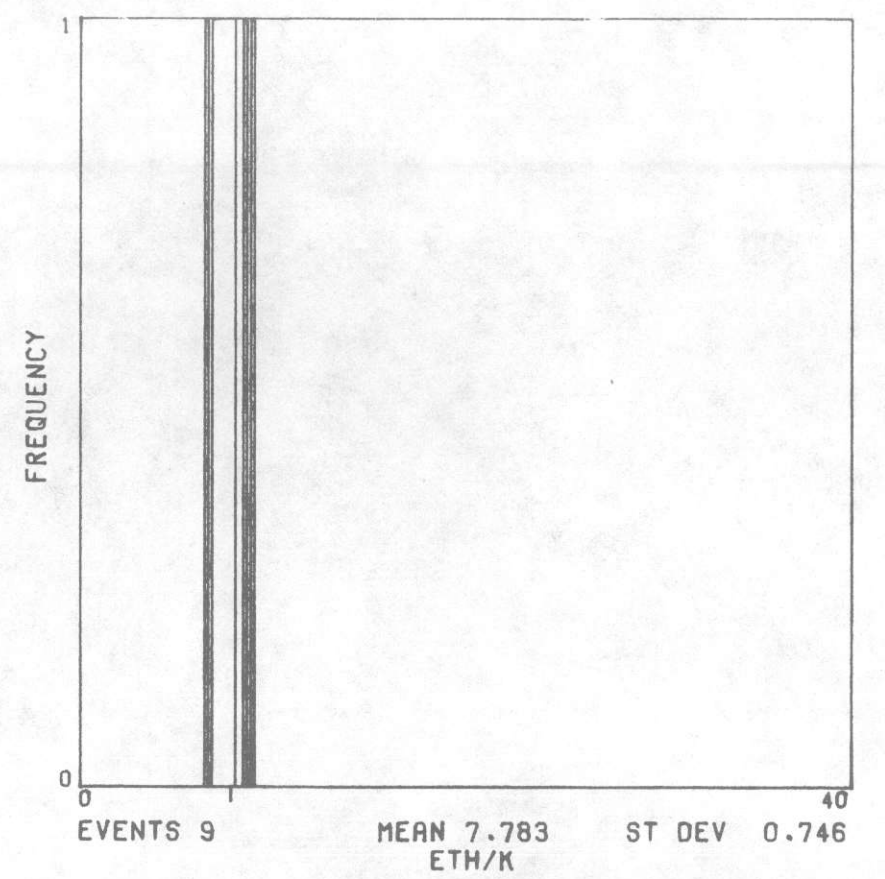
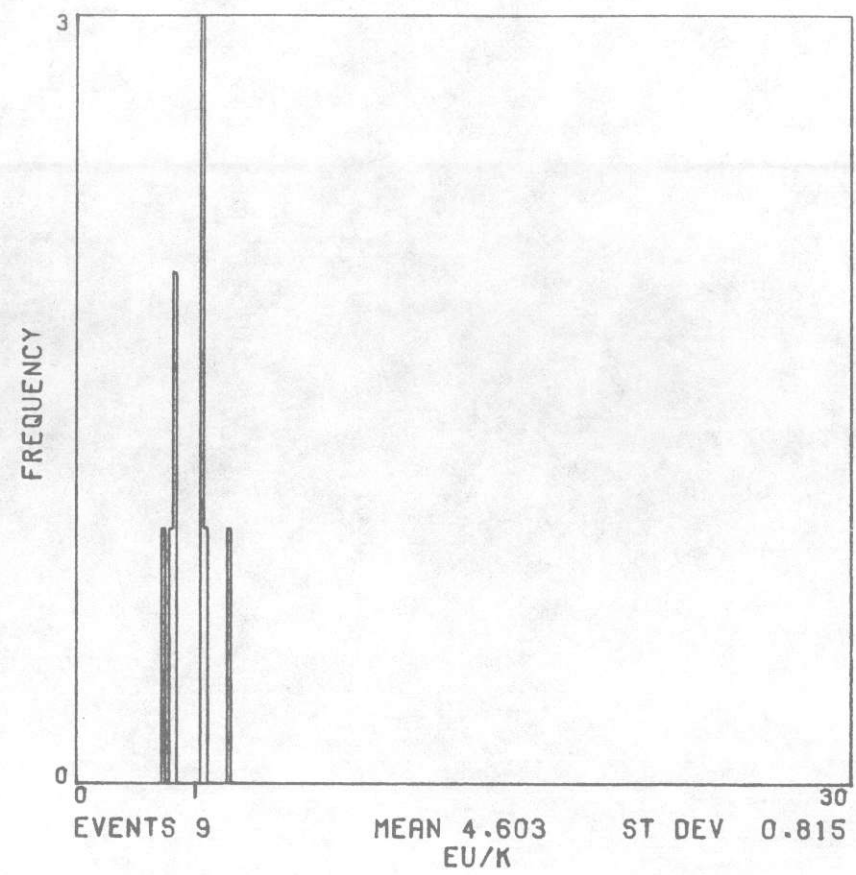
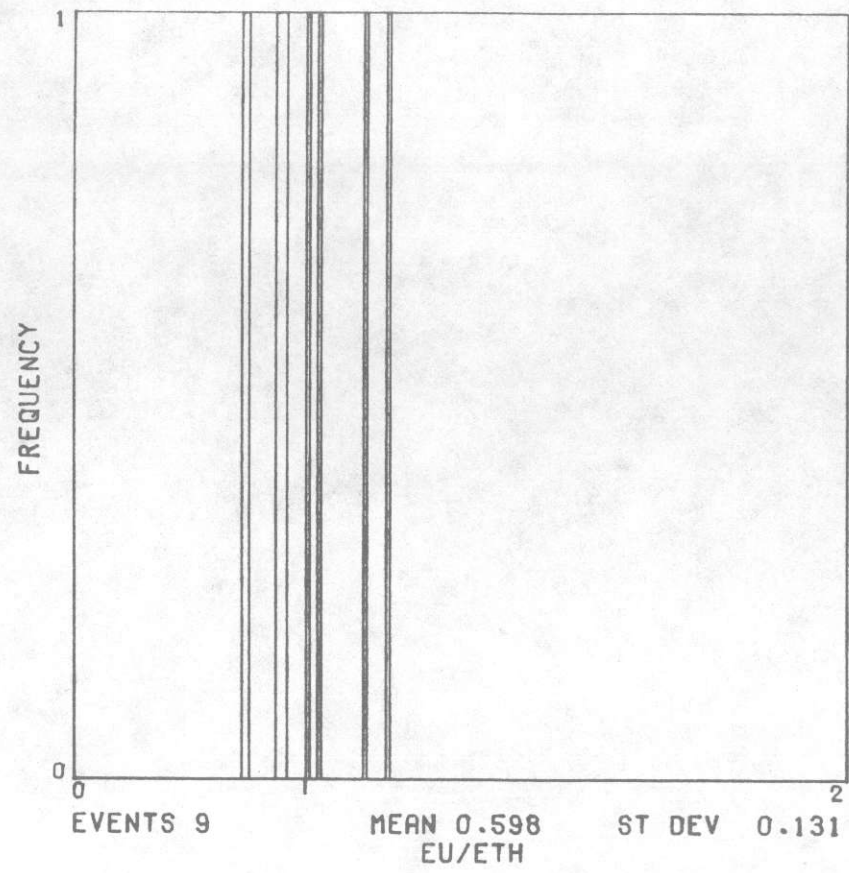
UNIT KM



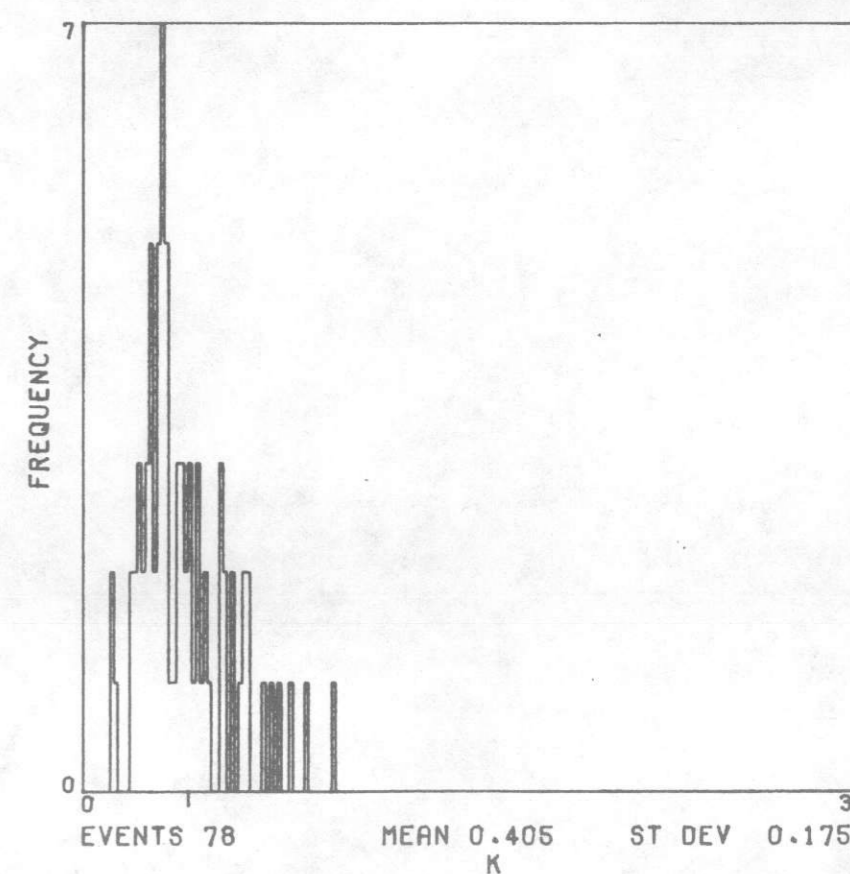
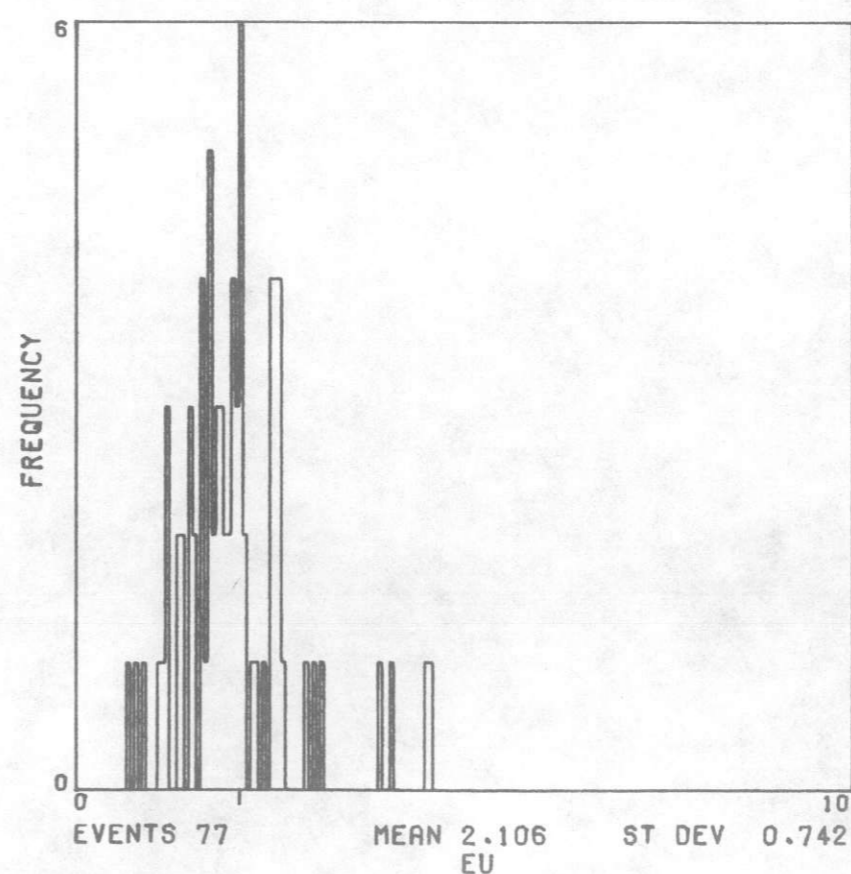
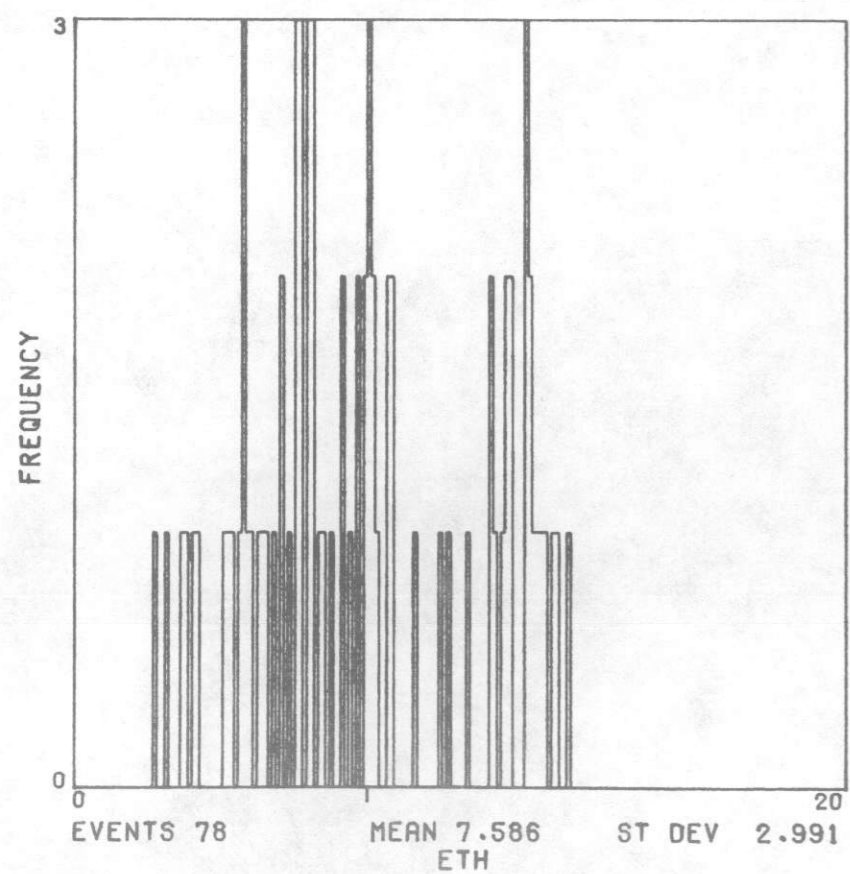
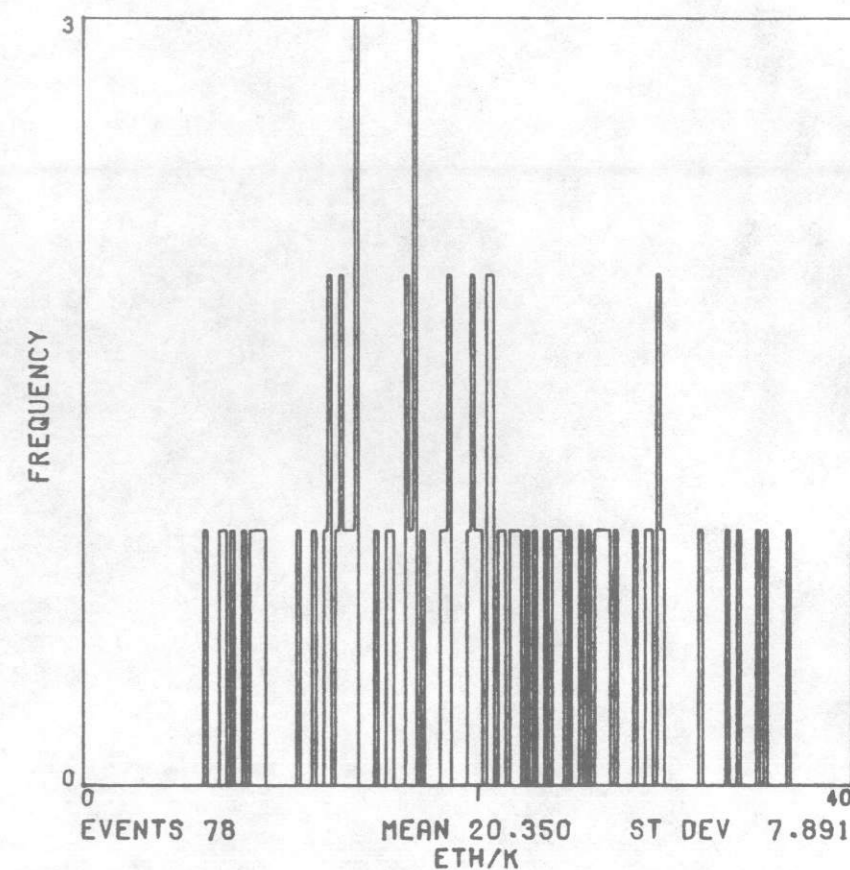
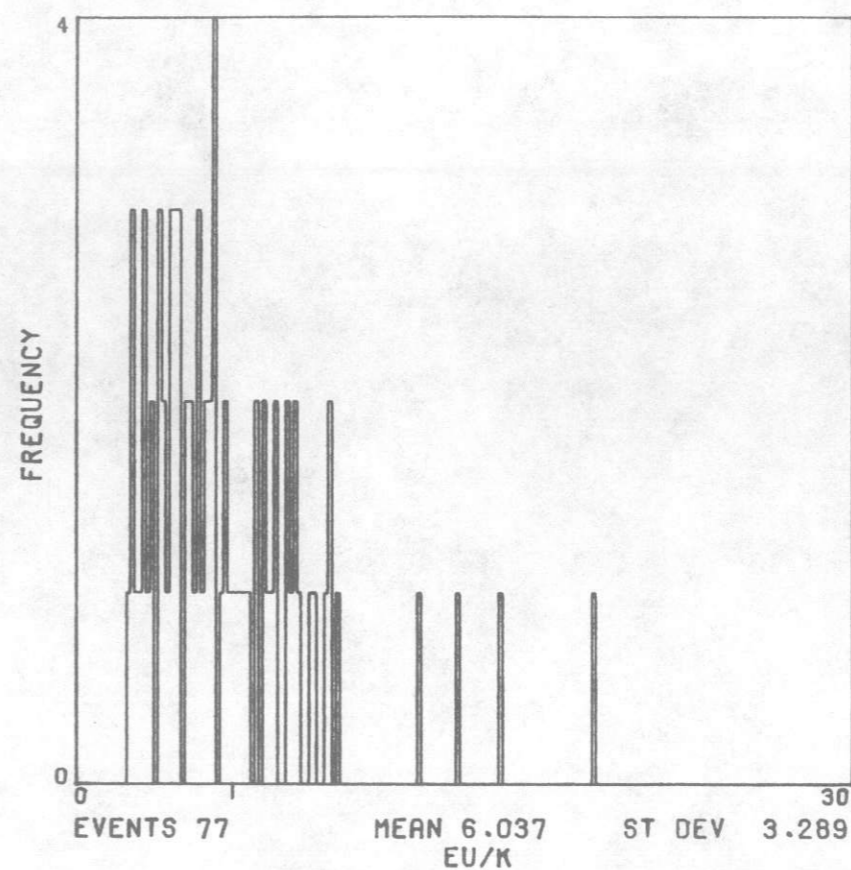
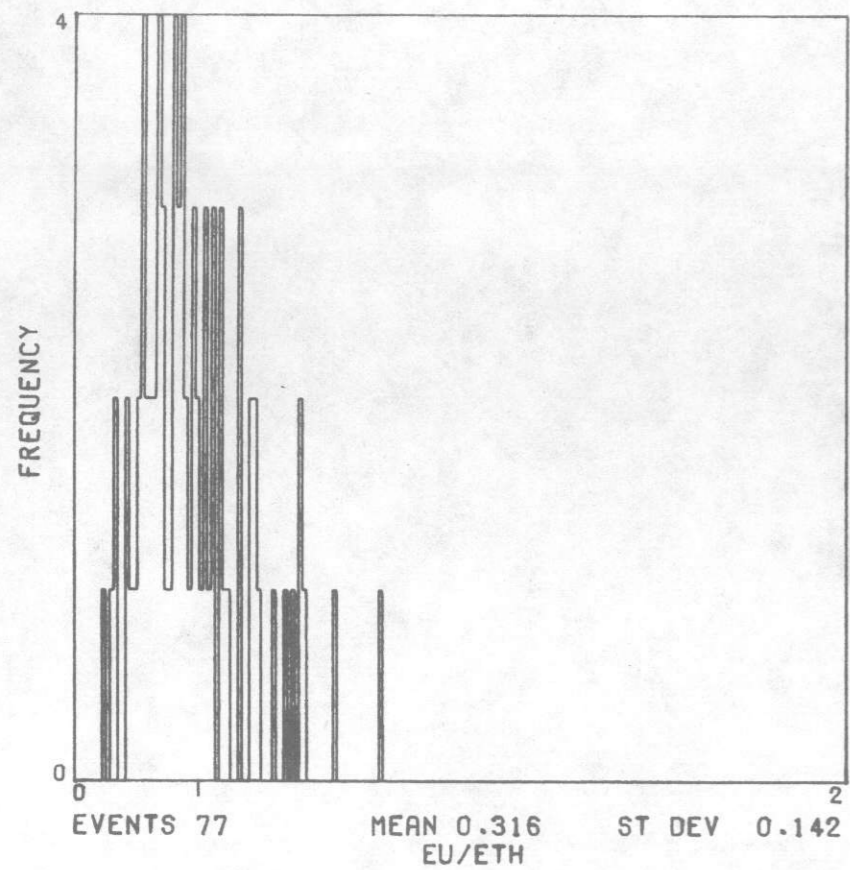




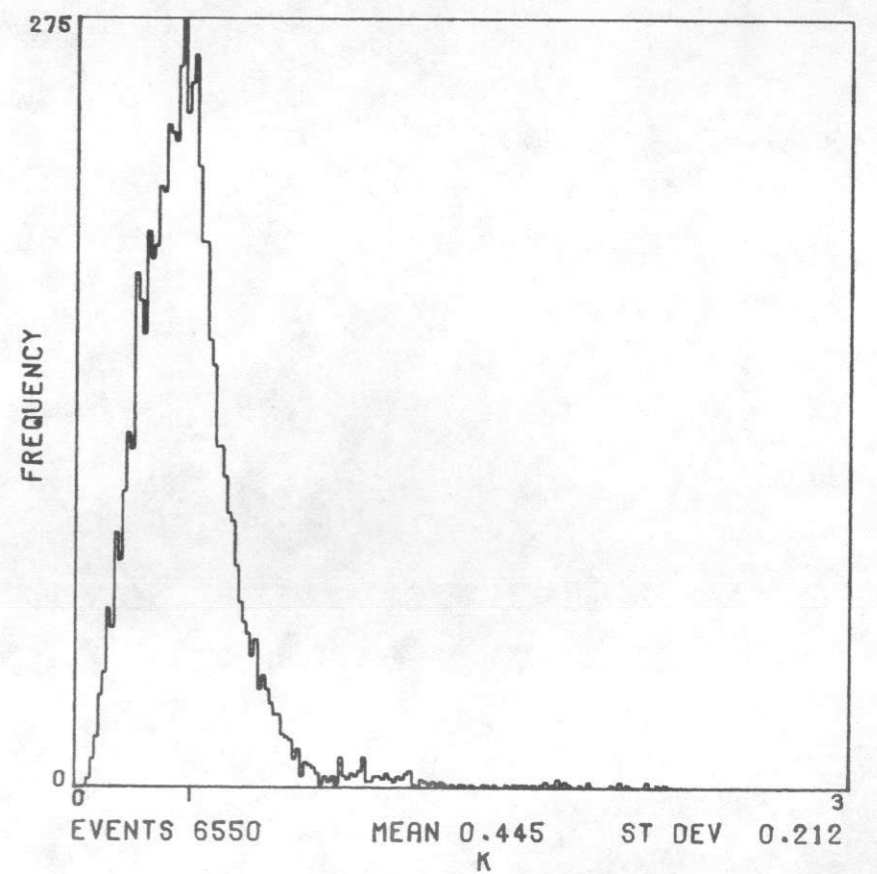
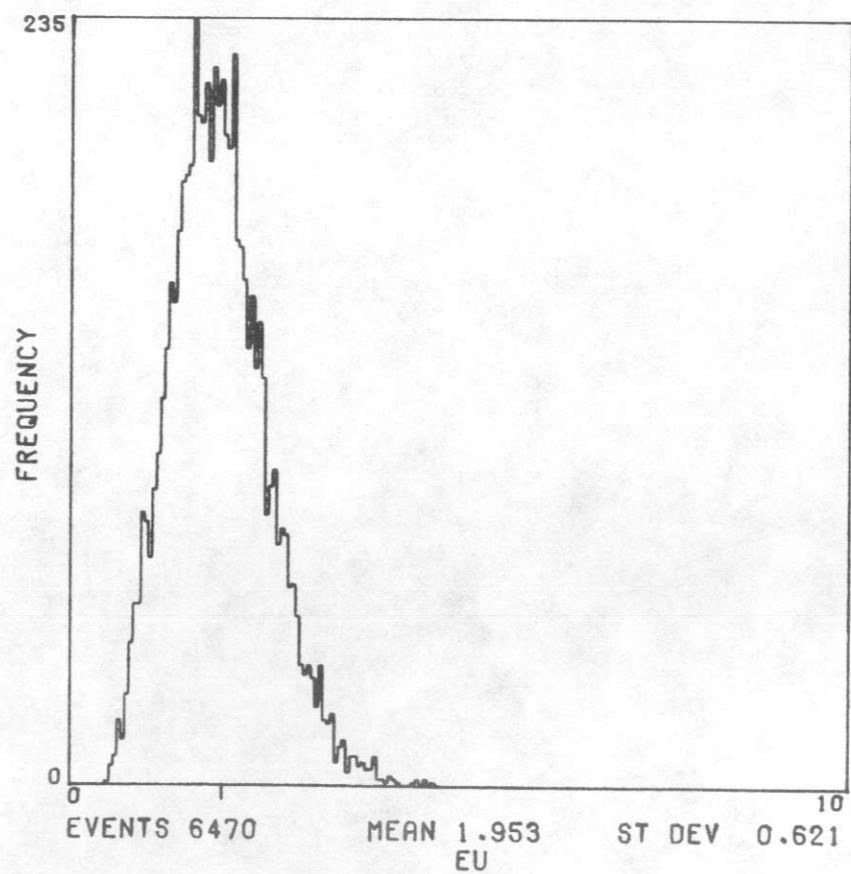
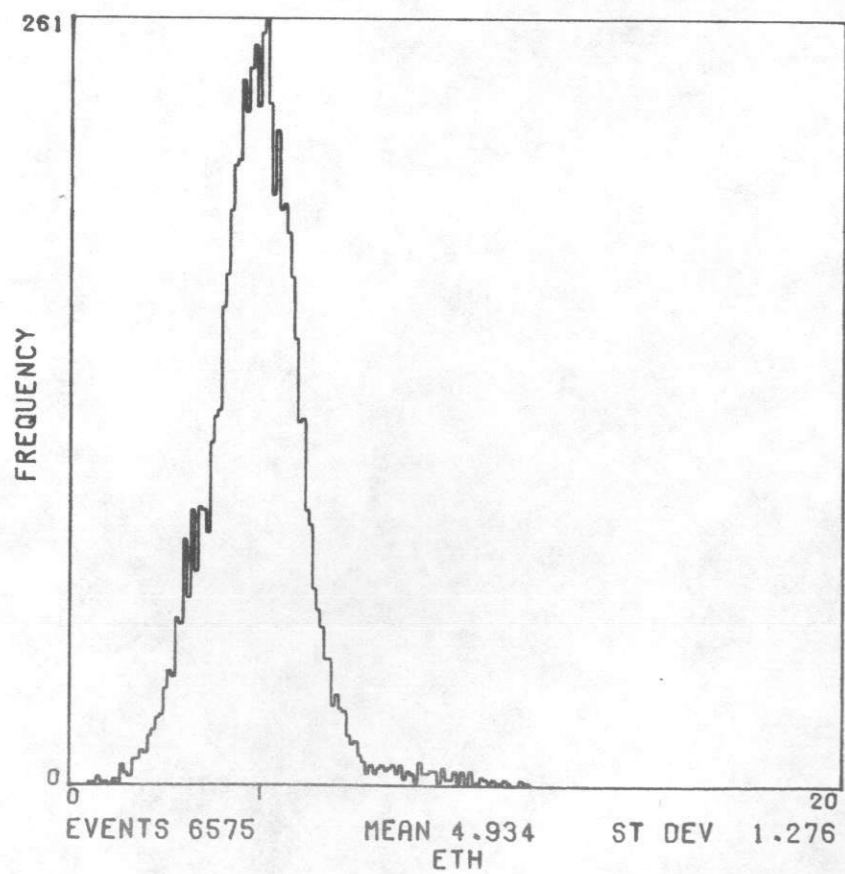
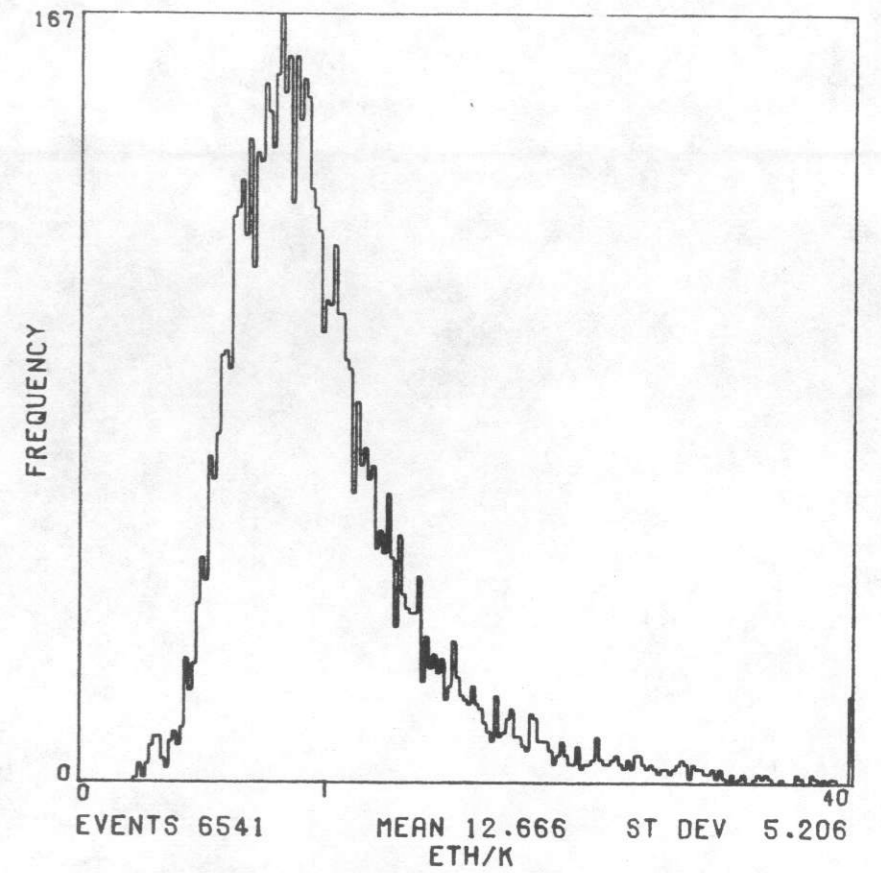
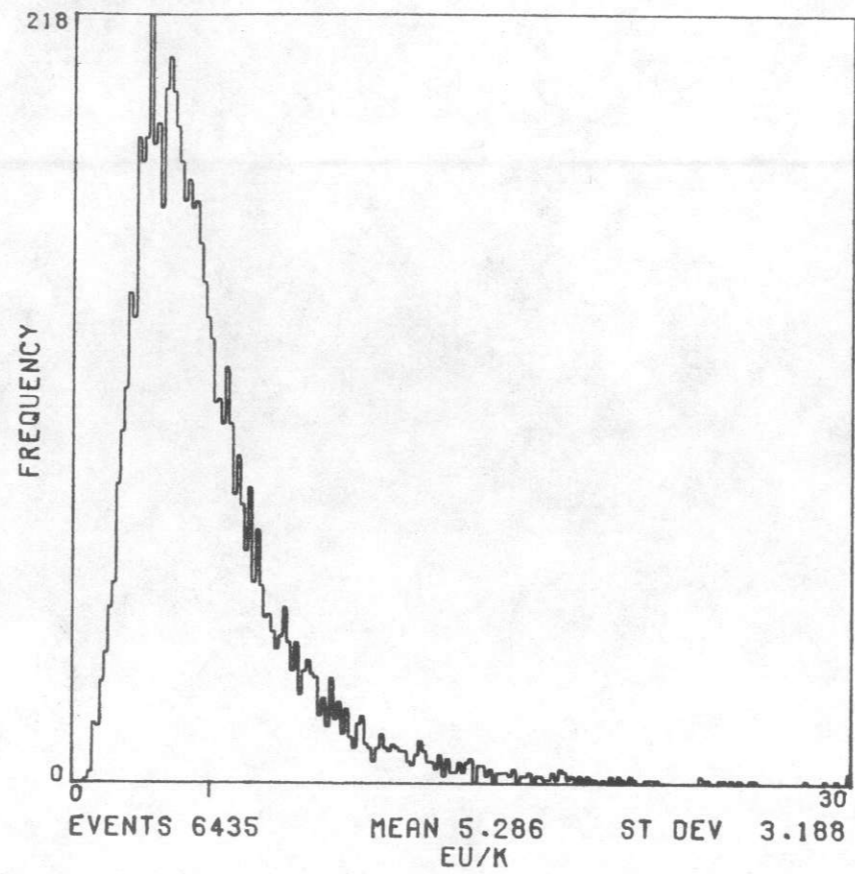
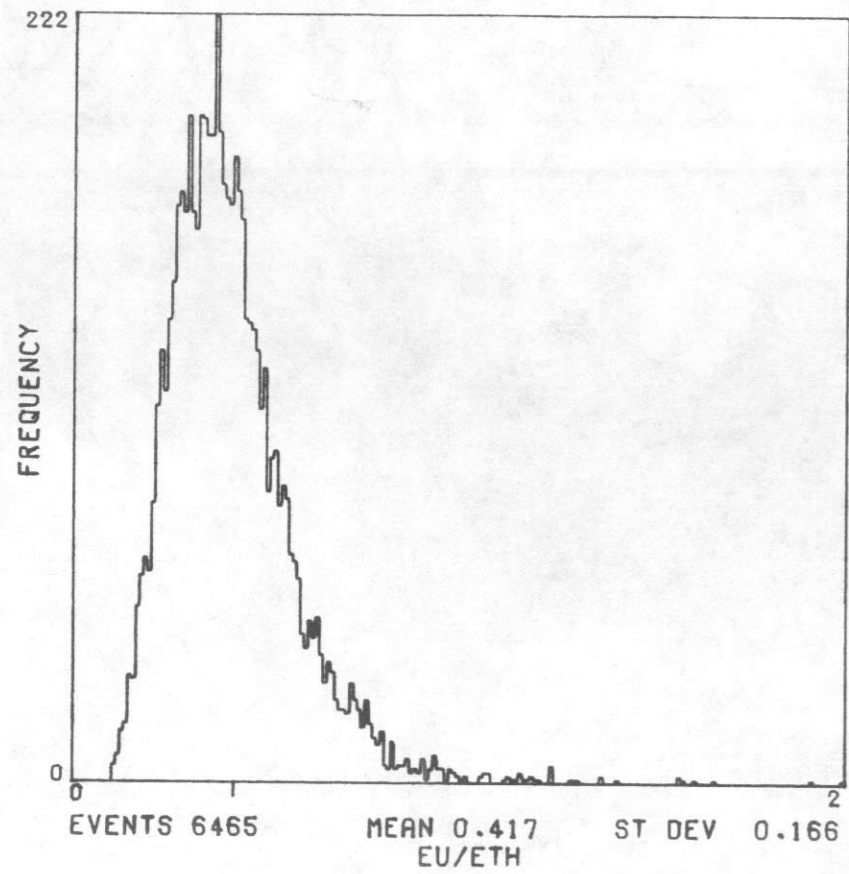
UNIT MB



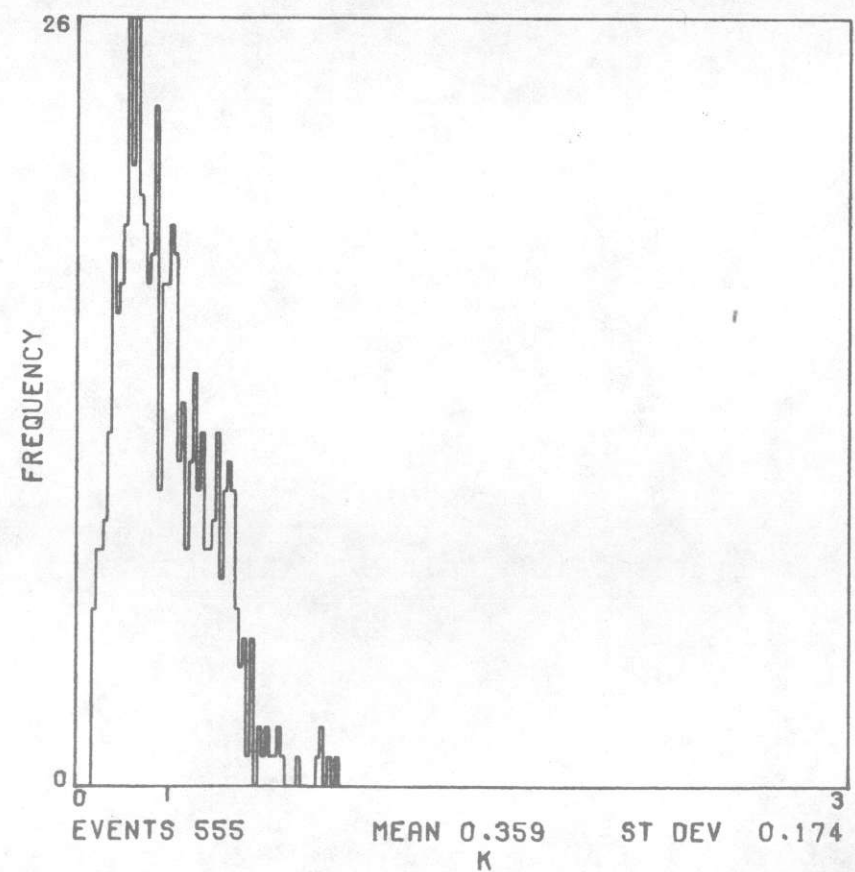
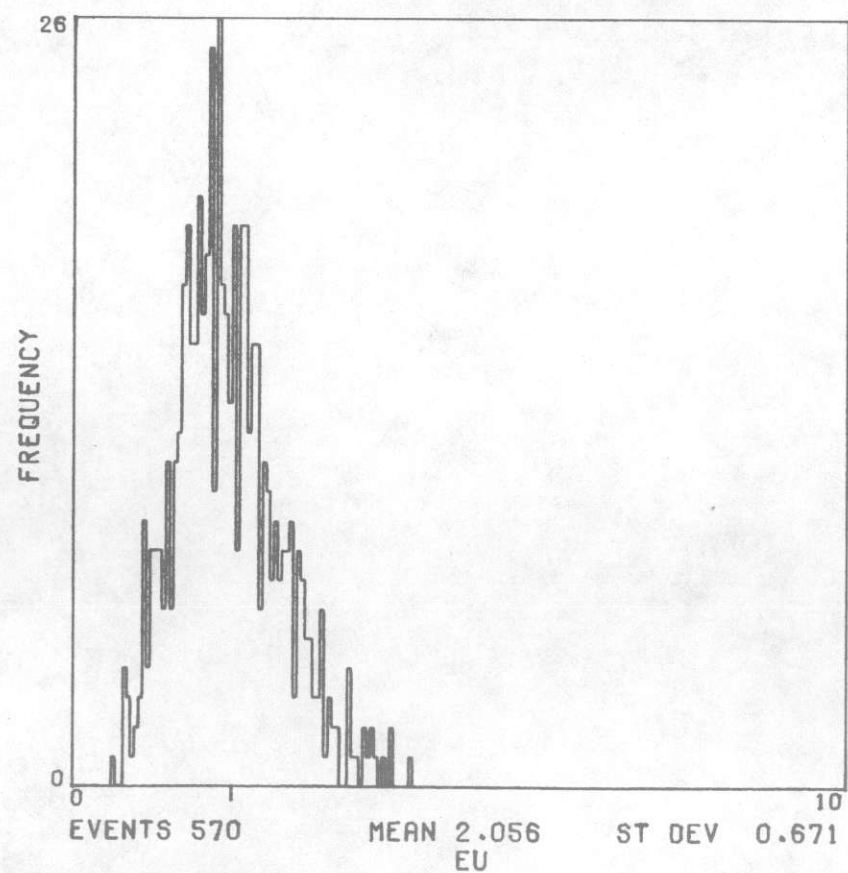
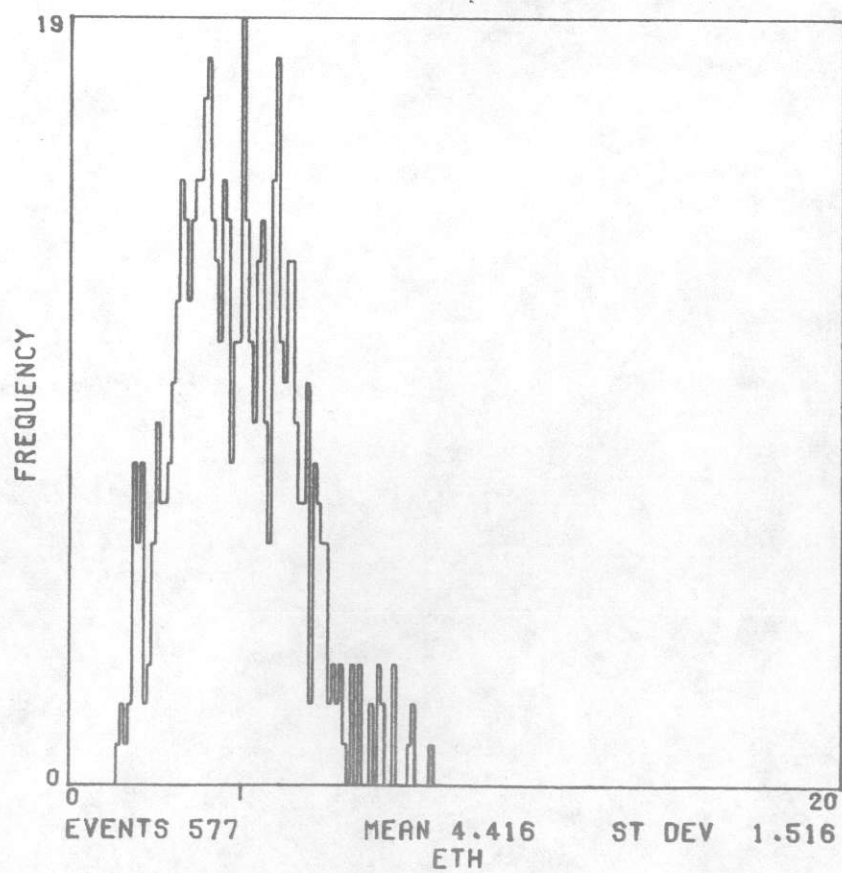
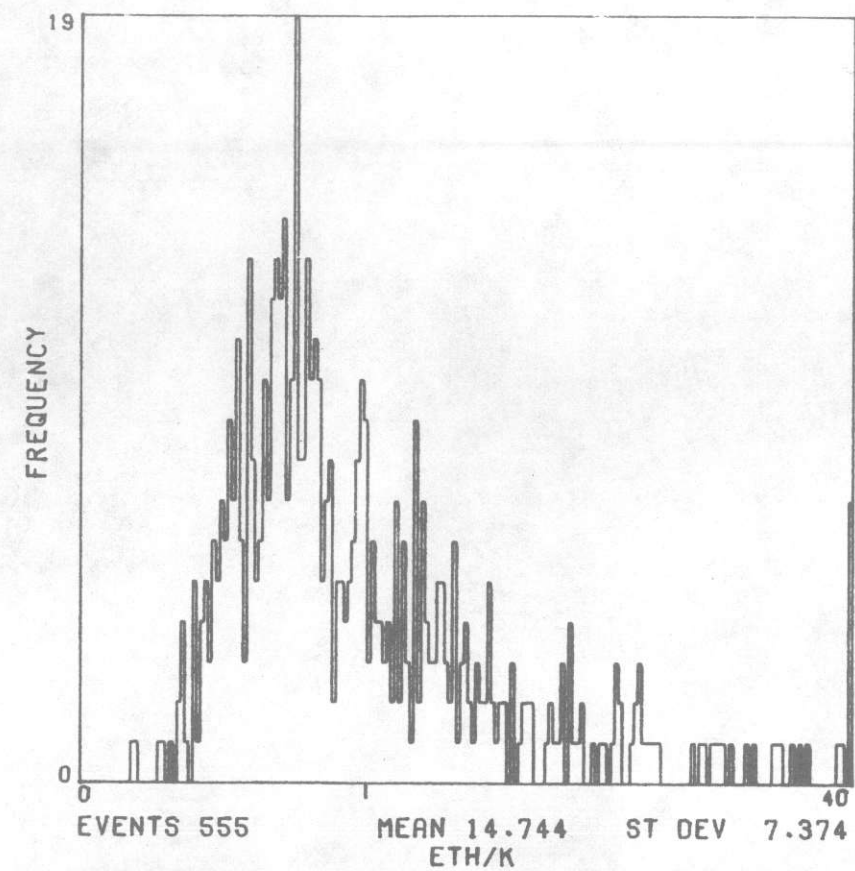
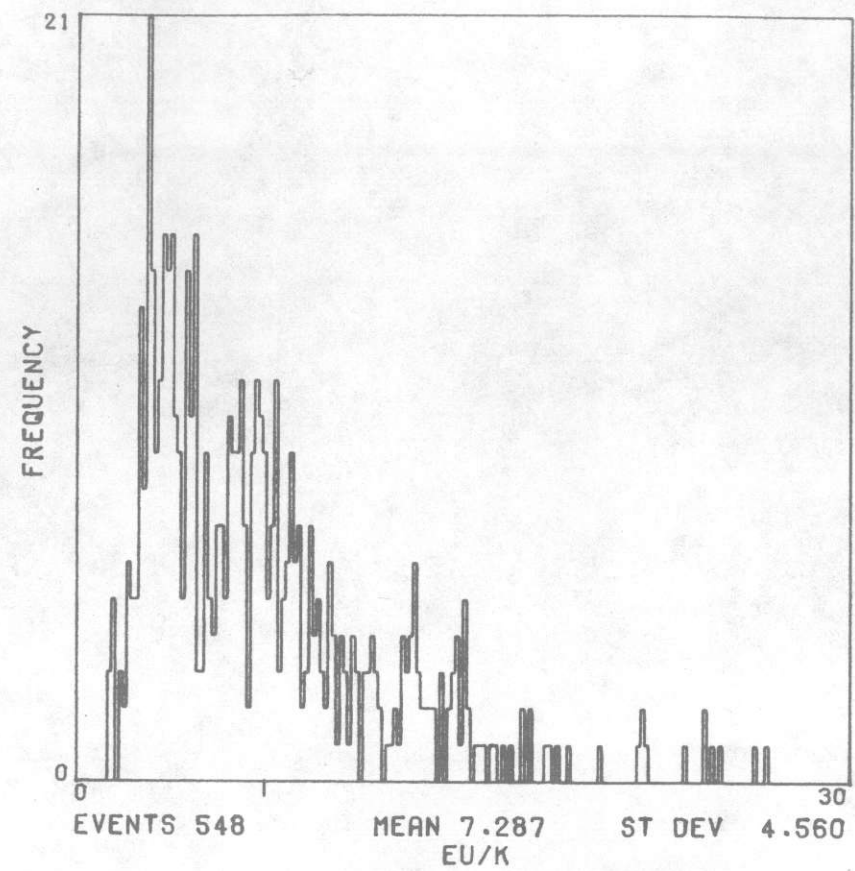
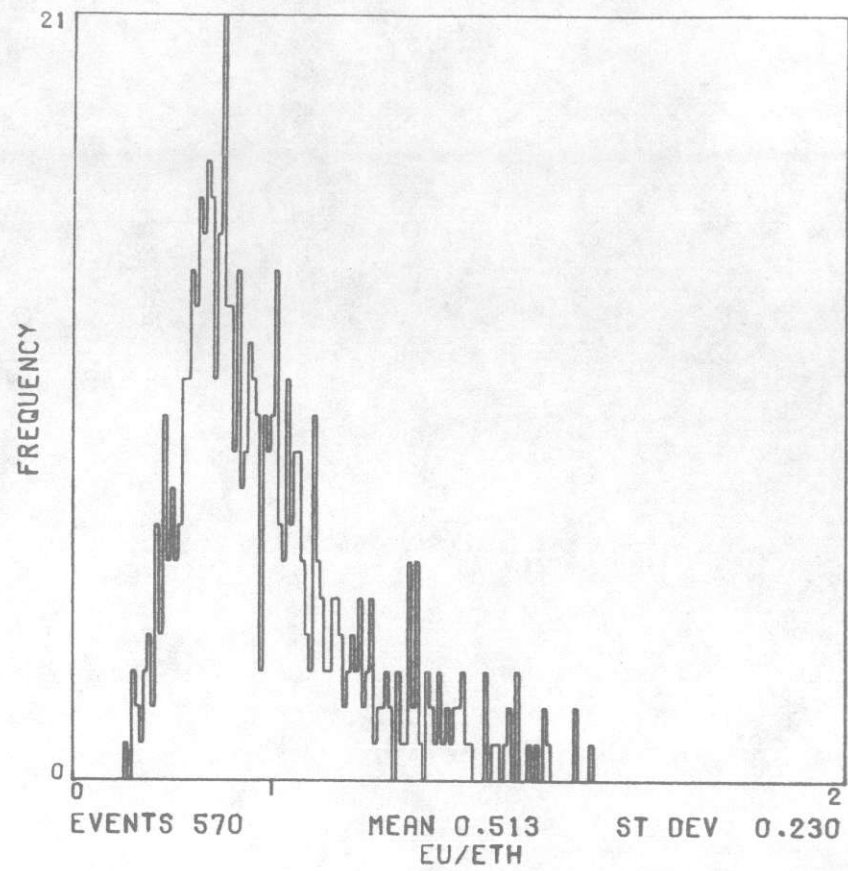
UNIT MC

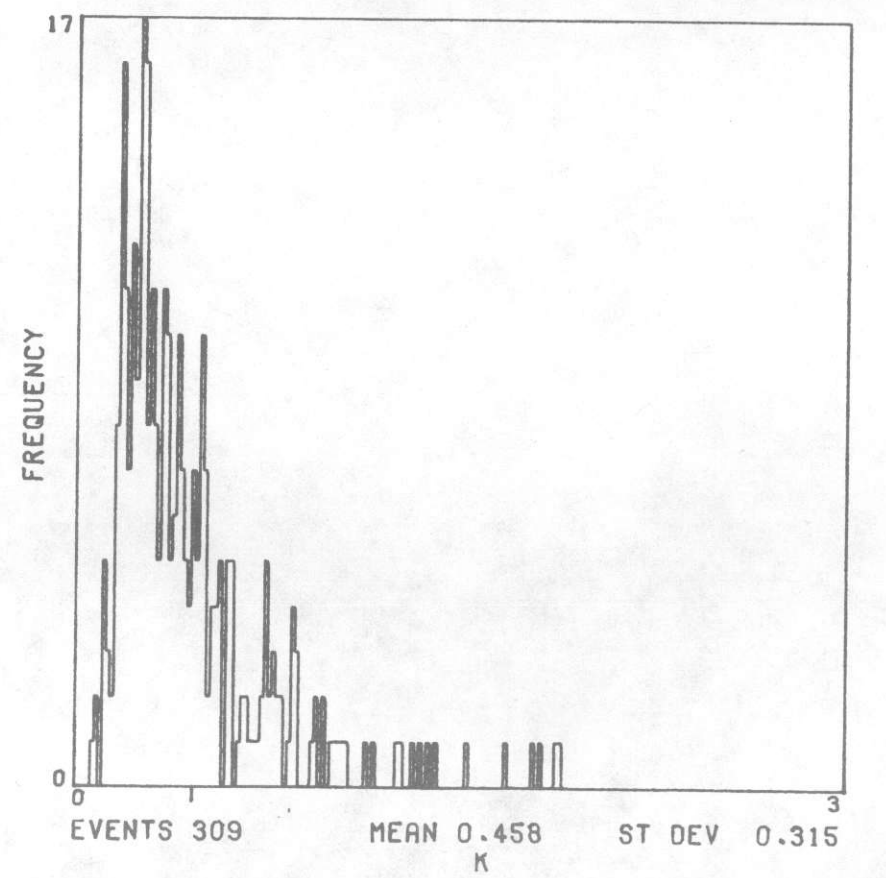
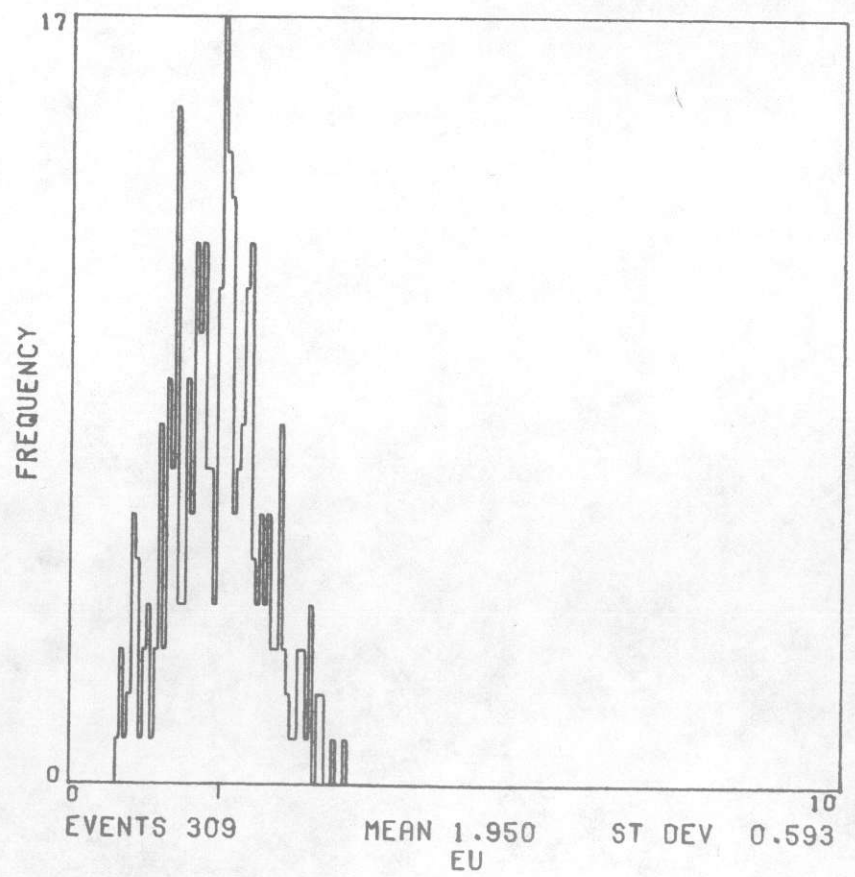
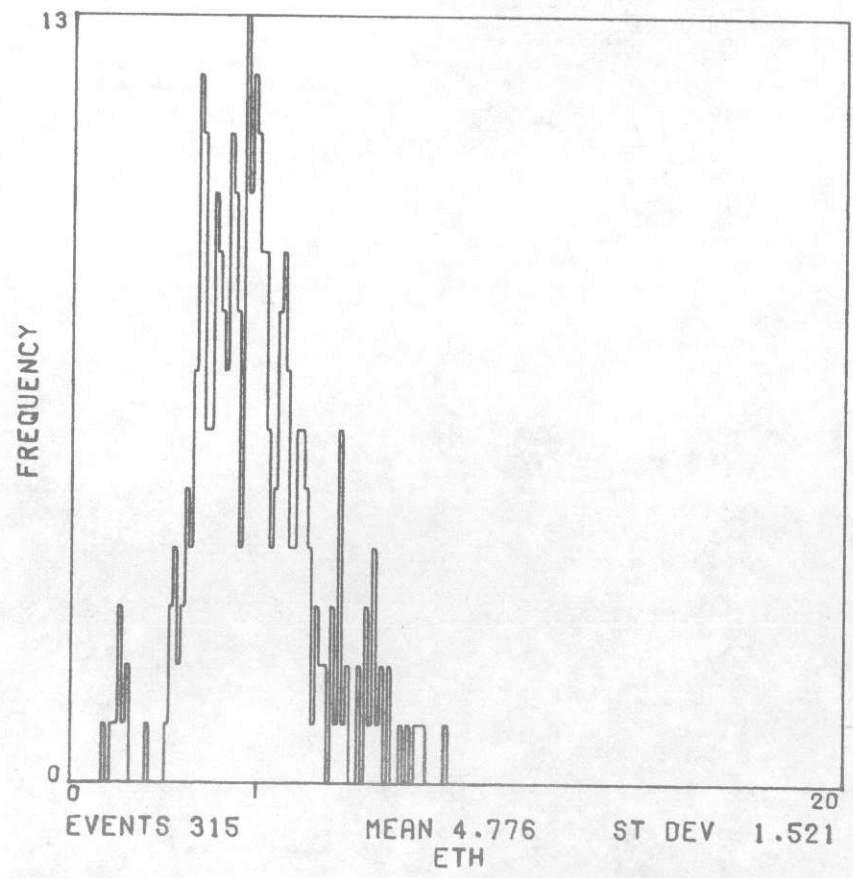
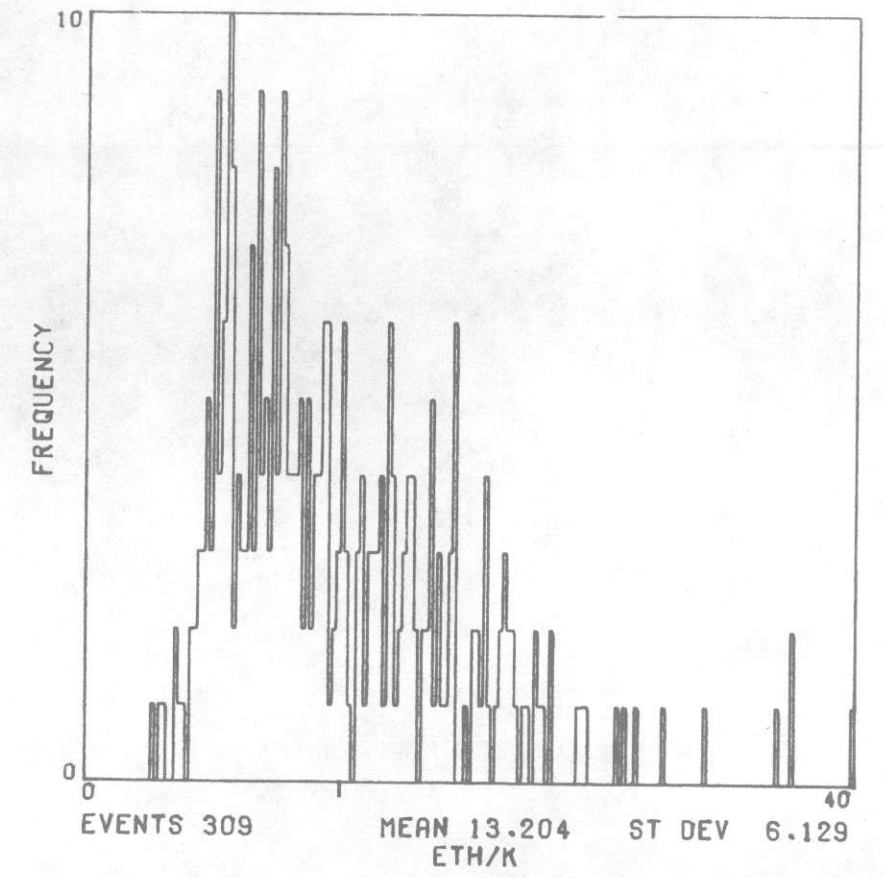
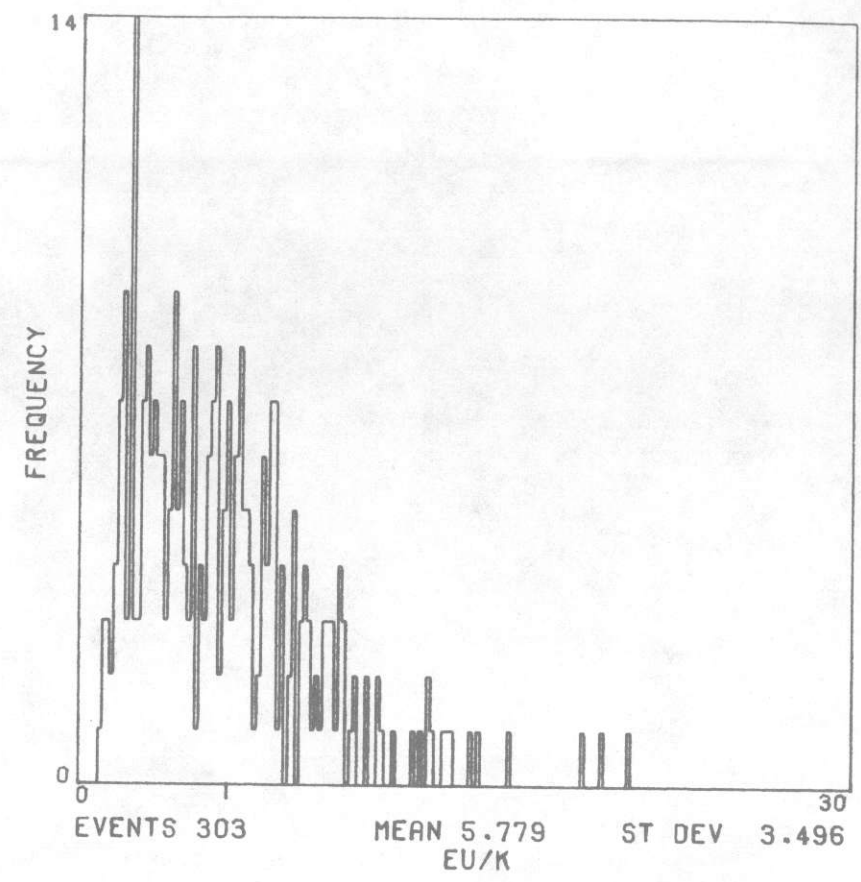
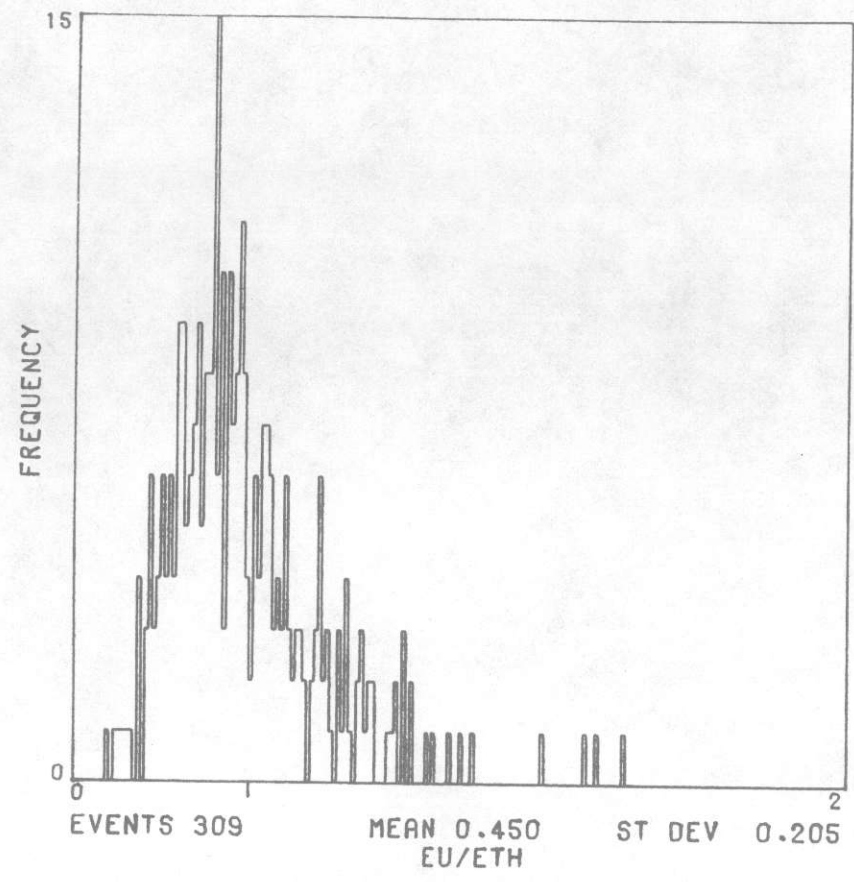


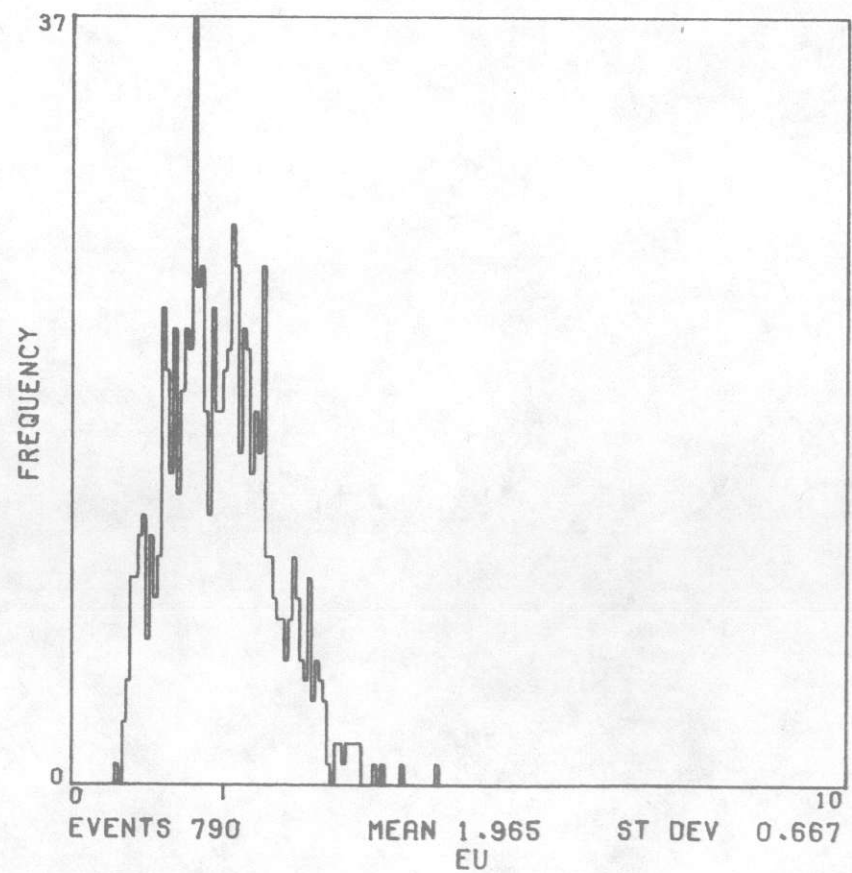
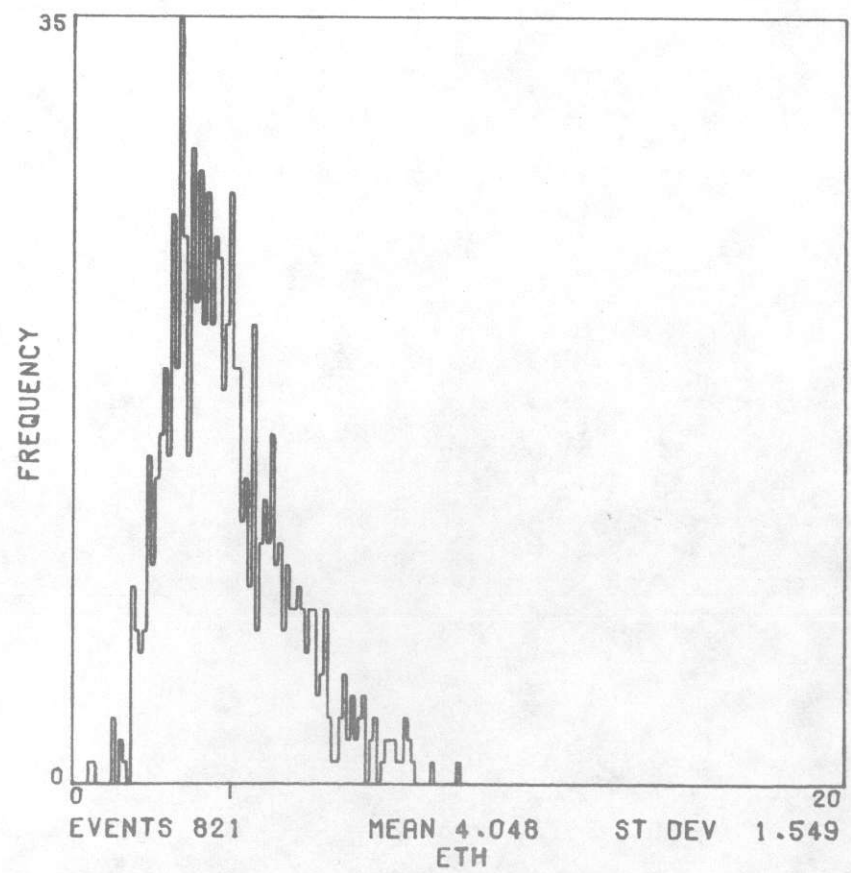
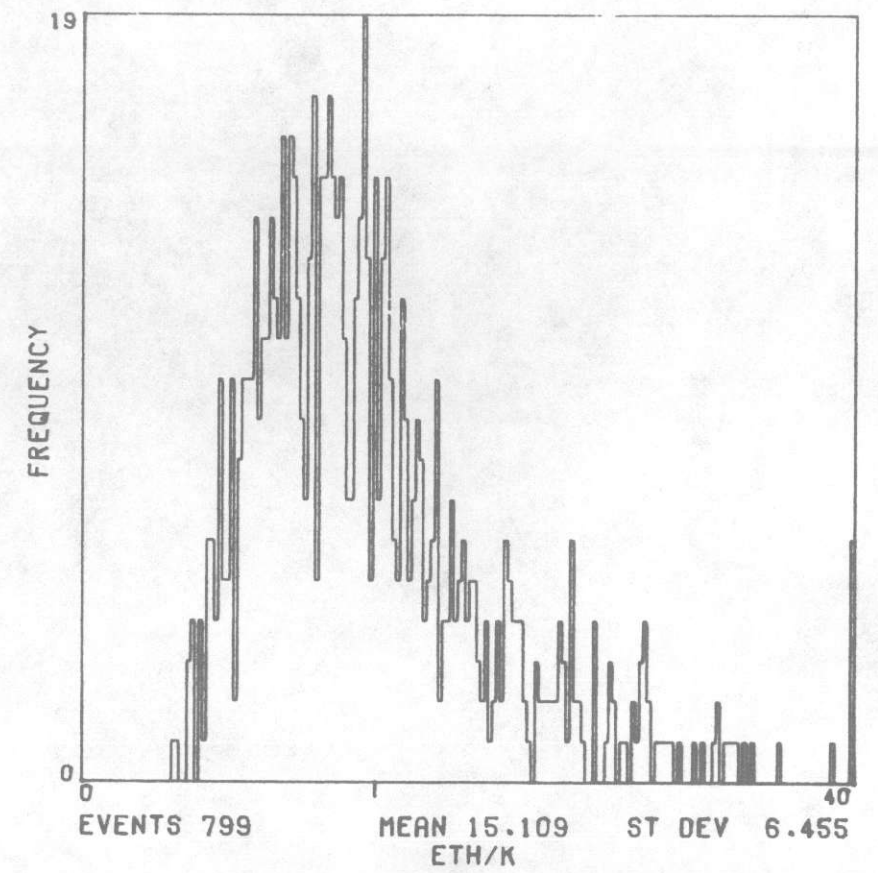
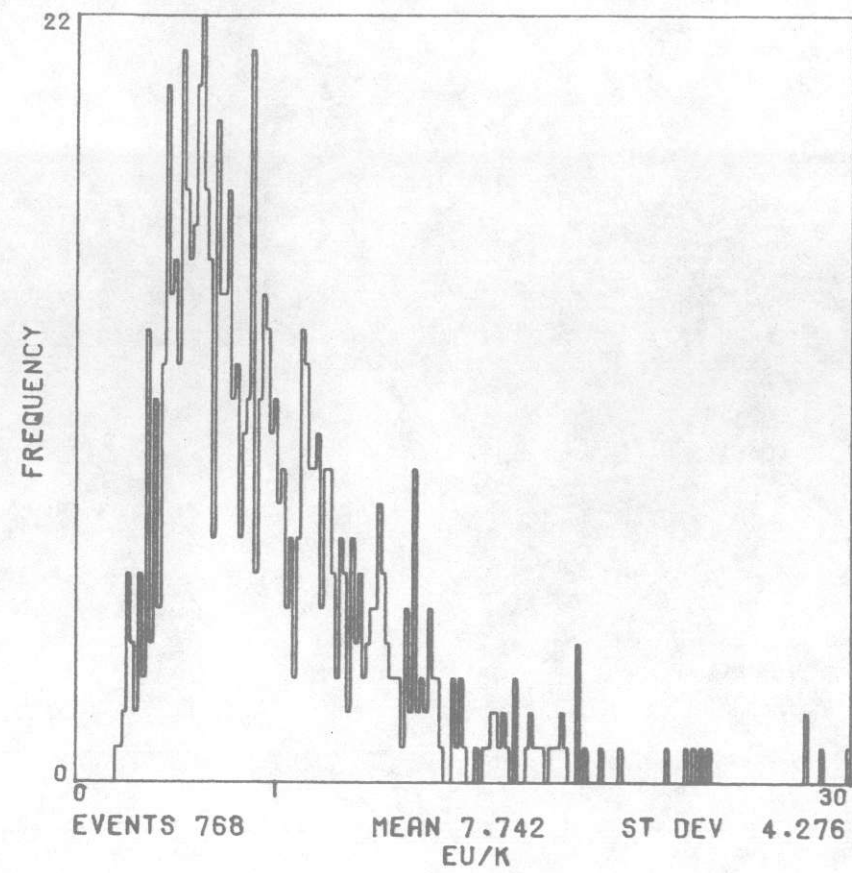
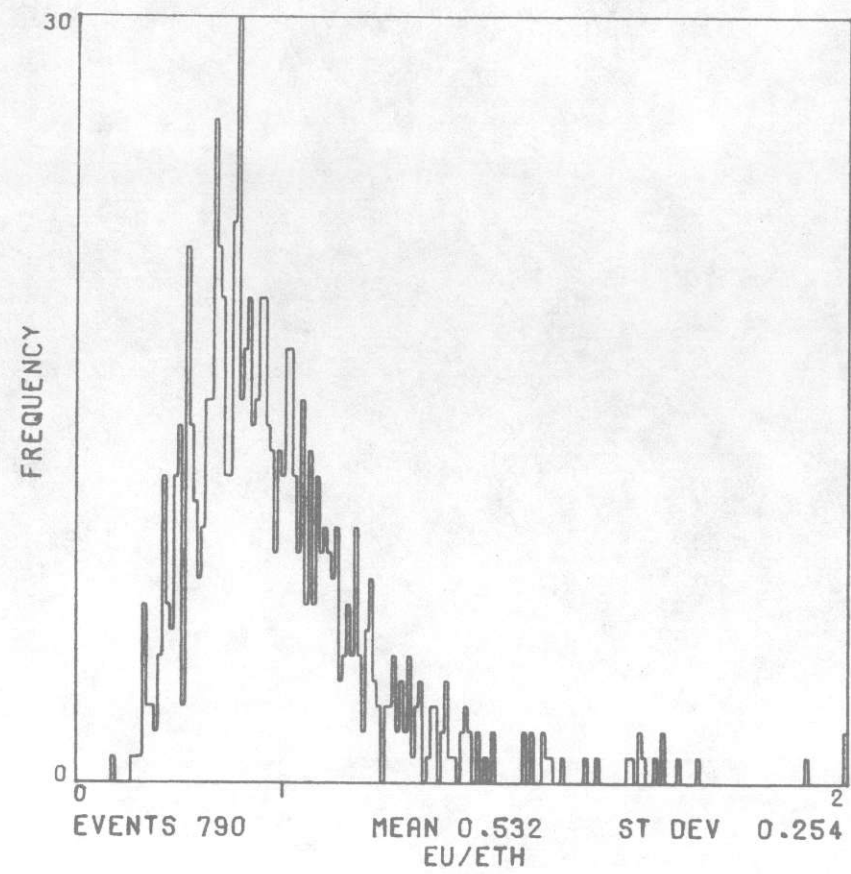
UNIT MDA



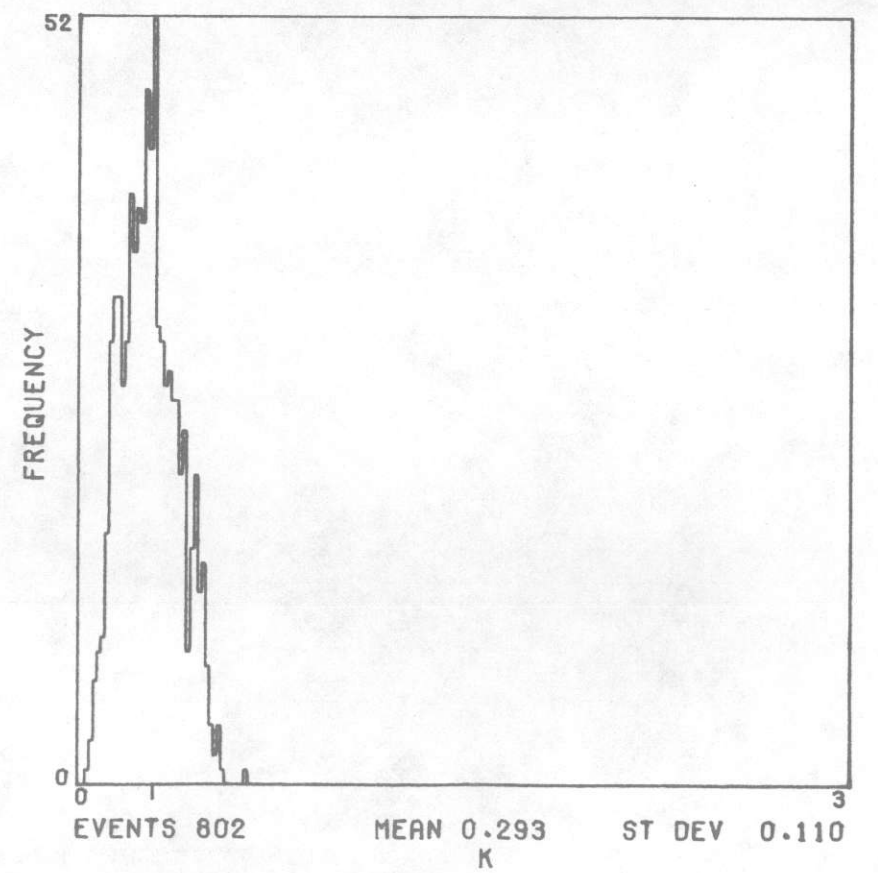
UNIT MF

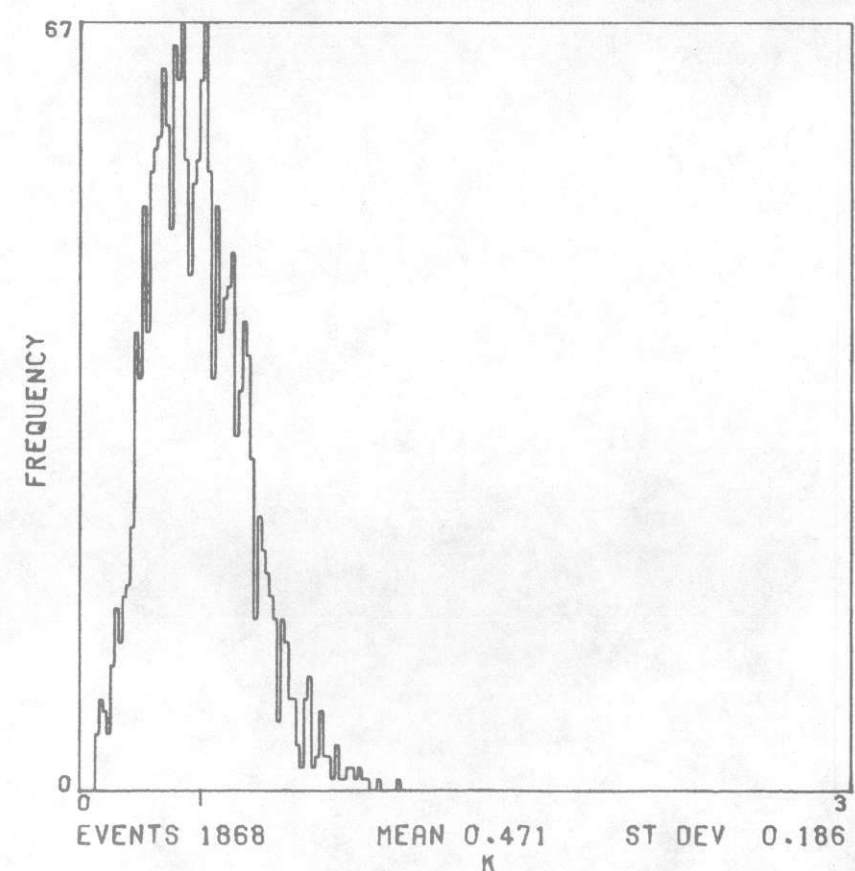
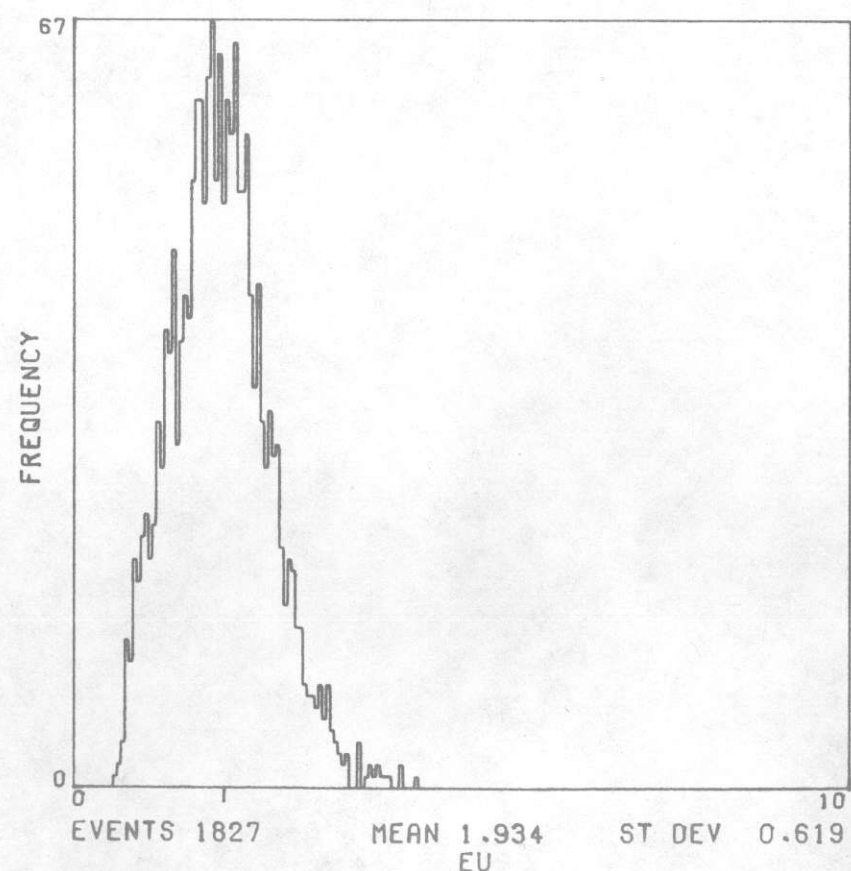
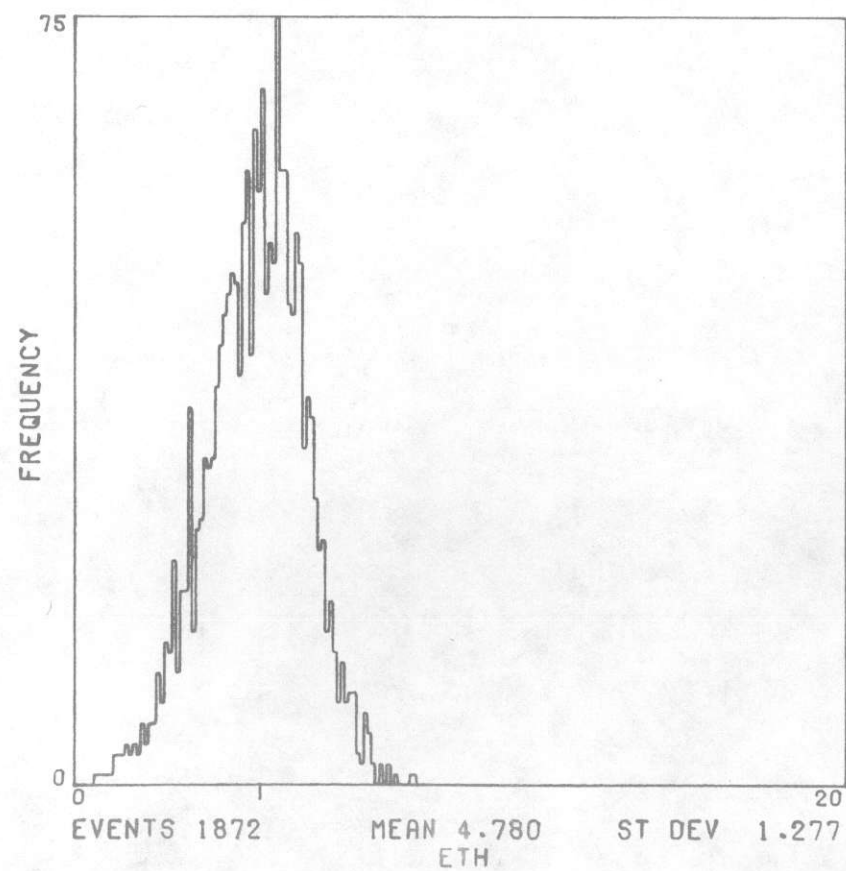
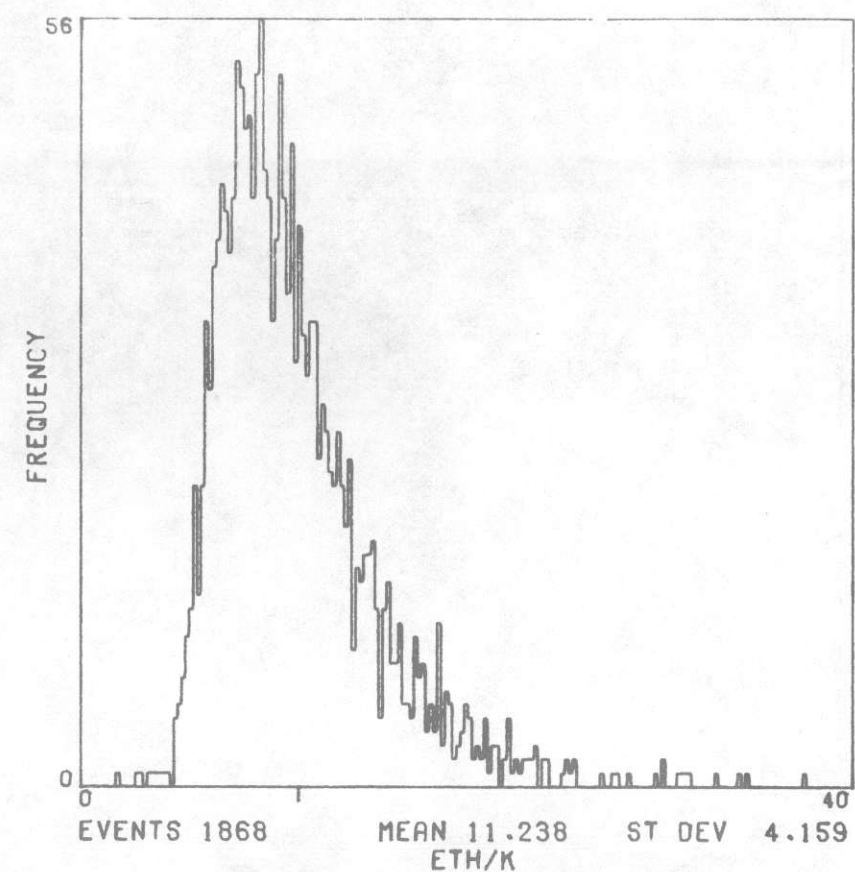
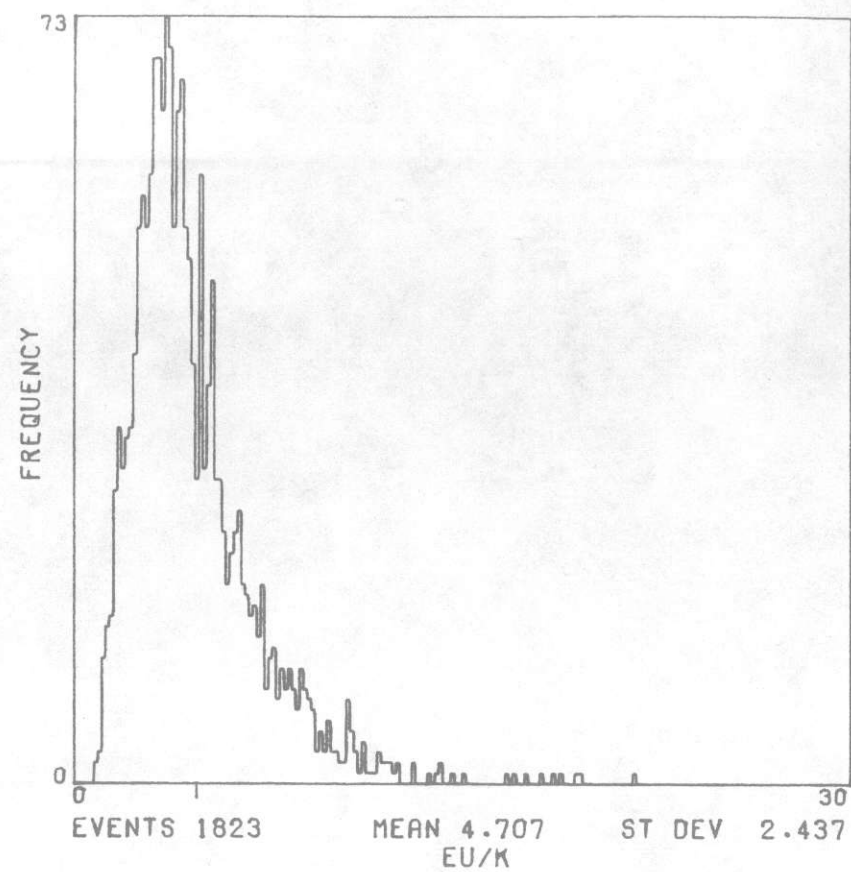
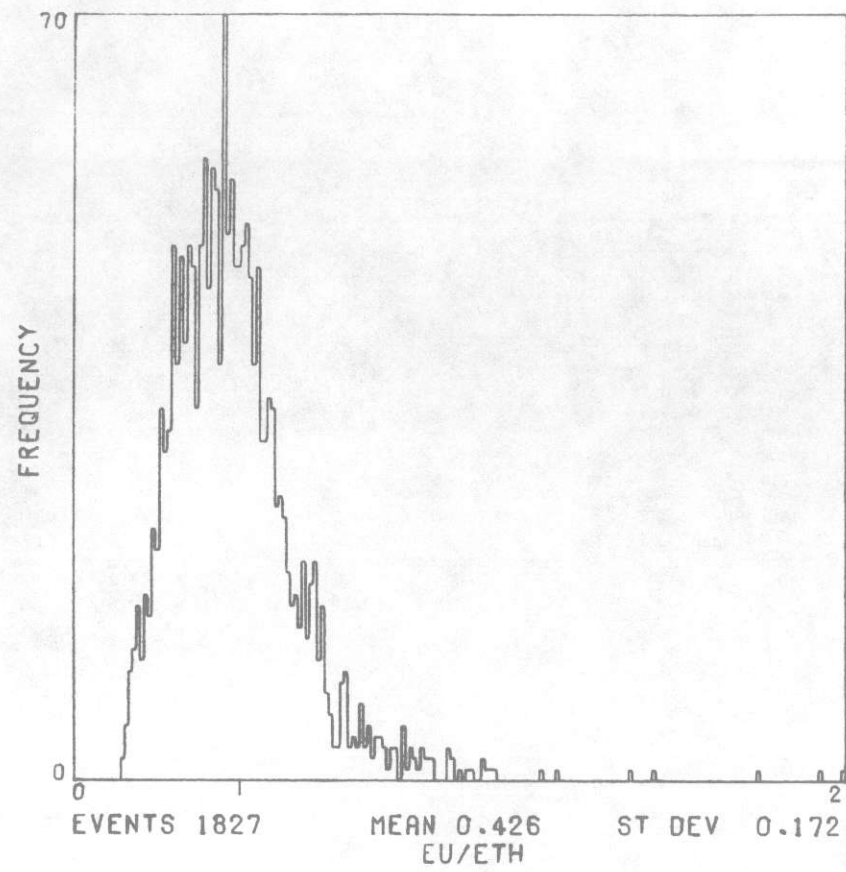




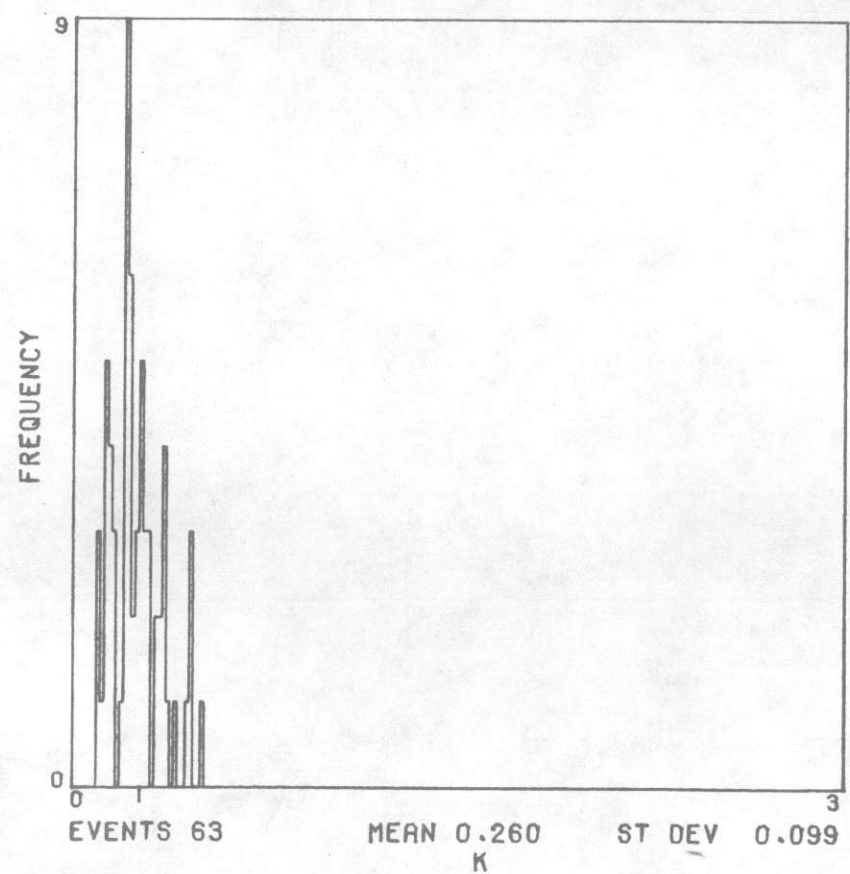
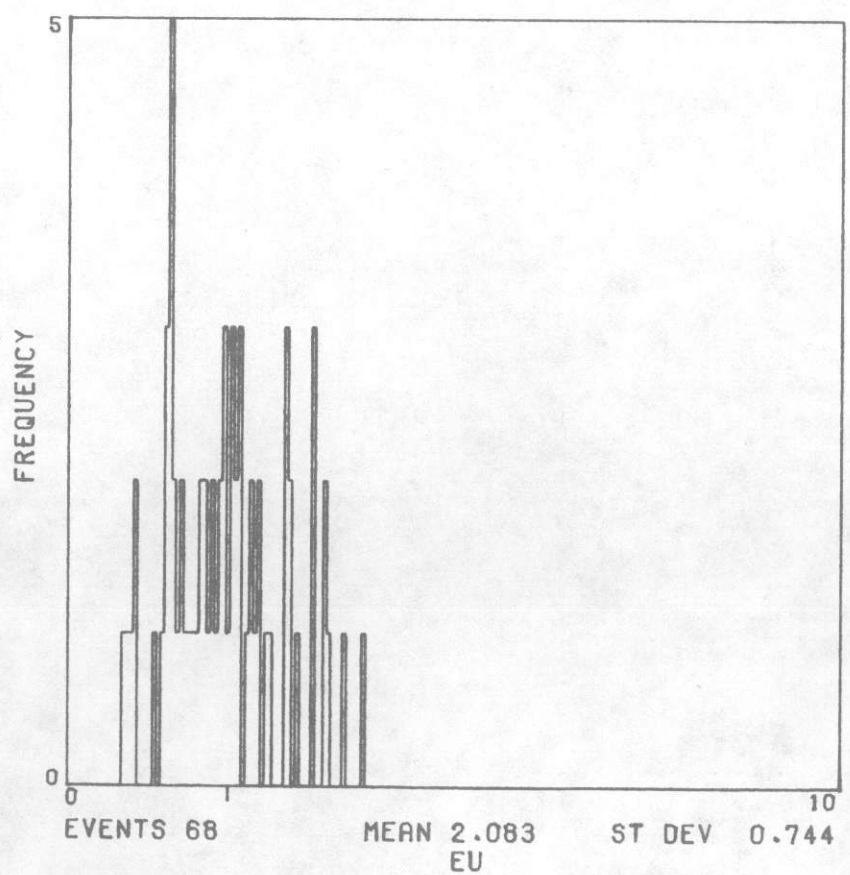
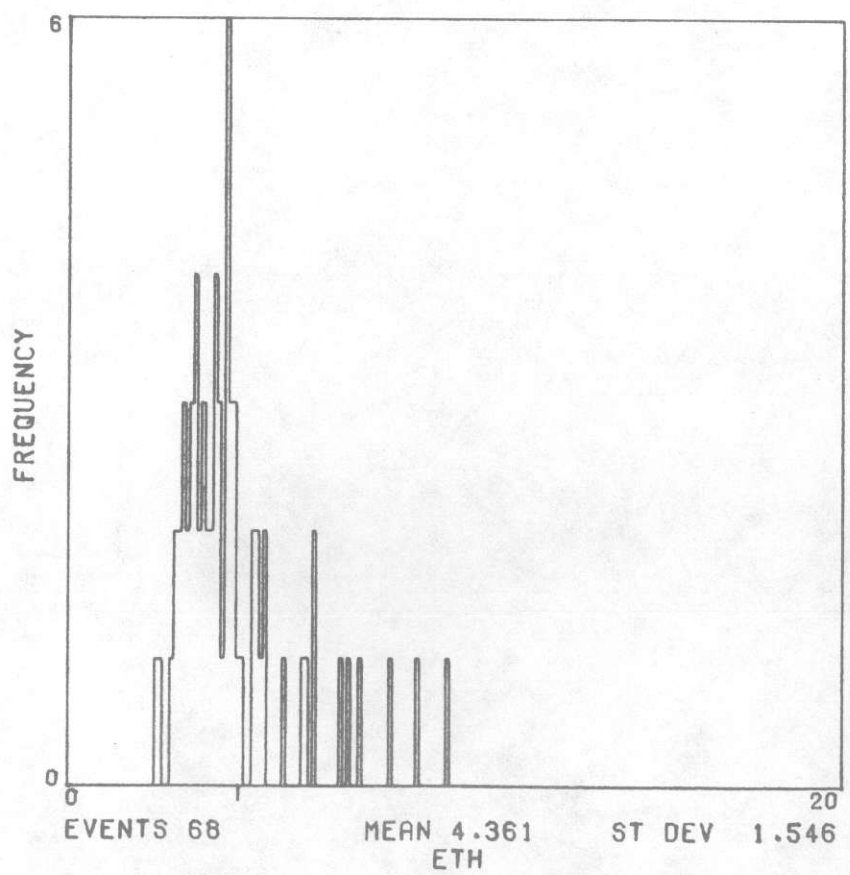
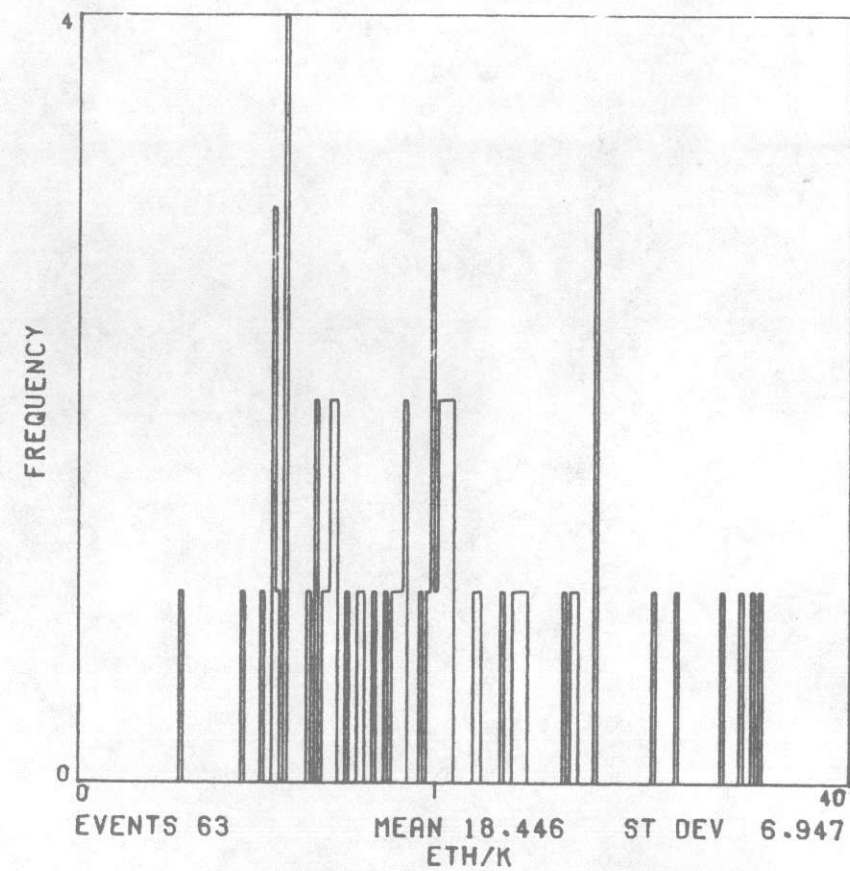
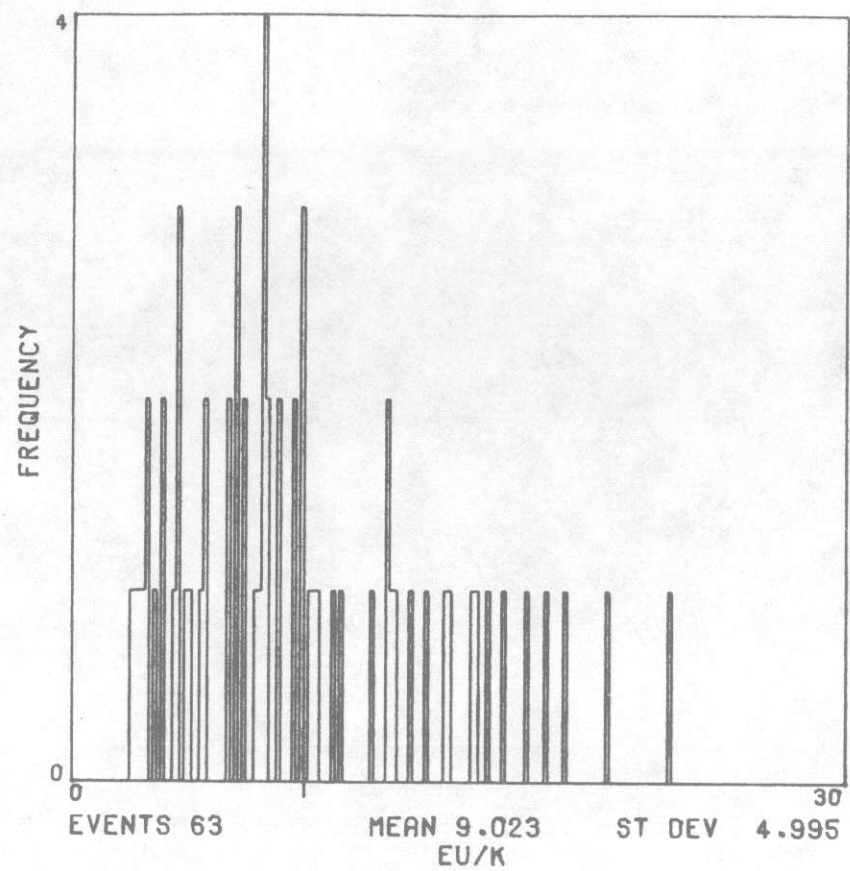
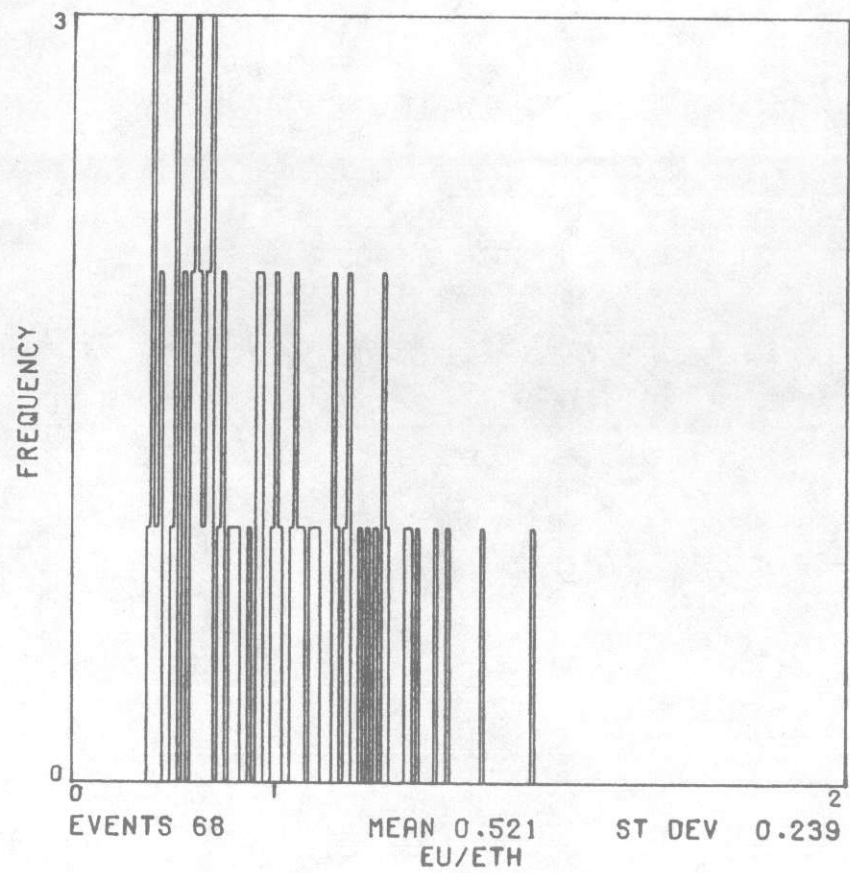


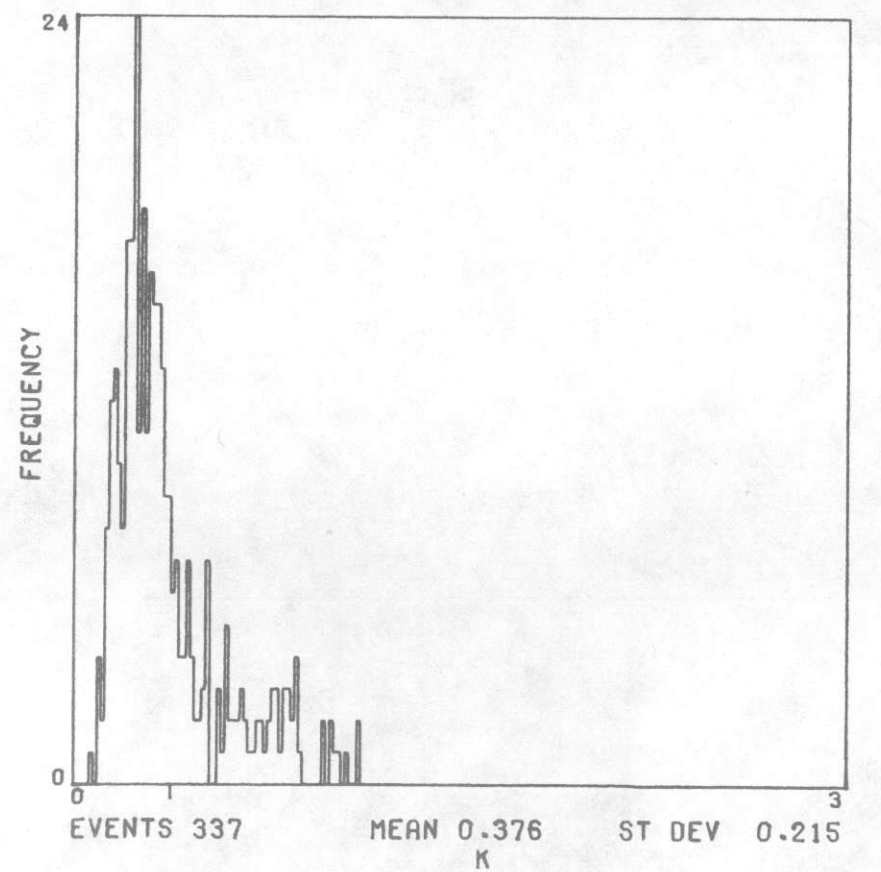
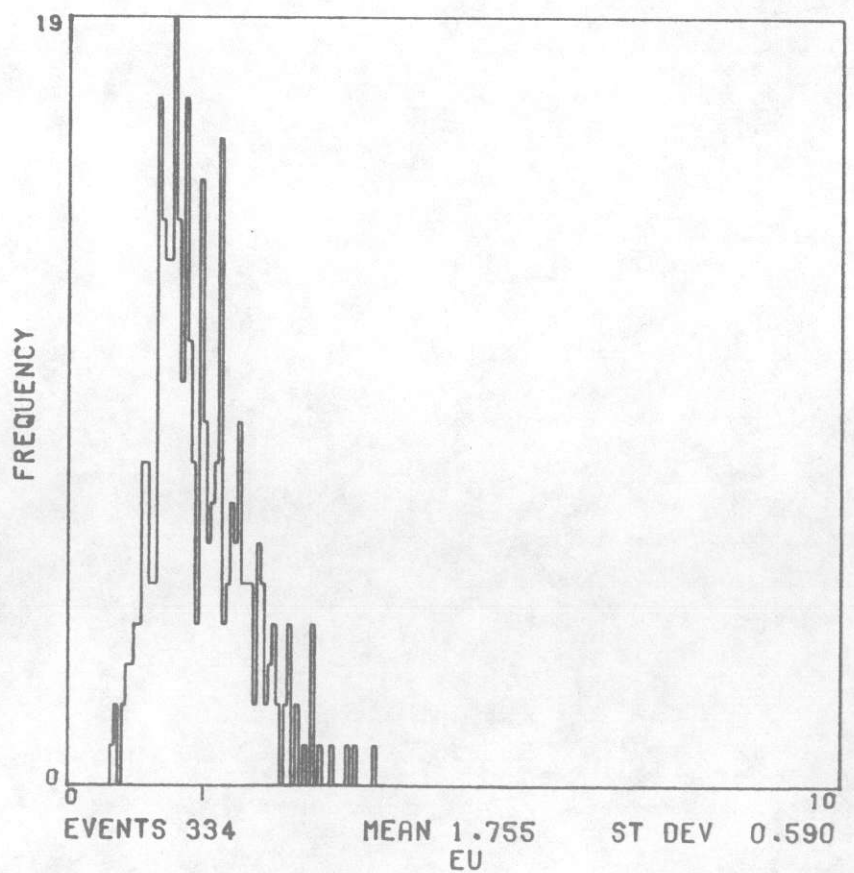
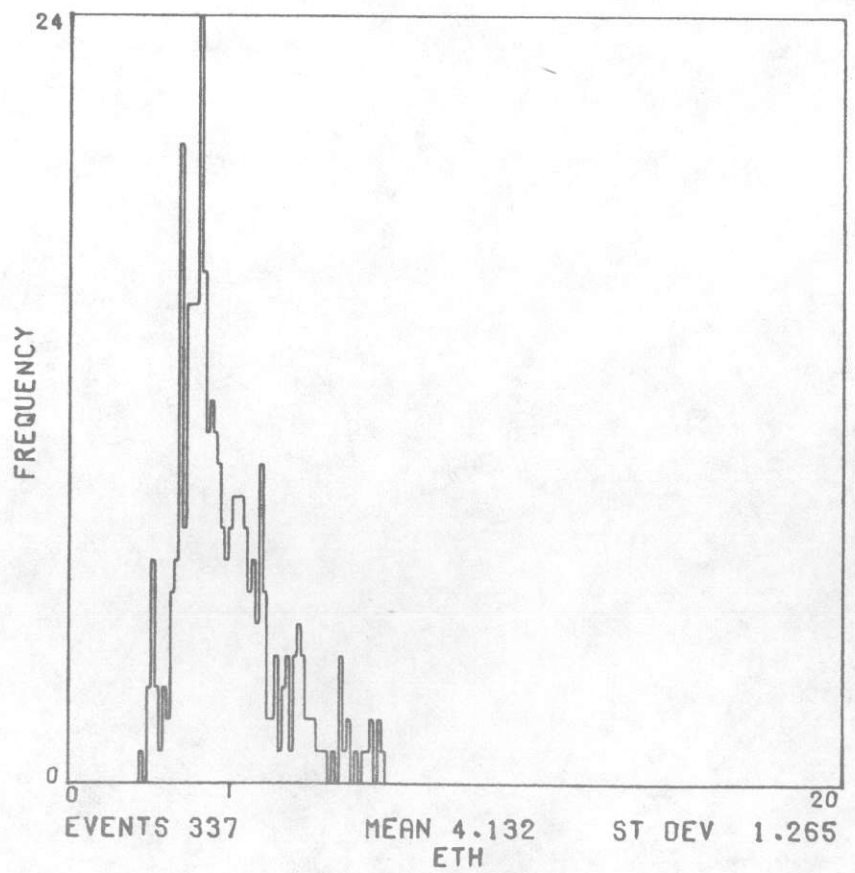
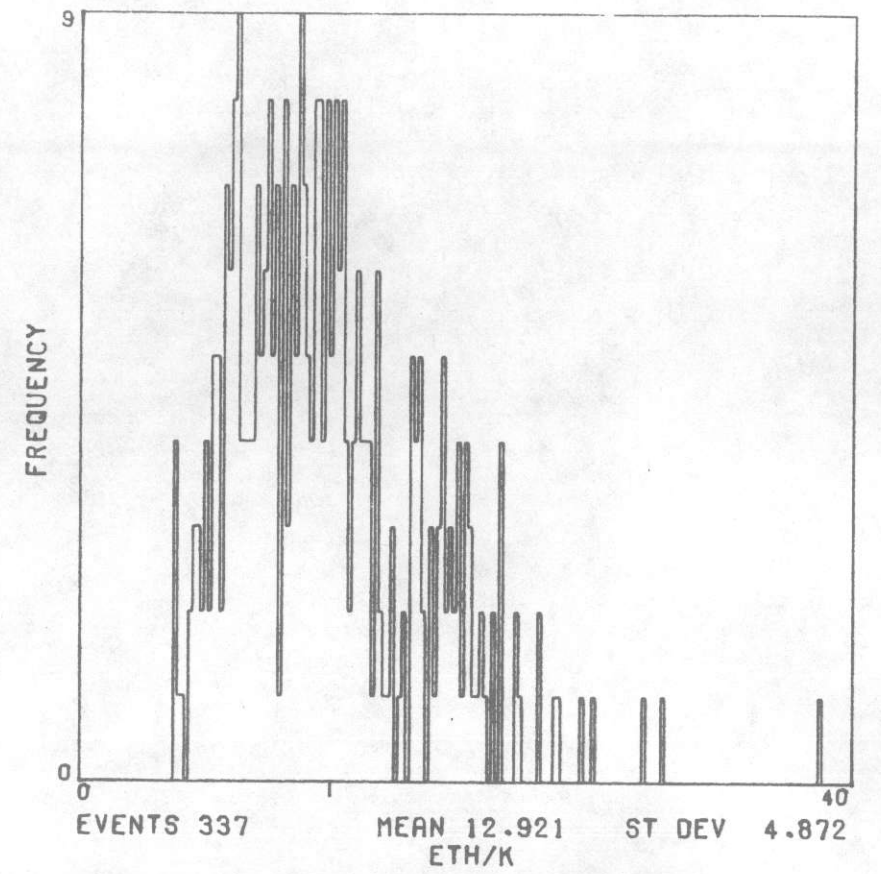
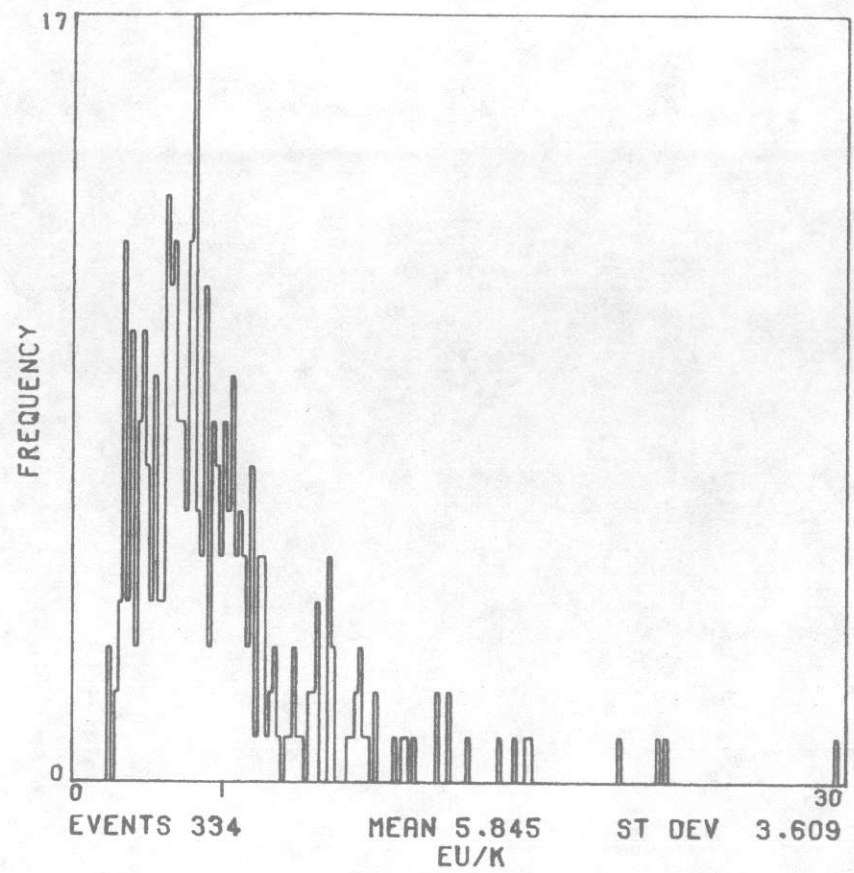
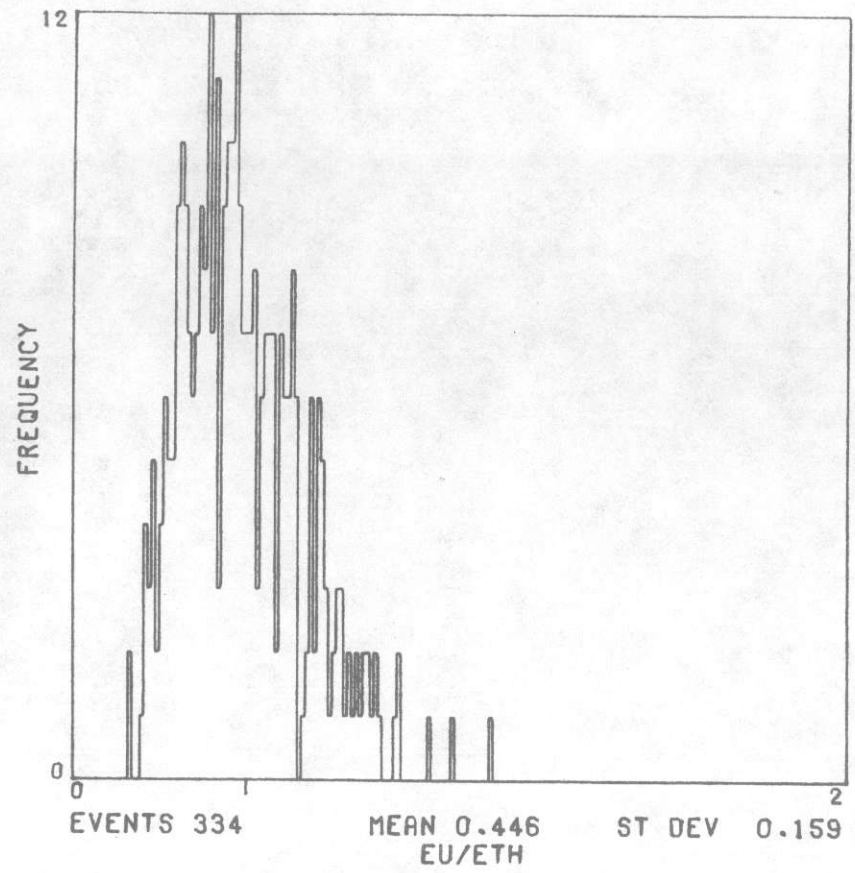
UNIT MHS

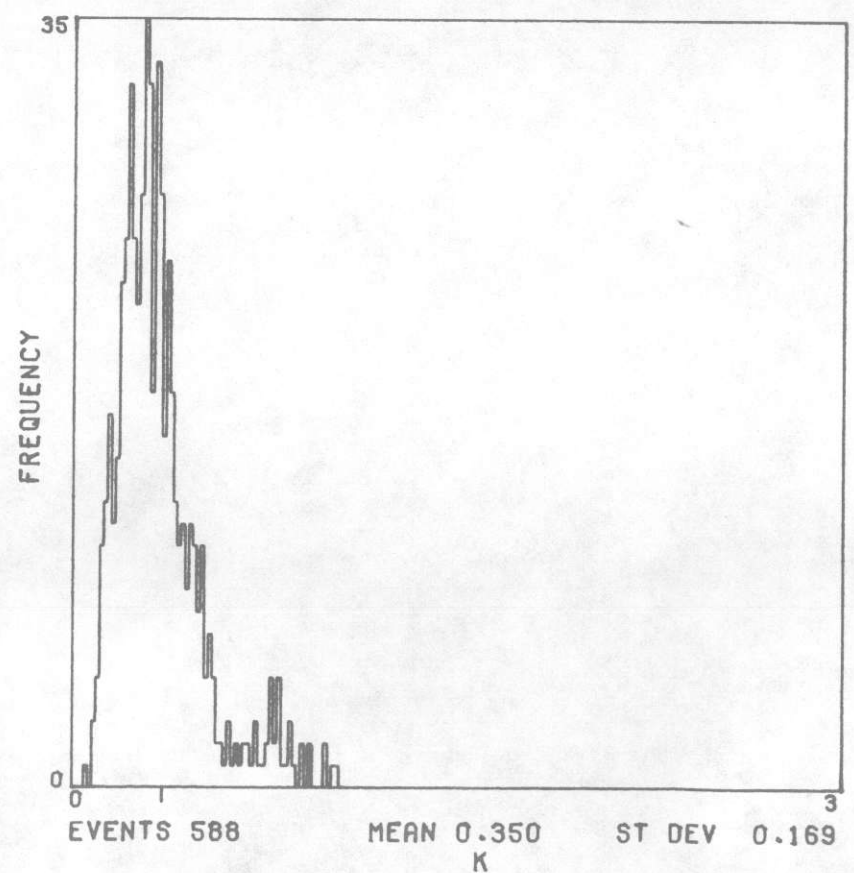
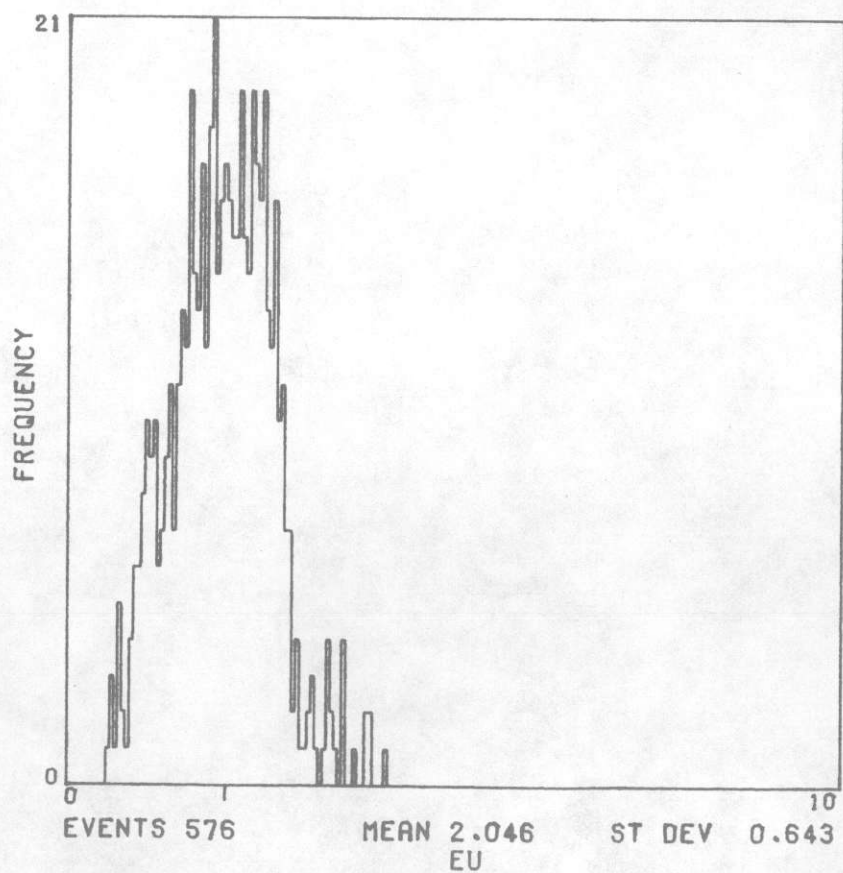
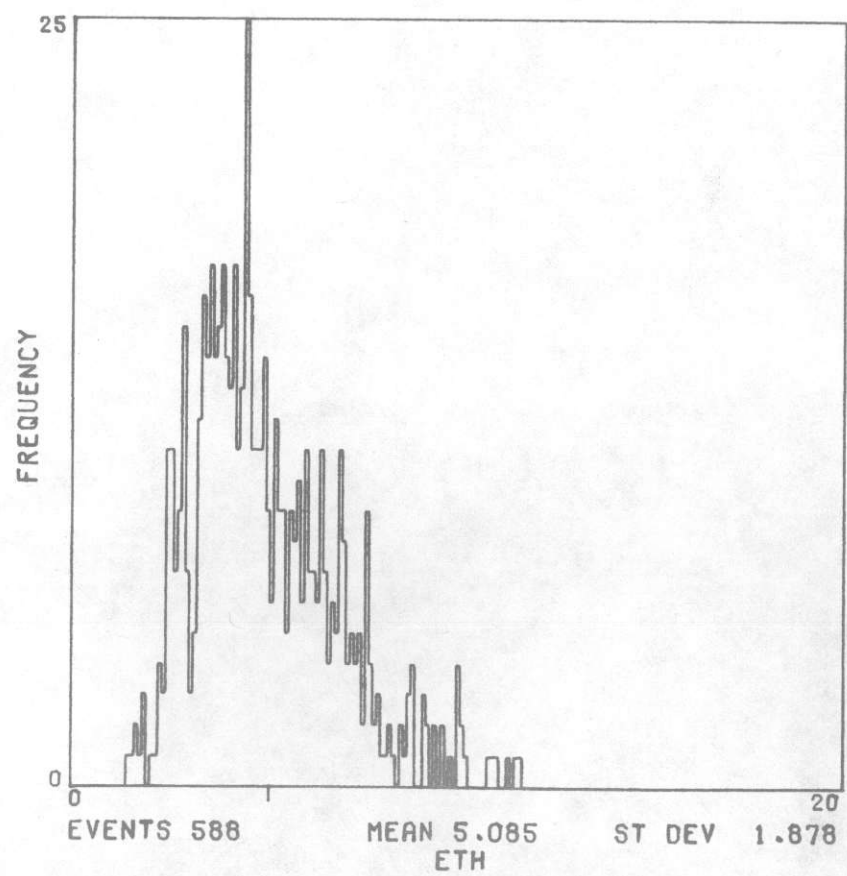
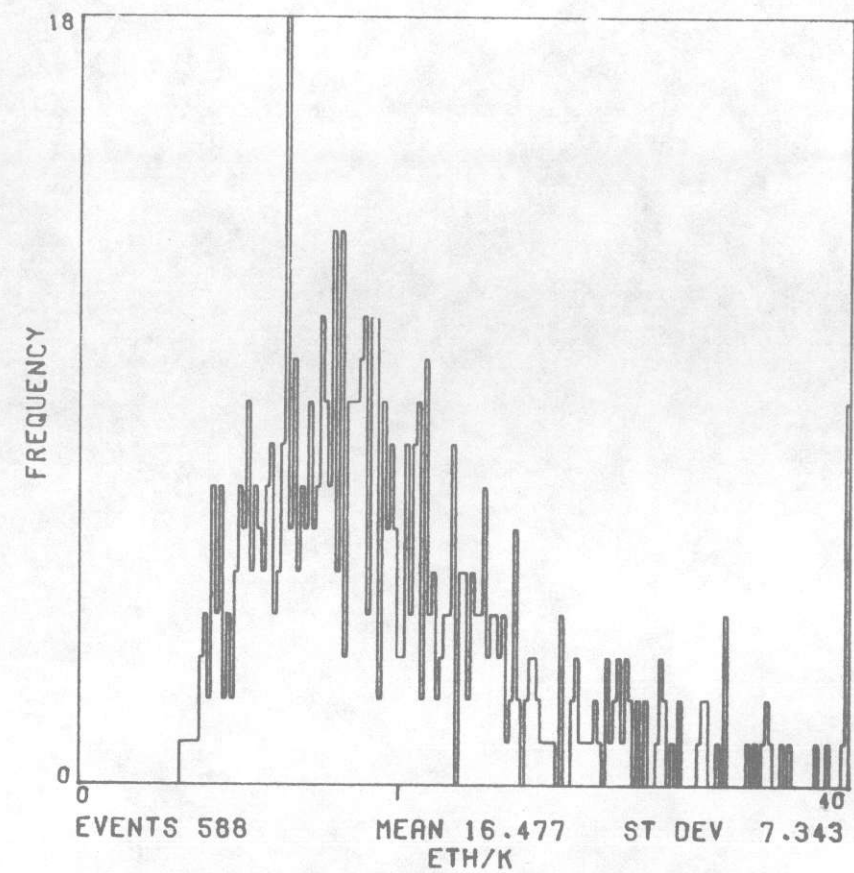
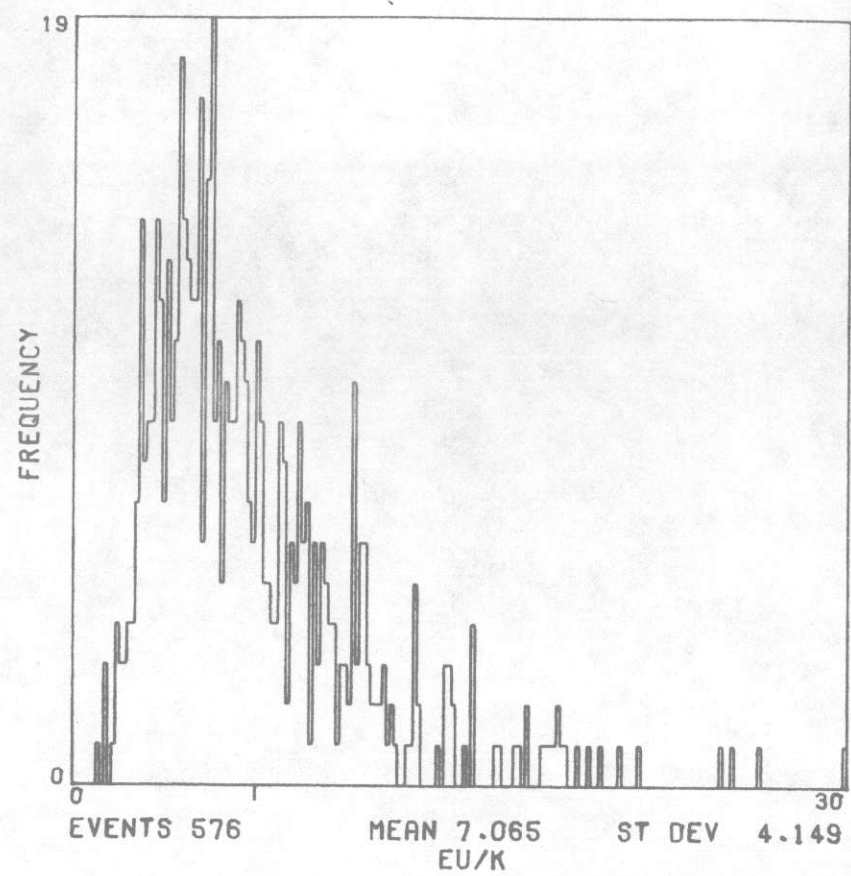
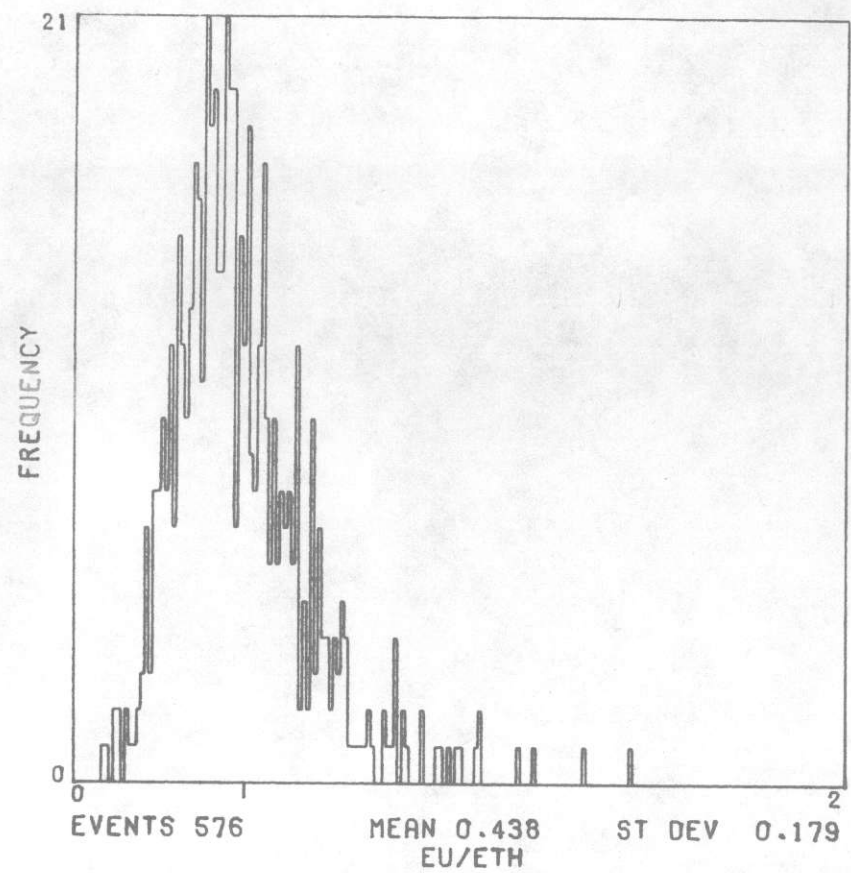


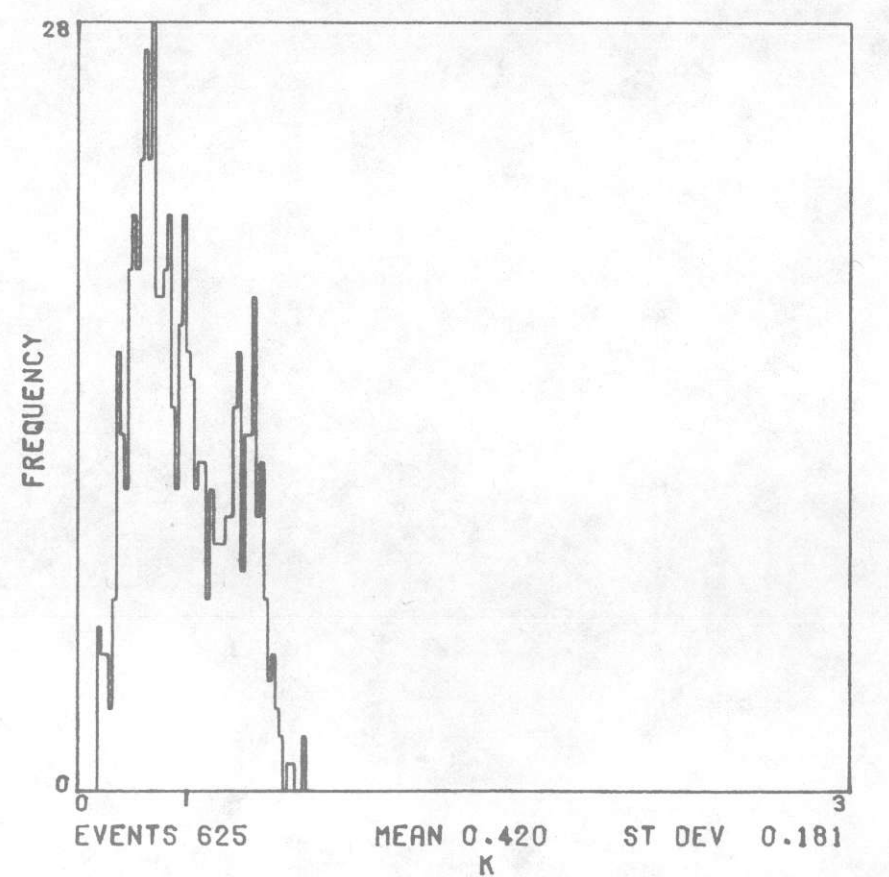
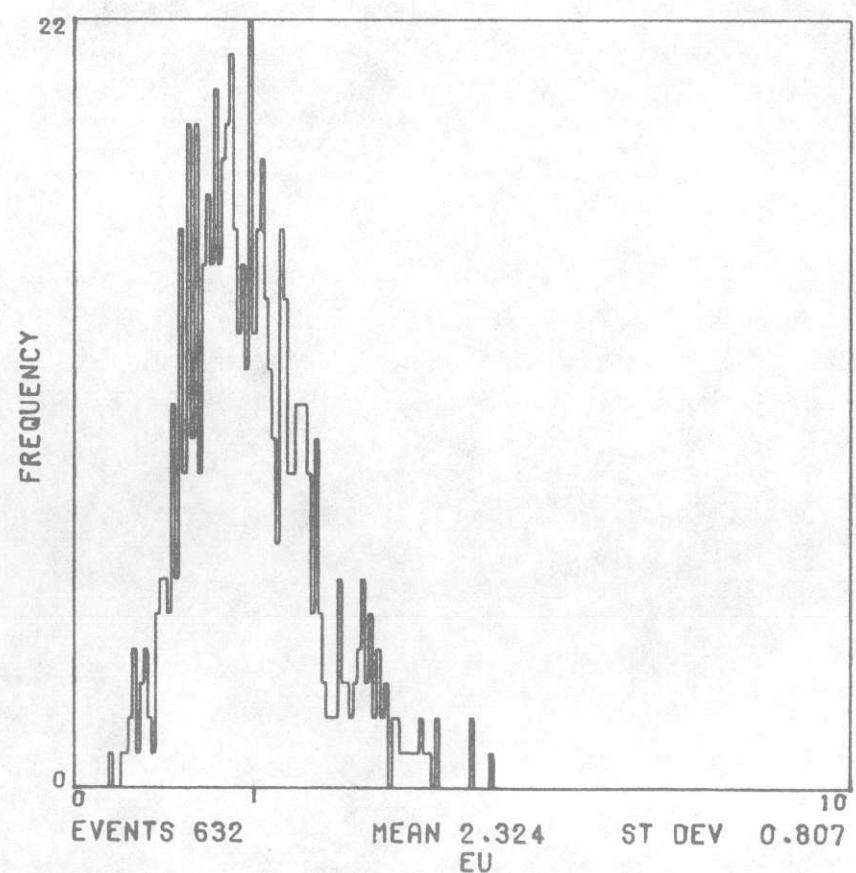
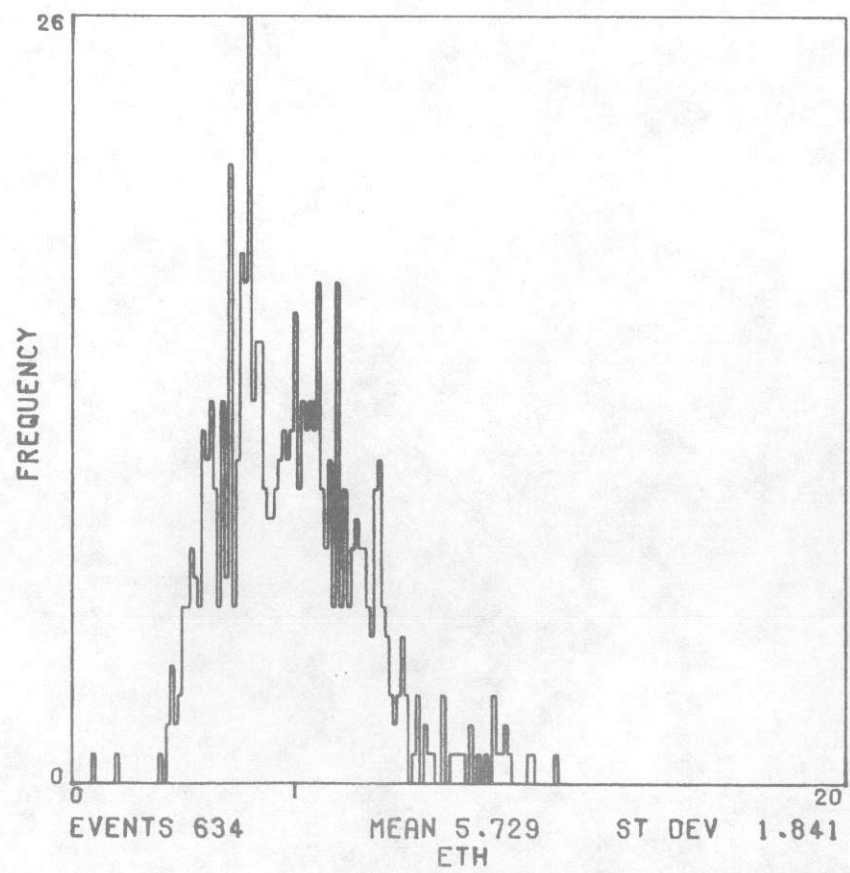
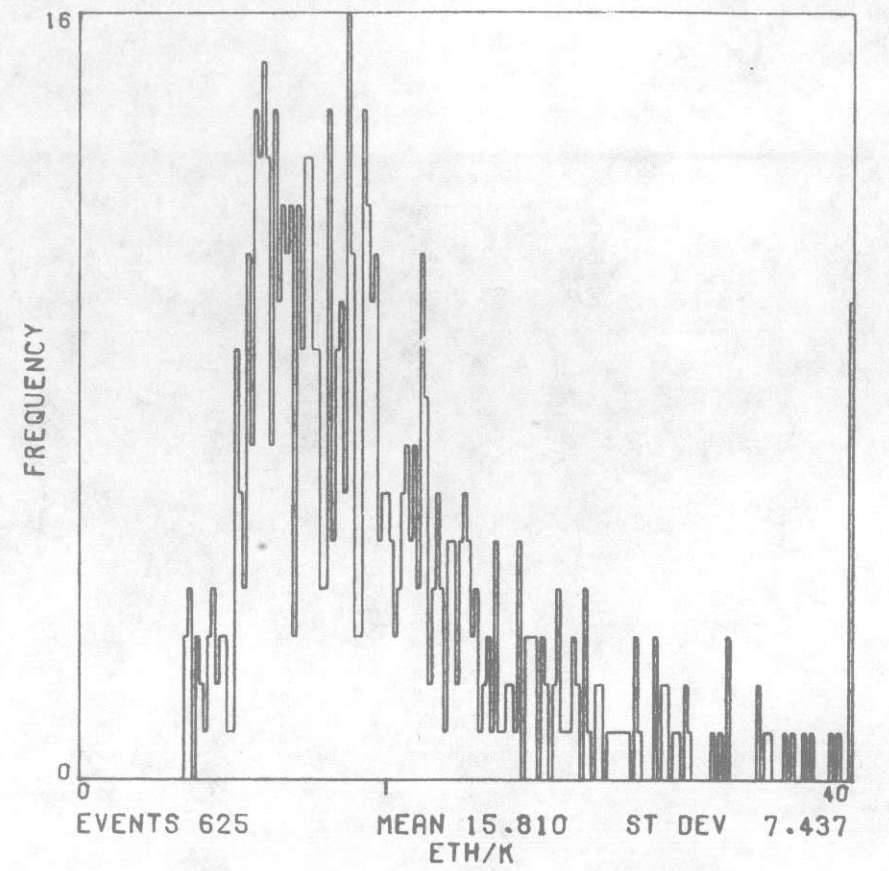
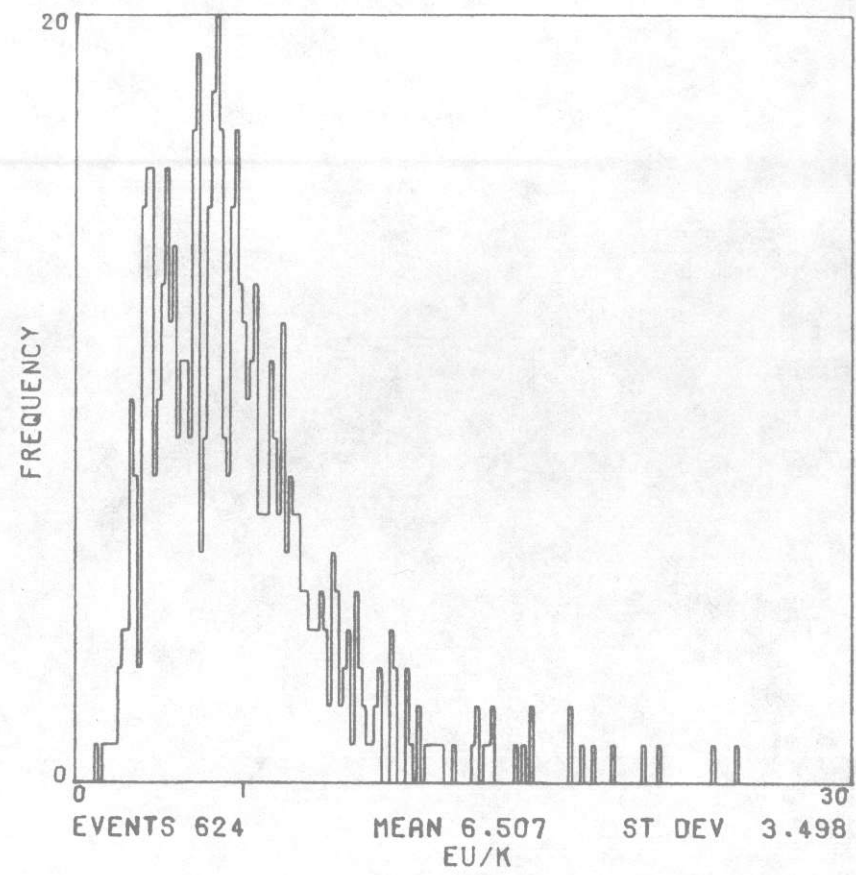
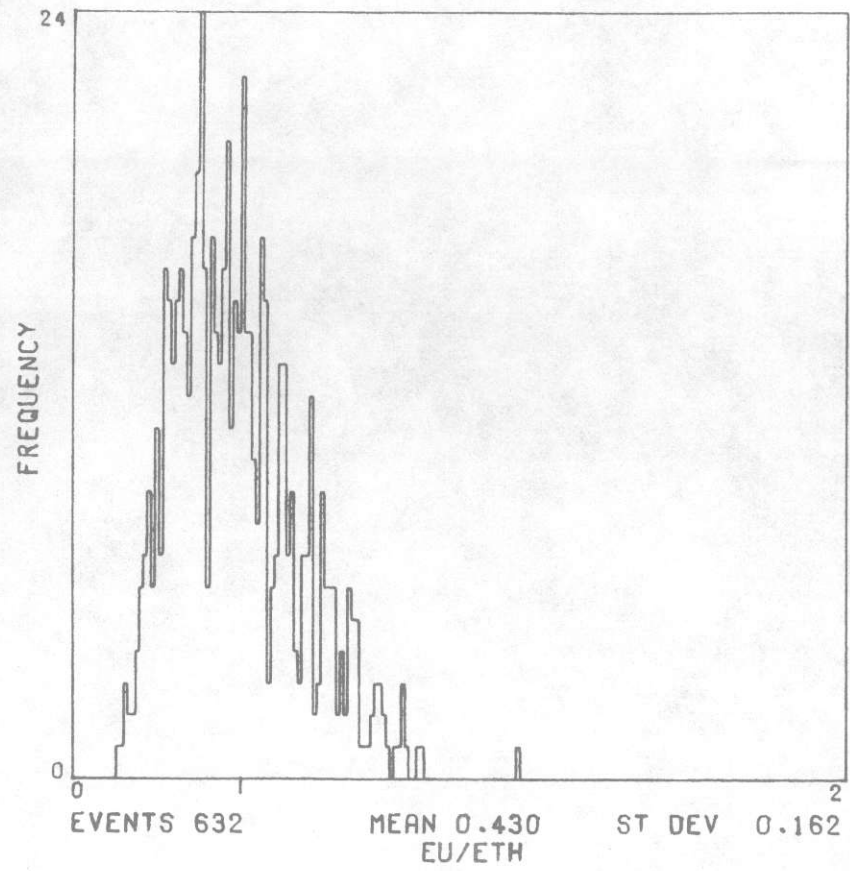


UNIT MP

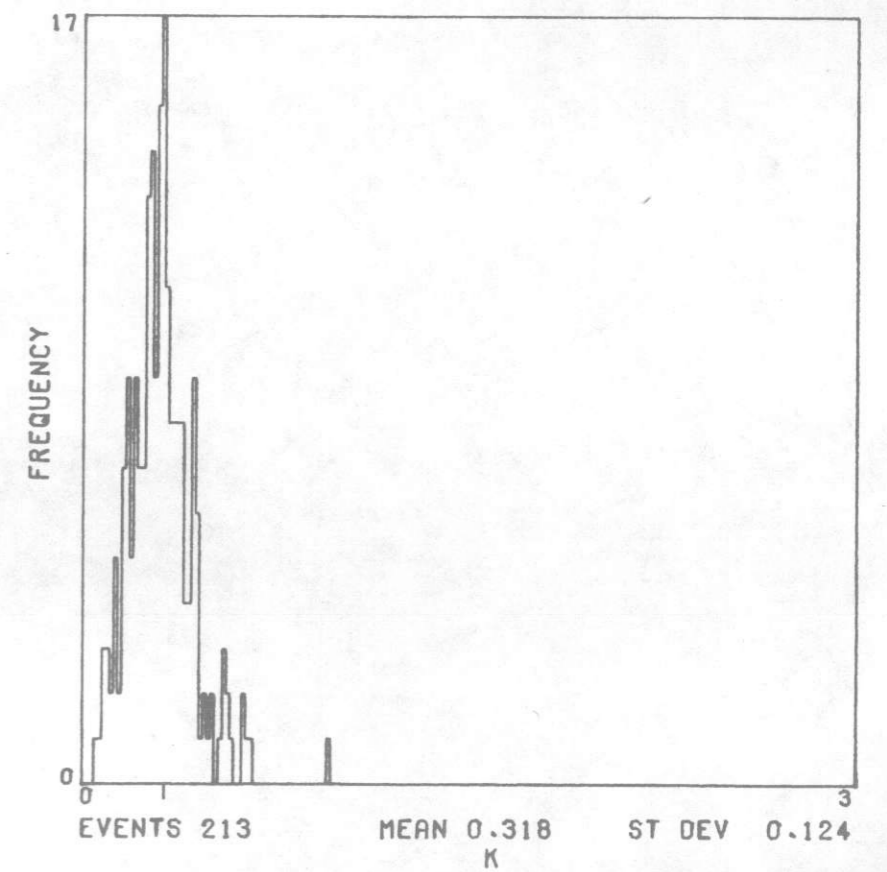
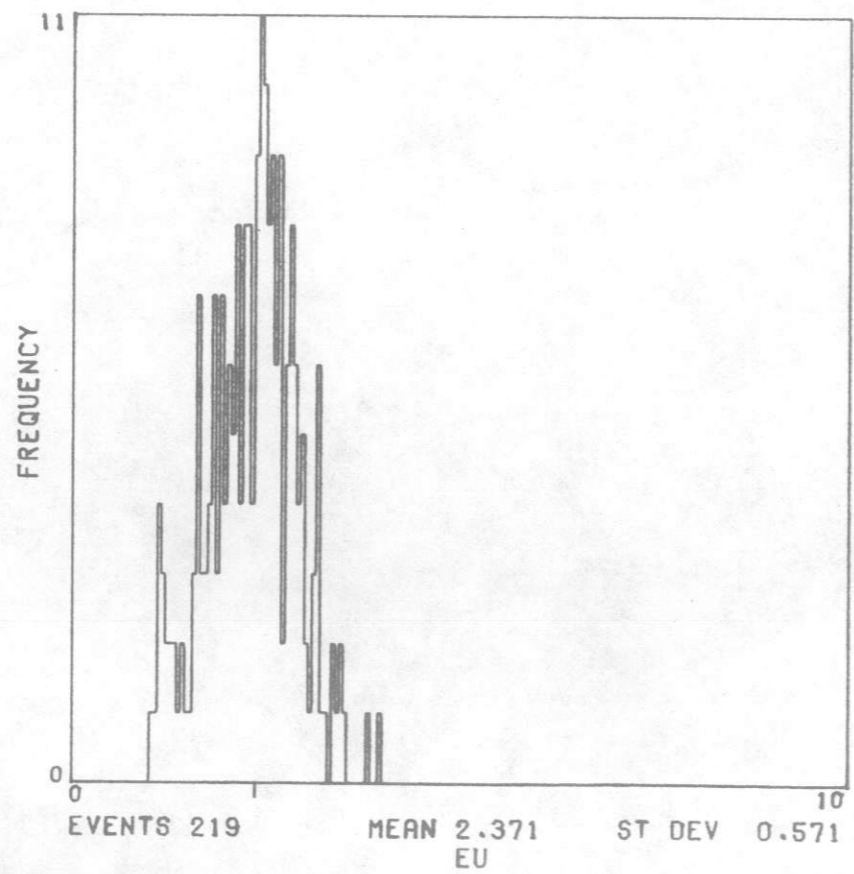
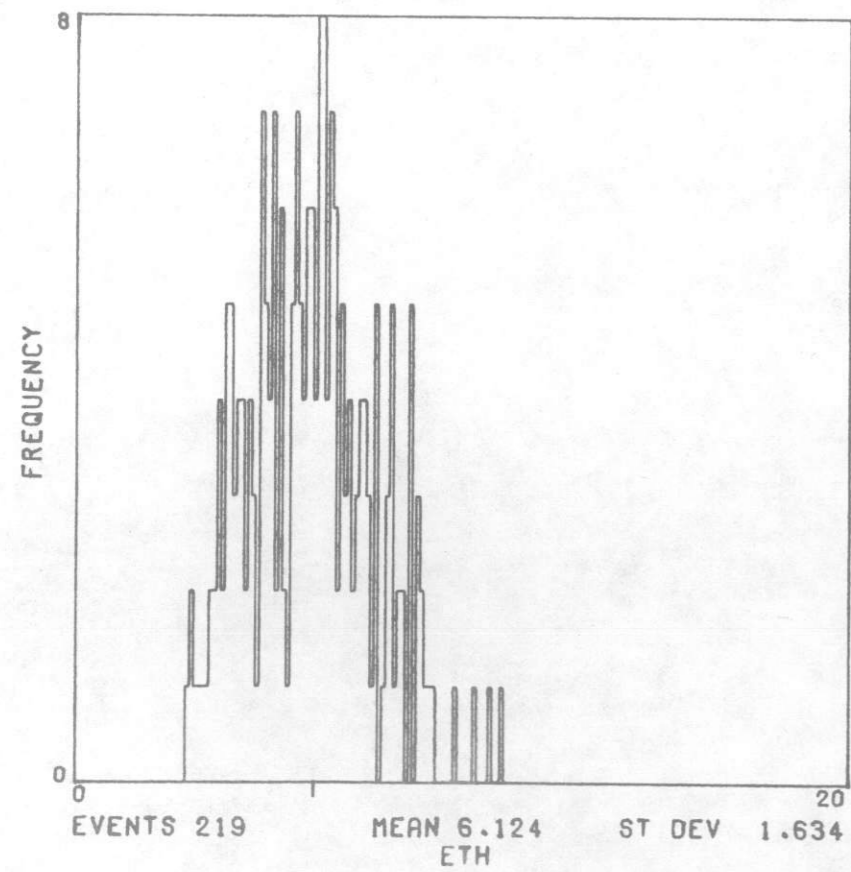
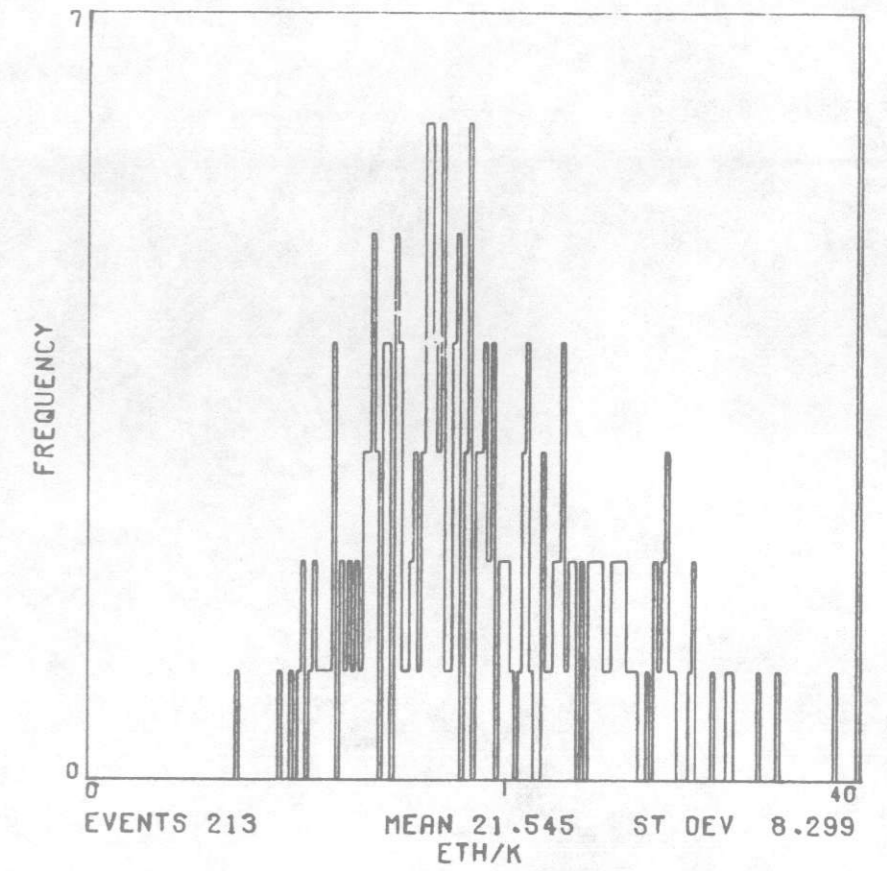
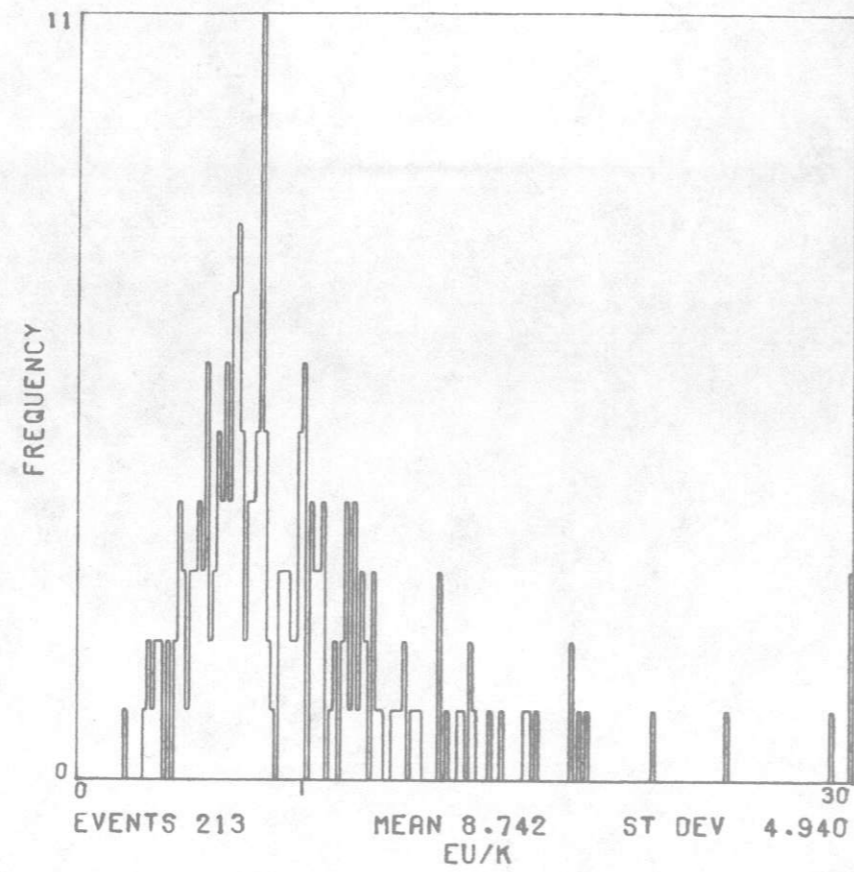
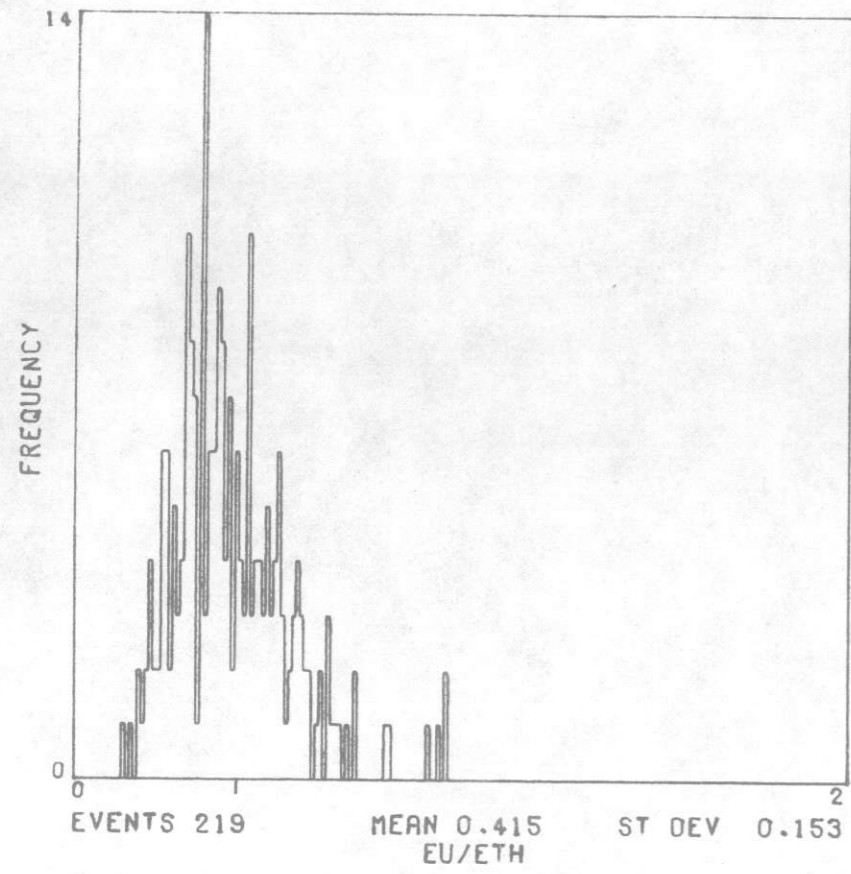




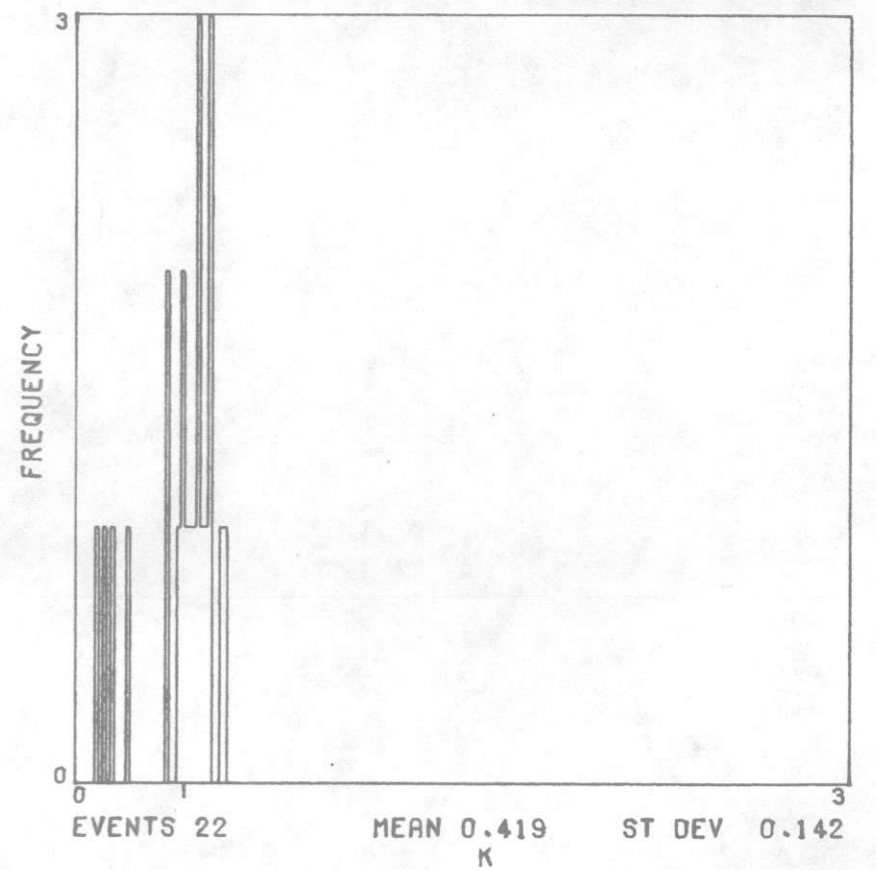
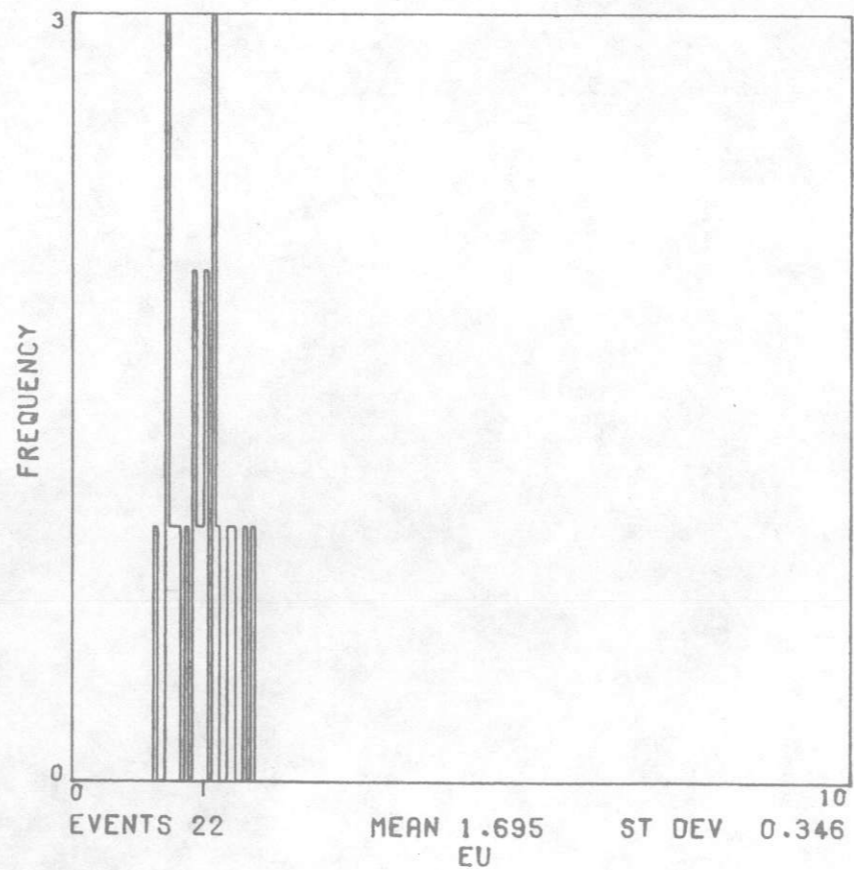
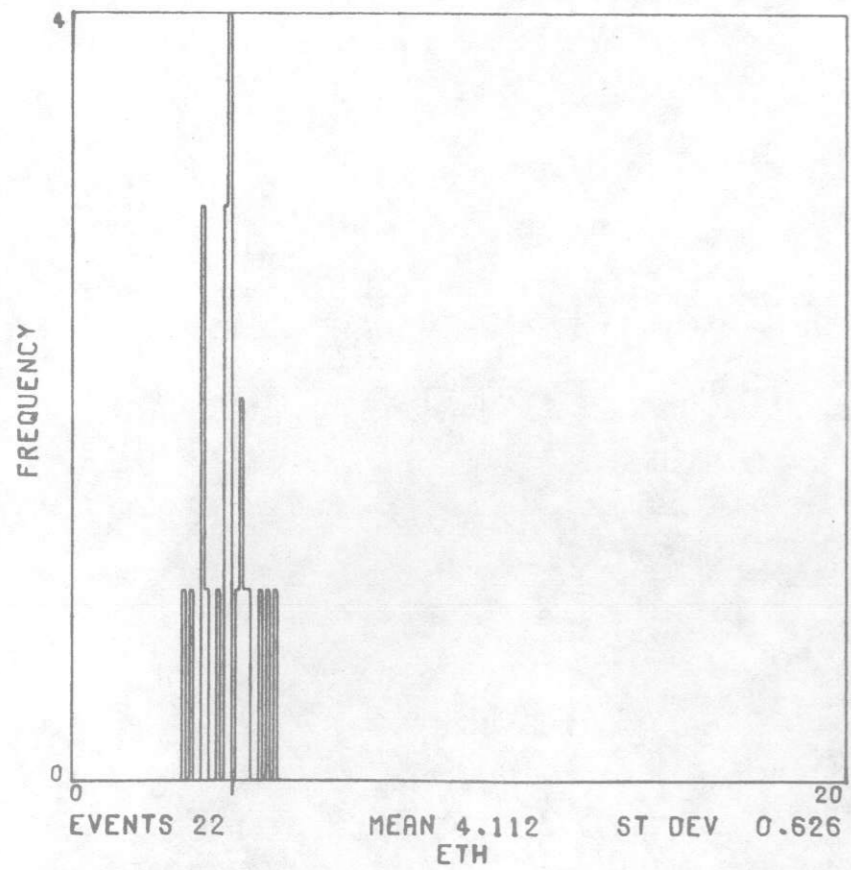
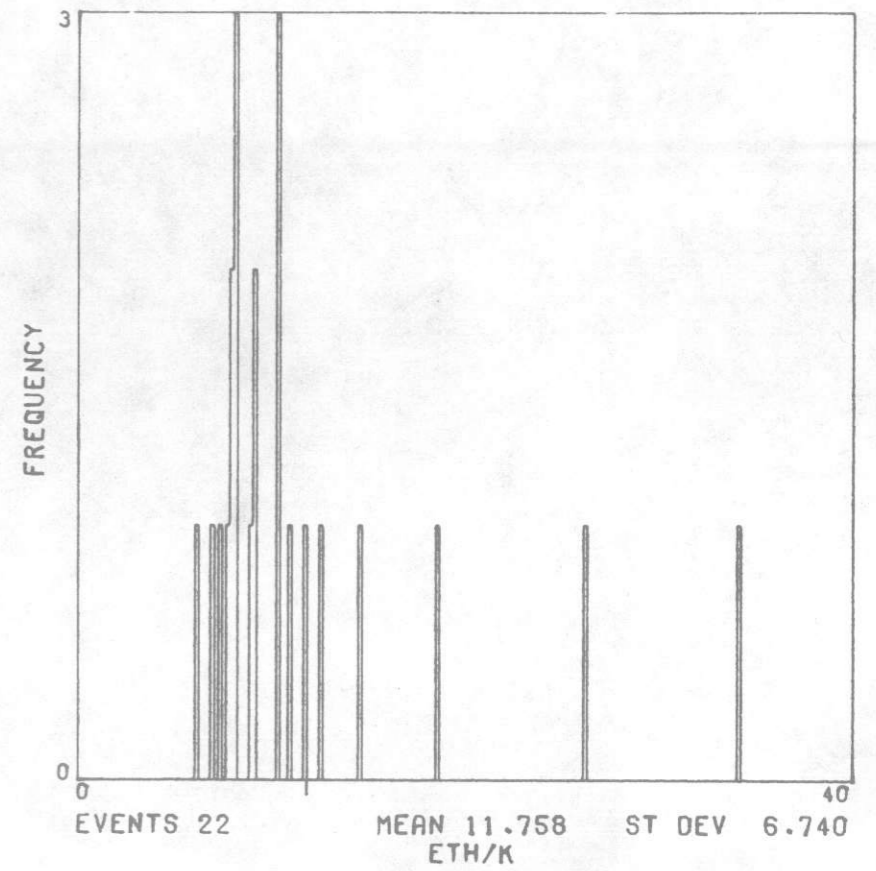
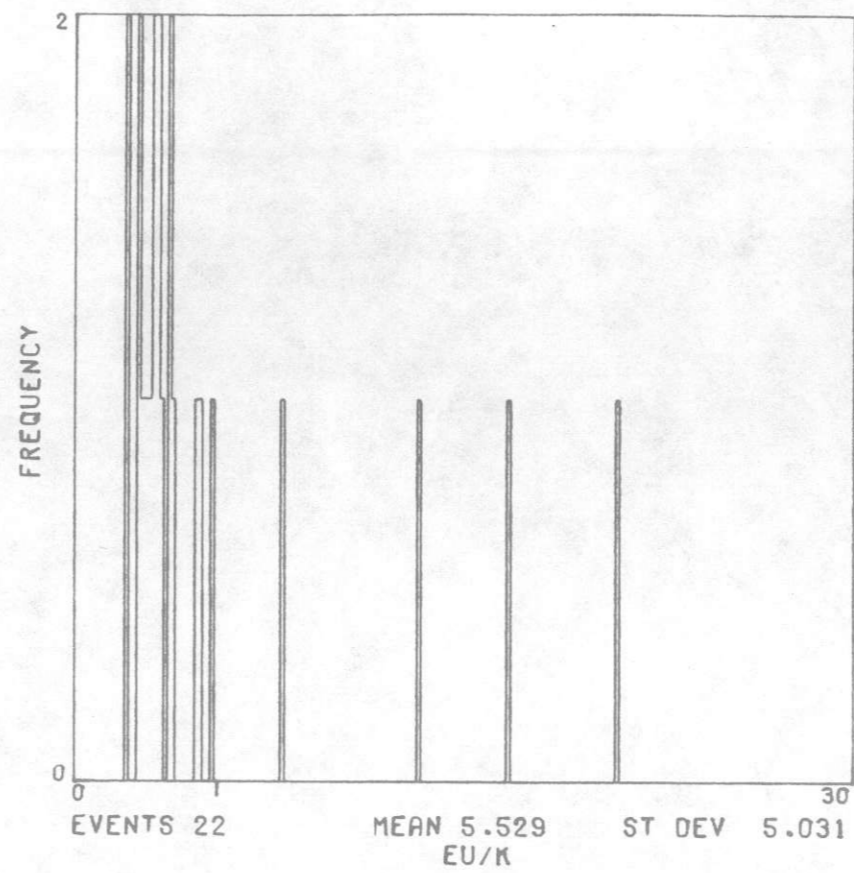
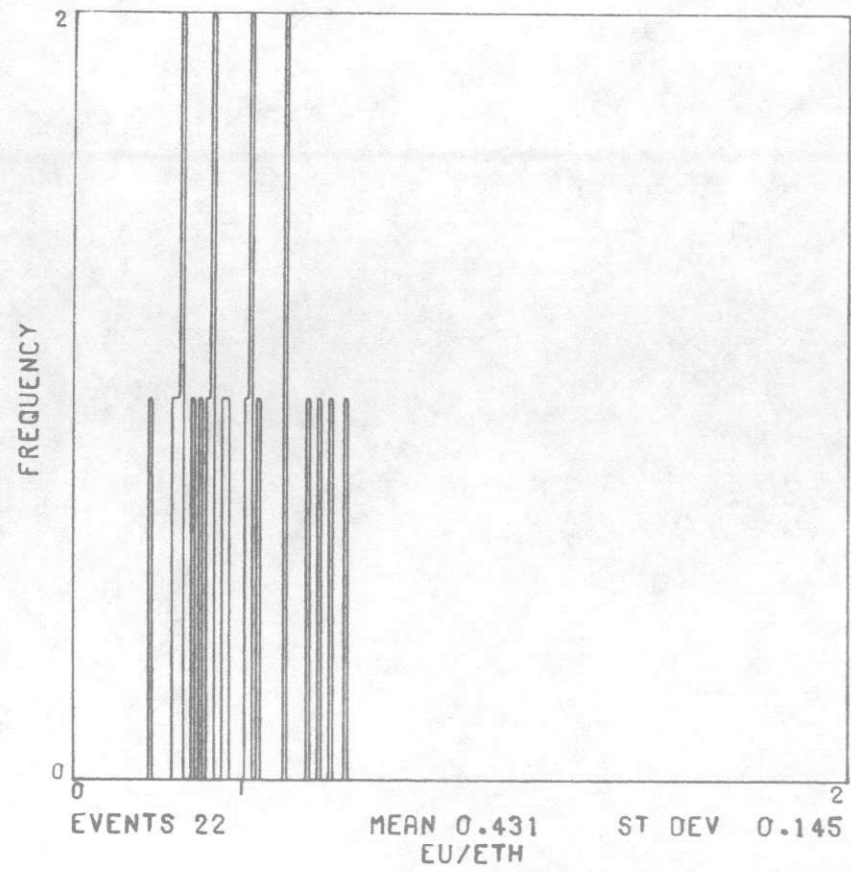




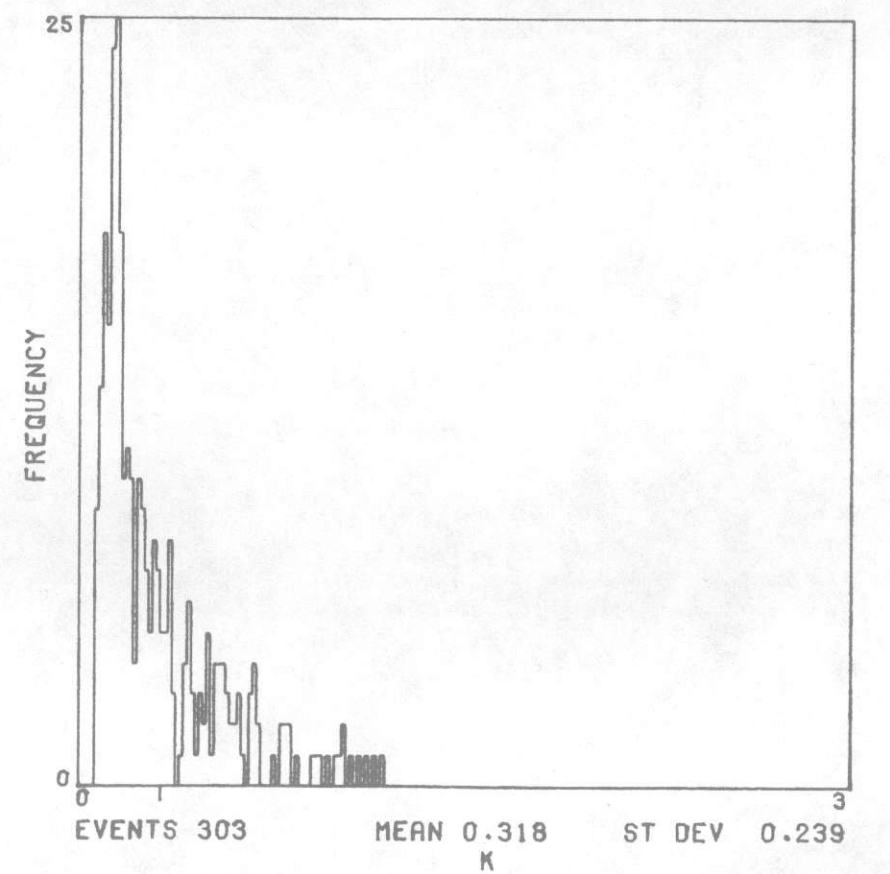
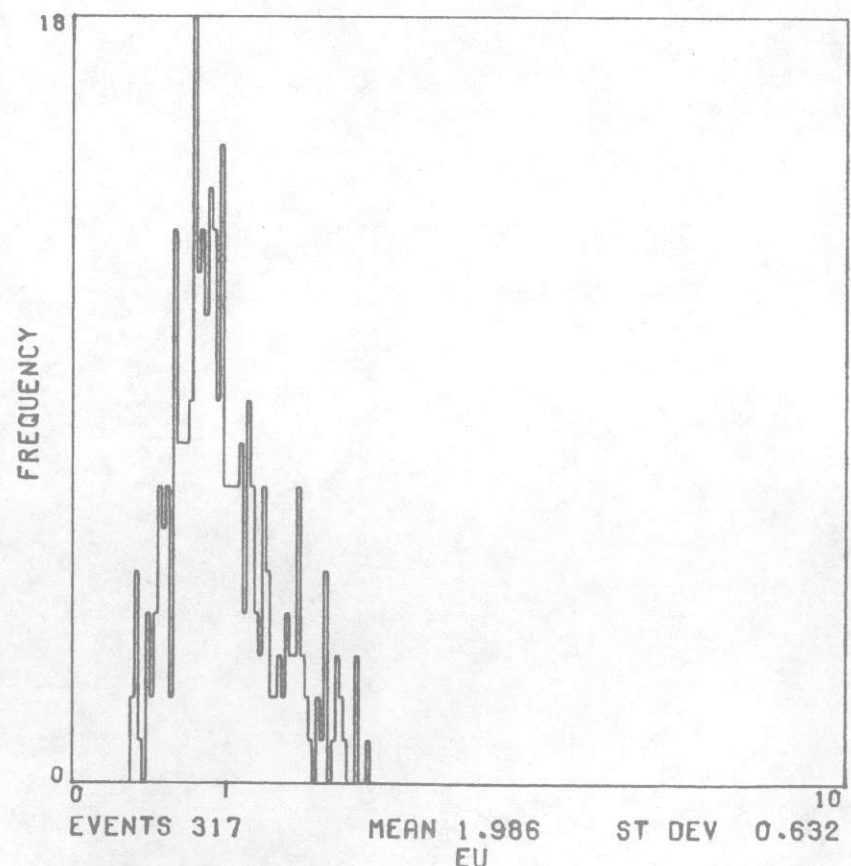
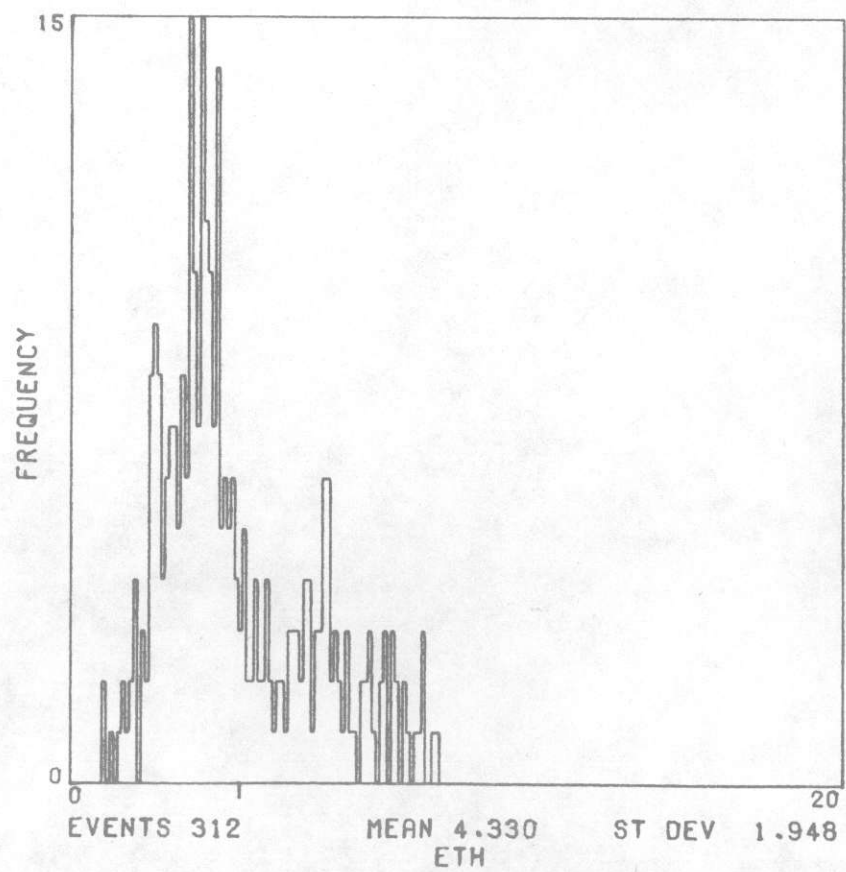
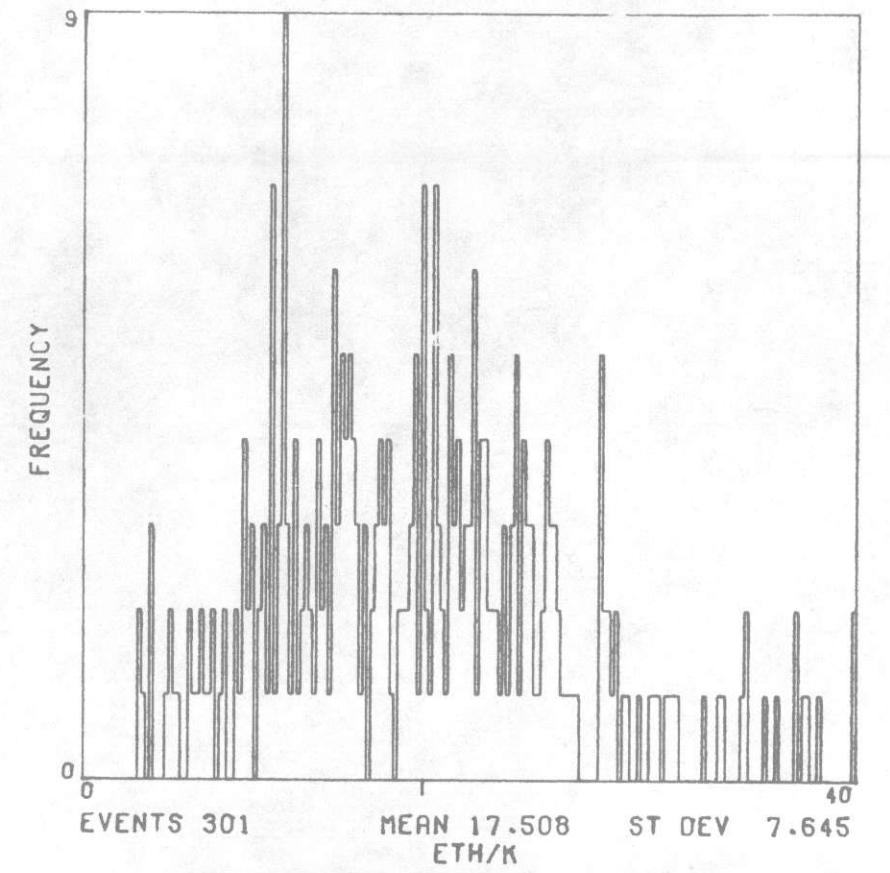
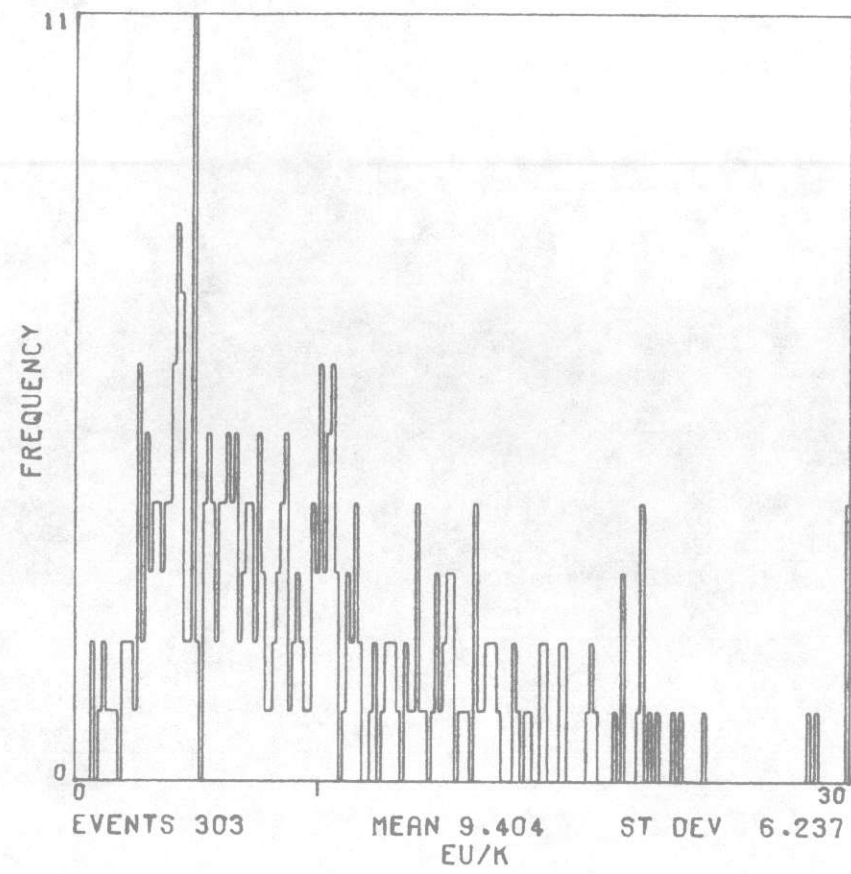
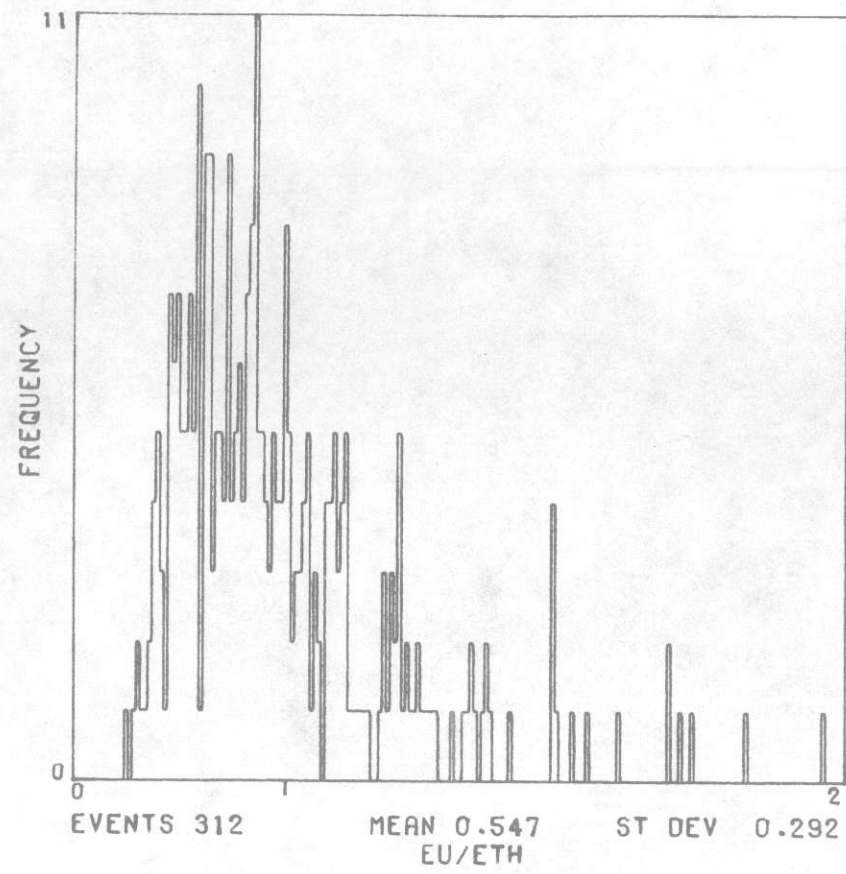
UNIT 0C

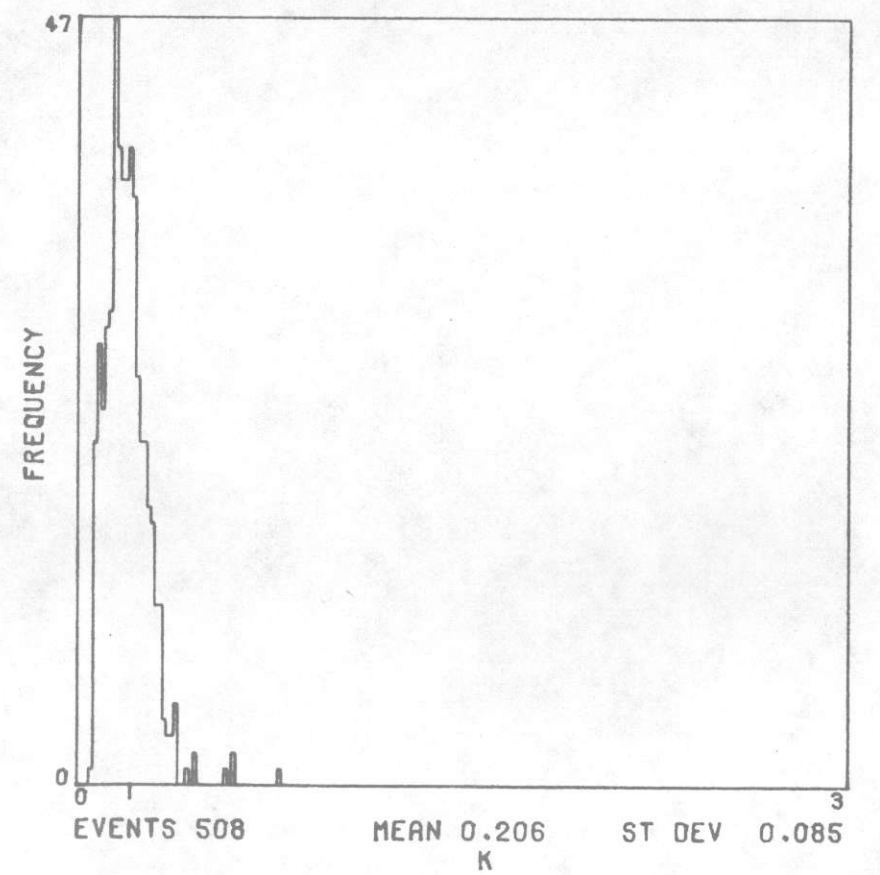
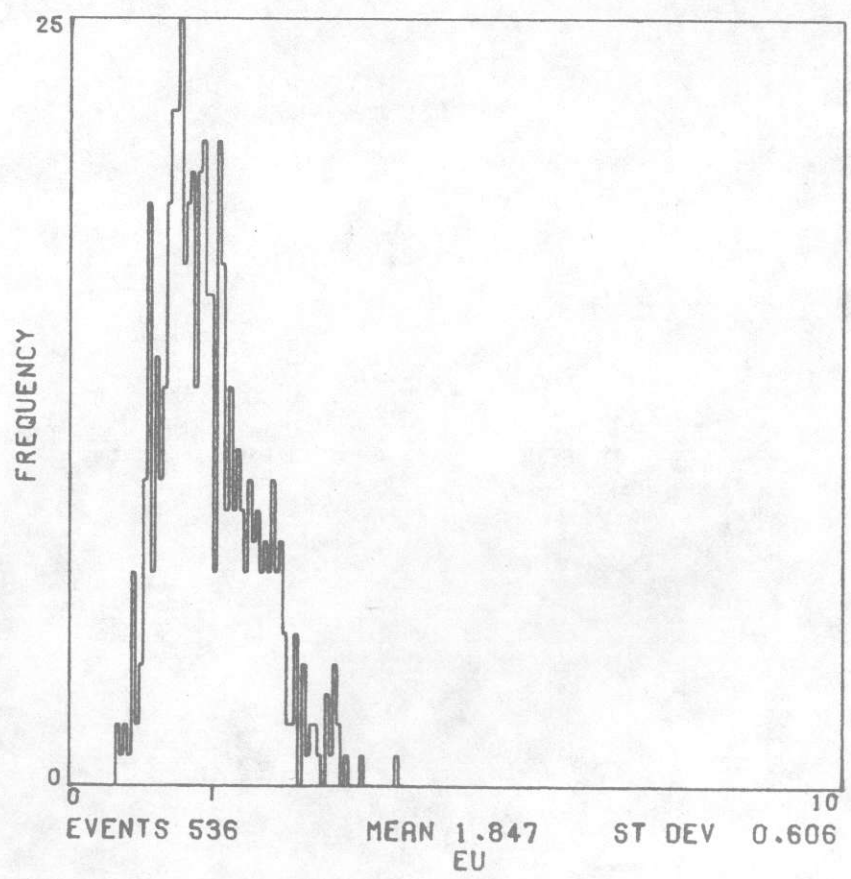
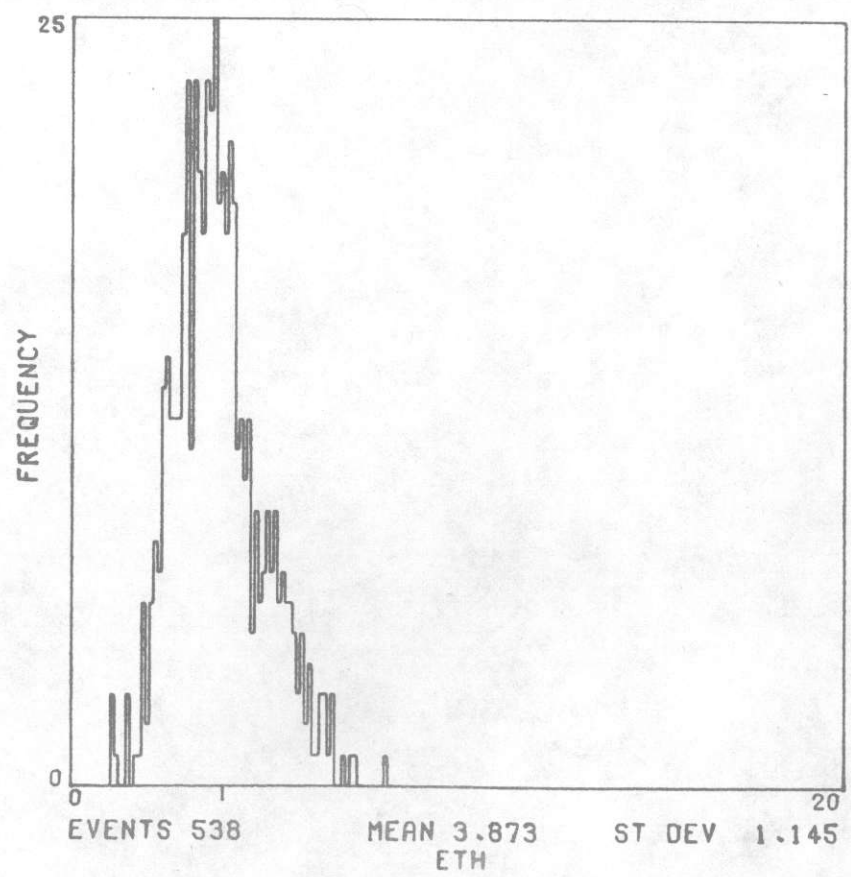
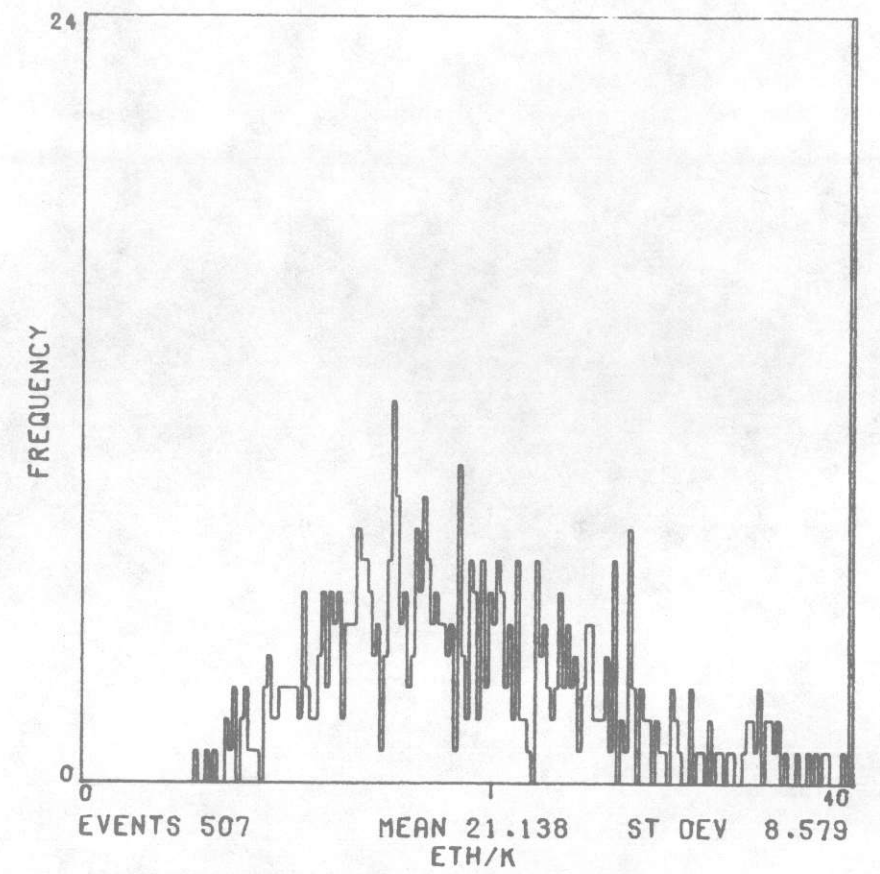
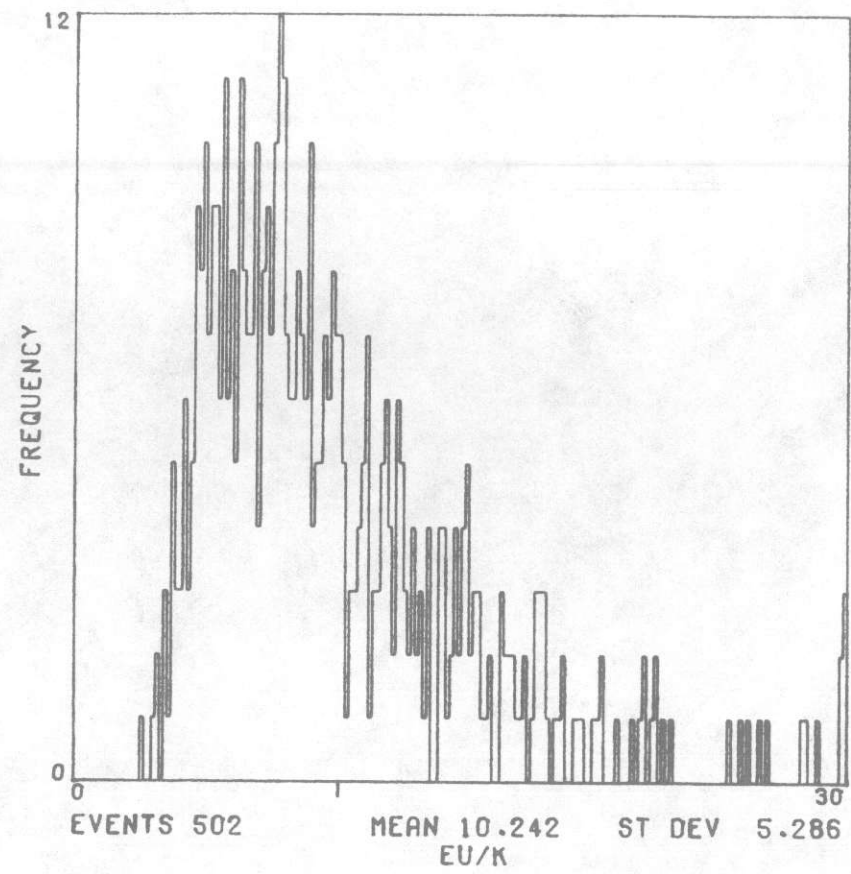
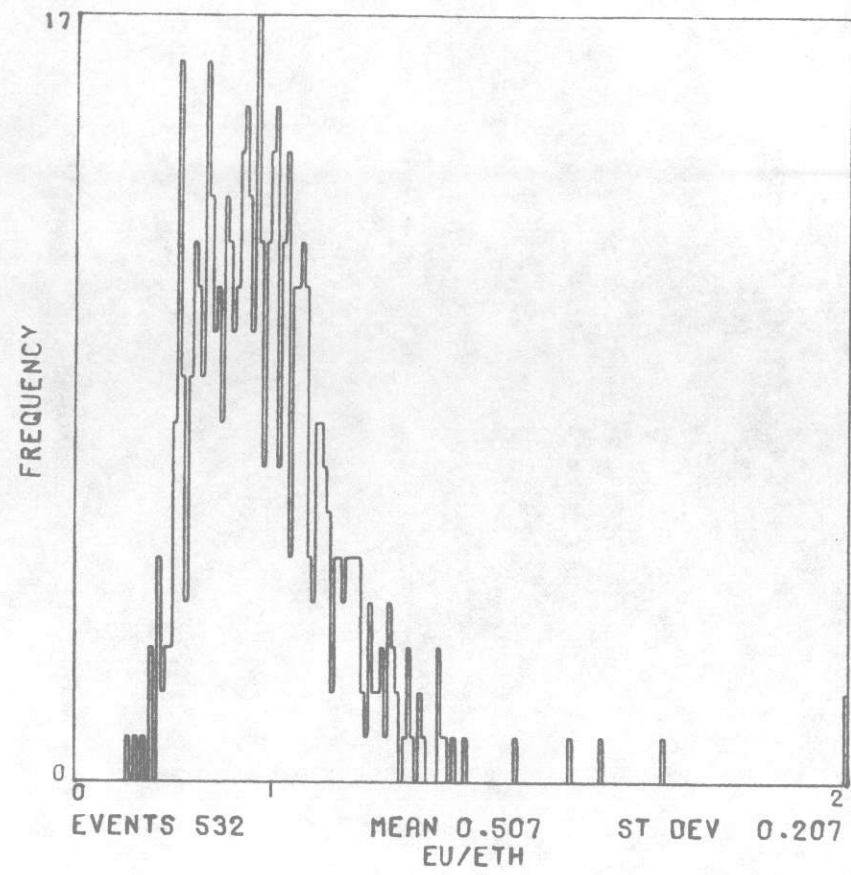


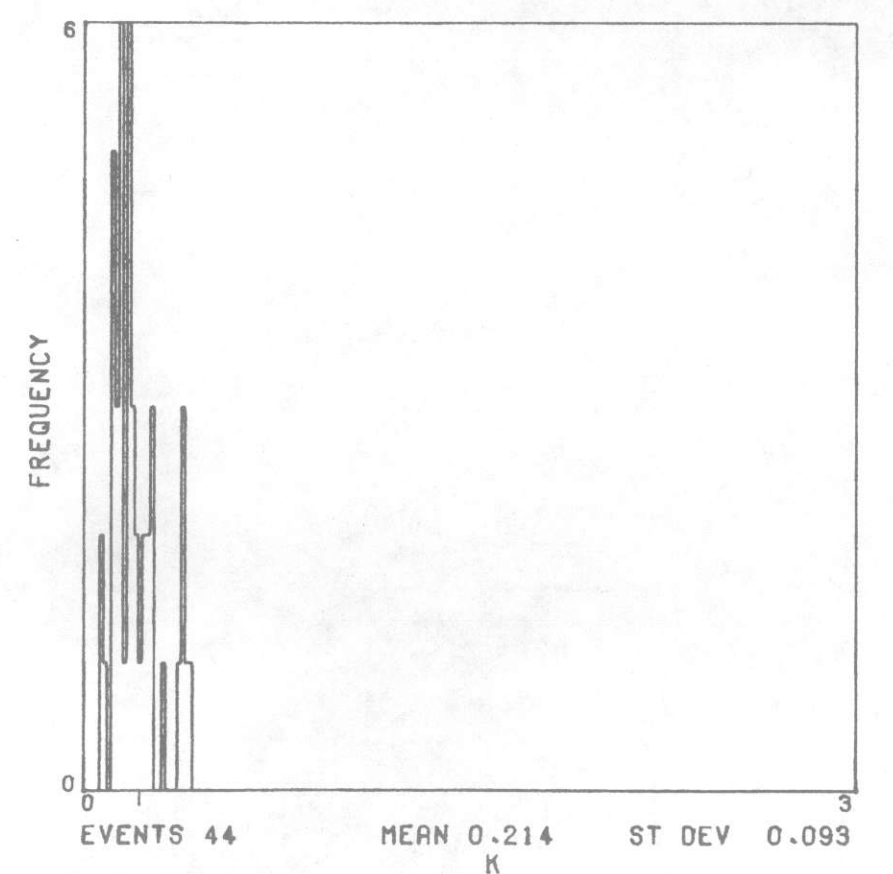
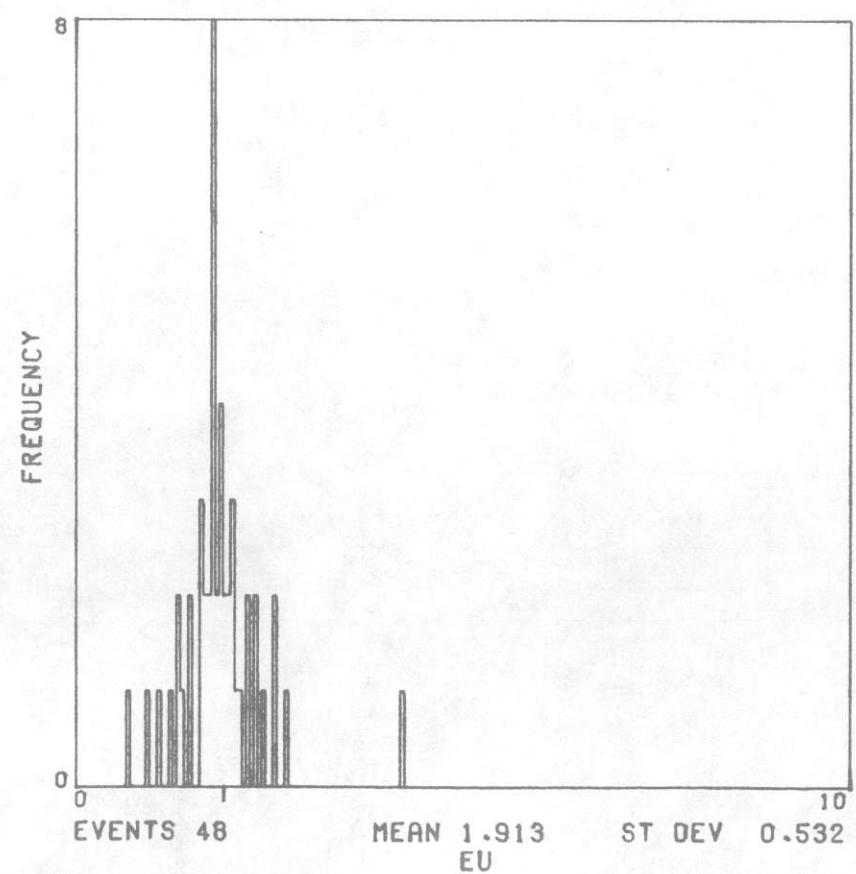
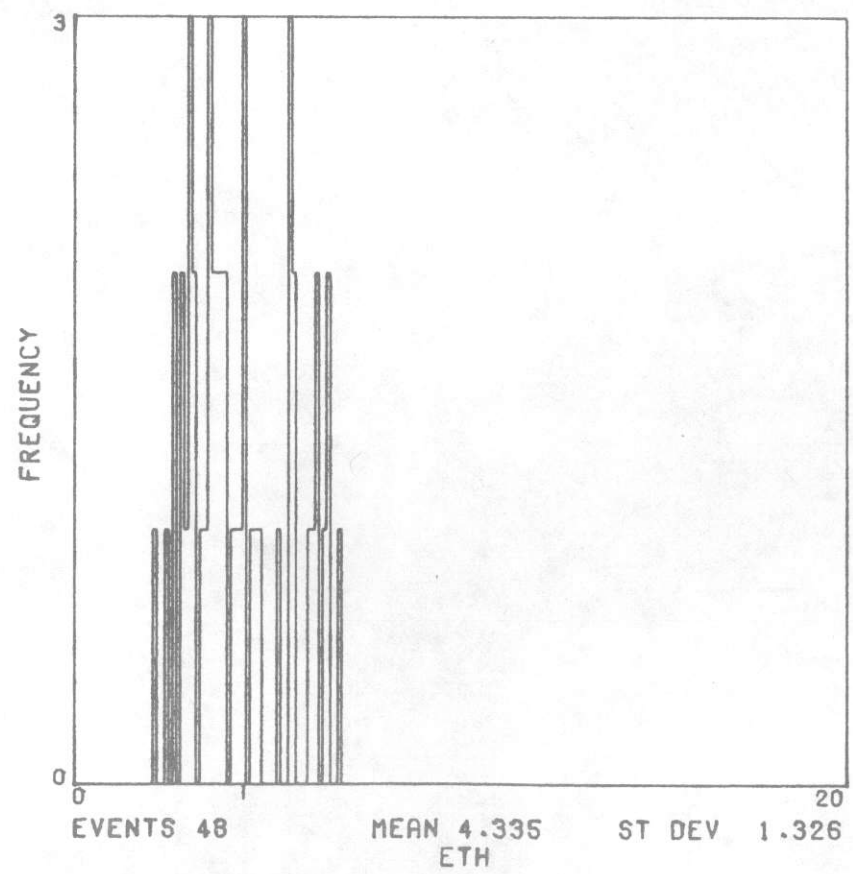
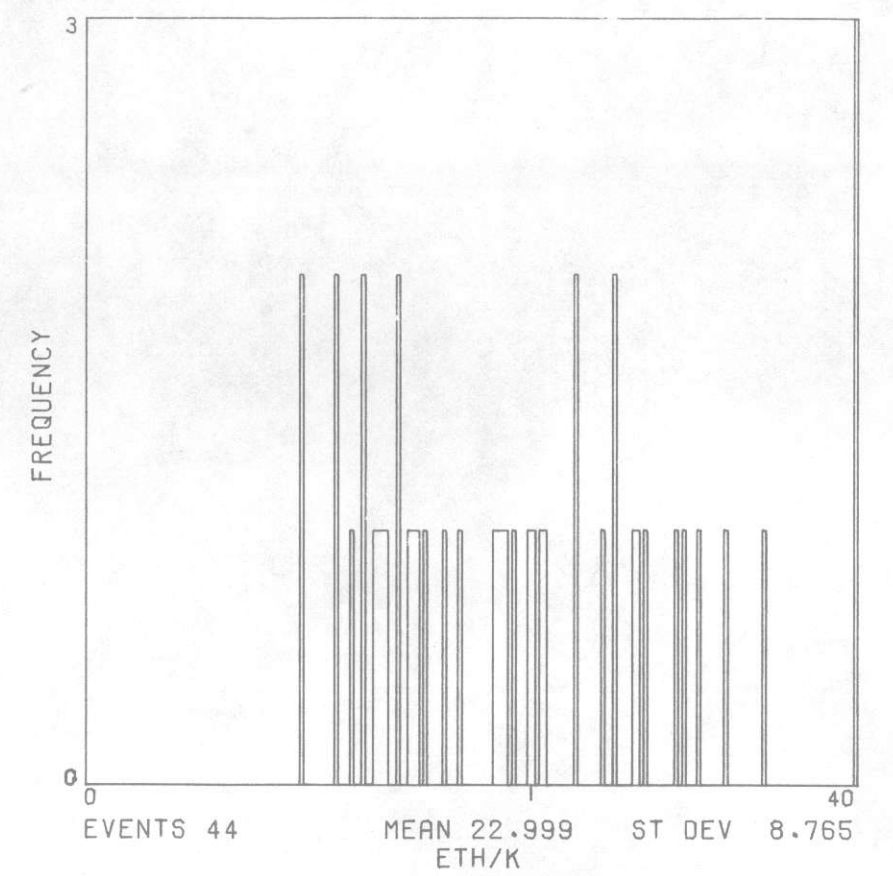
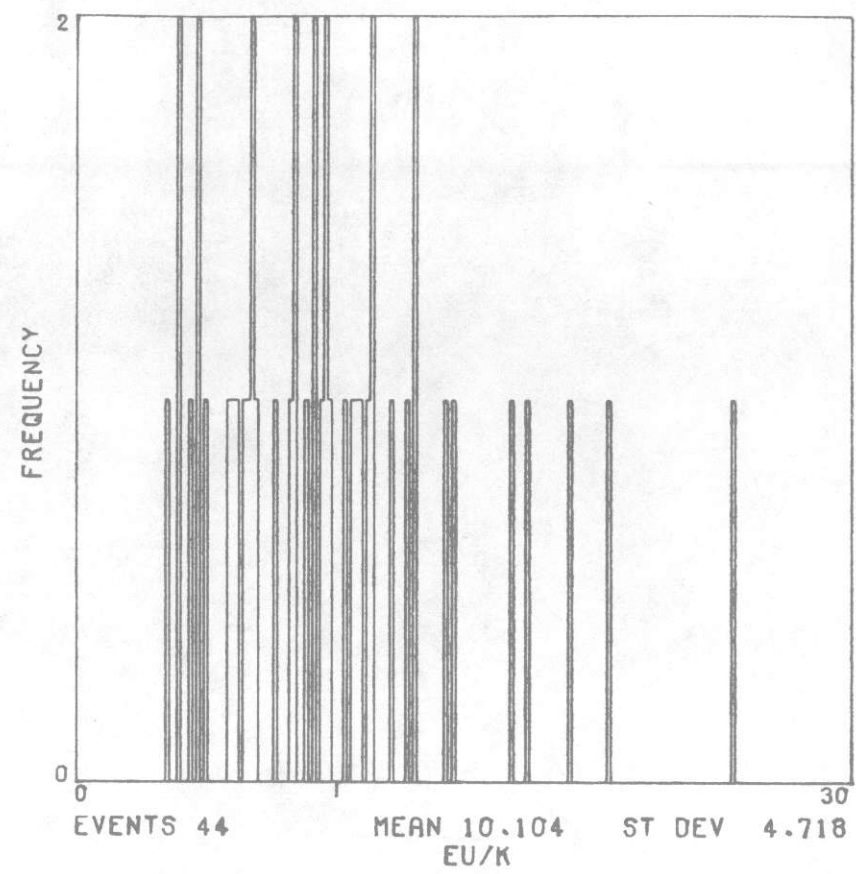
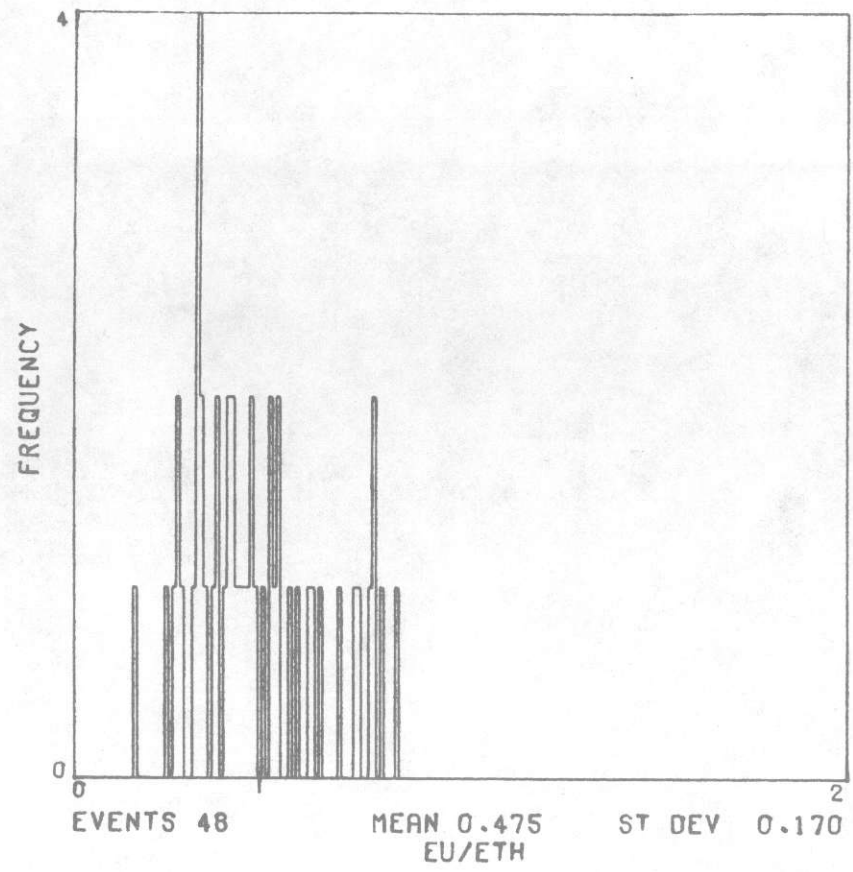
UNIT OCBF



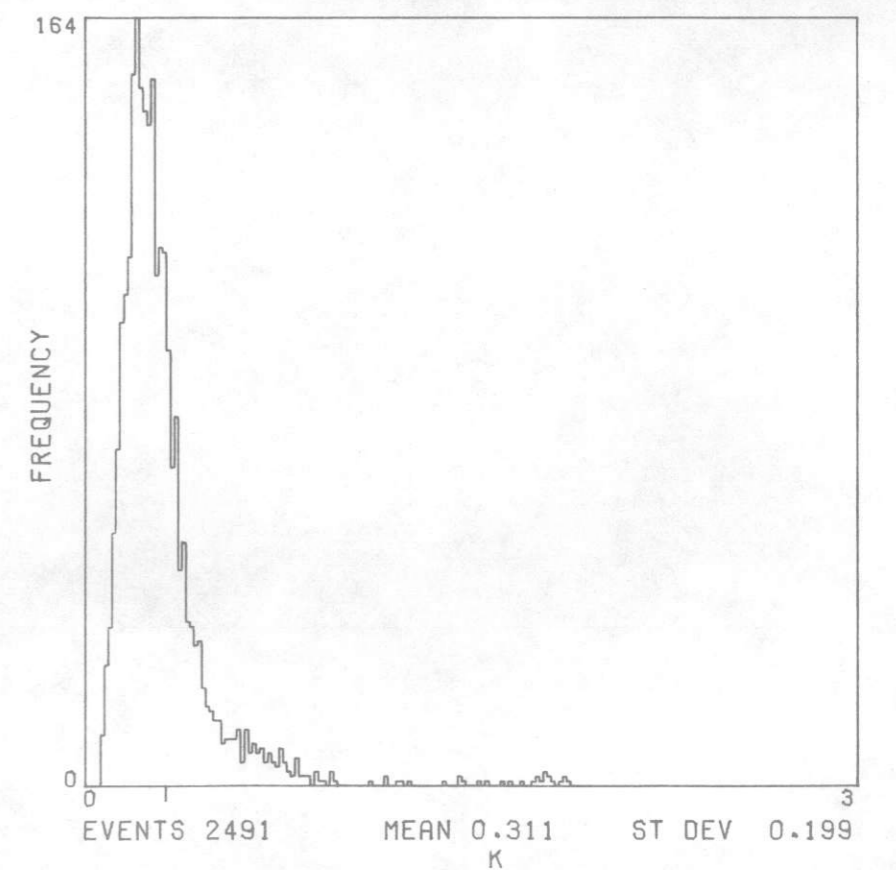
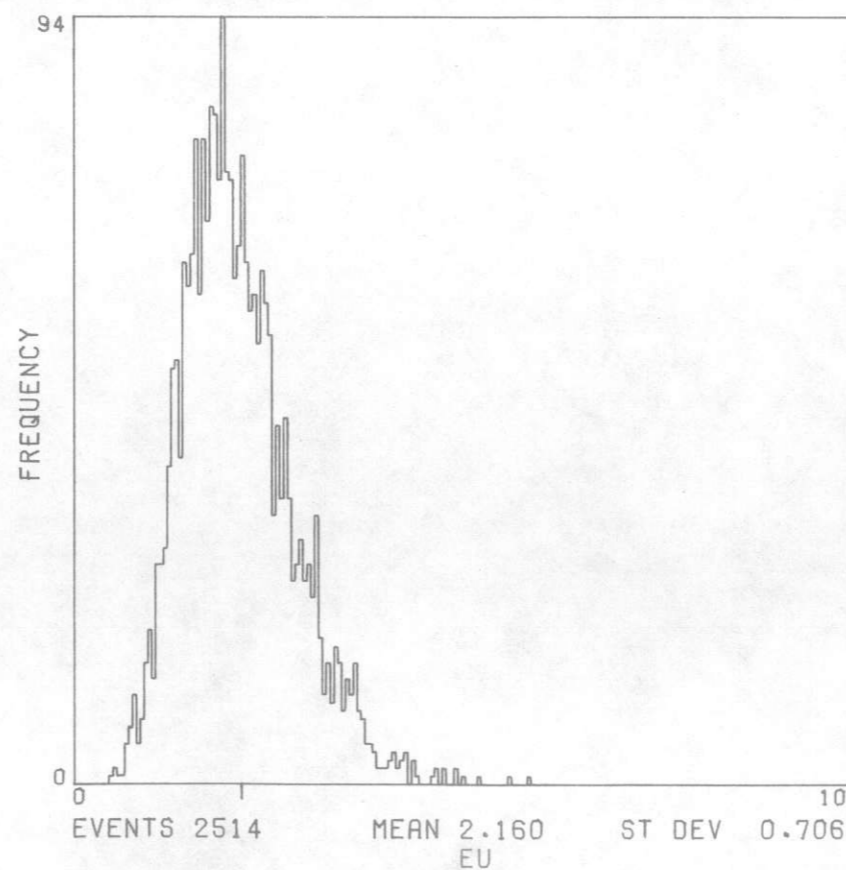
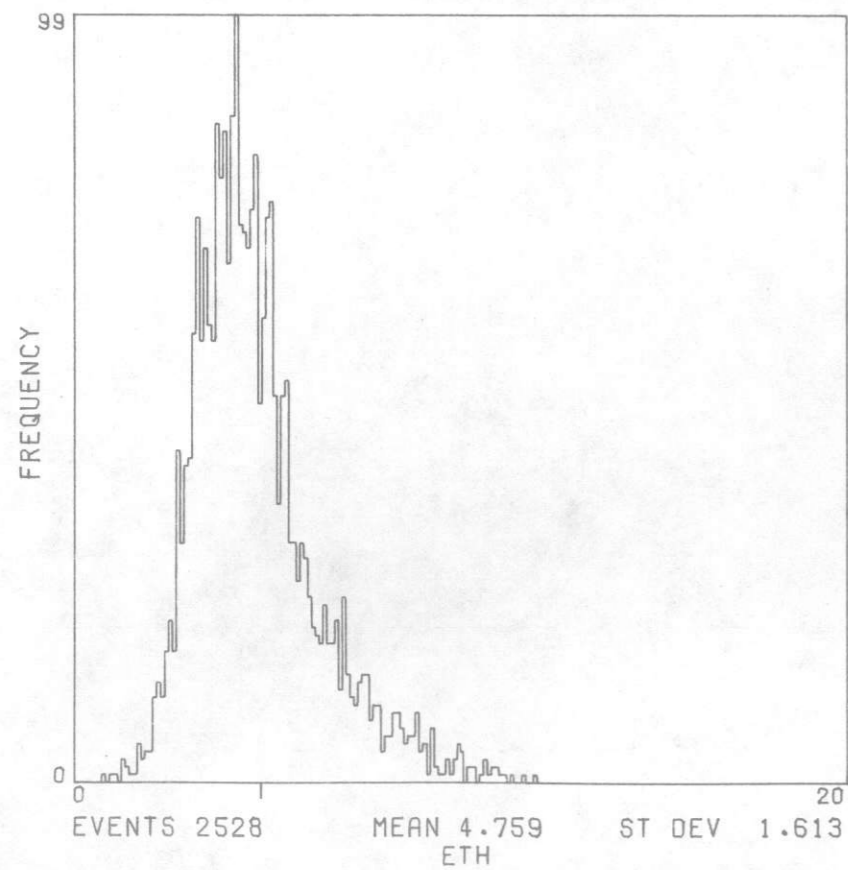
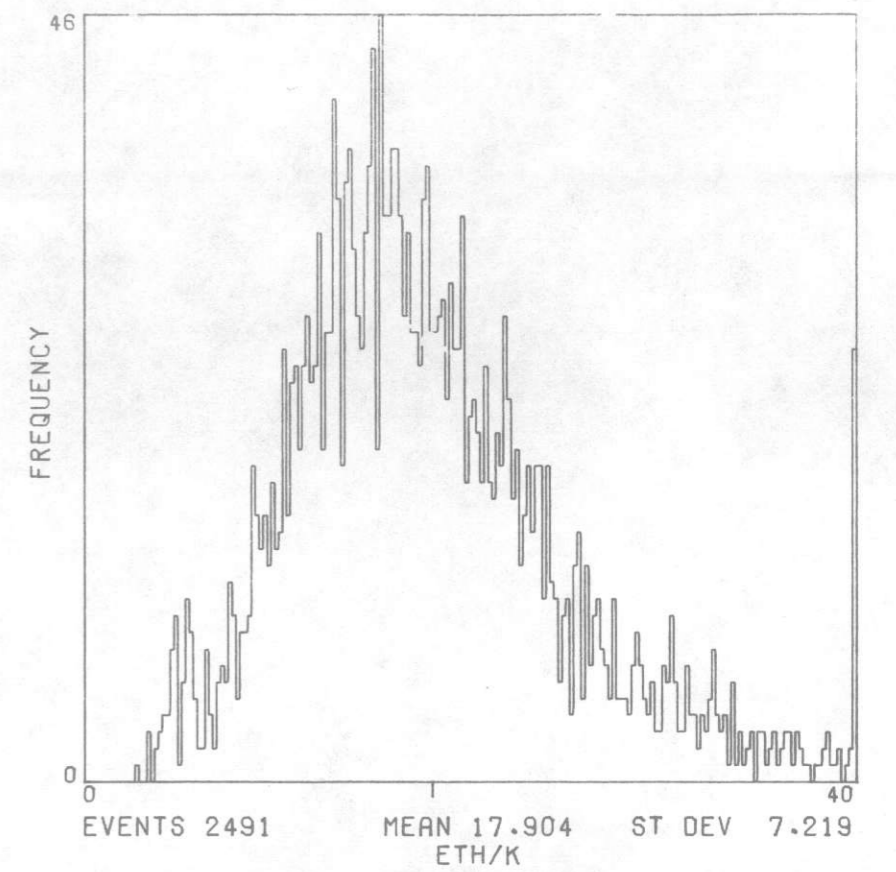
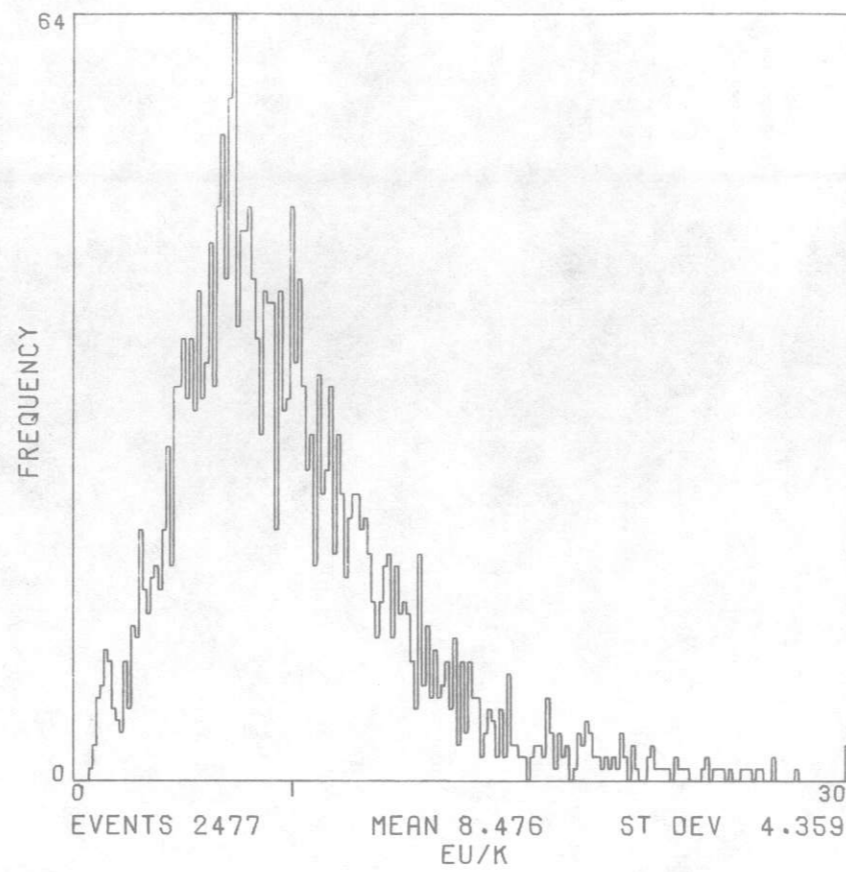
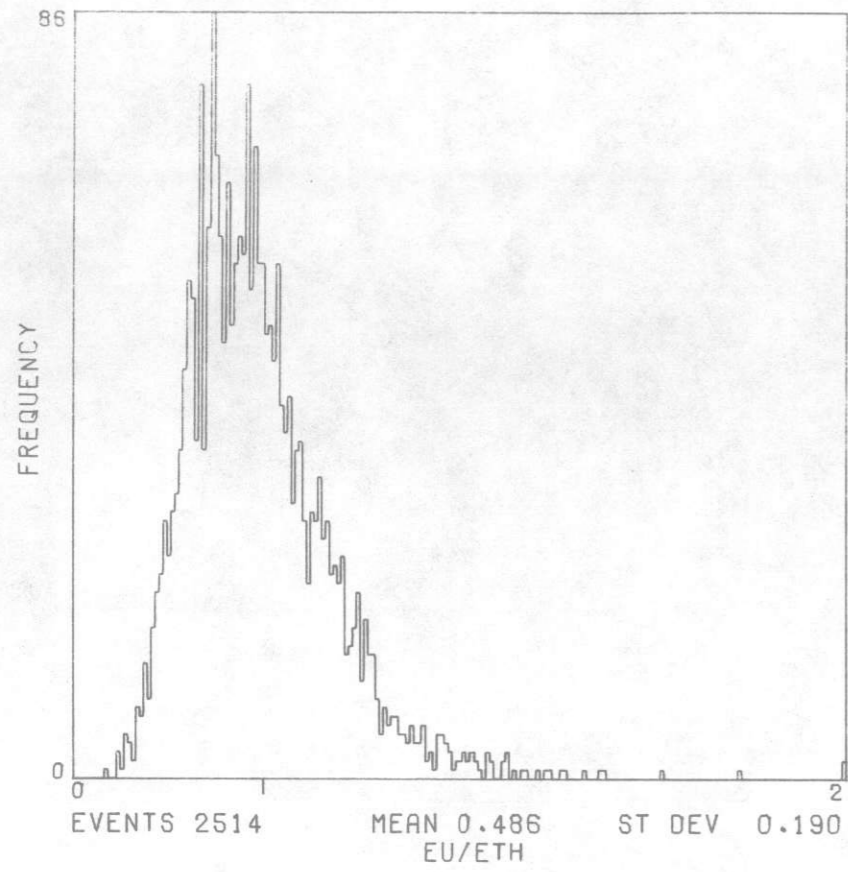
UNIT 0CBK



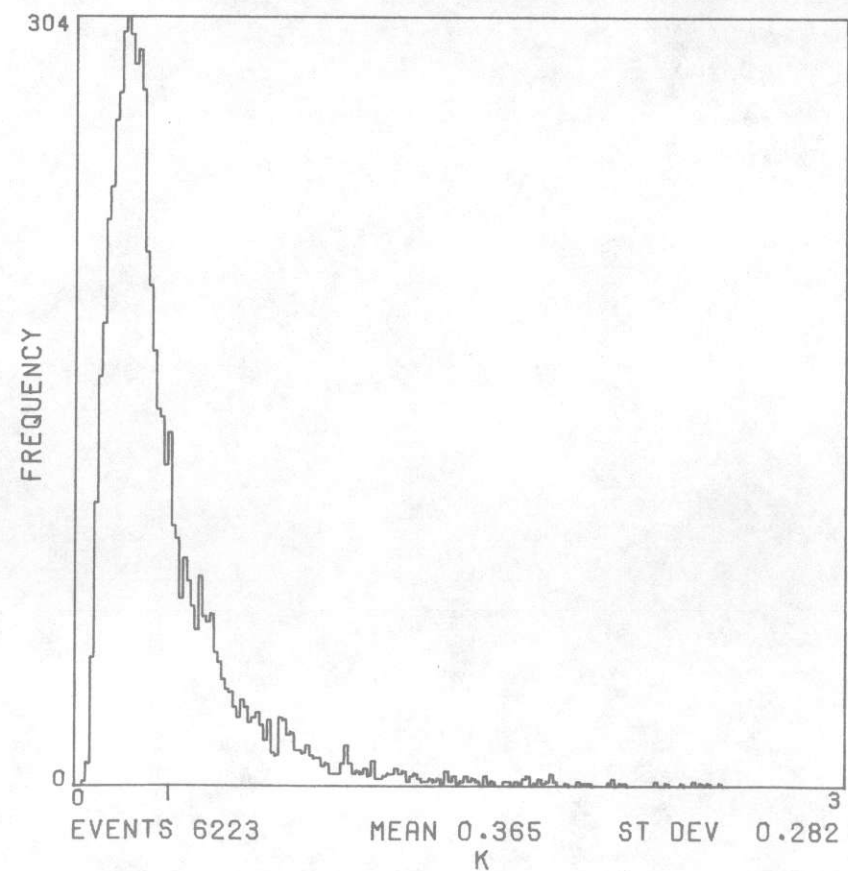
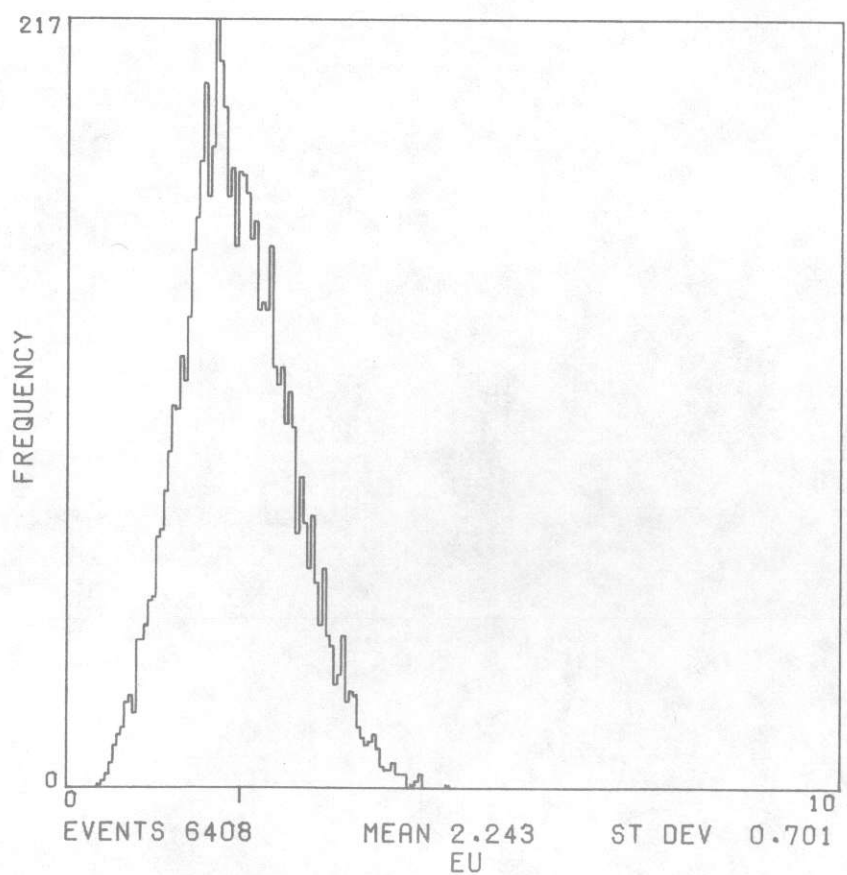
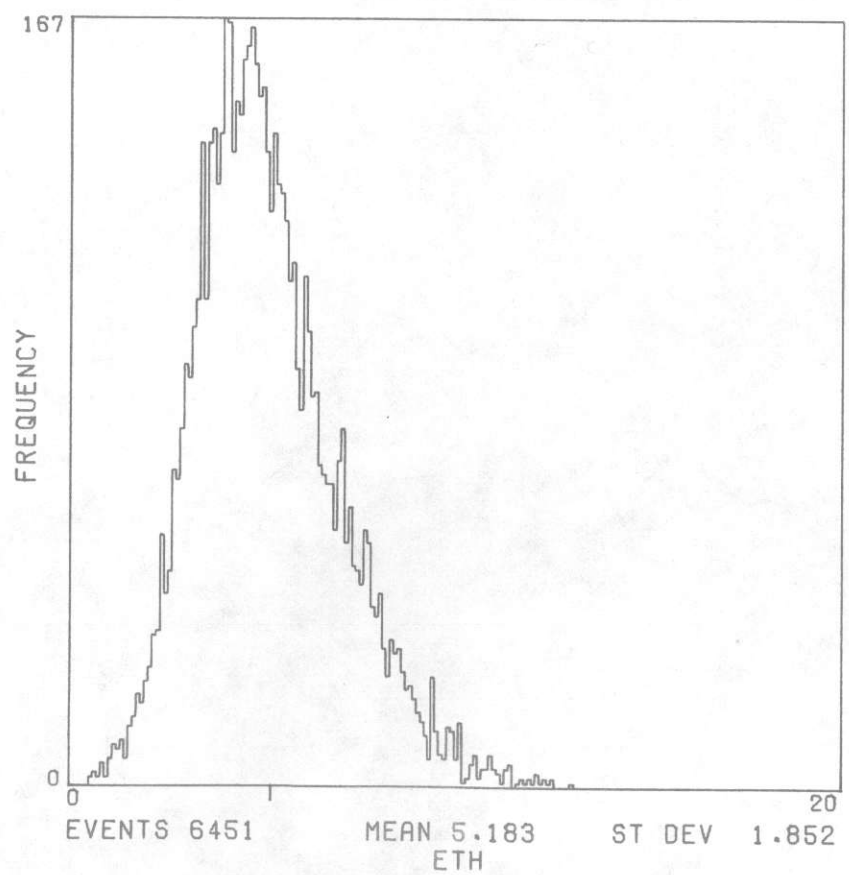
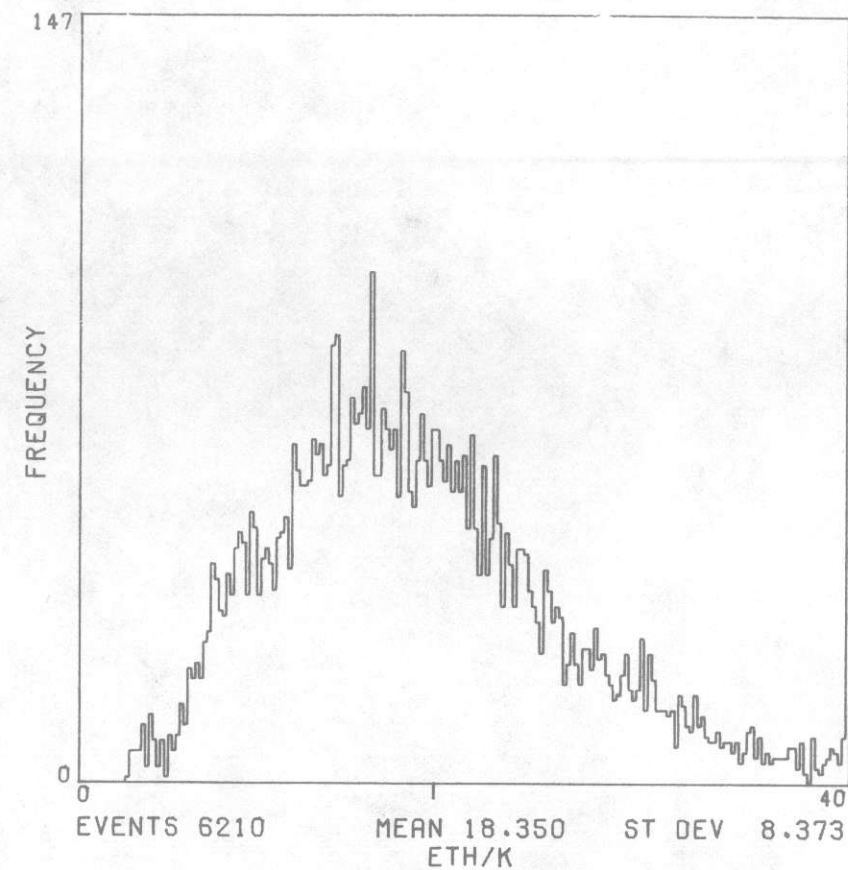
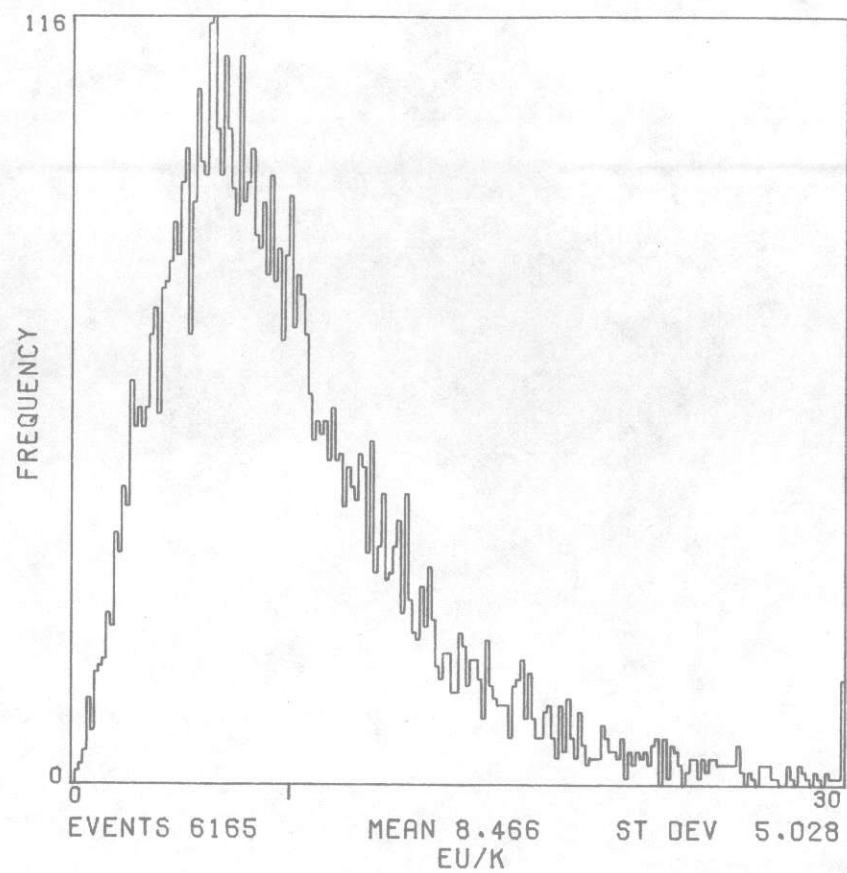
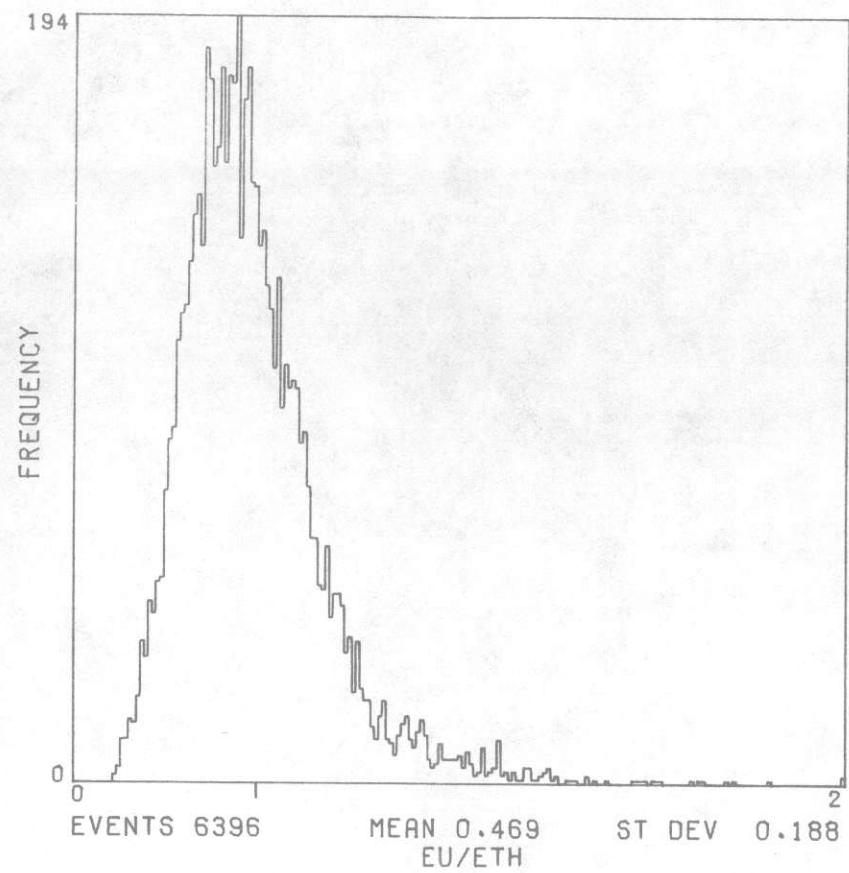




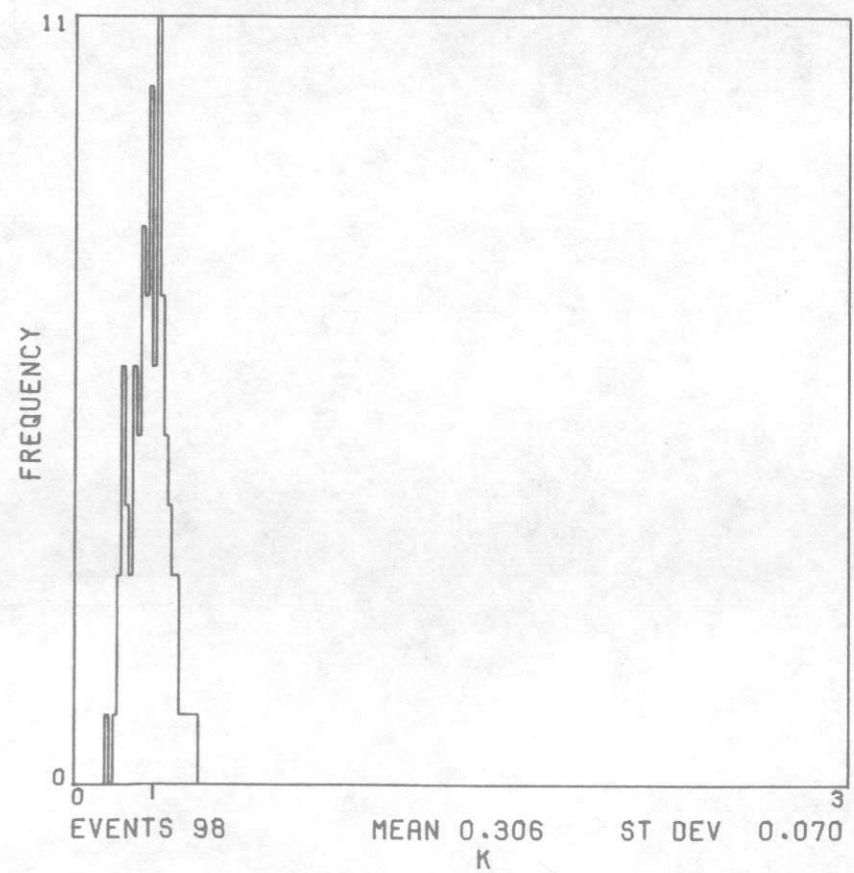
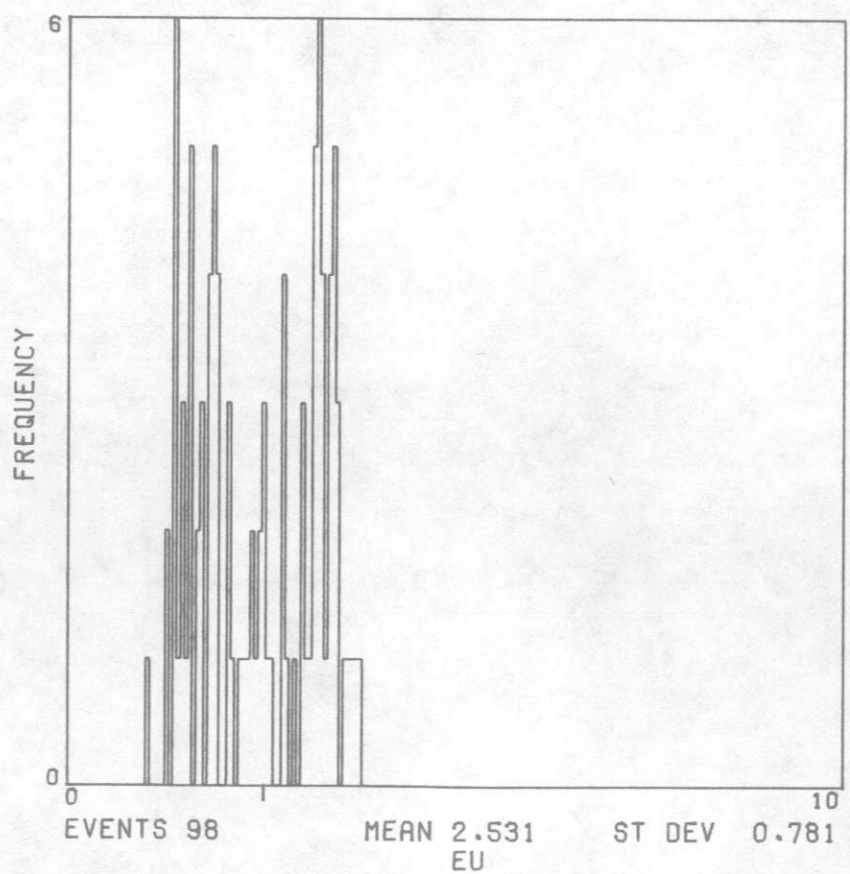
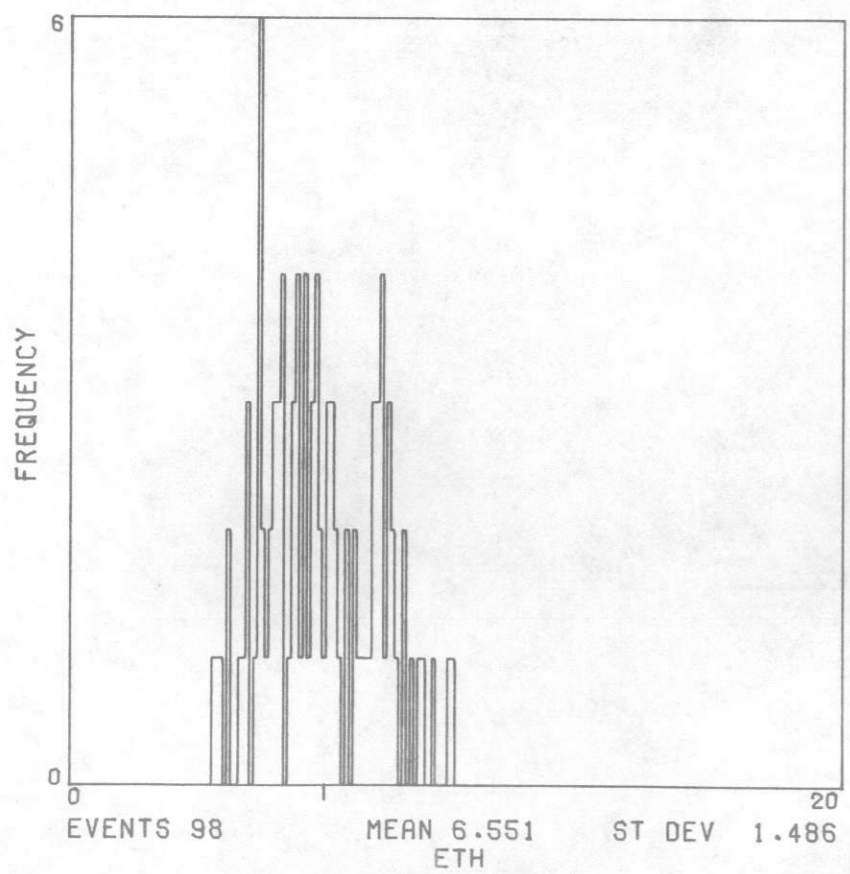
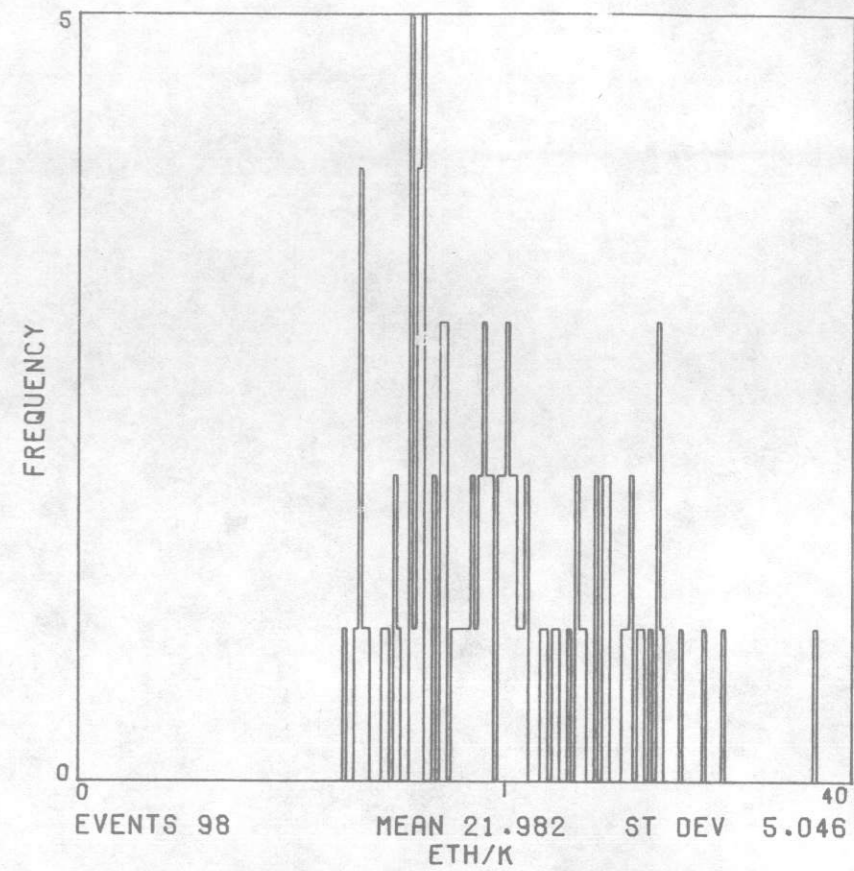
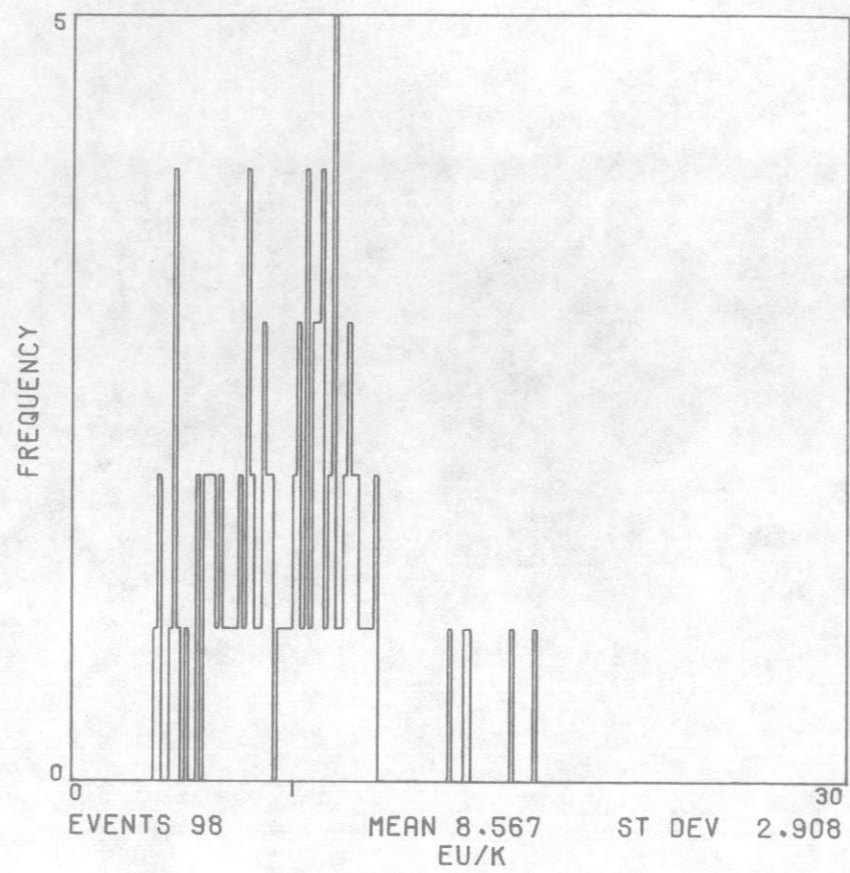
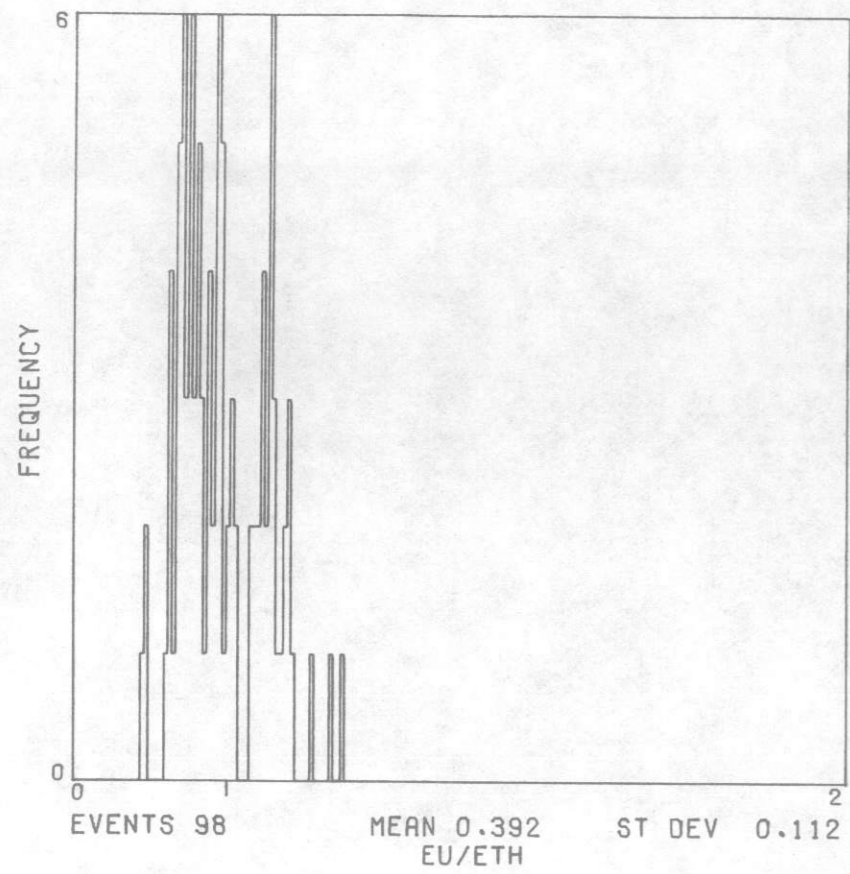
UNIT 0CER



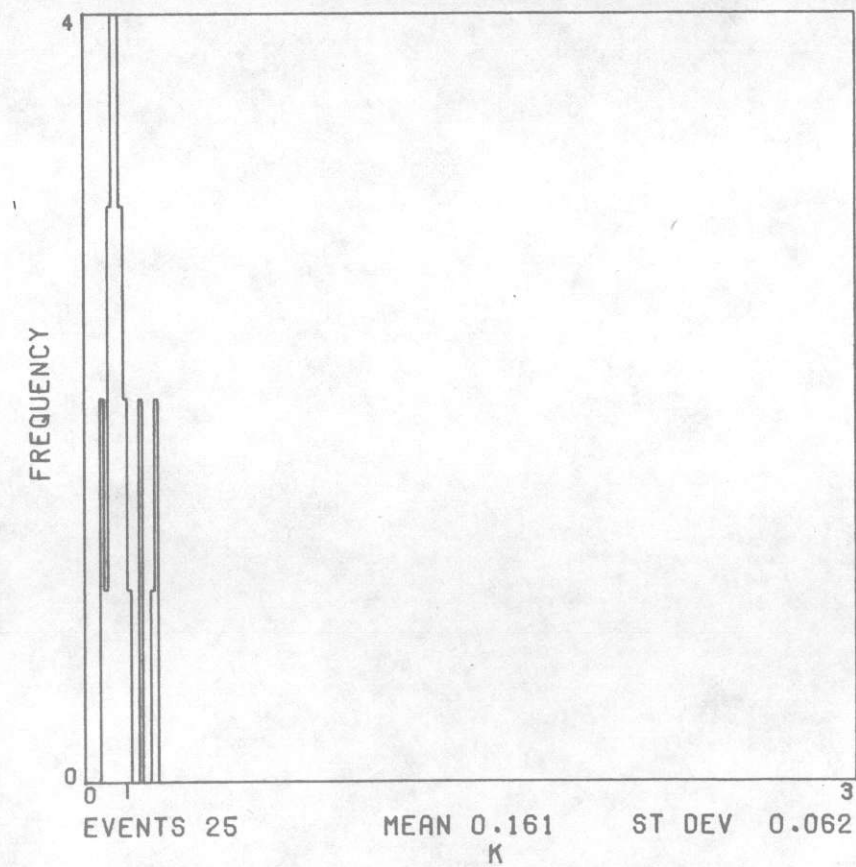
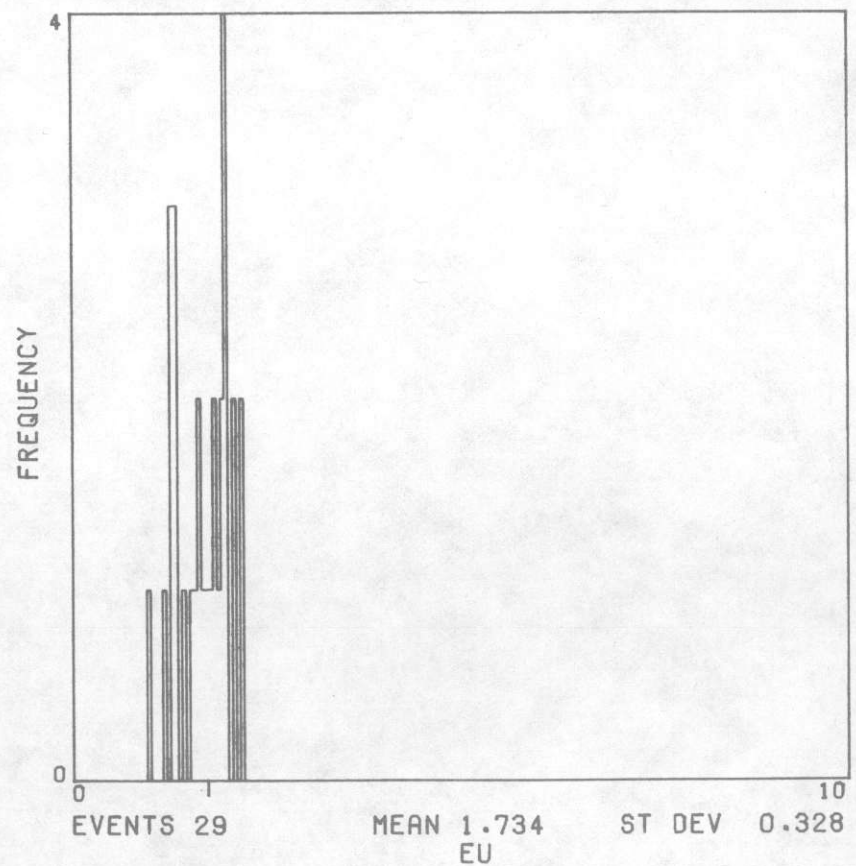
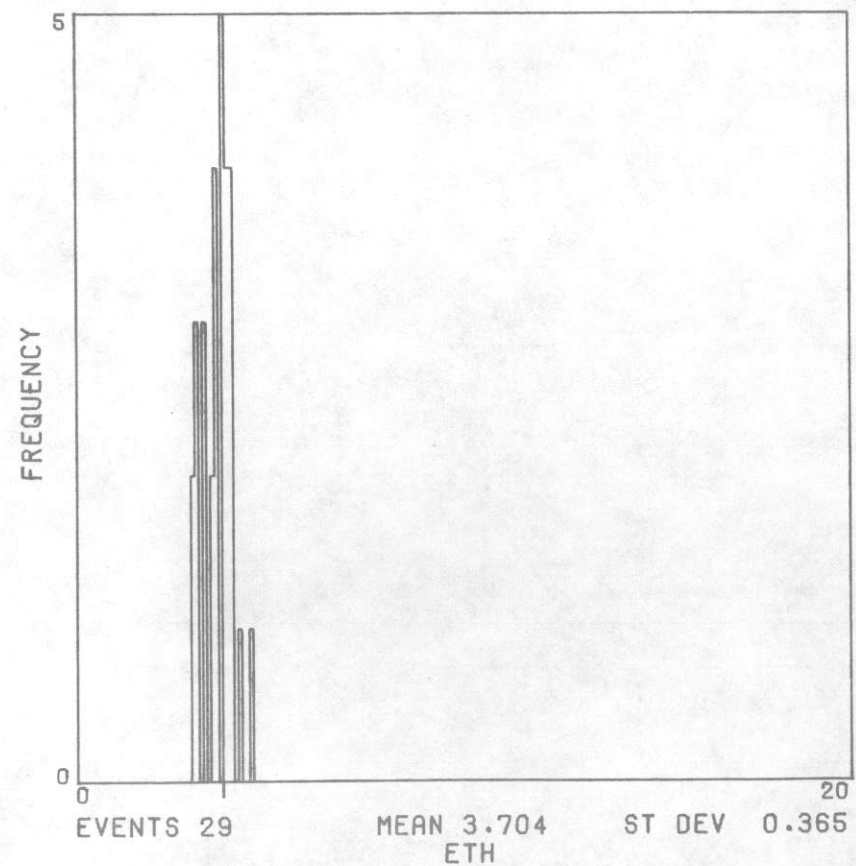
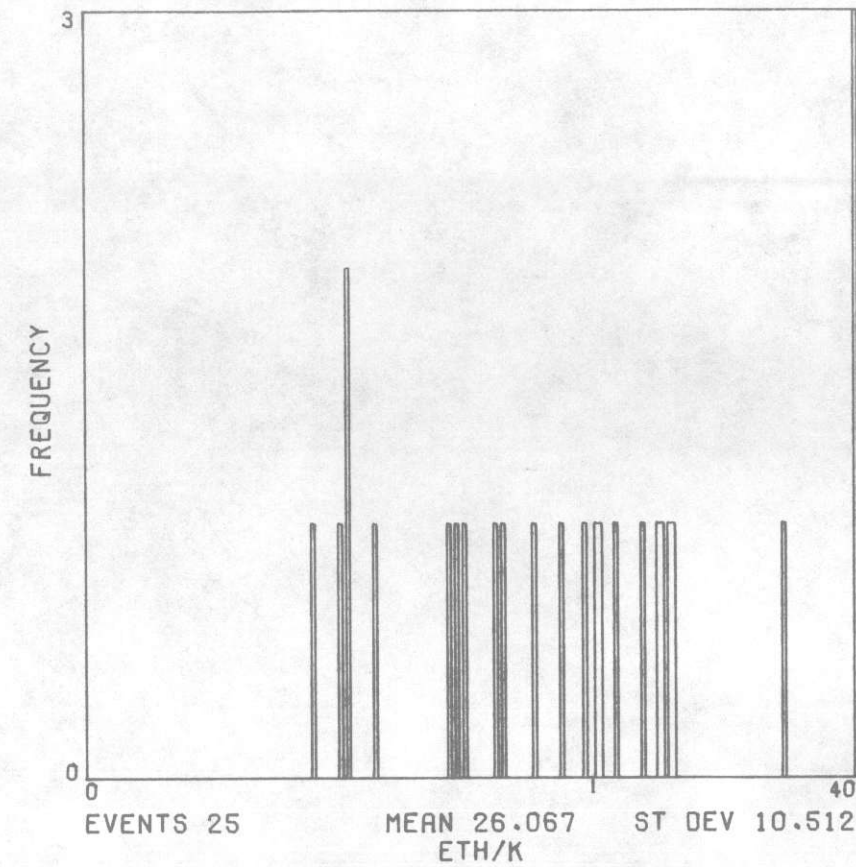
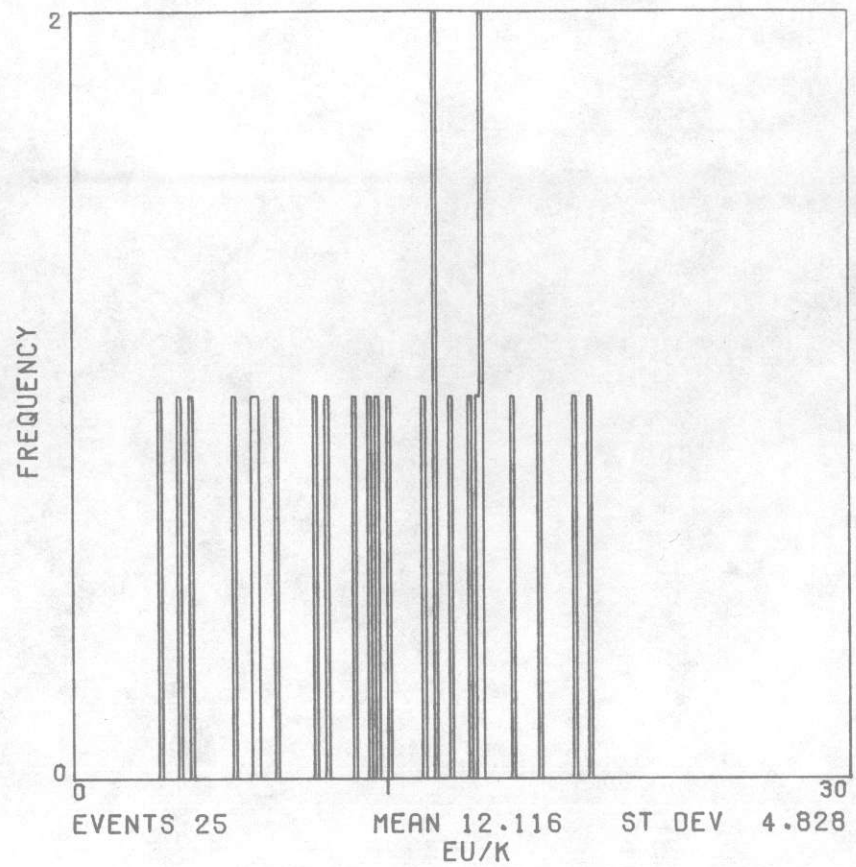
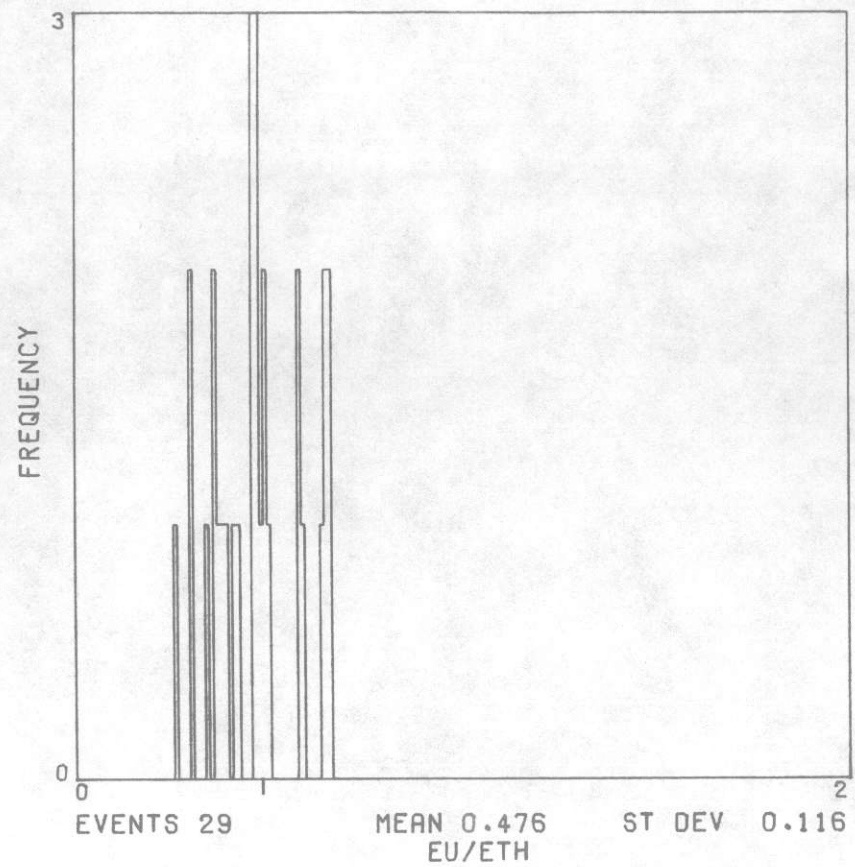
UNIT OCK



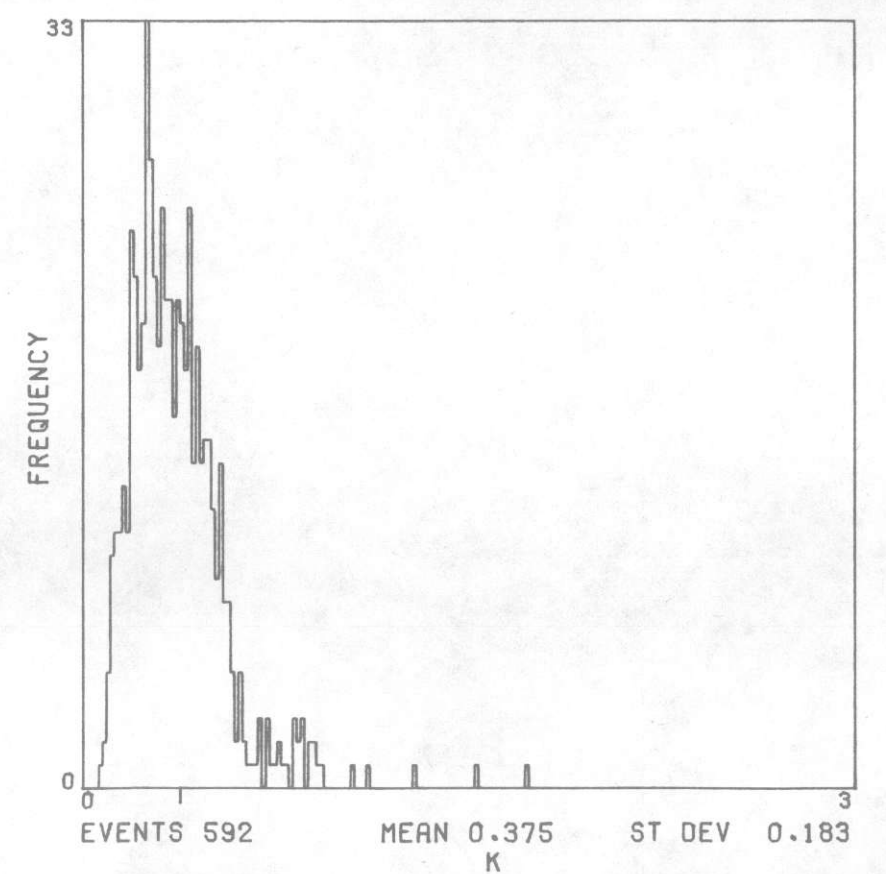
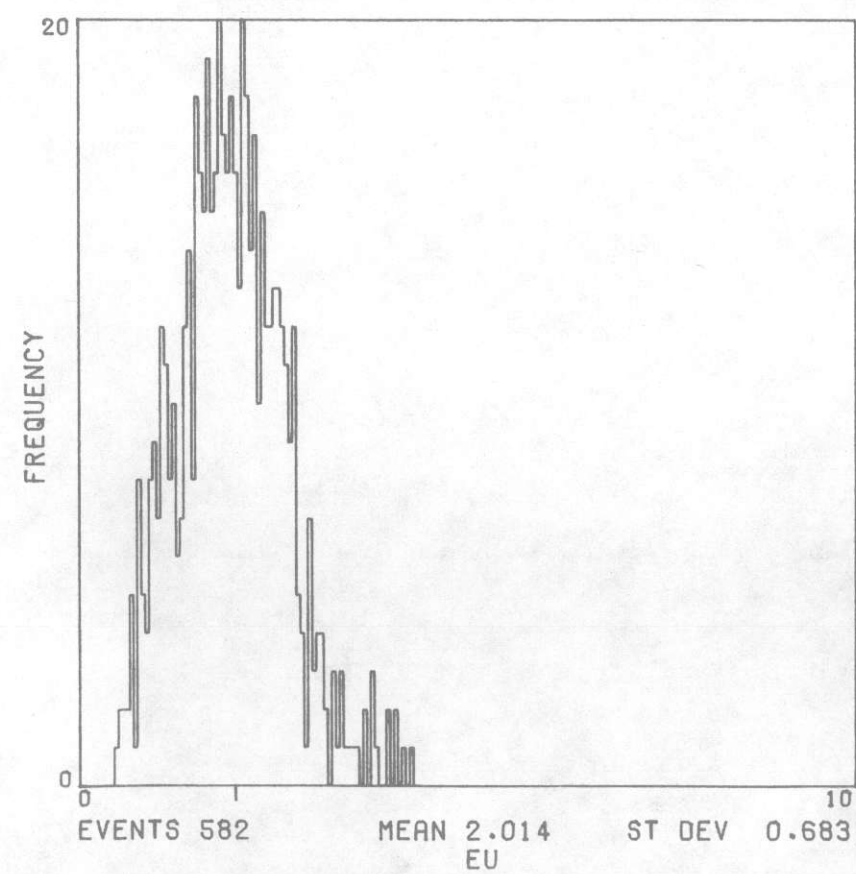
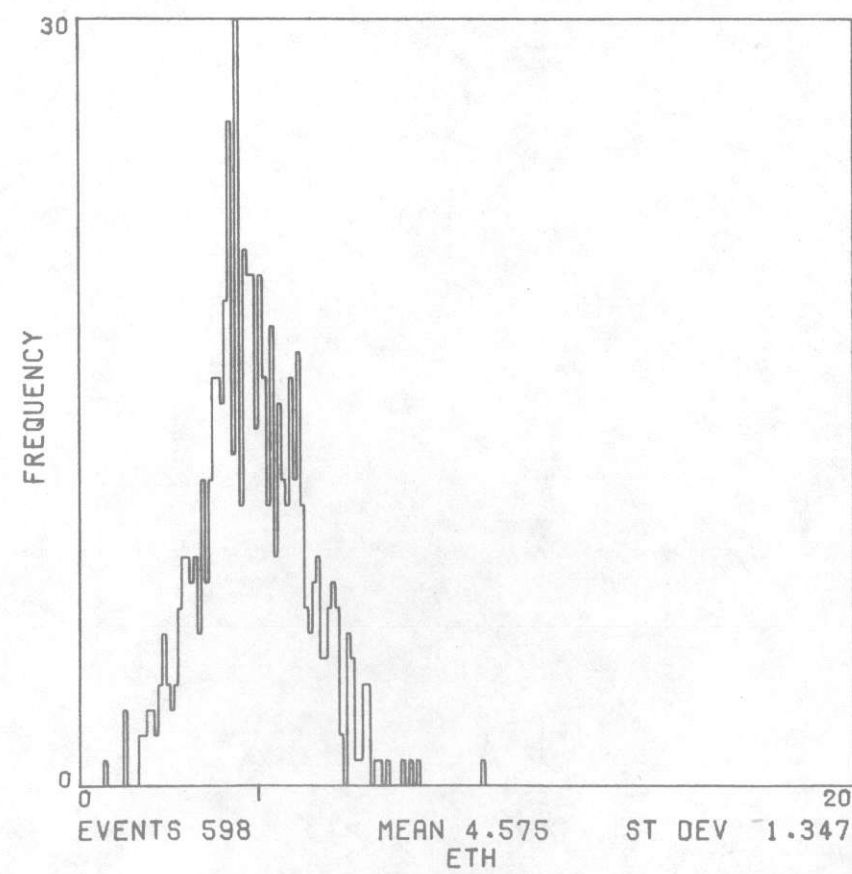
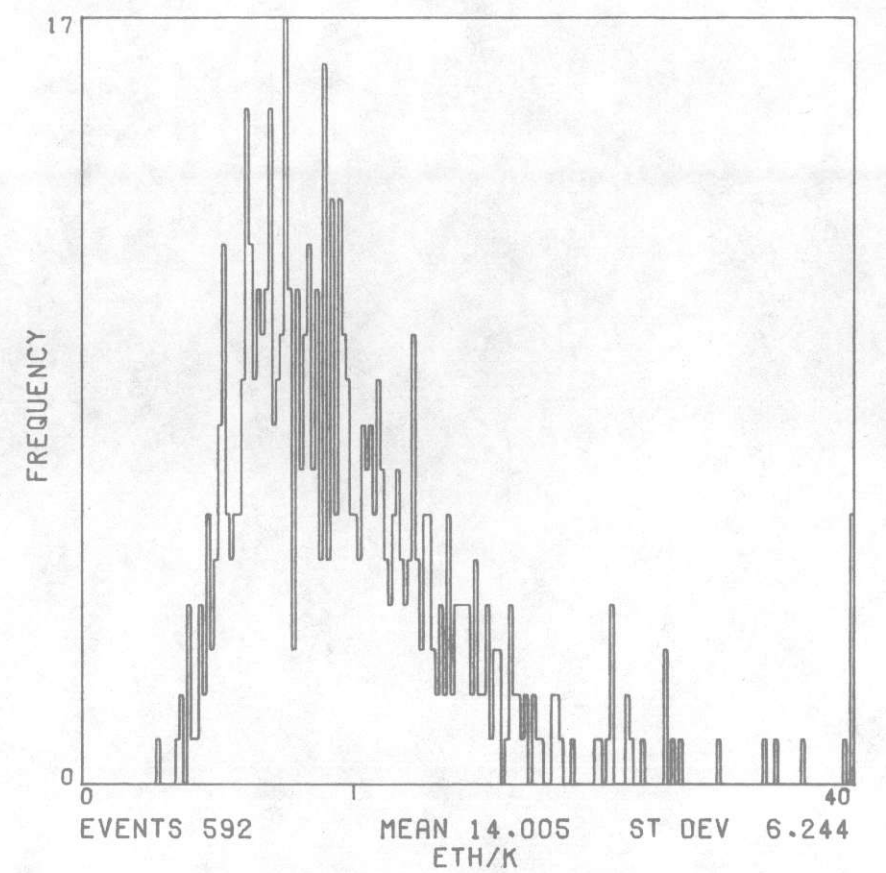
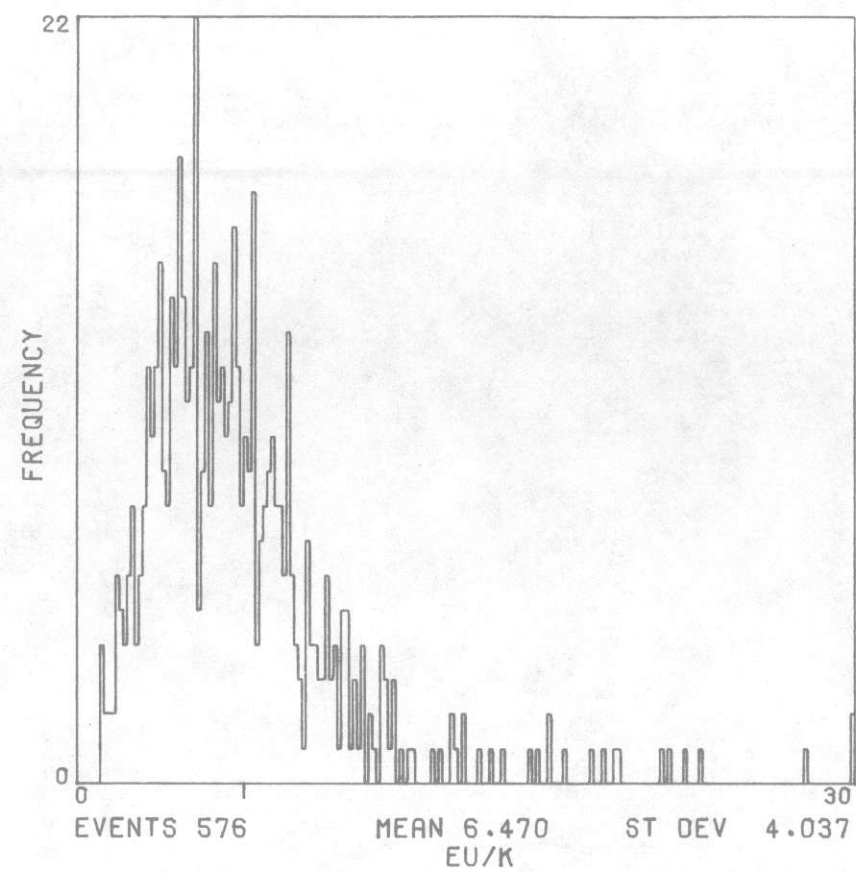
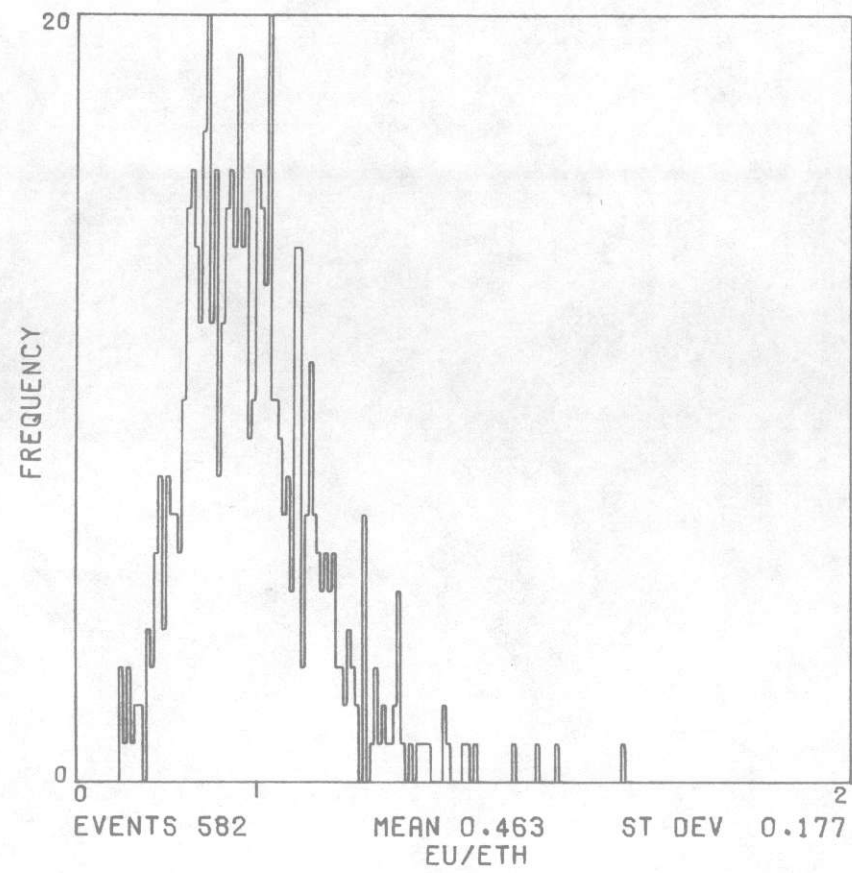
UNIT 00U



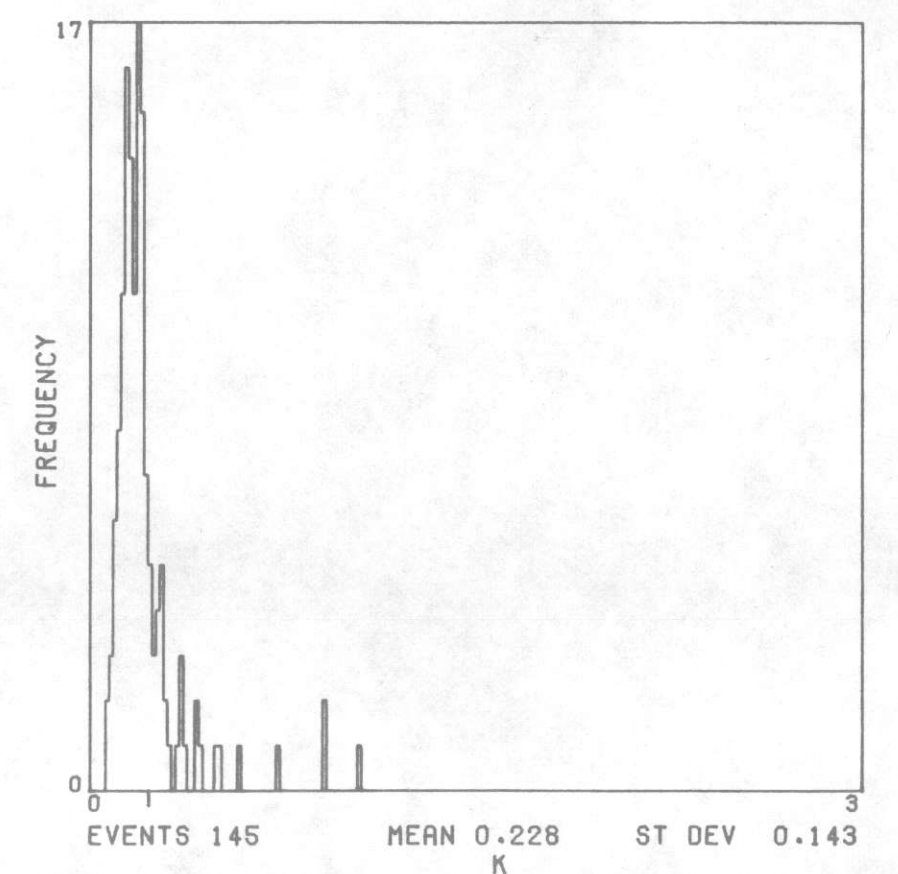
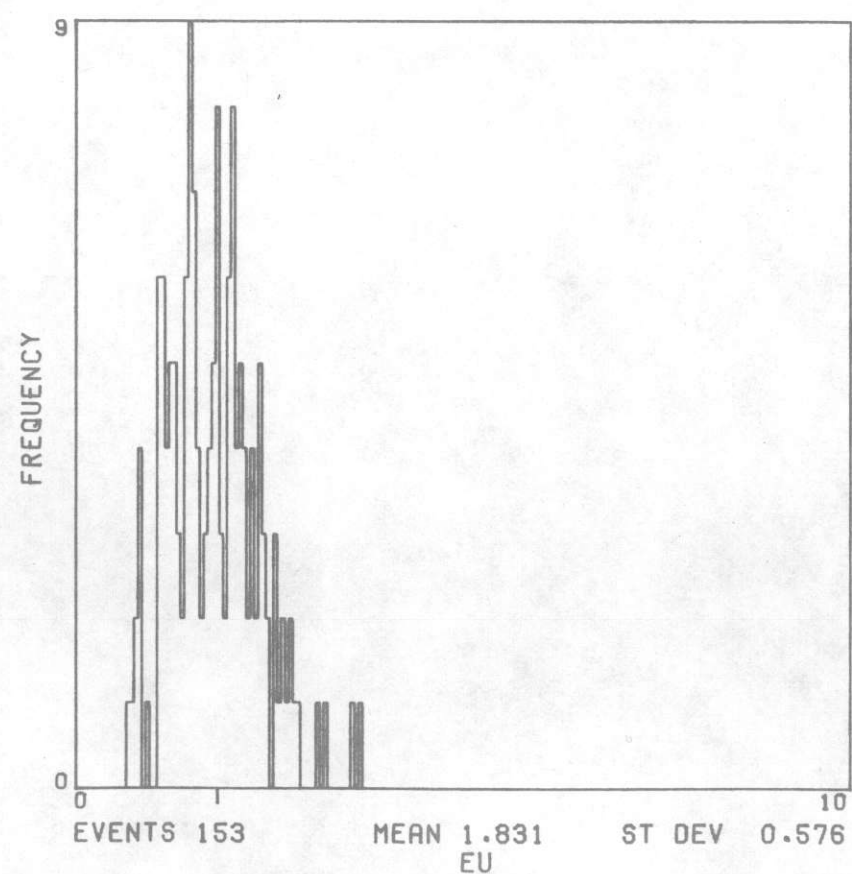
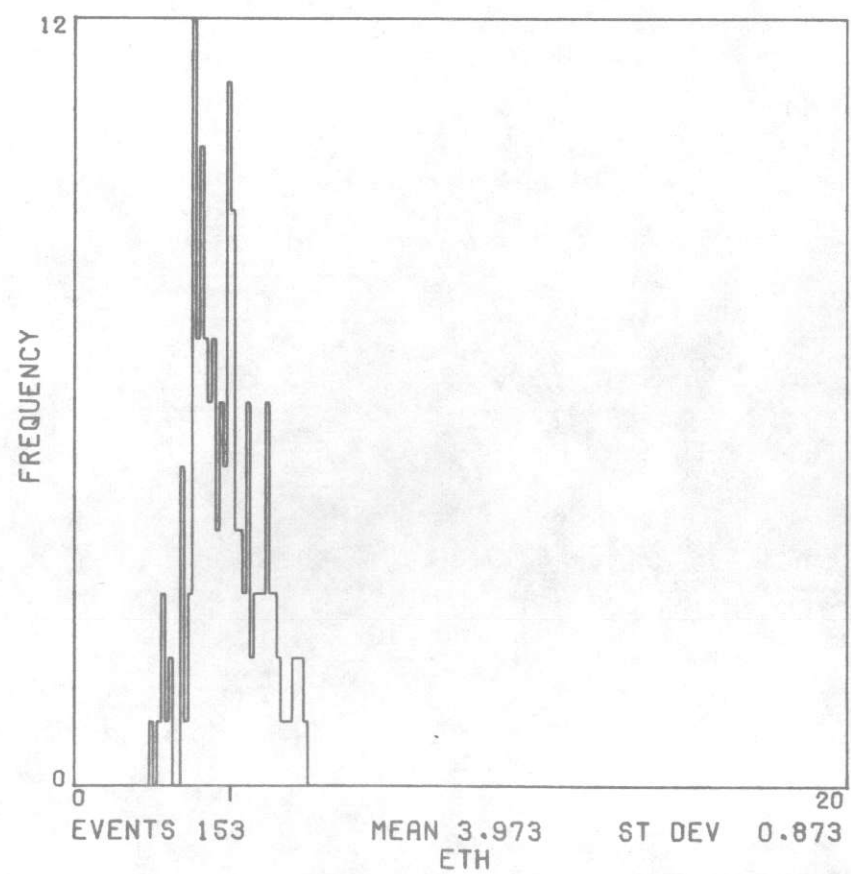
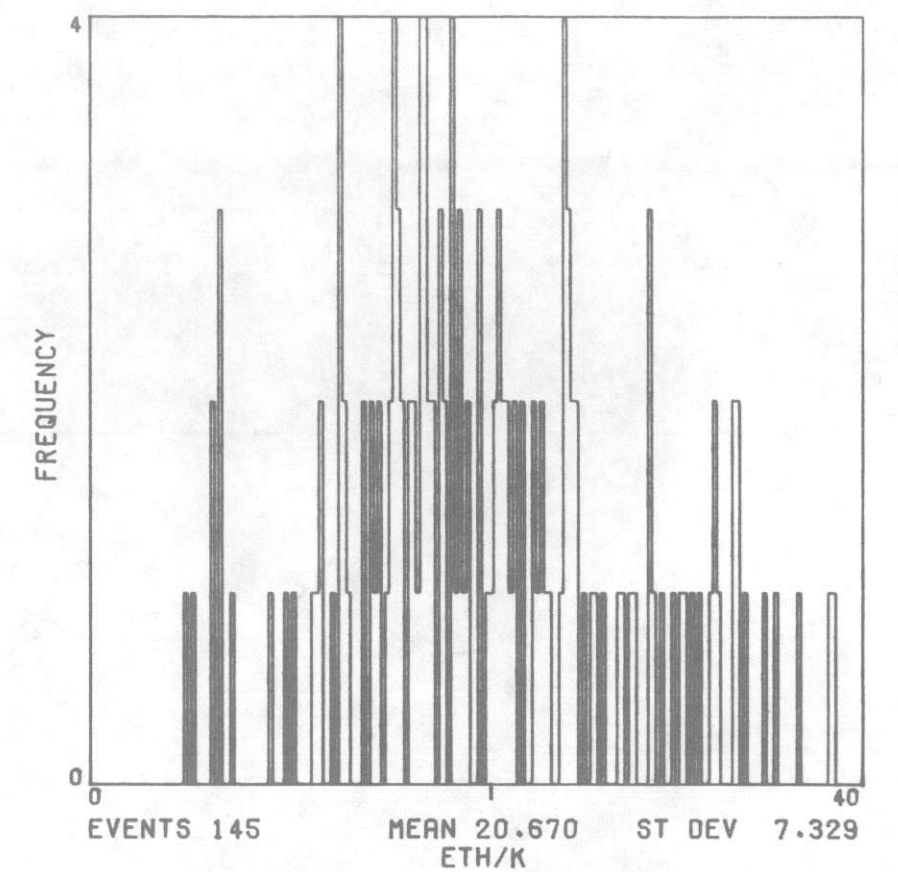
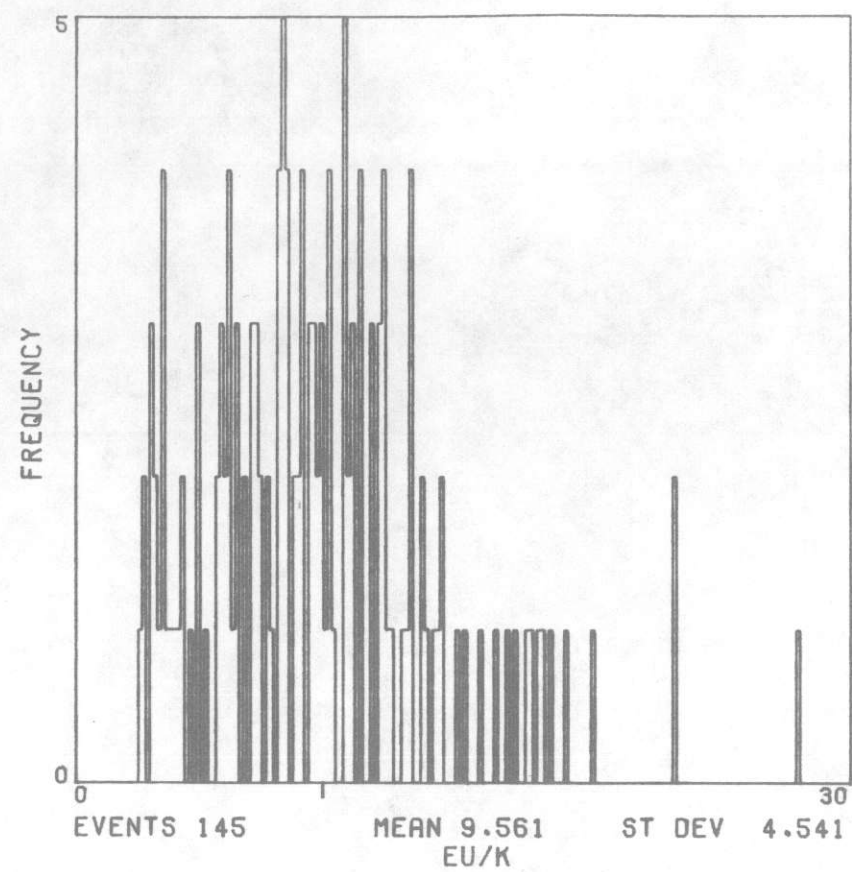
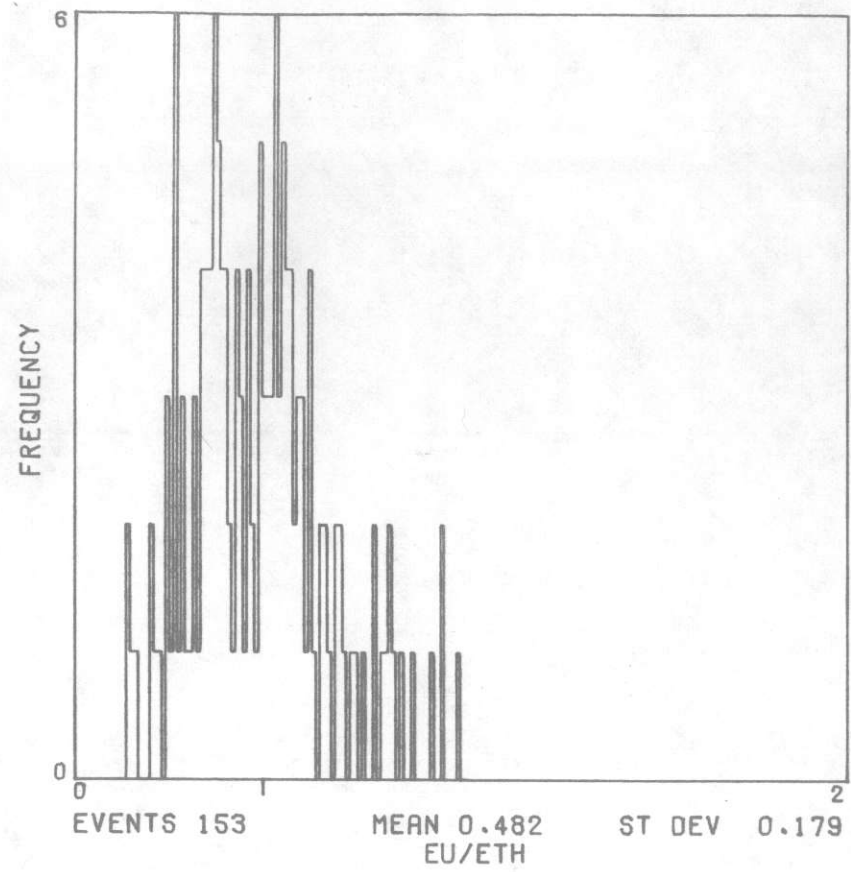
UNIT 0EB

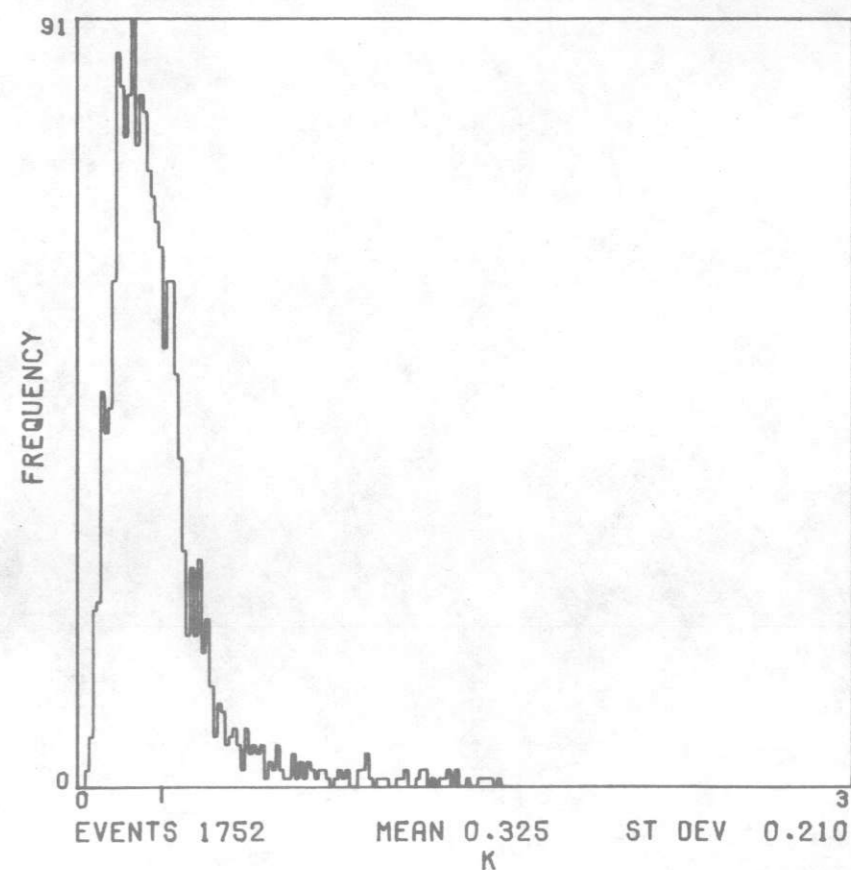
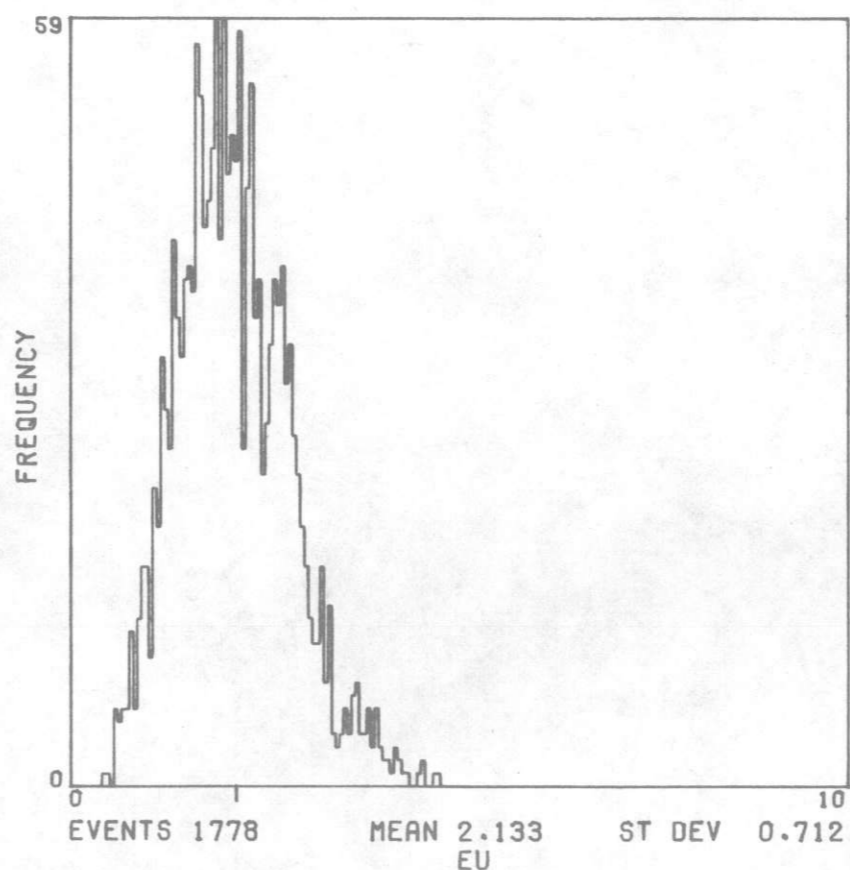
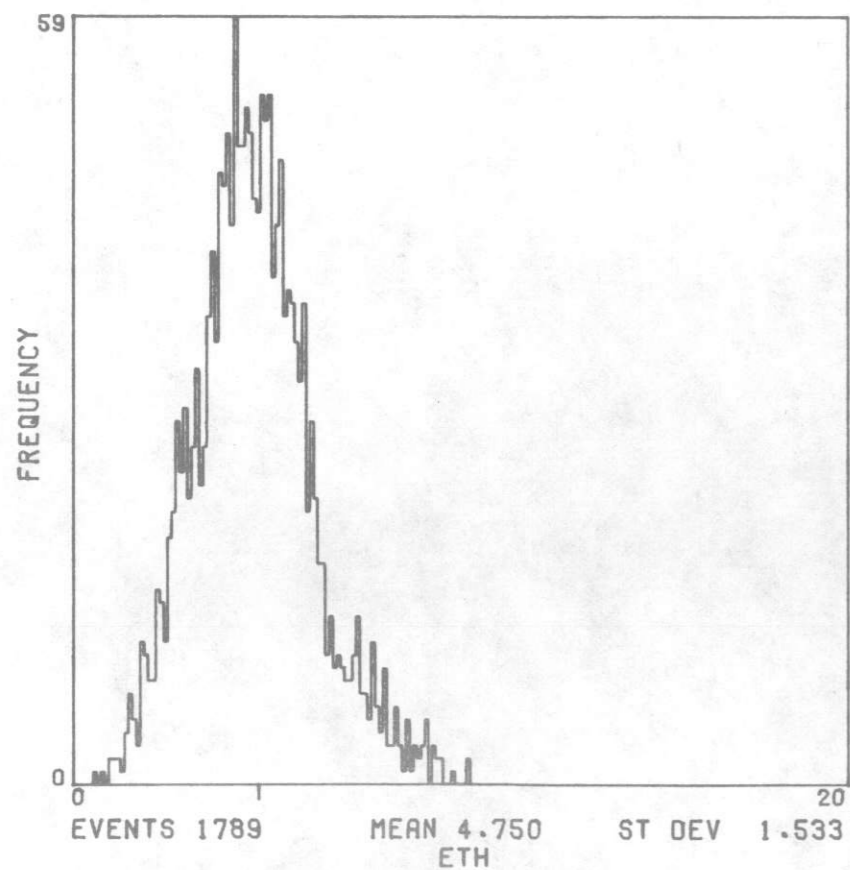
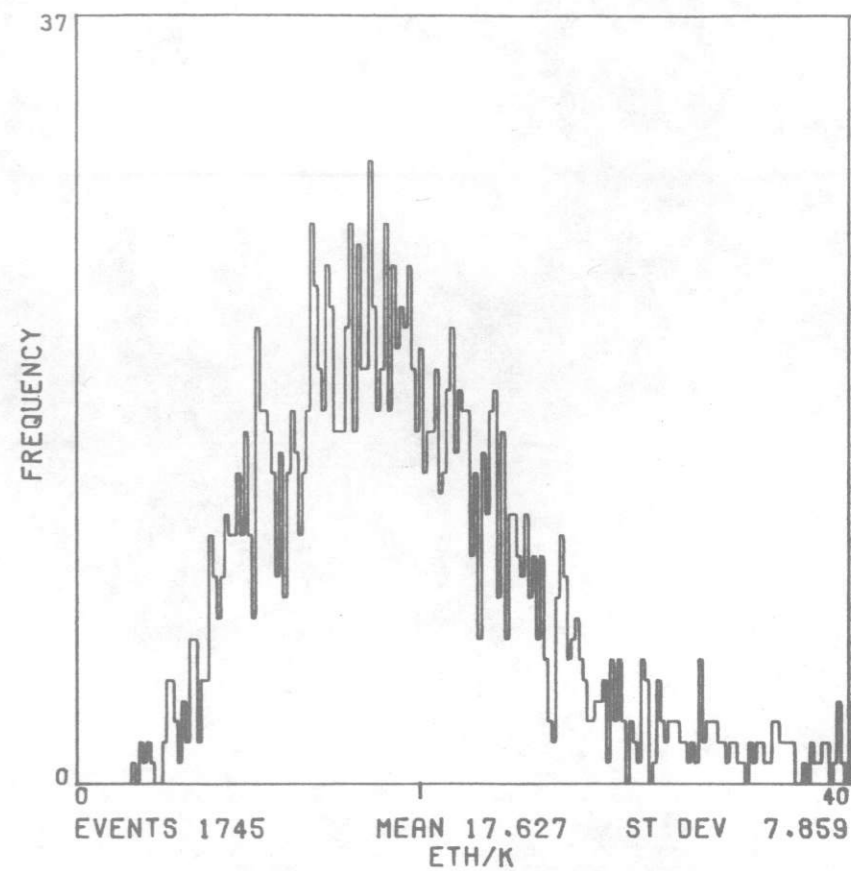
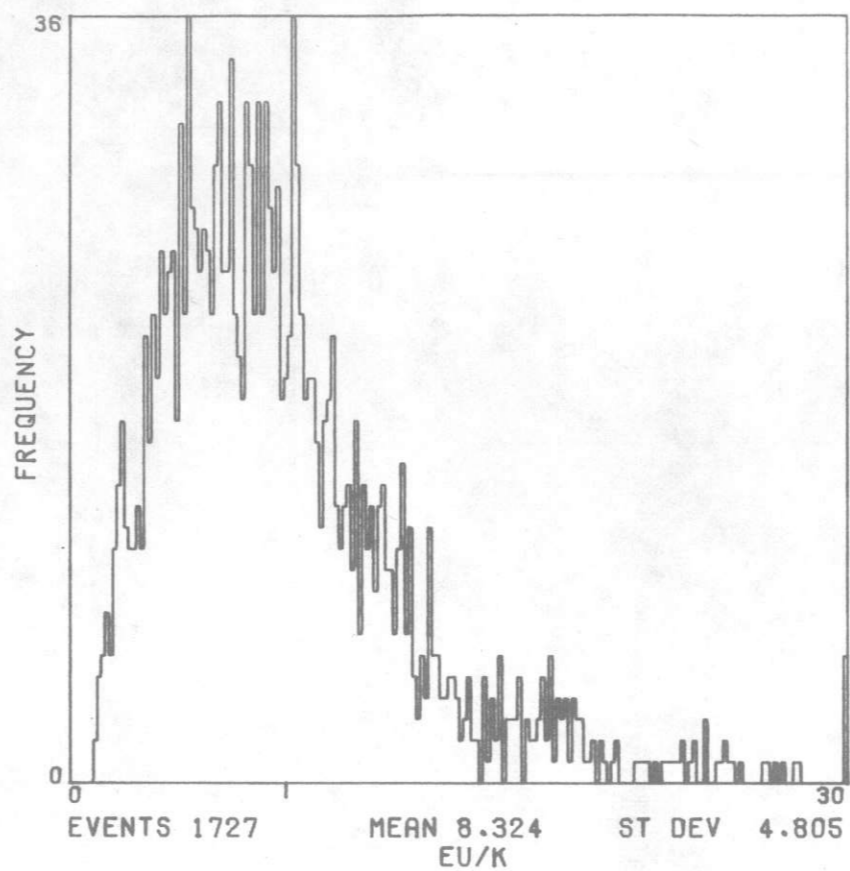
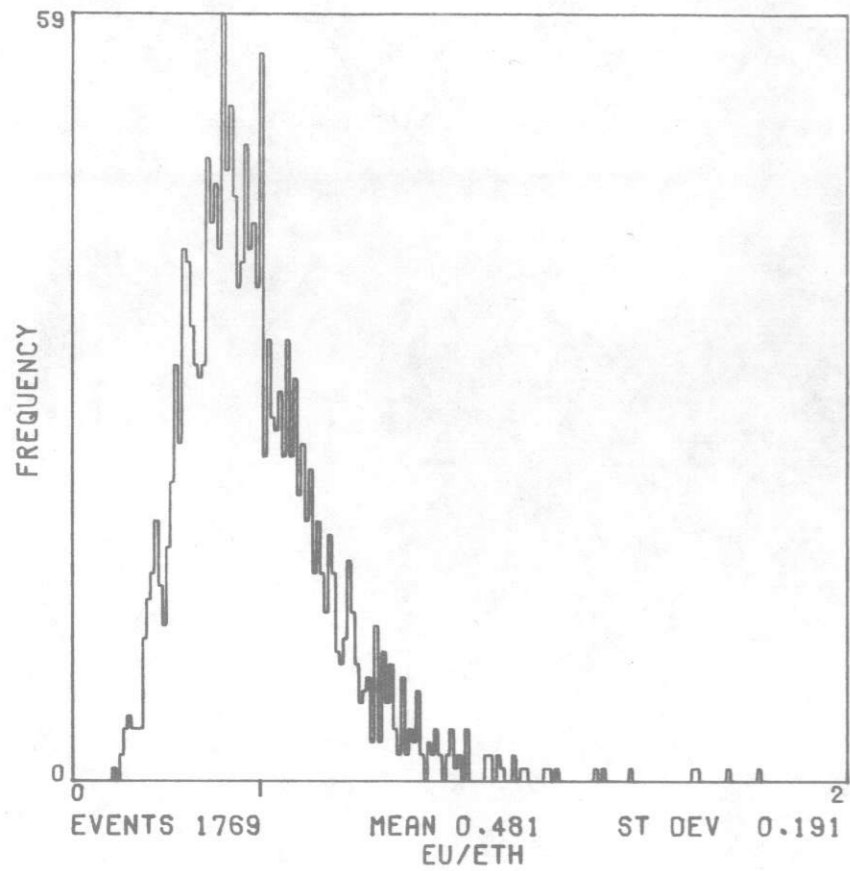


UNIT DEC

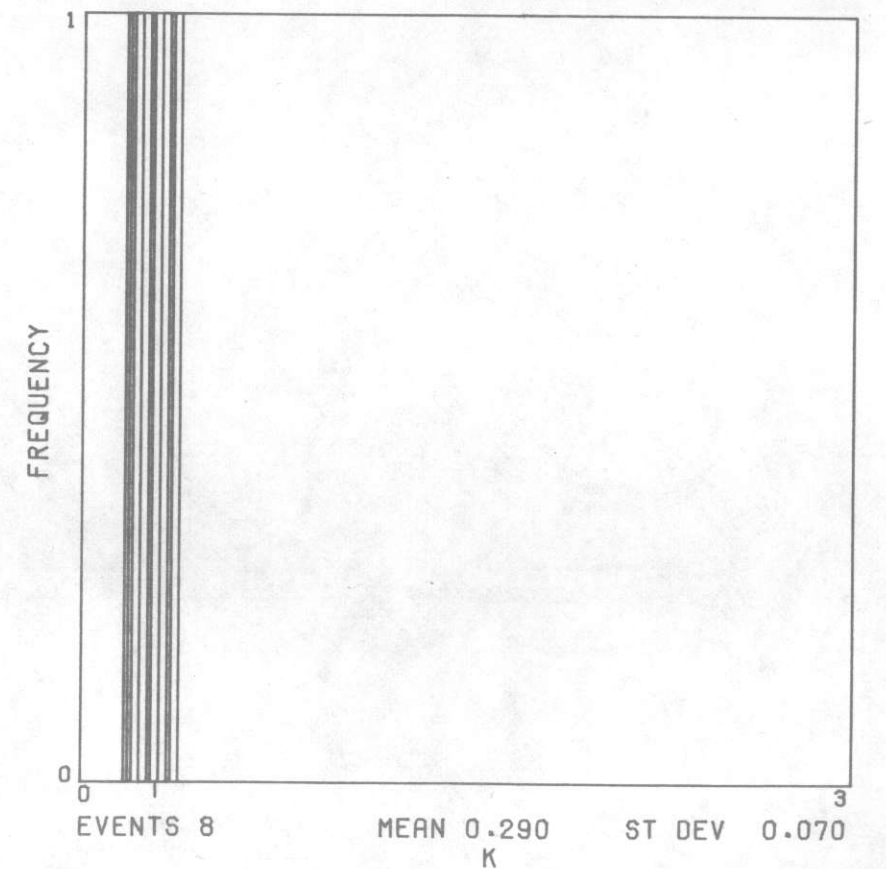
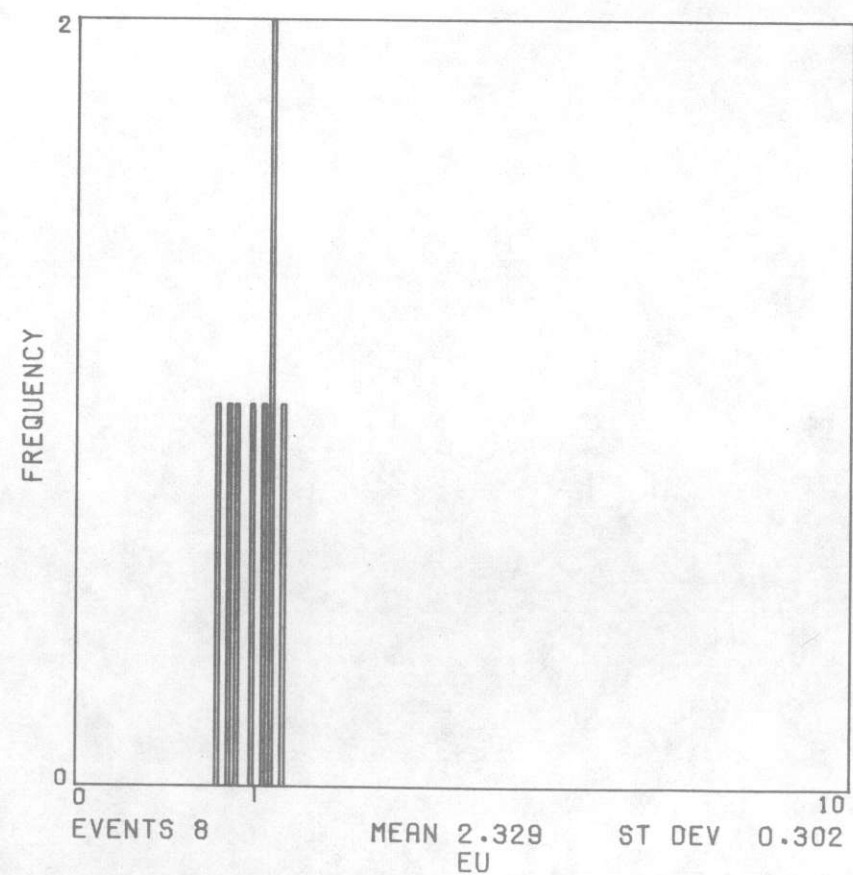
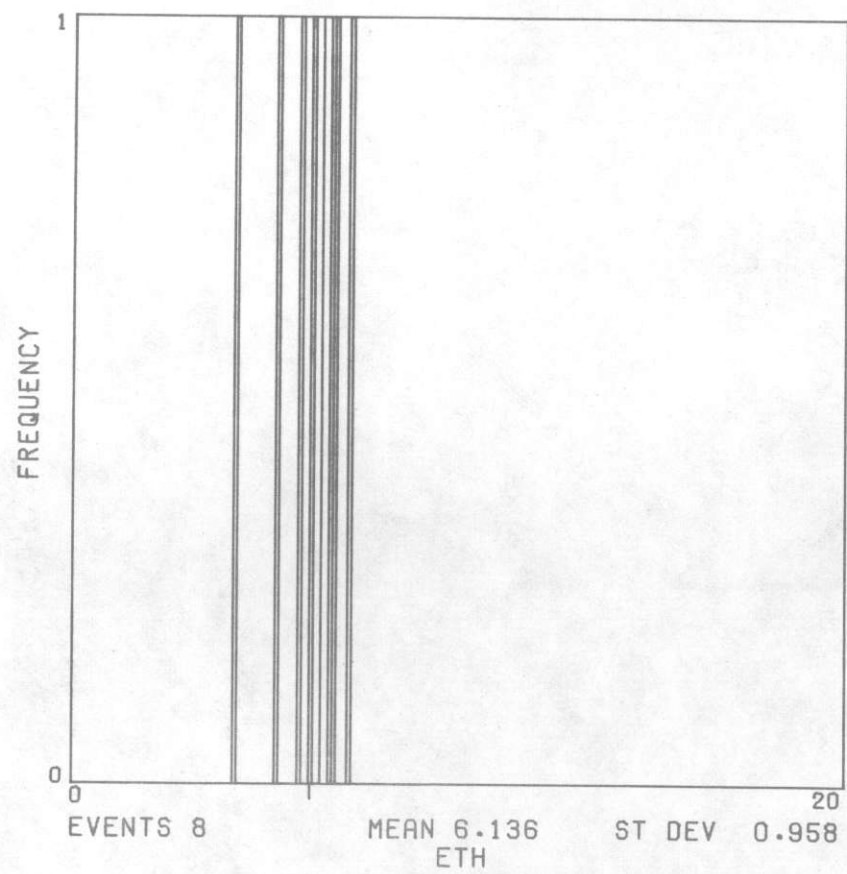
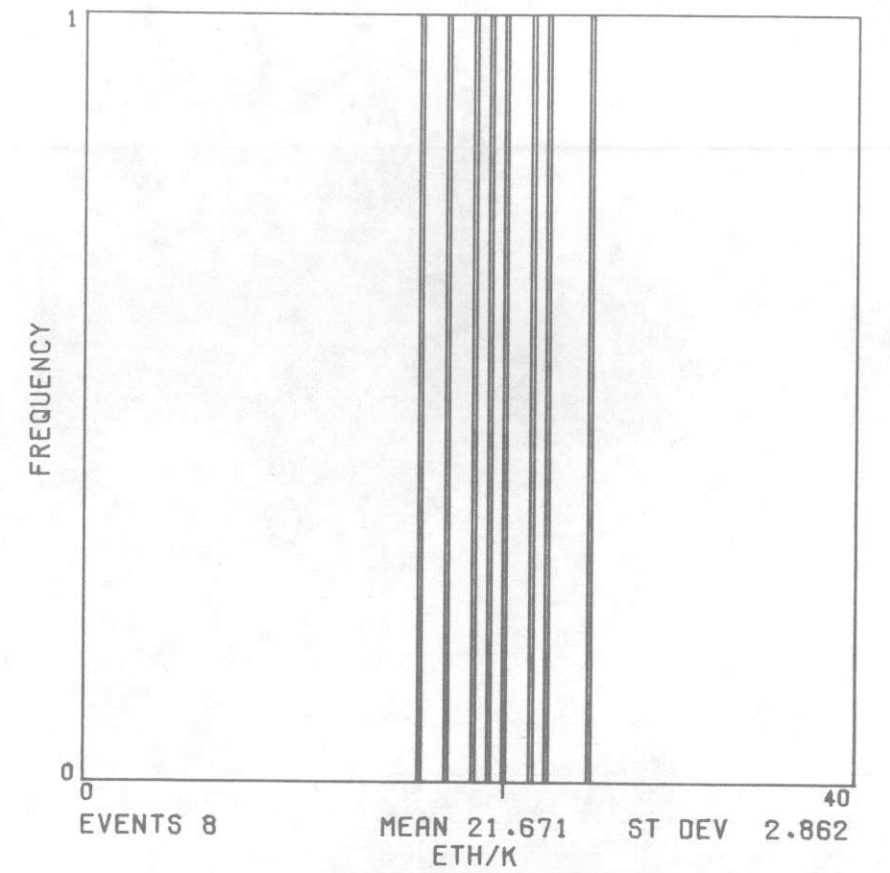
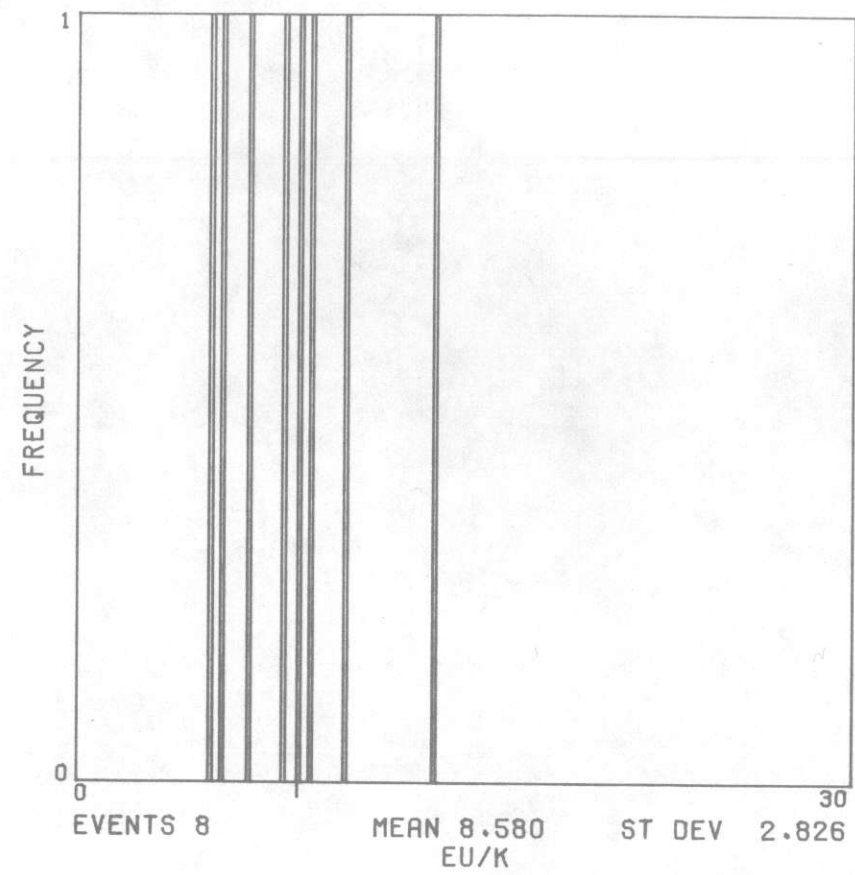
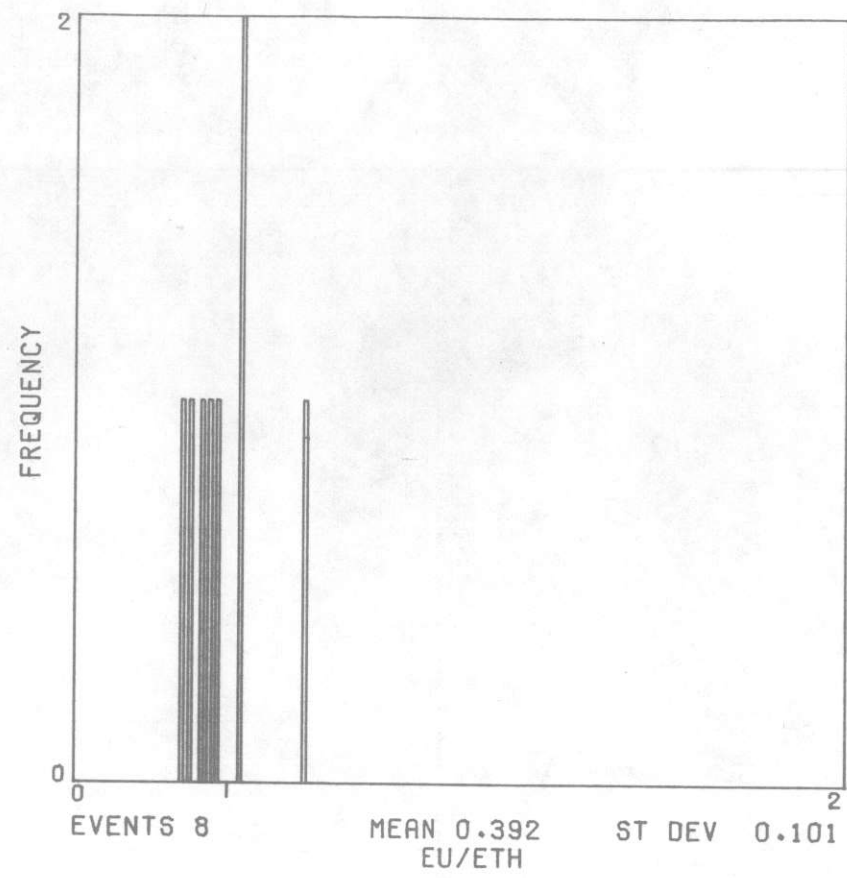


UNIT 0LM

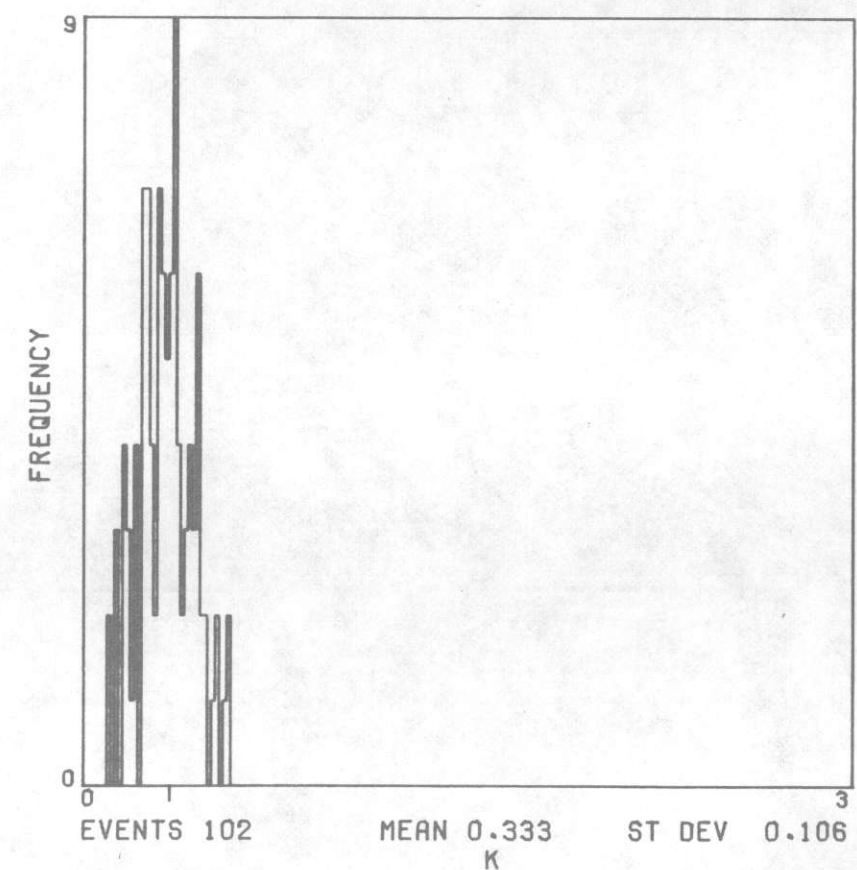
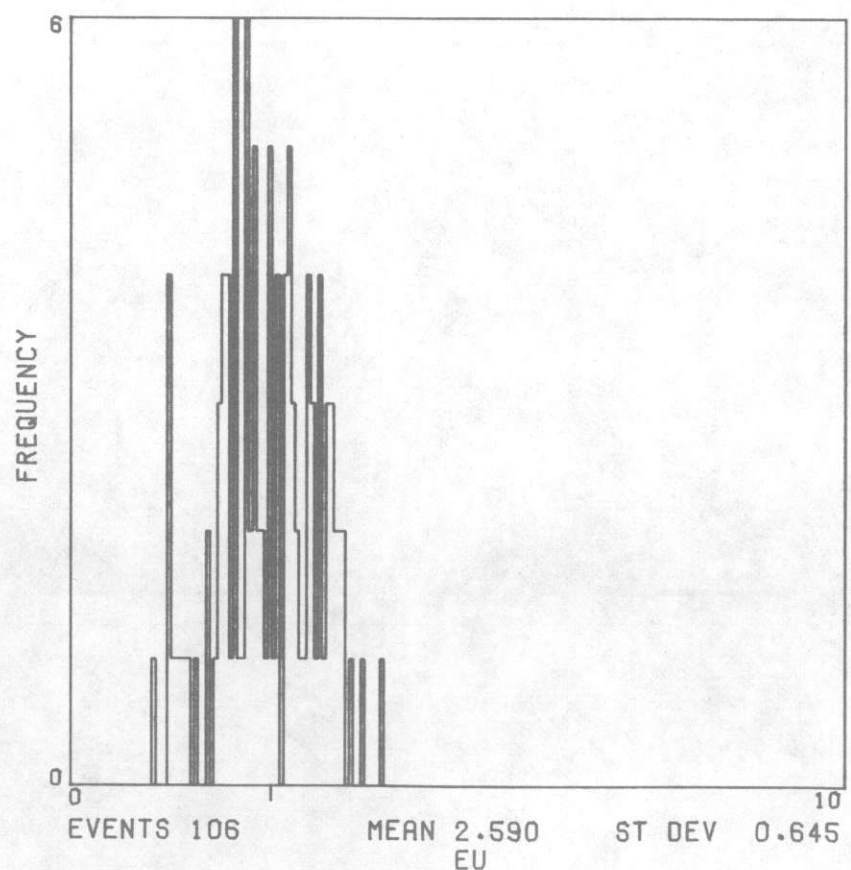
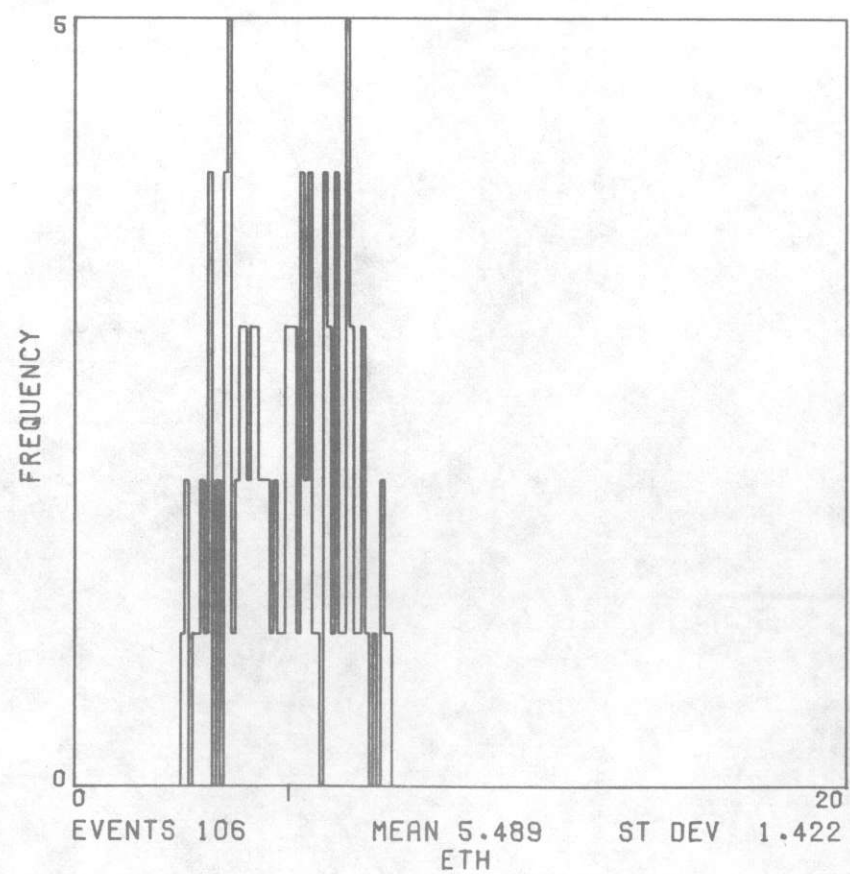
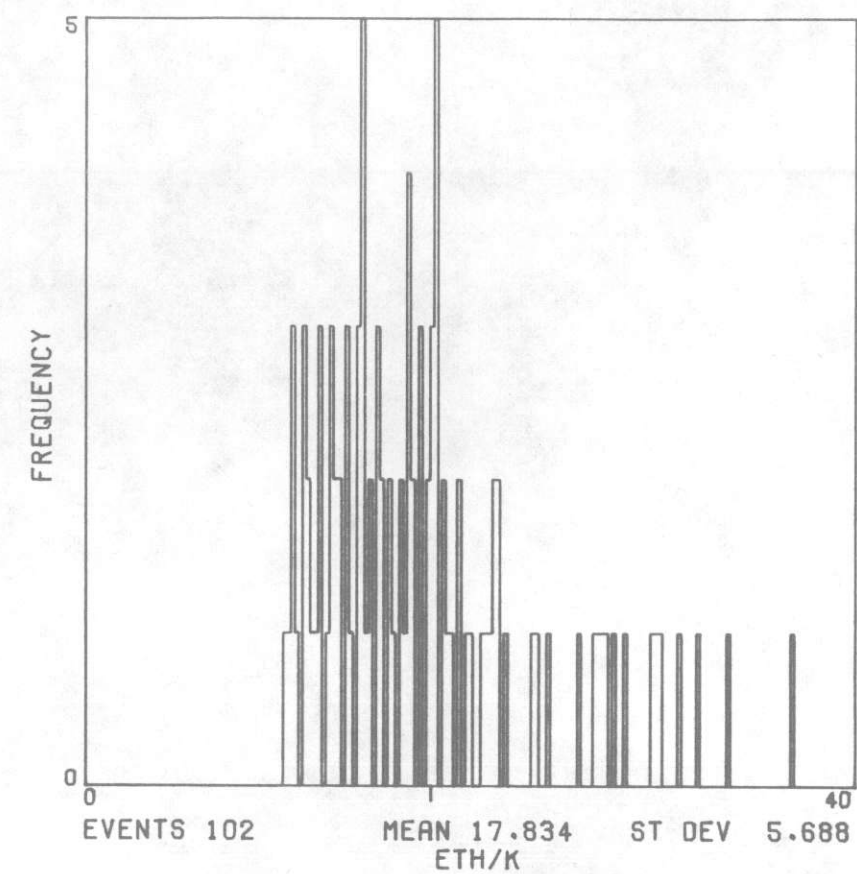
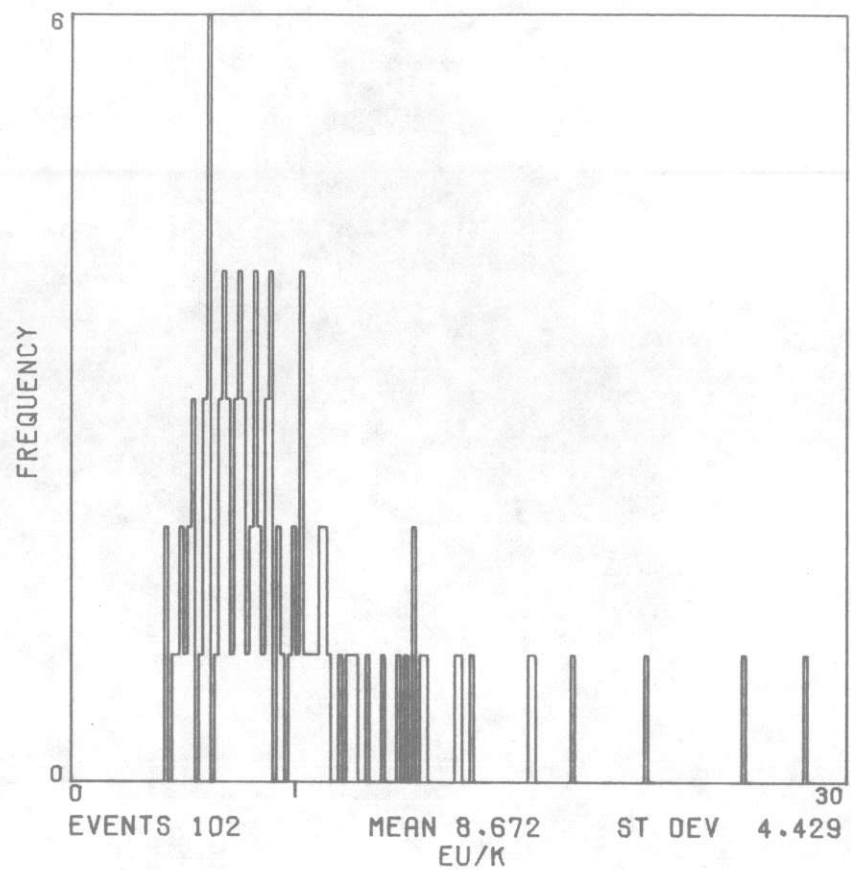
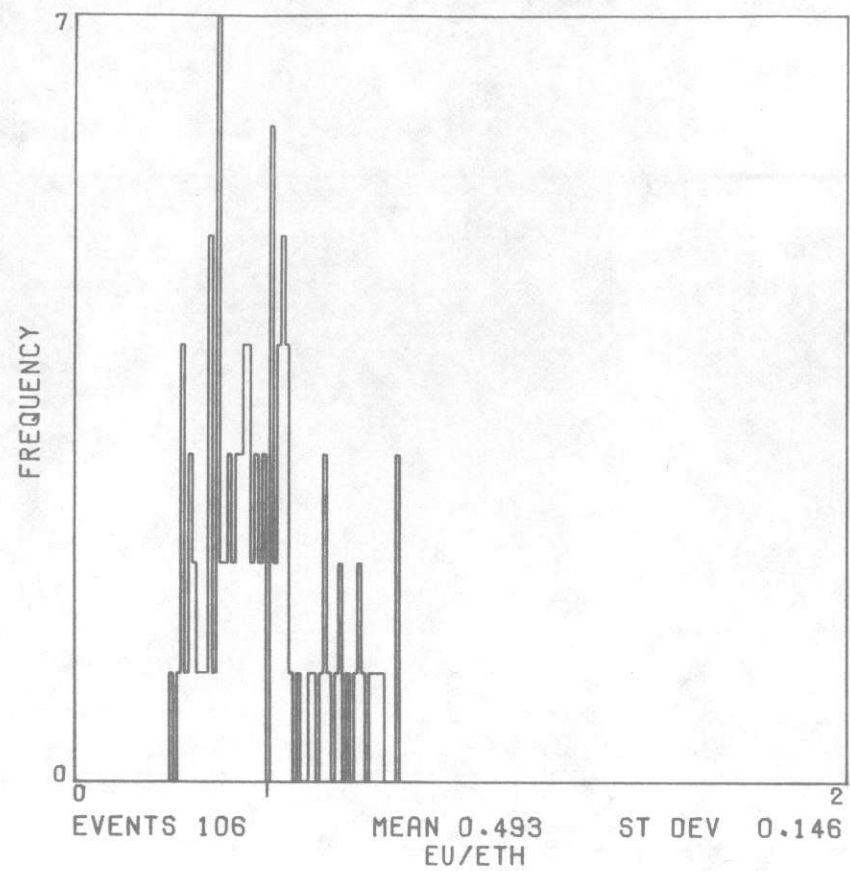


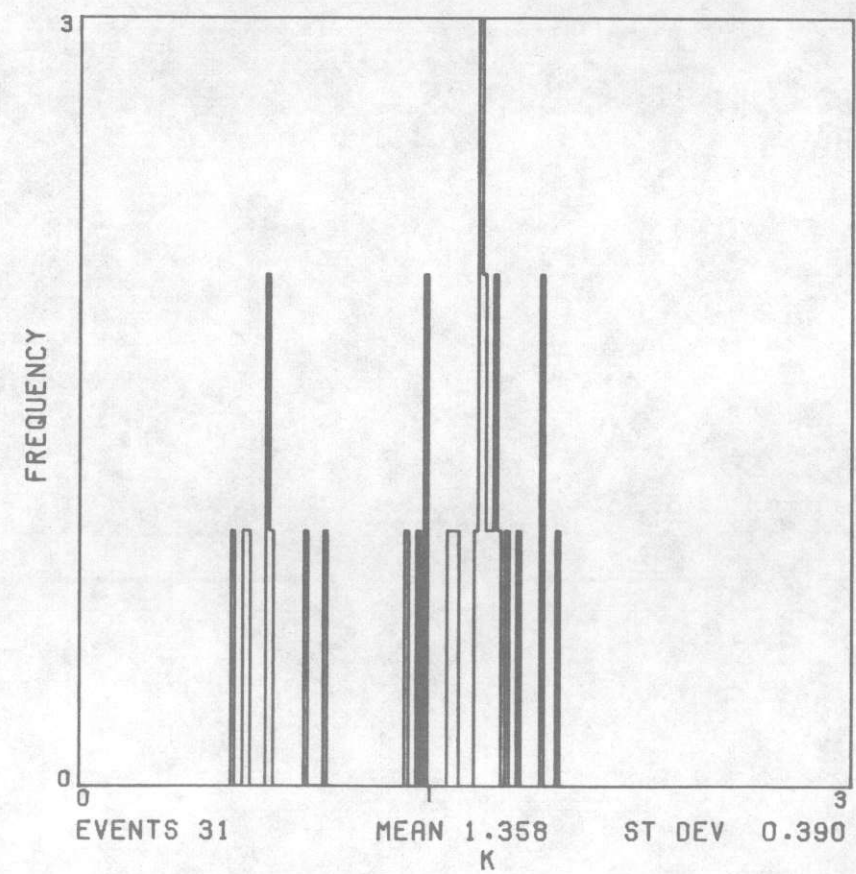
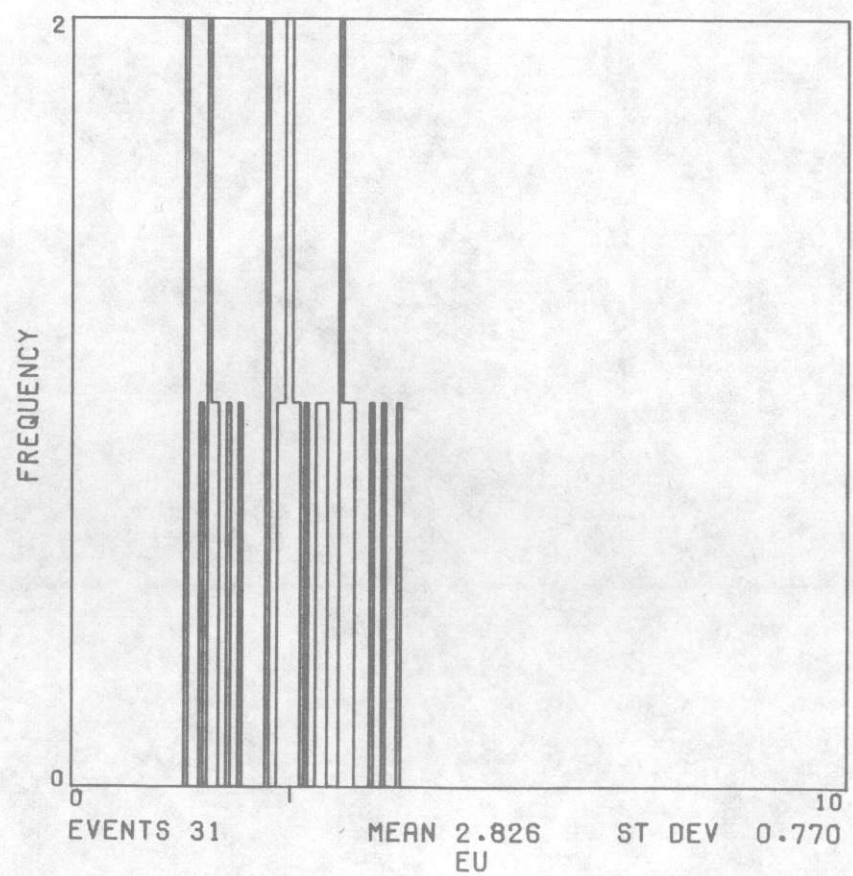
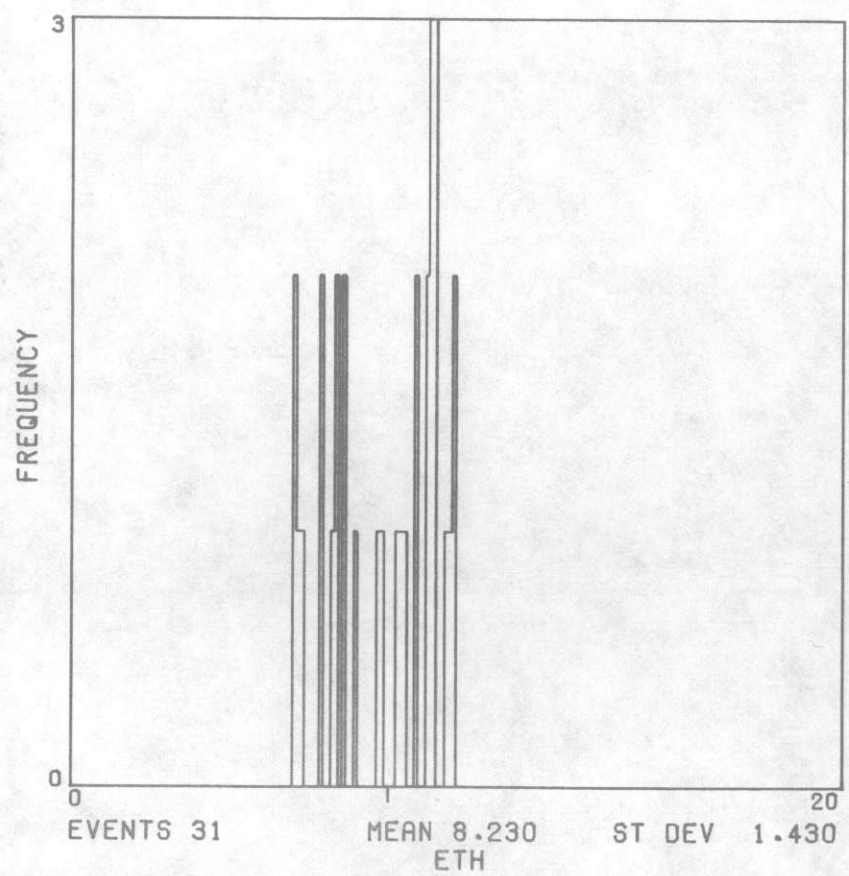
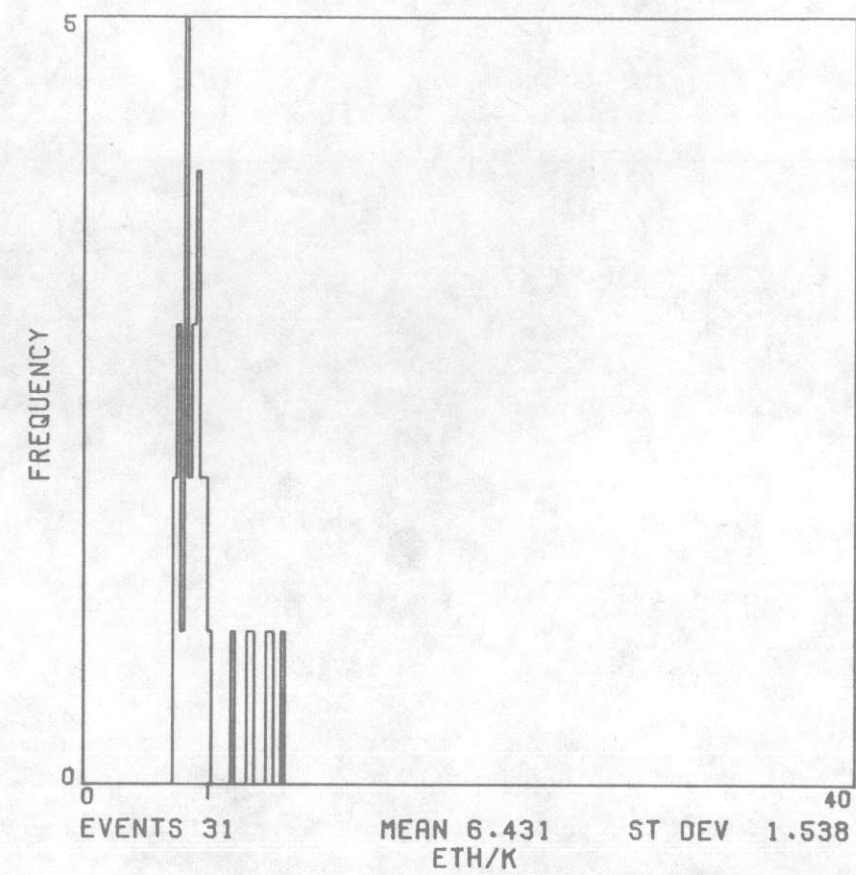
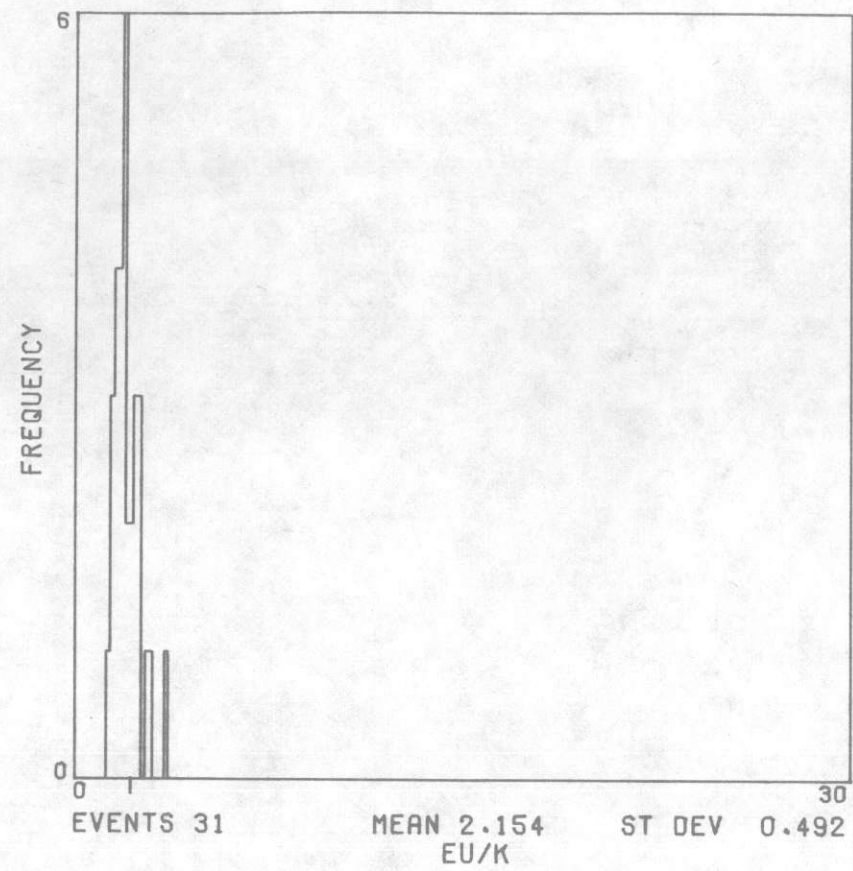
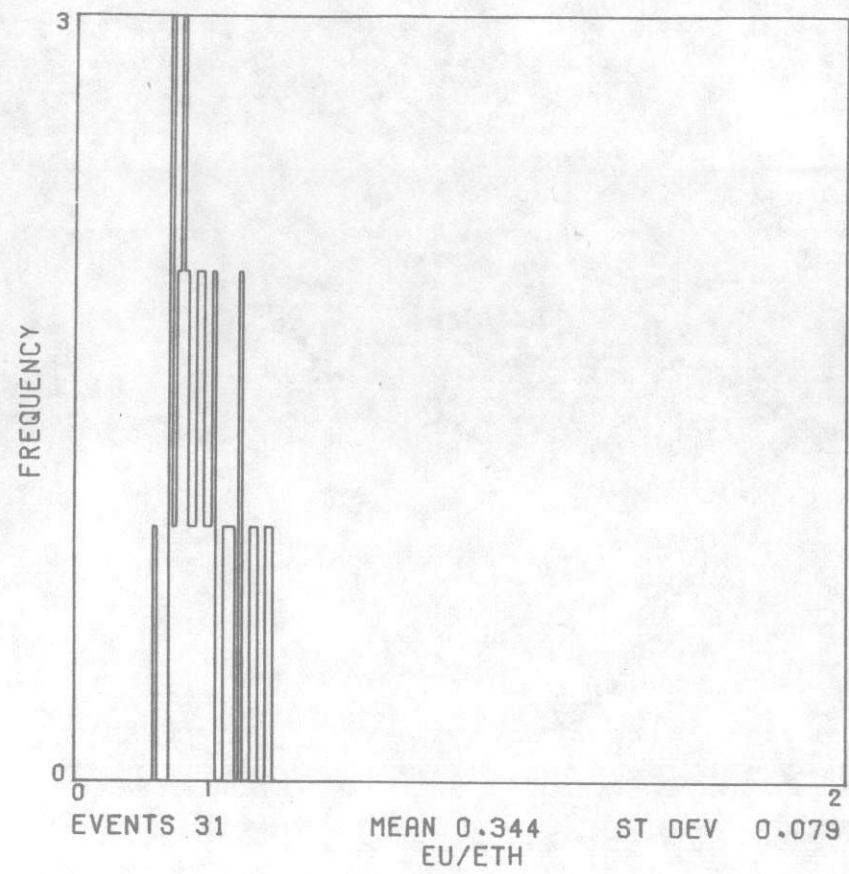


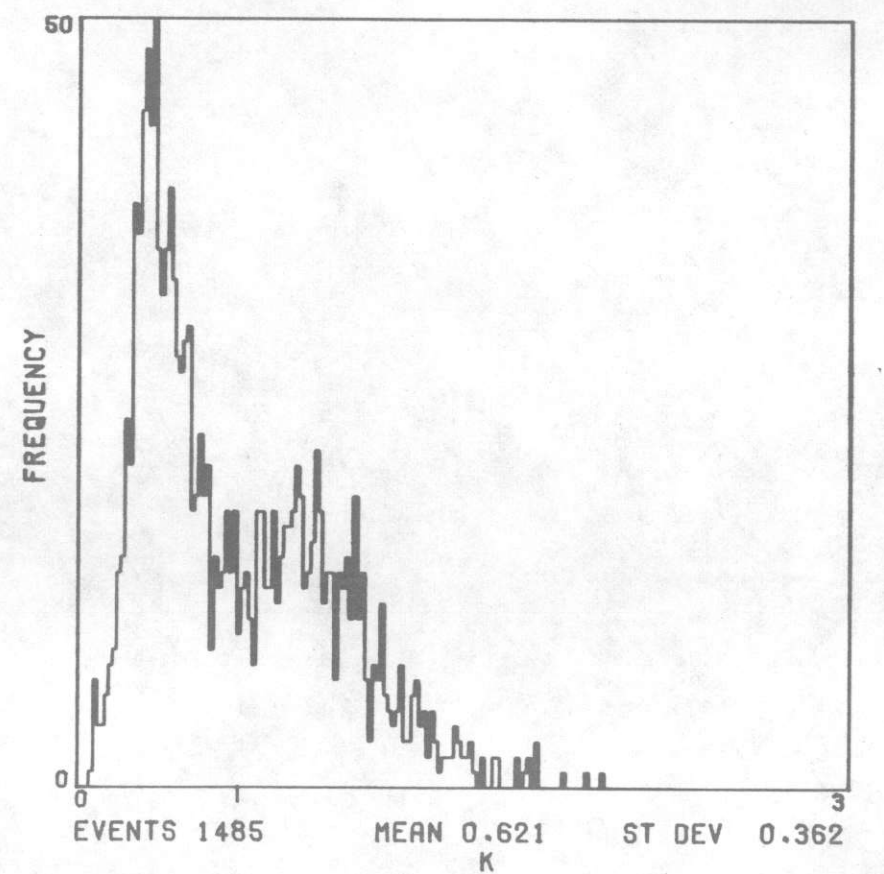
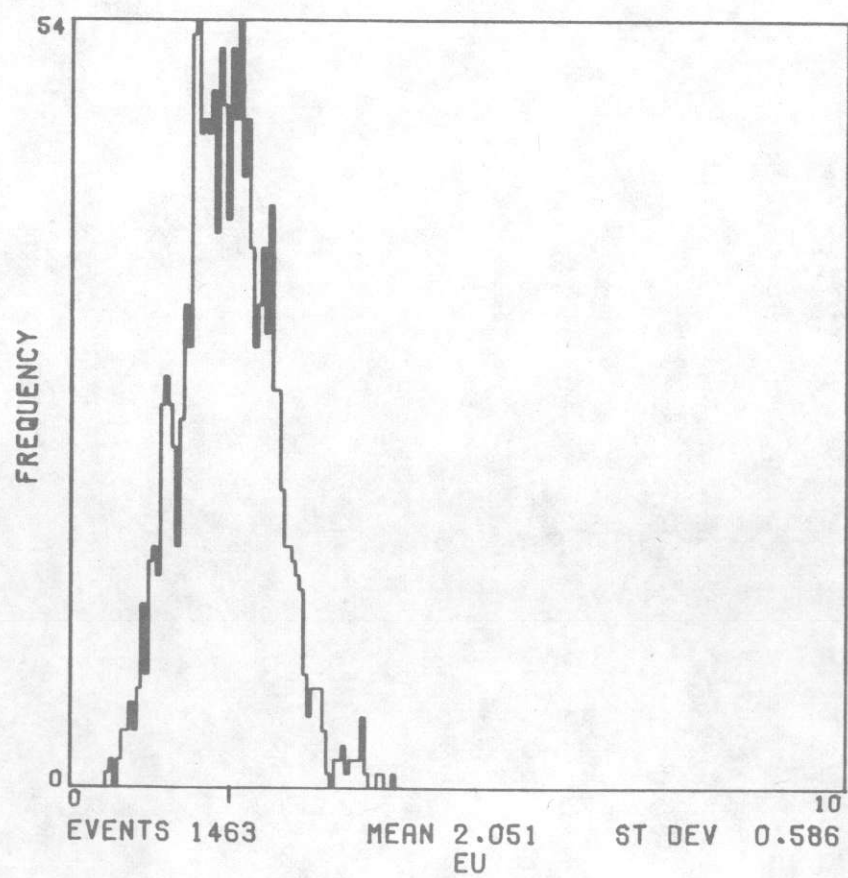
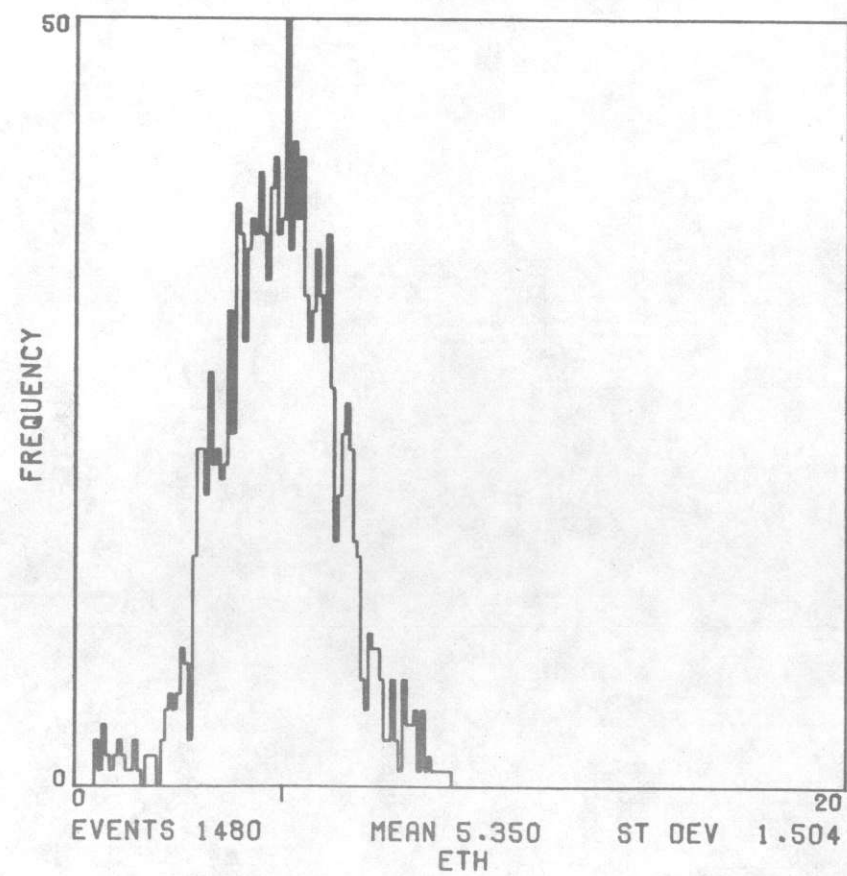
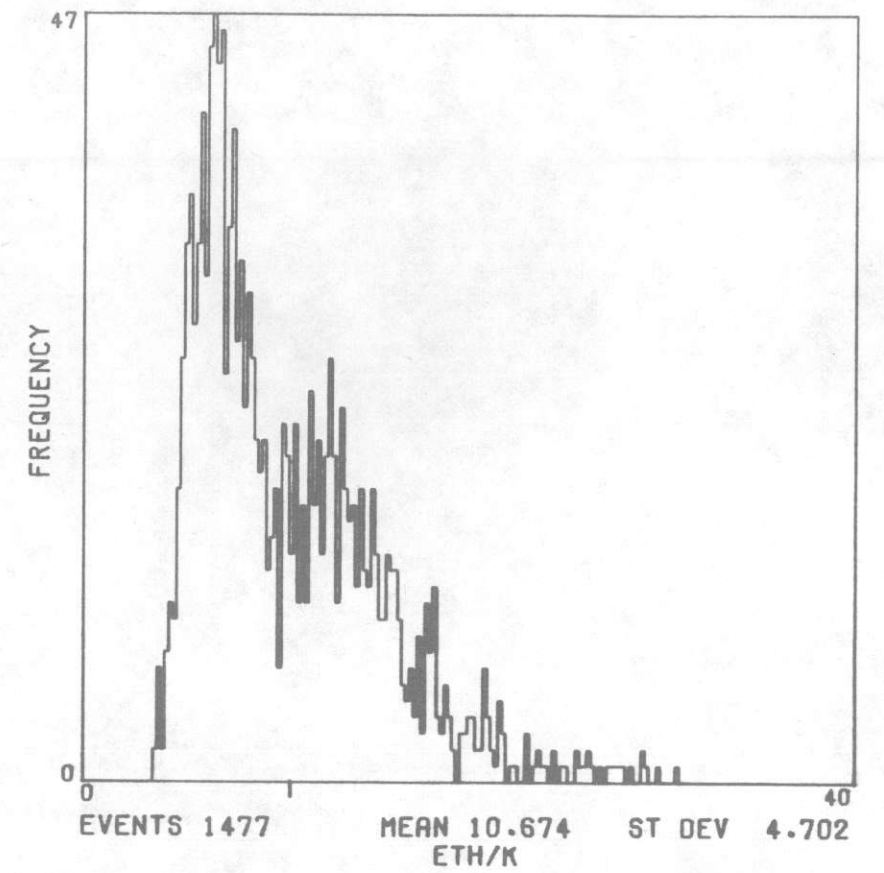
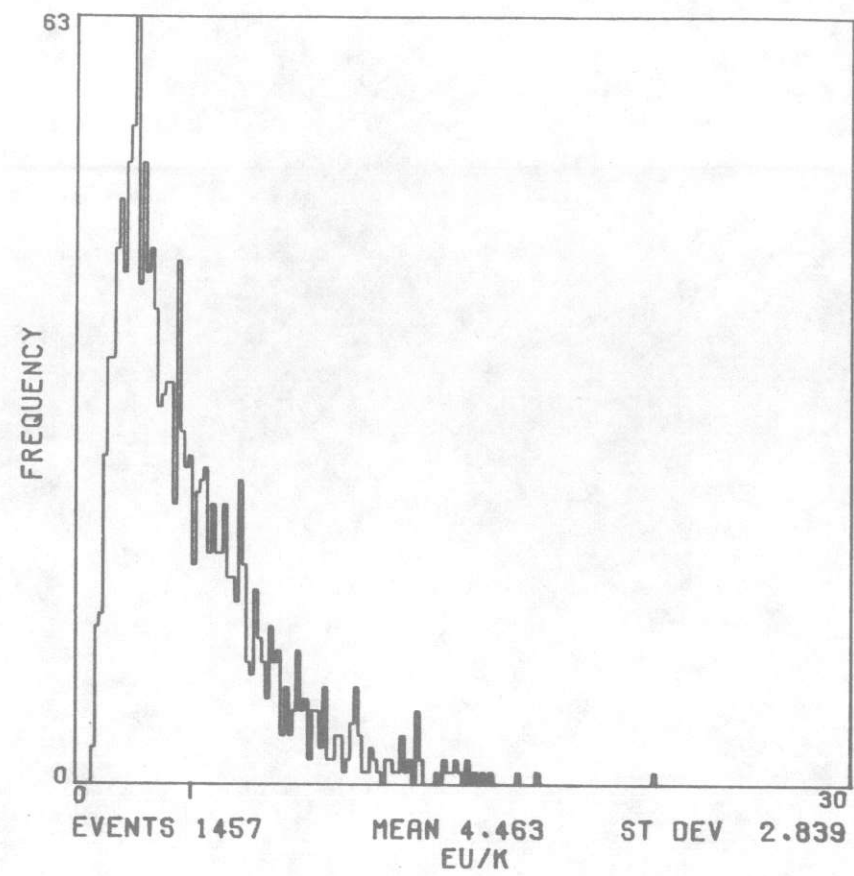
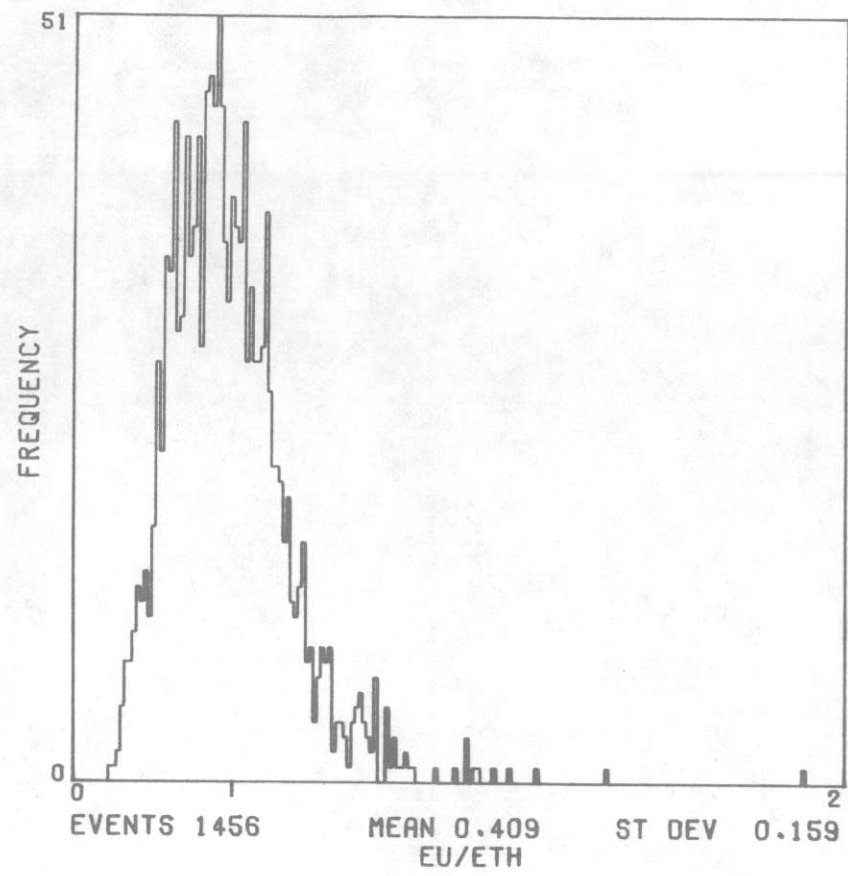
UNIT 0NL



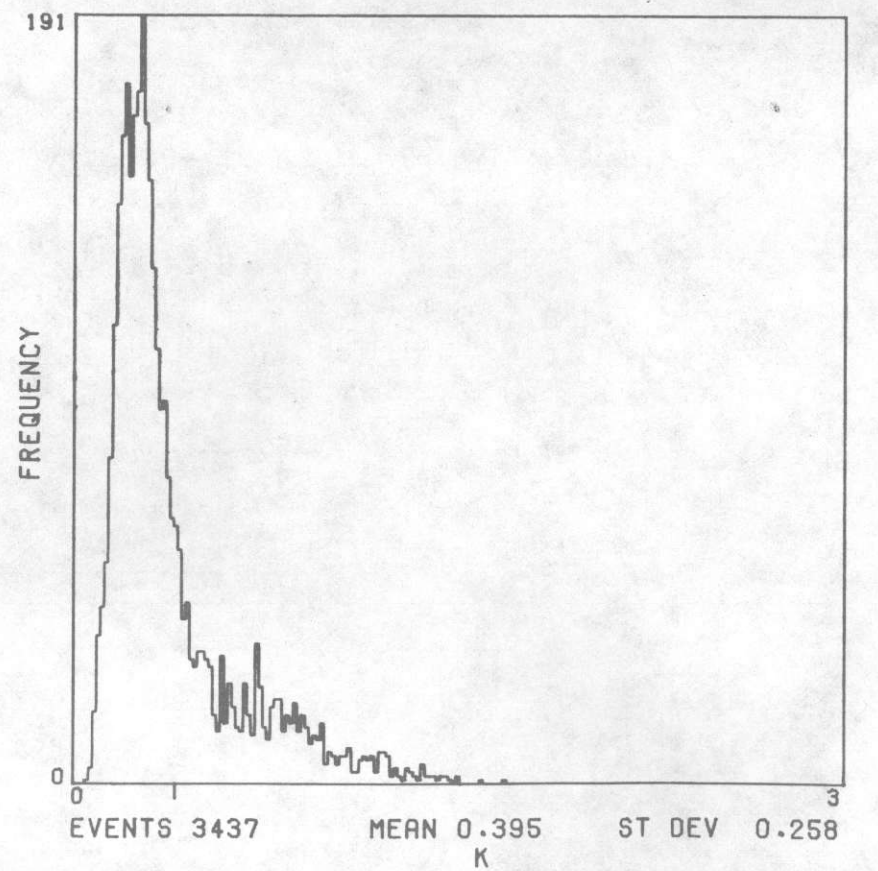
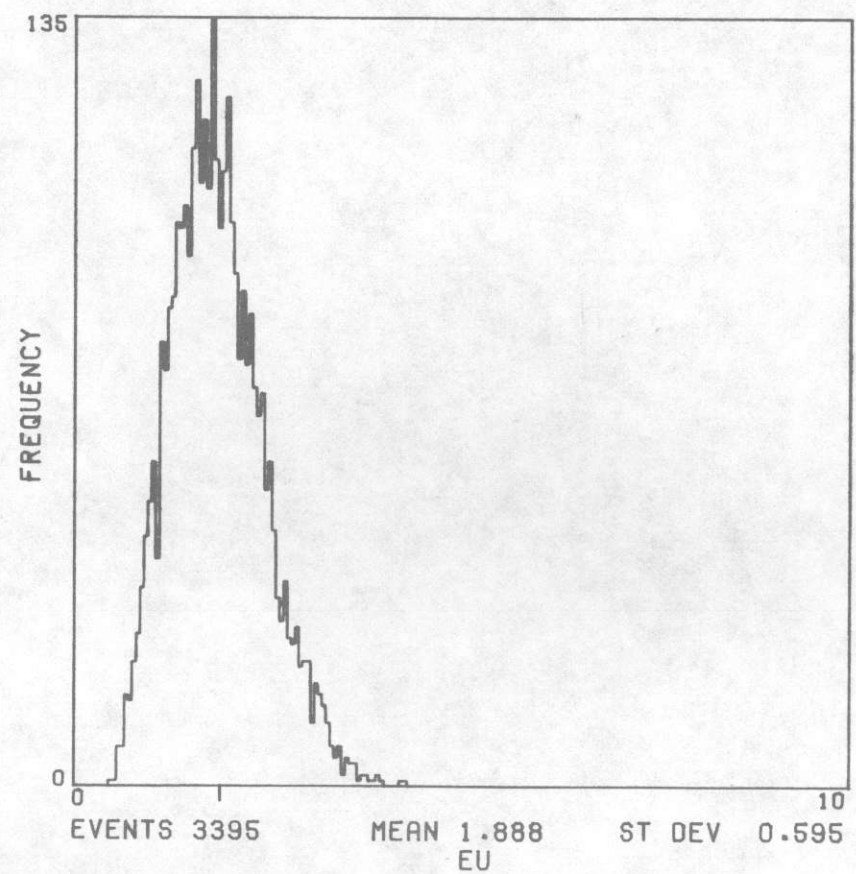
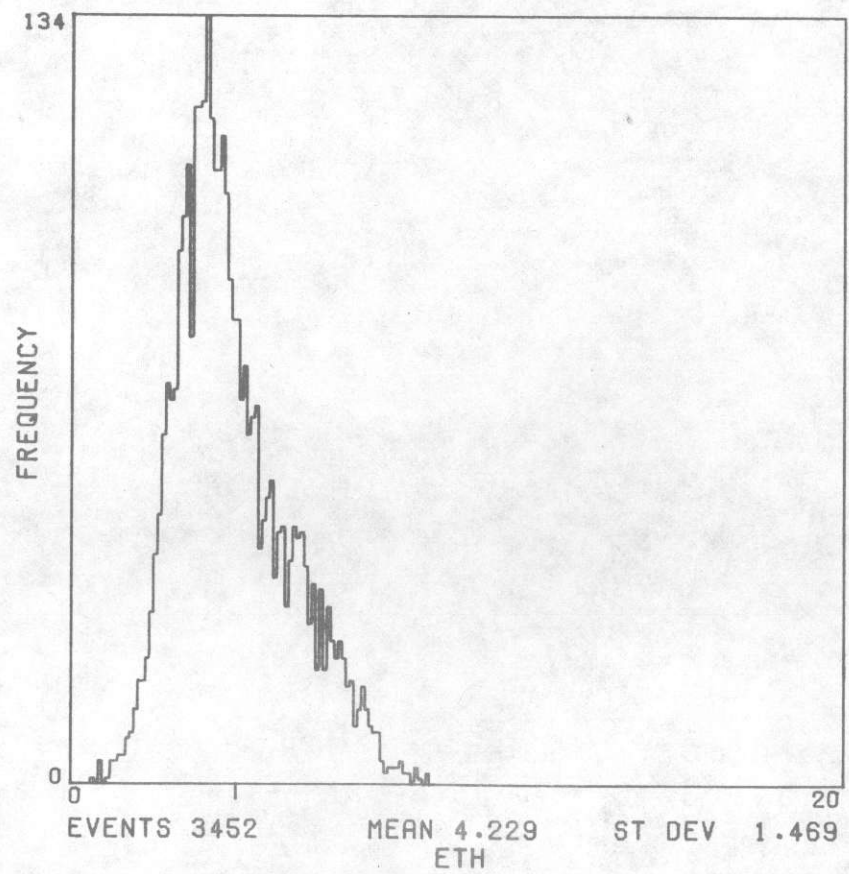
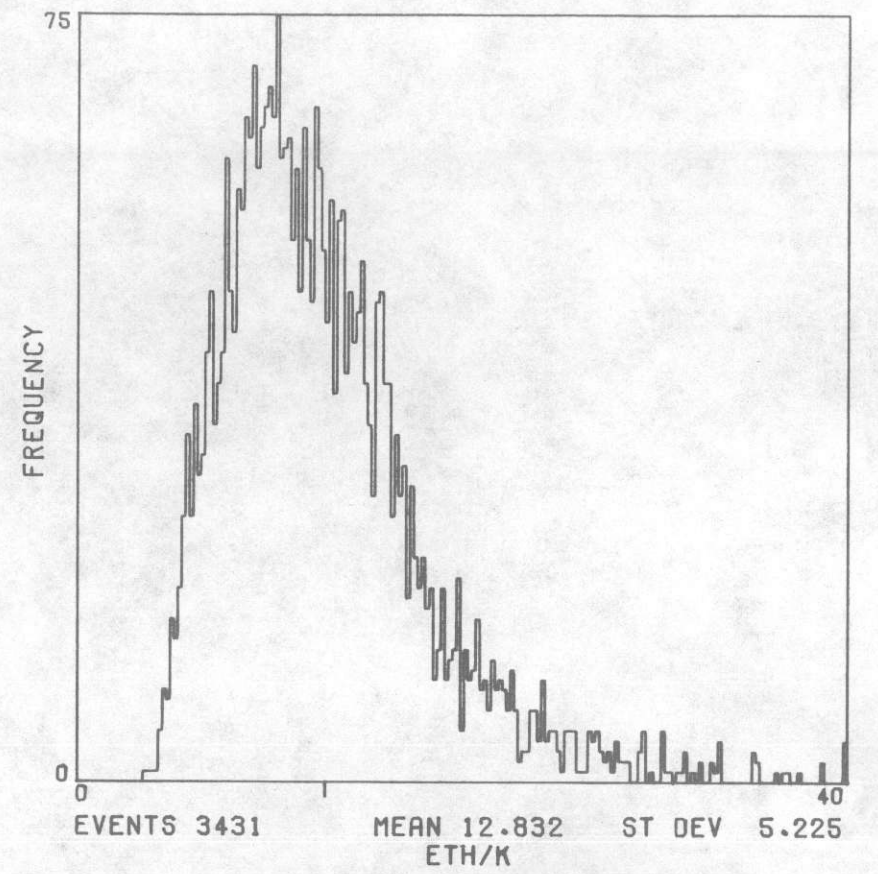
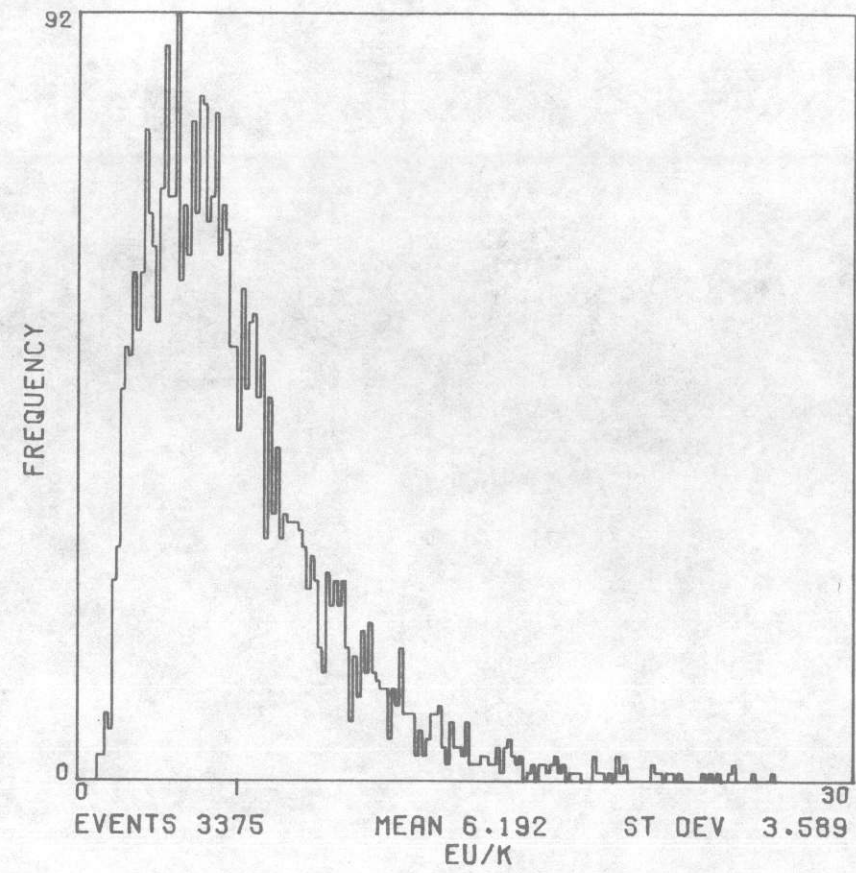
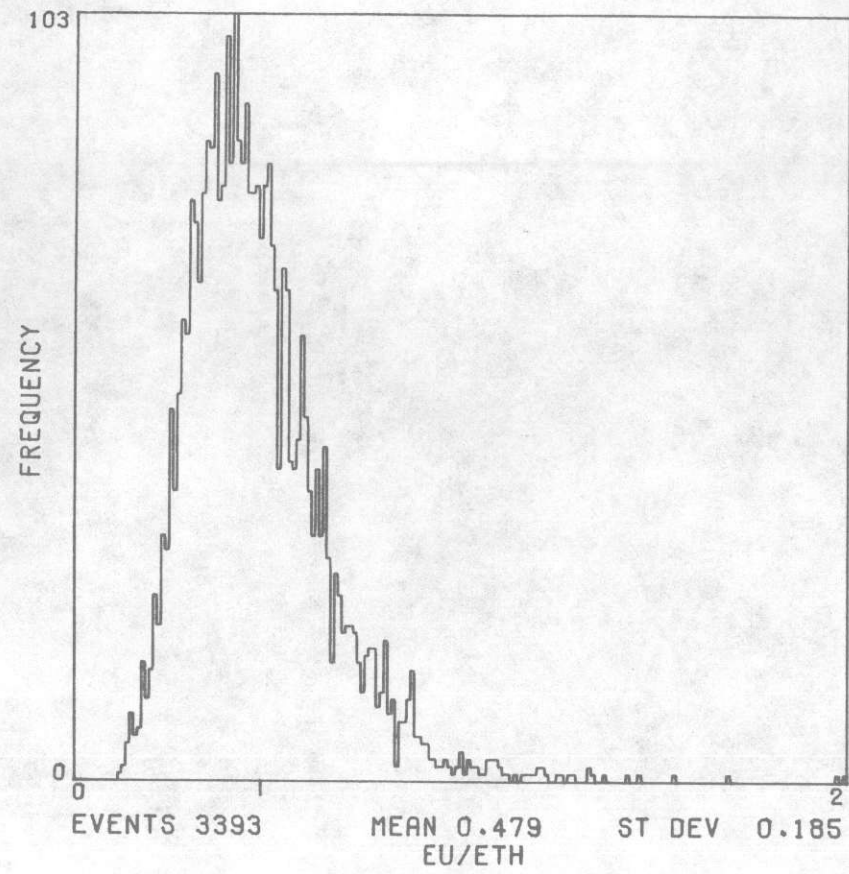
UNIT 00



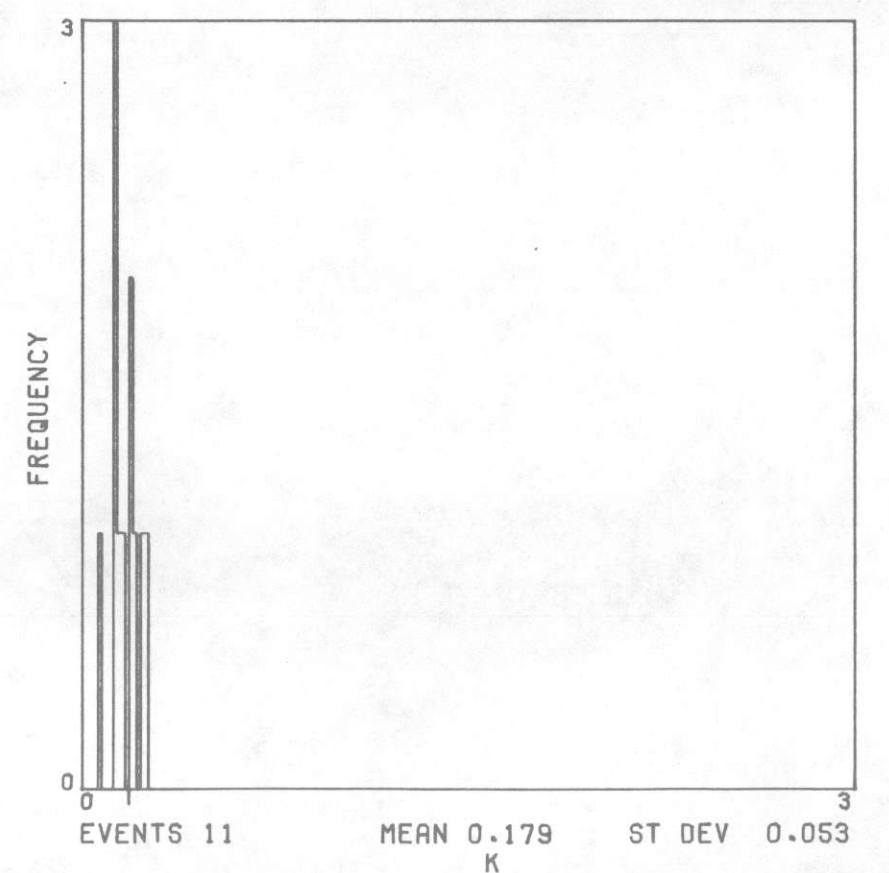
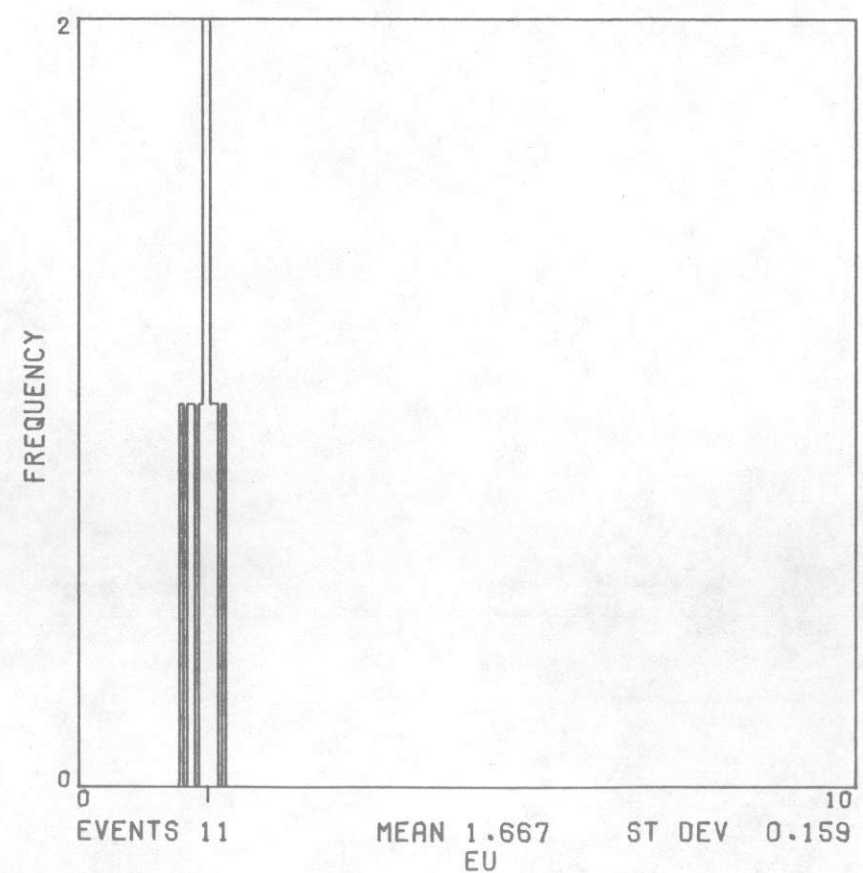
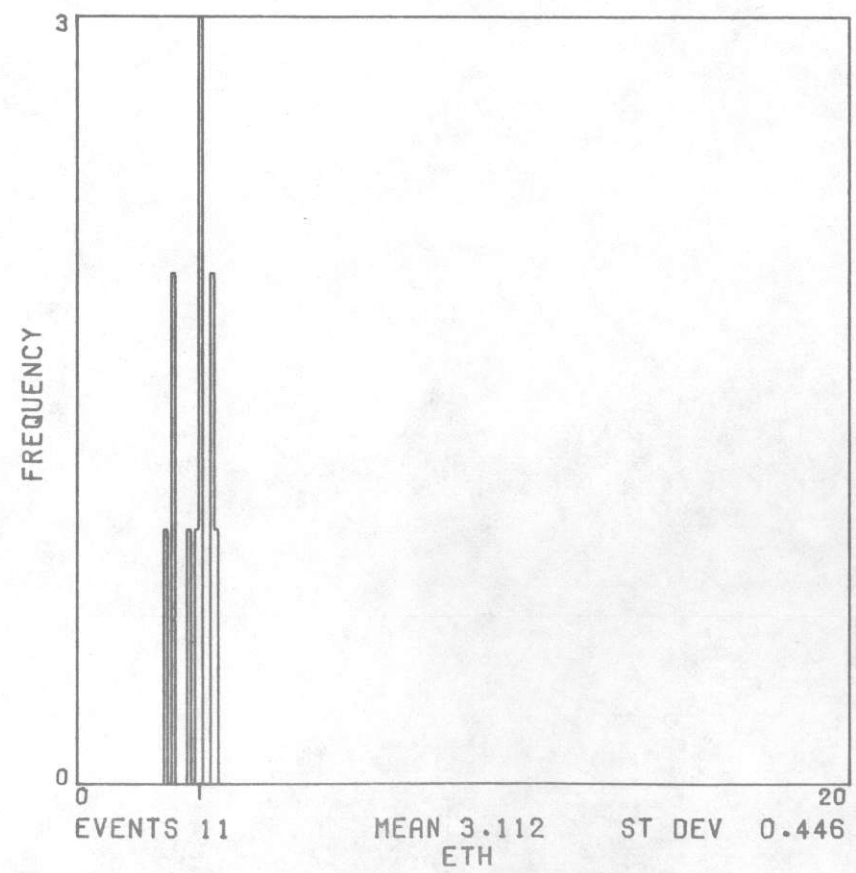
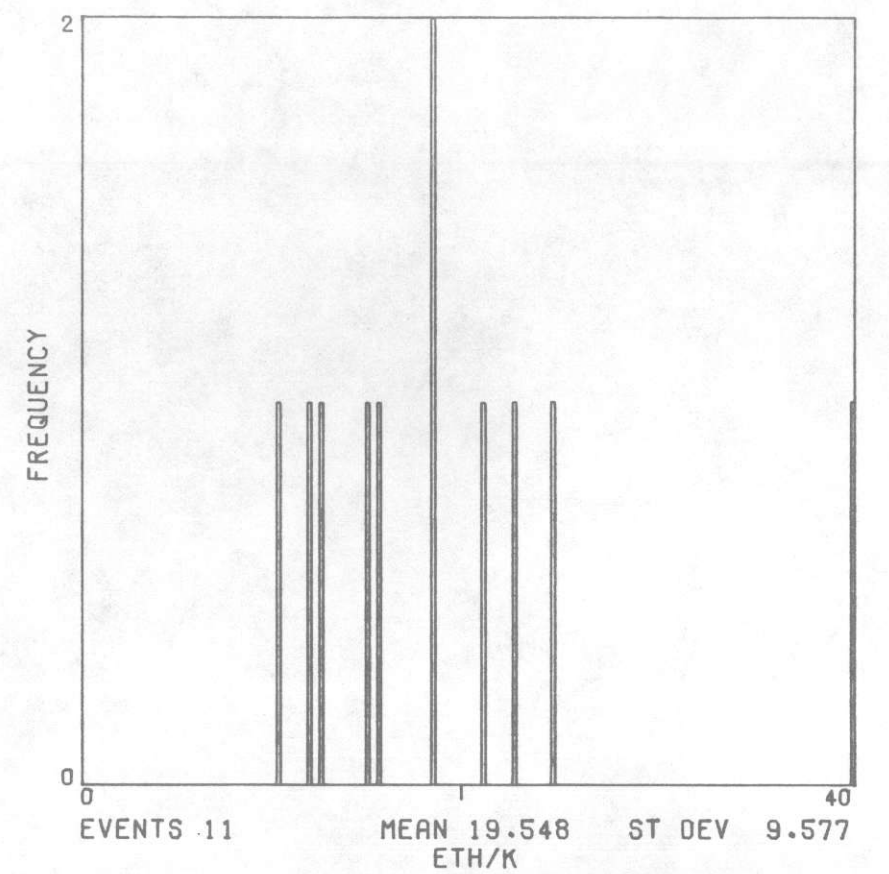
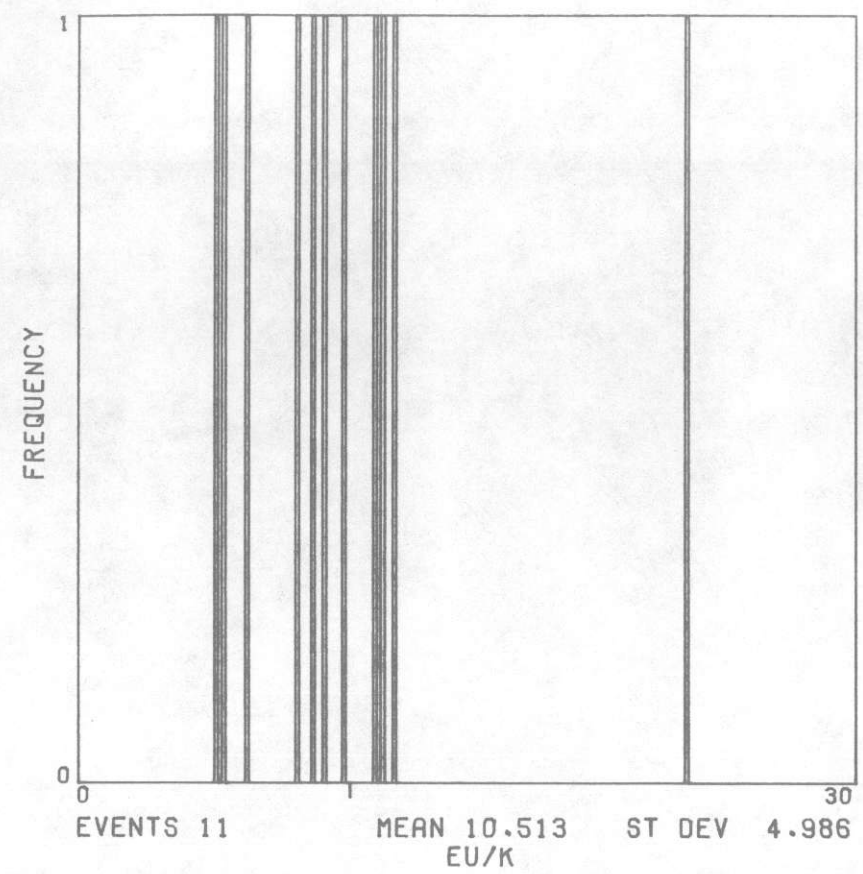
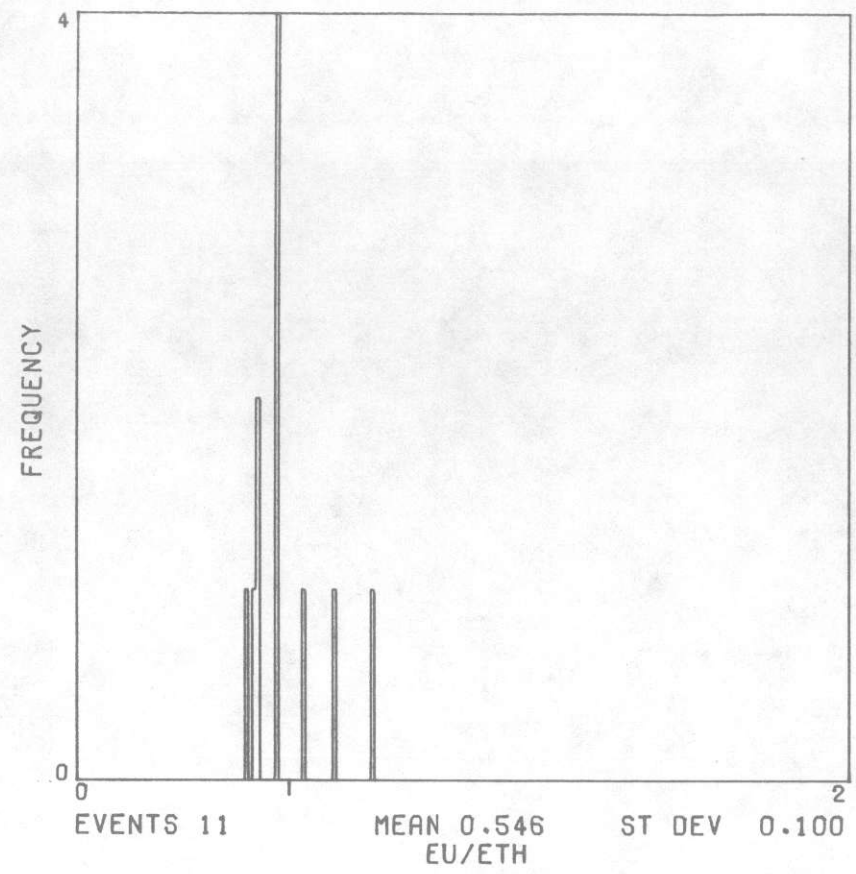




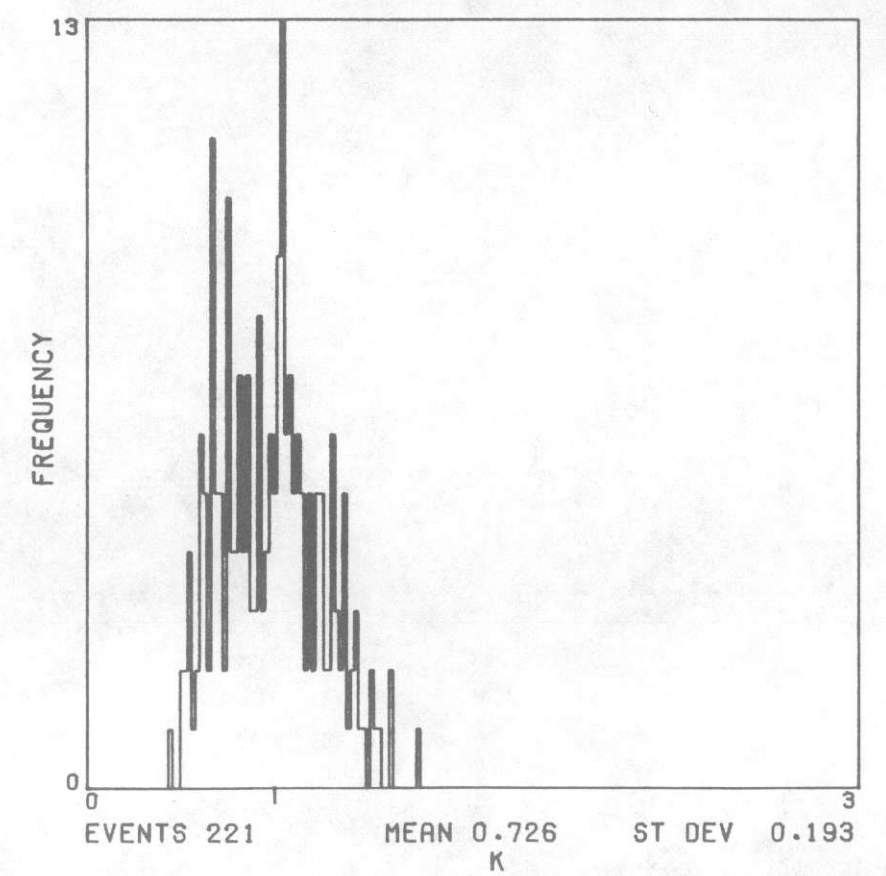
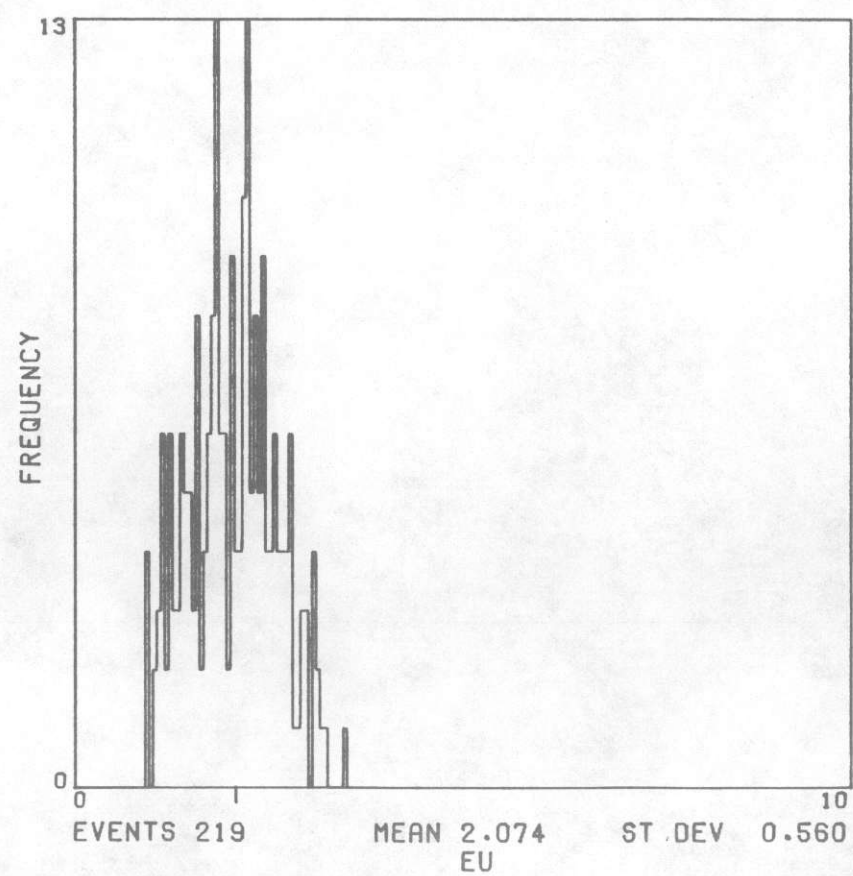
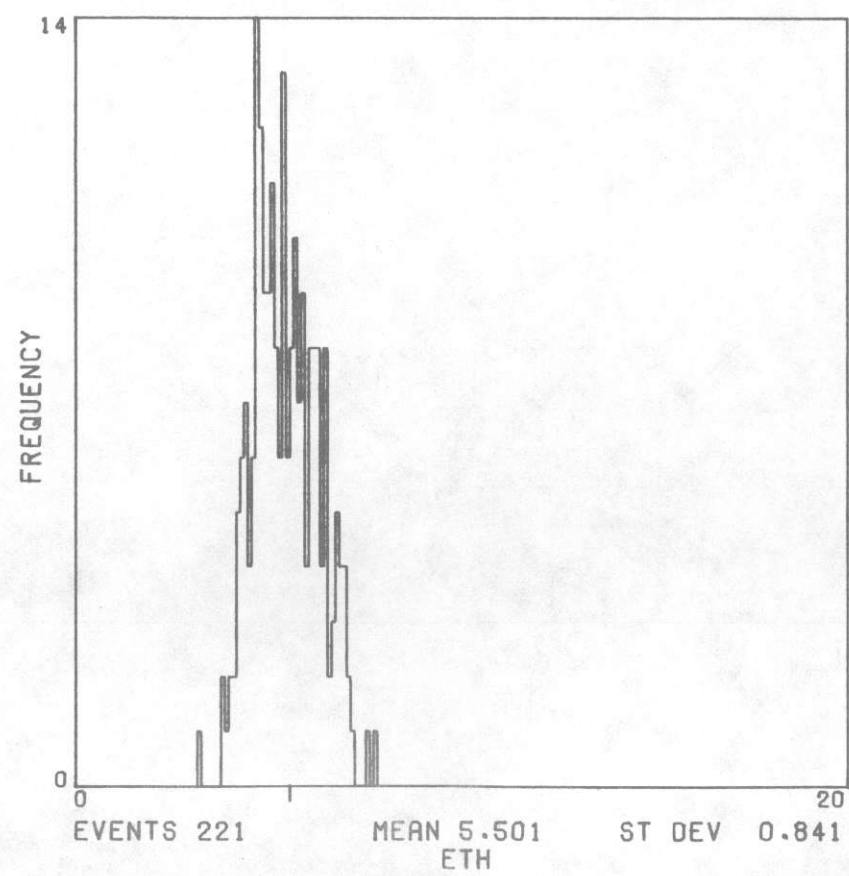
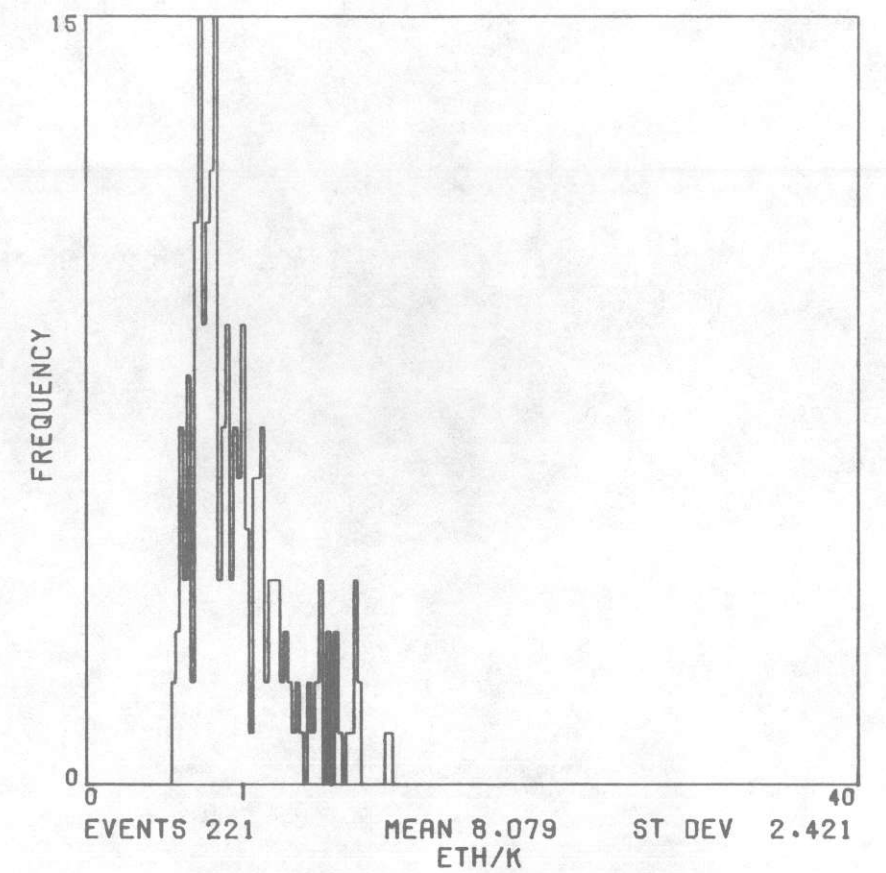
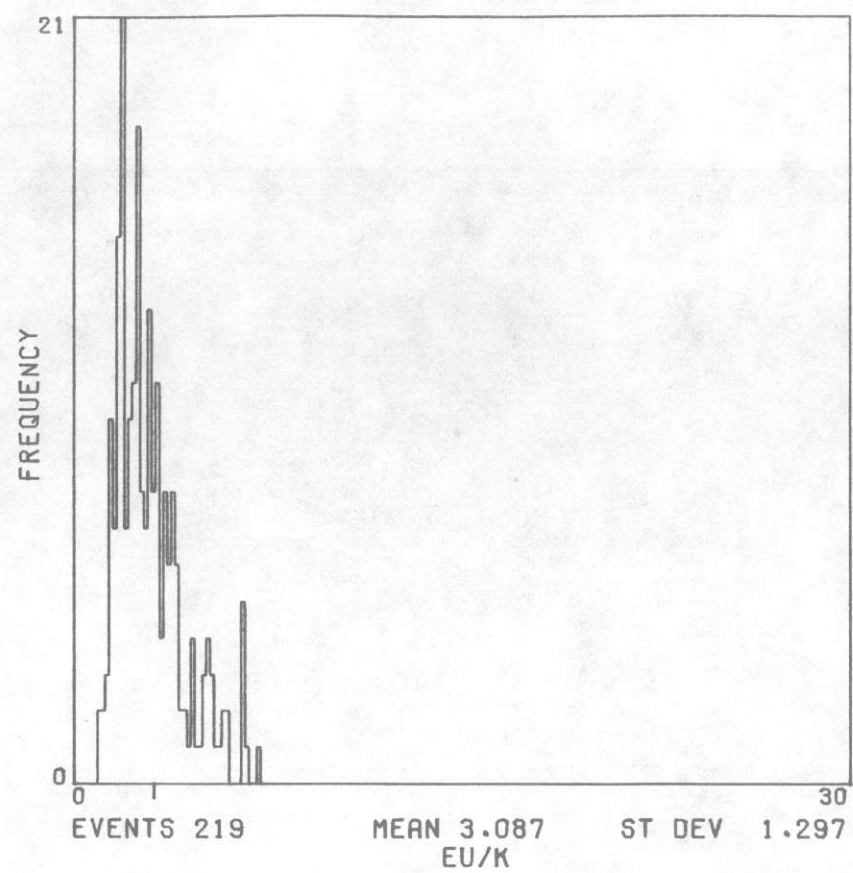
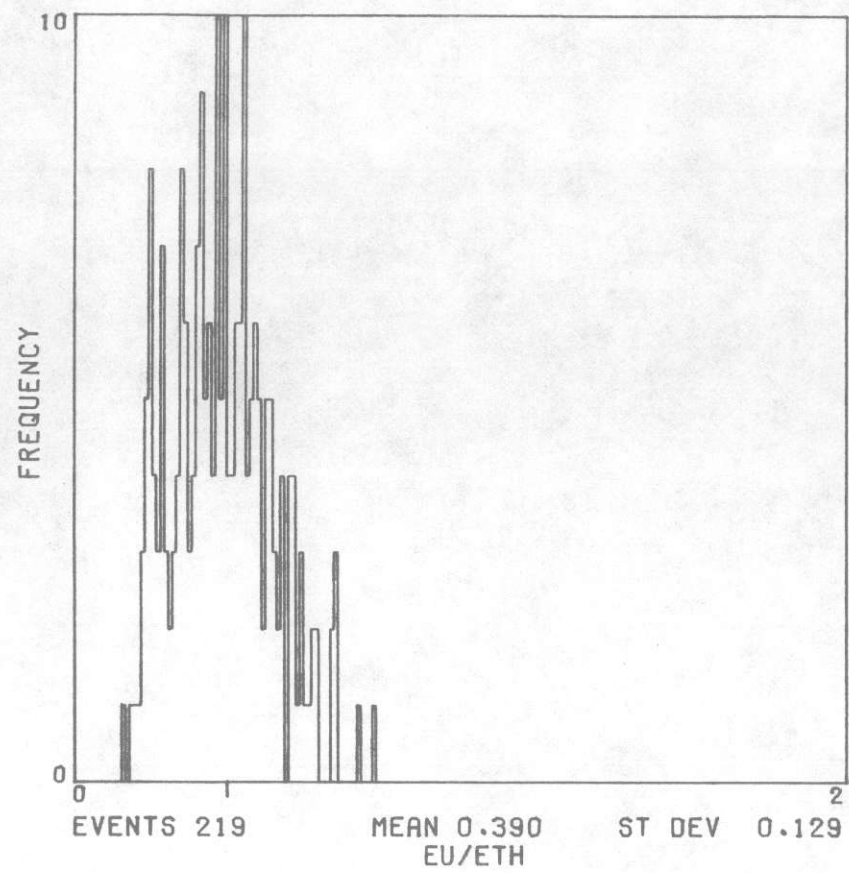
UNIT PBR

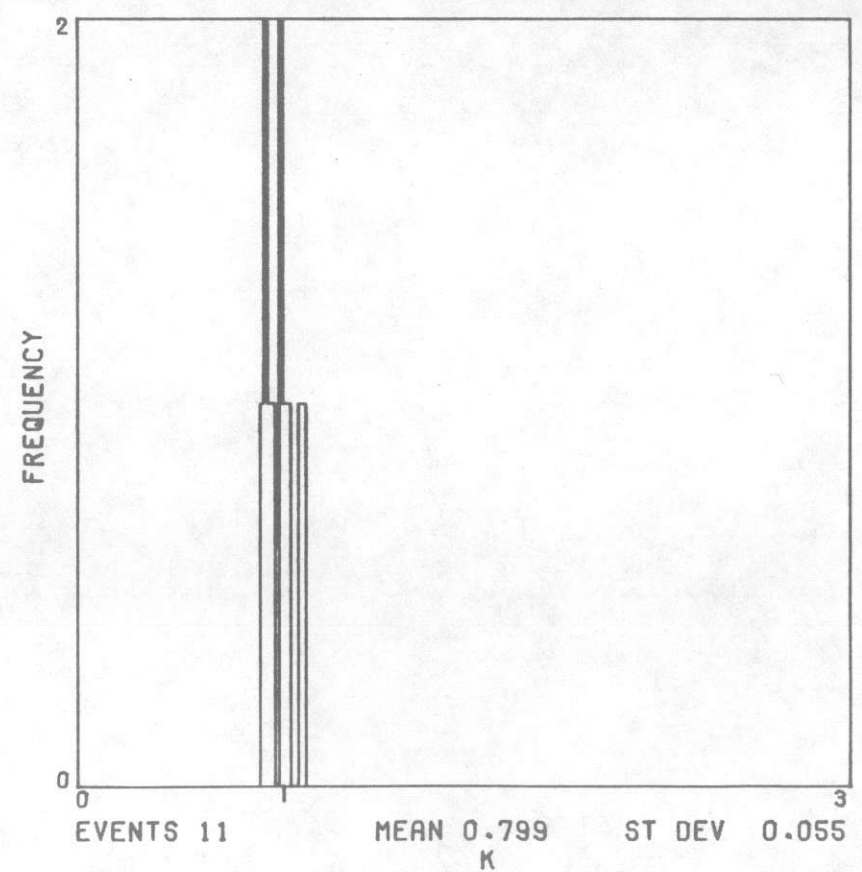
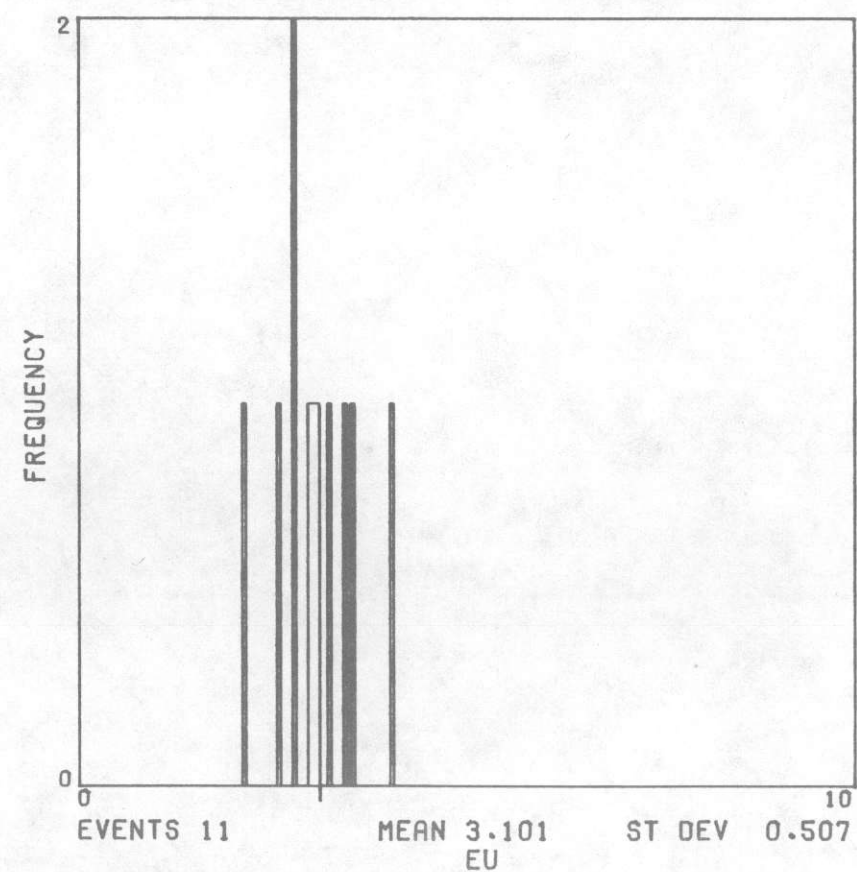
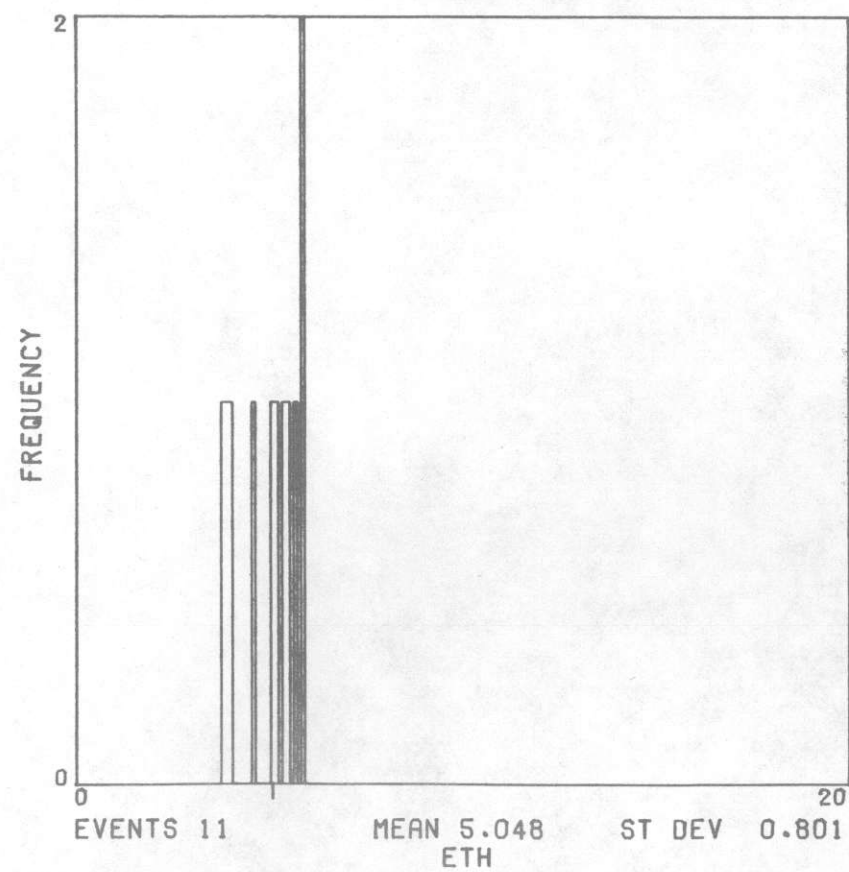
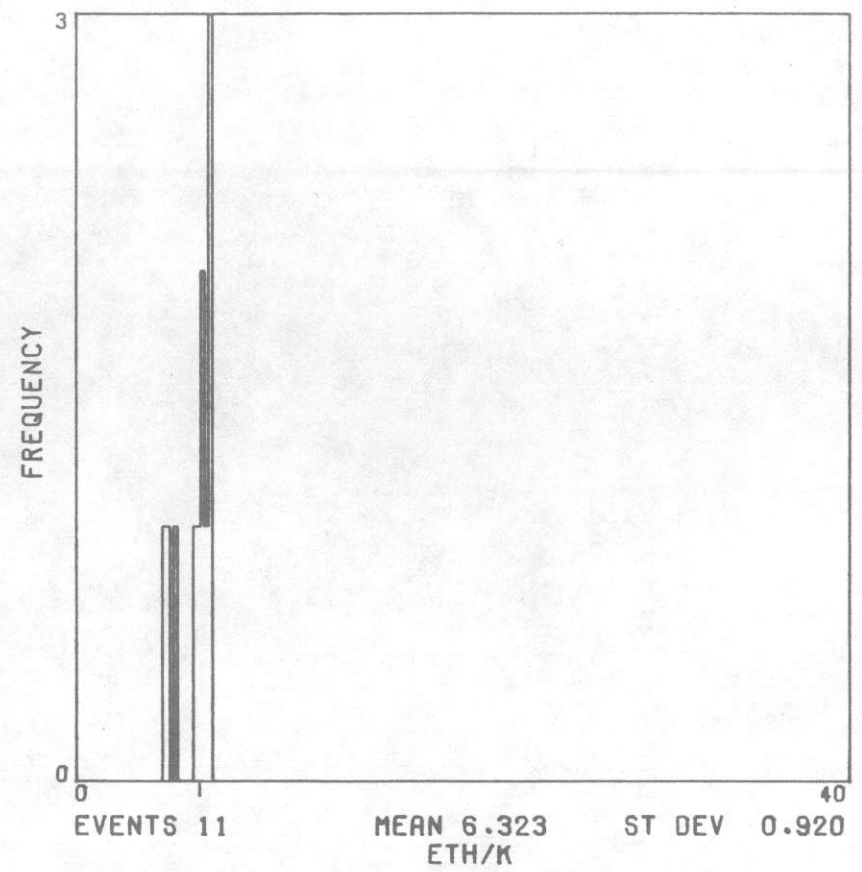
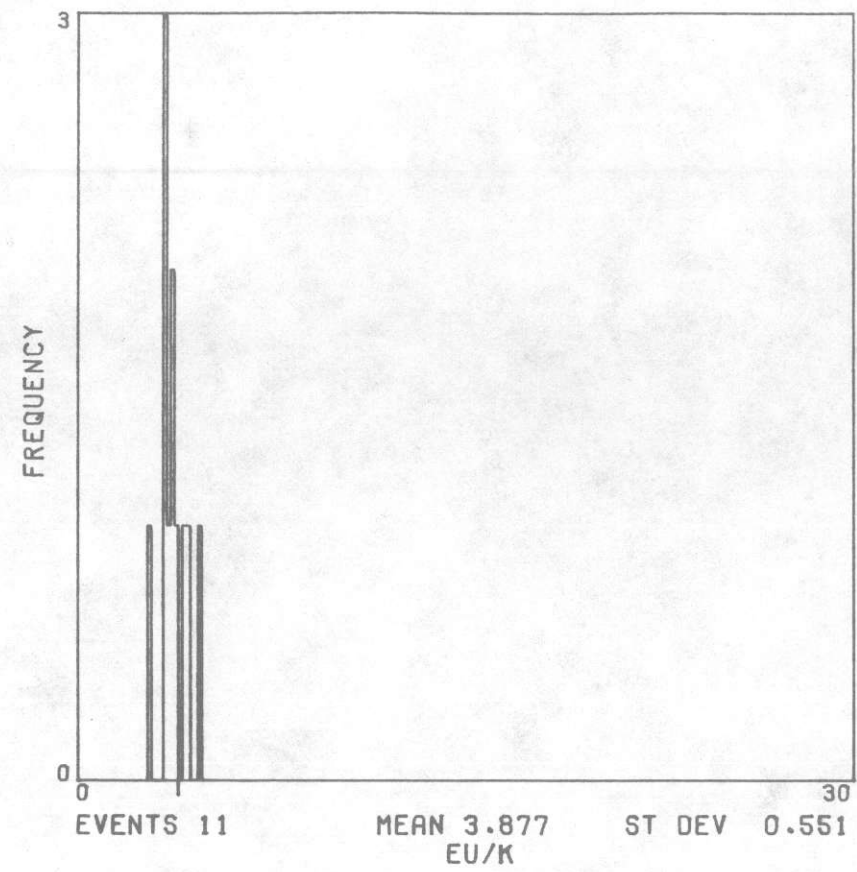
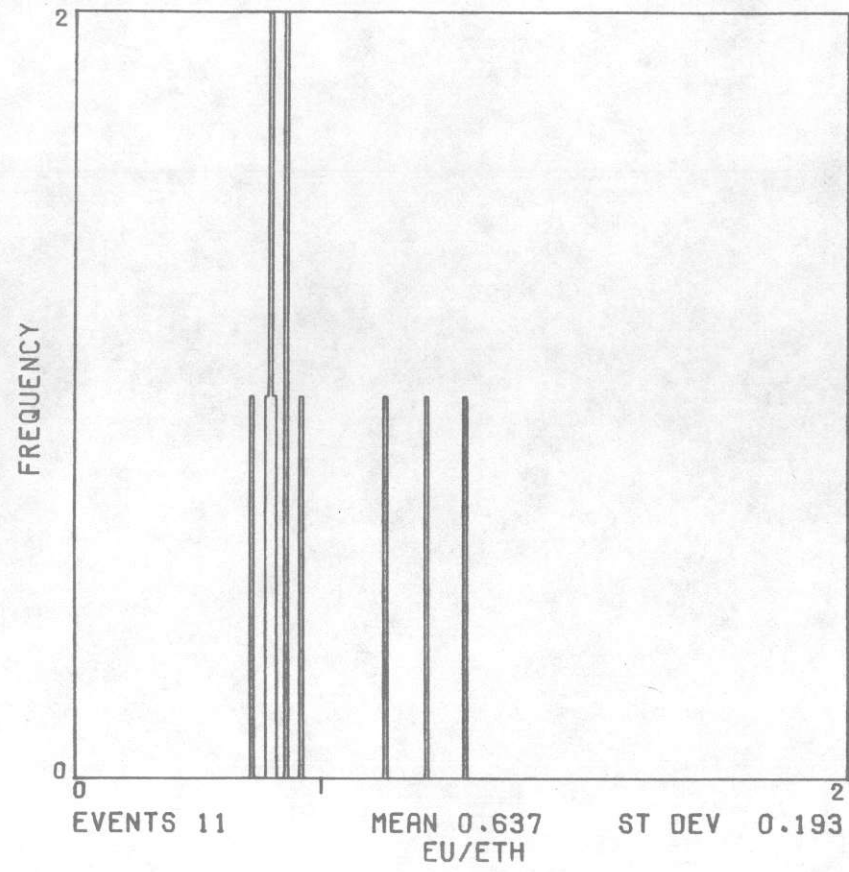


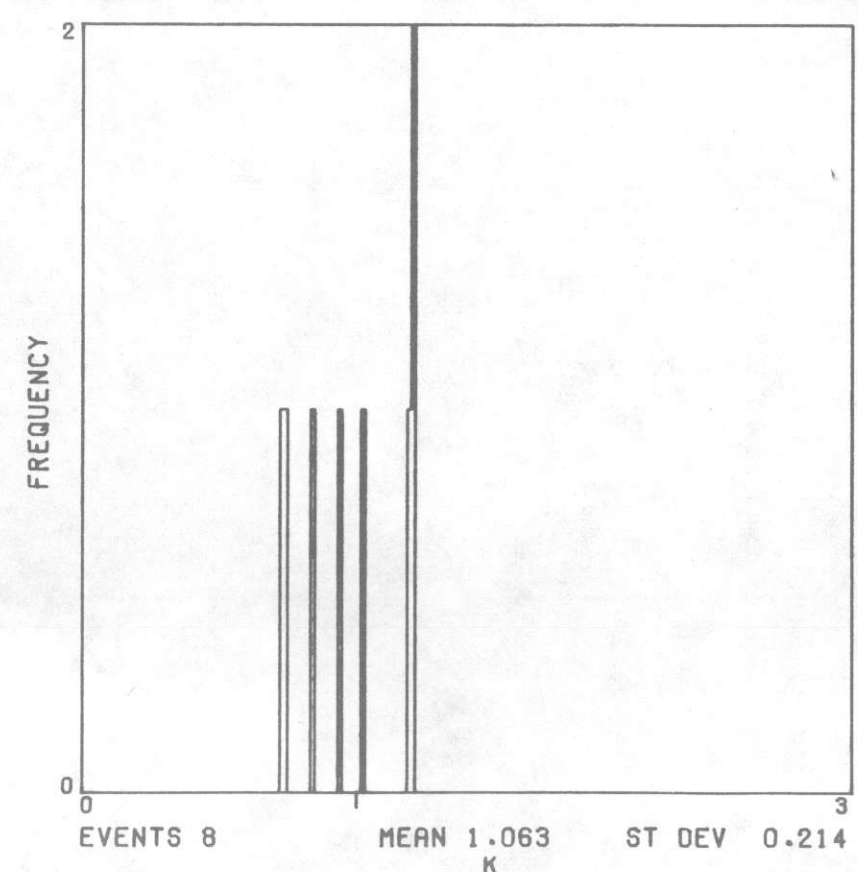
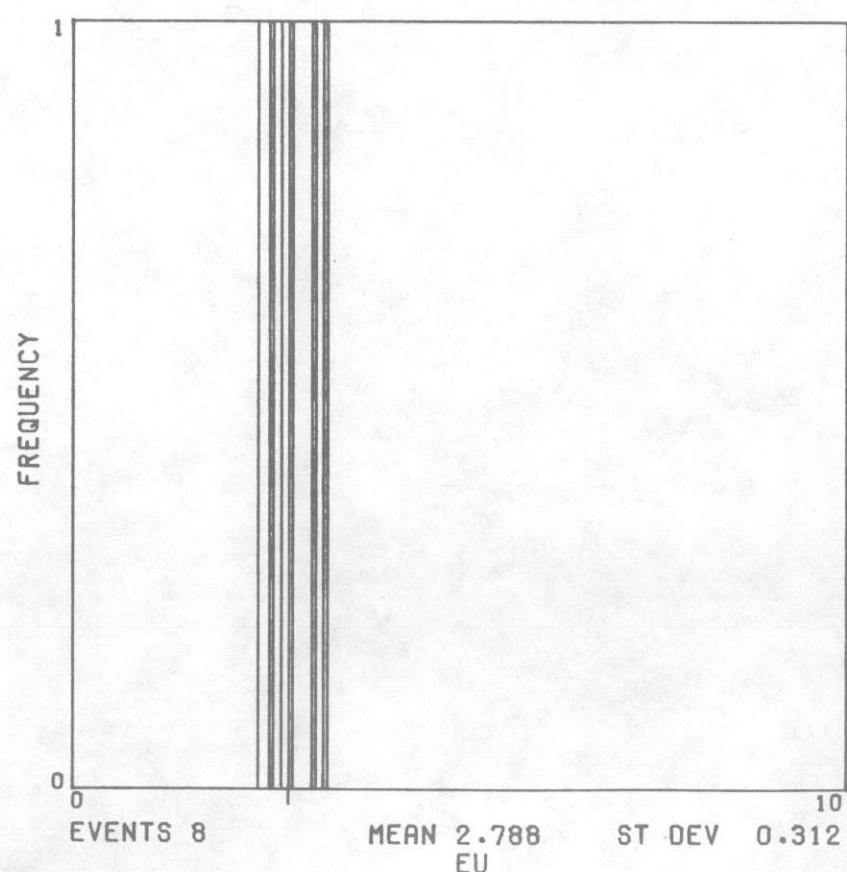
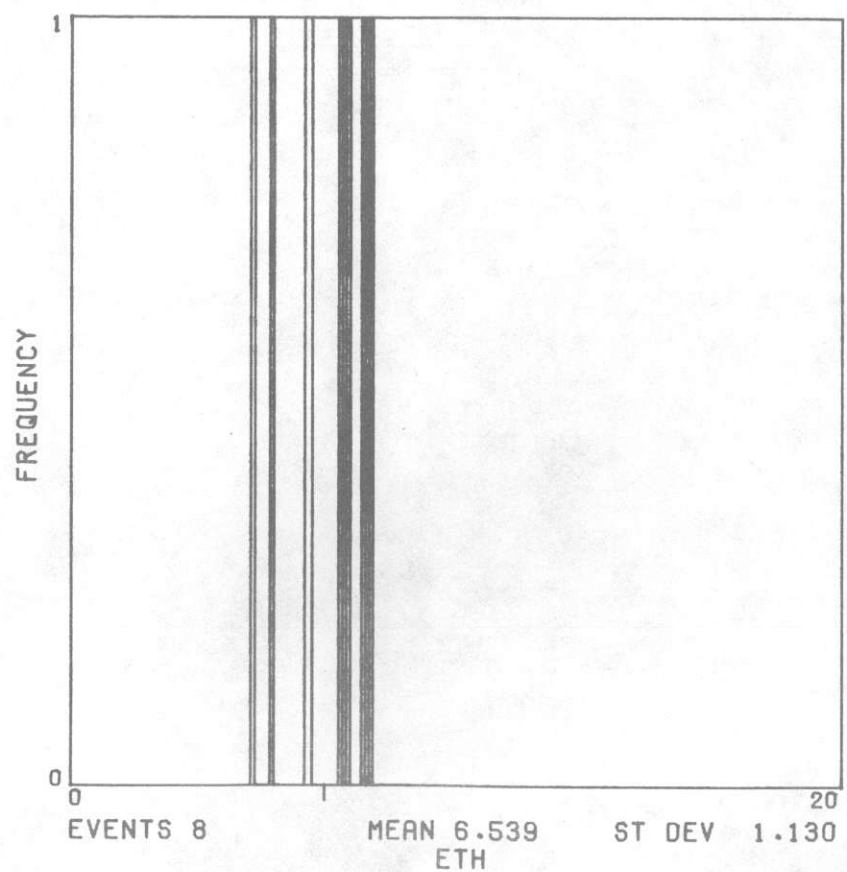
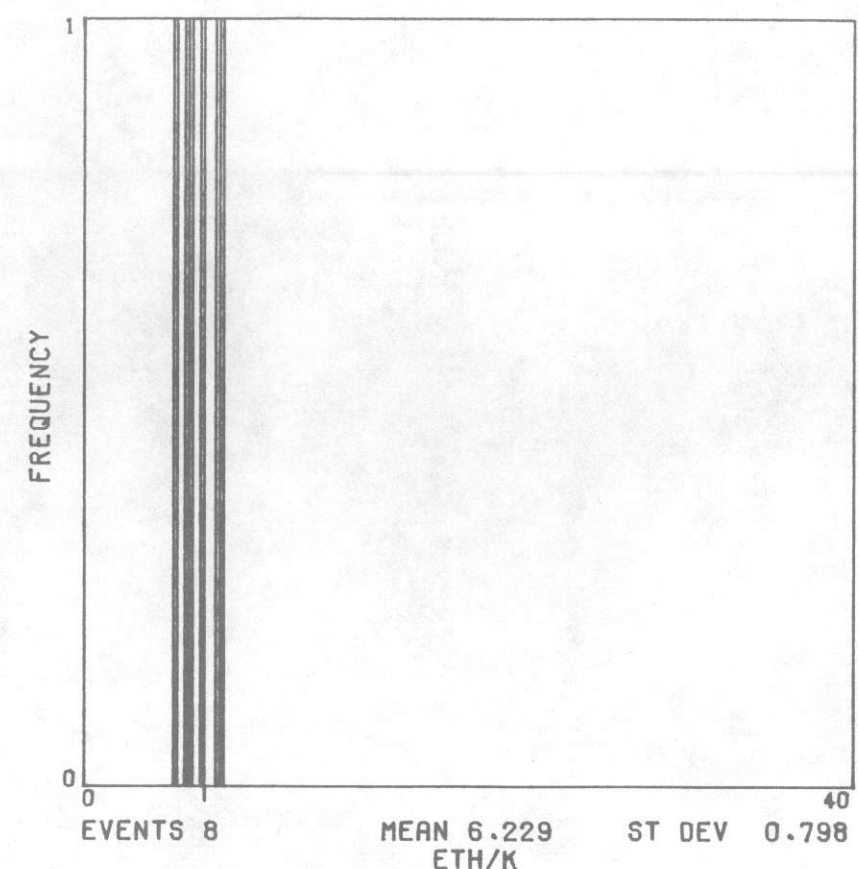
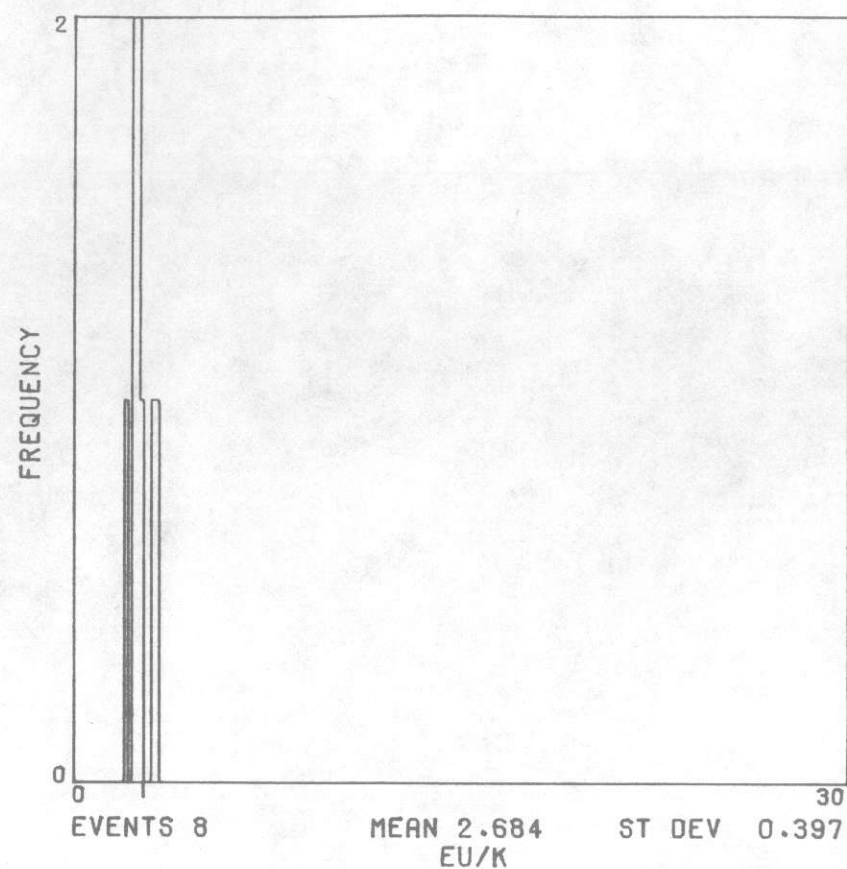
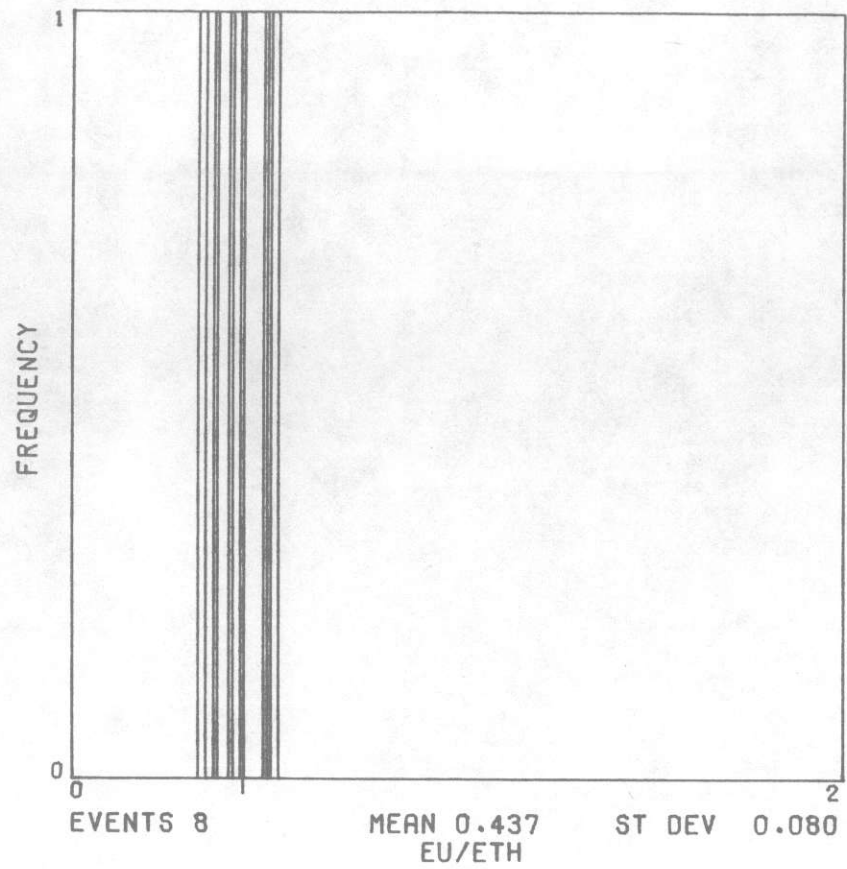
UNIT PBY



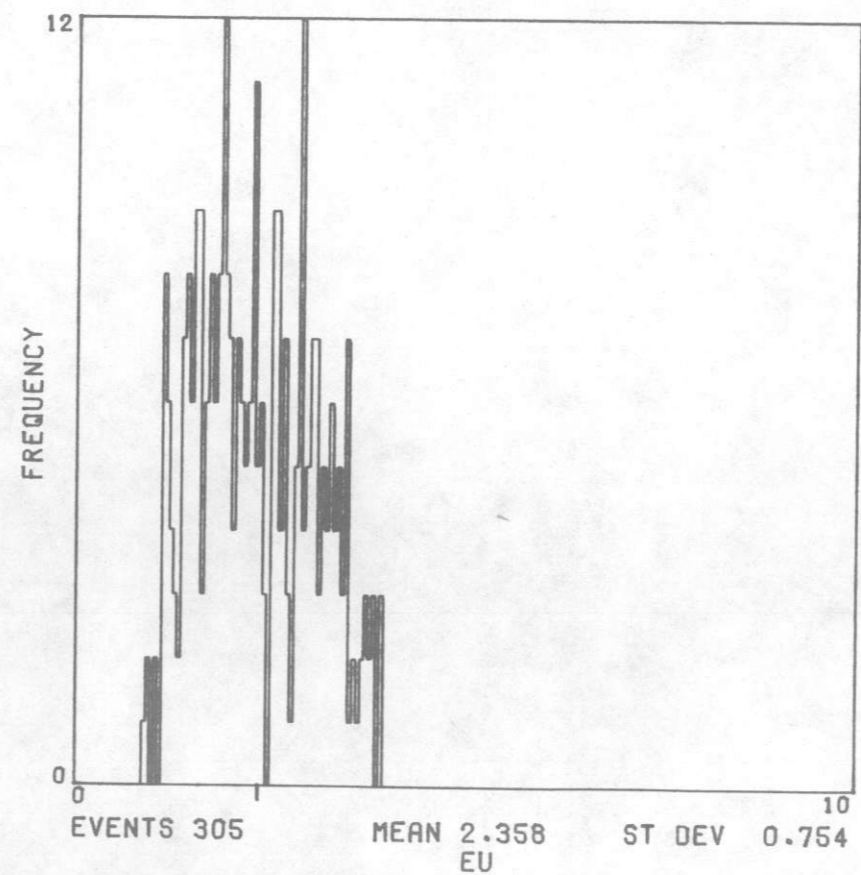
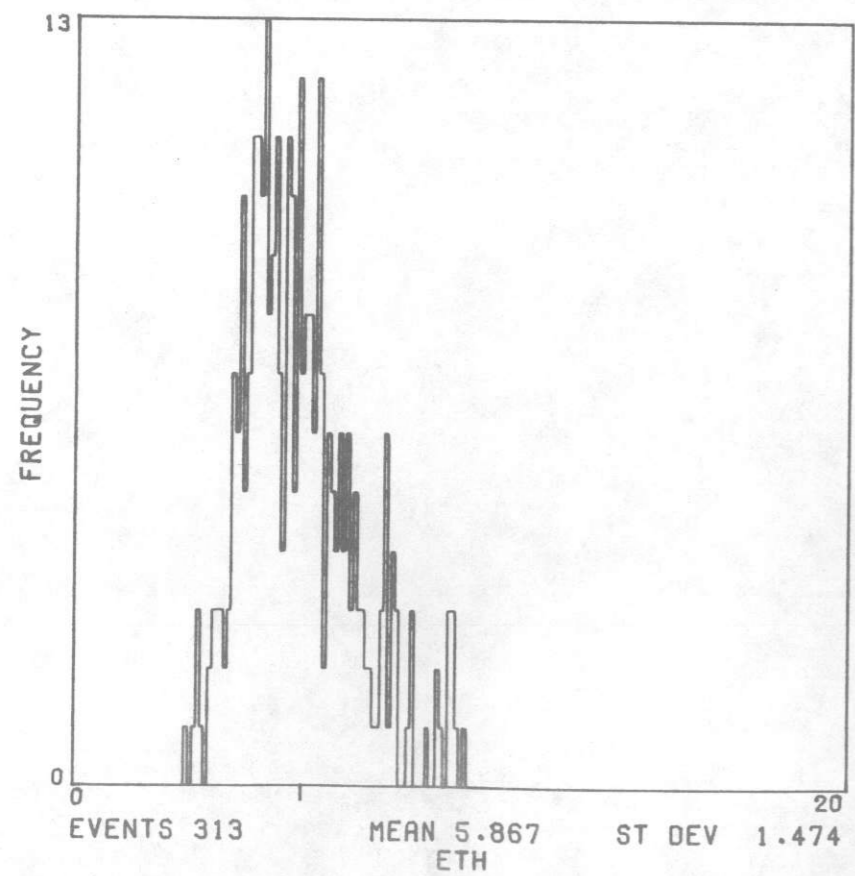
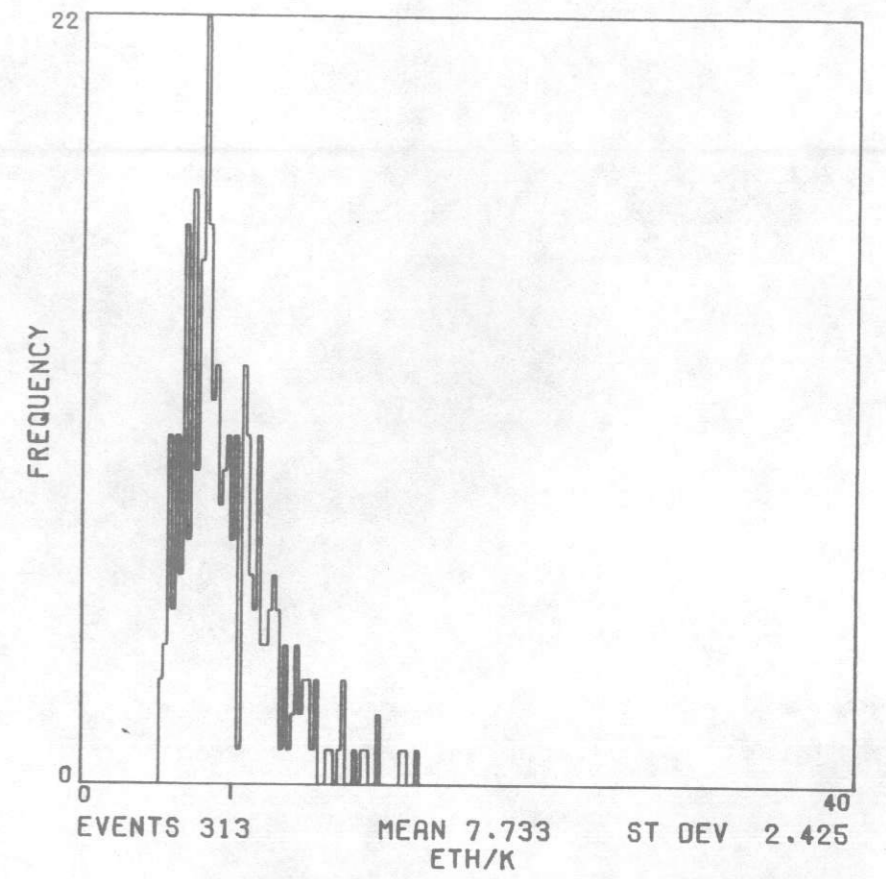
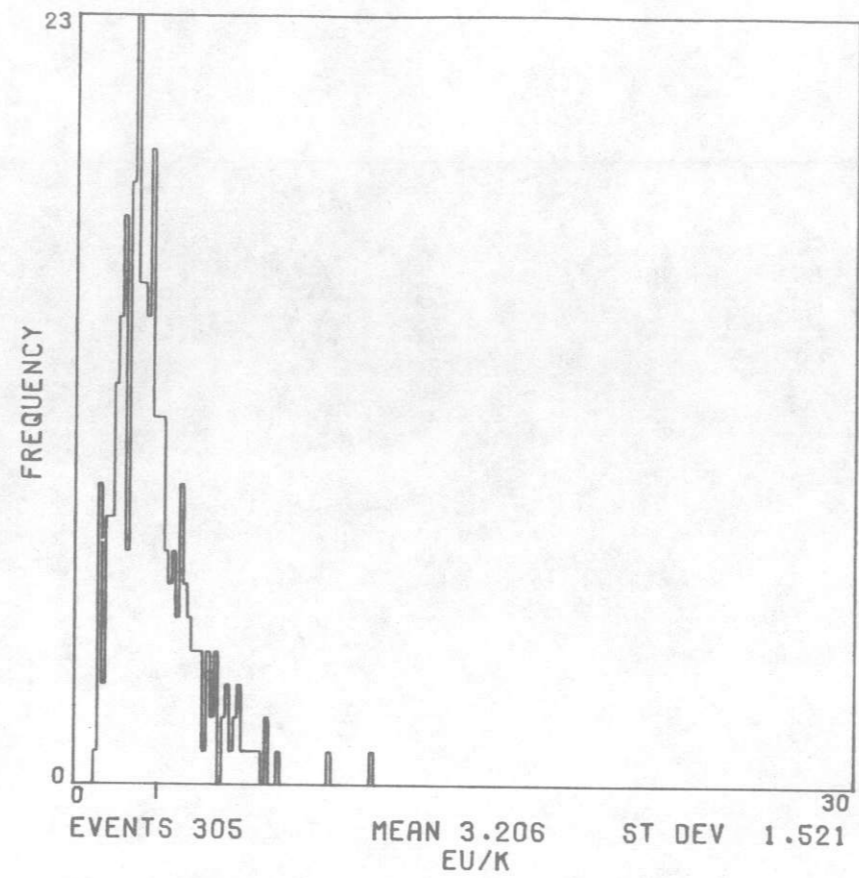
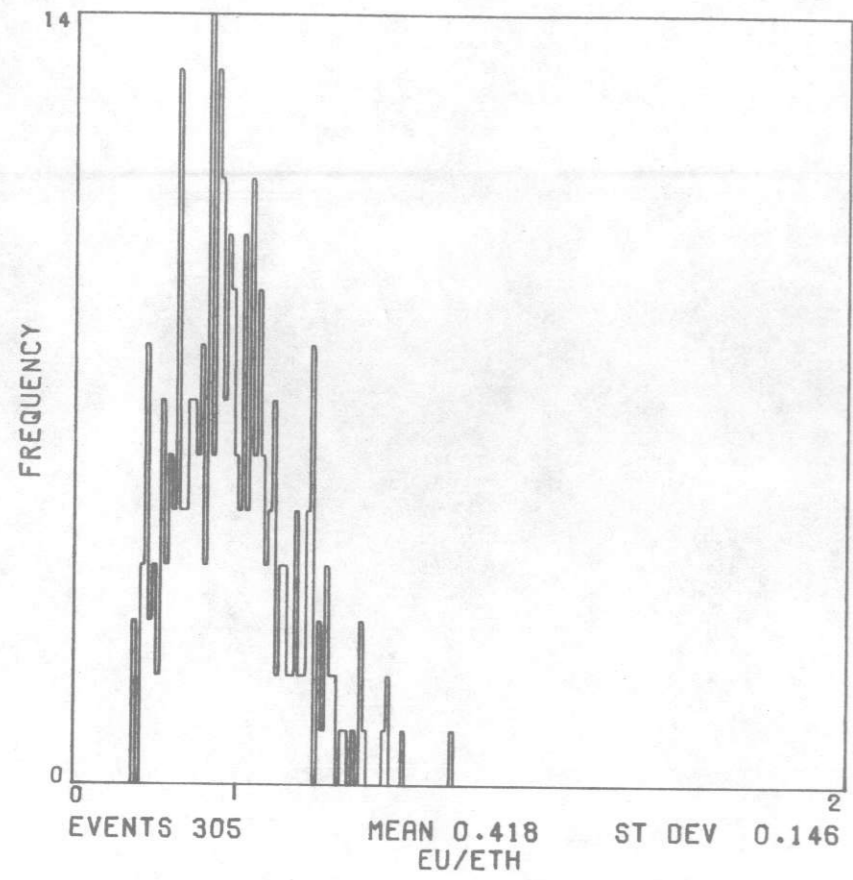
UNIT PCA



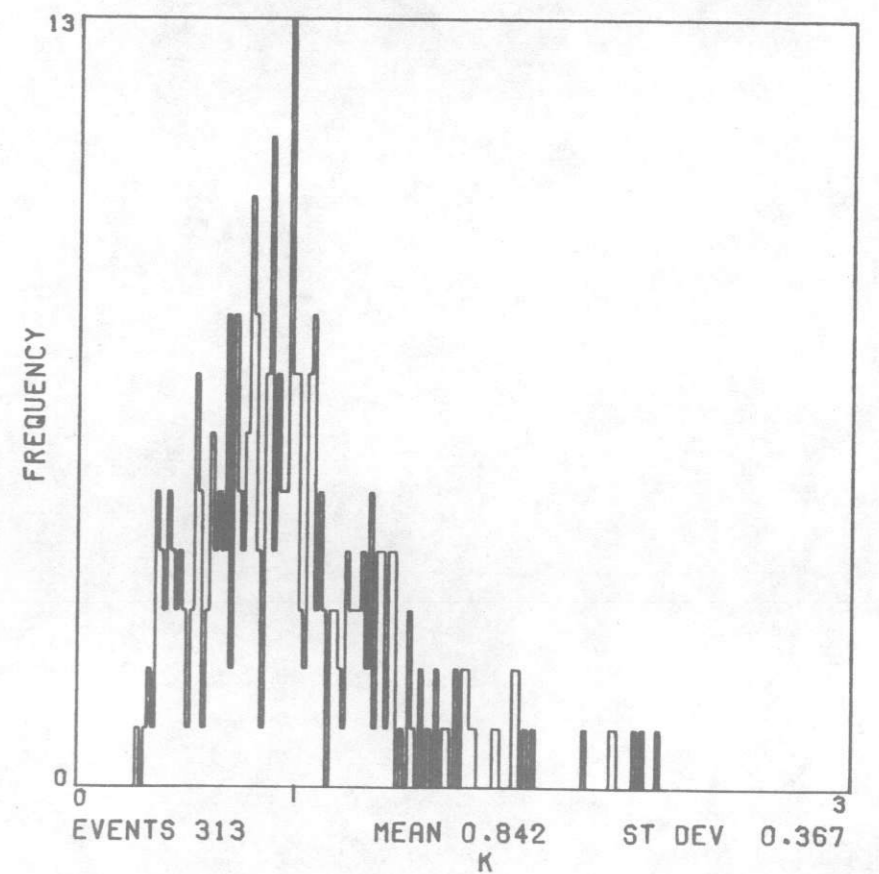


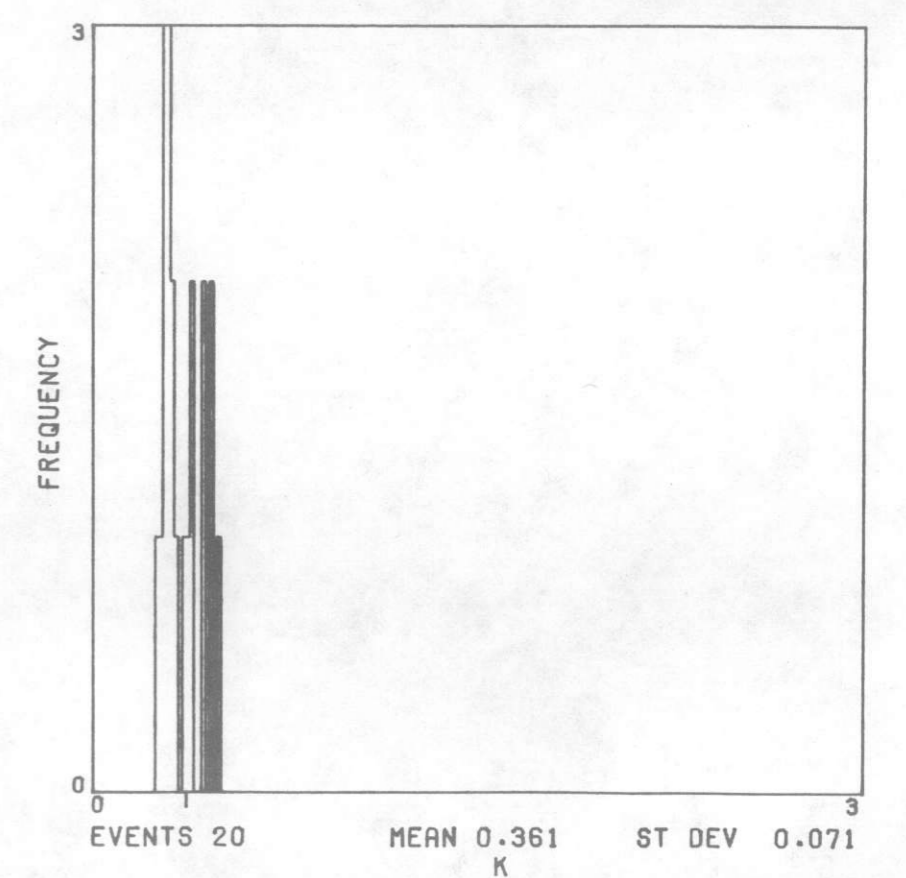
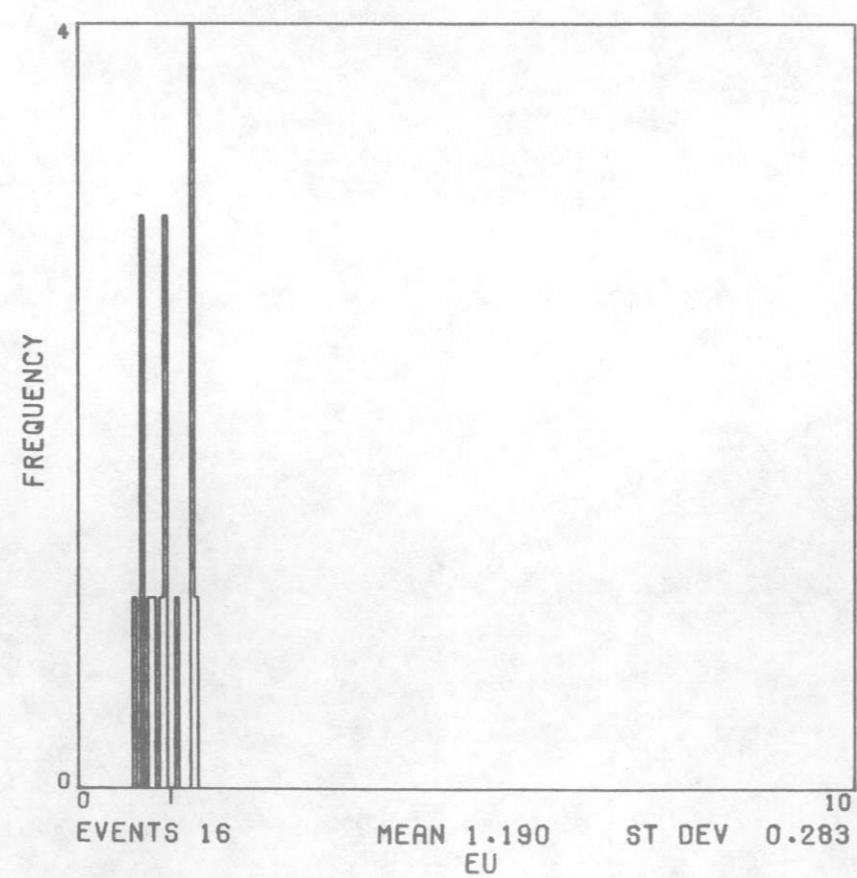
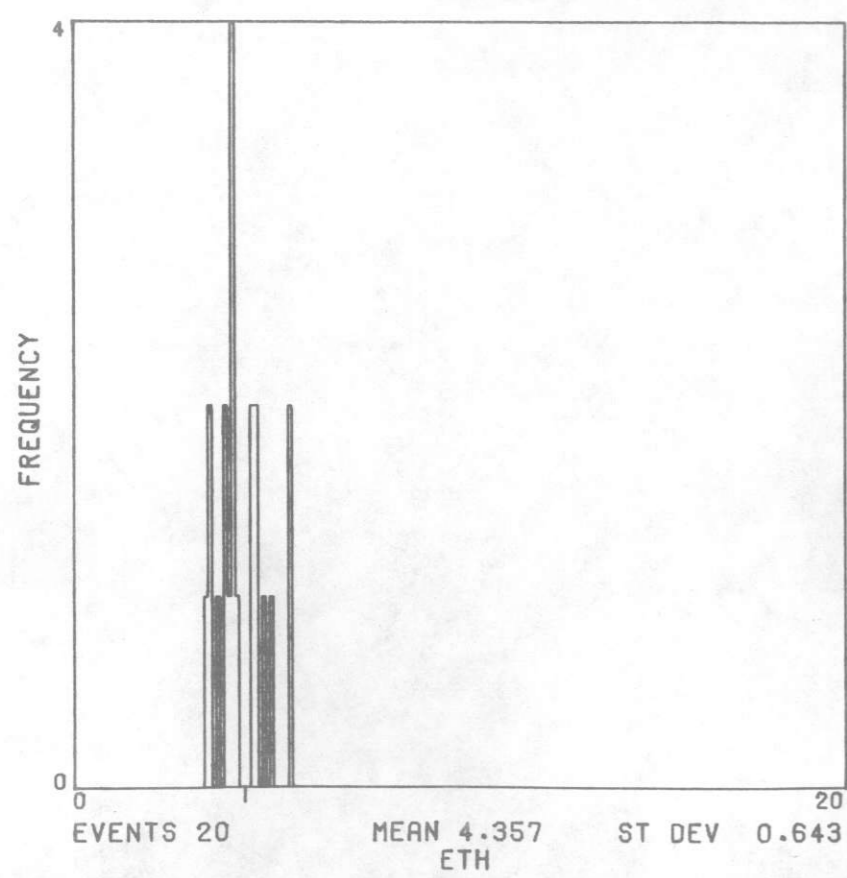
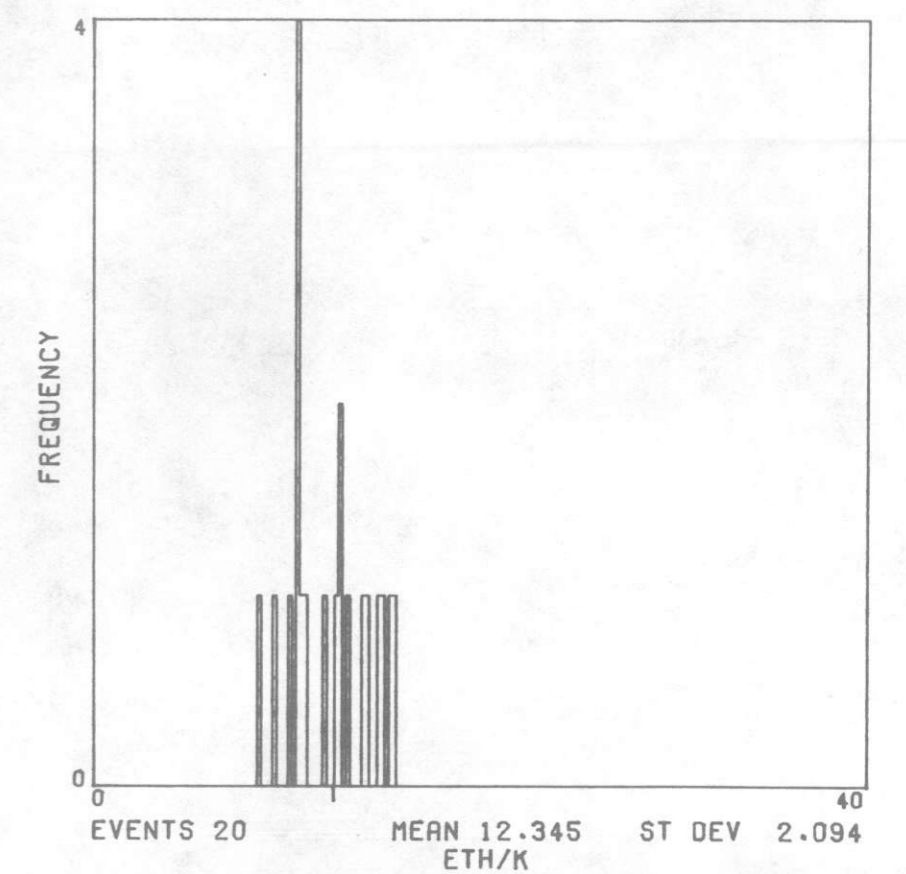
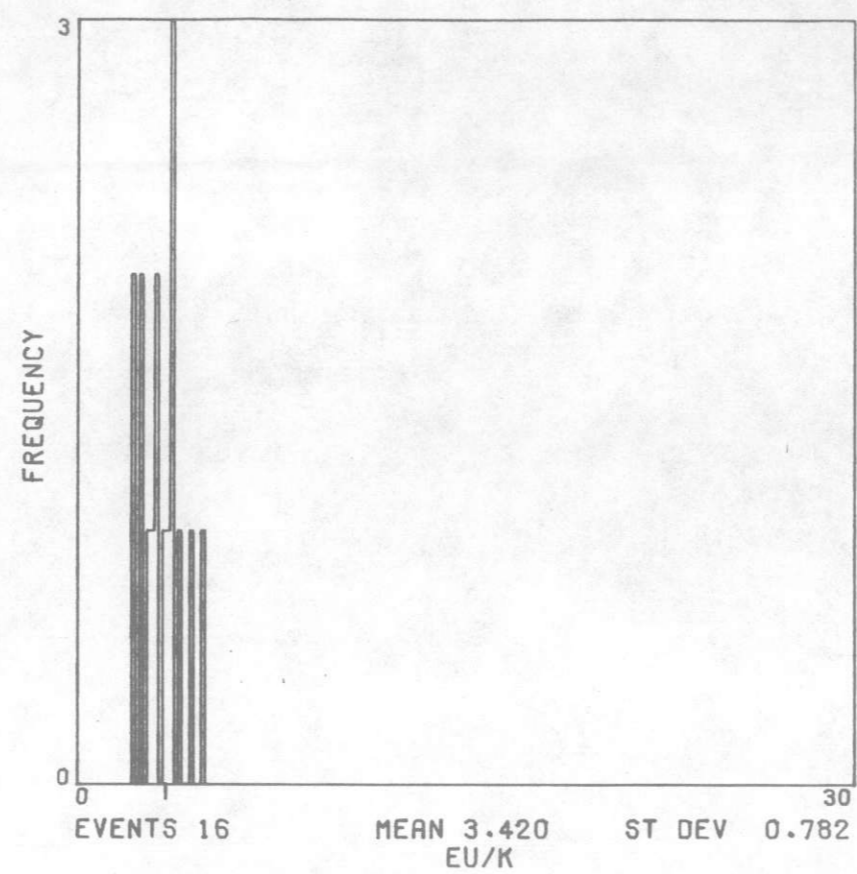
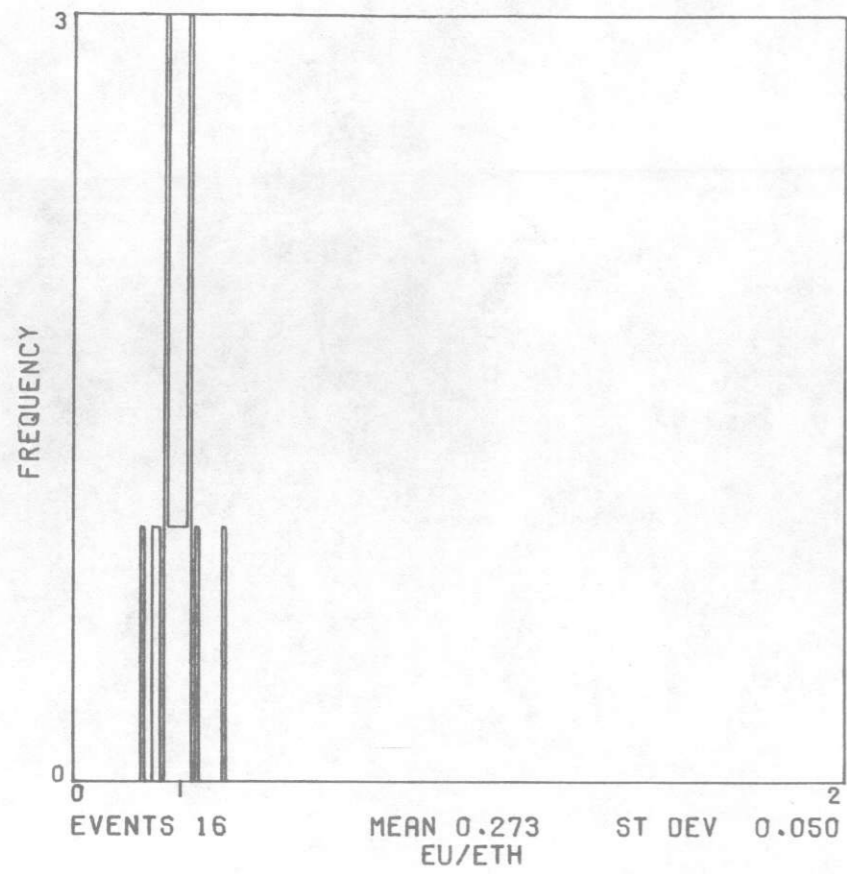


UNIT PIC

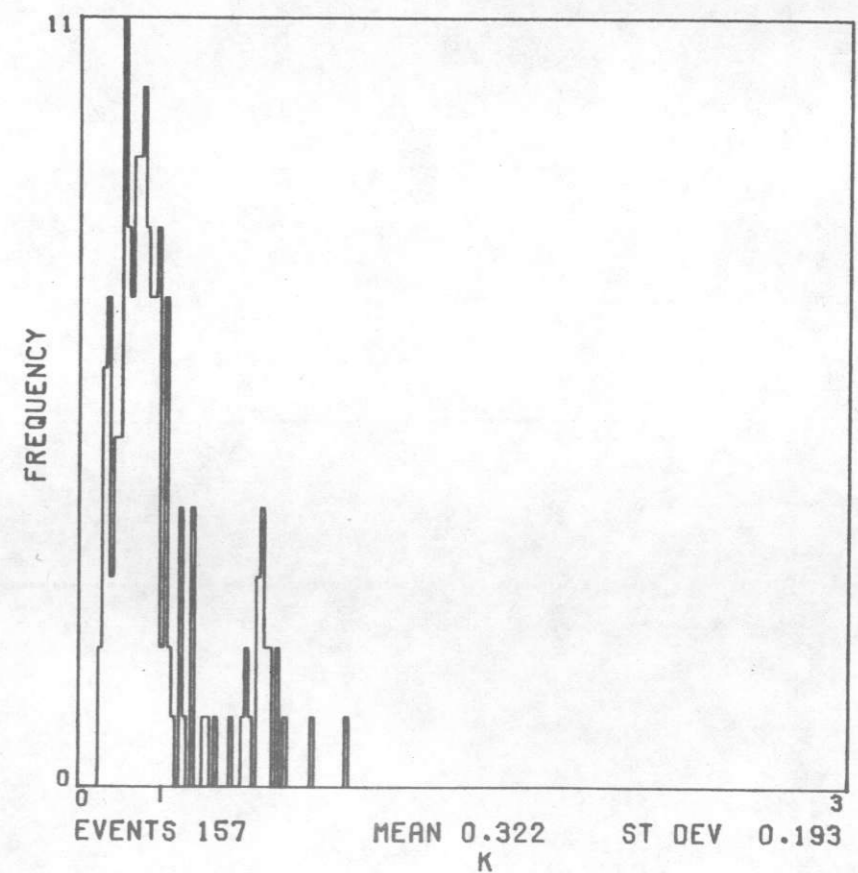
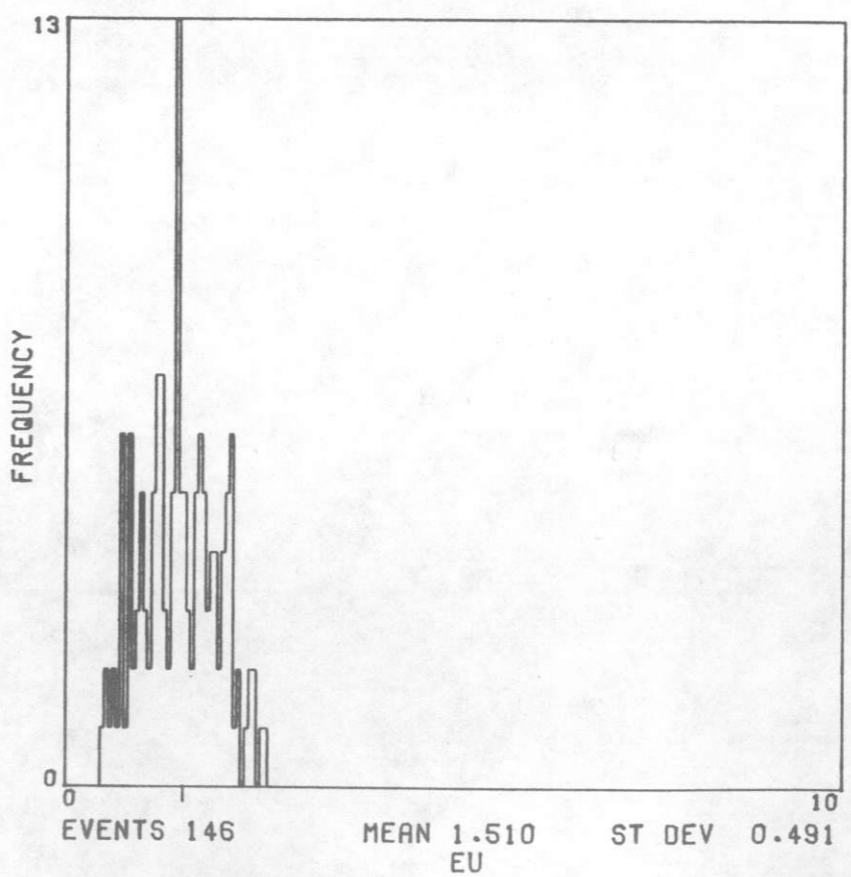
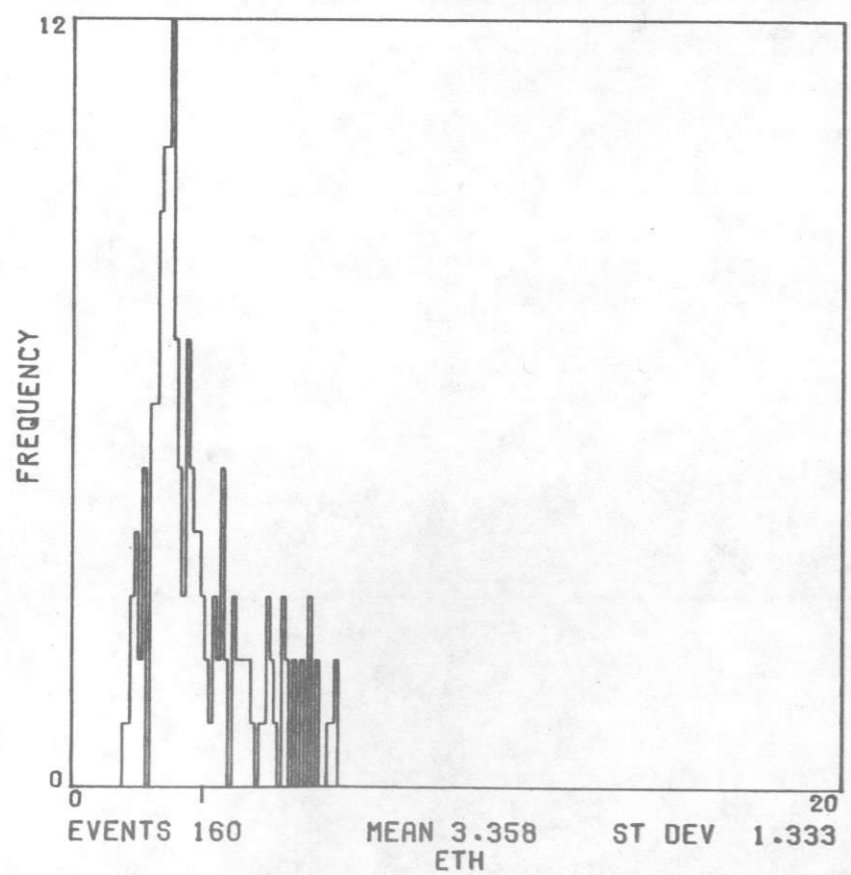
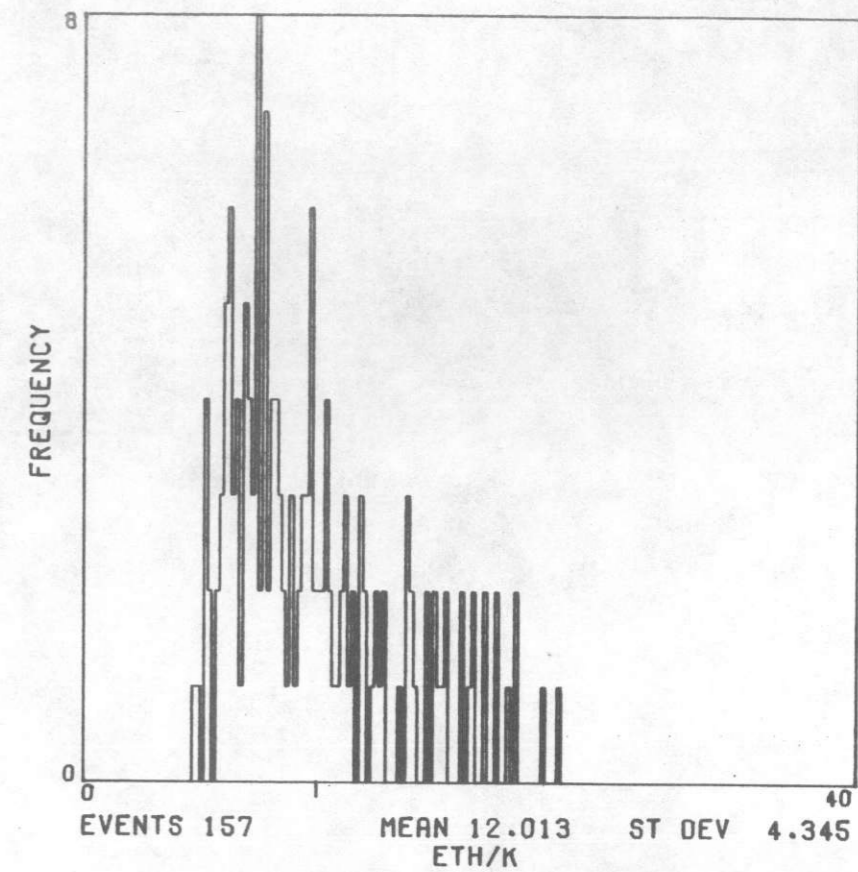
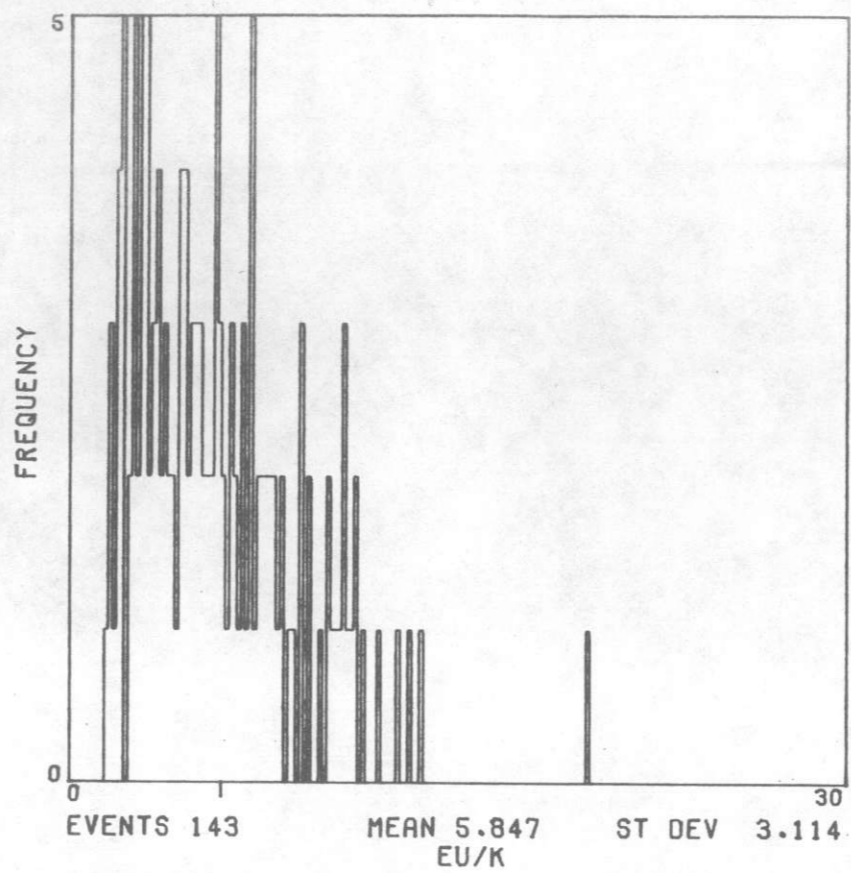
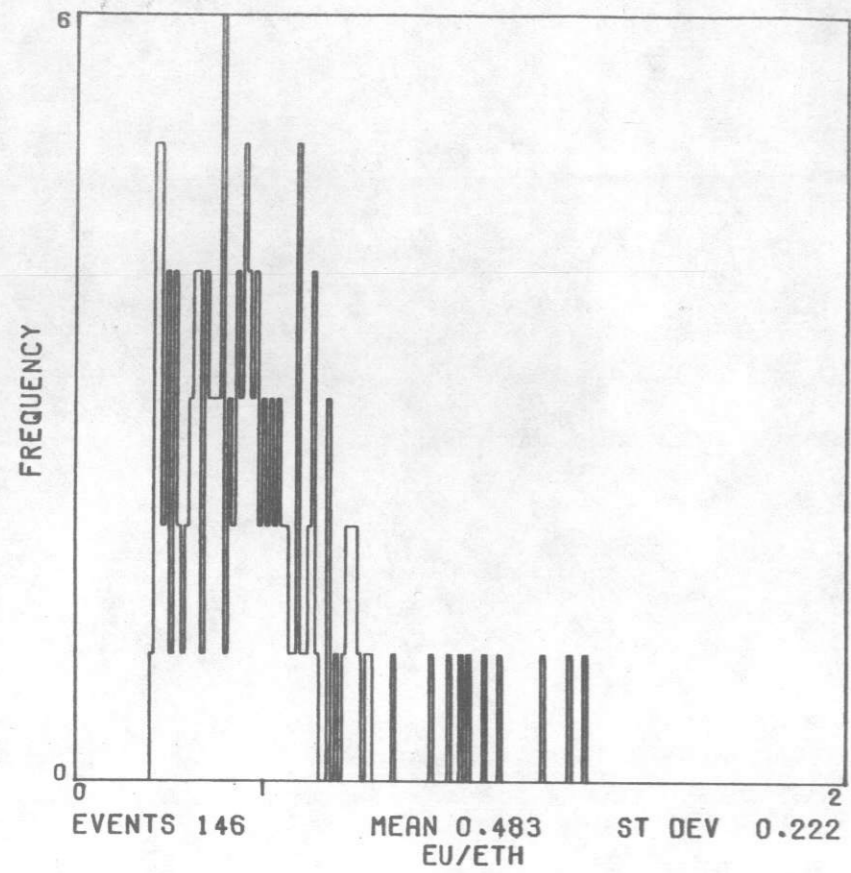


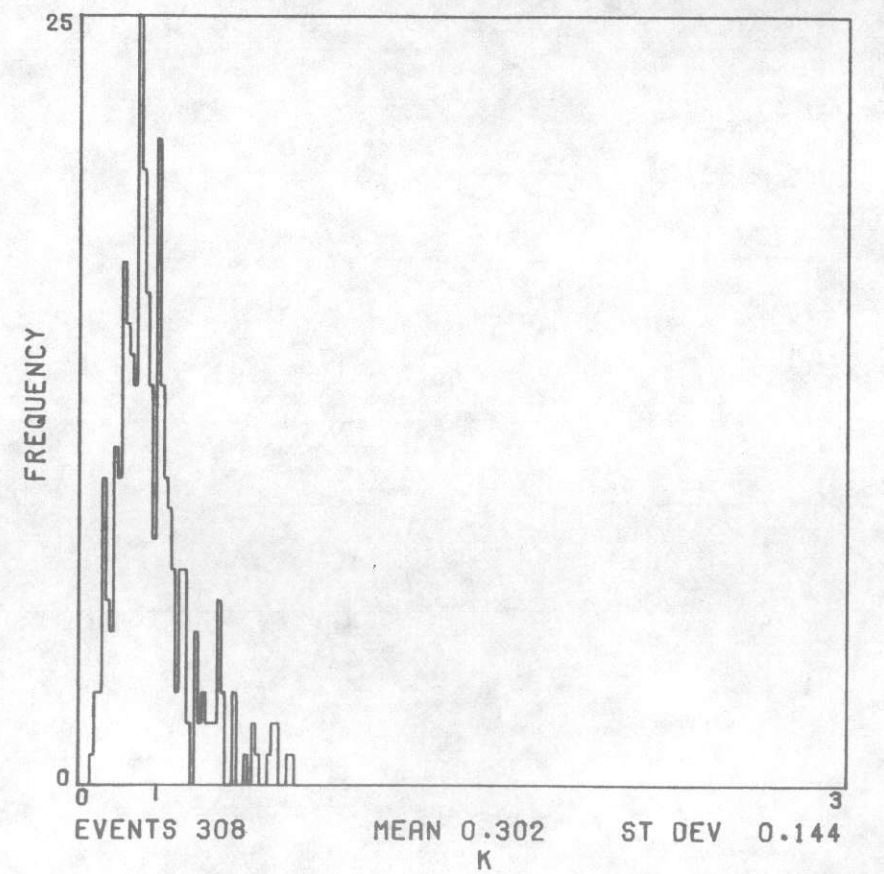
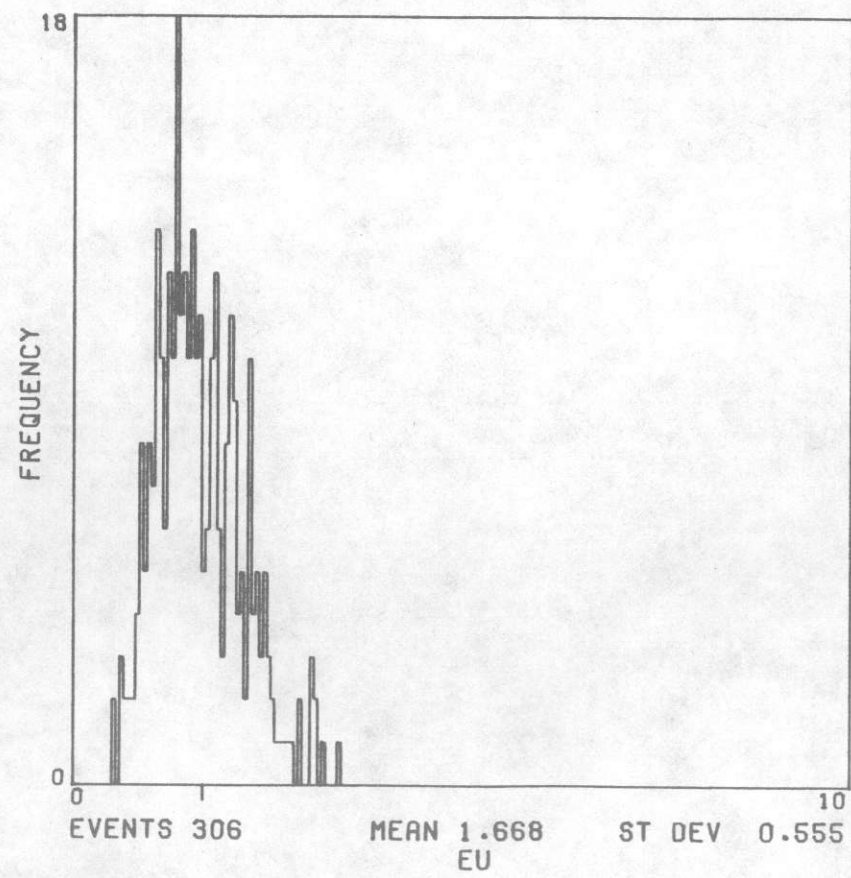
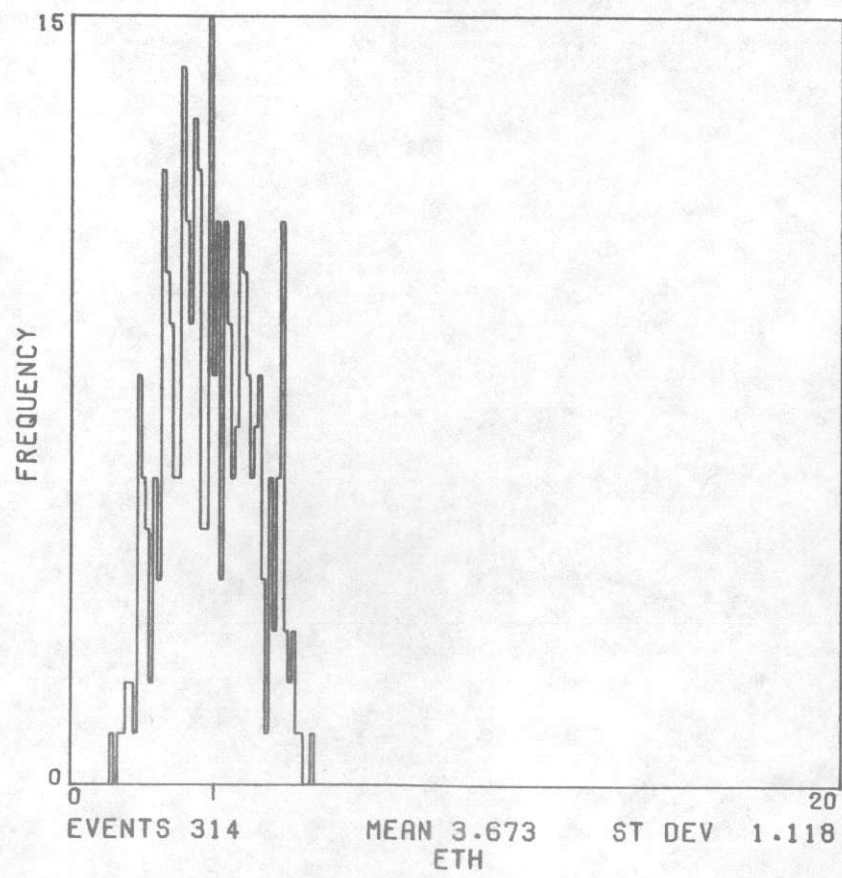
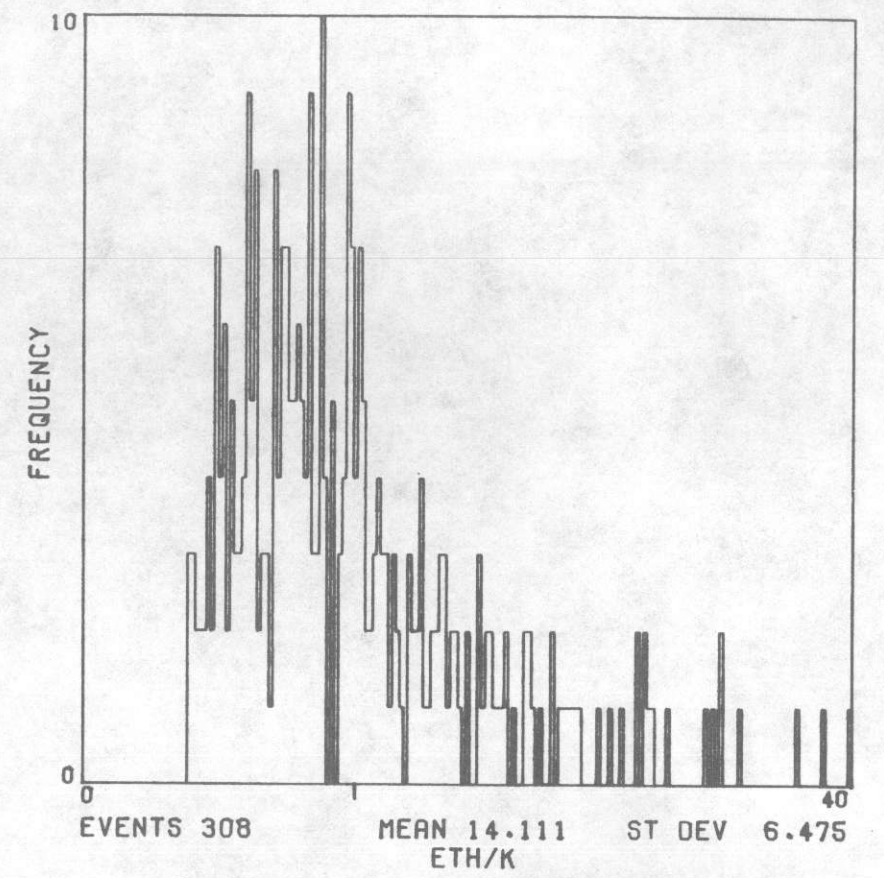
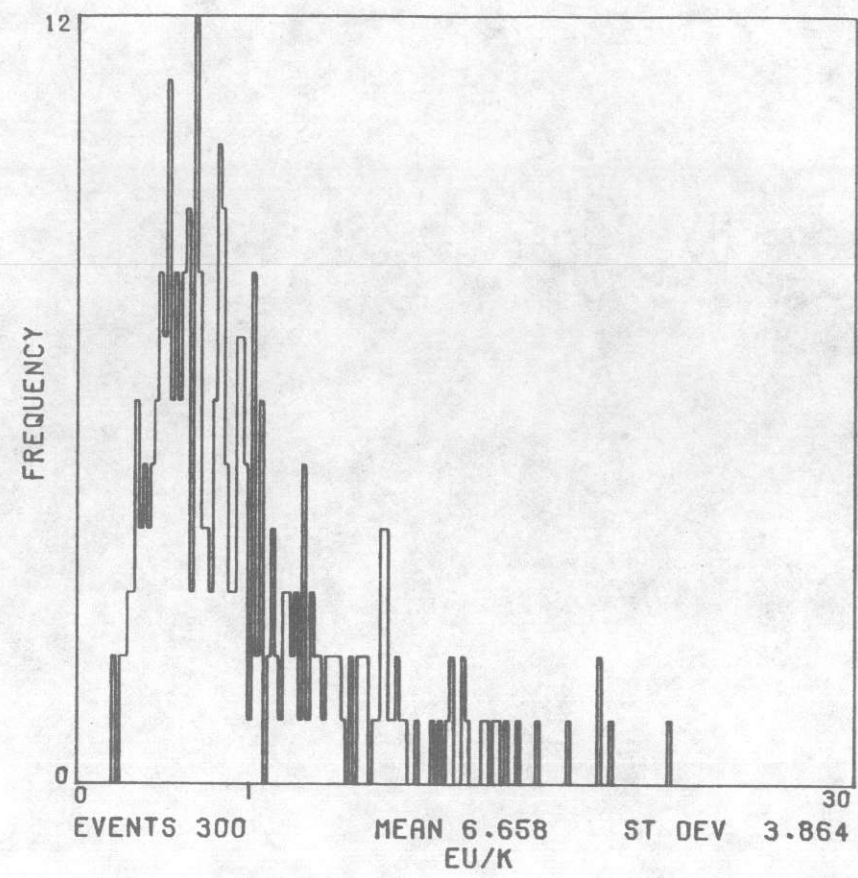
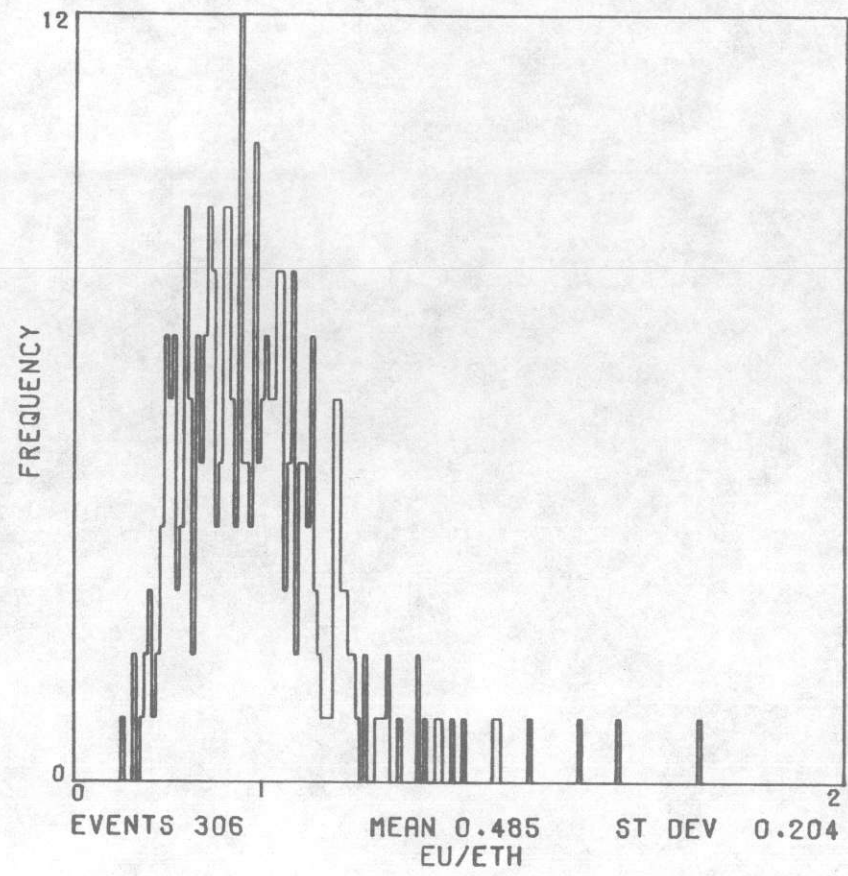
UNIT PLC

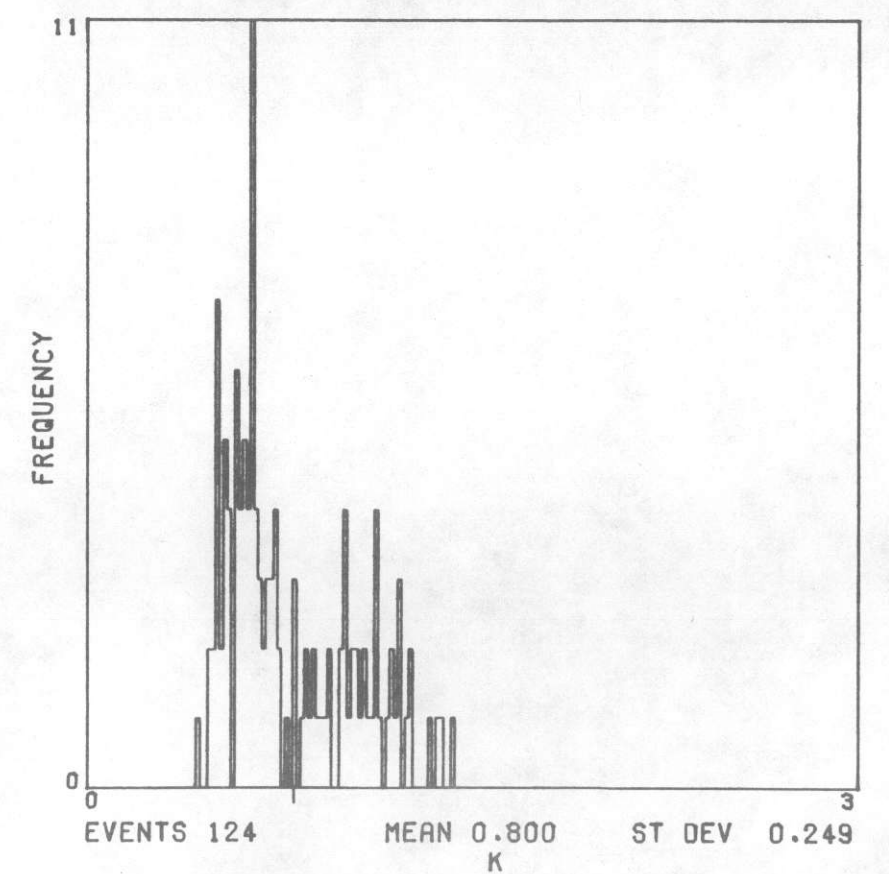
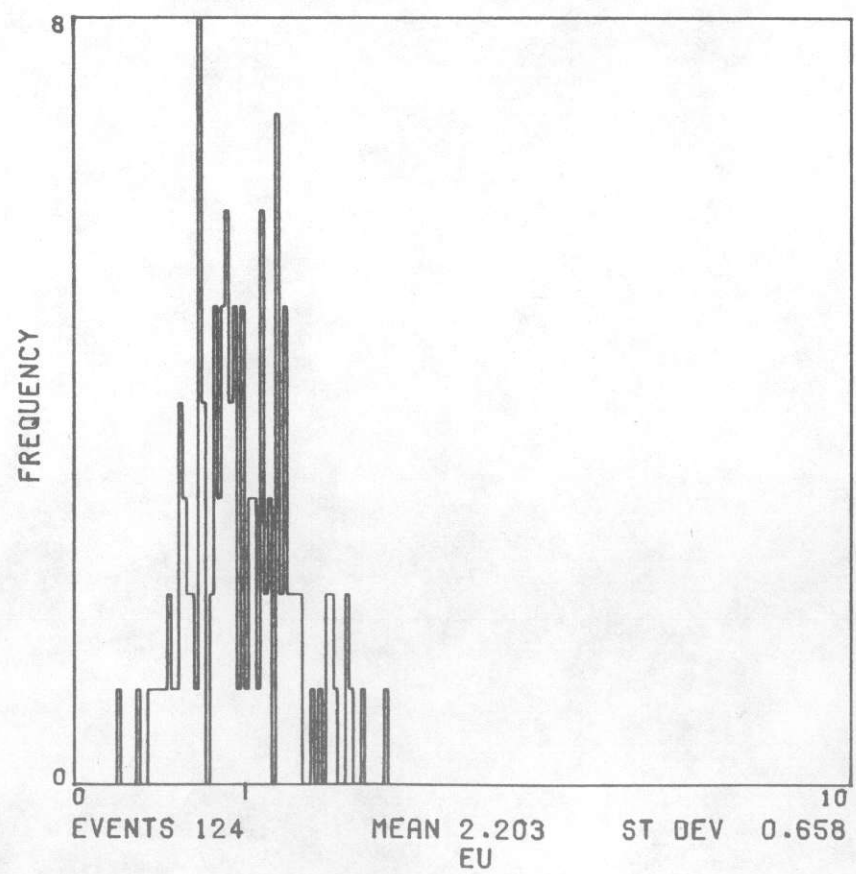
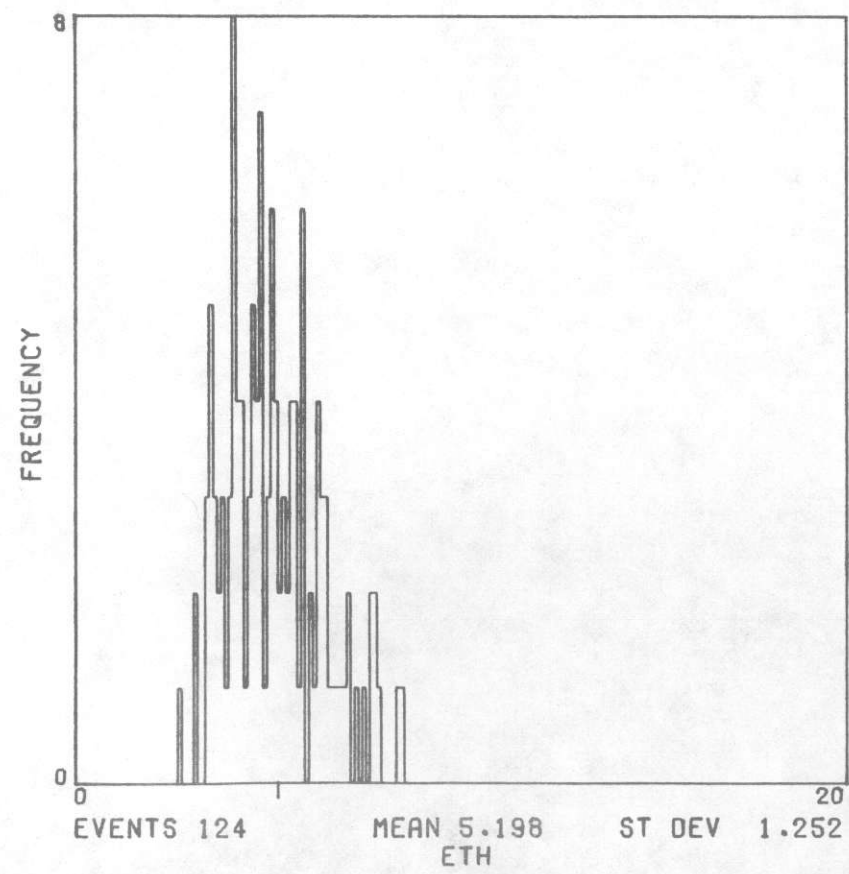
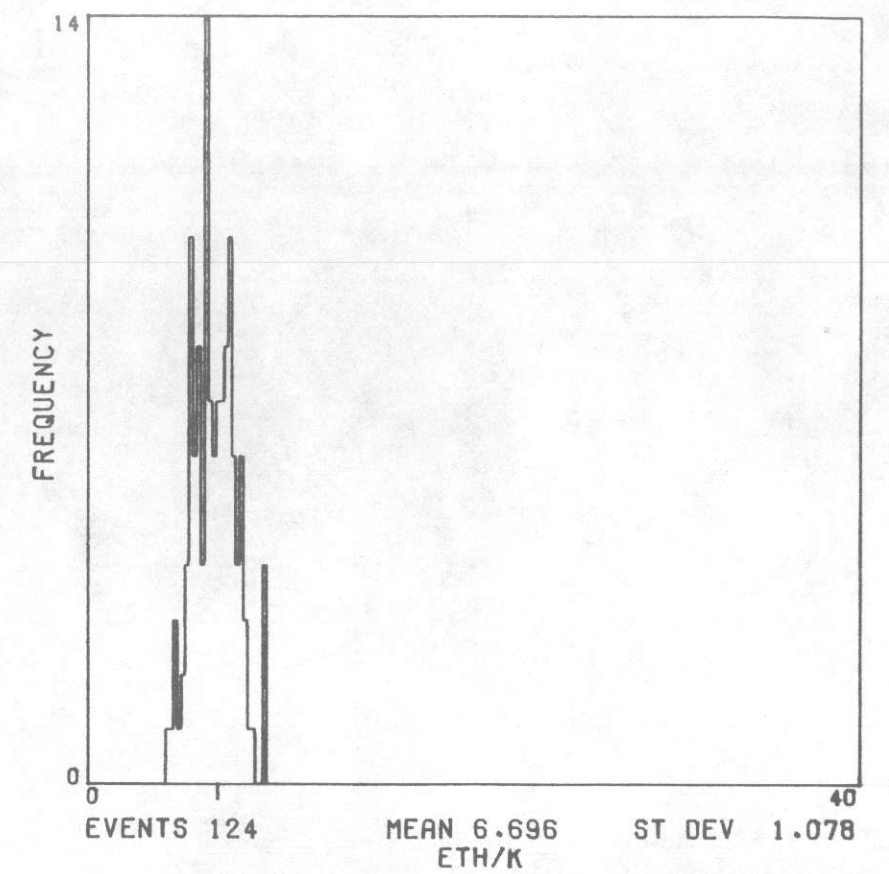
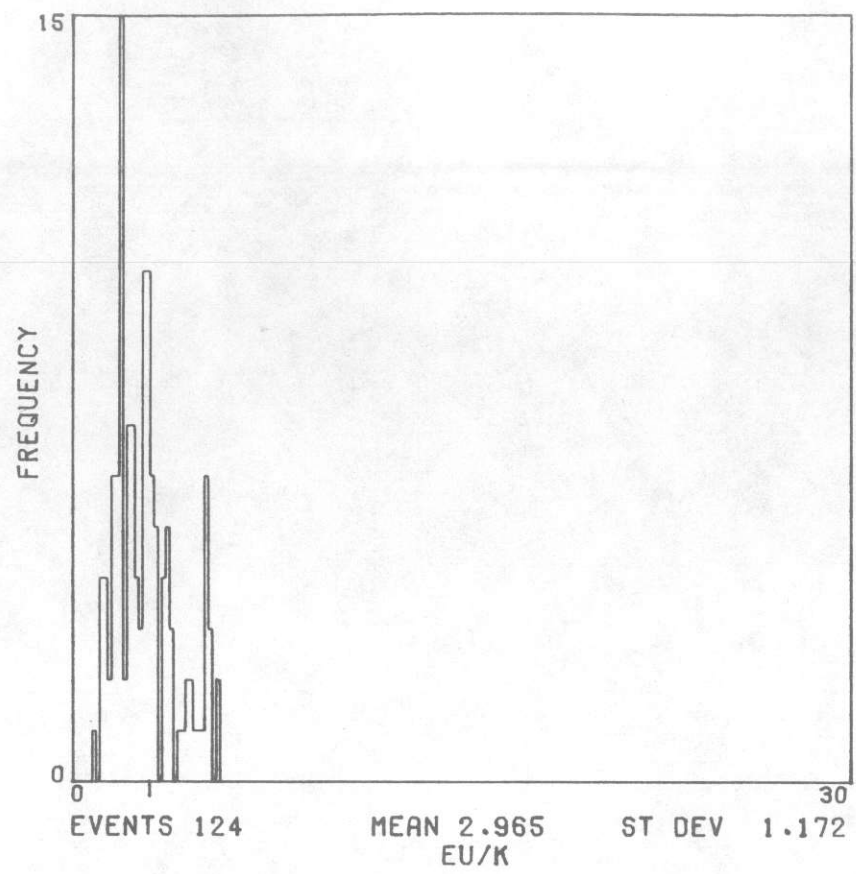
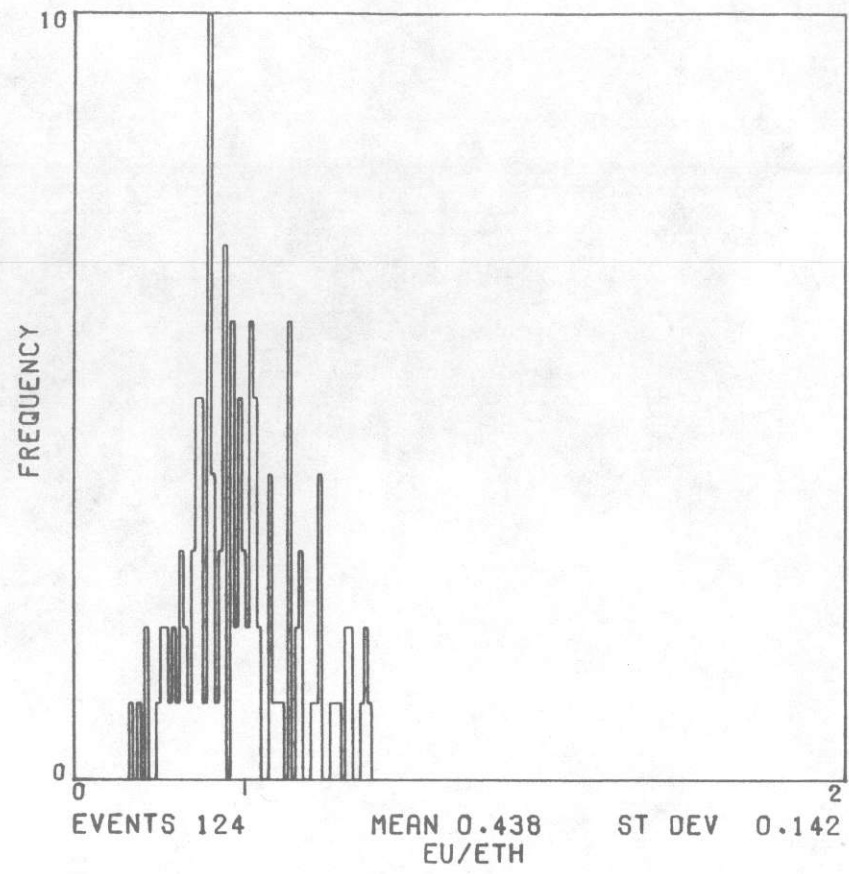


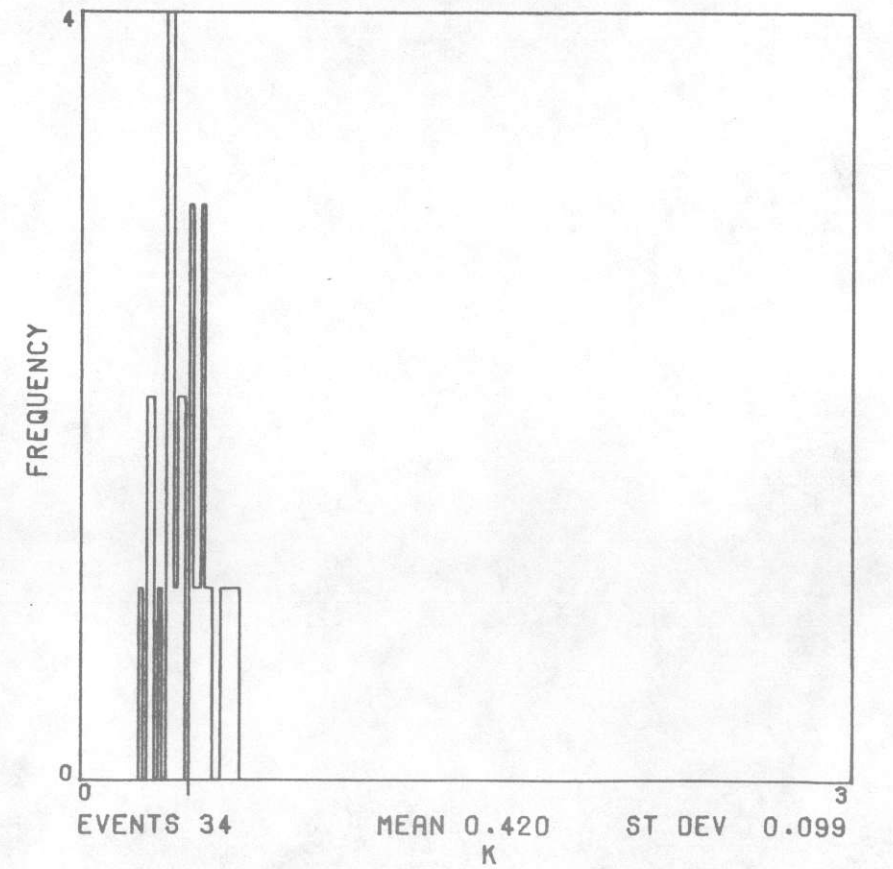
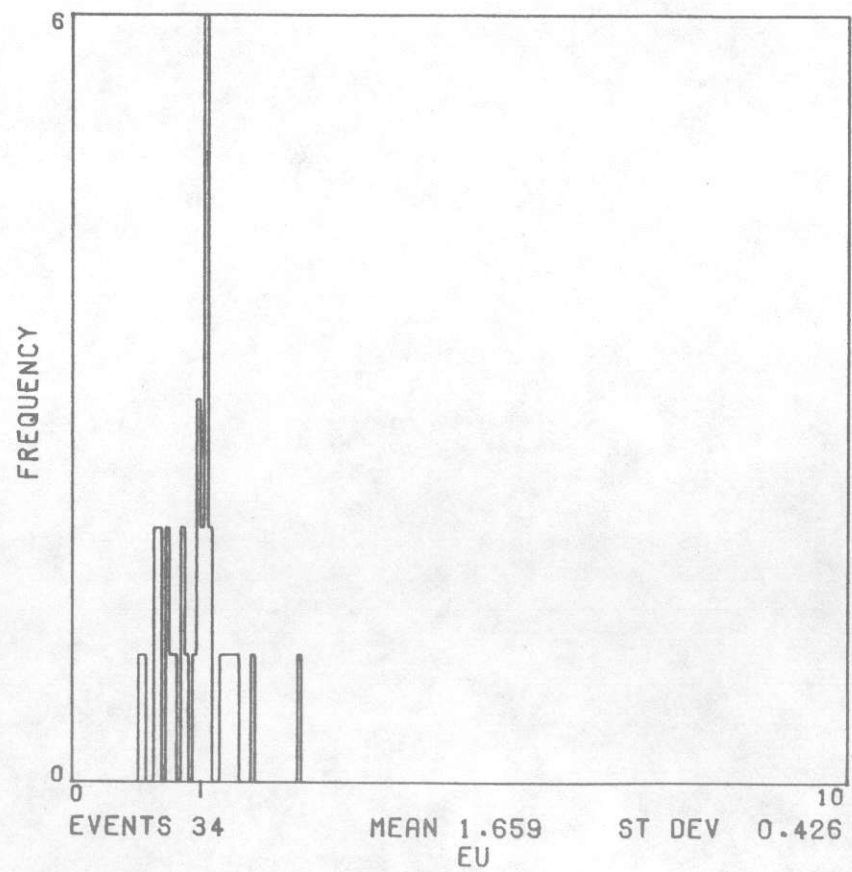
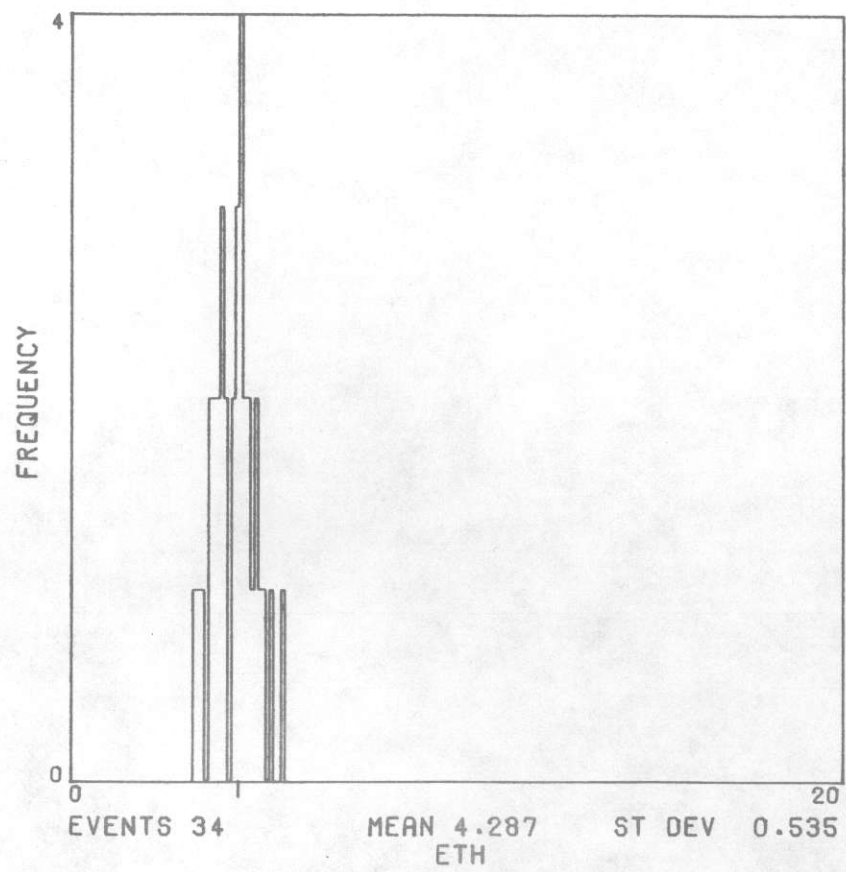
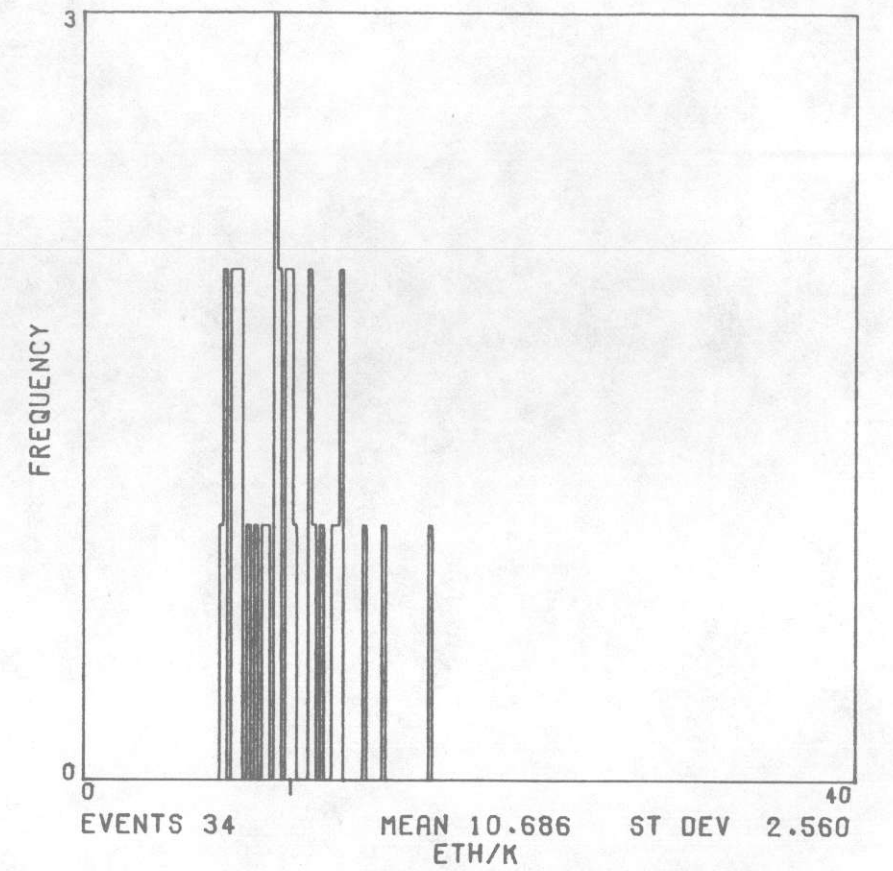
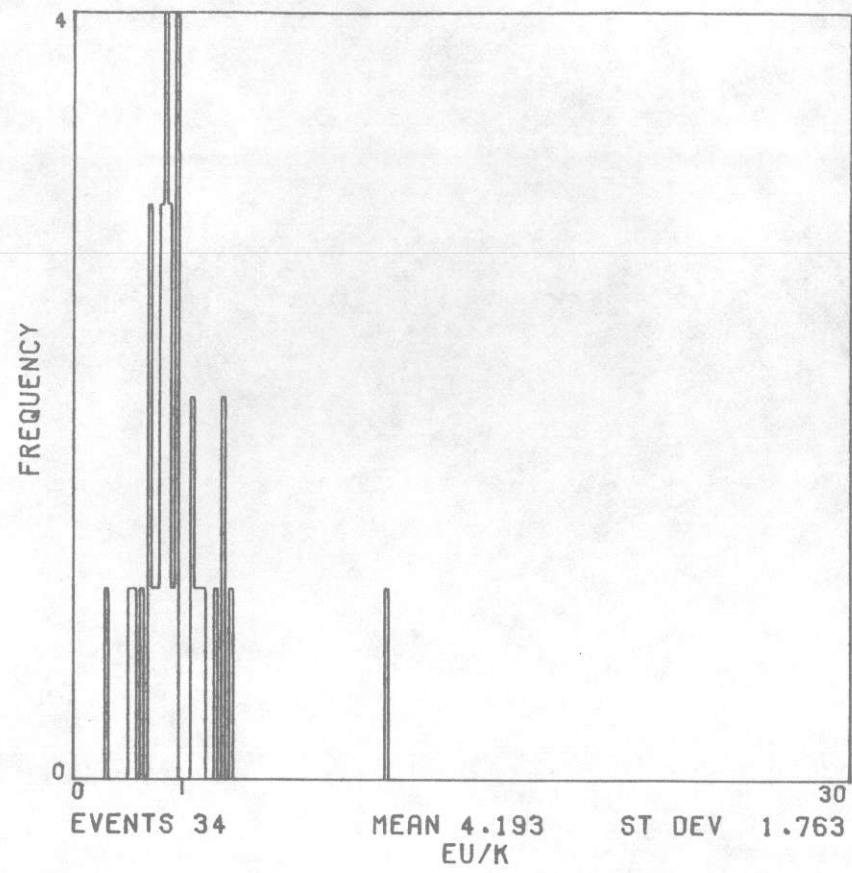
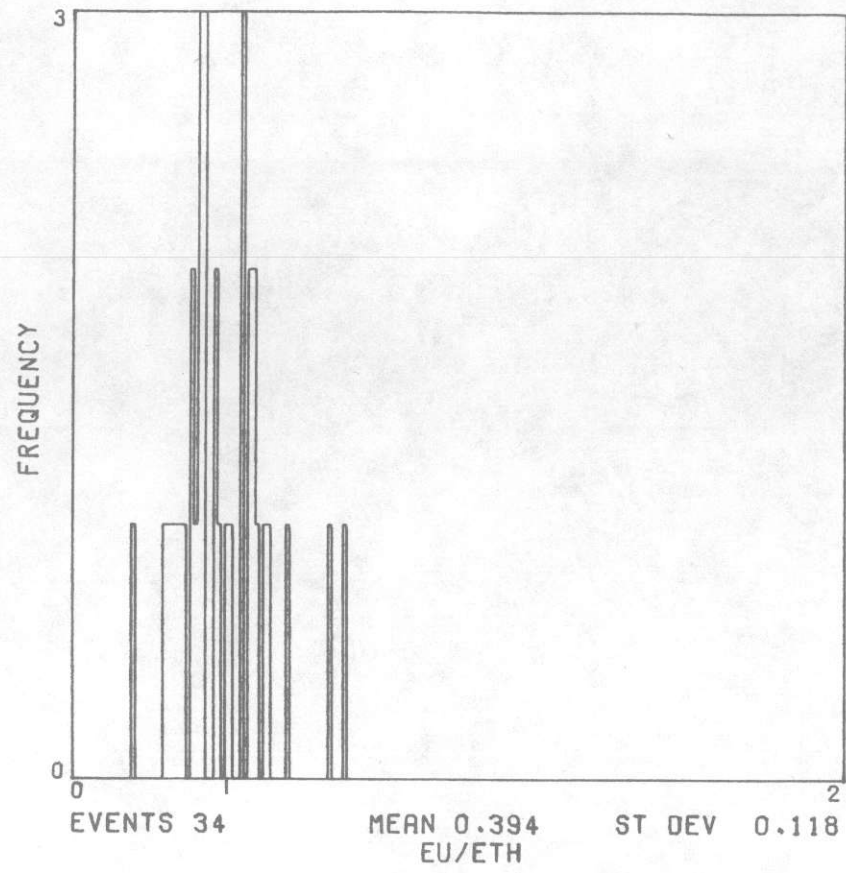


UNIT PMC

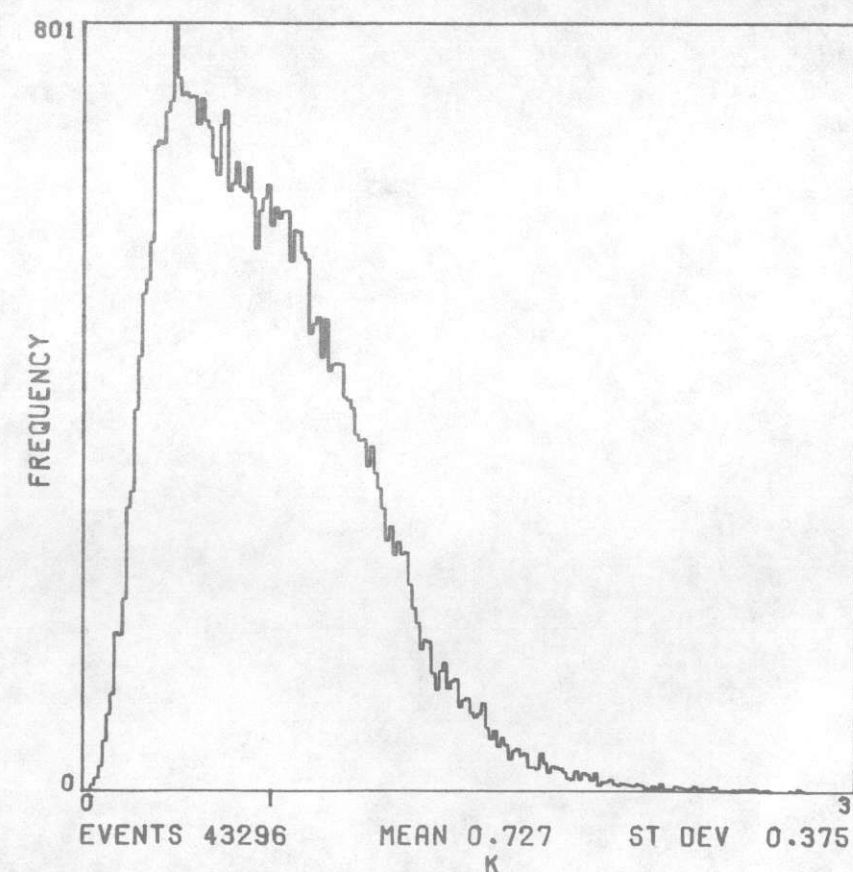
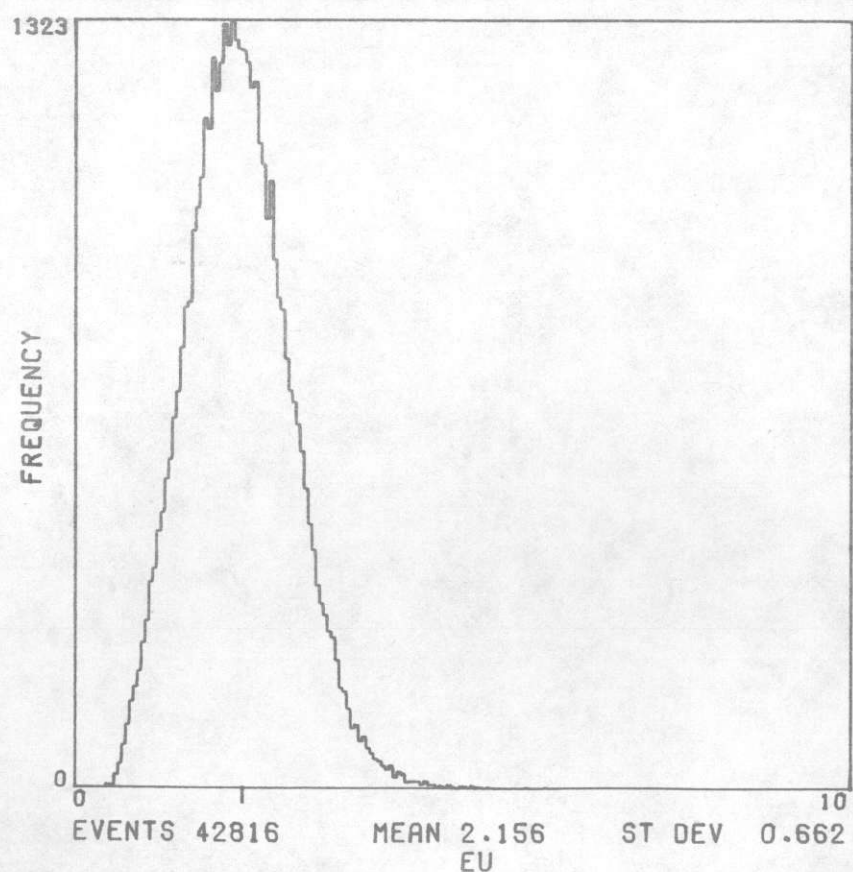
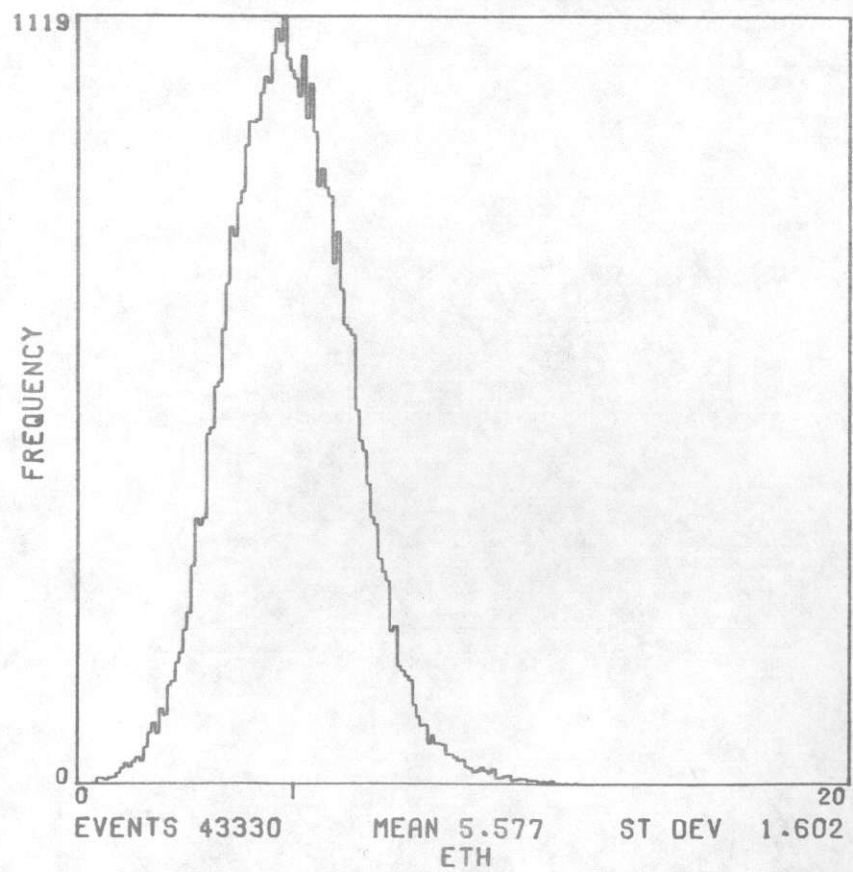
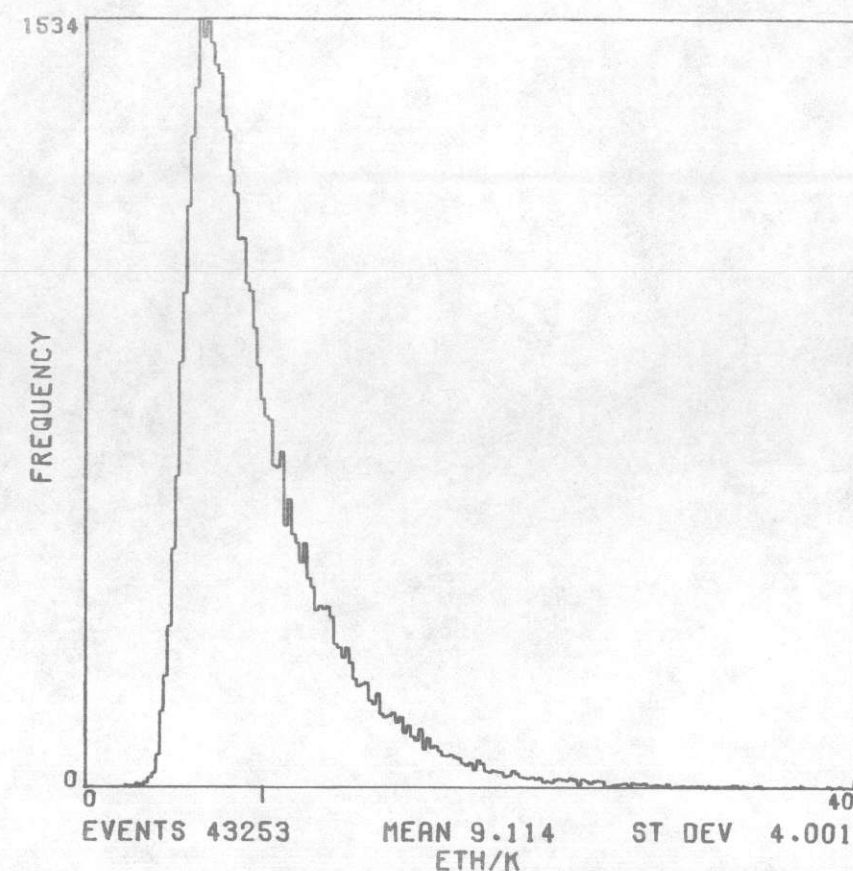
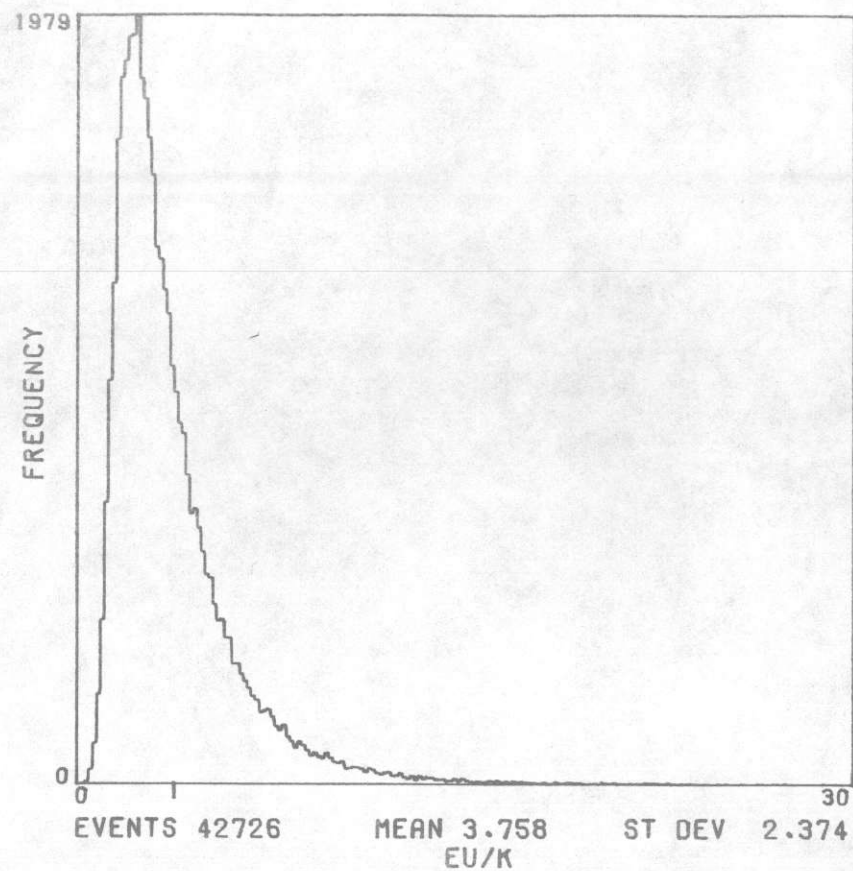
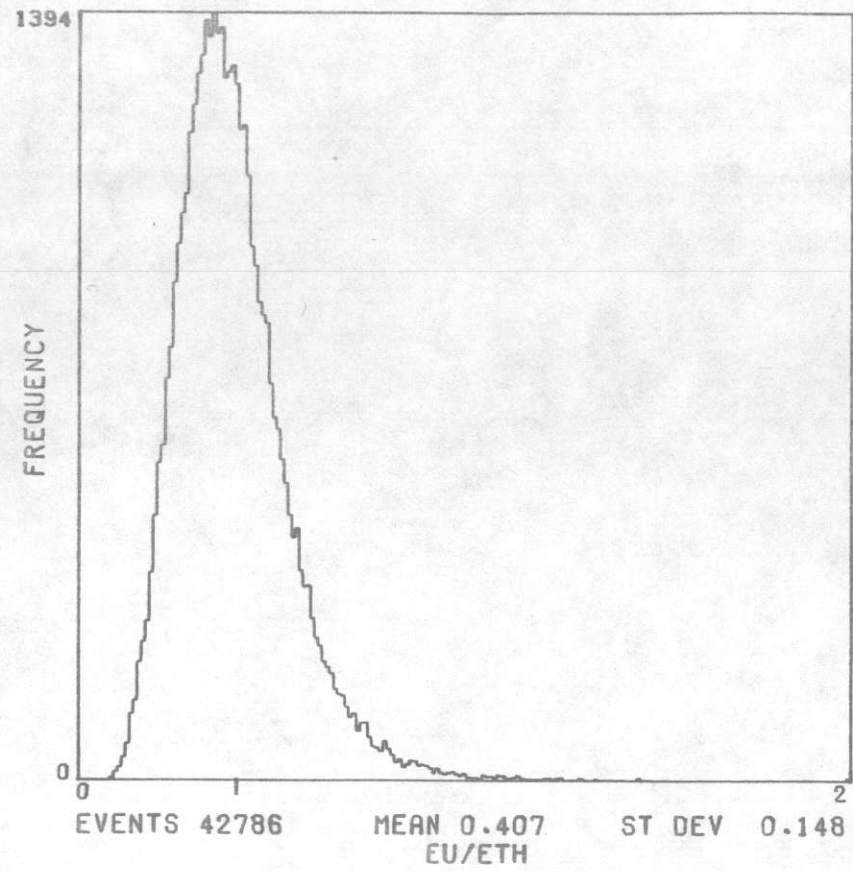




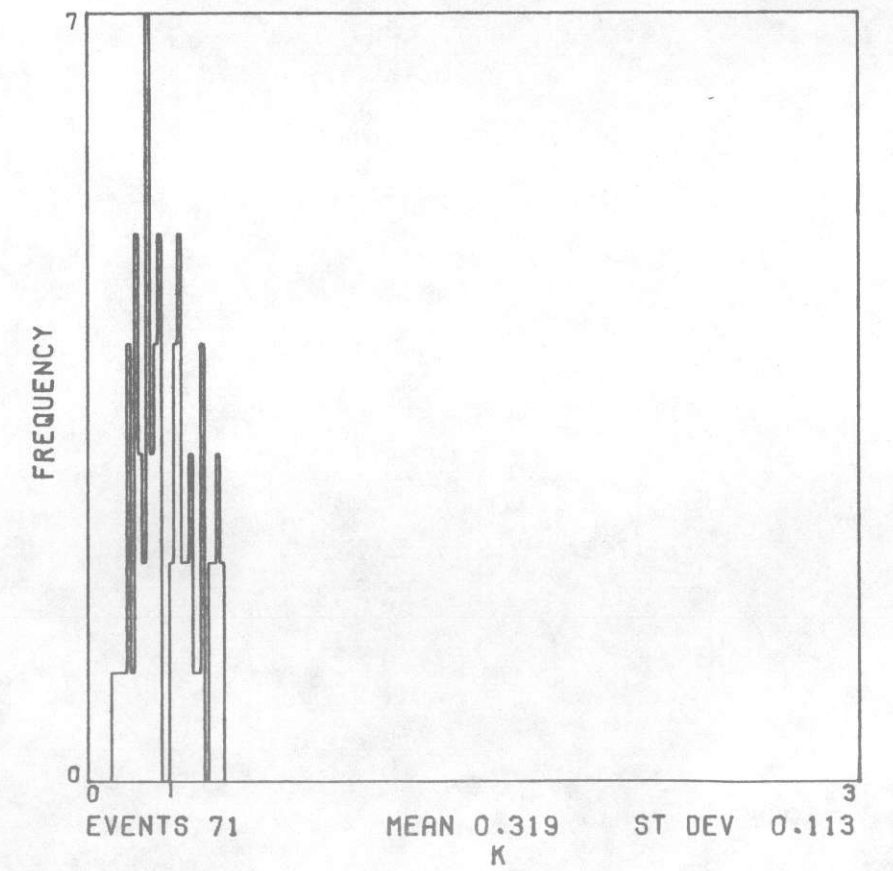
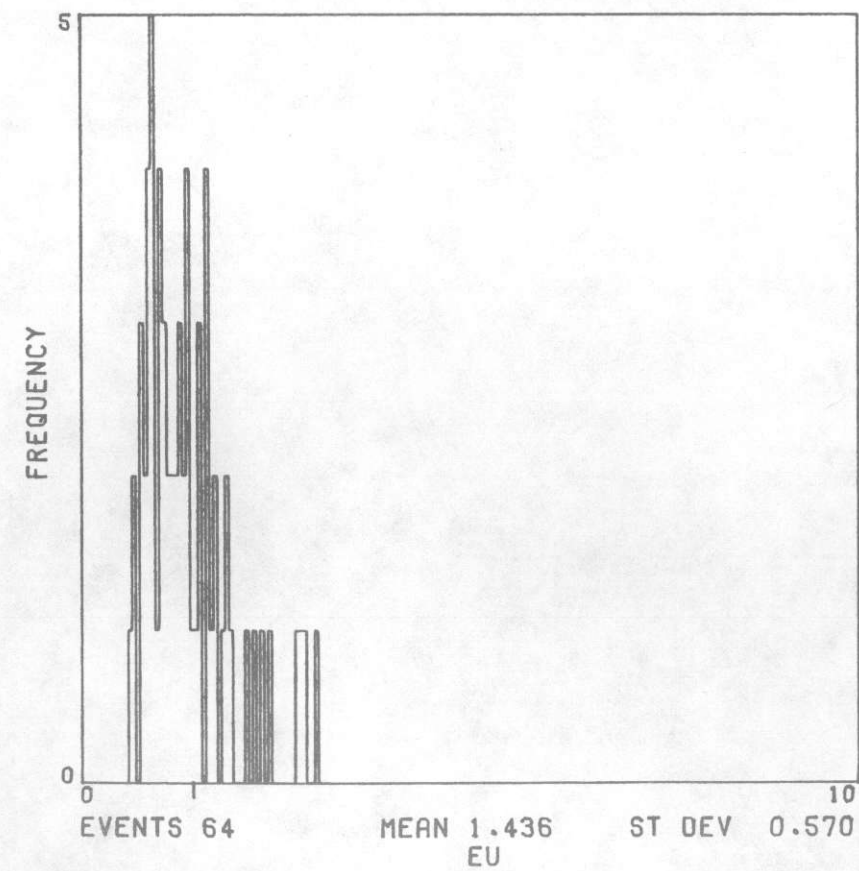
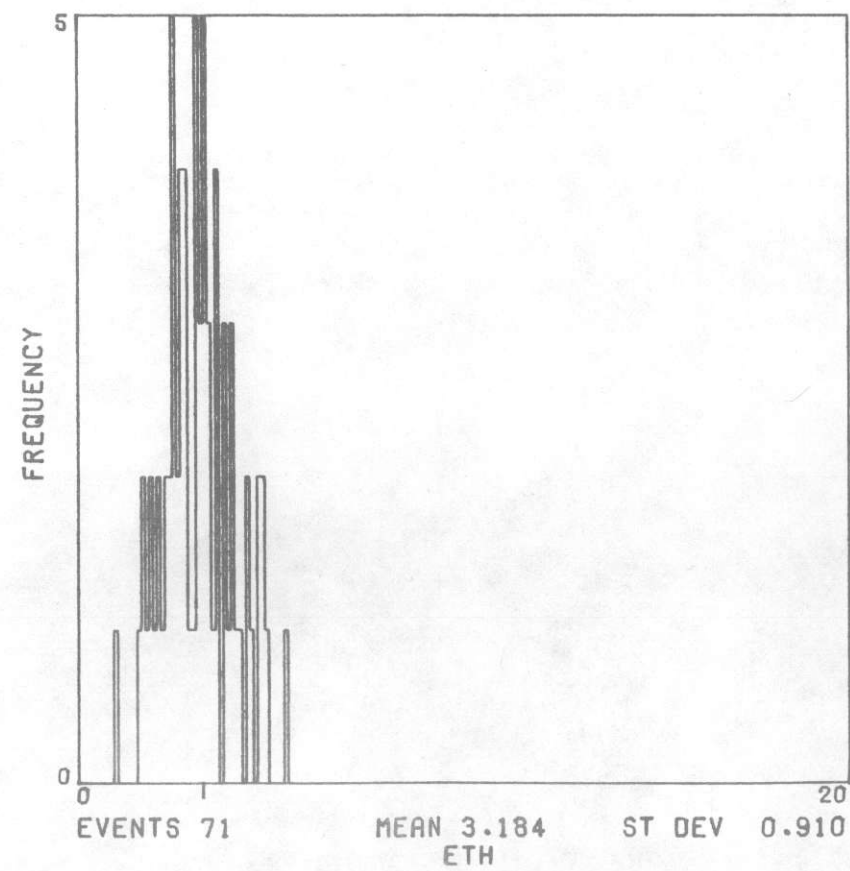
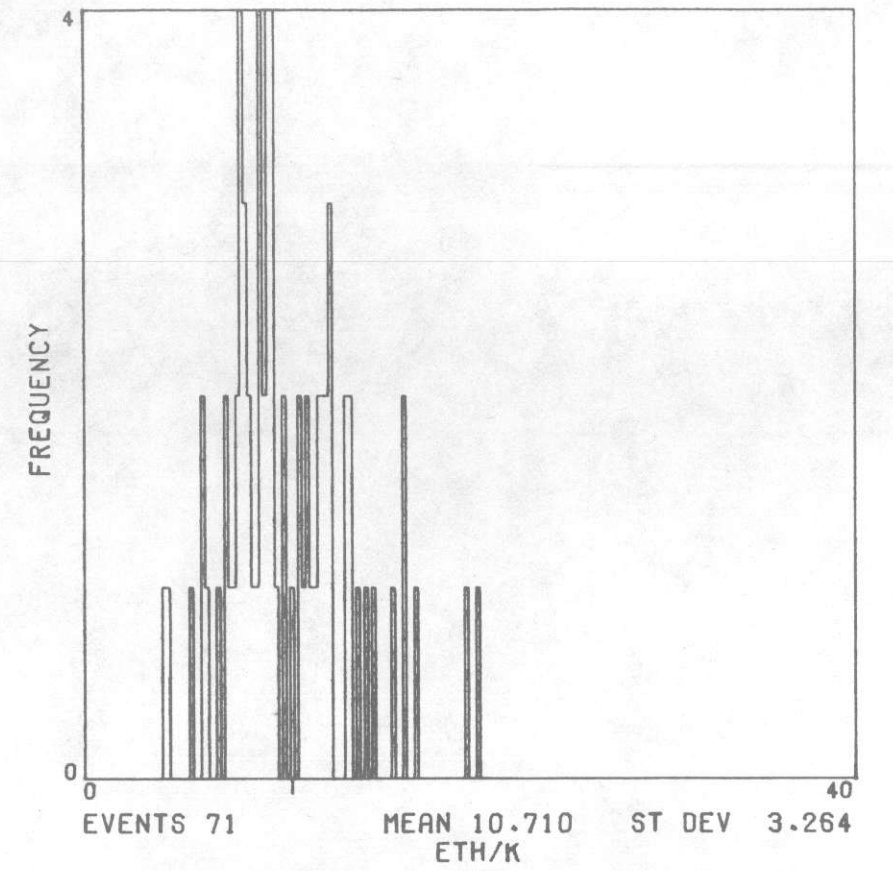
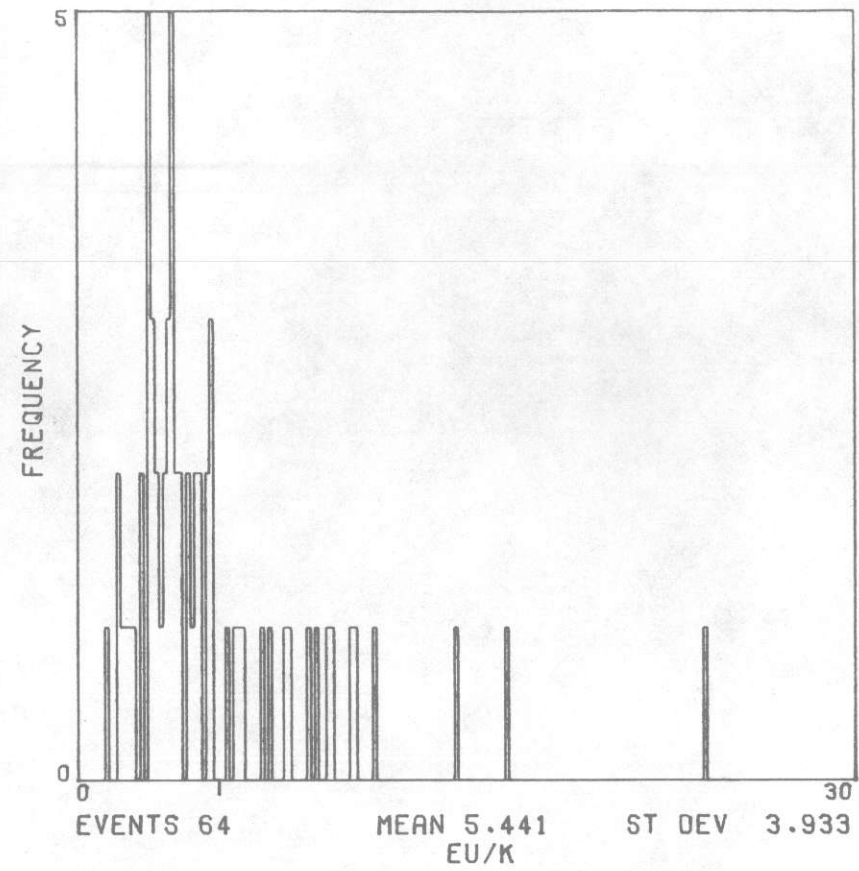
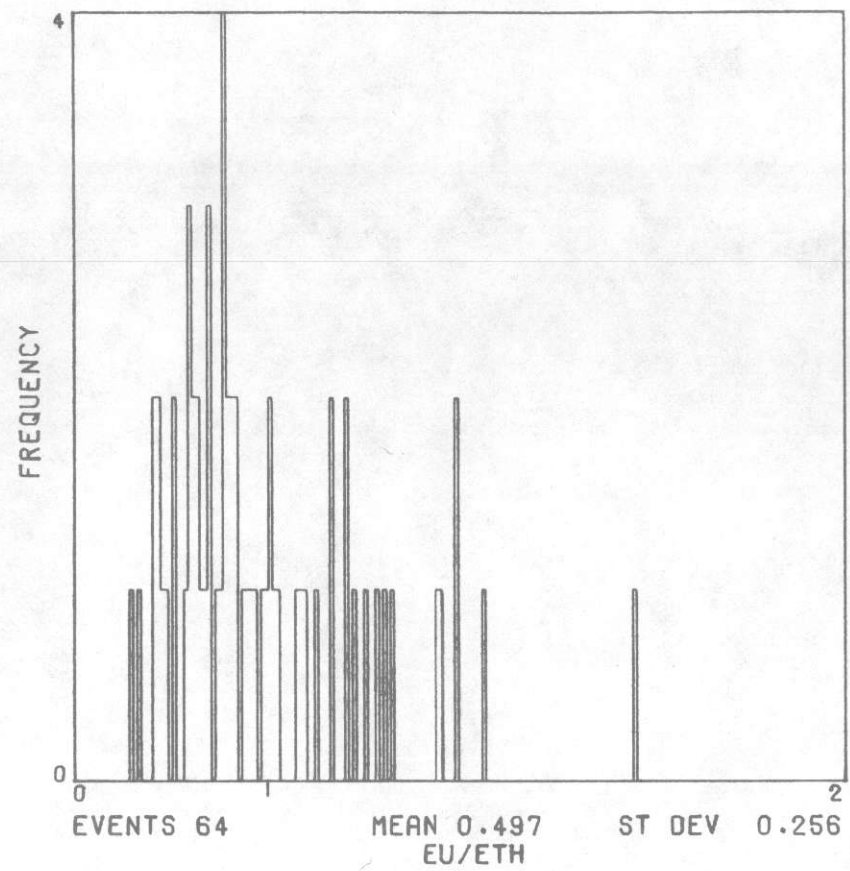


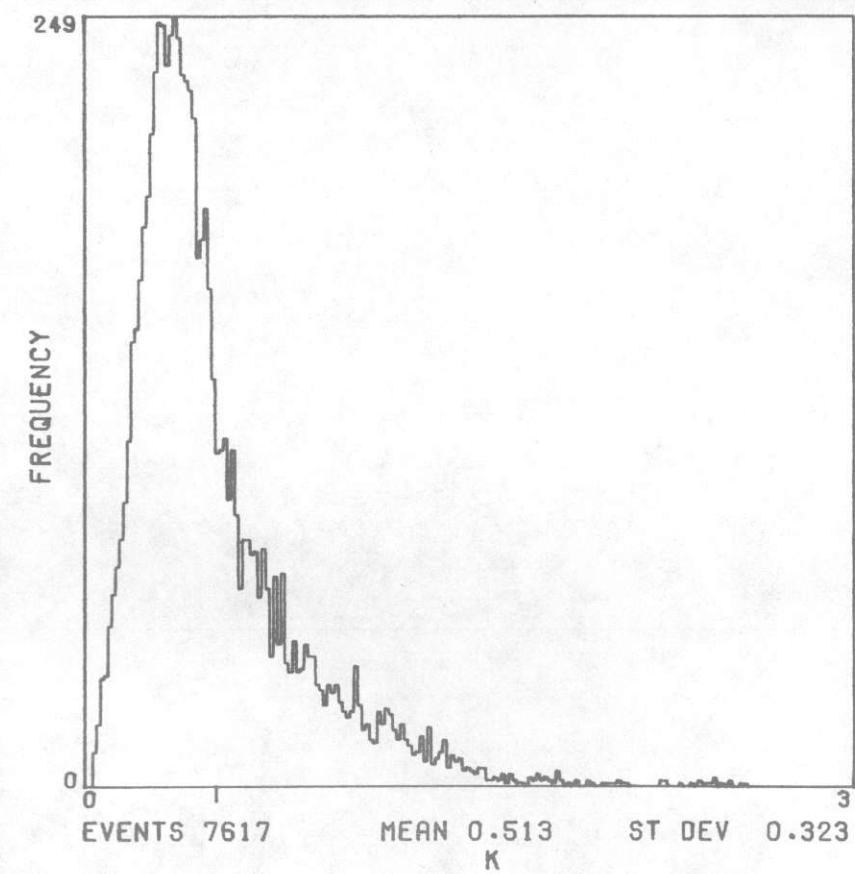
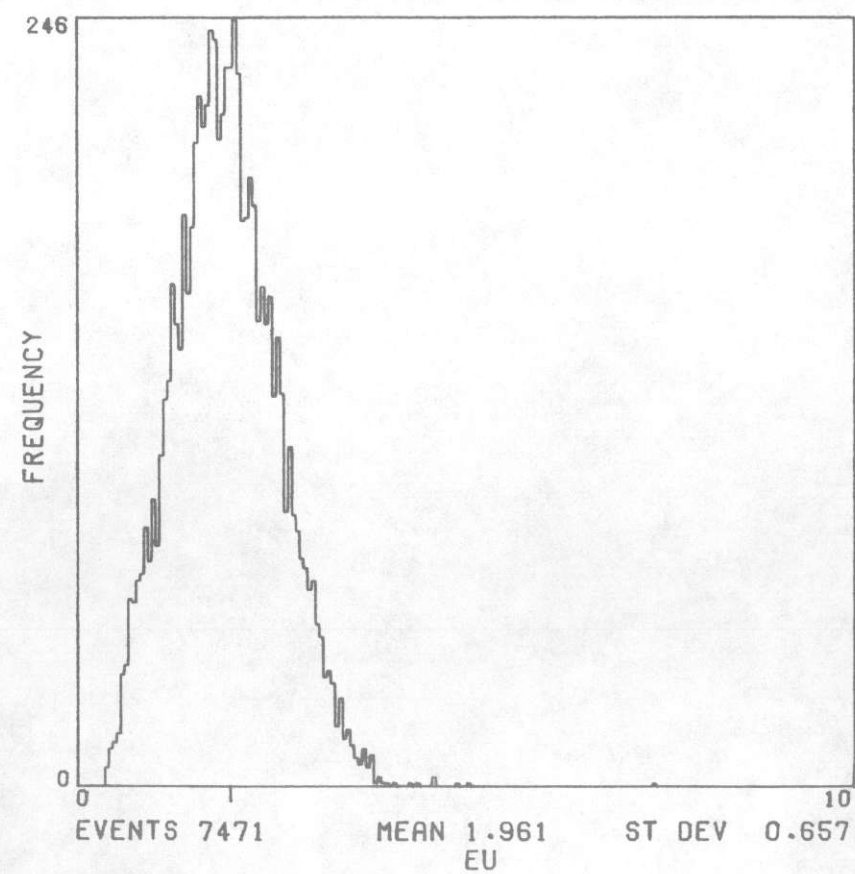
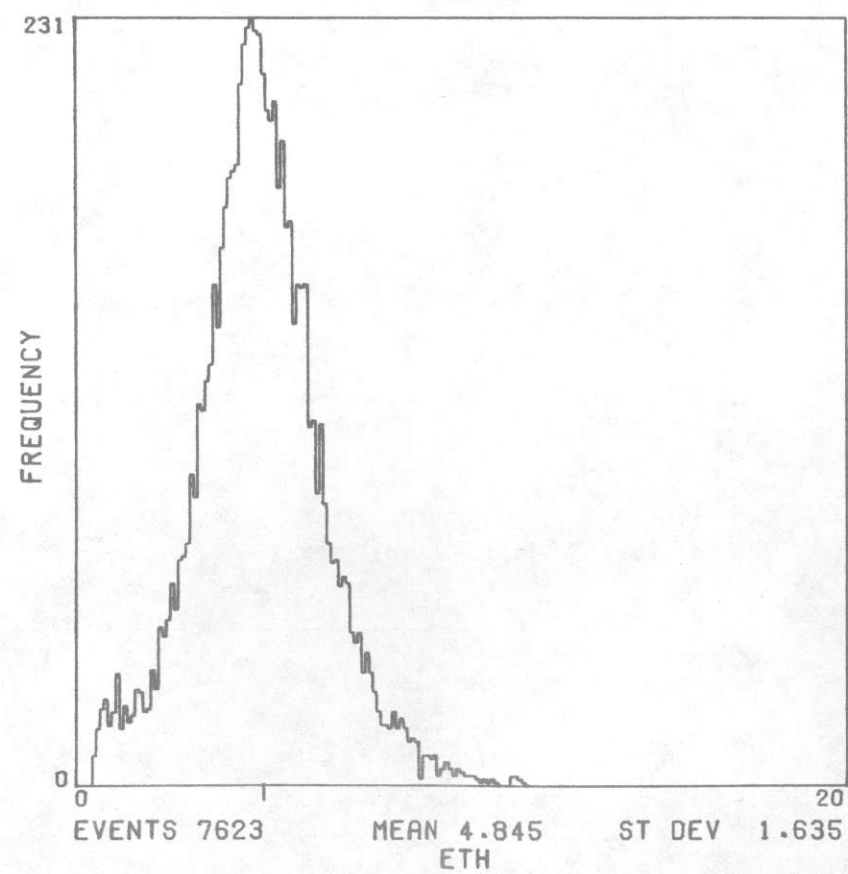
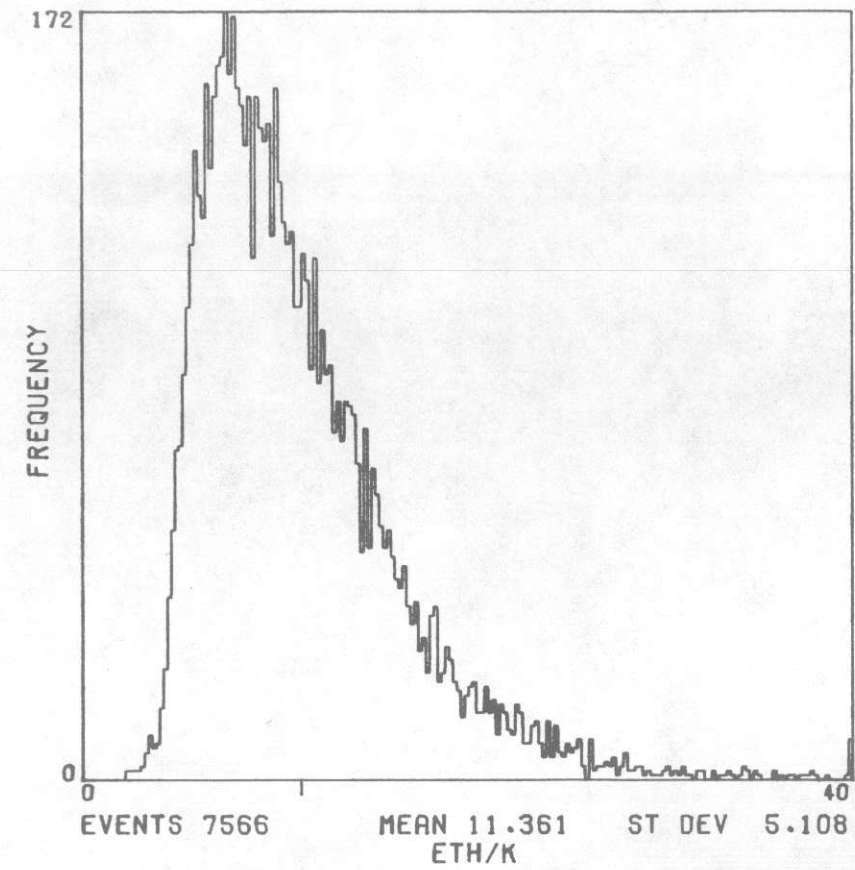
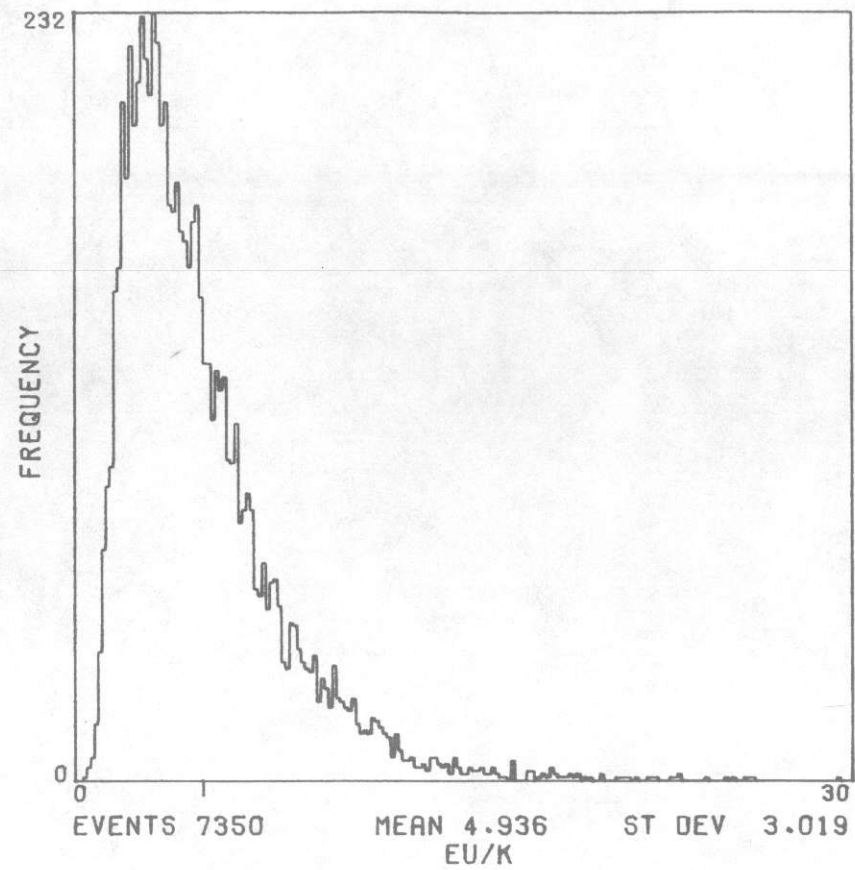
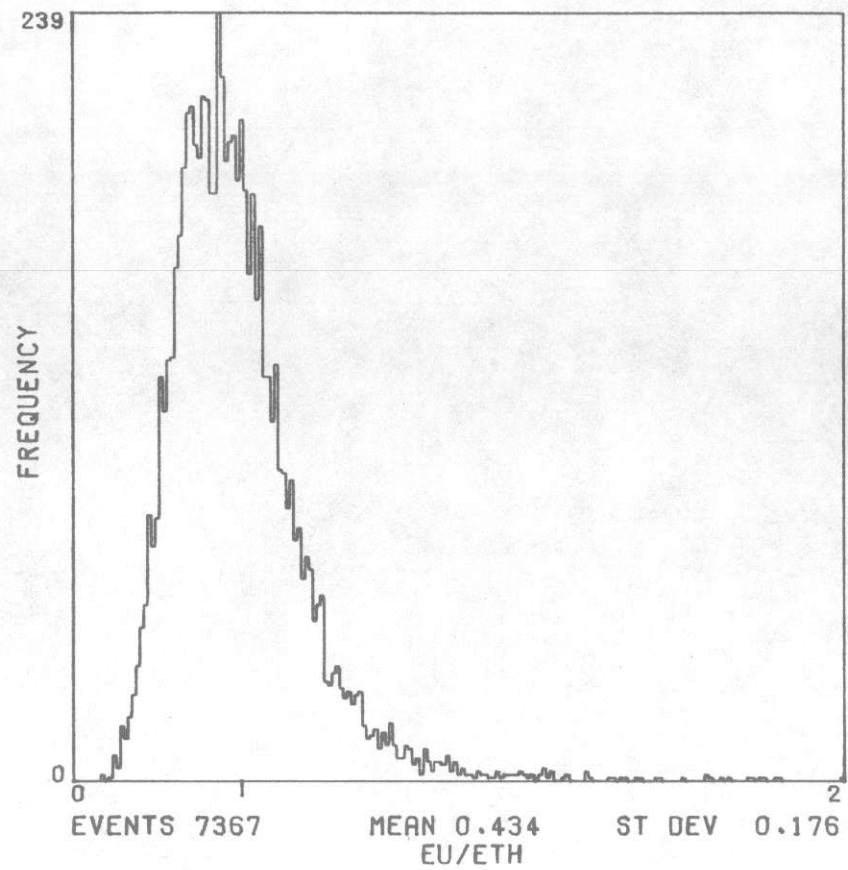


UNIT PSR

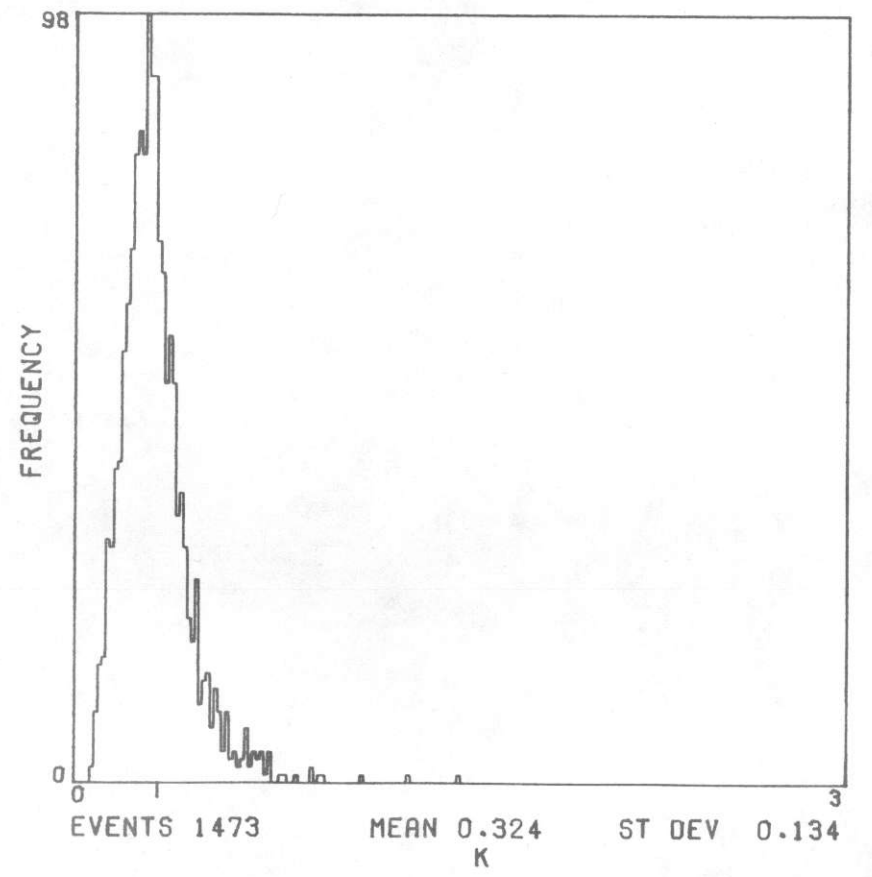
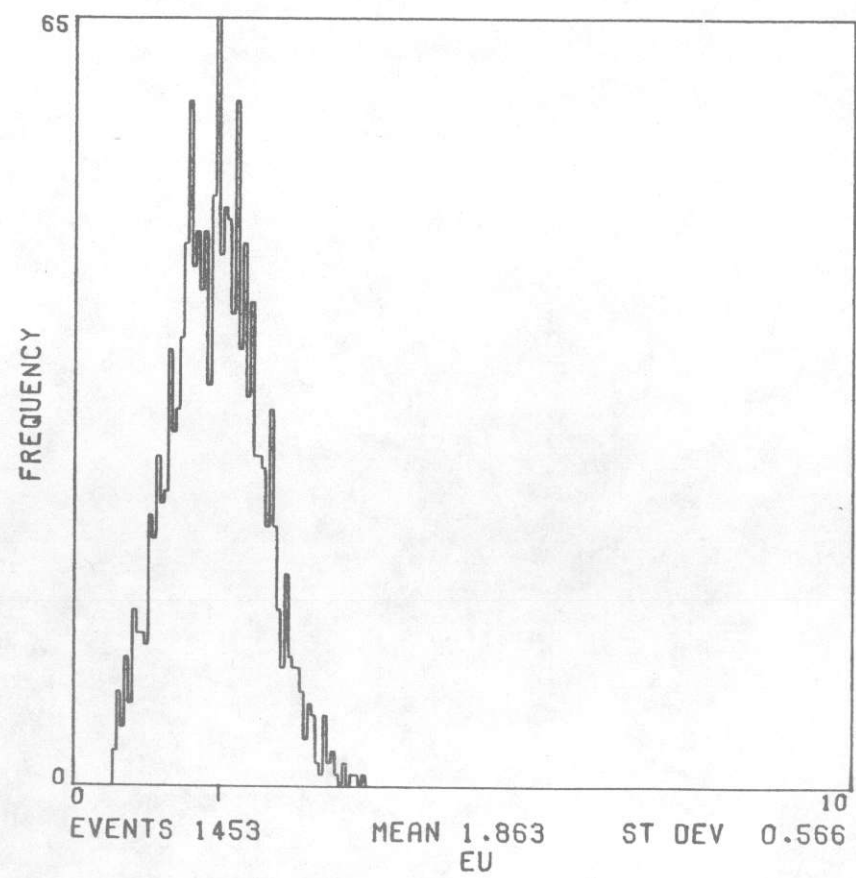
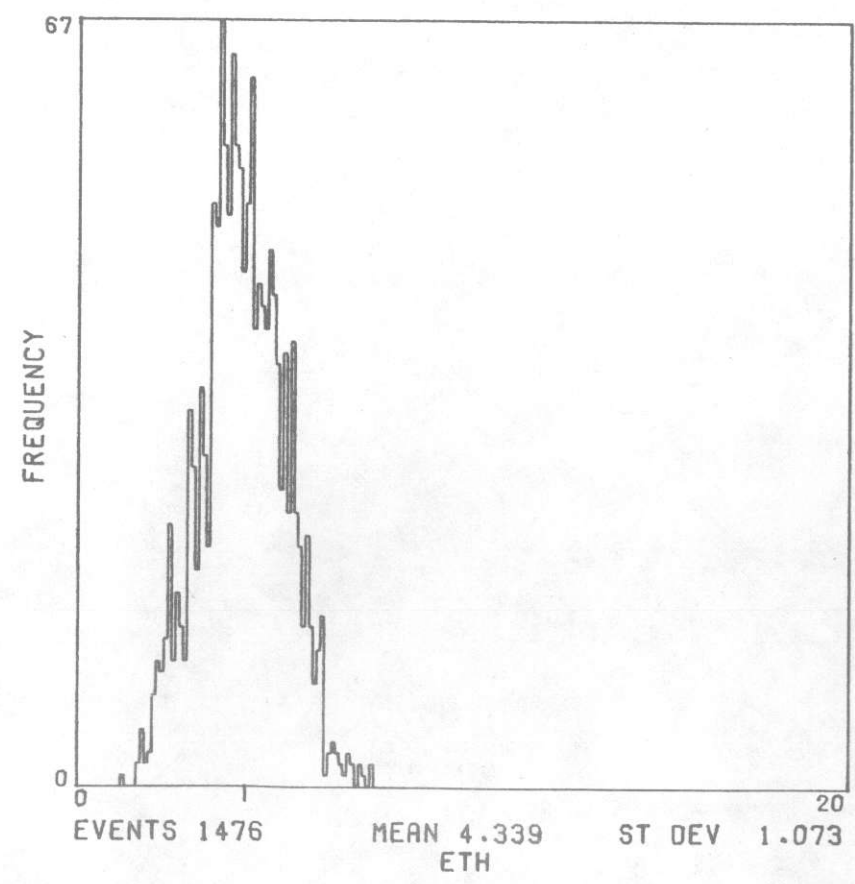
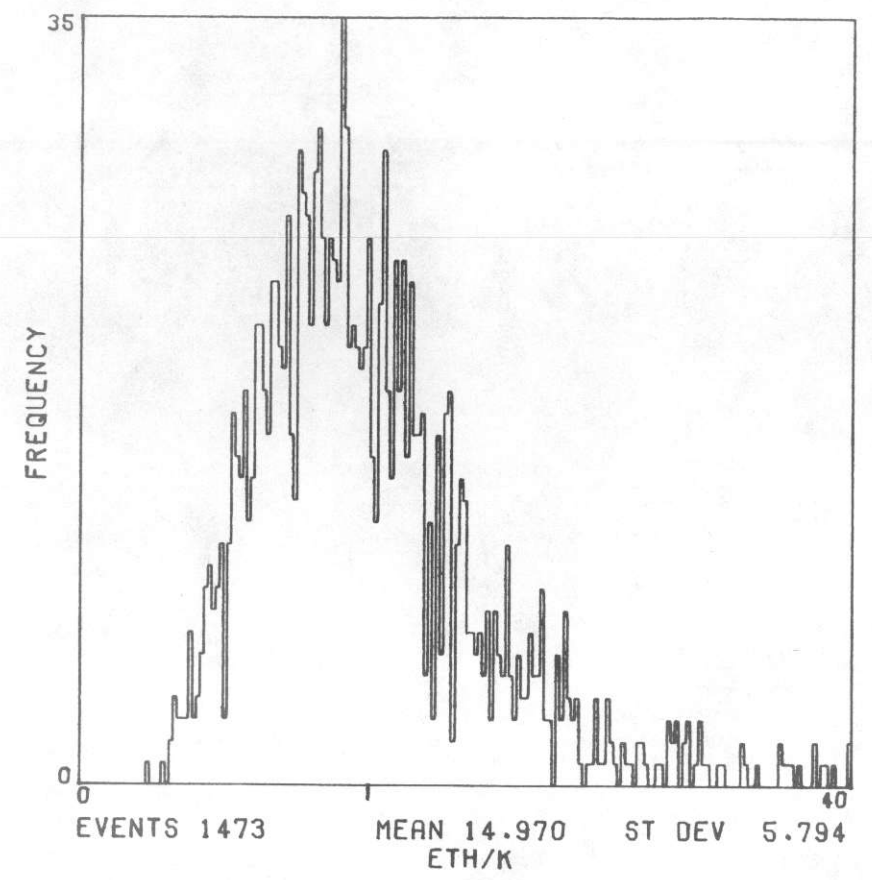
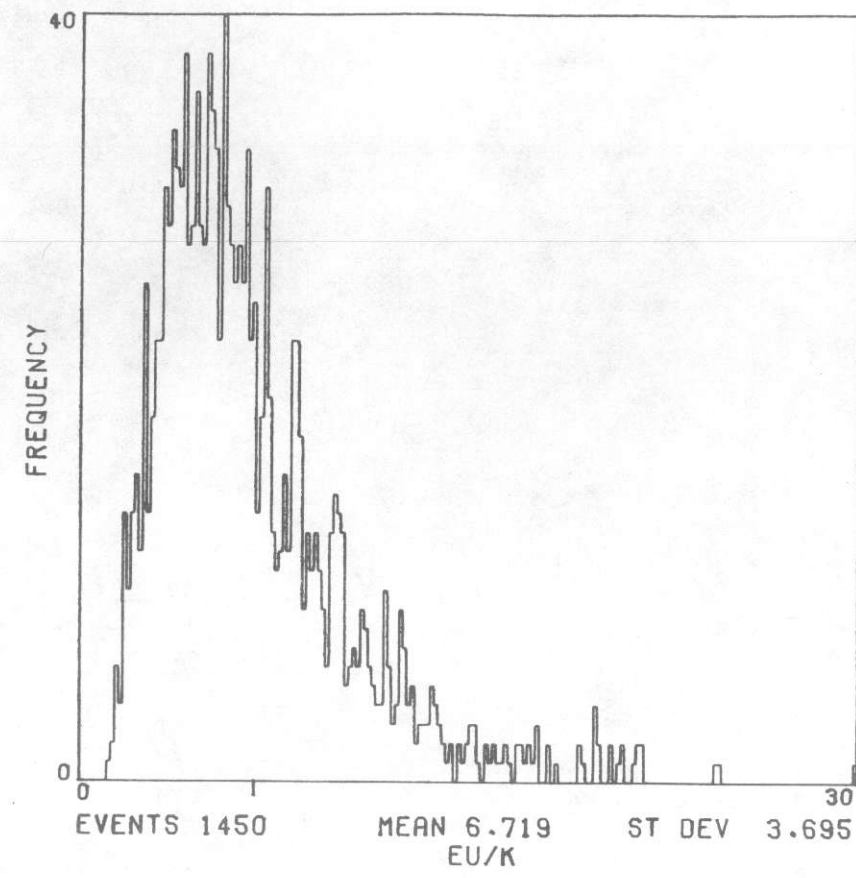
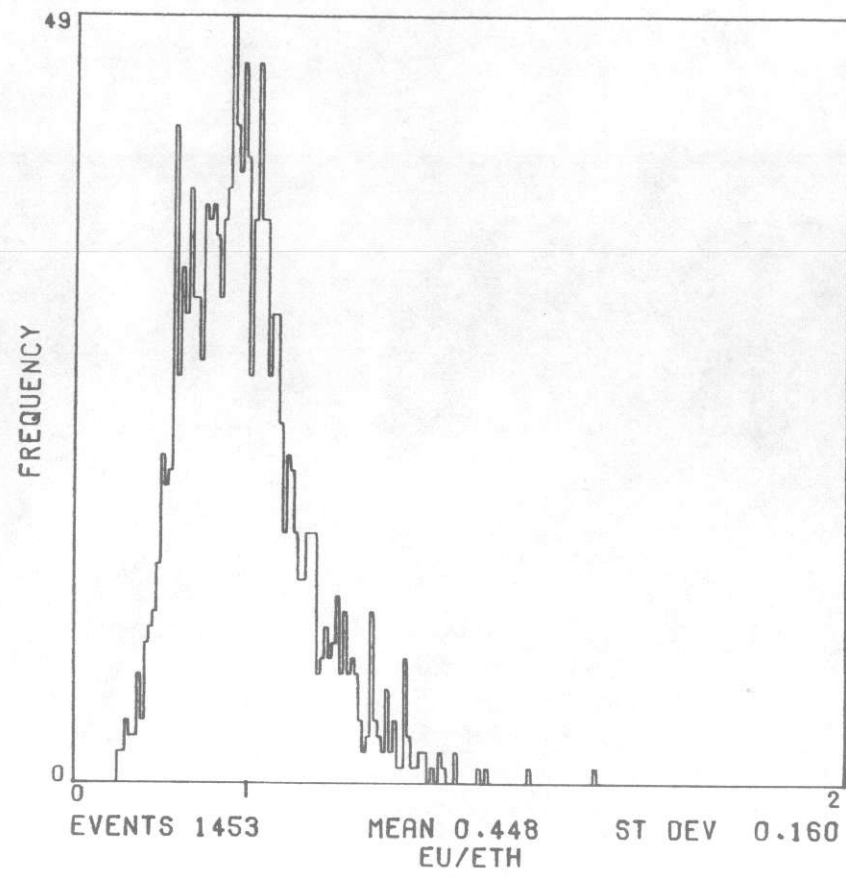


UNIT PVP

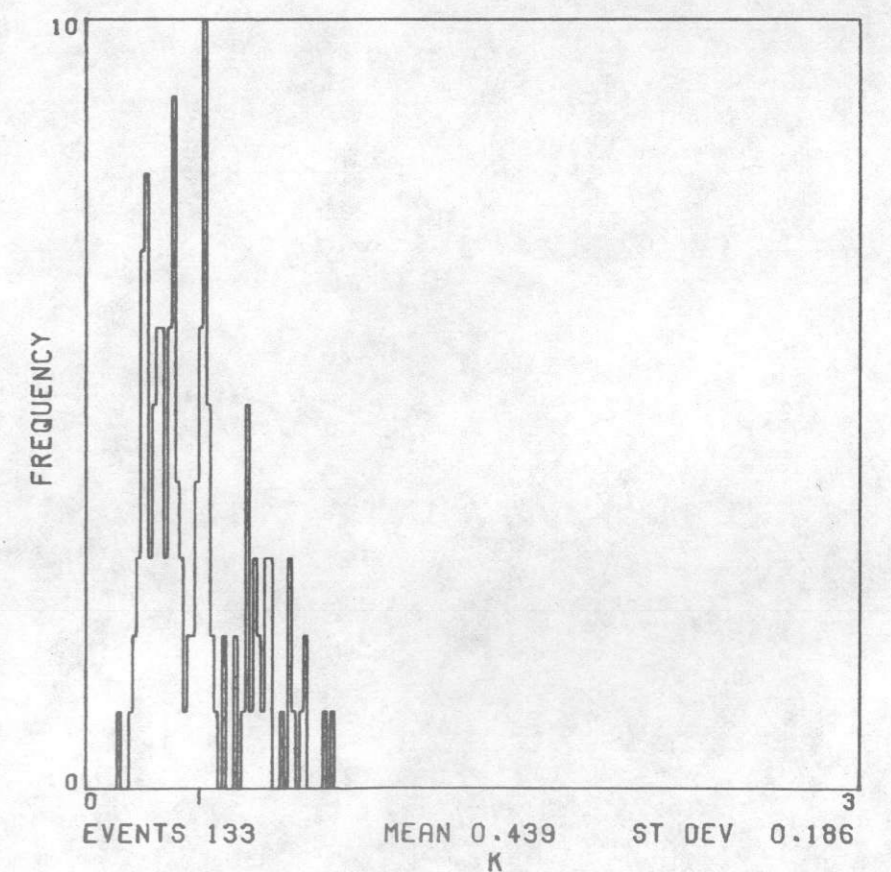
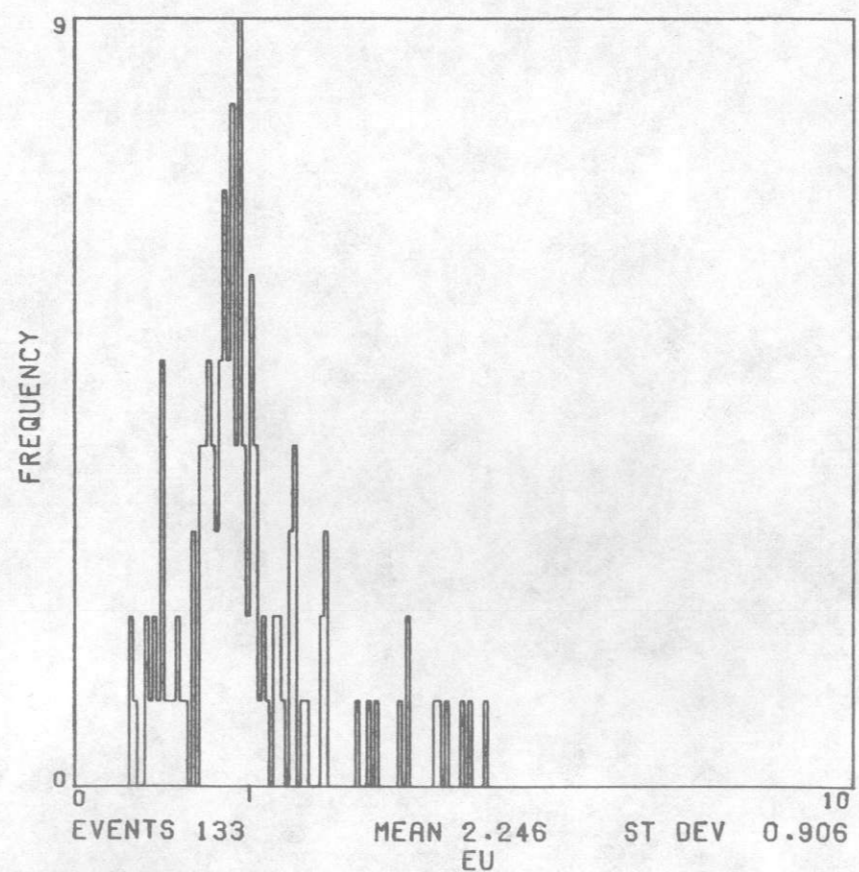
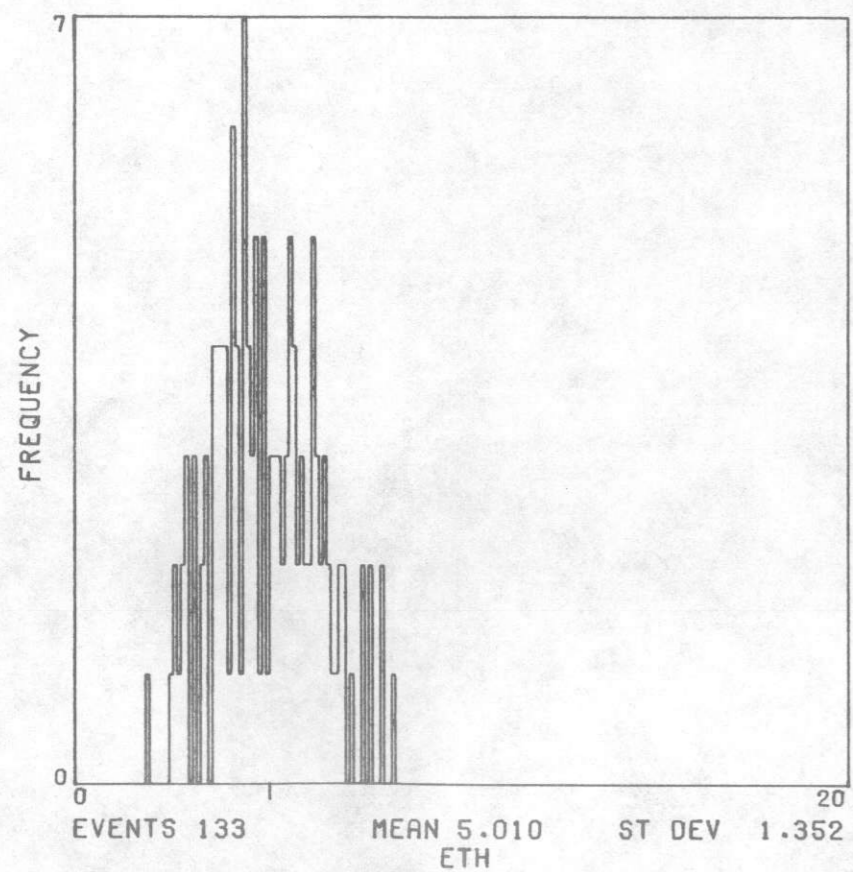
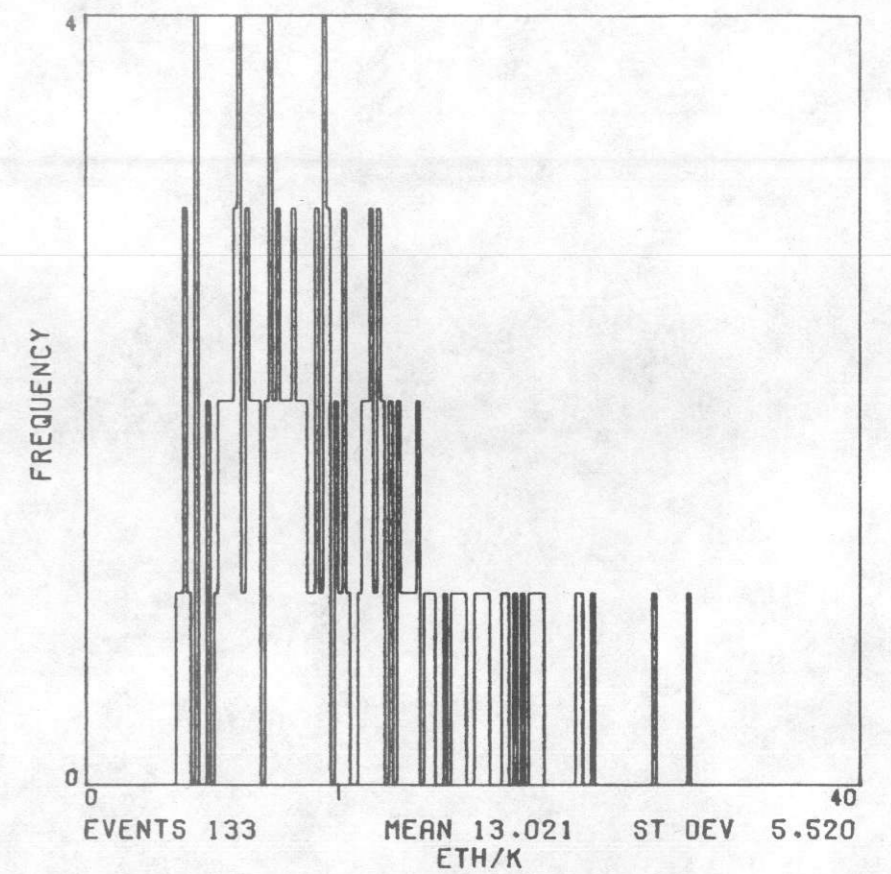
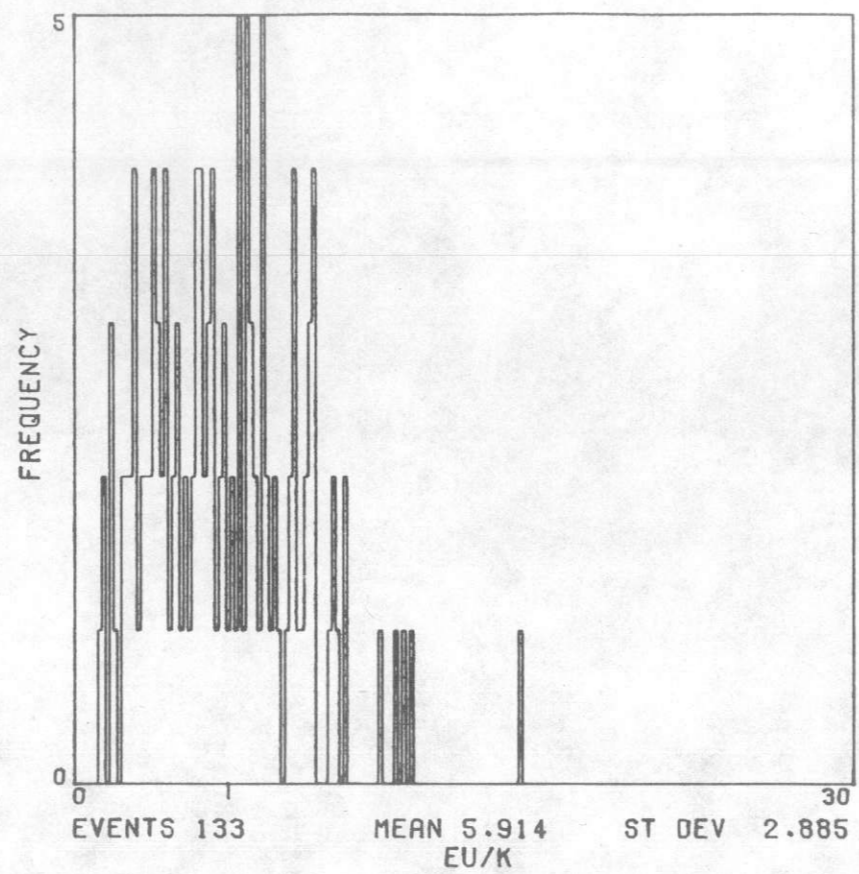
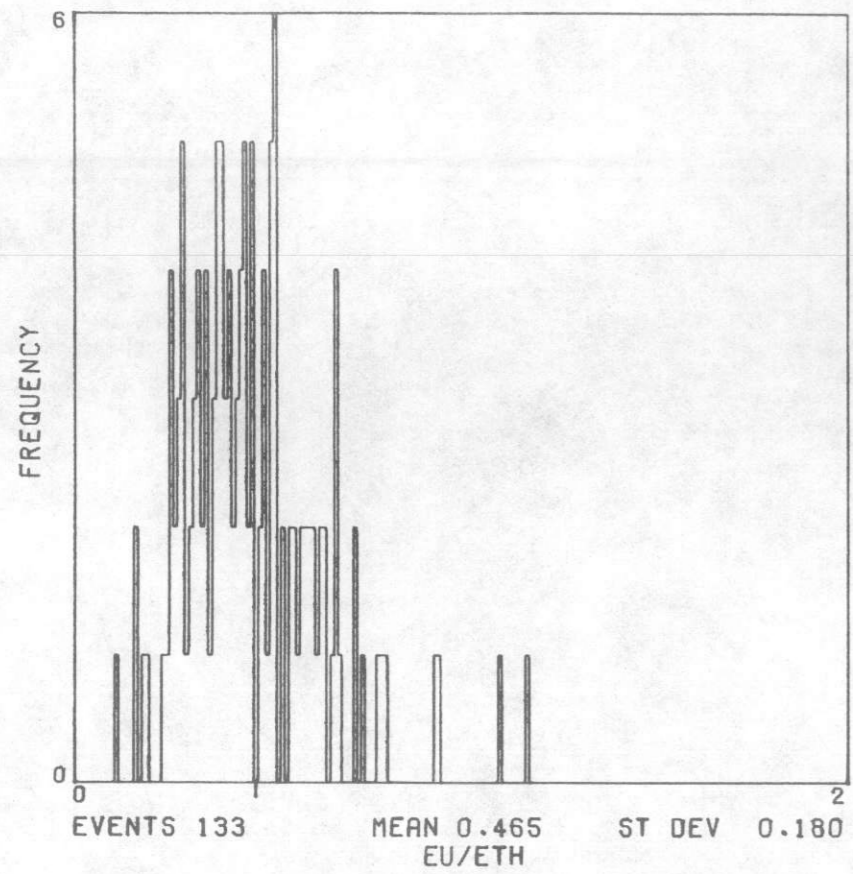




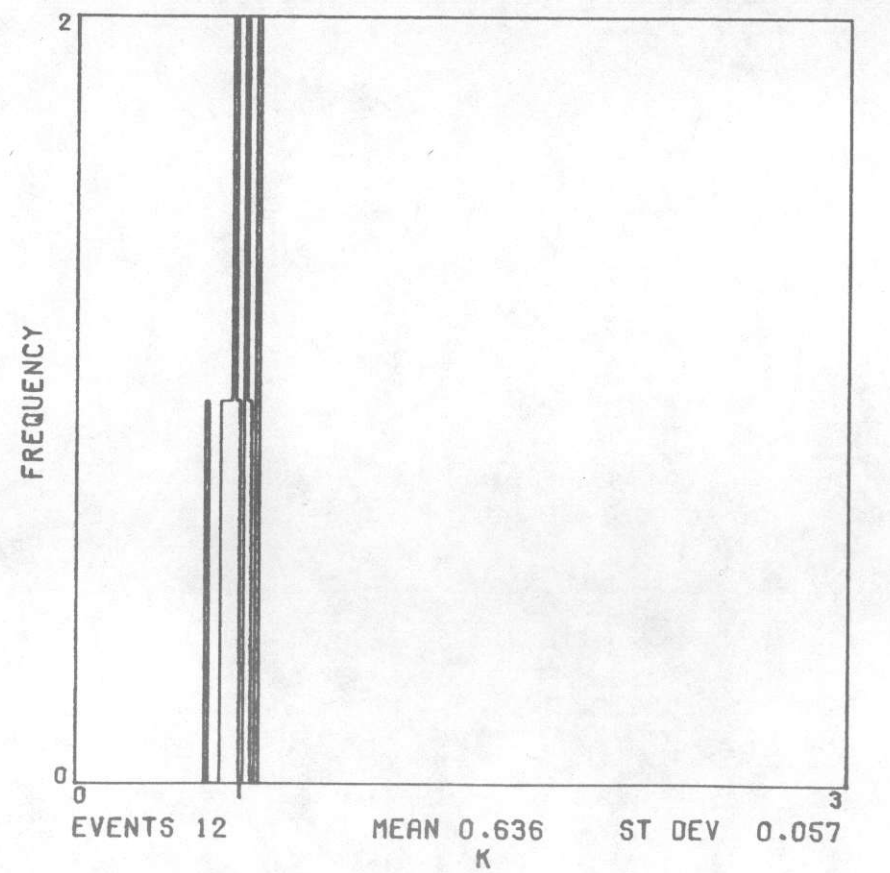
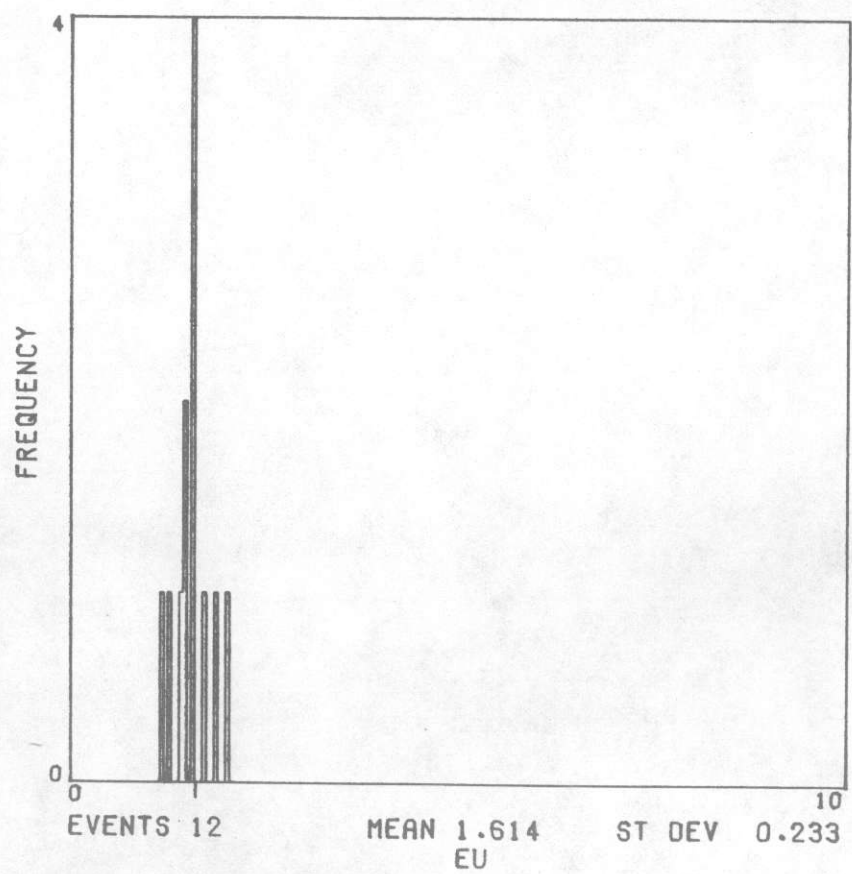
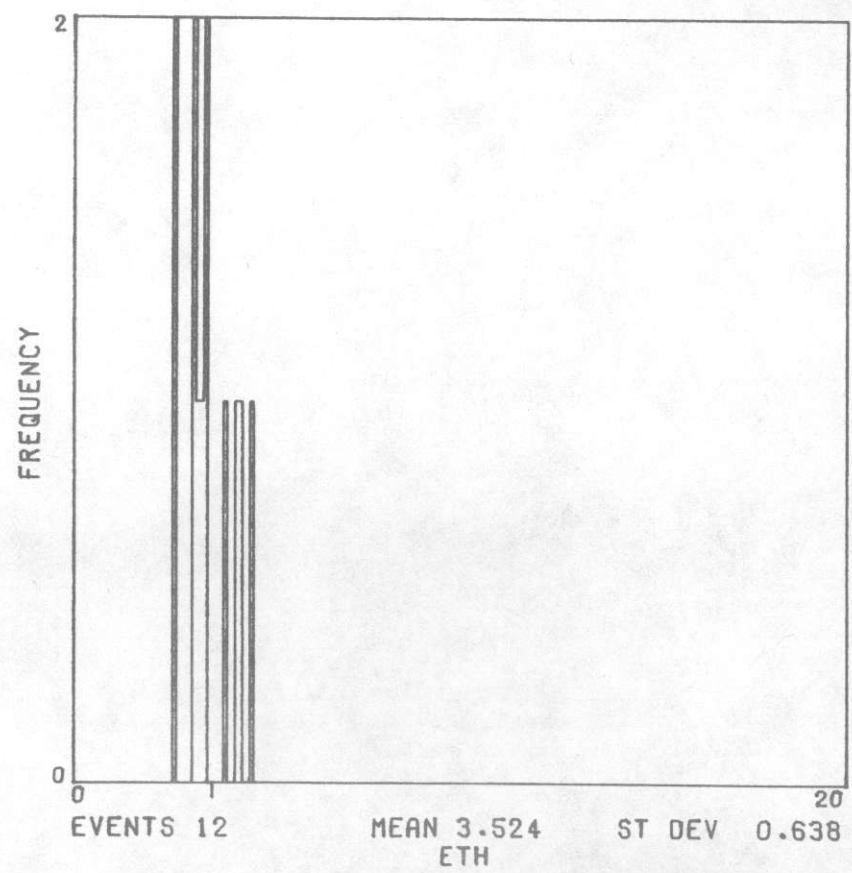
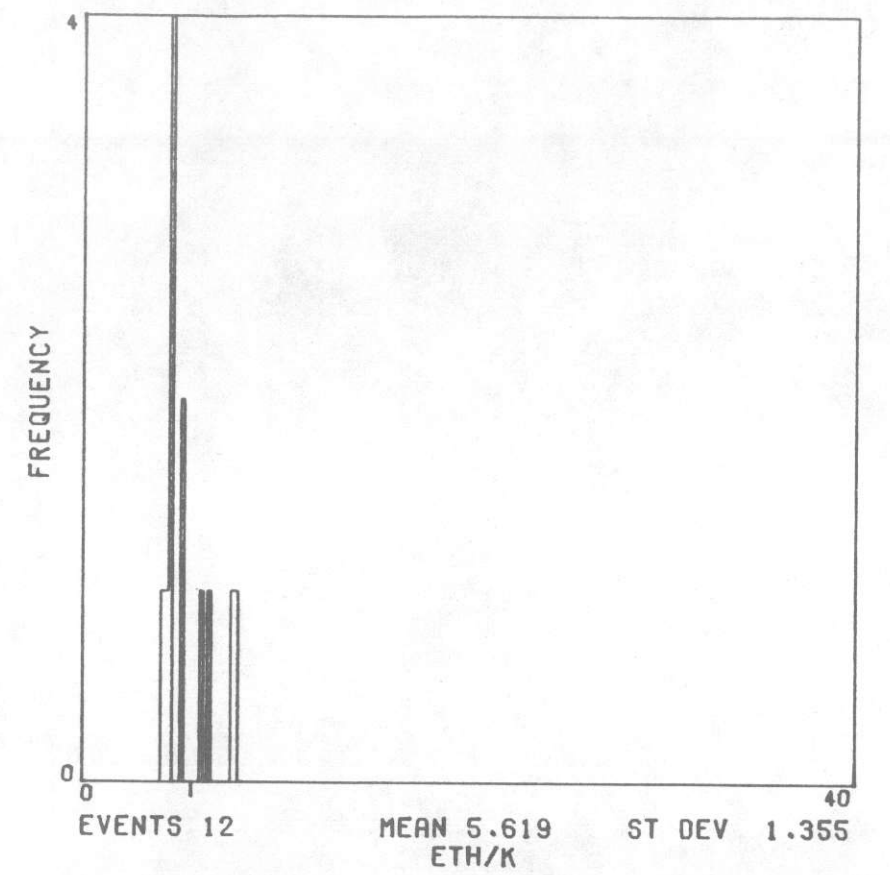
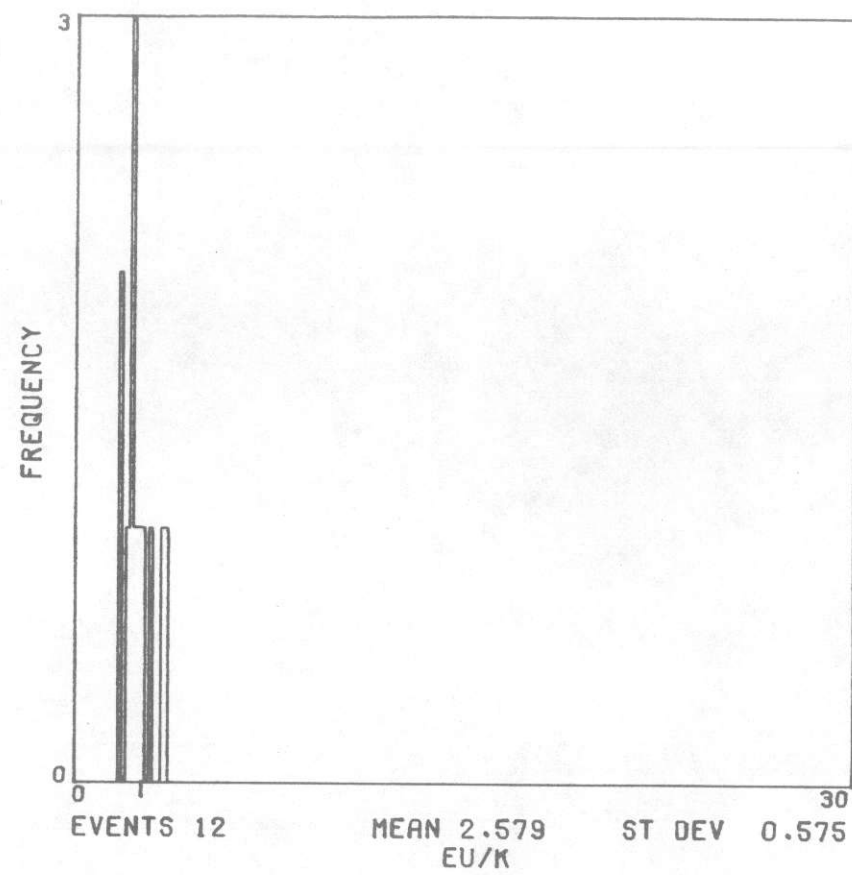
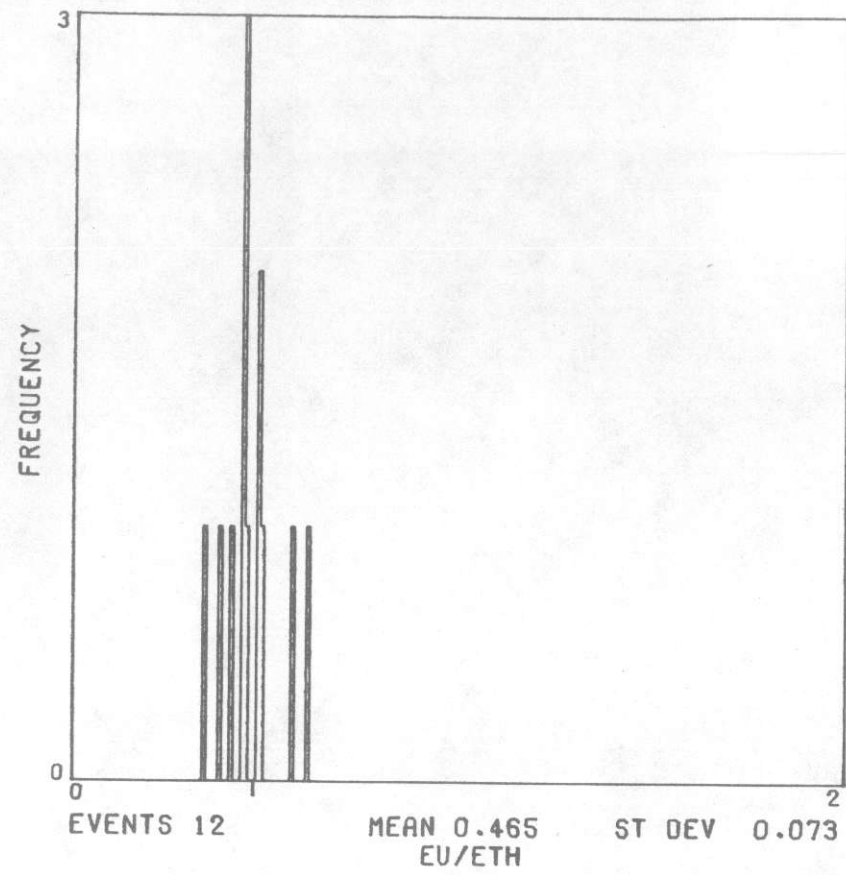
UNIT QAL



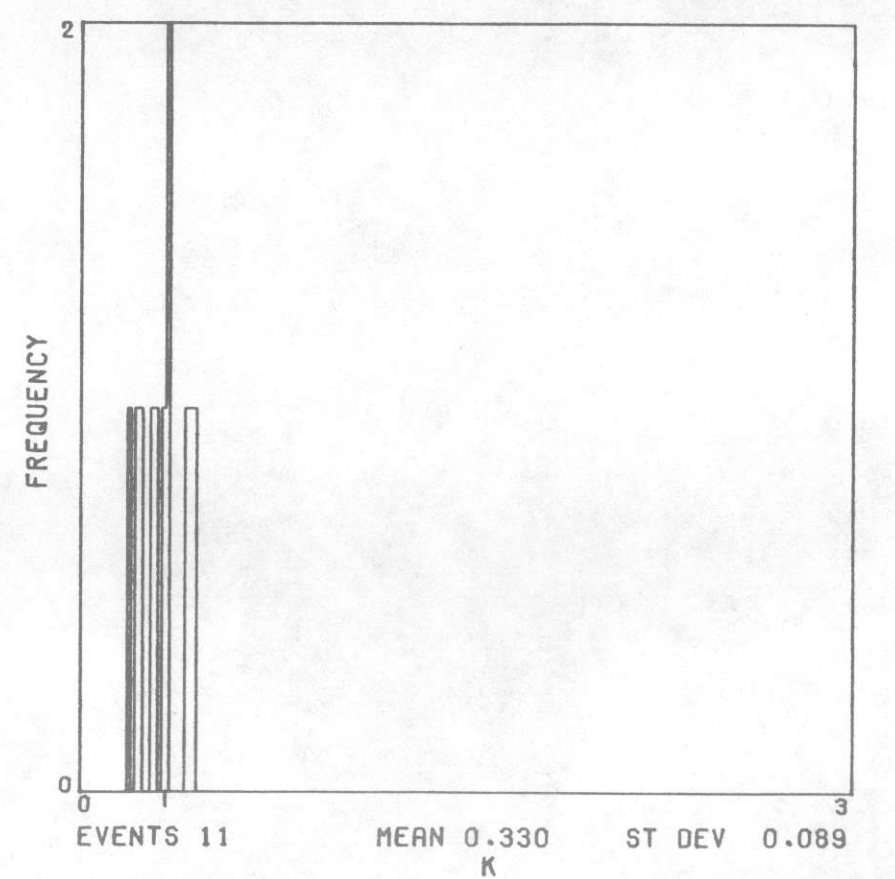
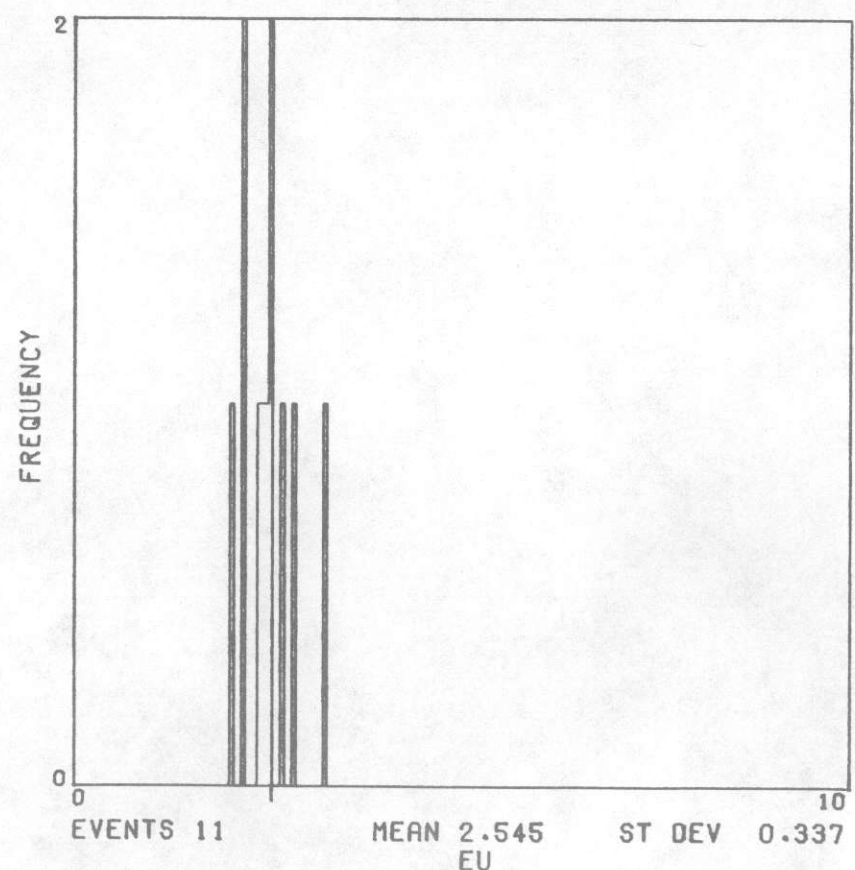
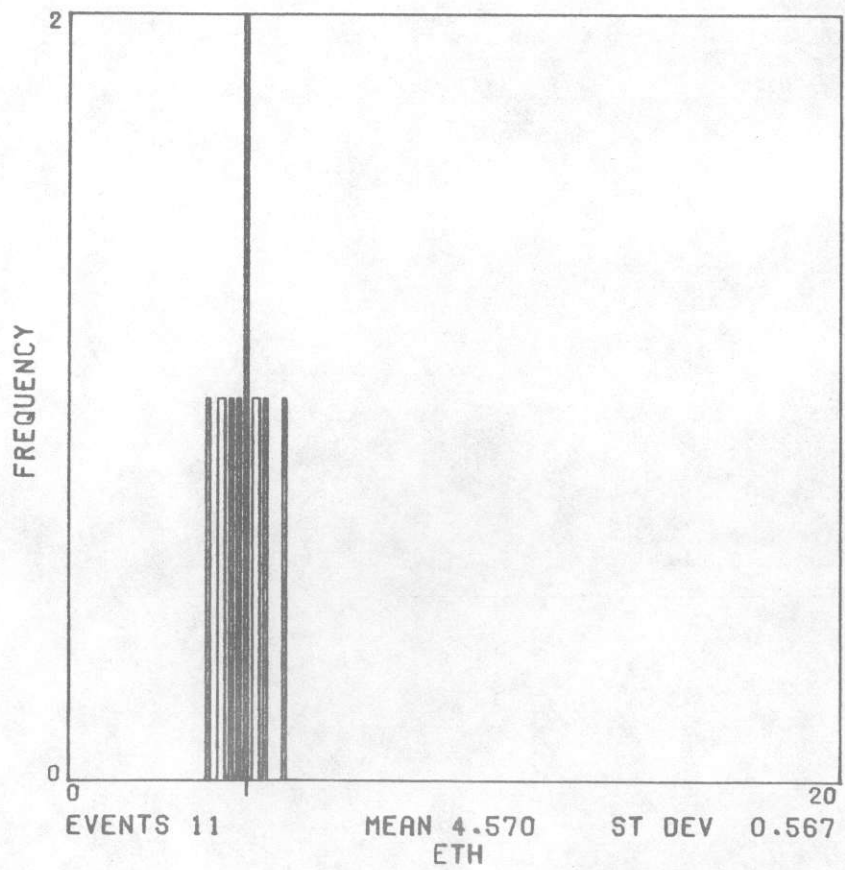
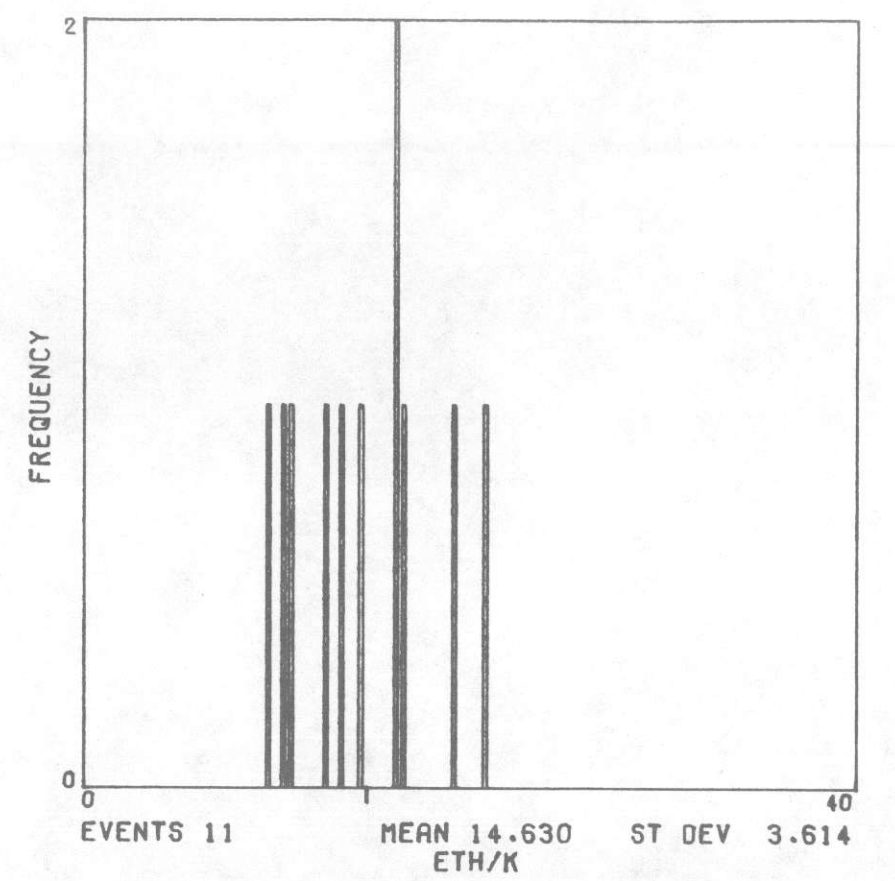
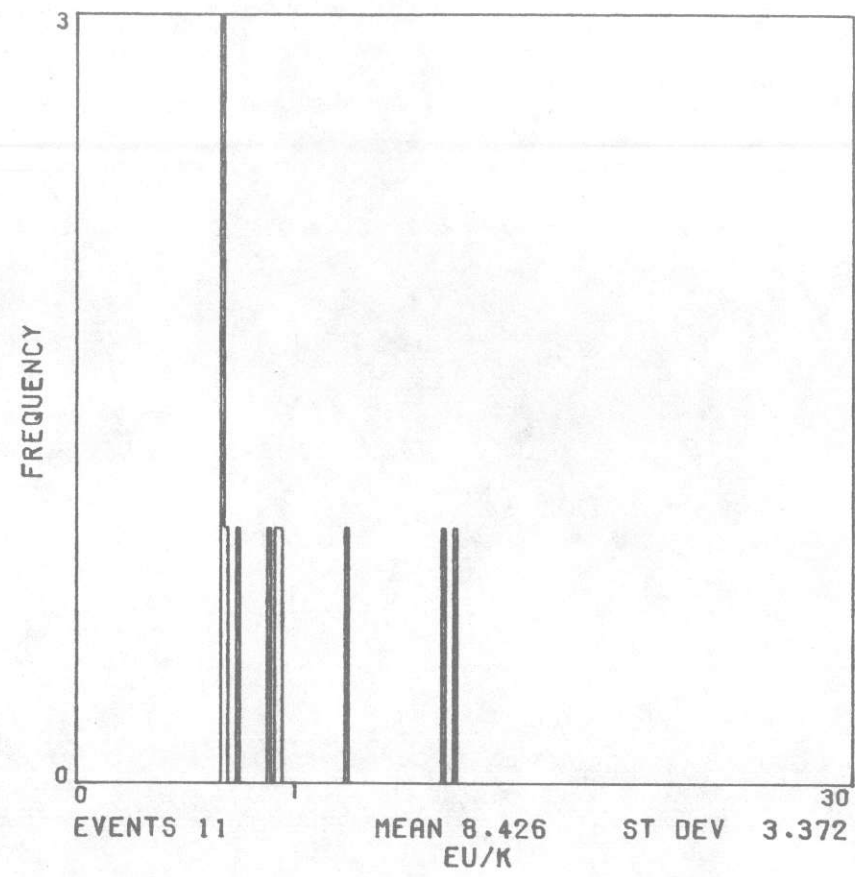
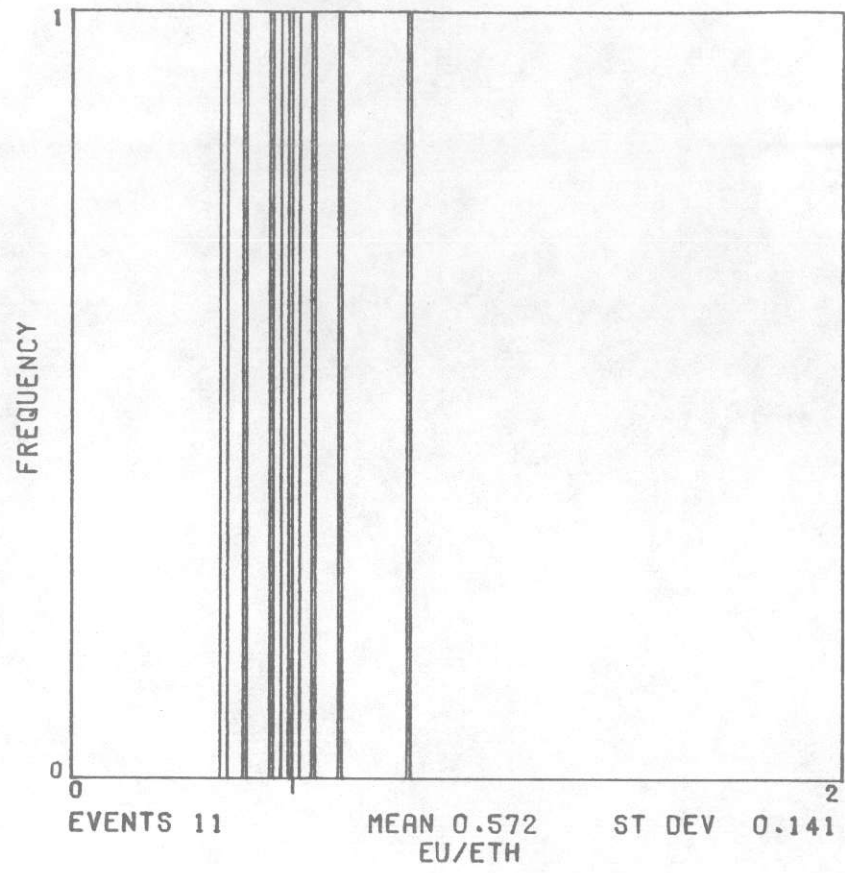
UNIT QT



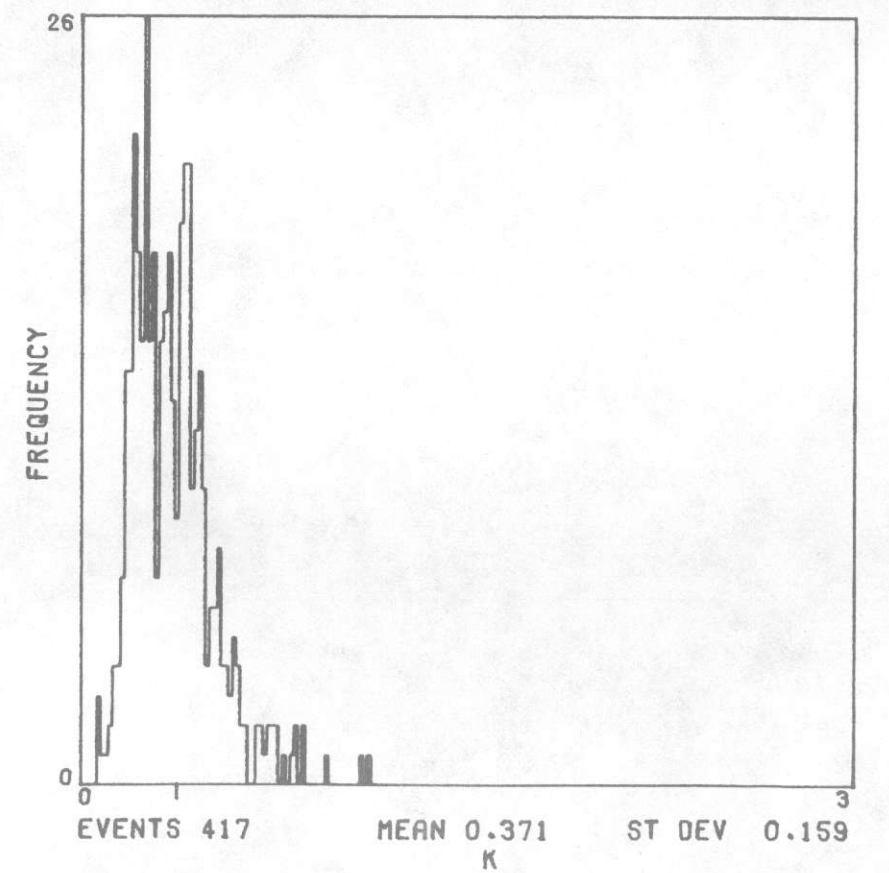
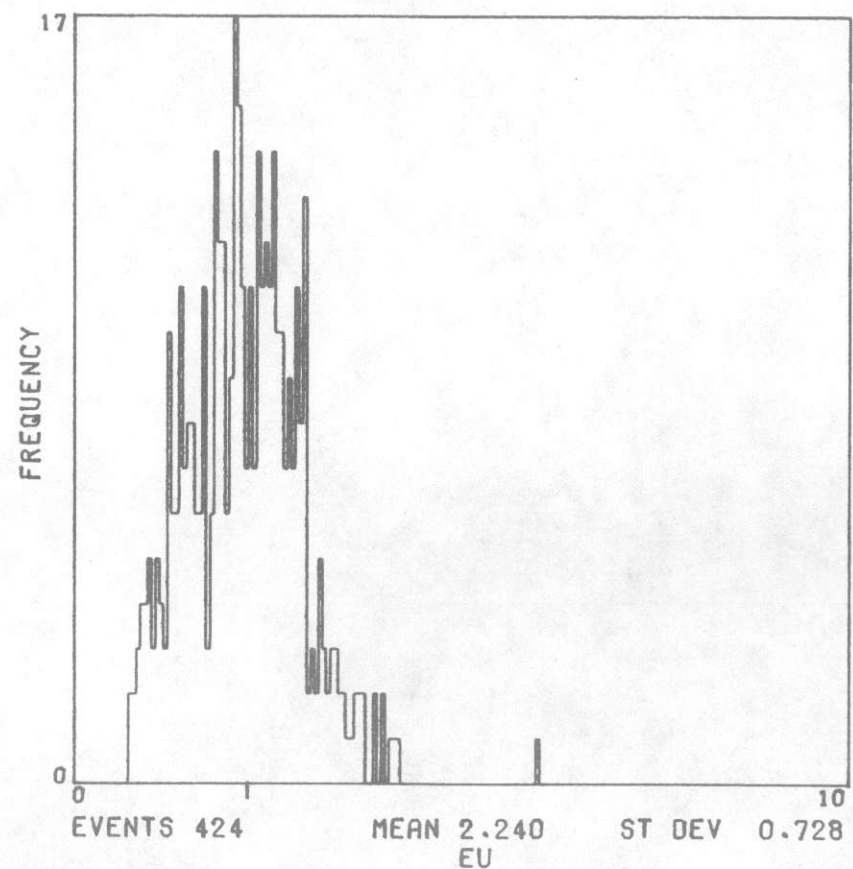
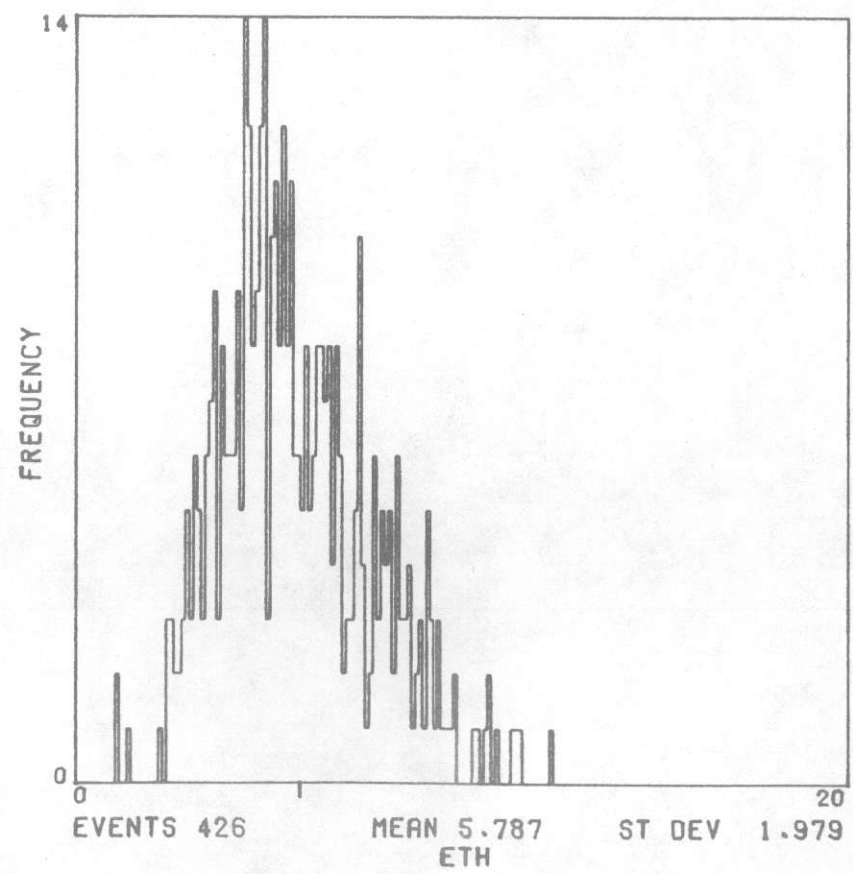
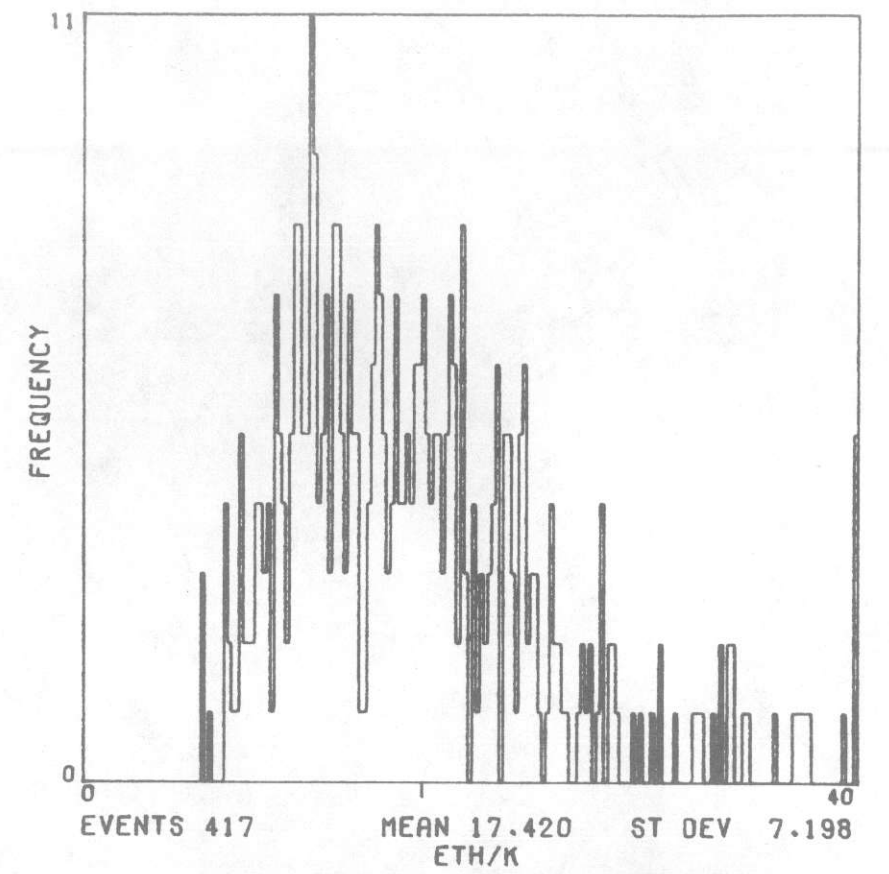
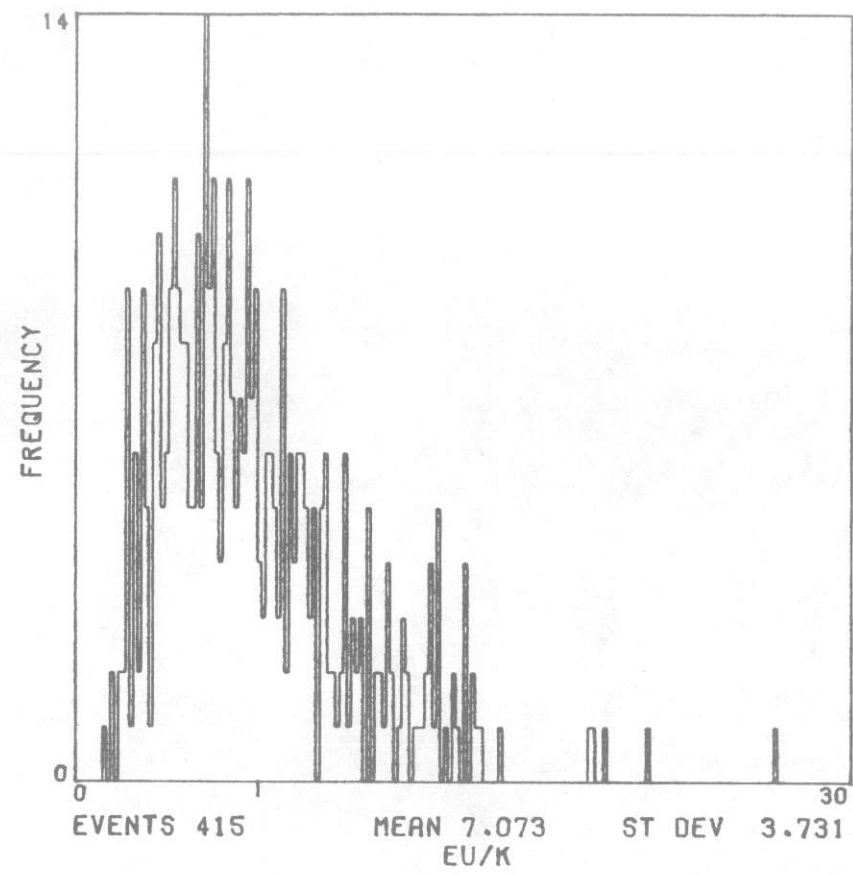
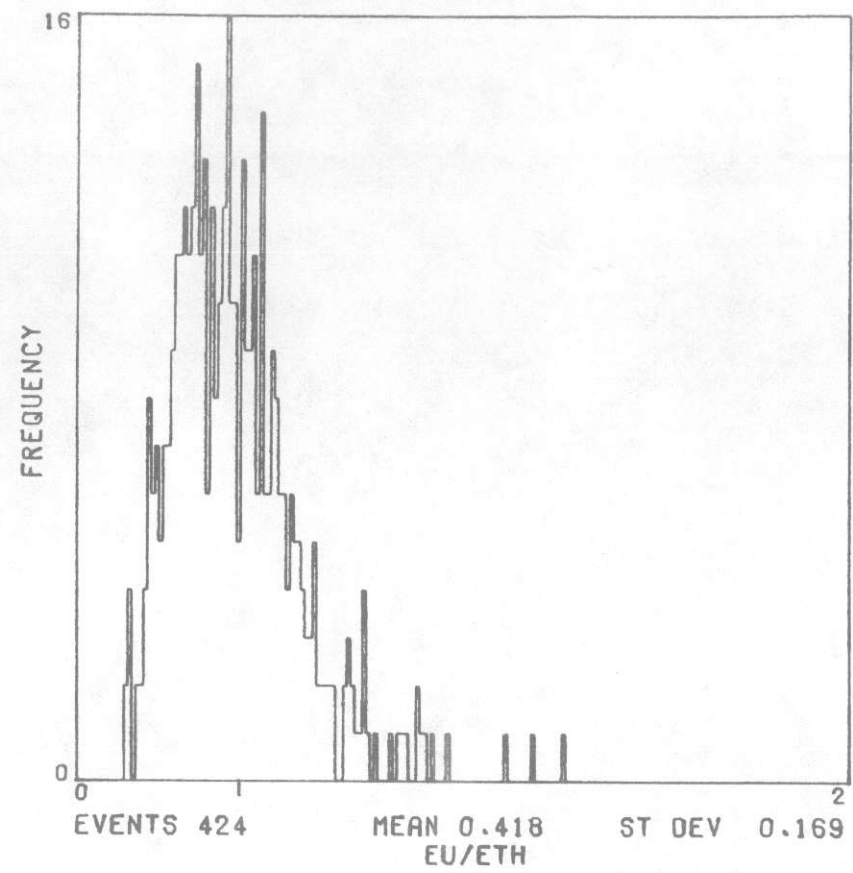
UNIT SC



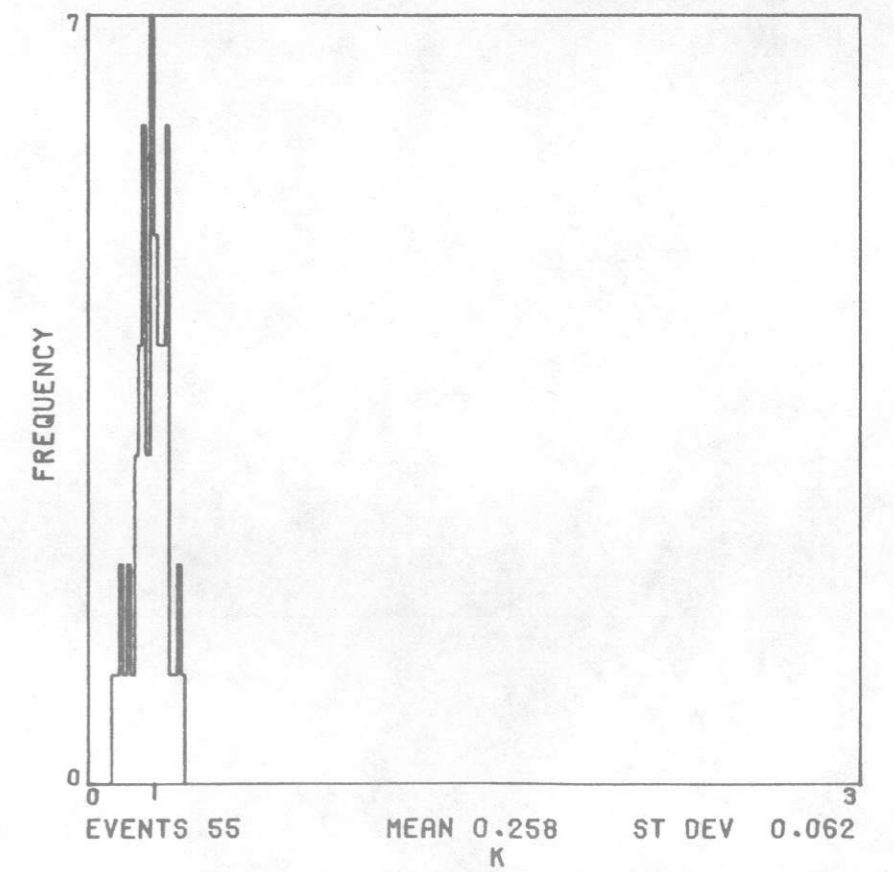
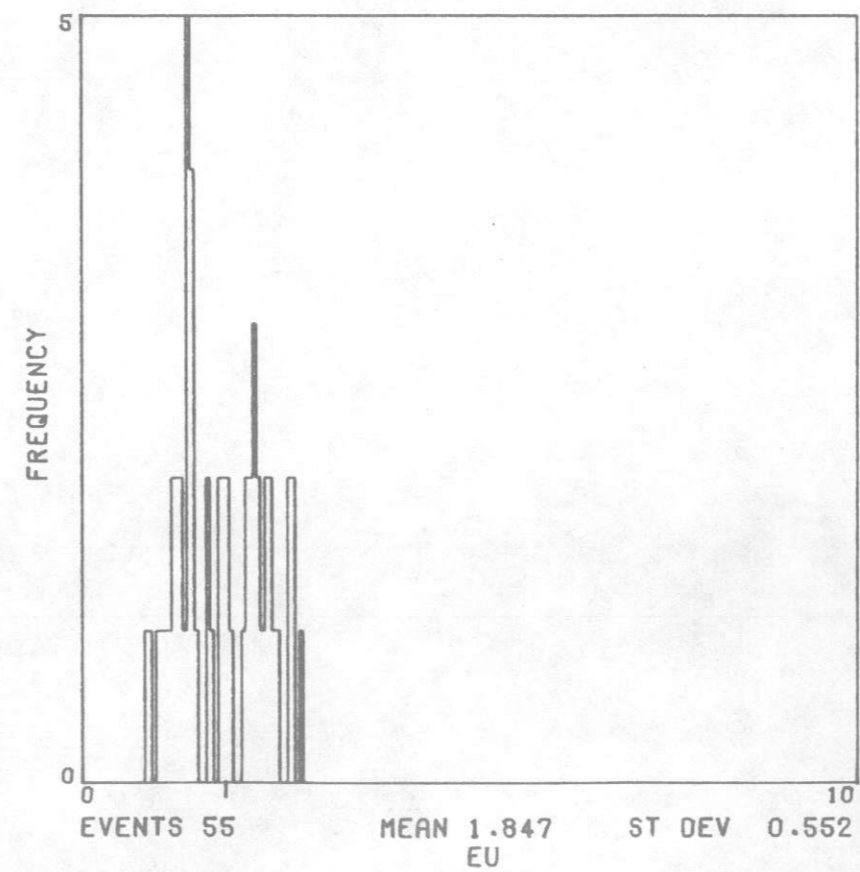
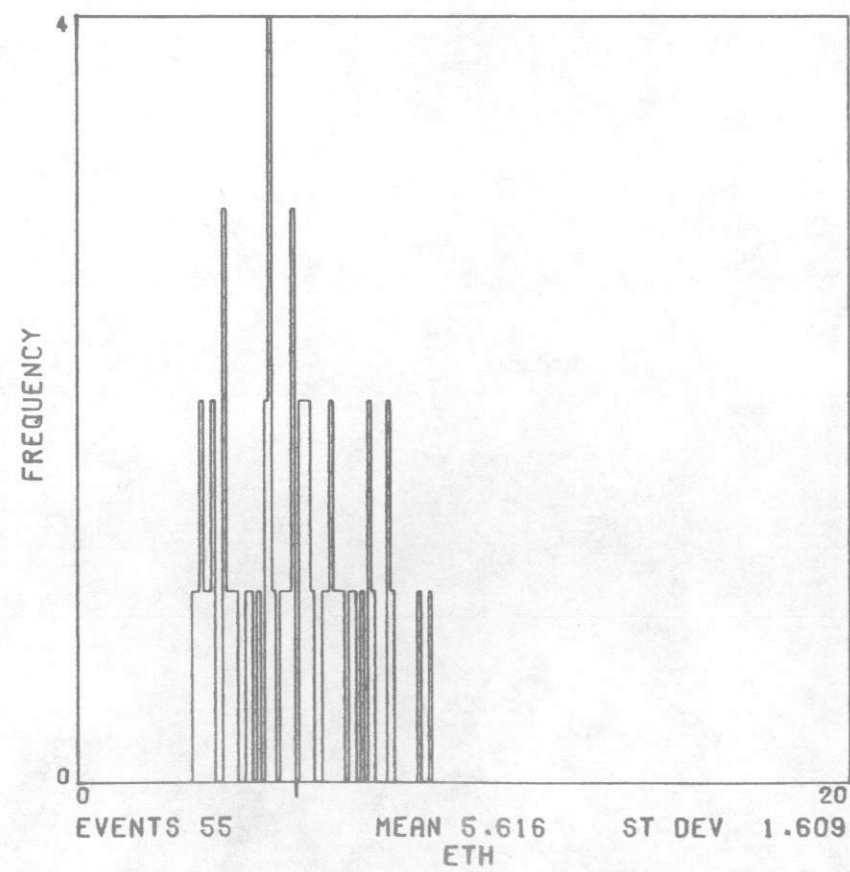
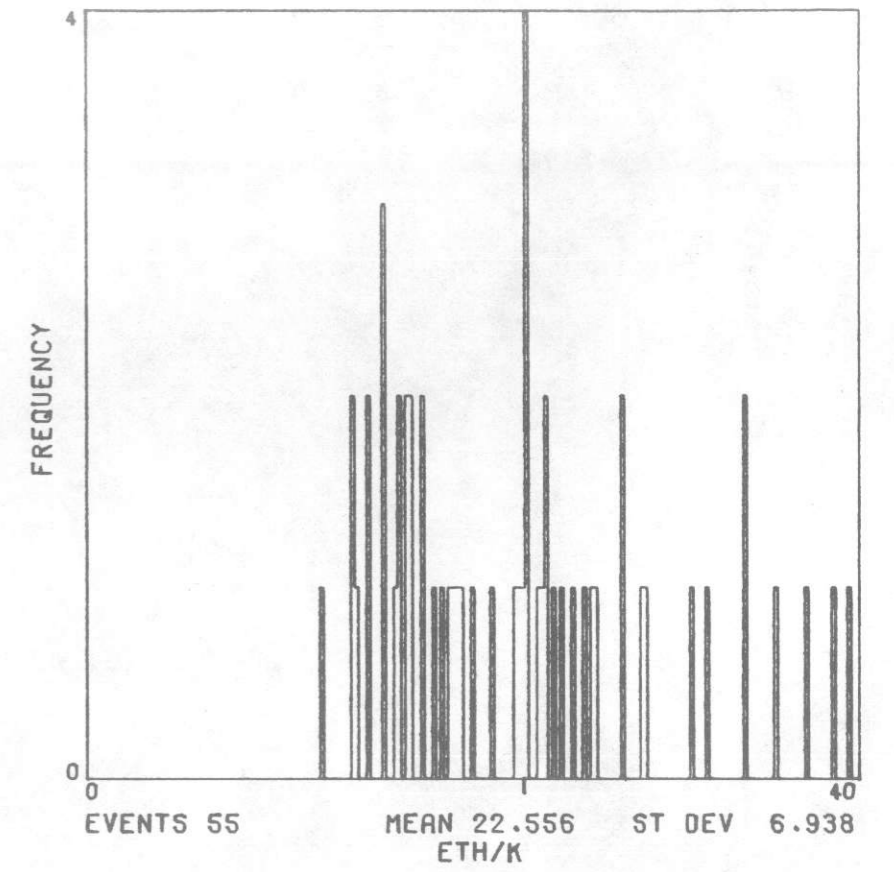
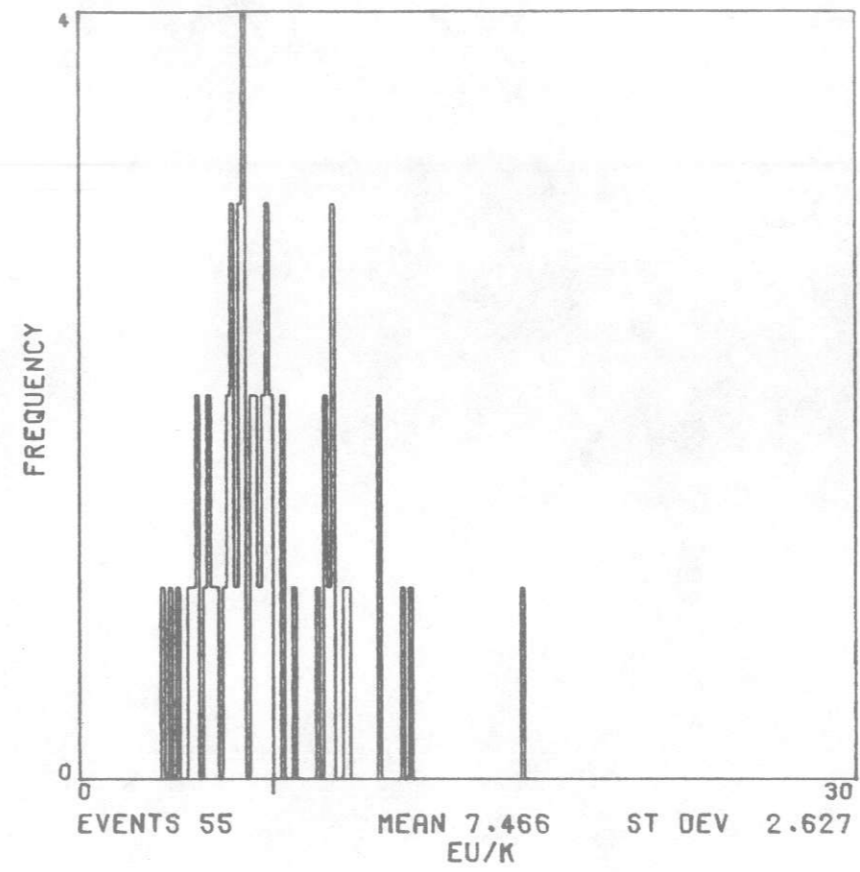
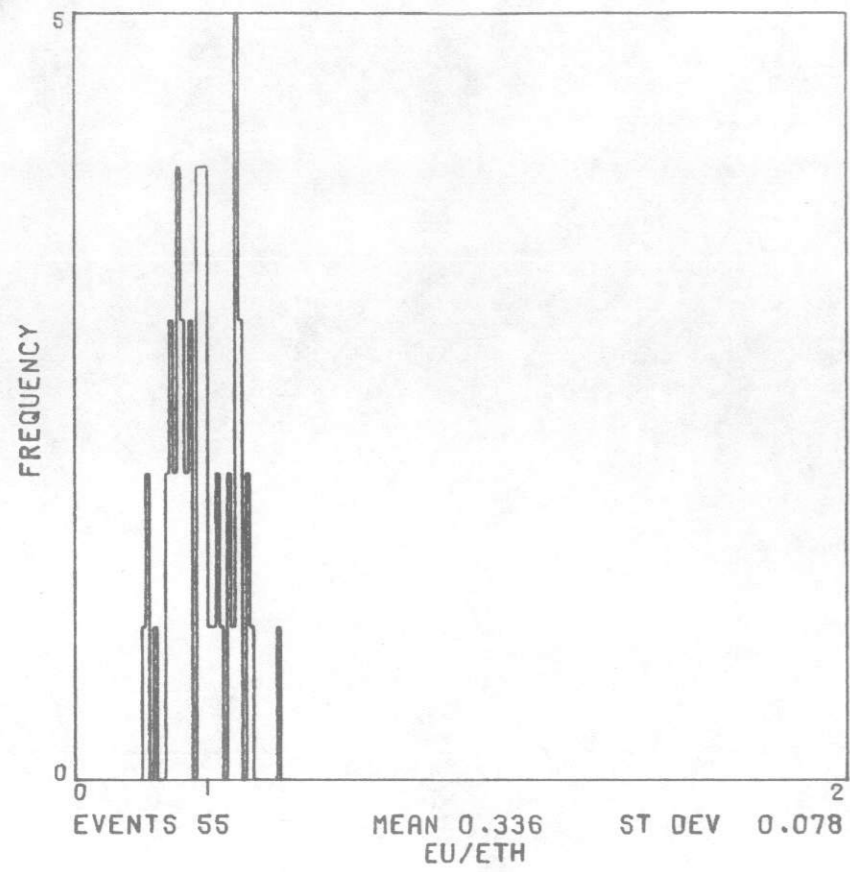
UNIT 50



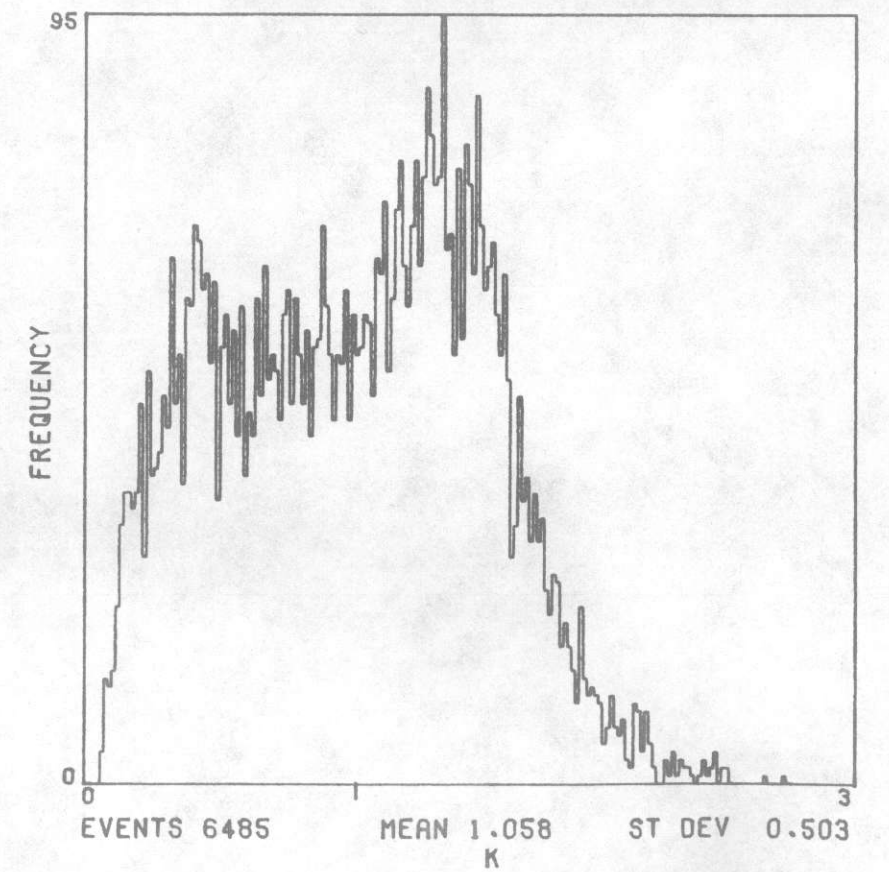
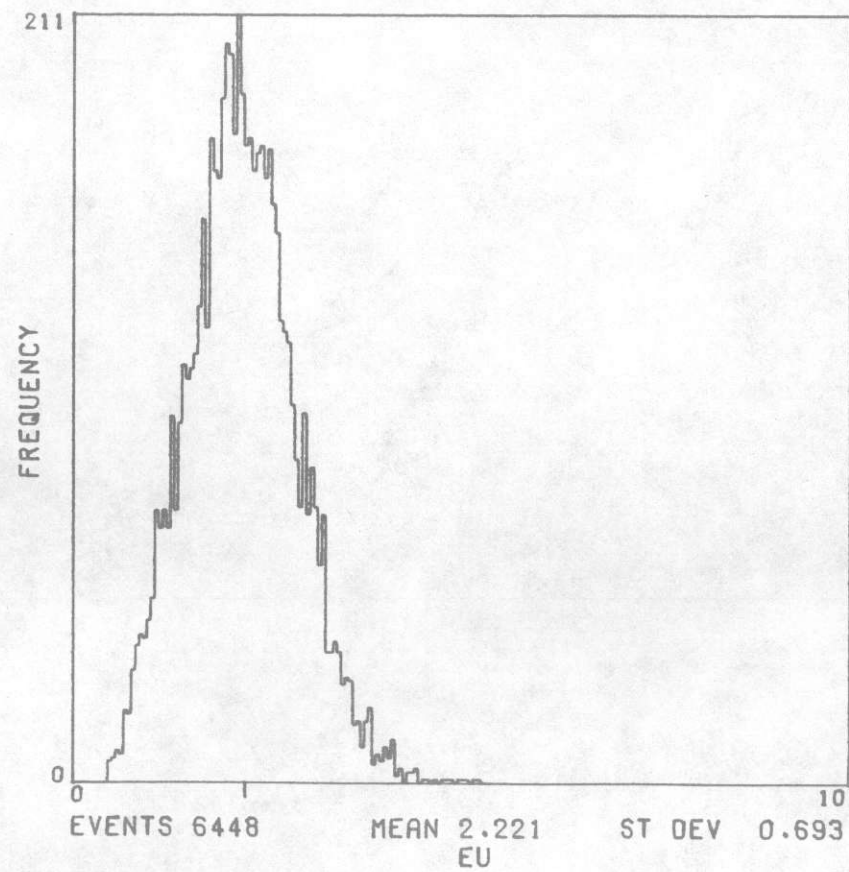
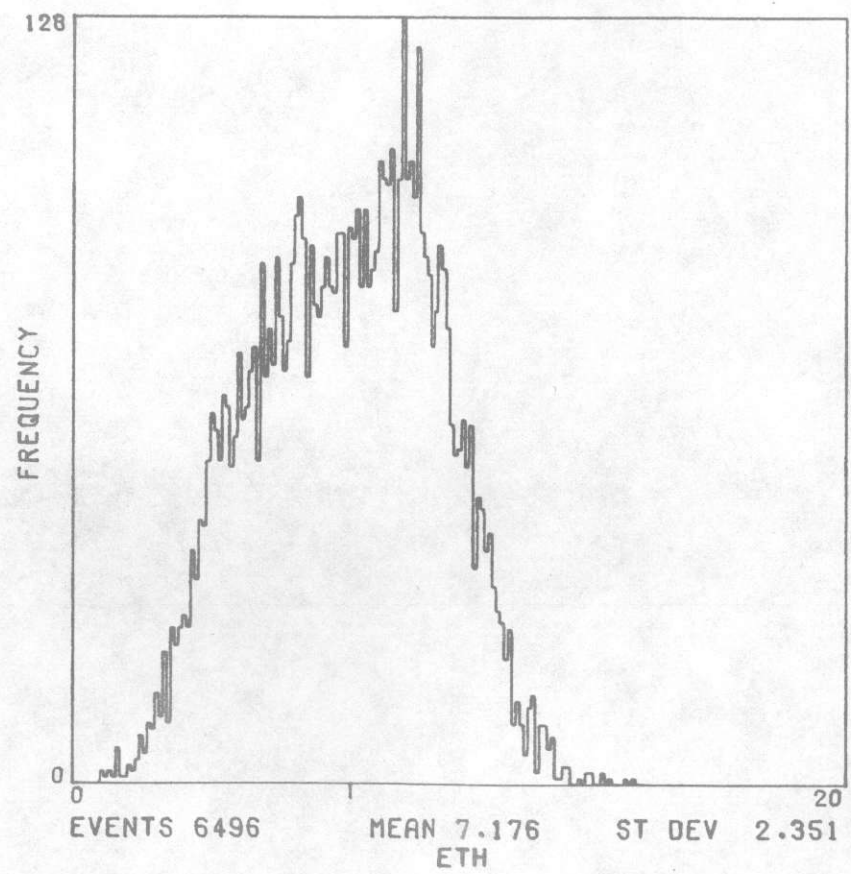
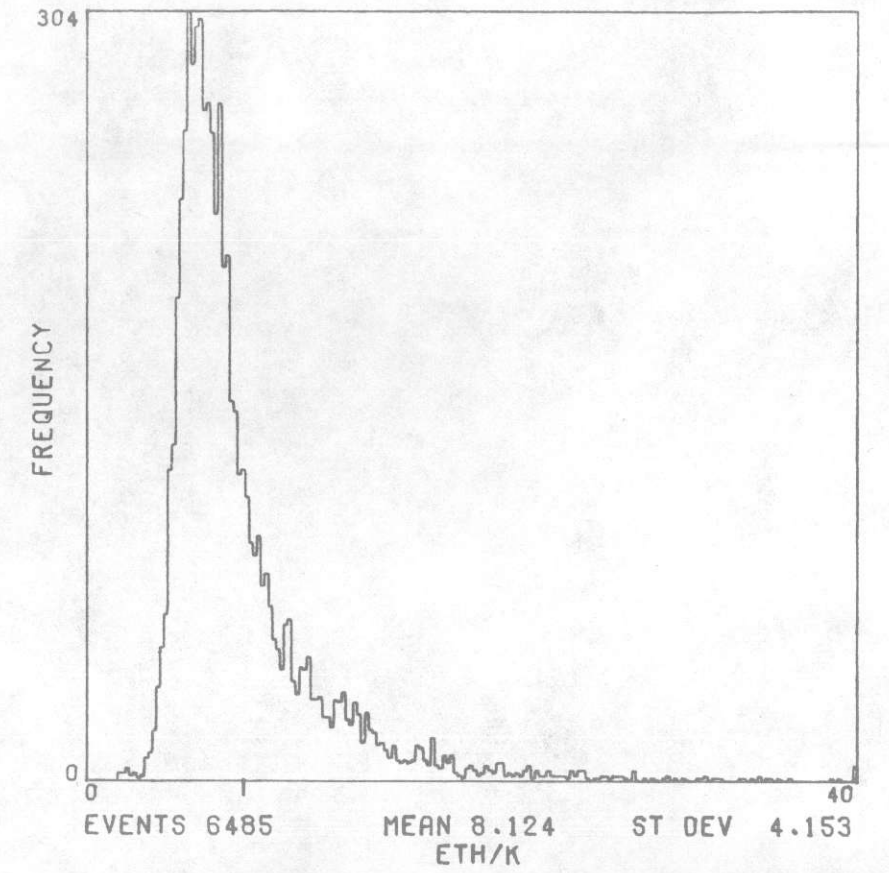
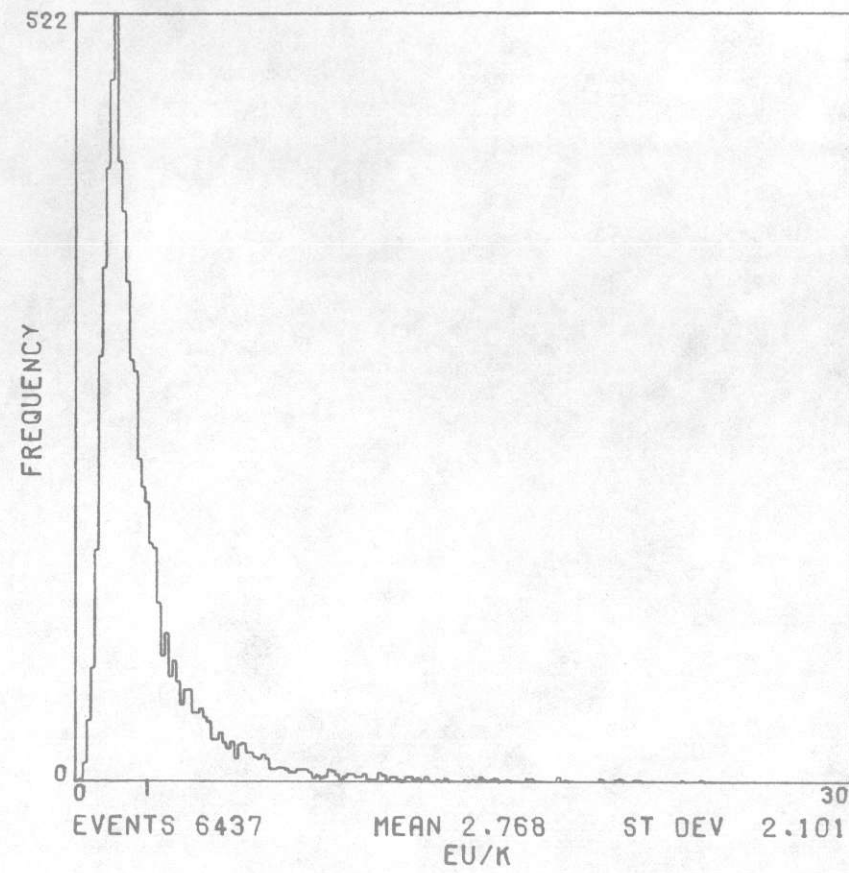
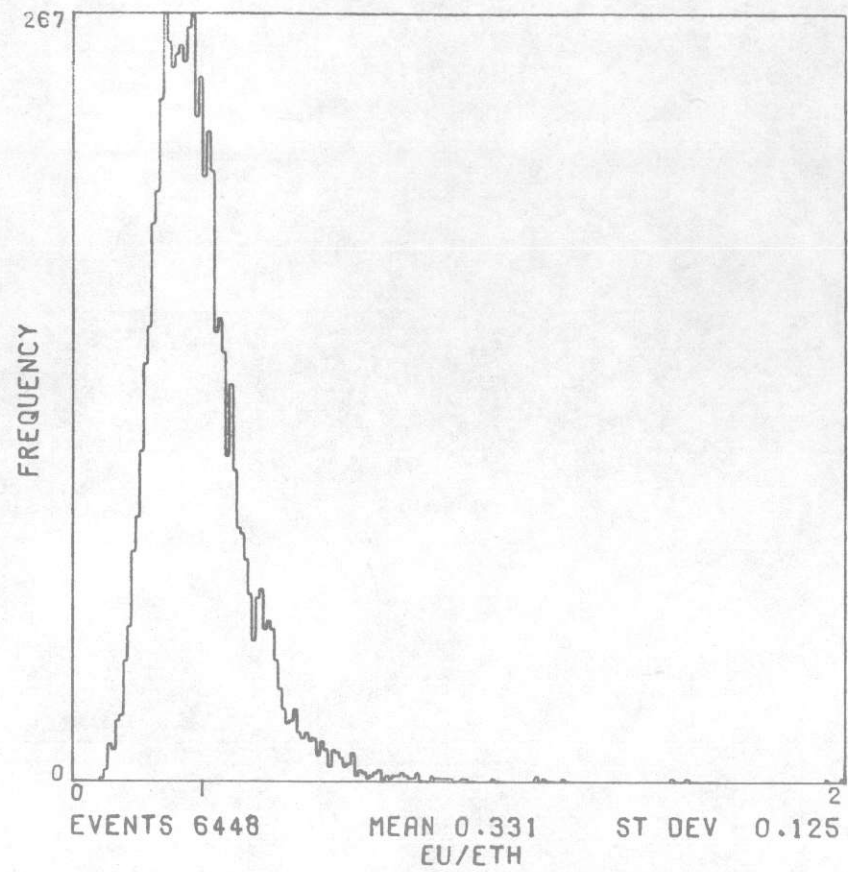
UNIT SRE



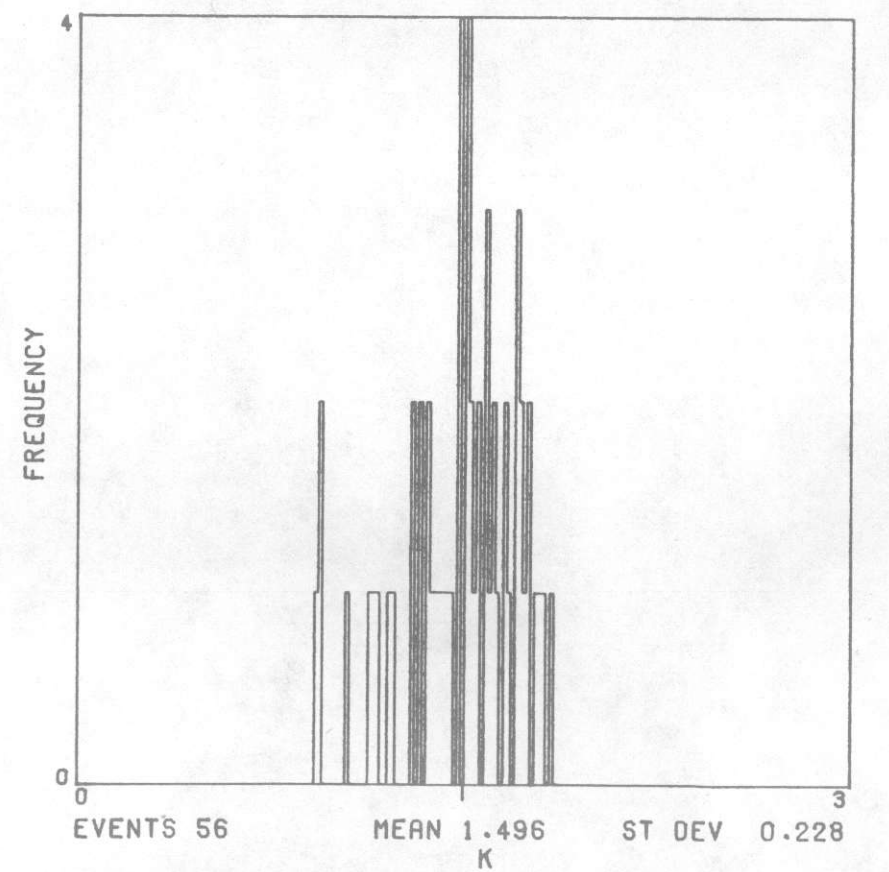
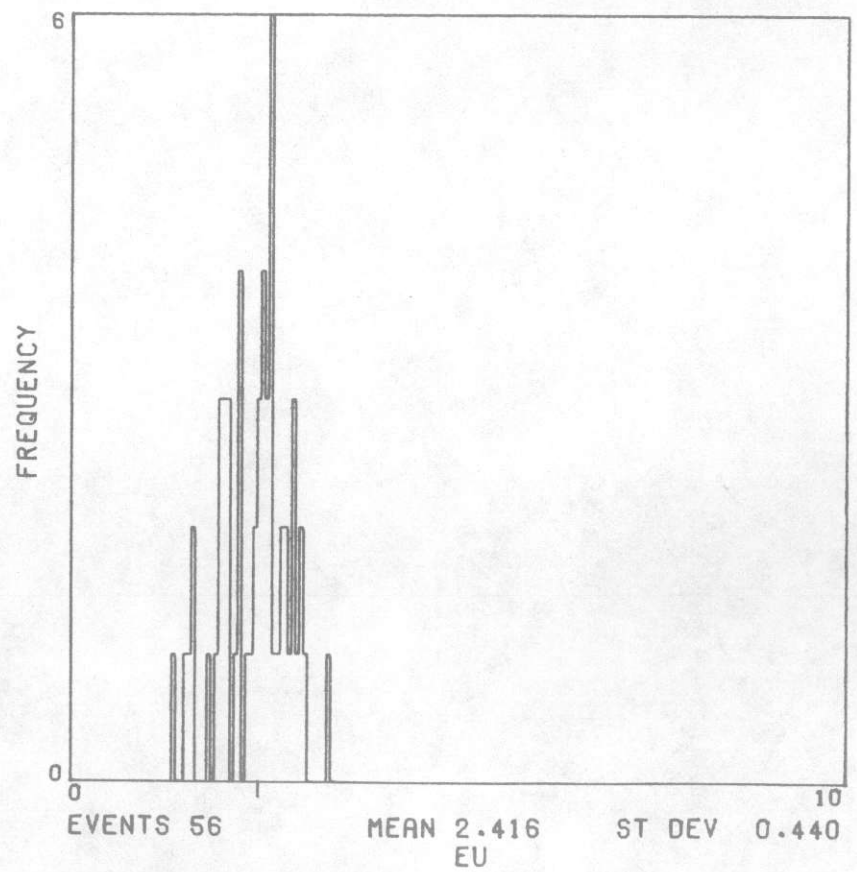
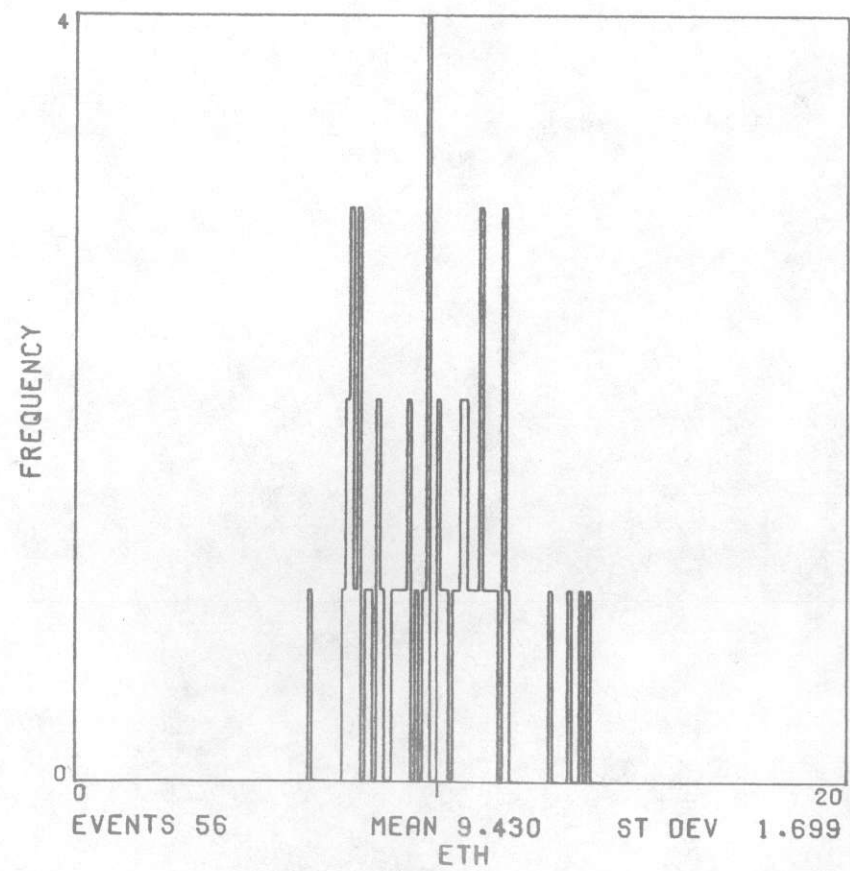
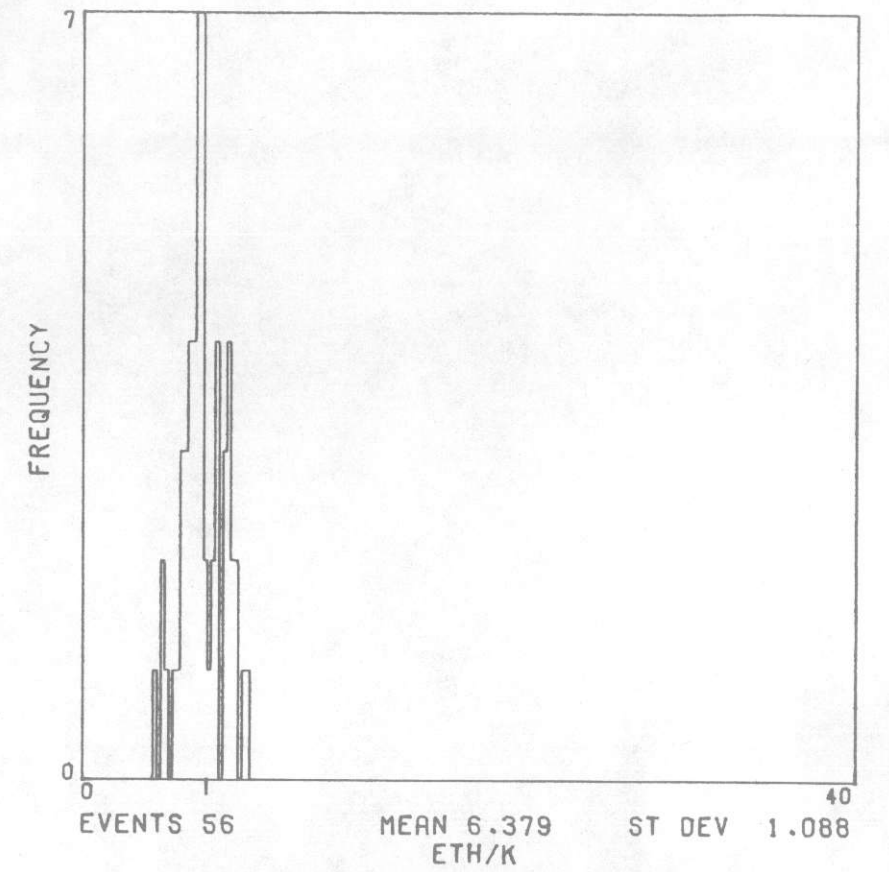
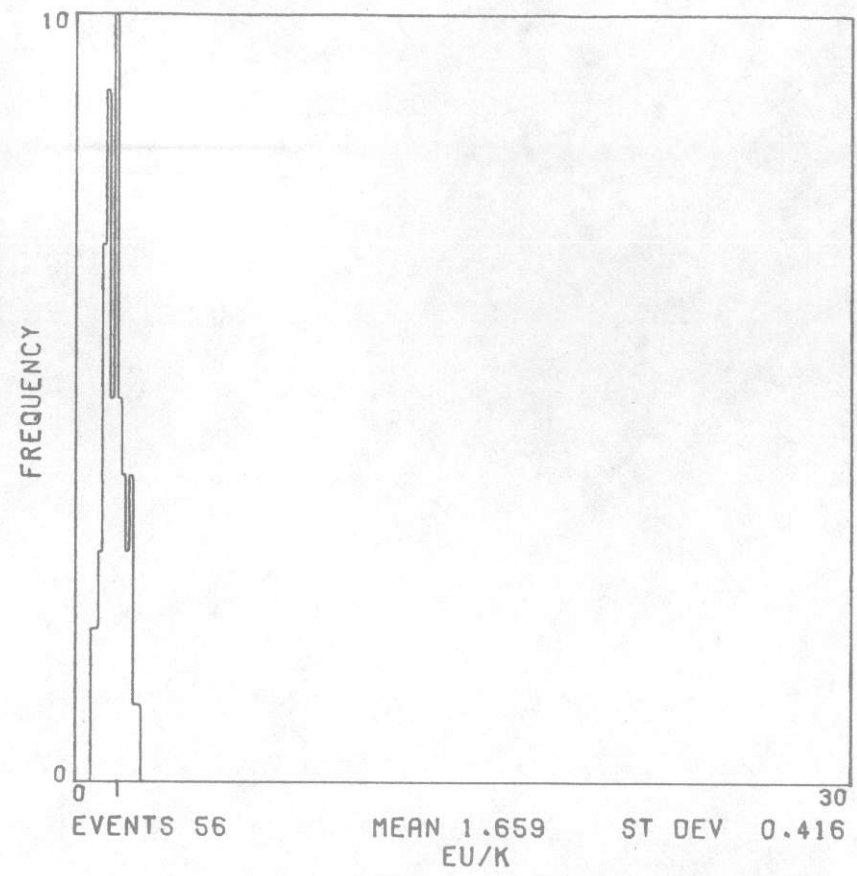
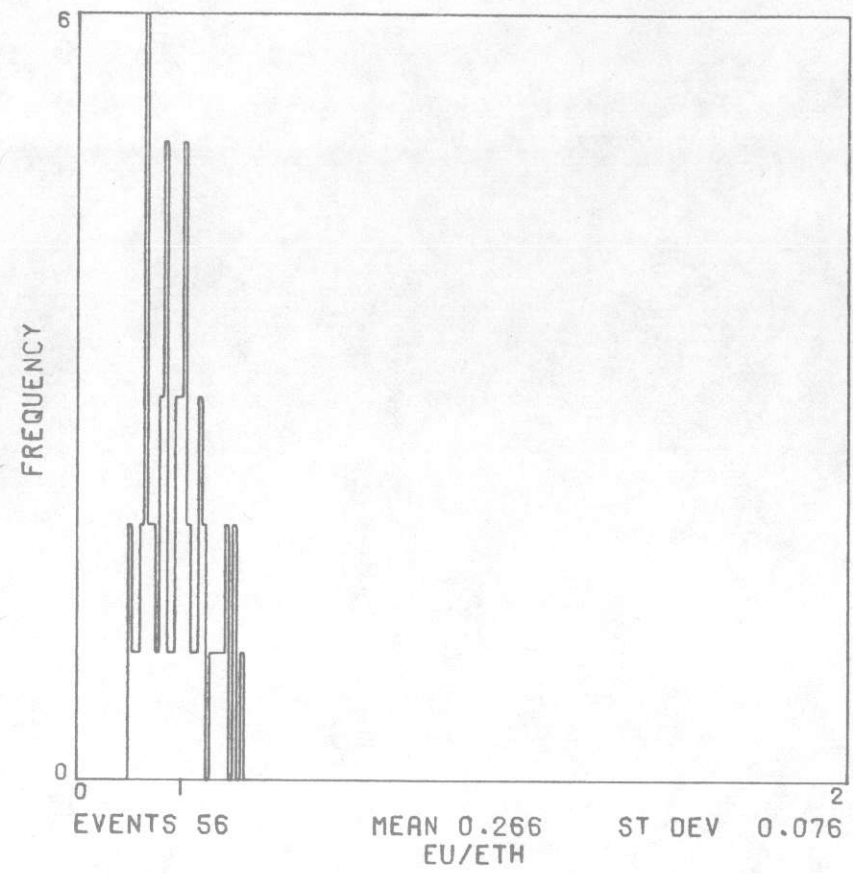
UNIT SRM



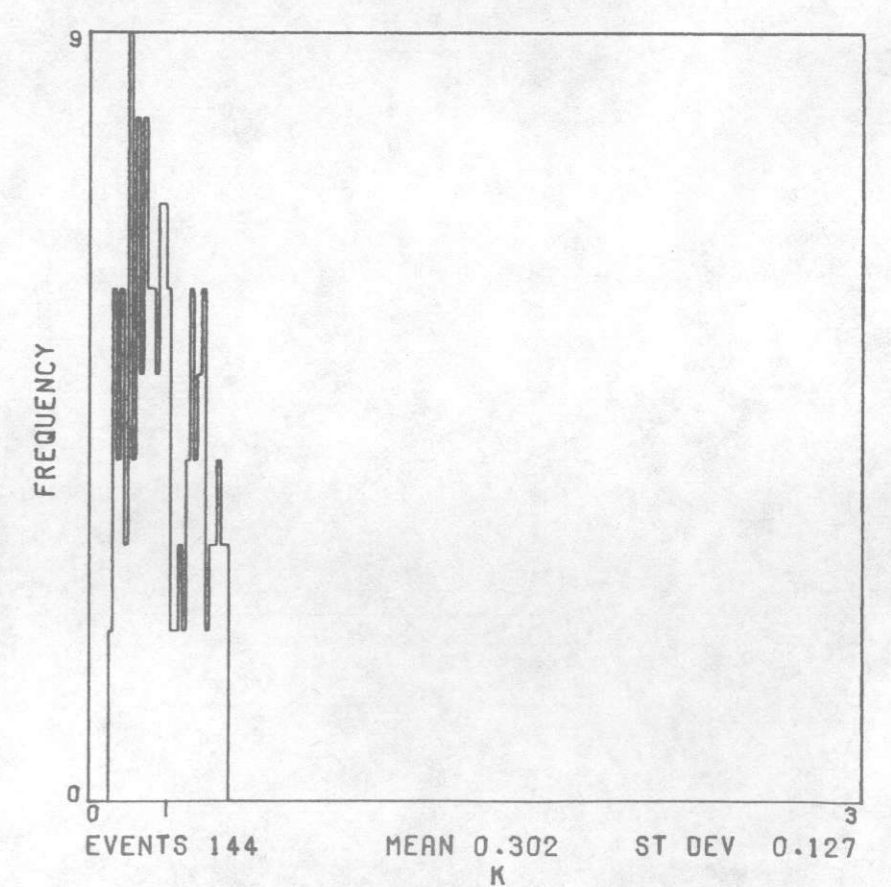
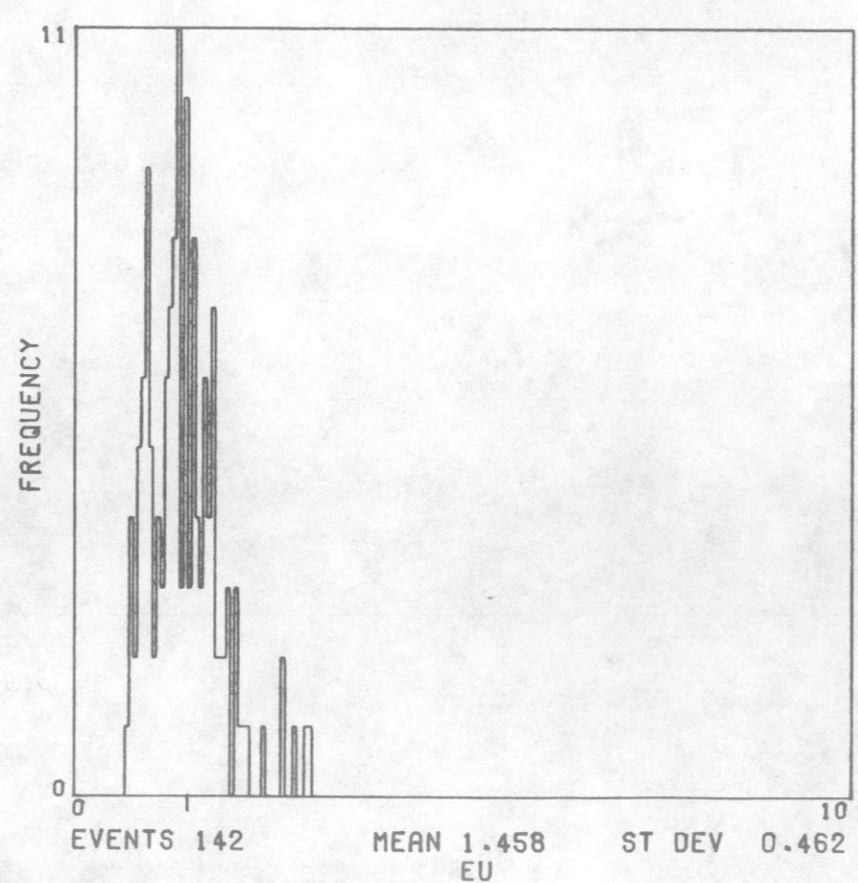
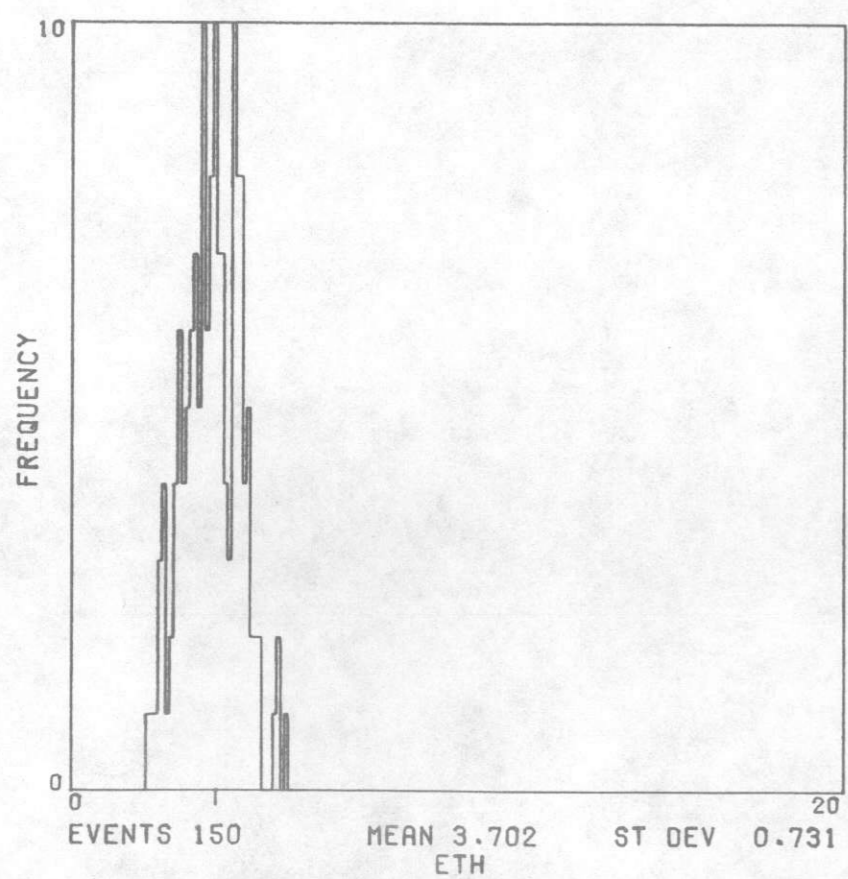
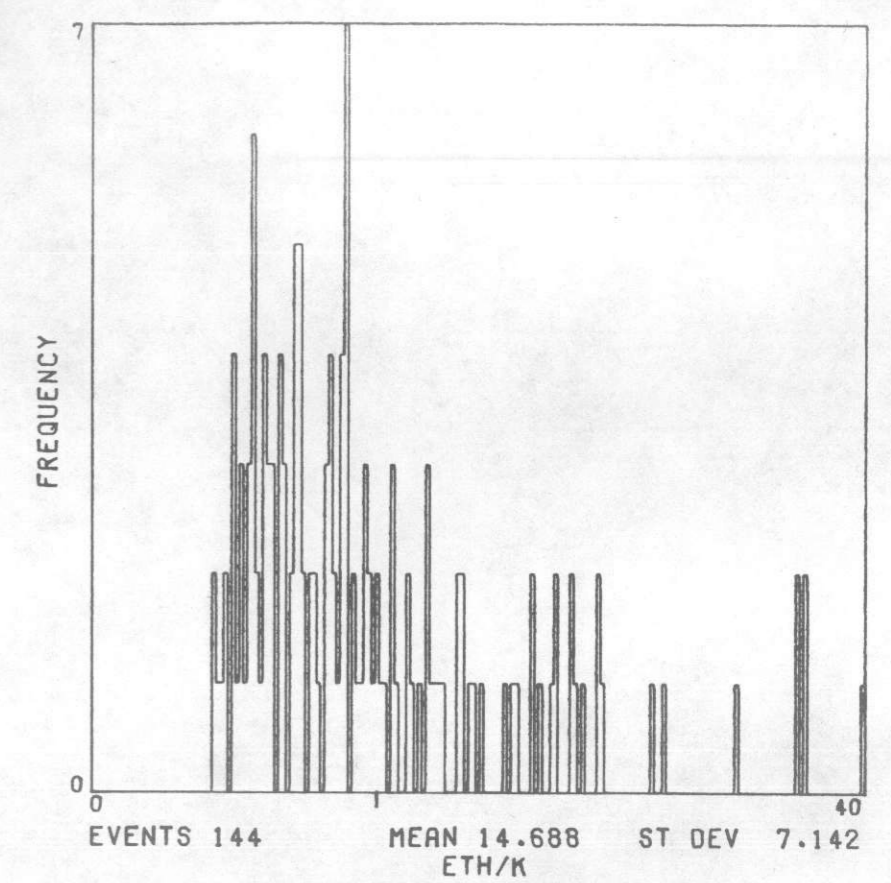
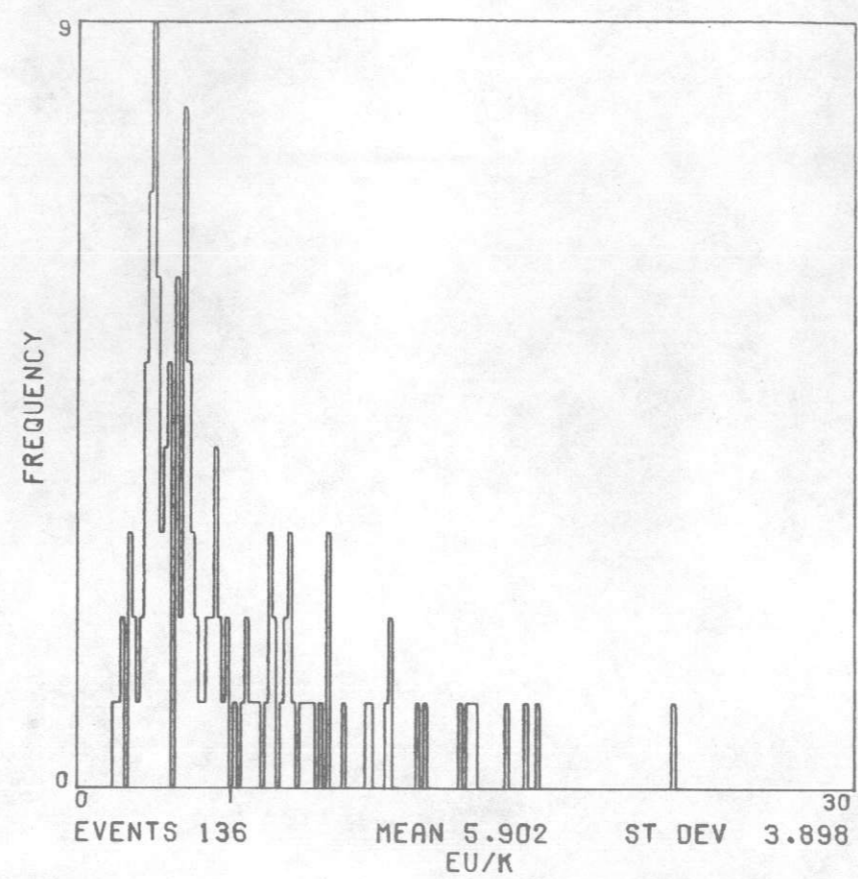
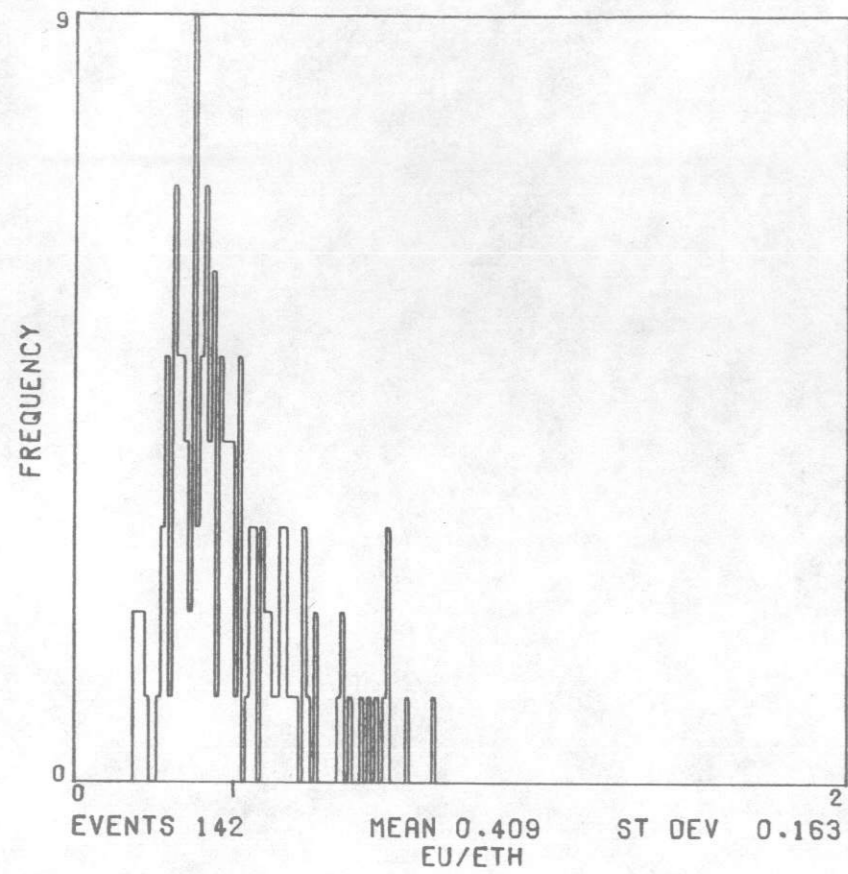
UNIT SRN



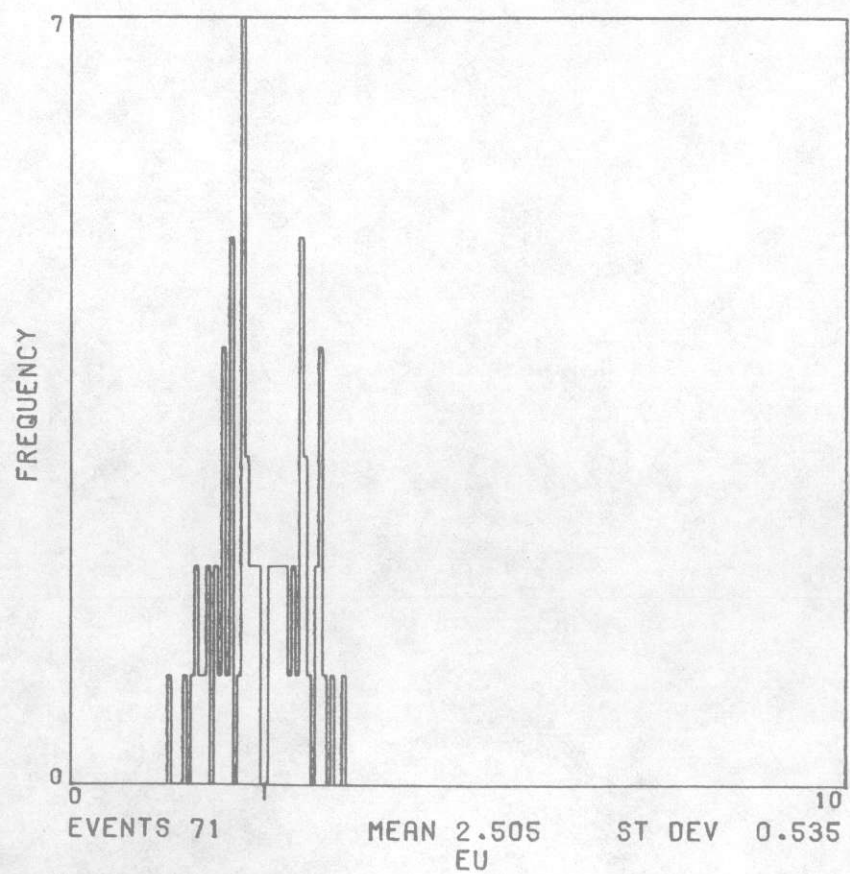
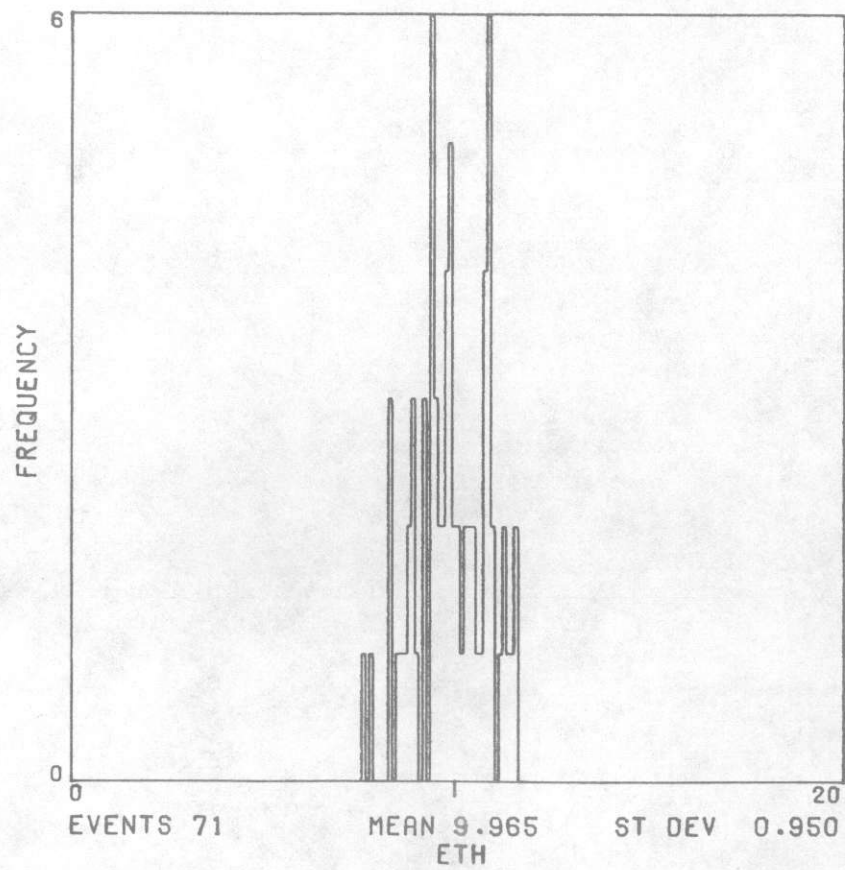
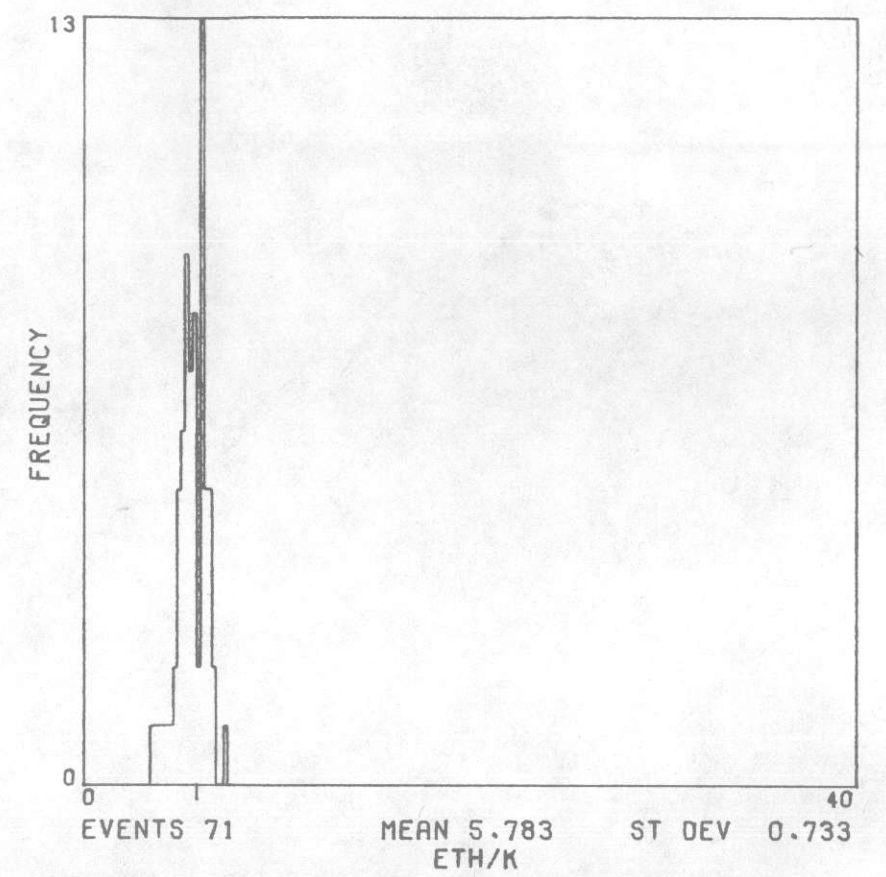
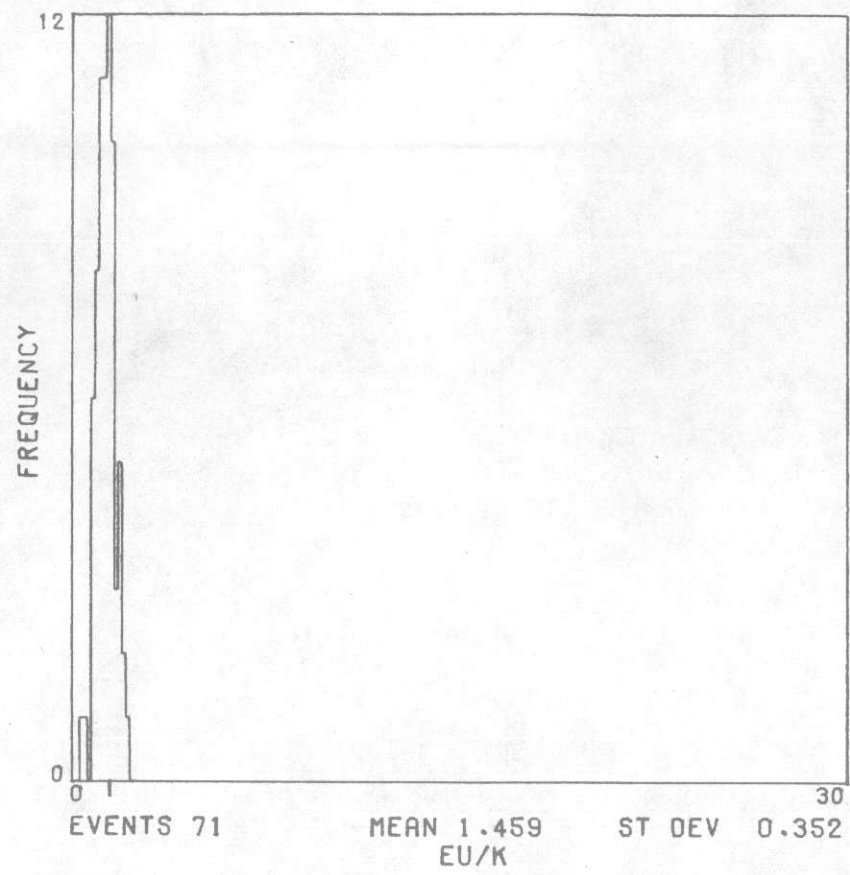
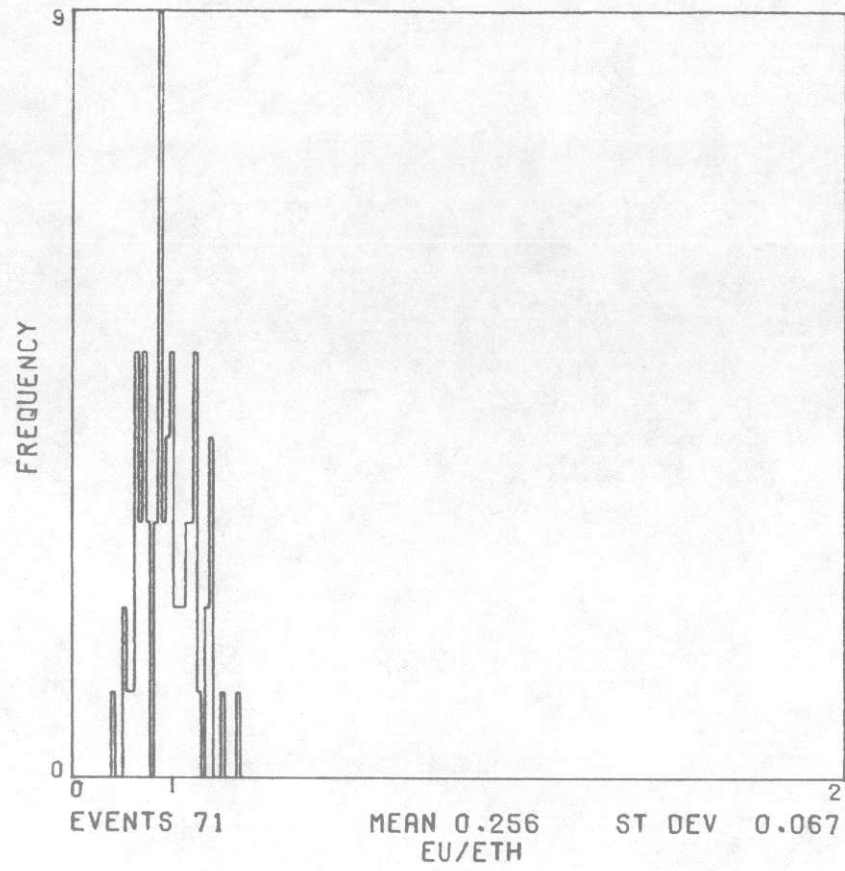
UNIT TA



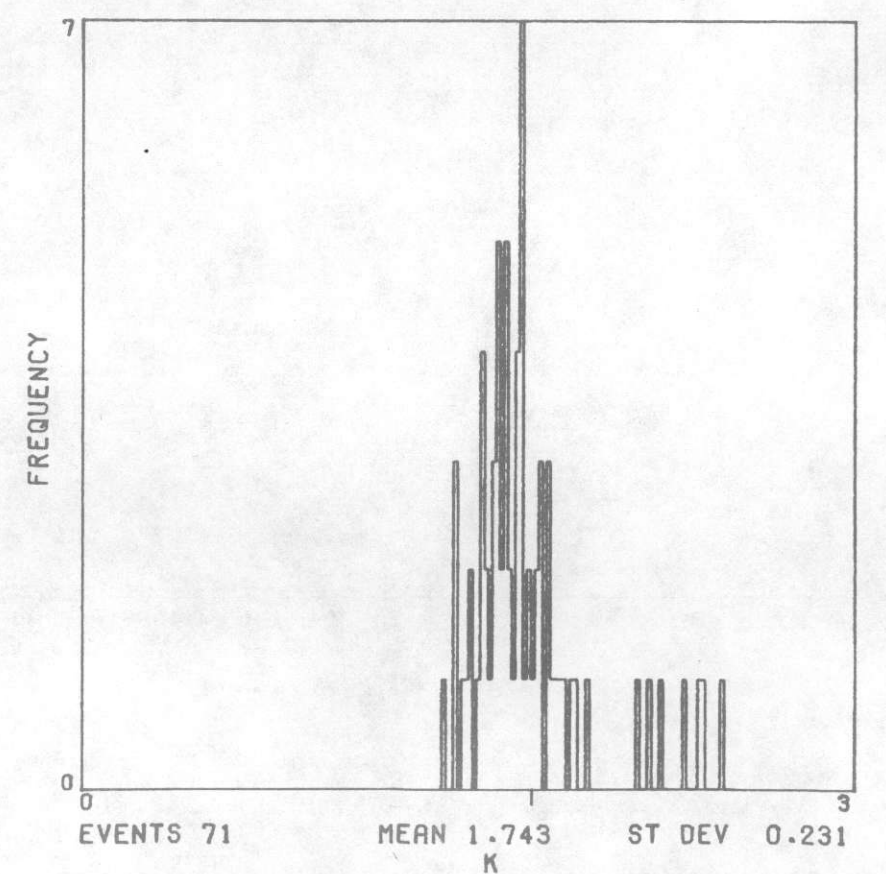
UNIT TB

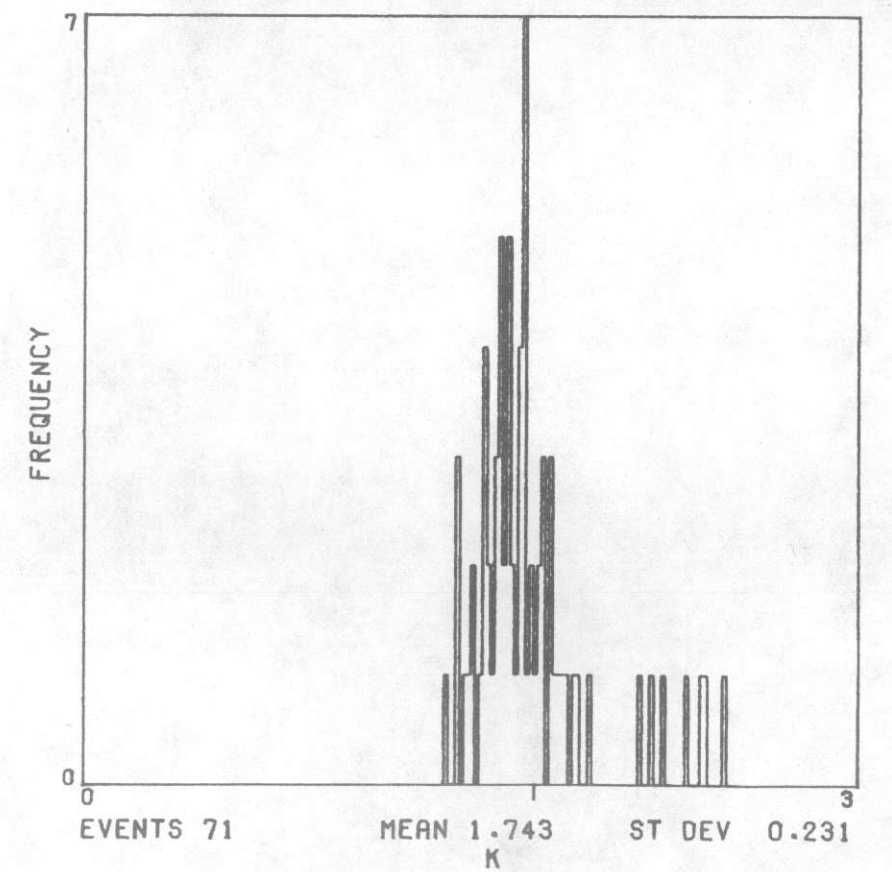
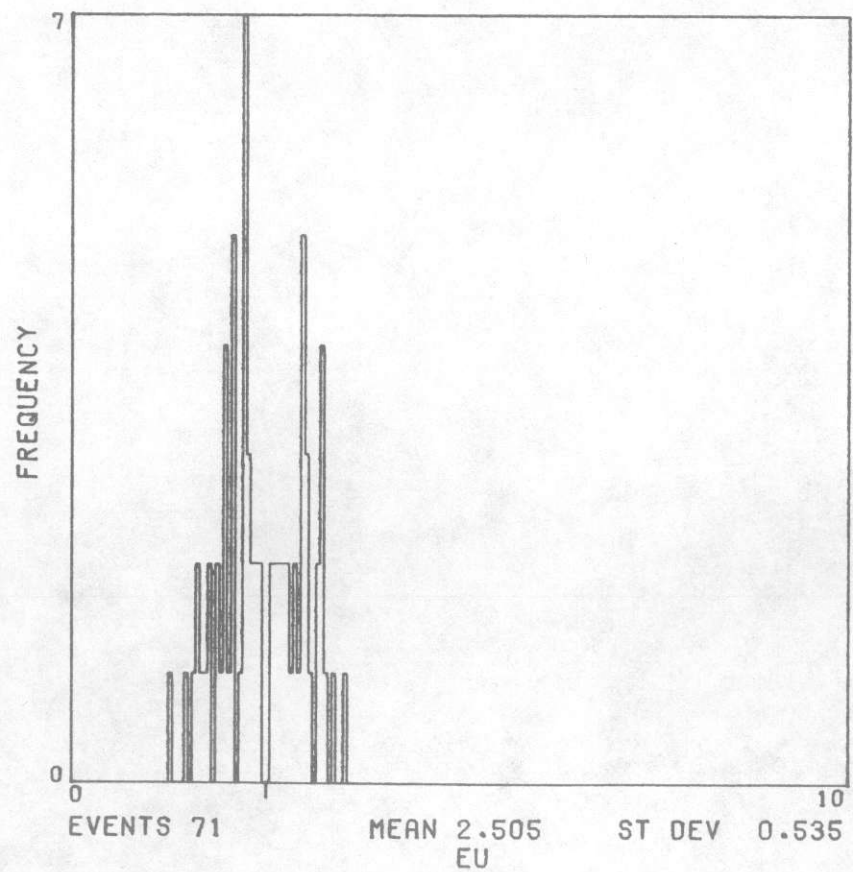
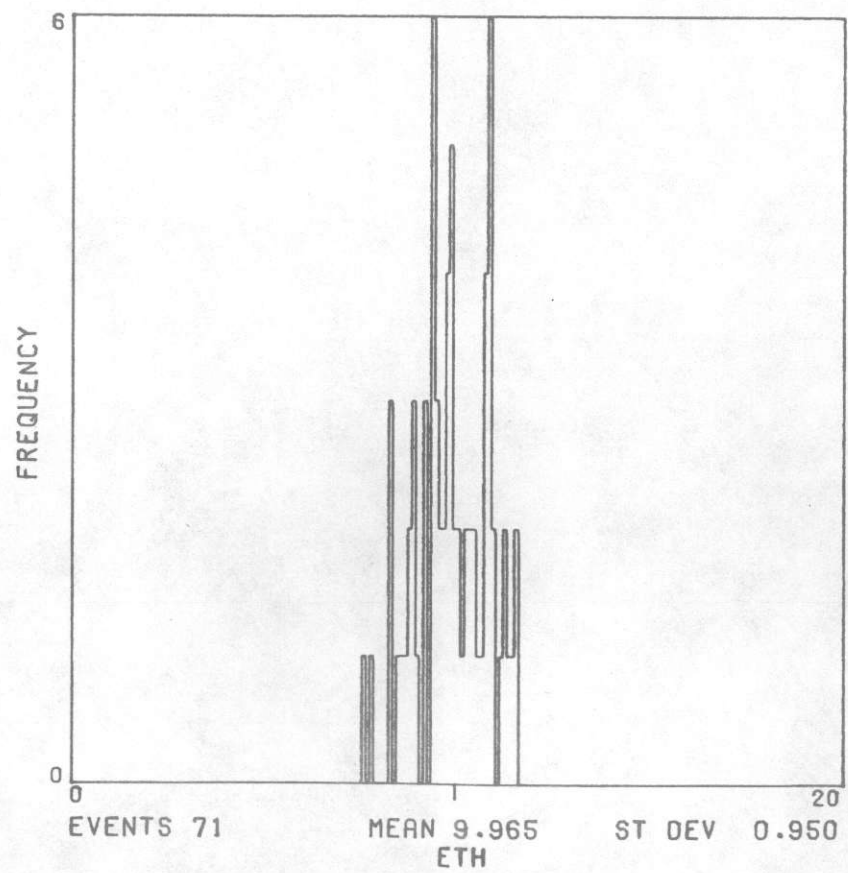
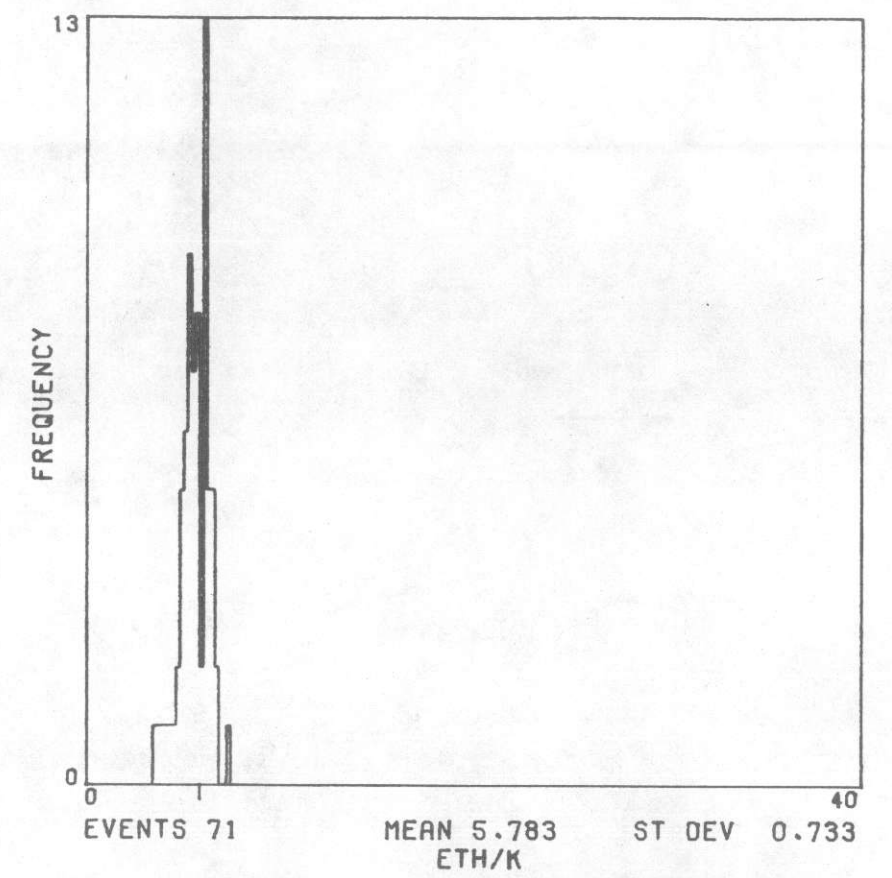
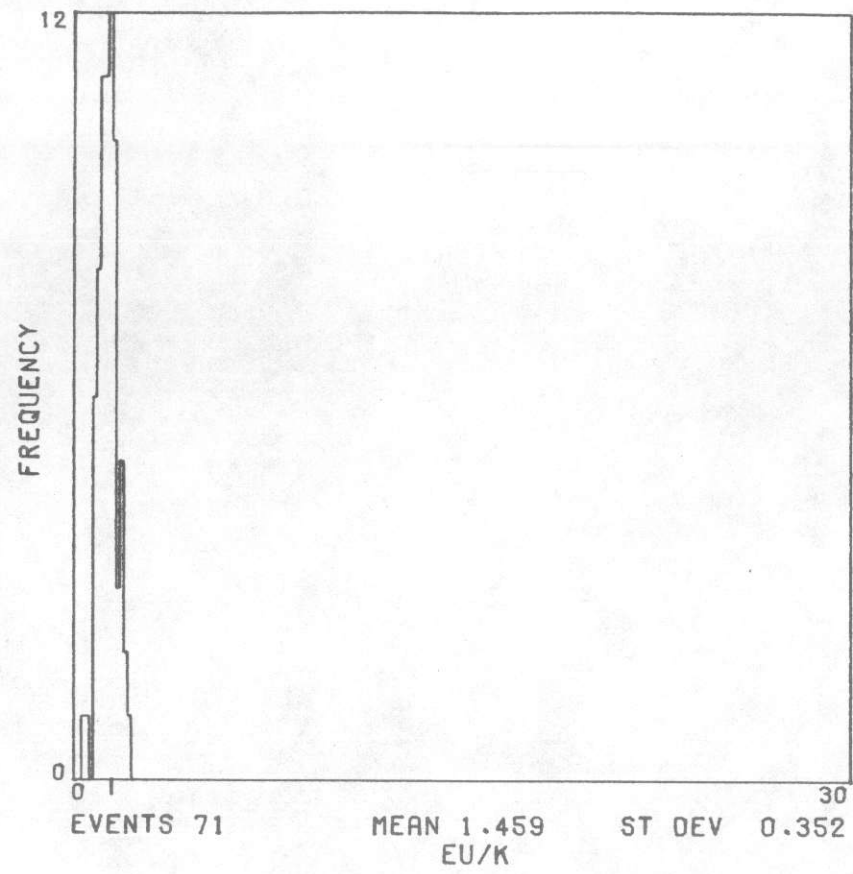
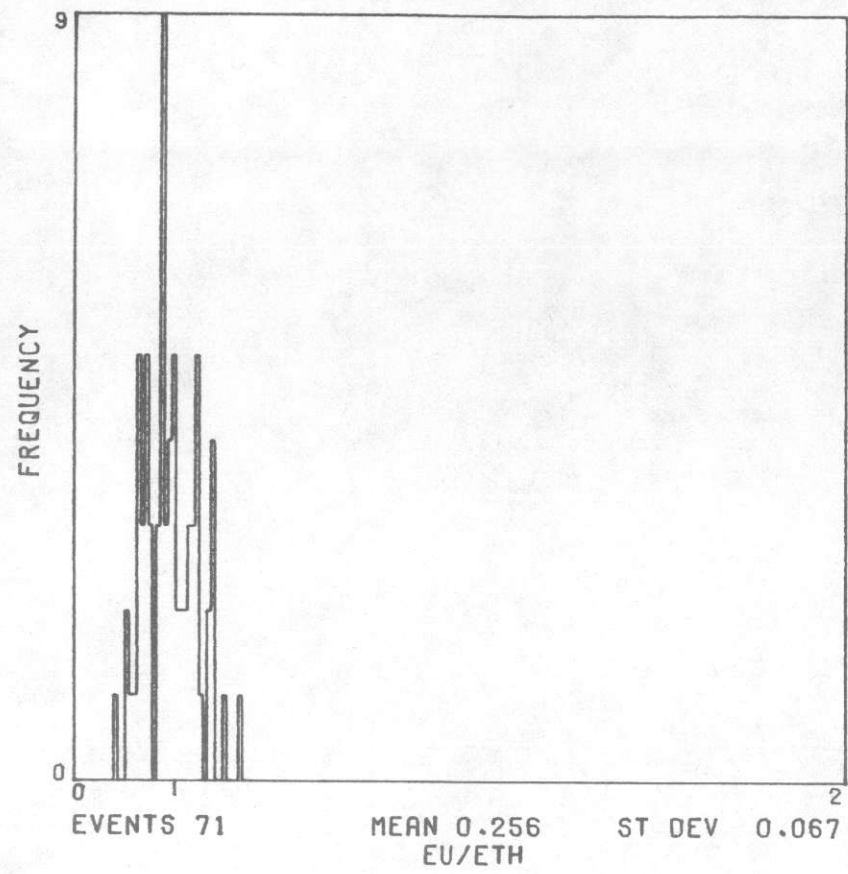


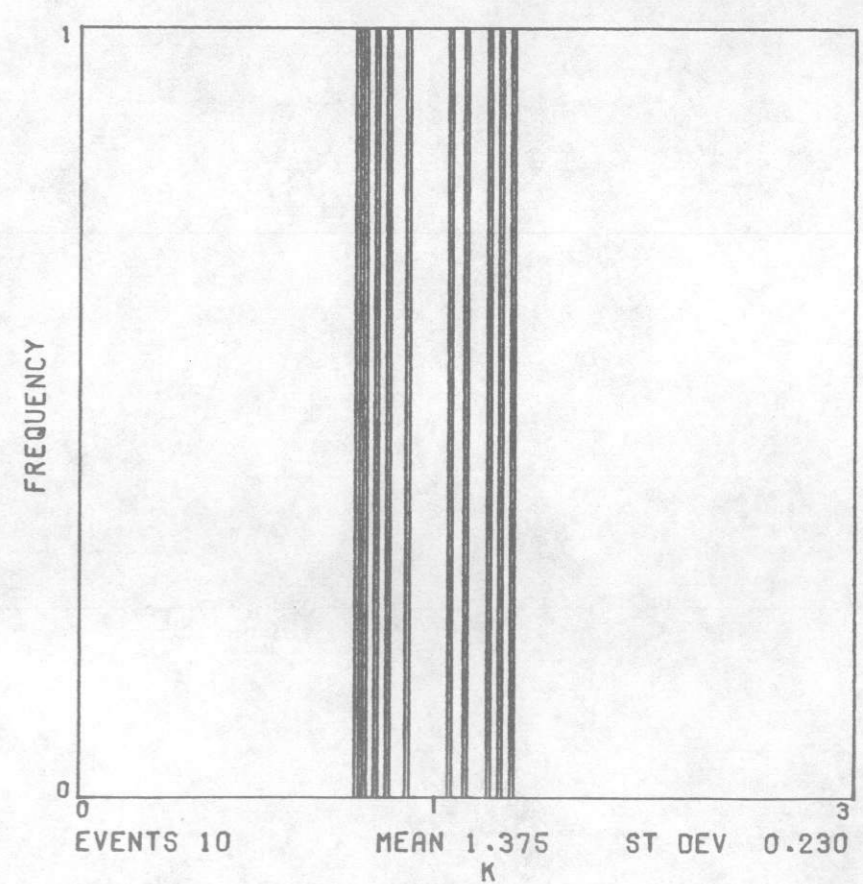
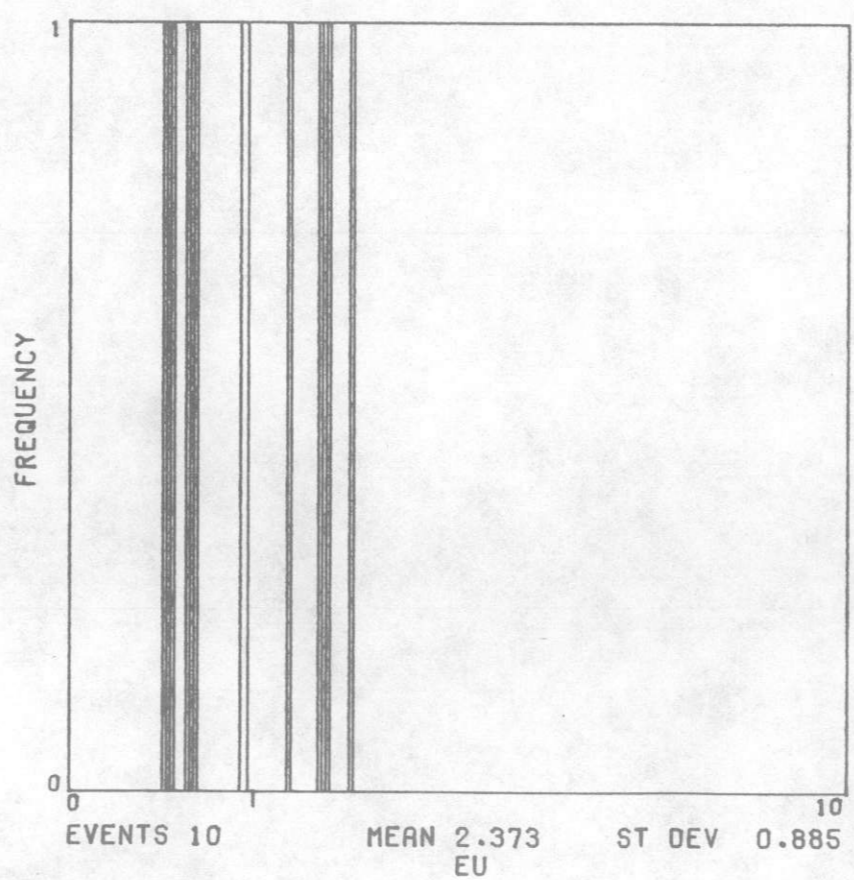
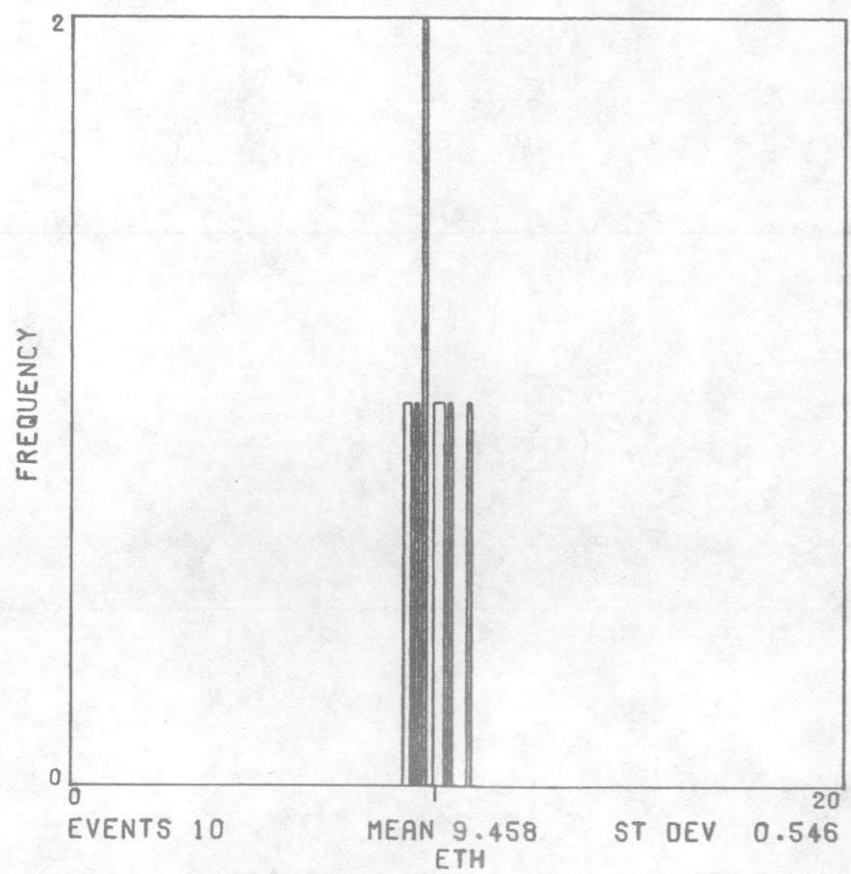
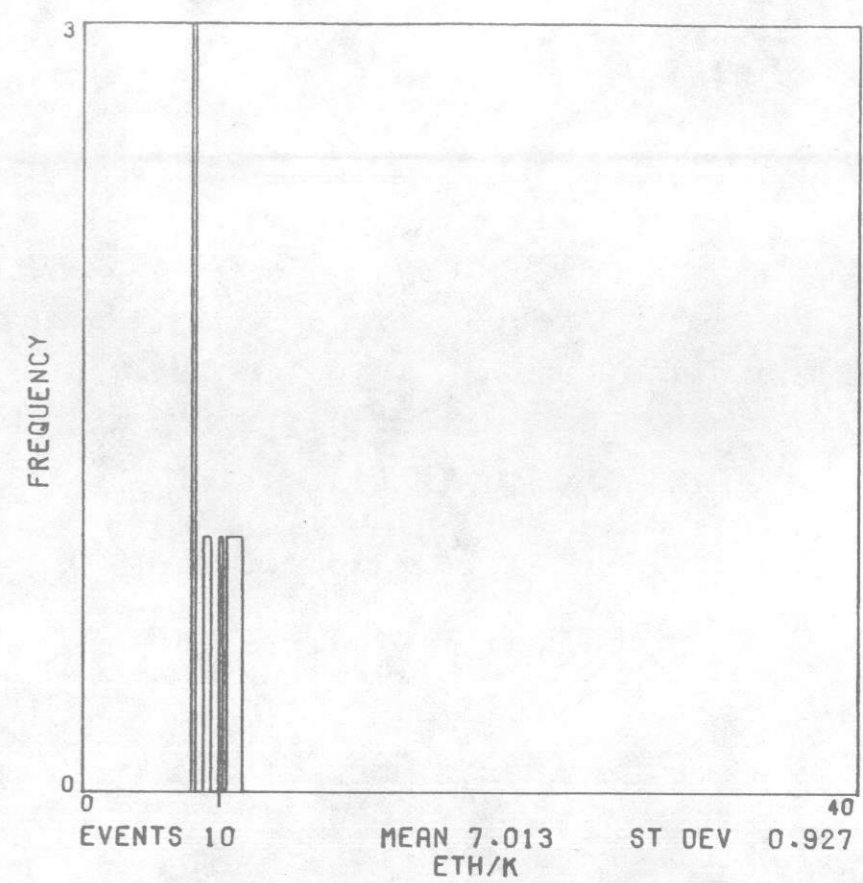
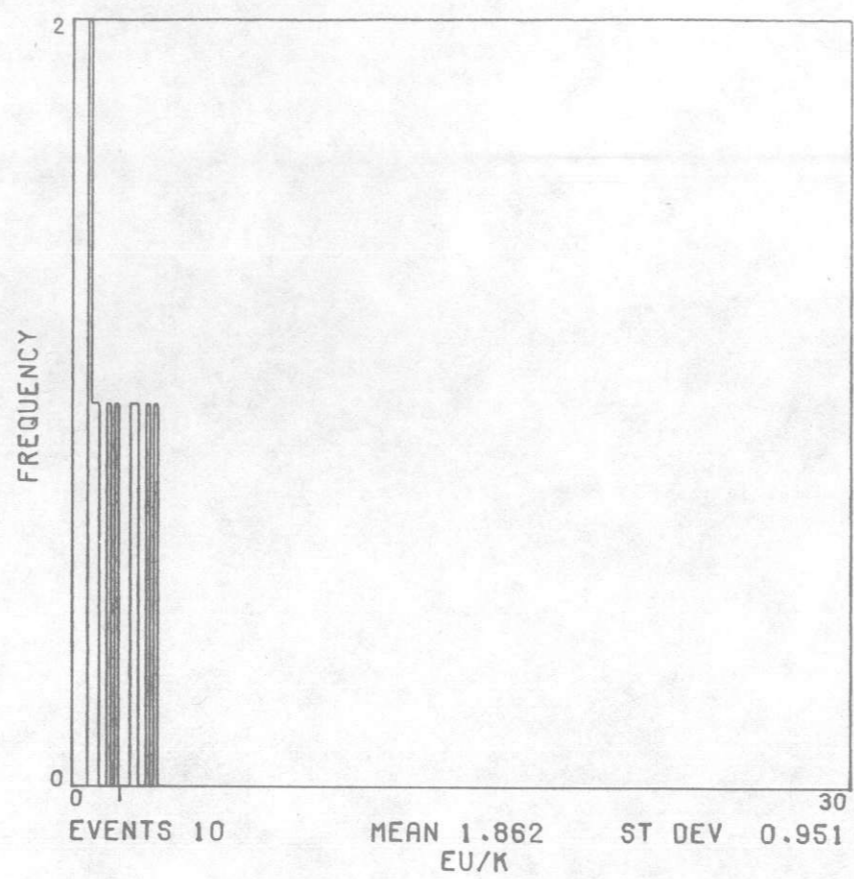
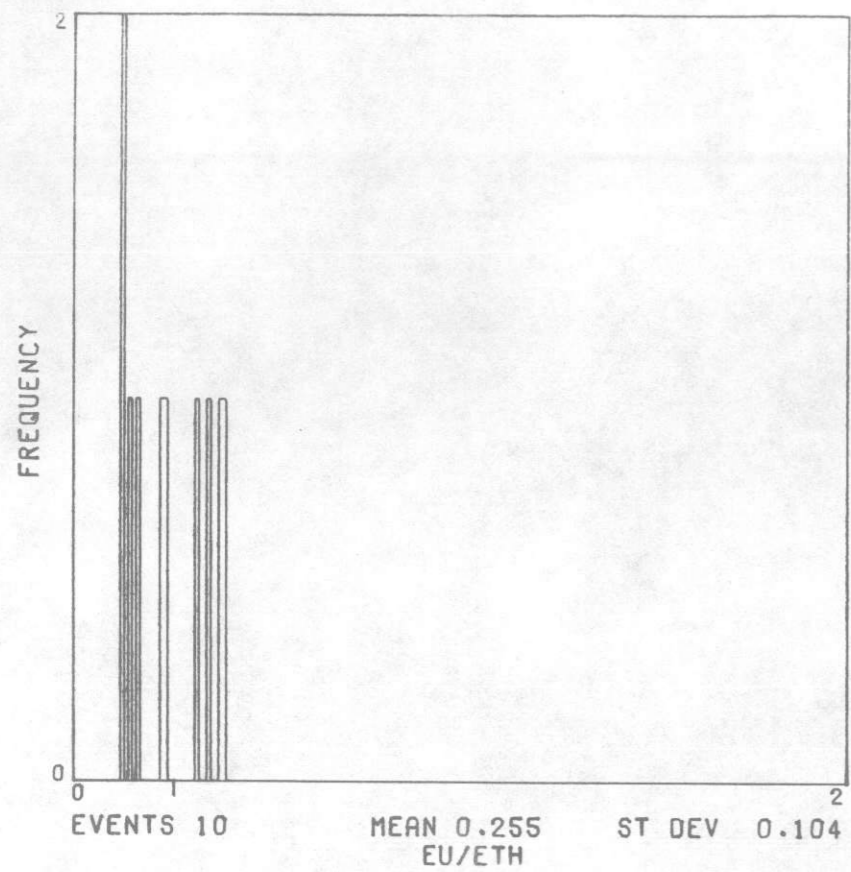
UNIT TCA



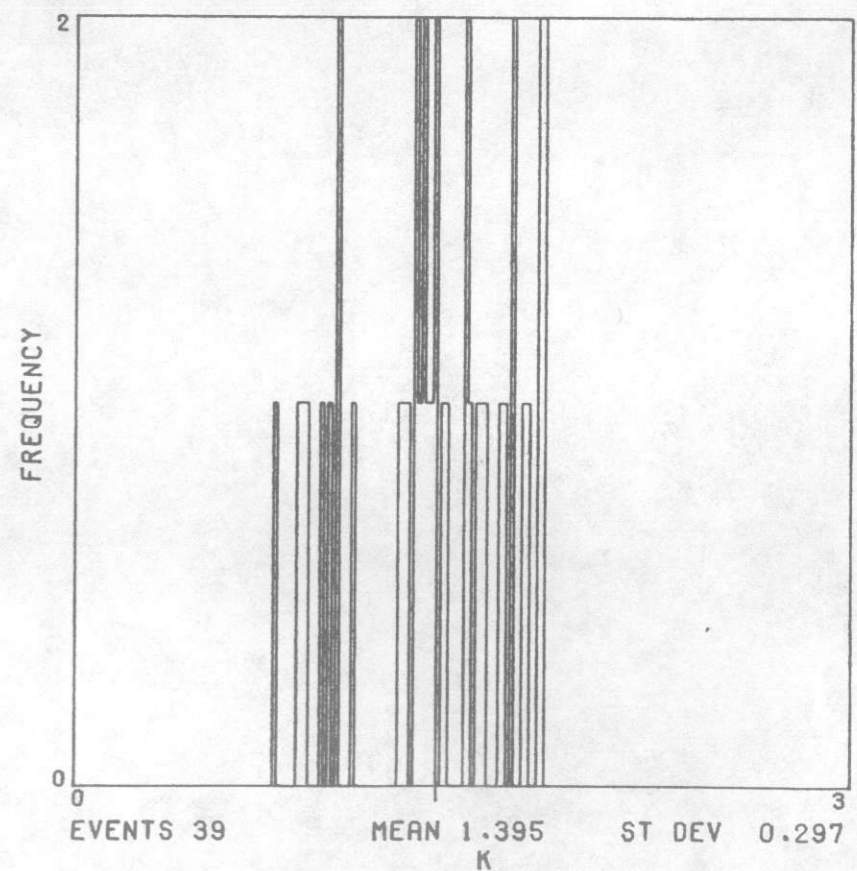
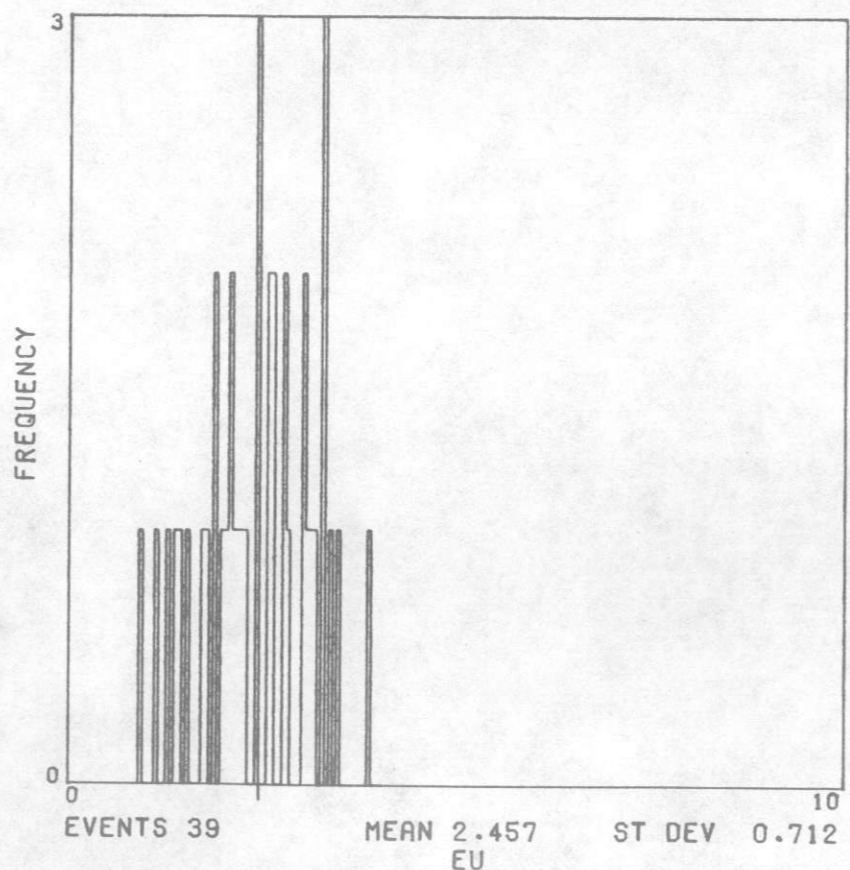
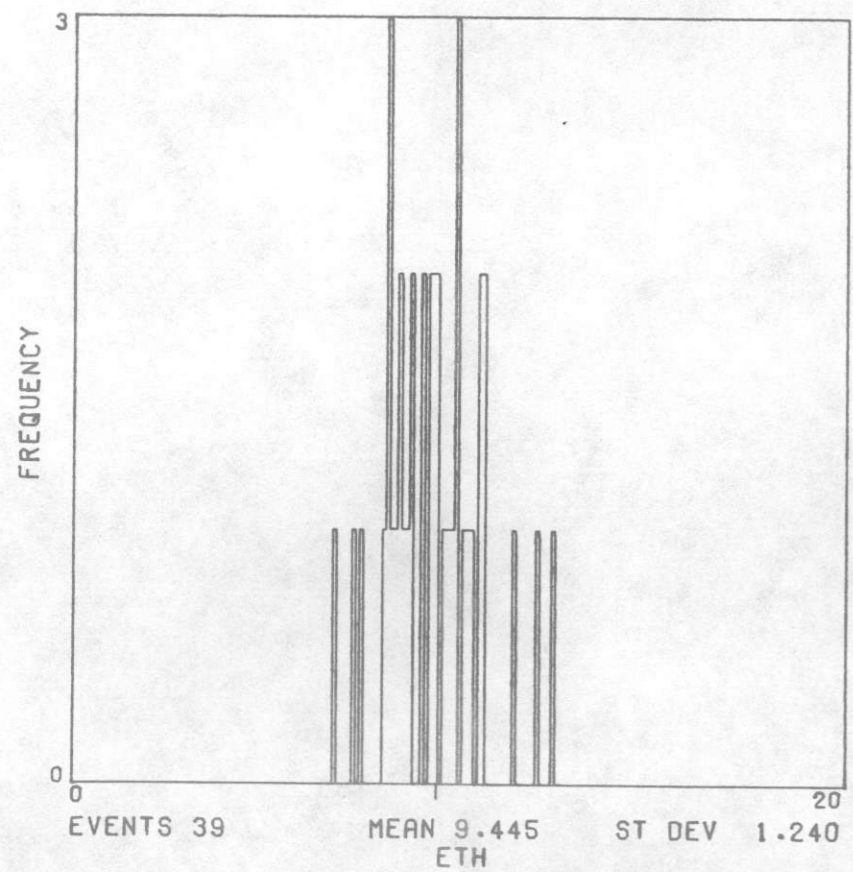
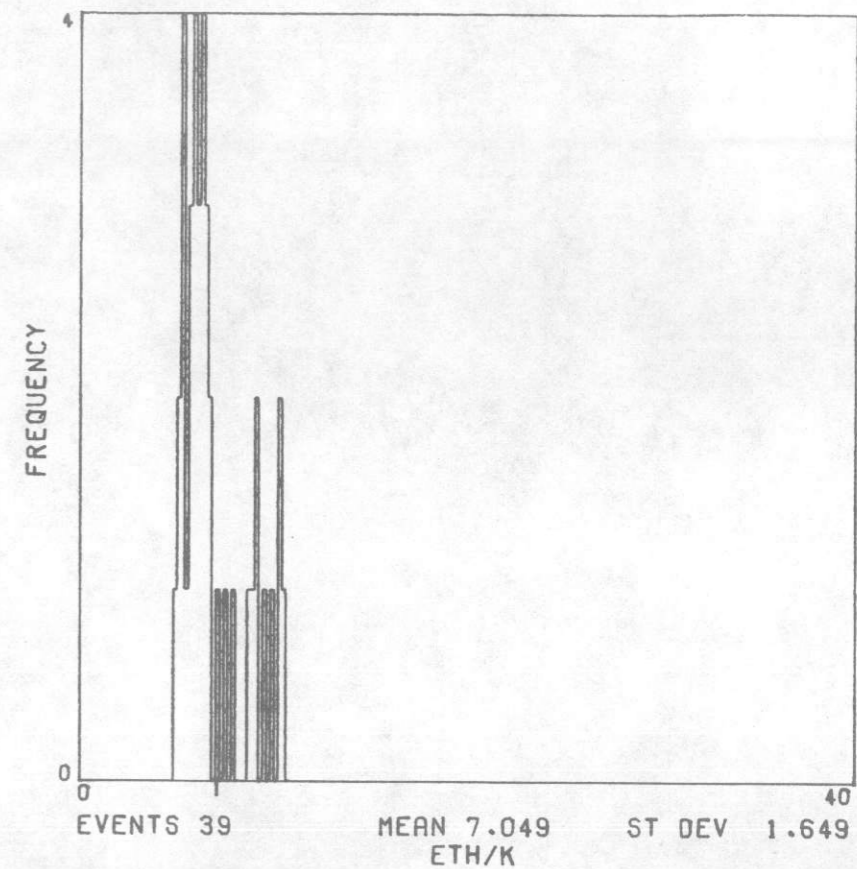
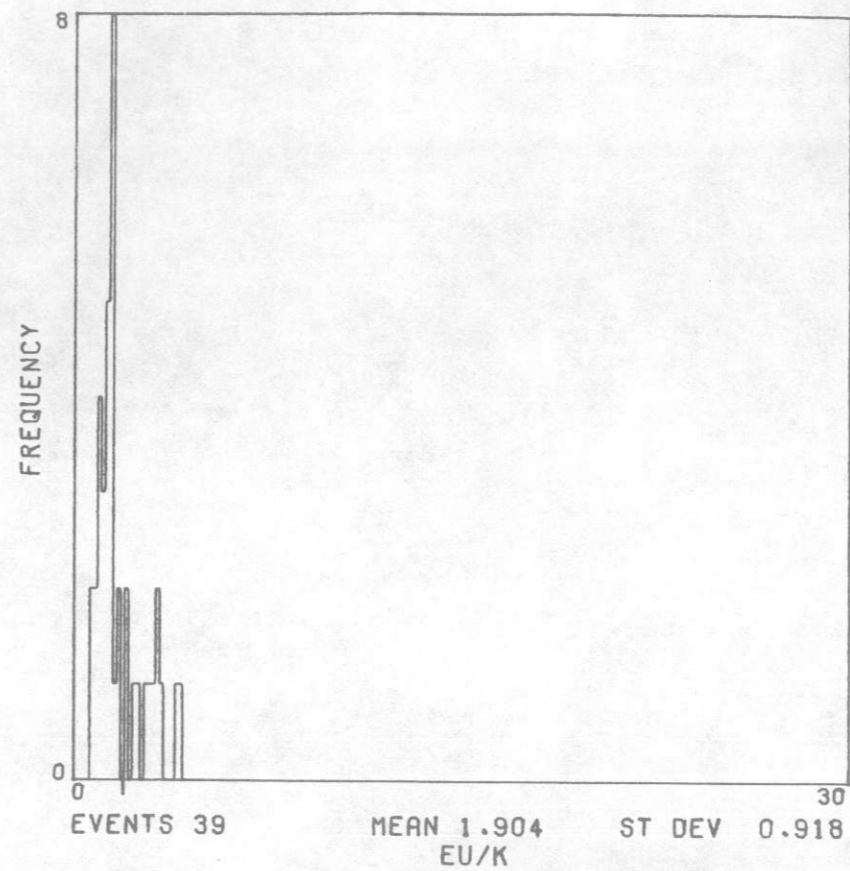
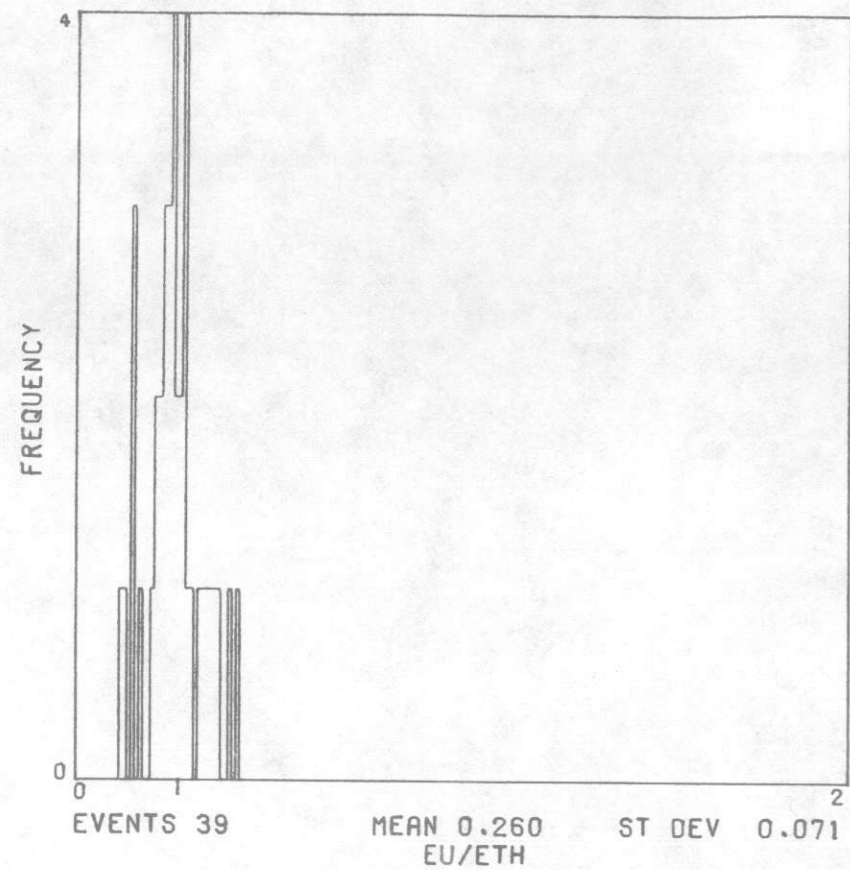
UNIT TFS



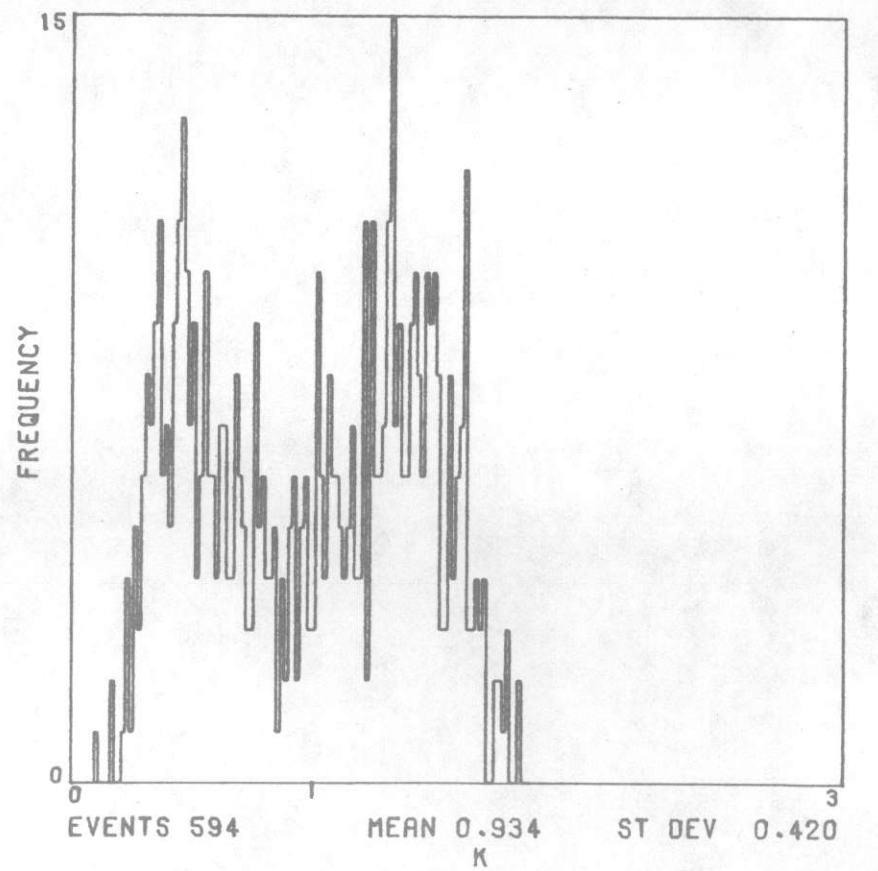
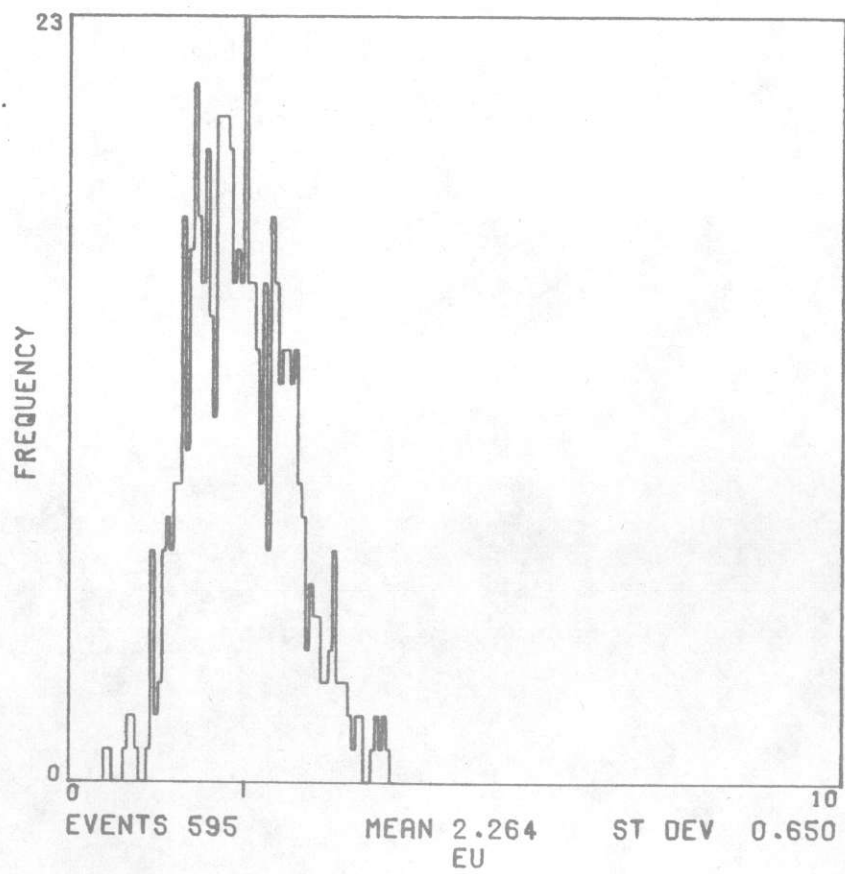
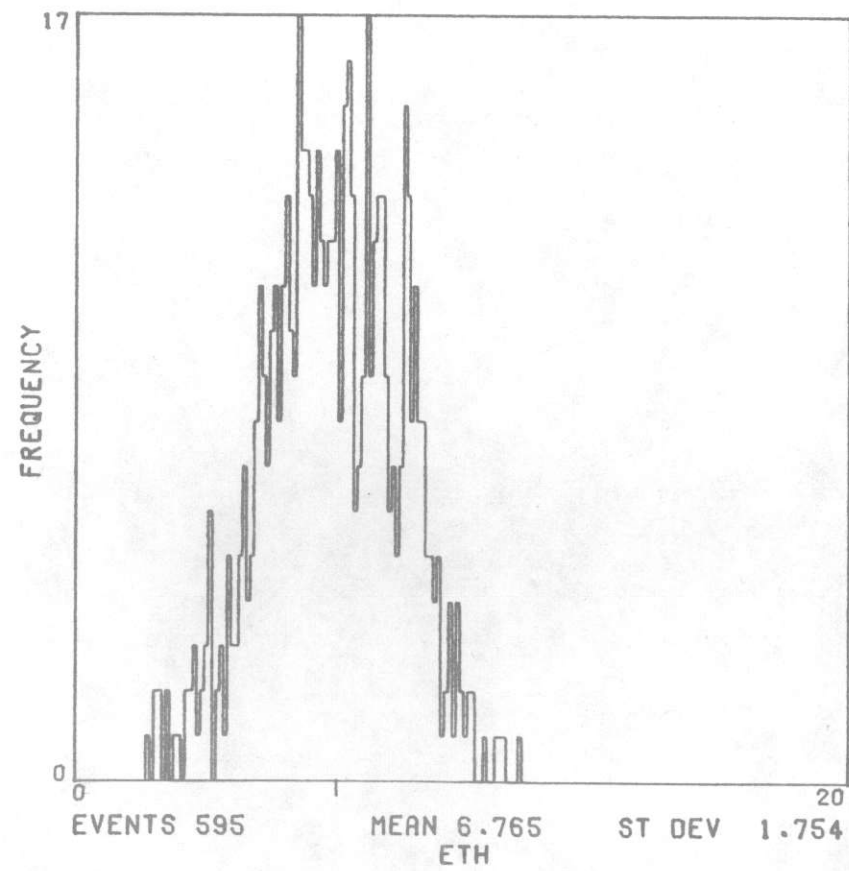
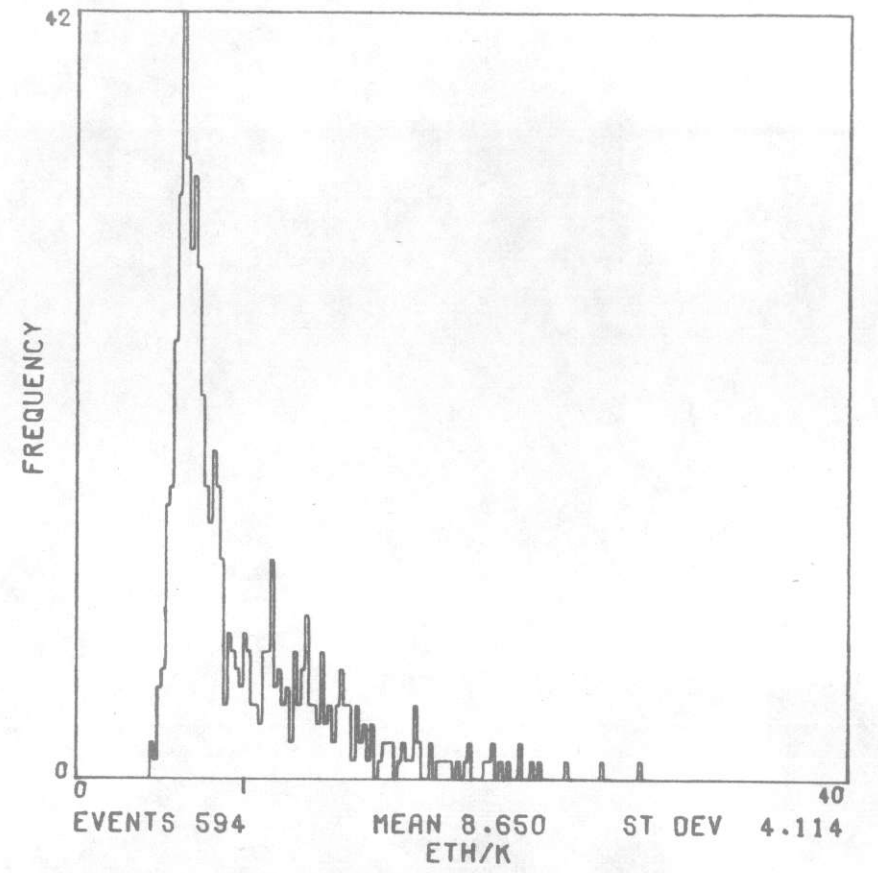
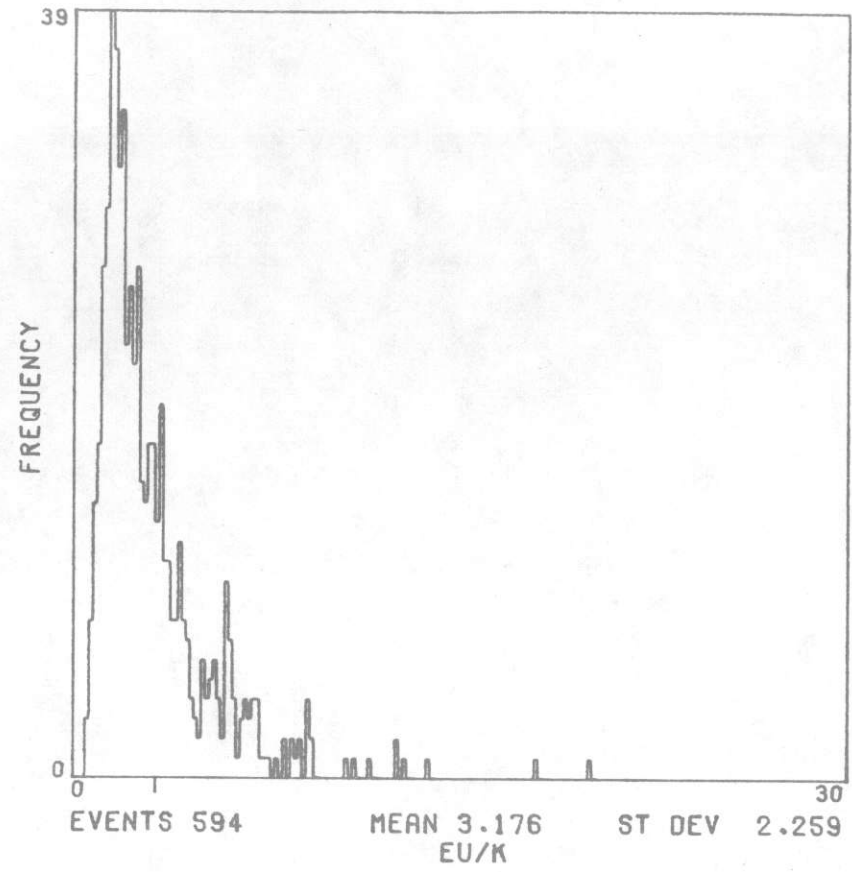
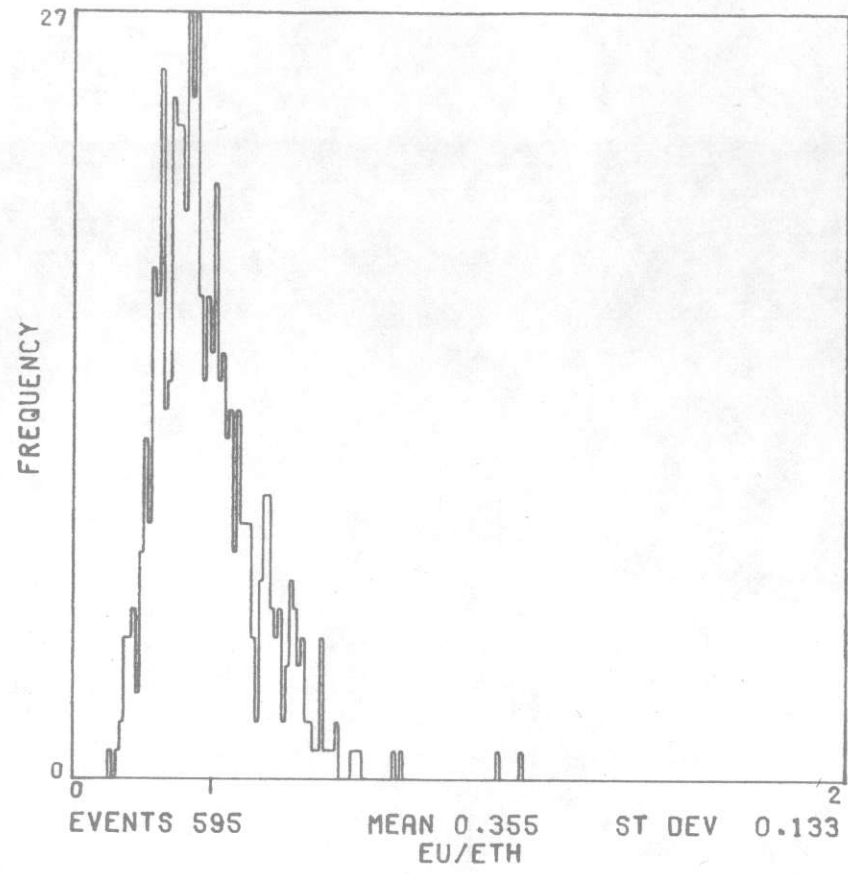


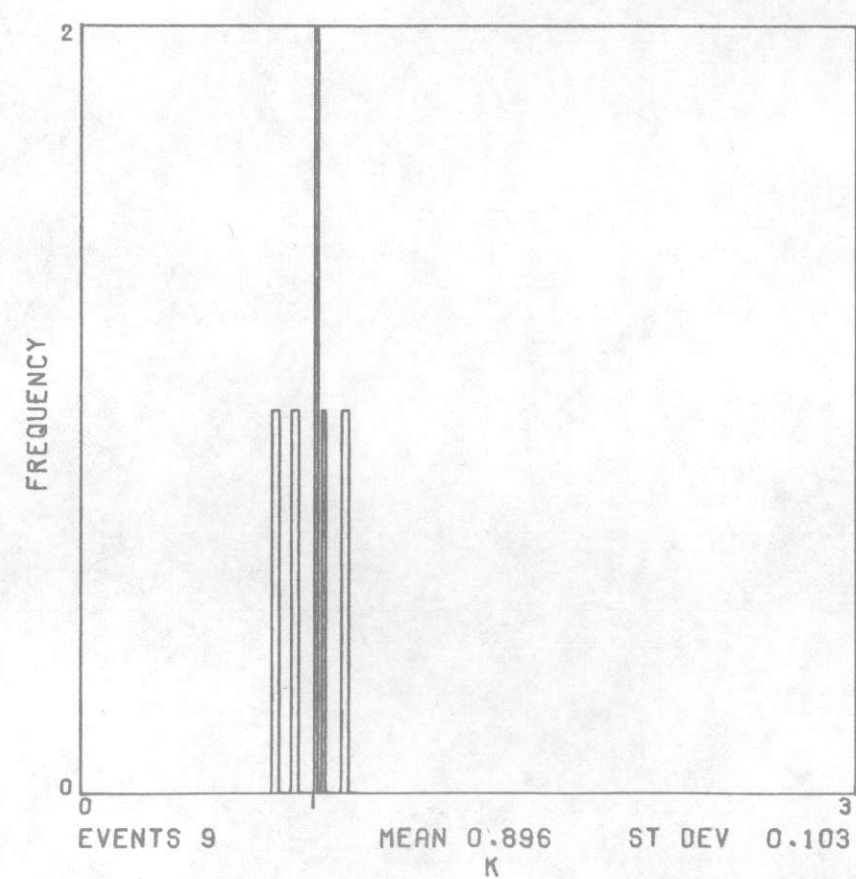
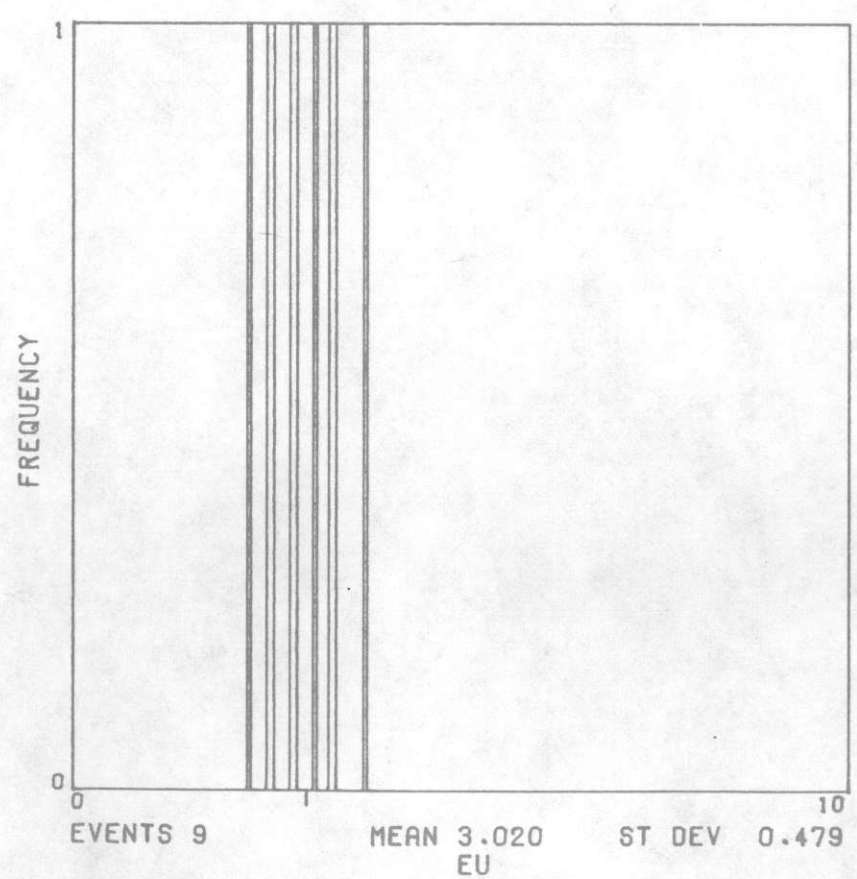
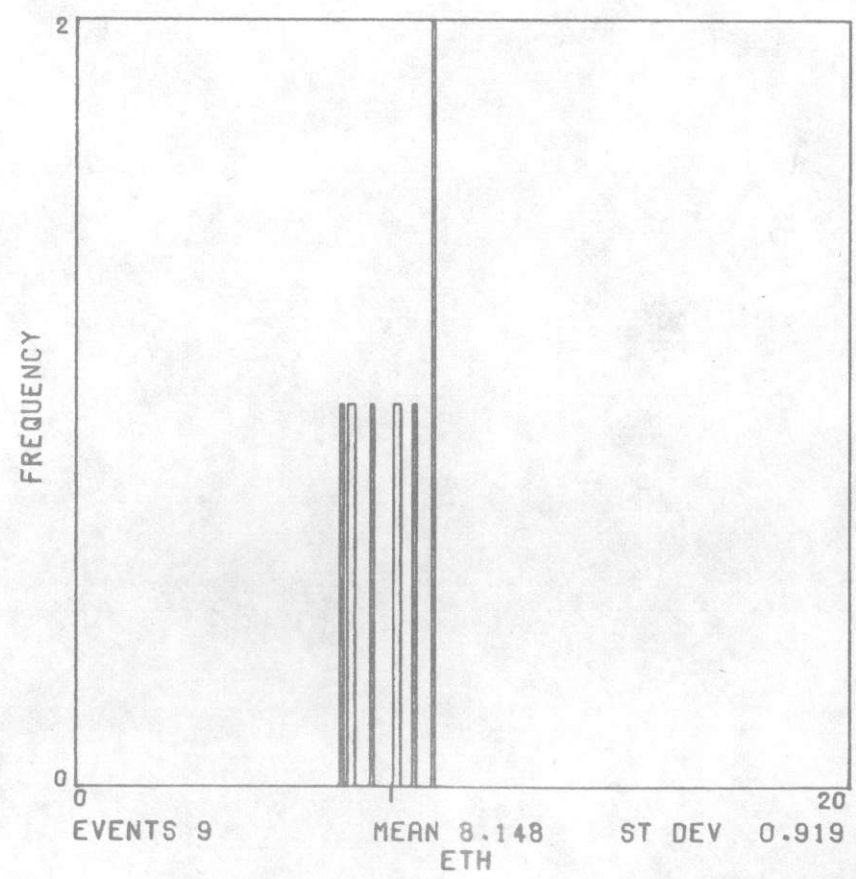
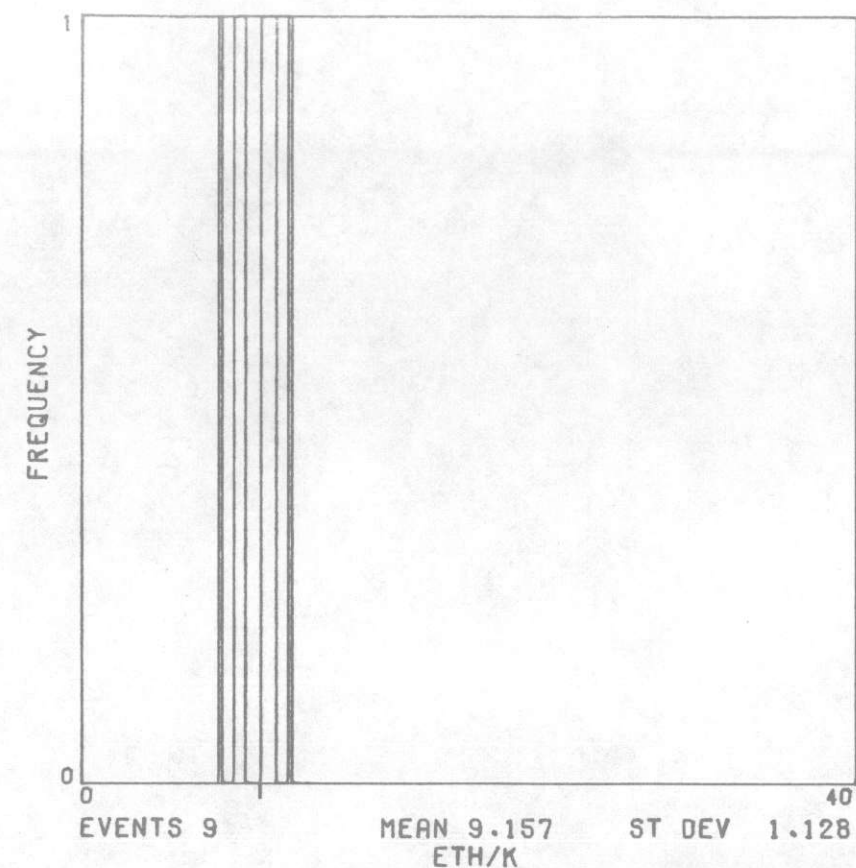
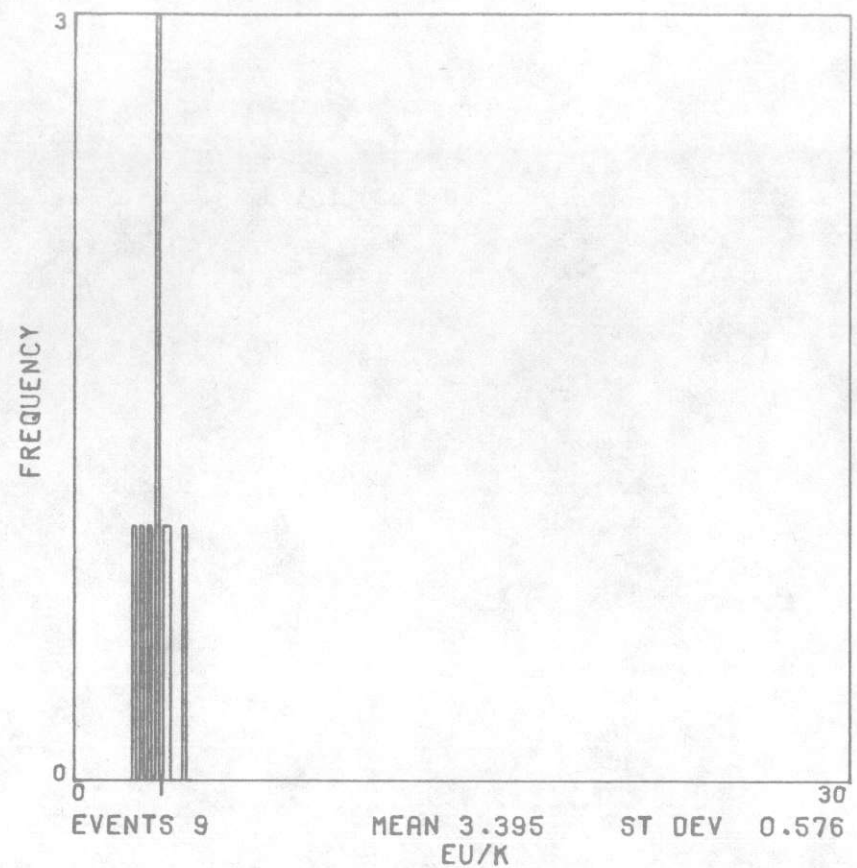
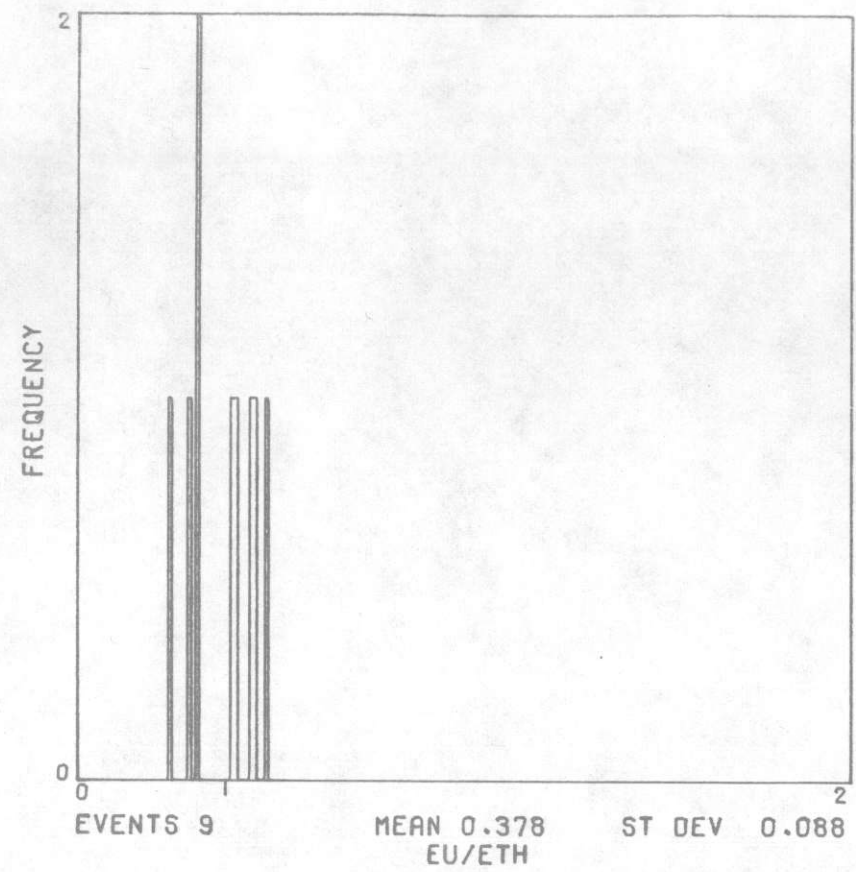


UNIT TJ

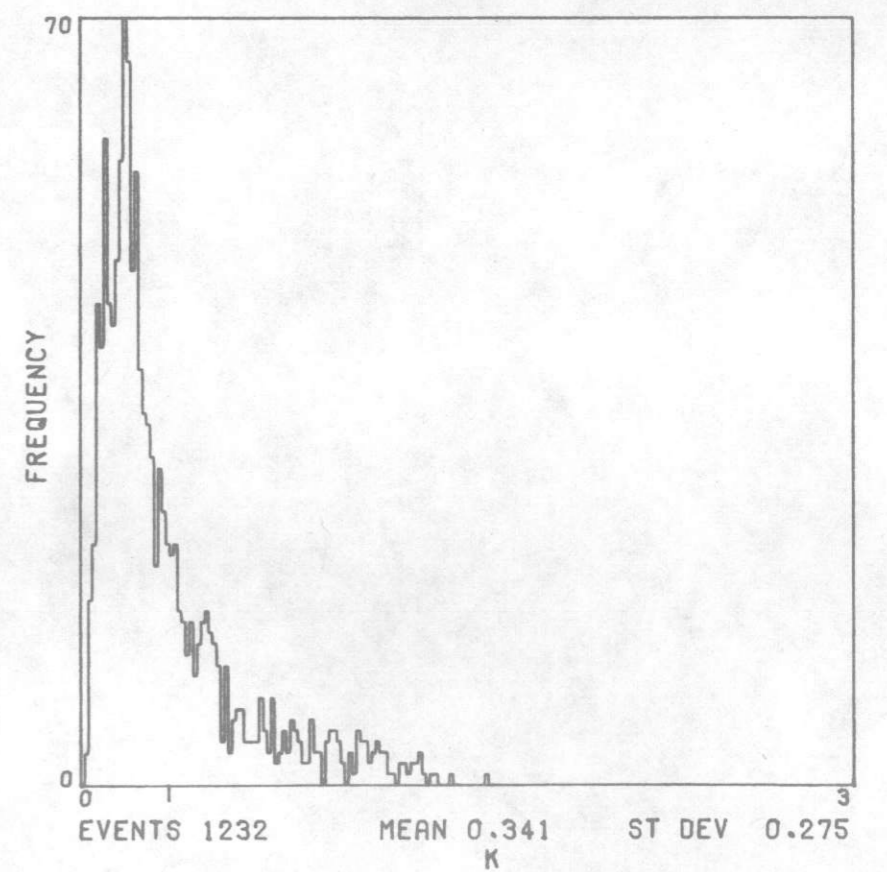
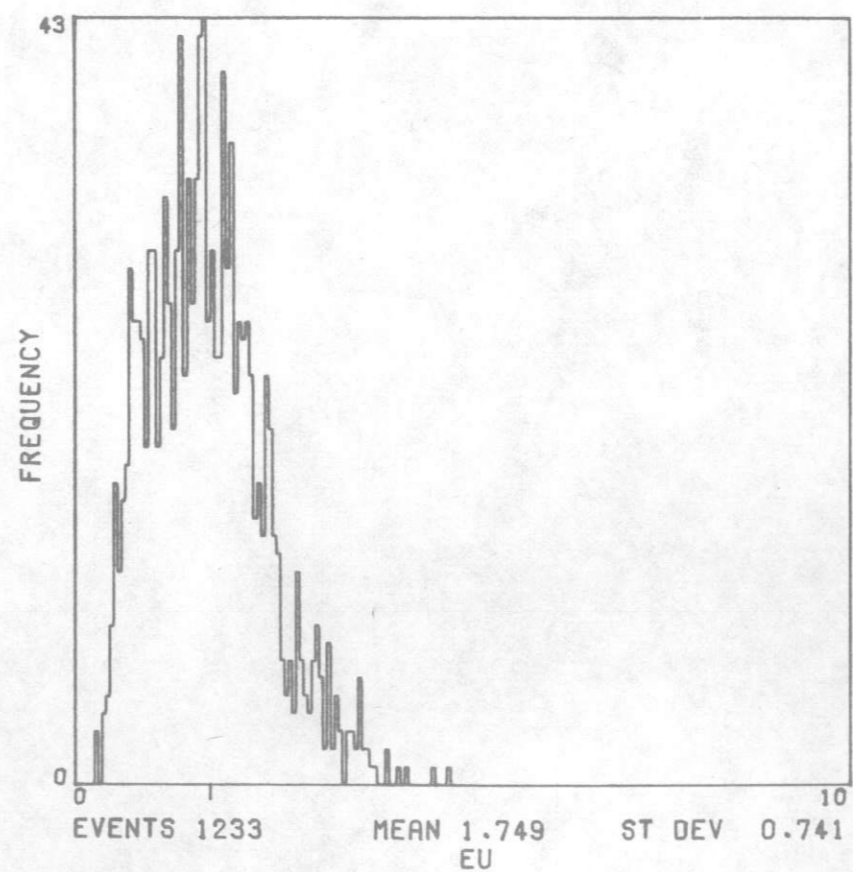
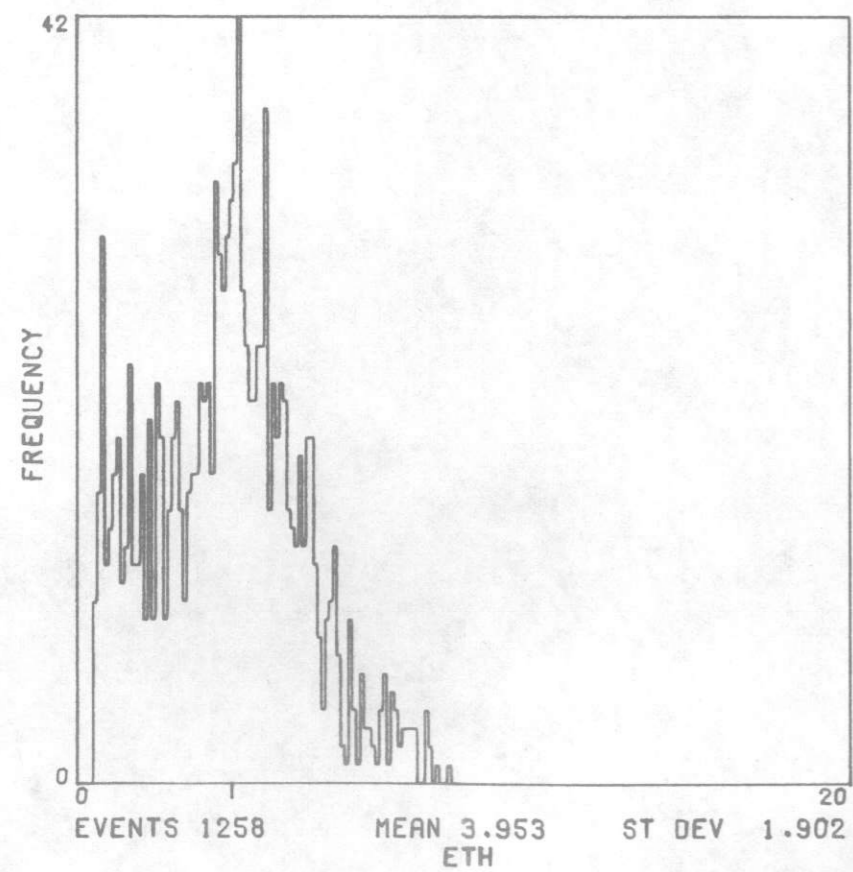
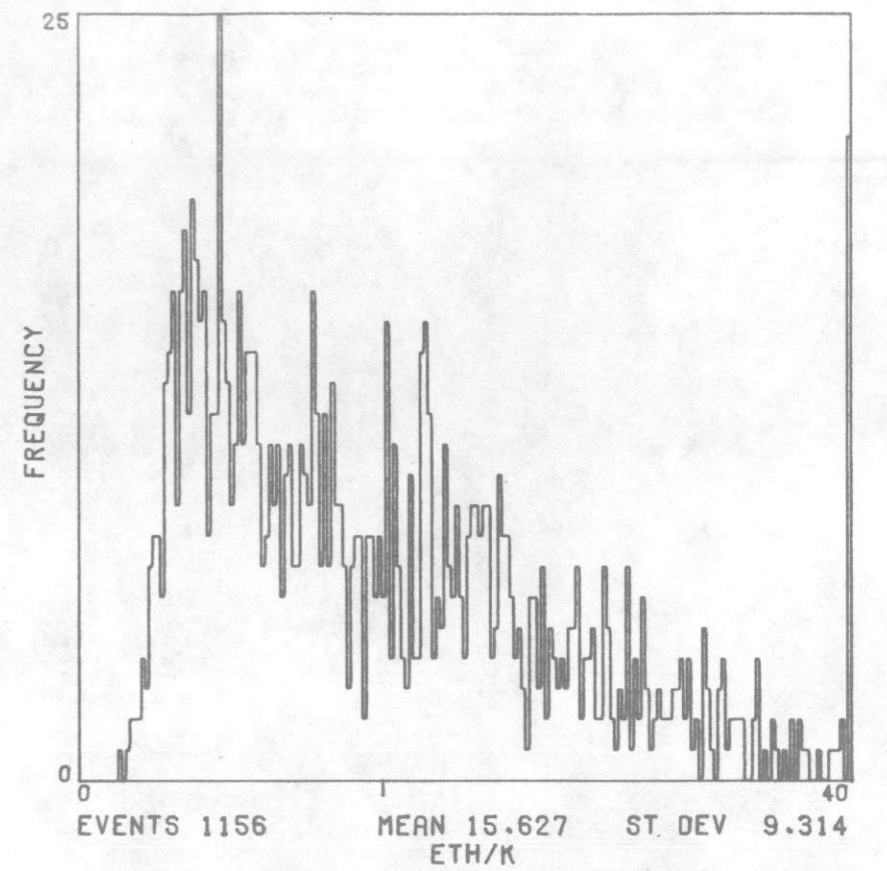
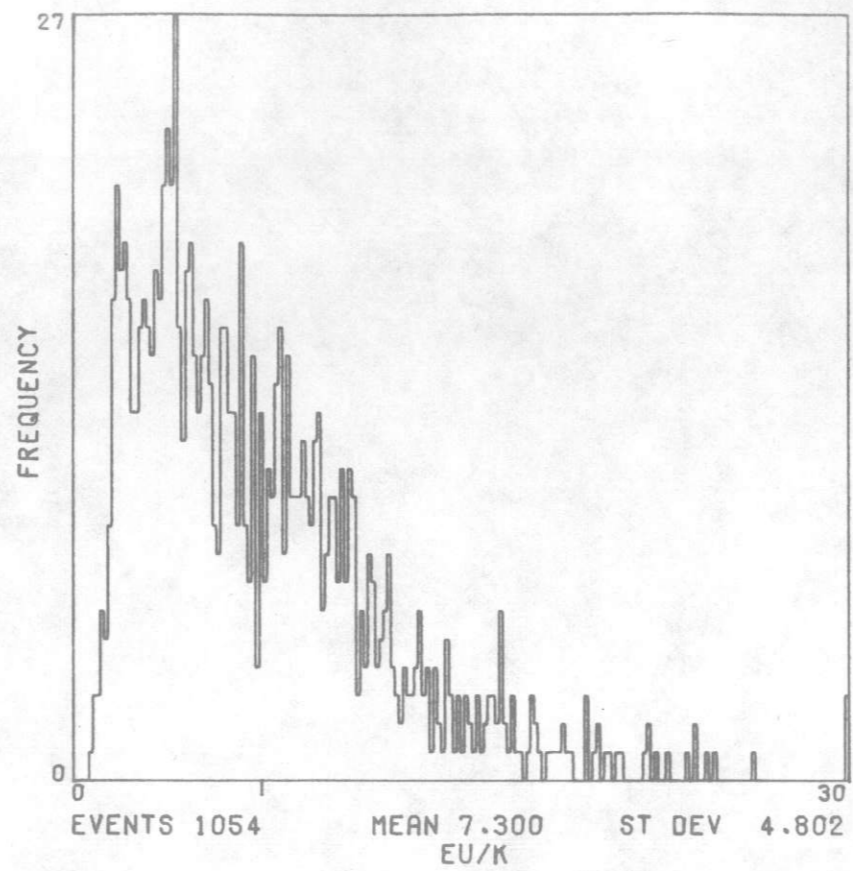
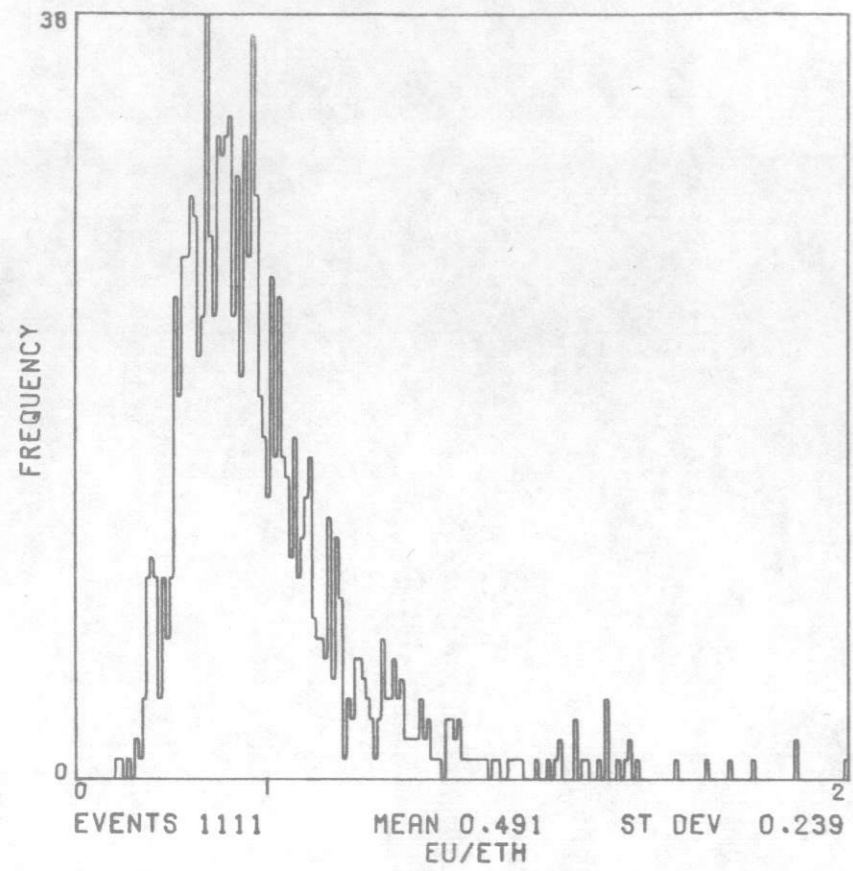


UNIT TS

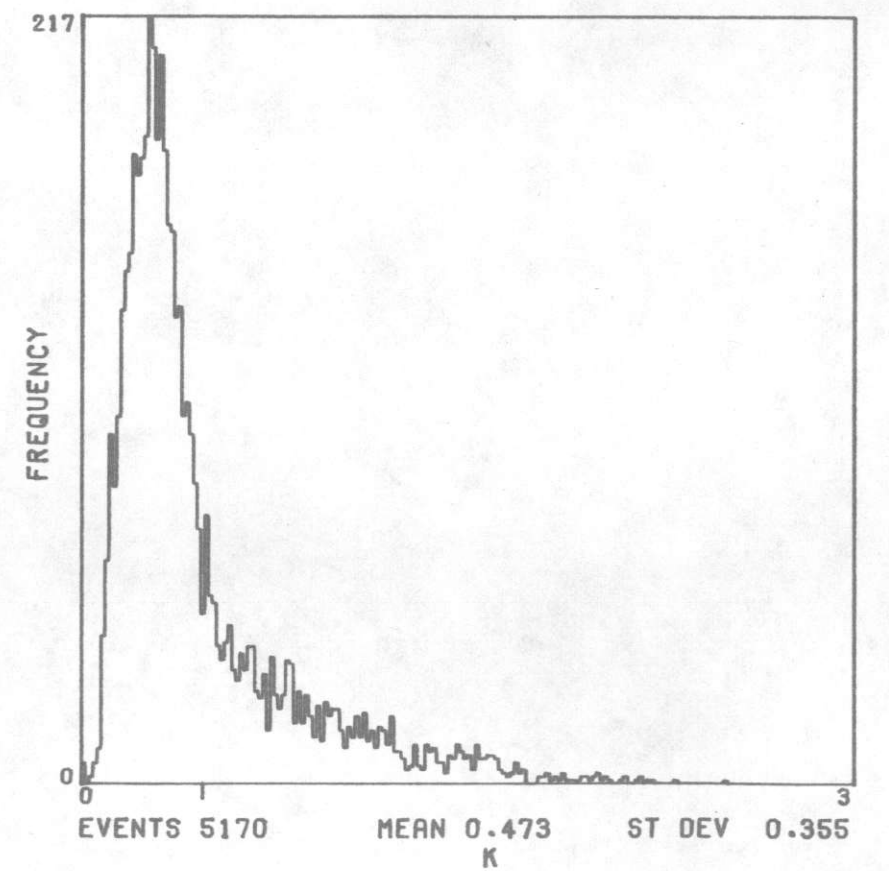
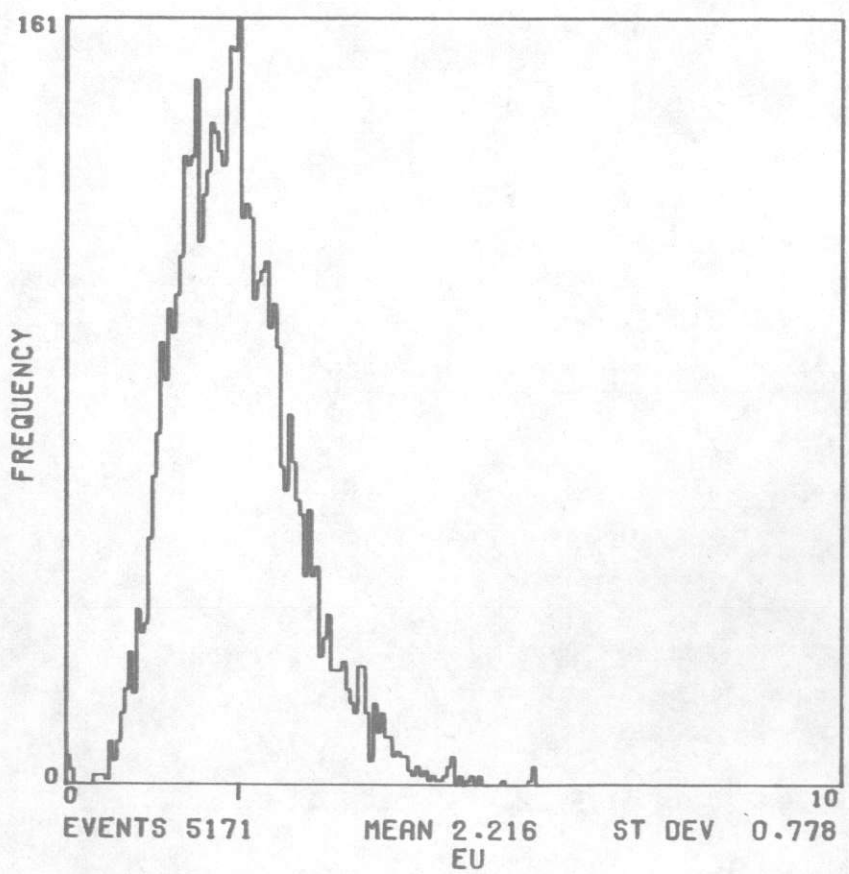
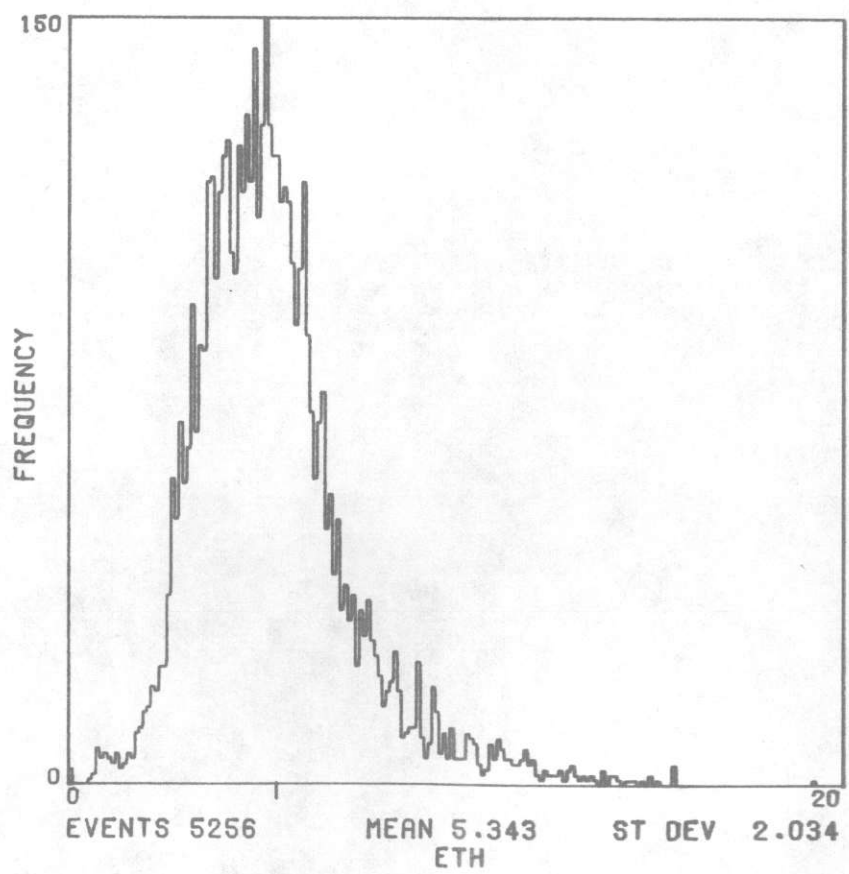
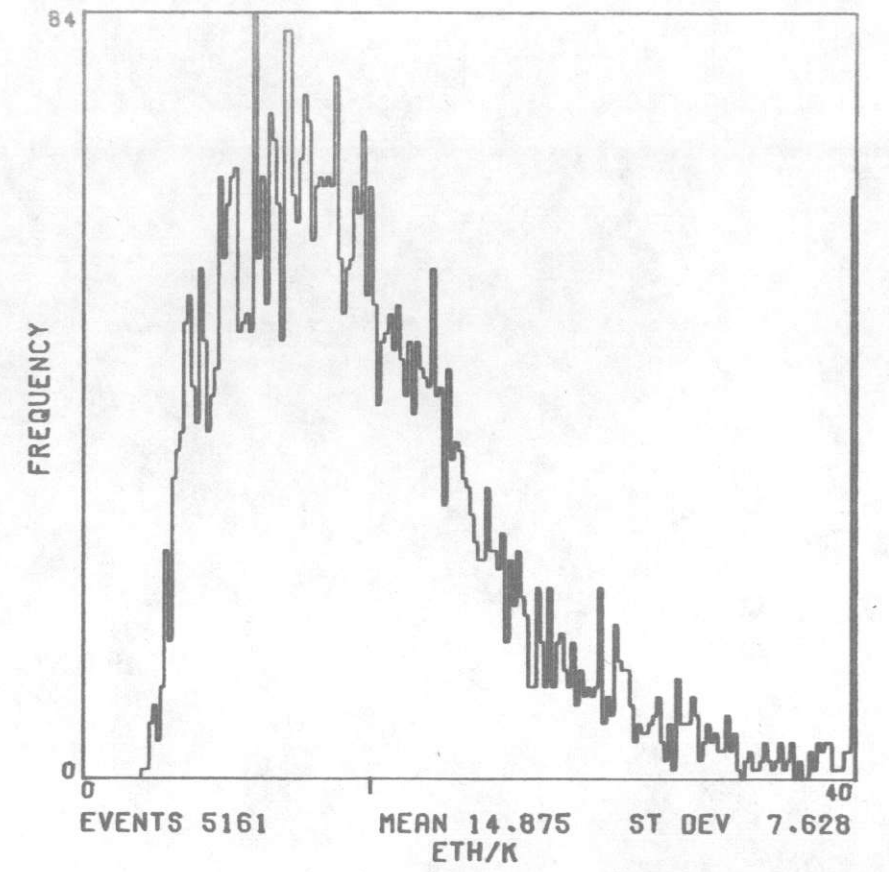
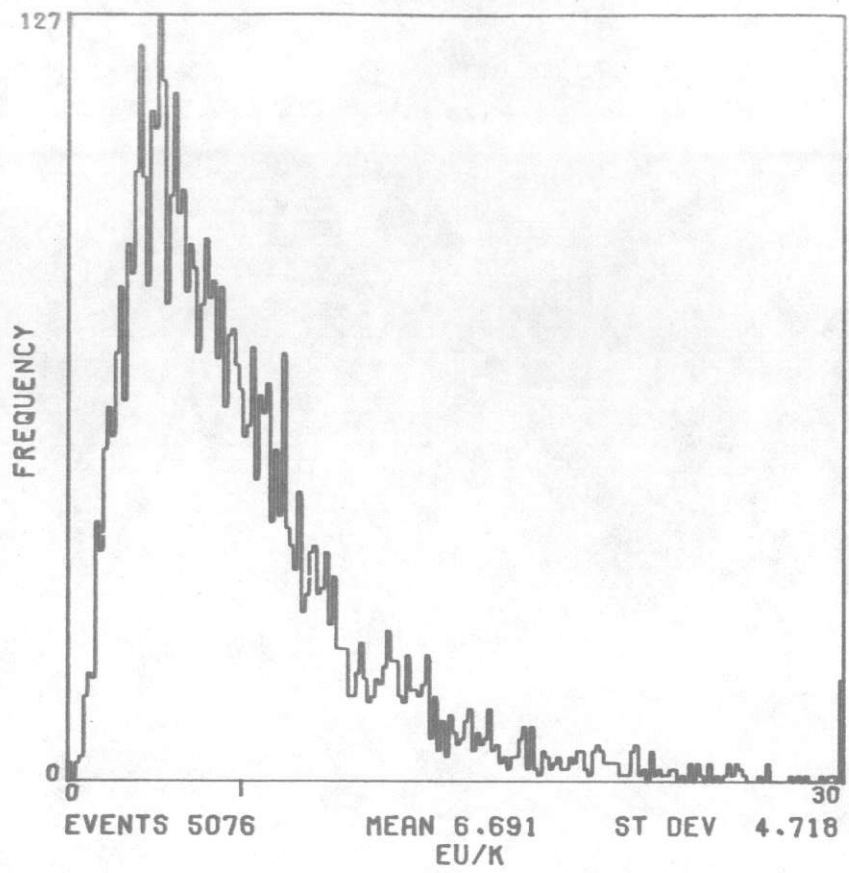
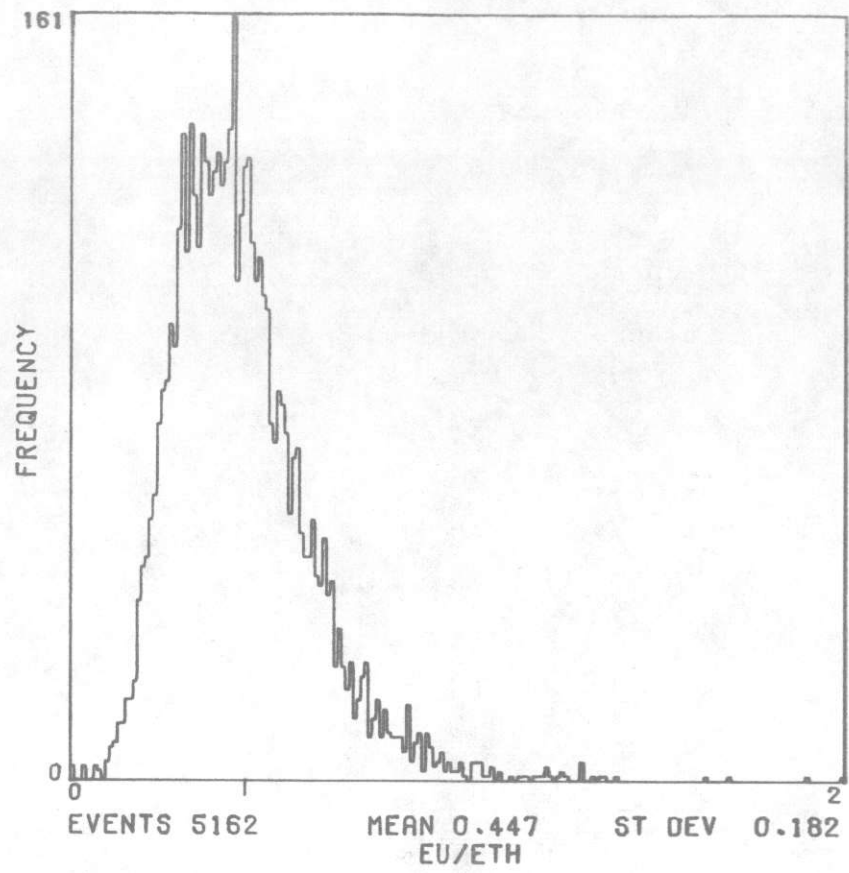




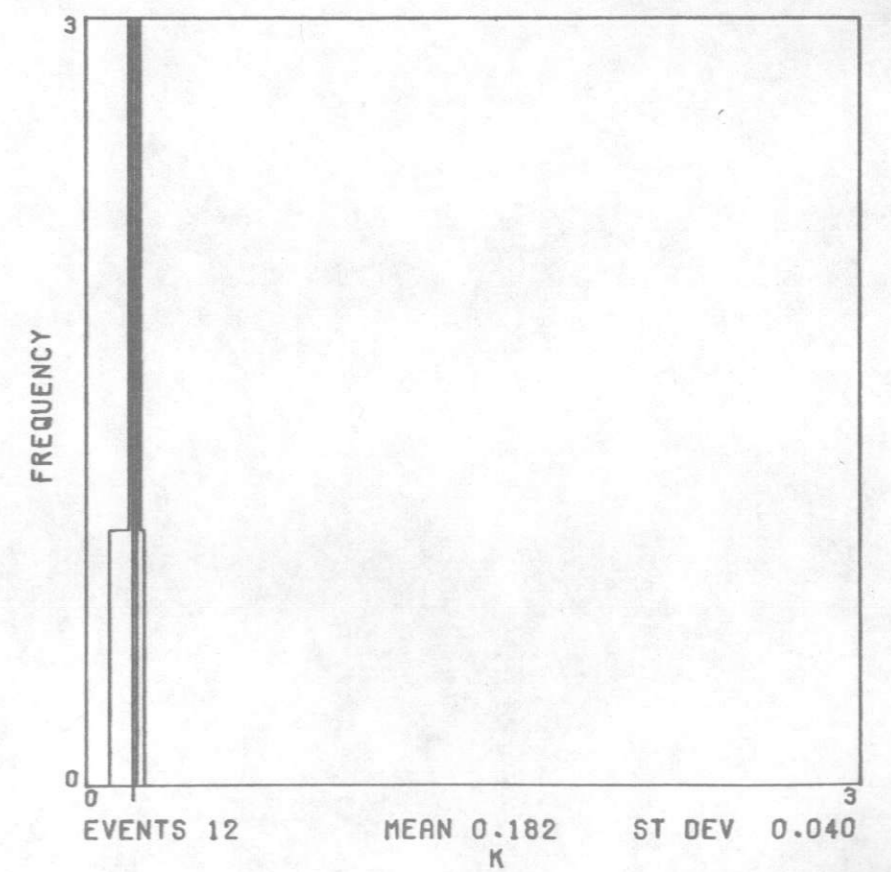
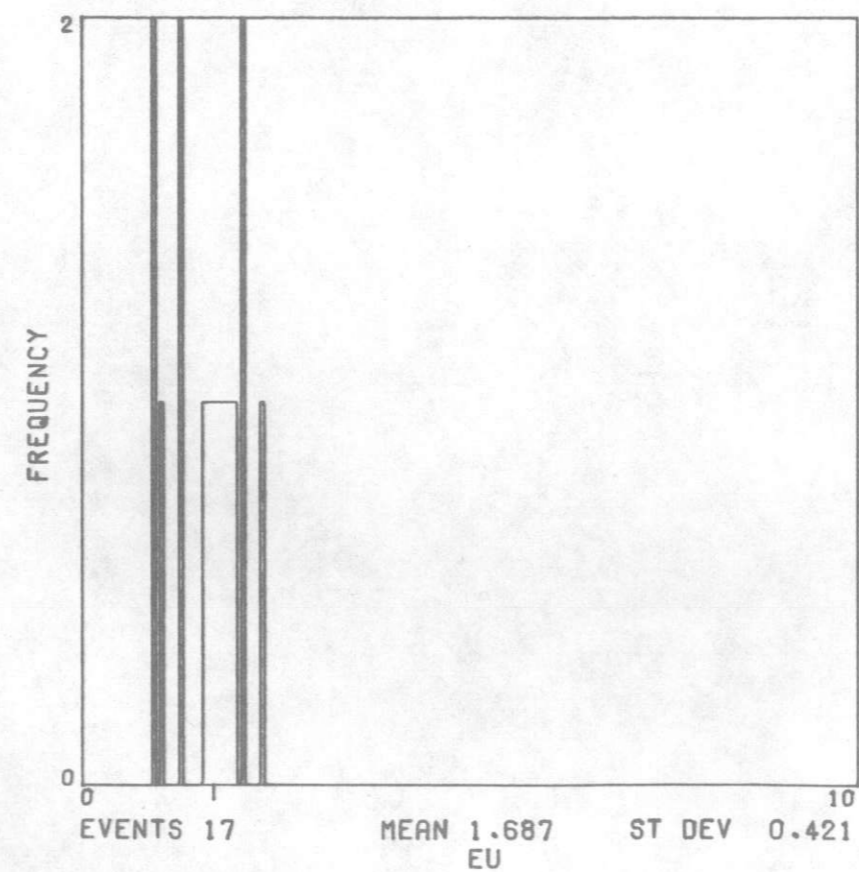
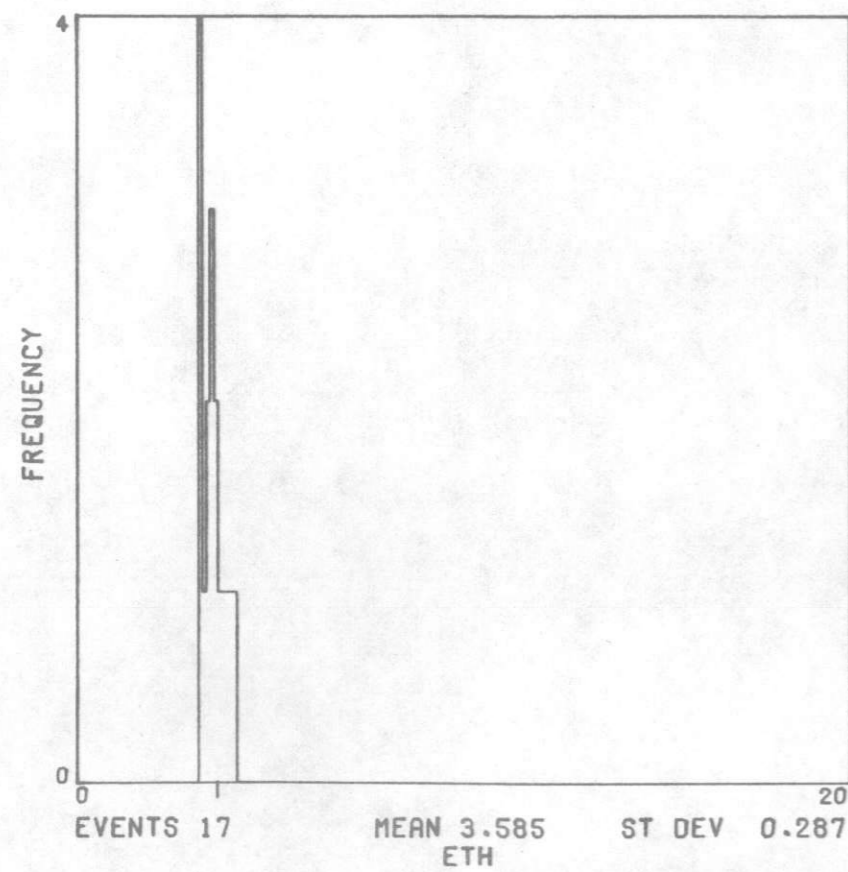
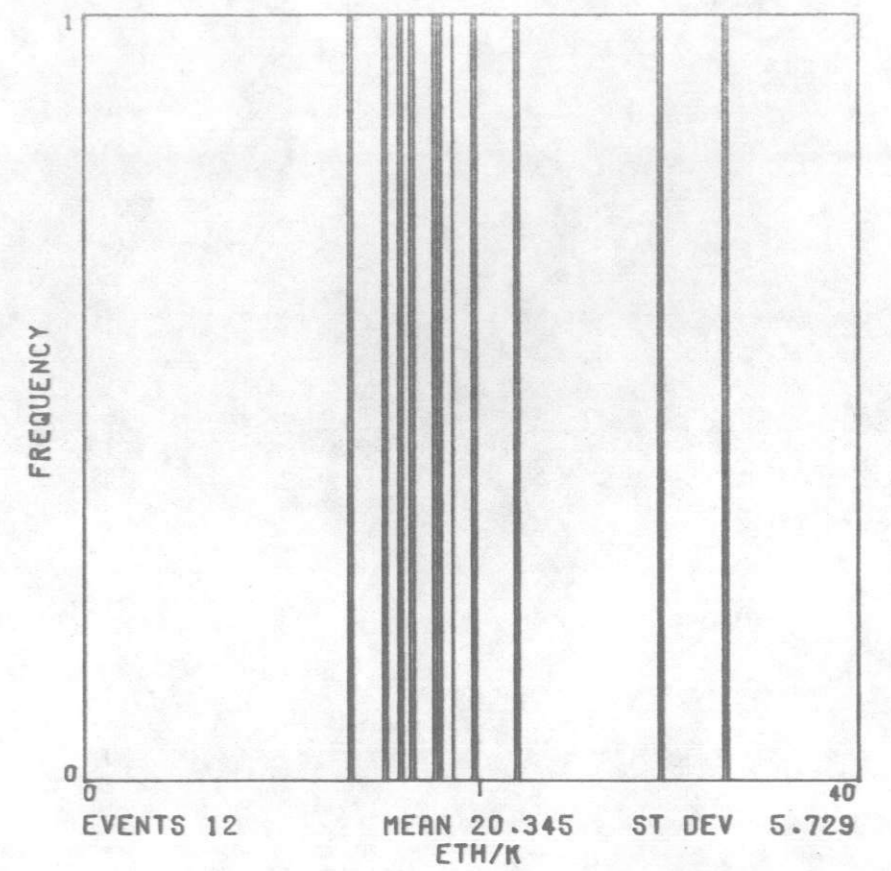
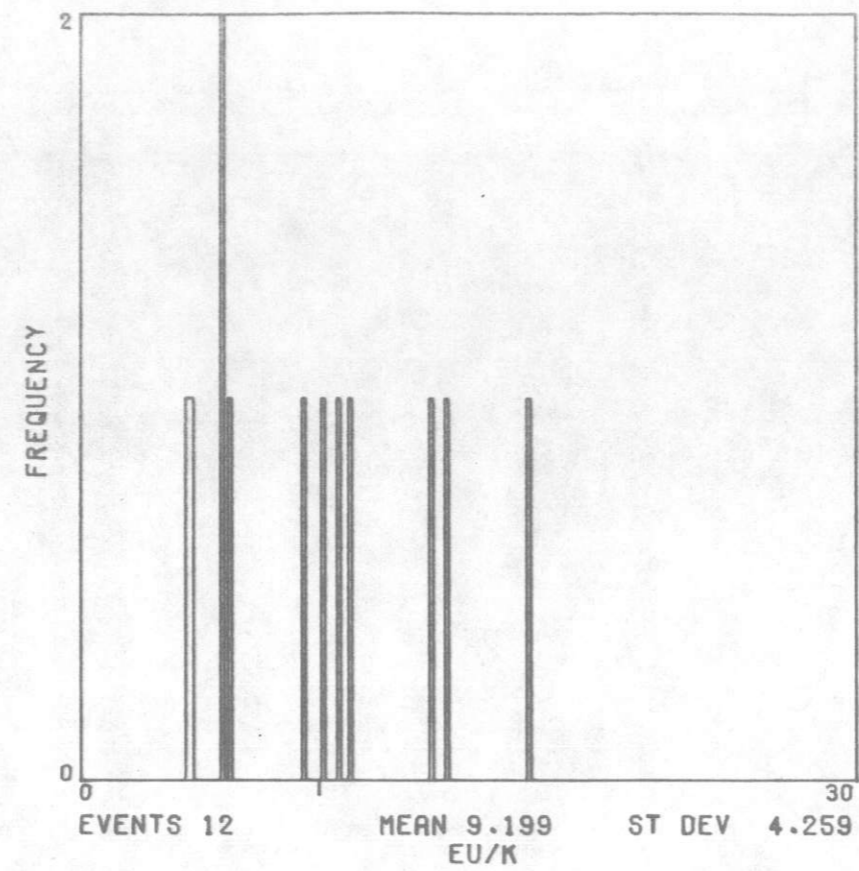
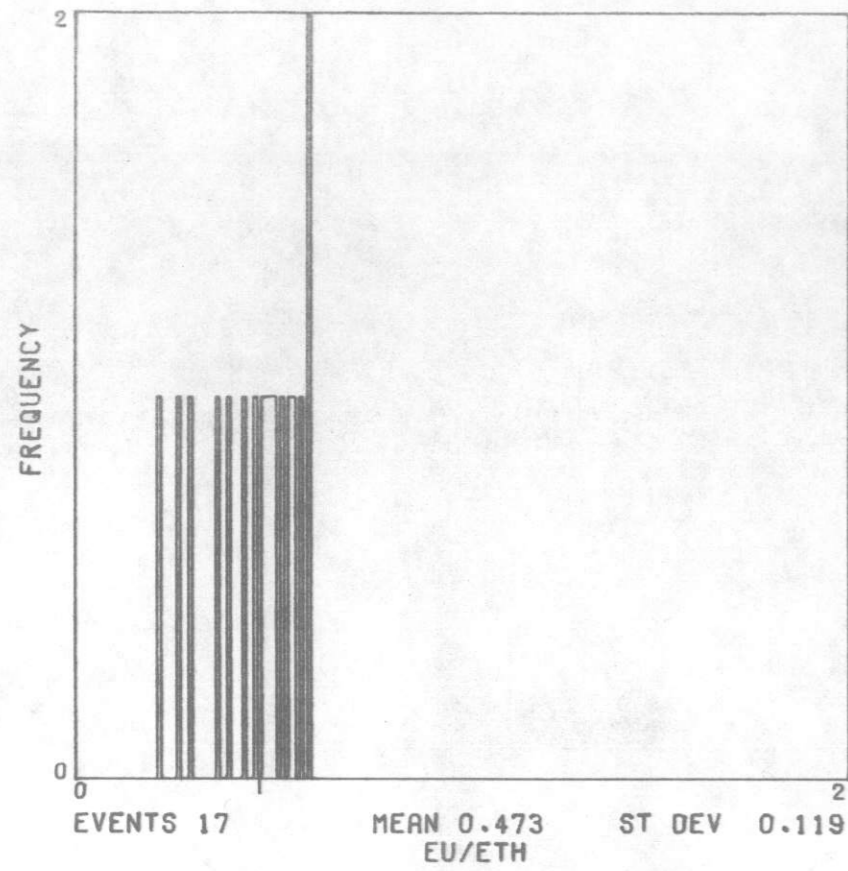
UNIT TSS



UNIT WA

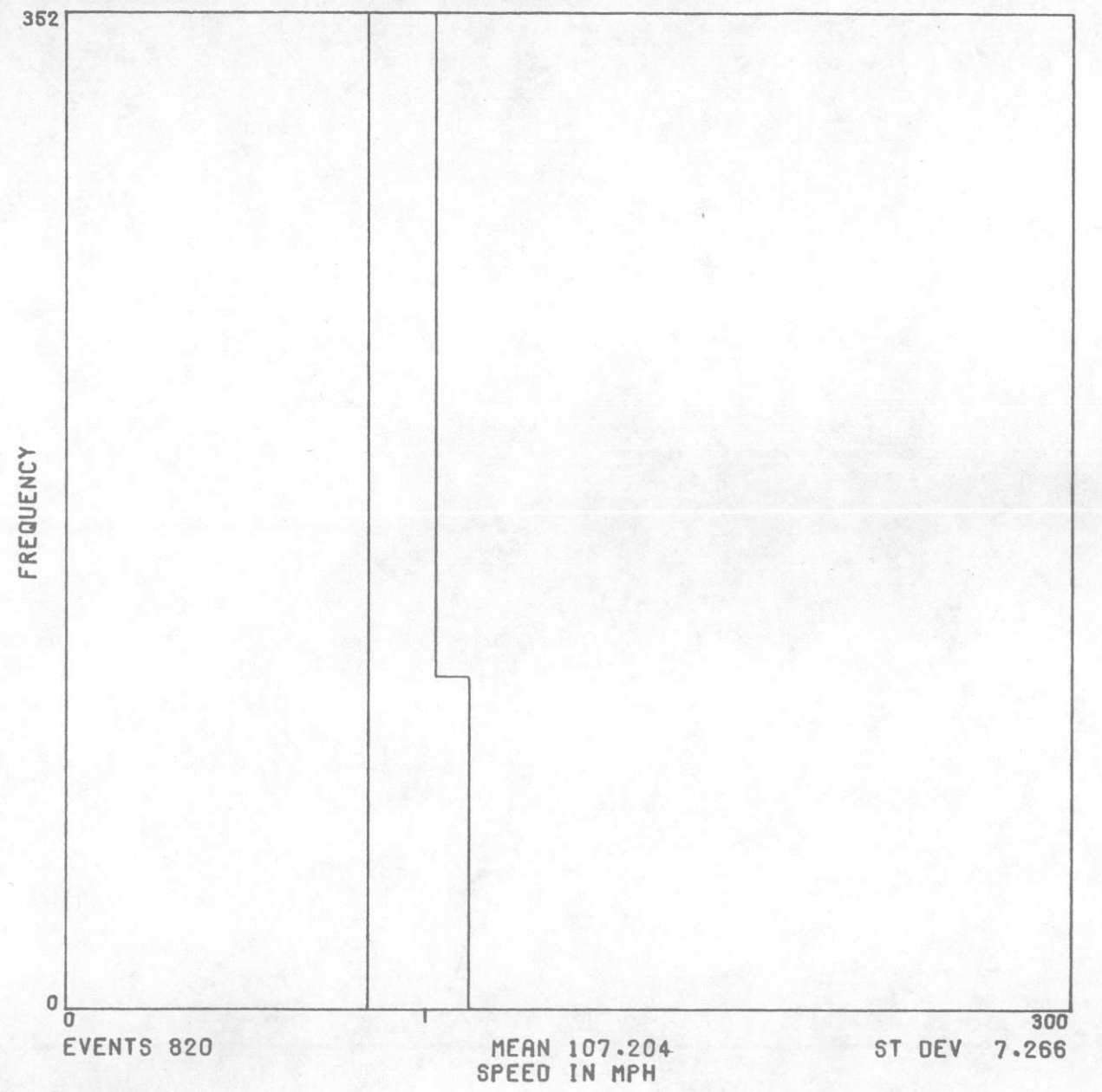
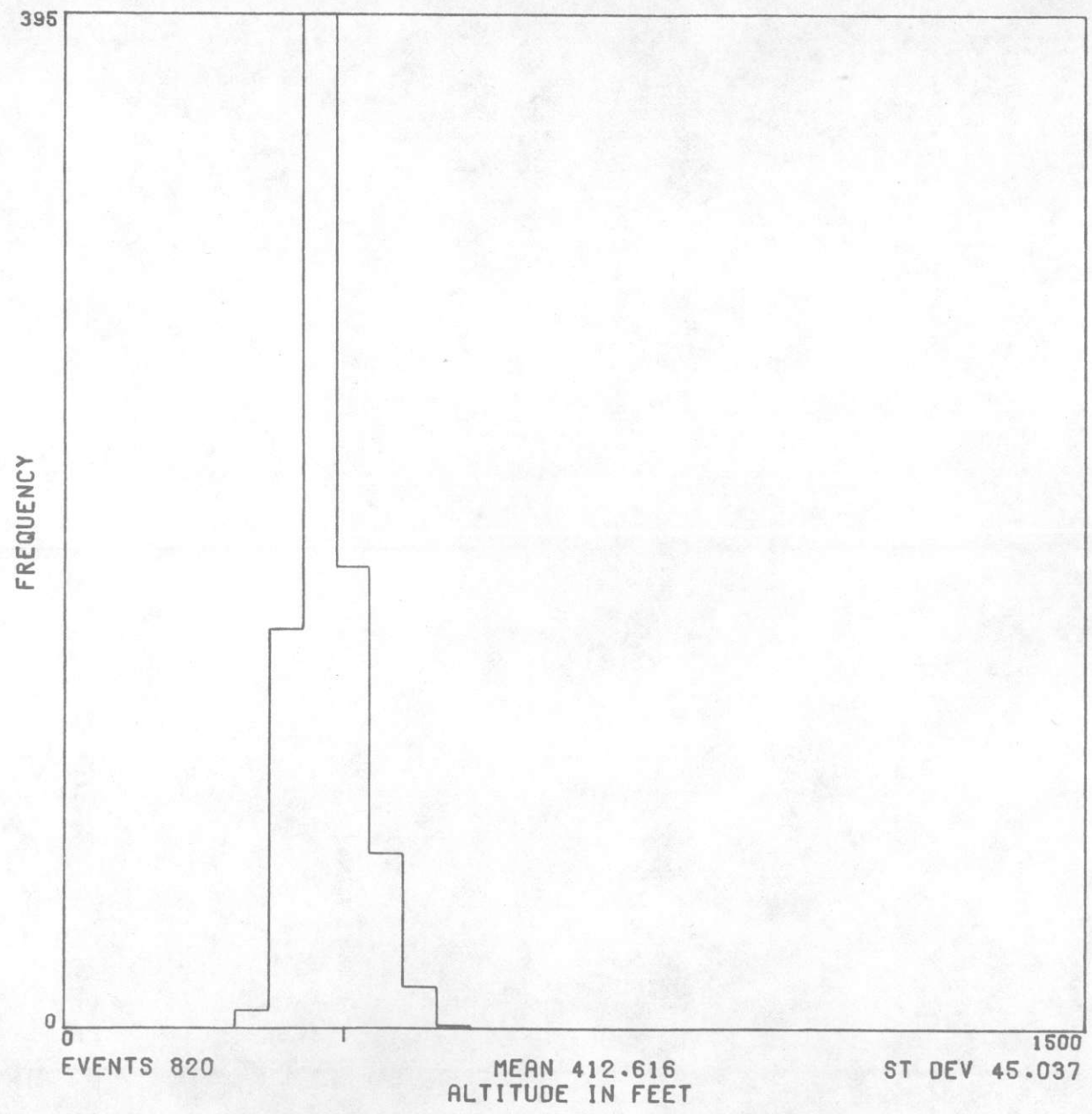


UNIT ZZZZZ

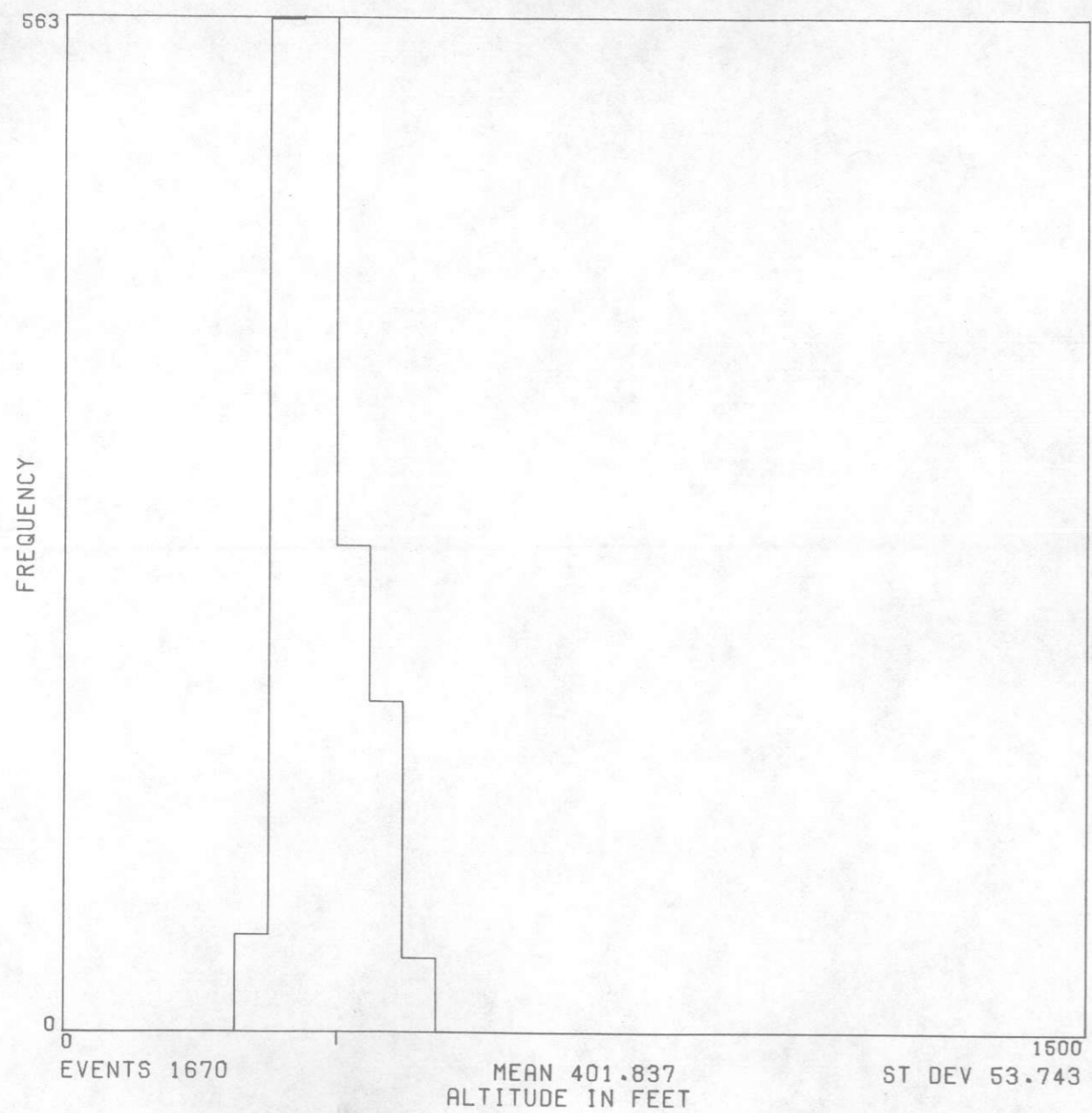


UNIT OCC

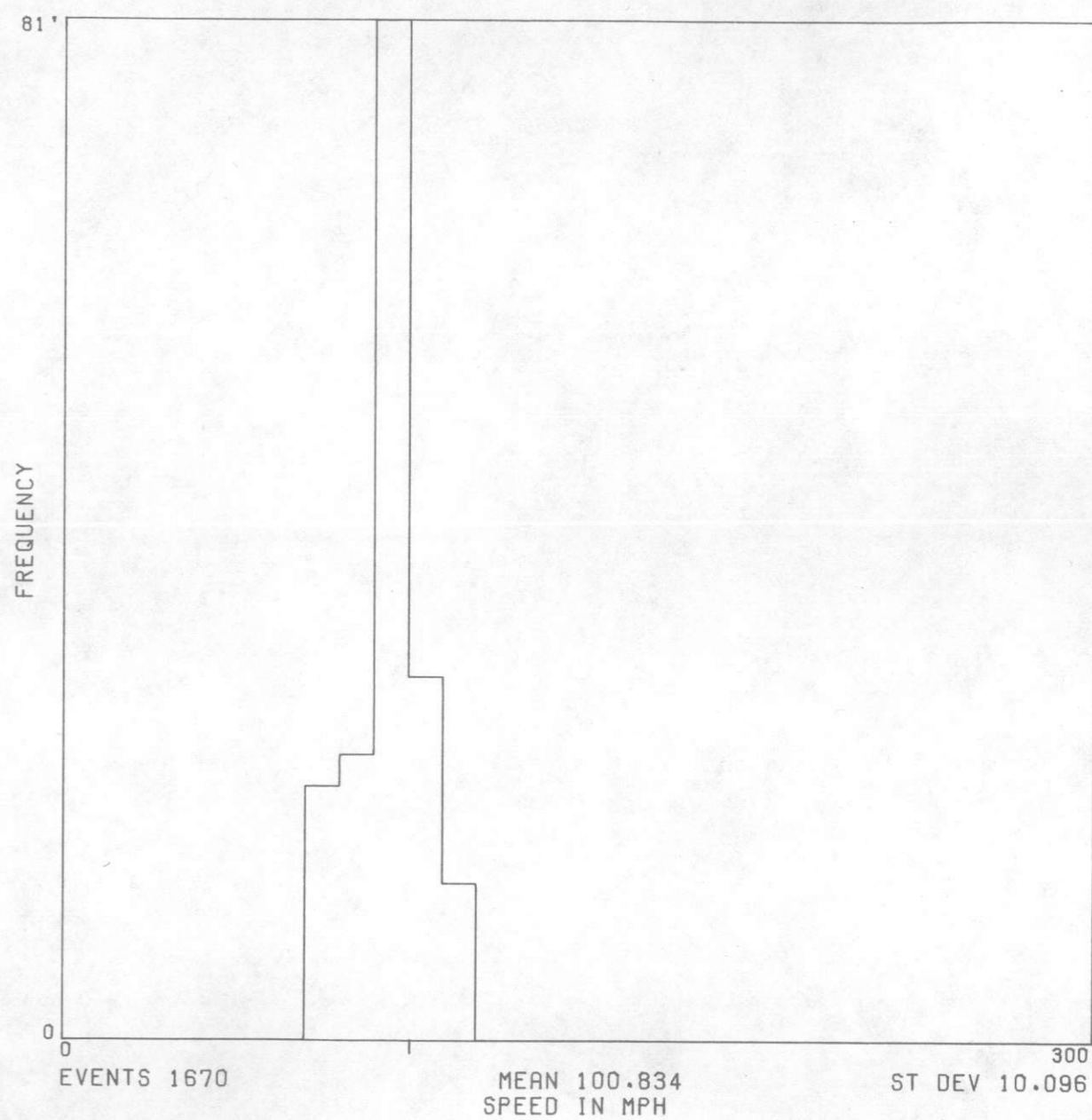
APPENDIX I - SPEED AND ALTITUDE
HISTOGRAMS

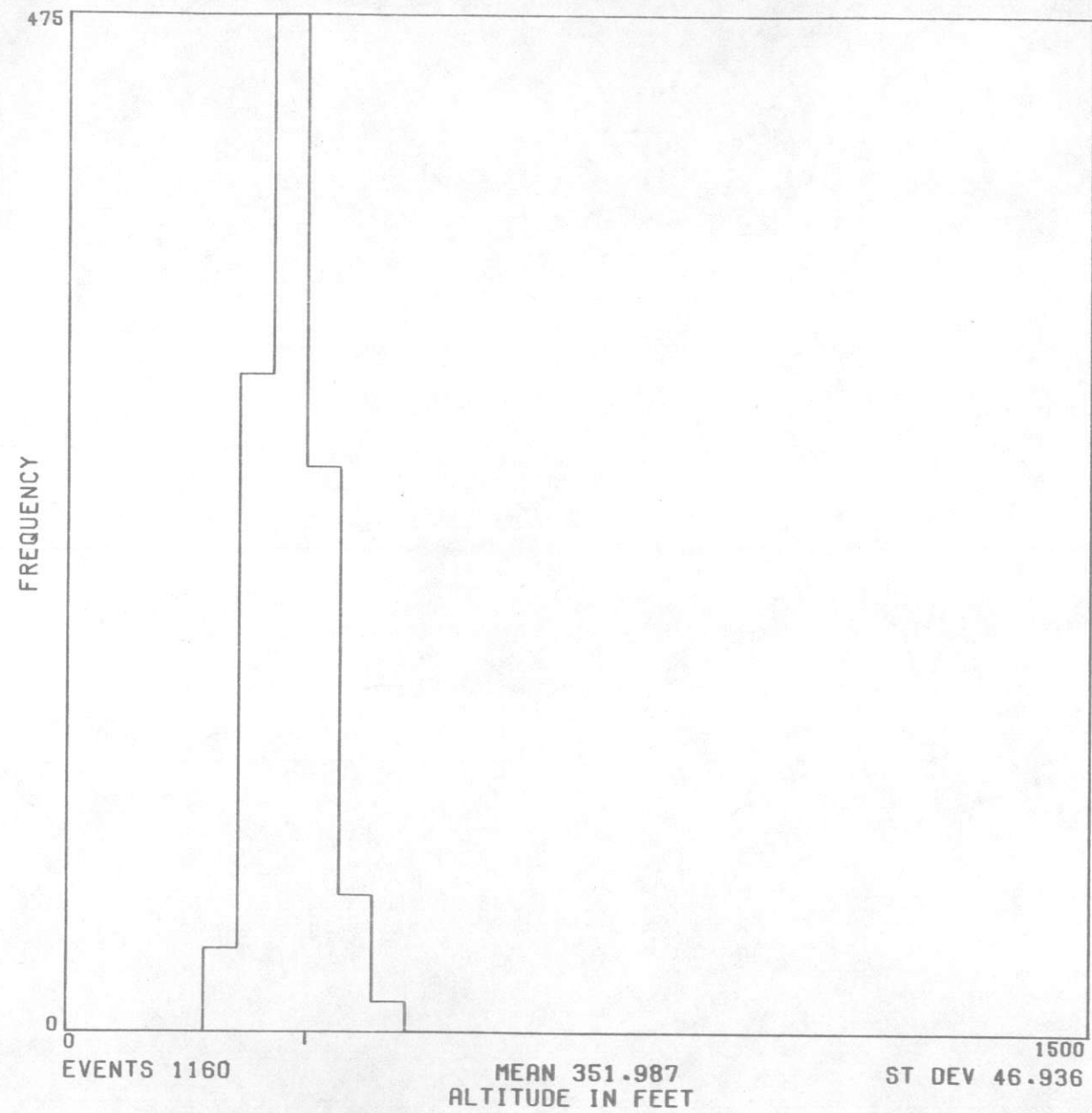


TL1S

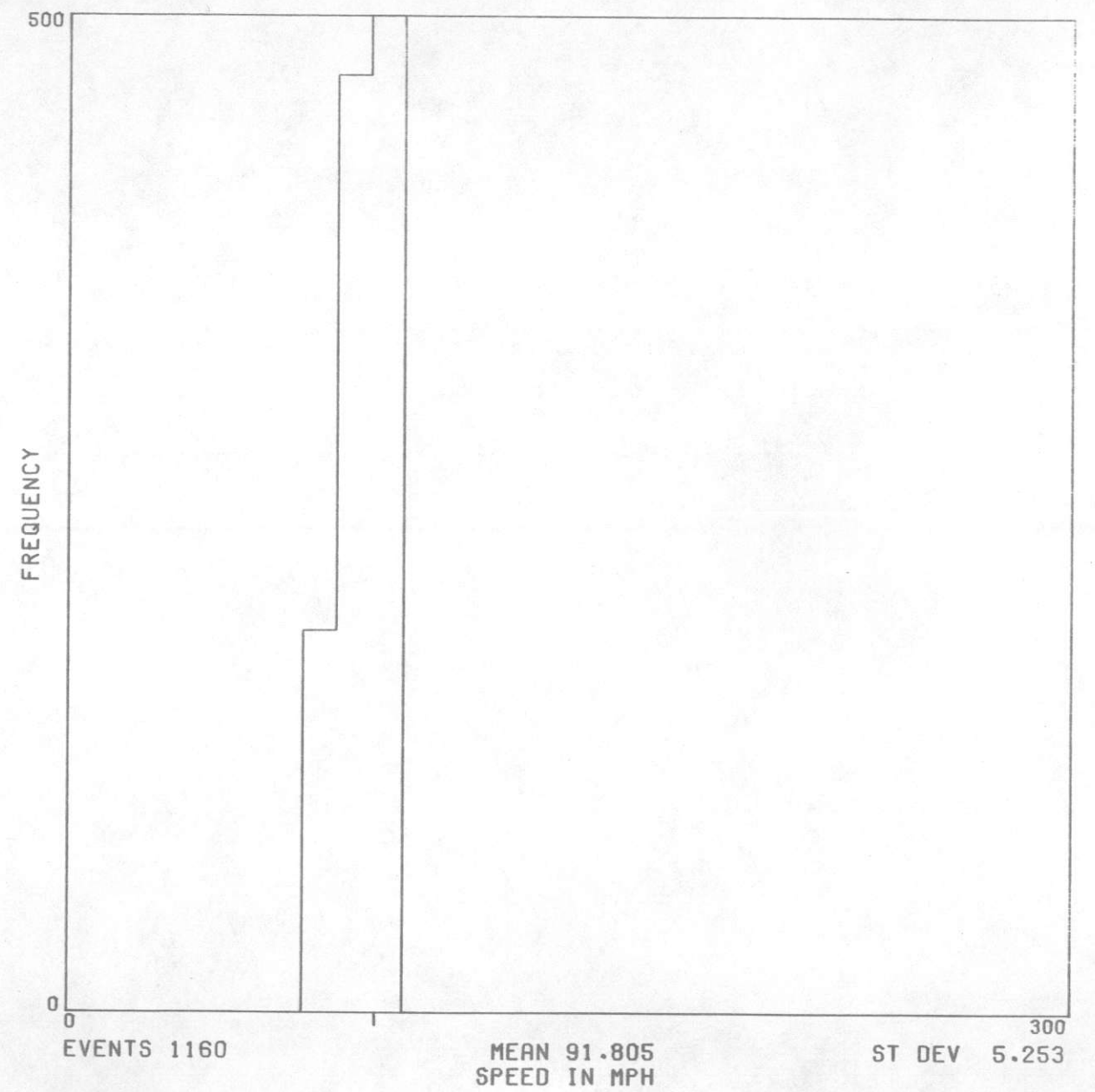


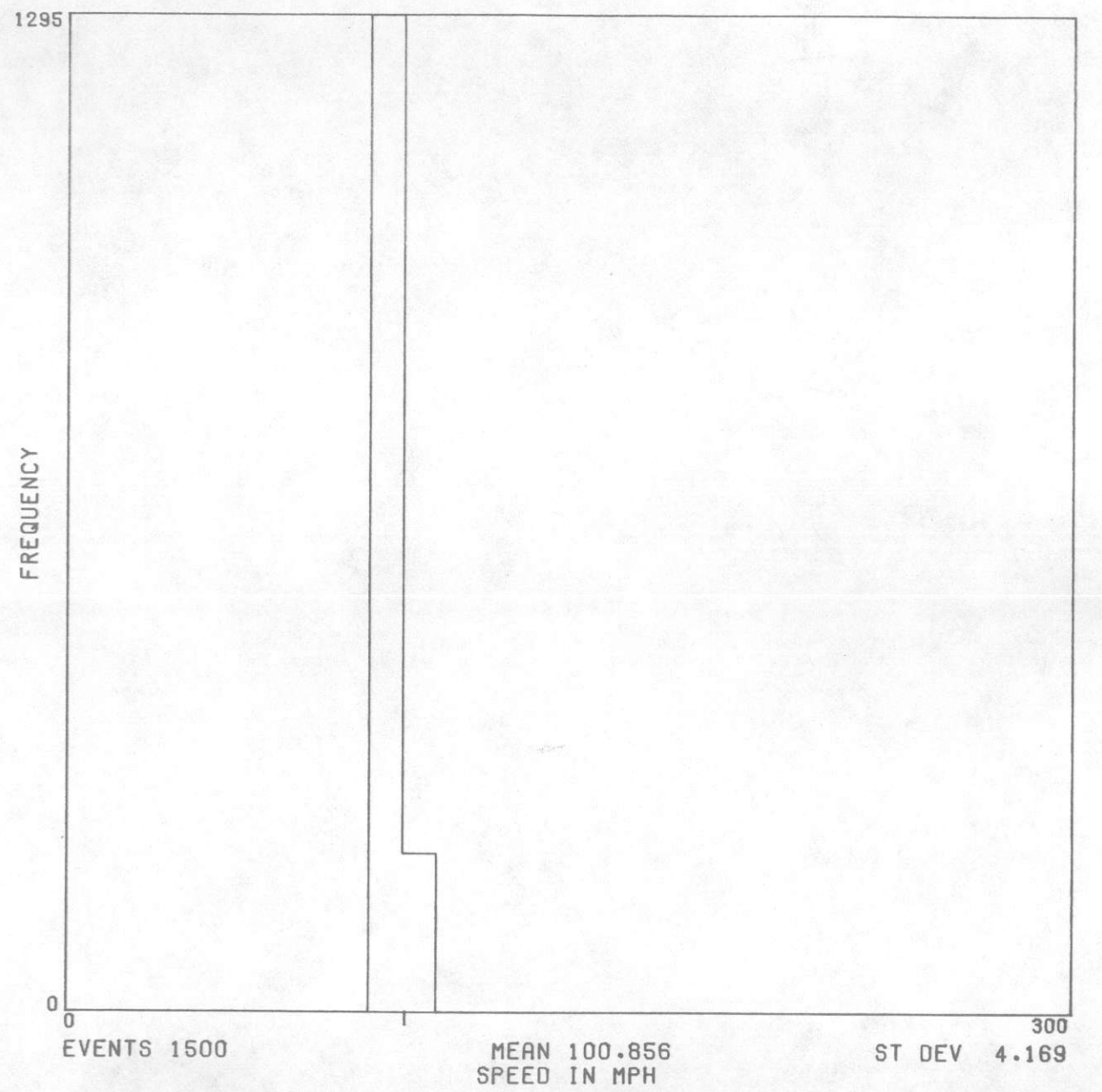
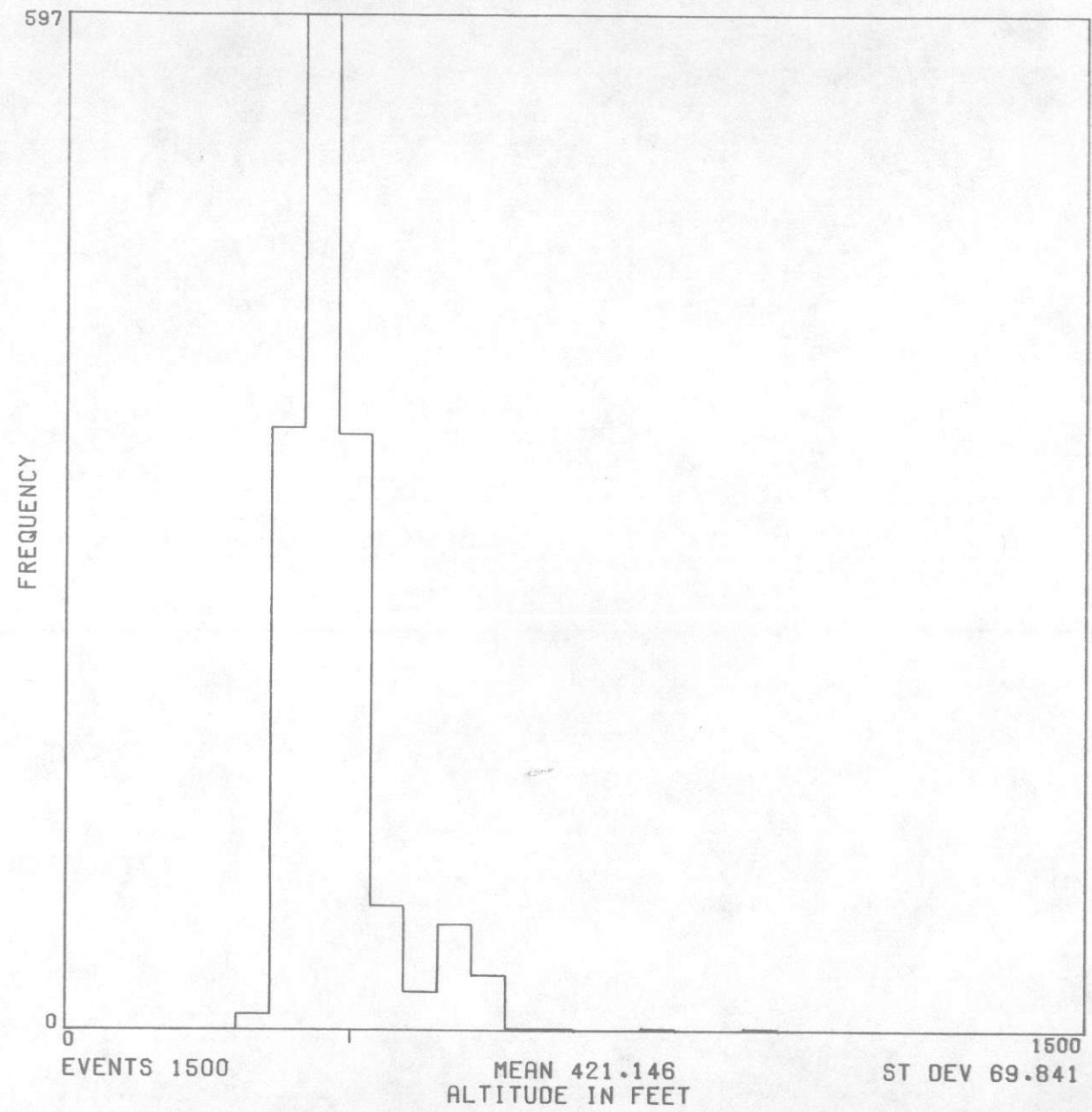
TL1N



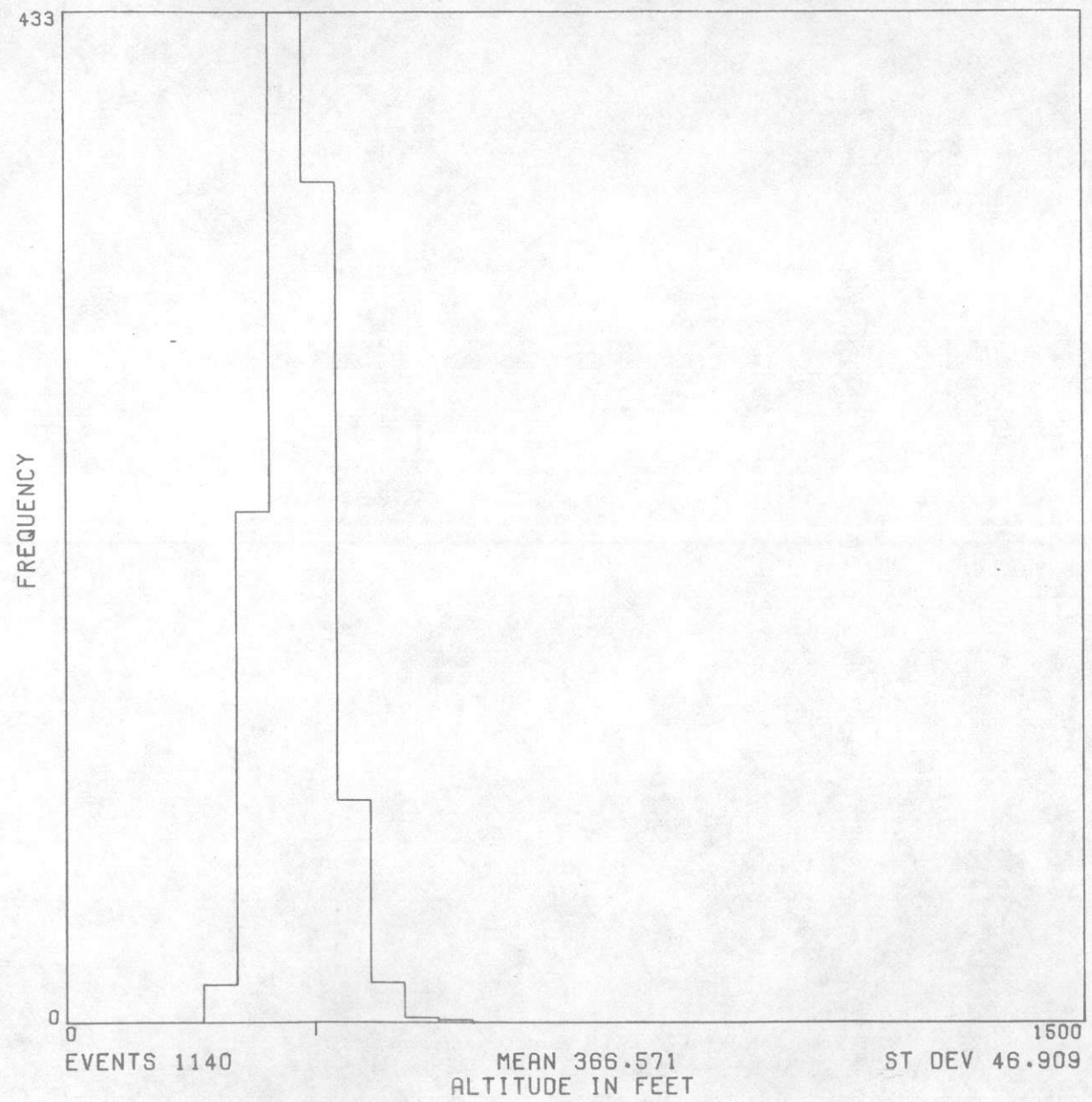


TL2S

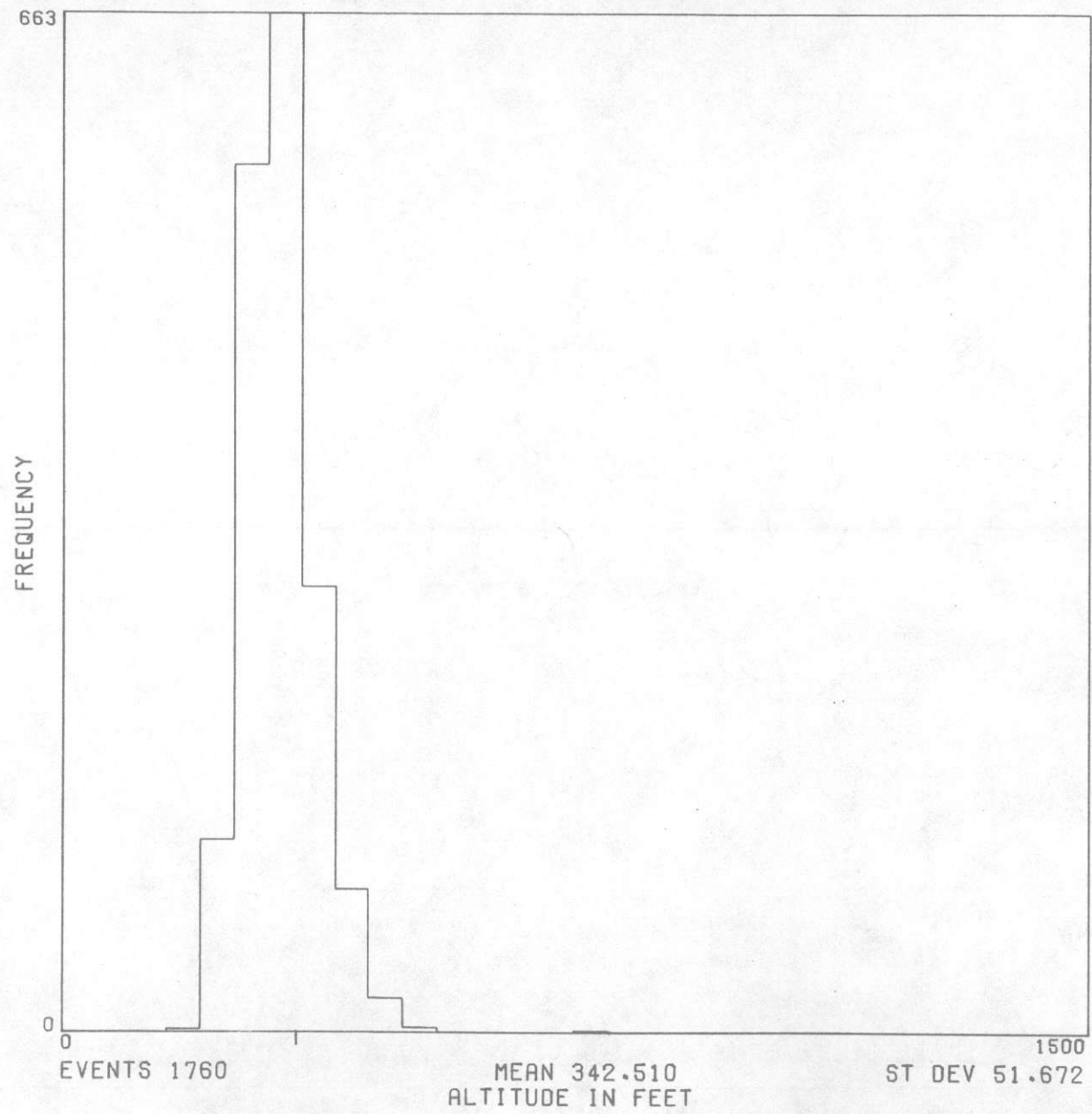




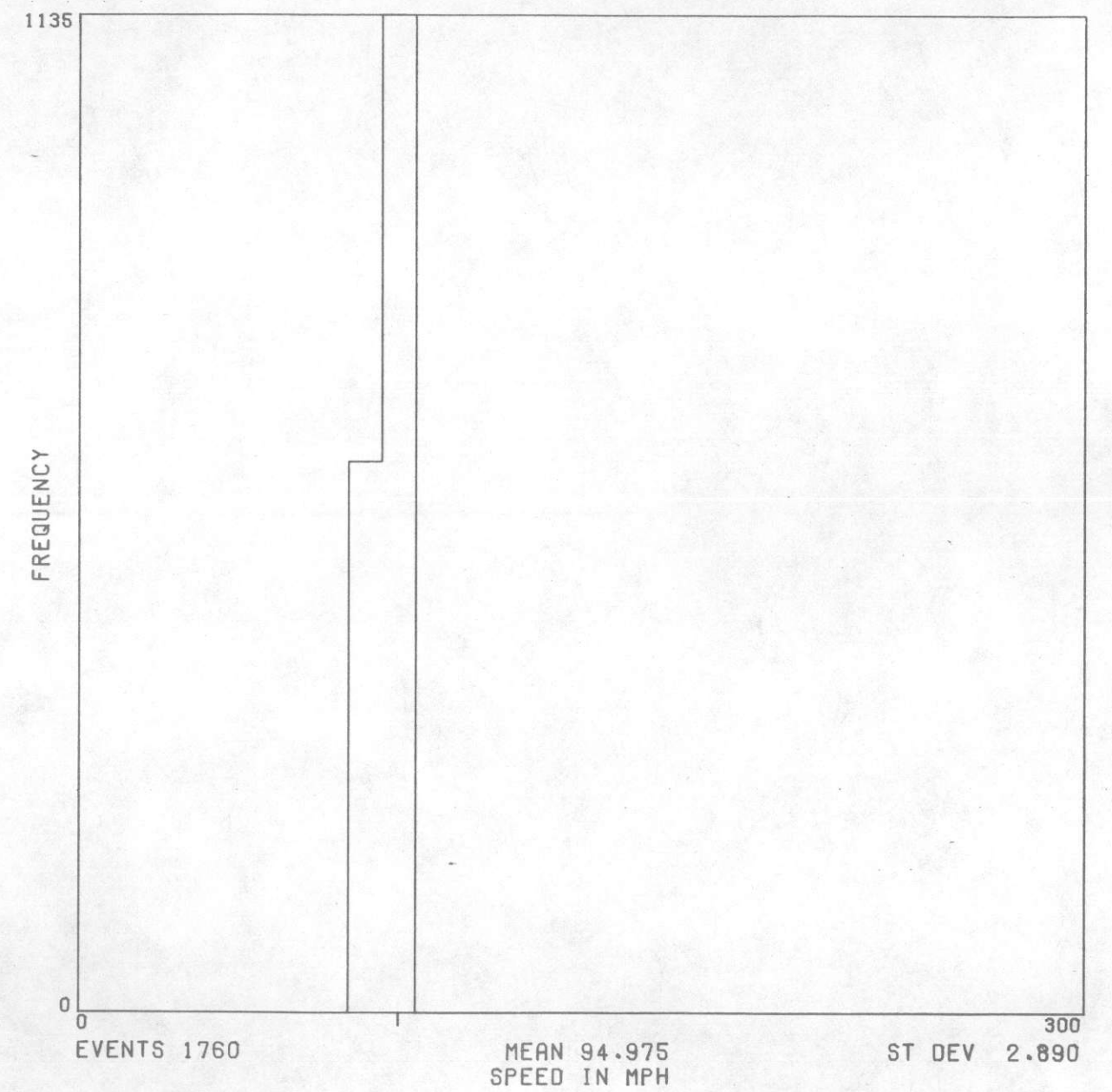
TL2N

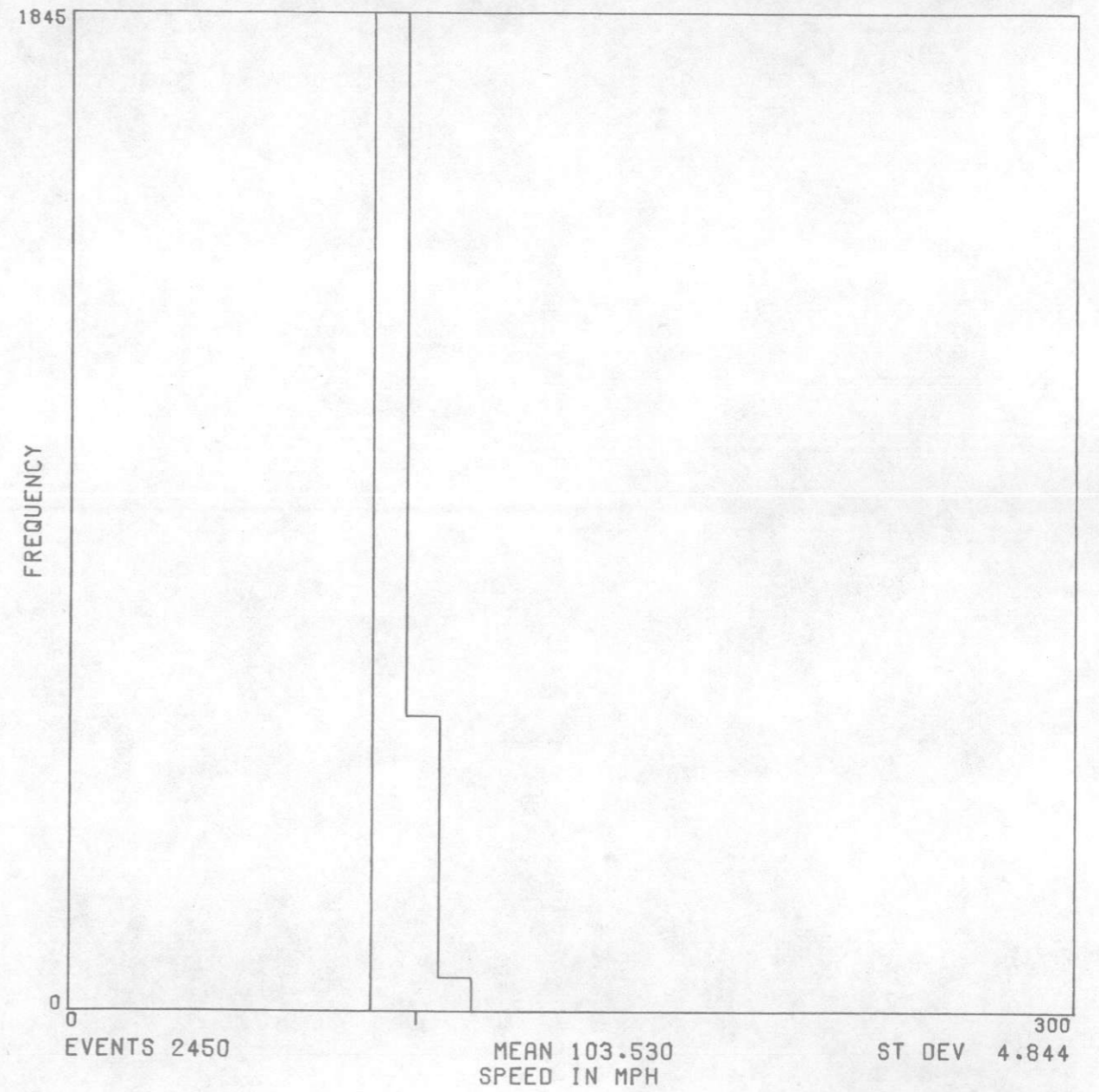
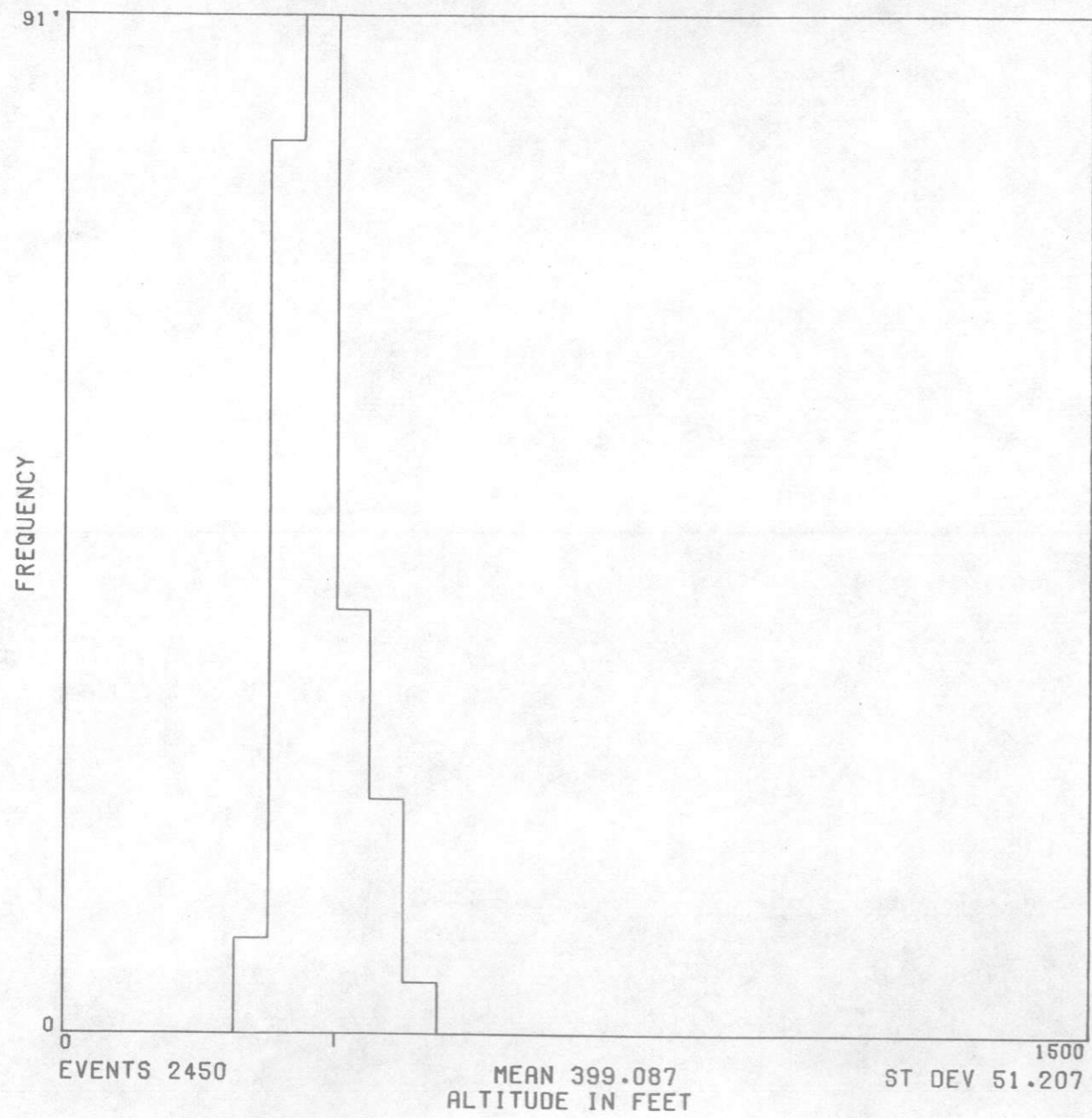


TL3S

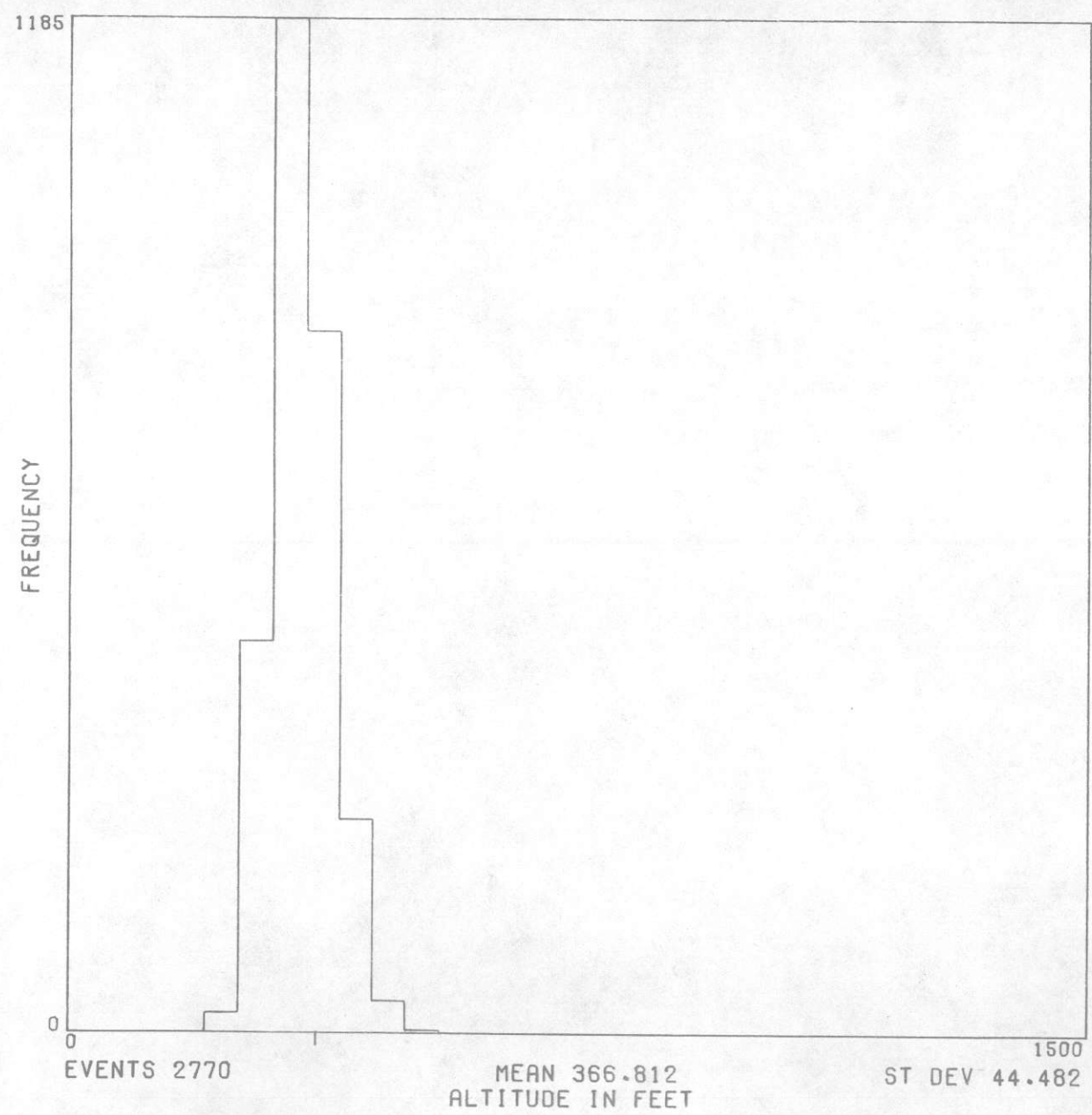


TL3N

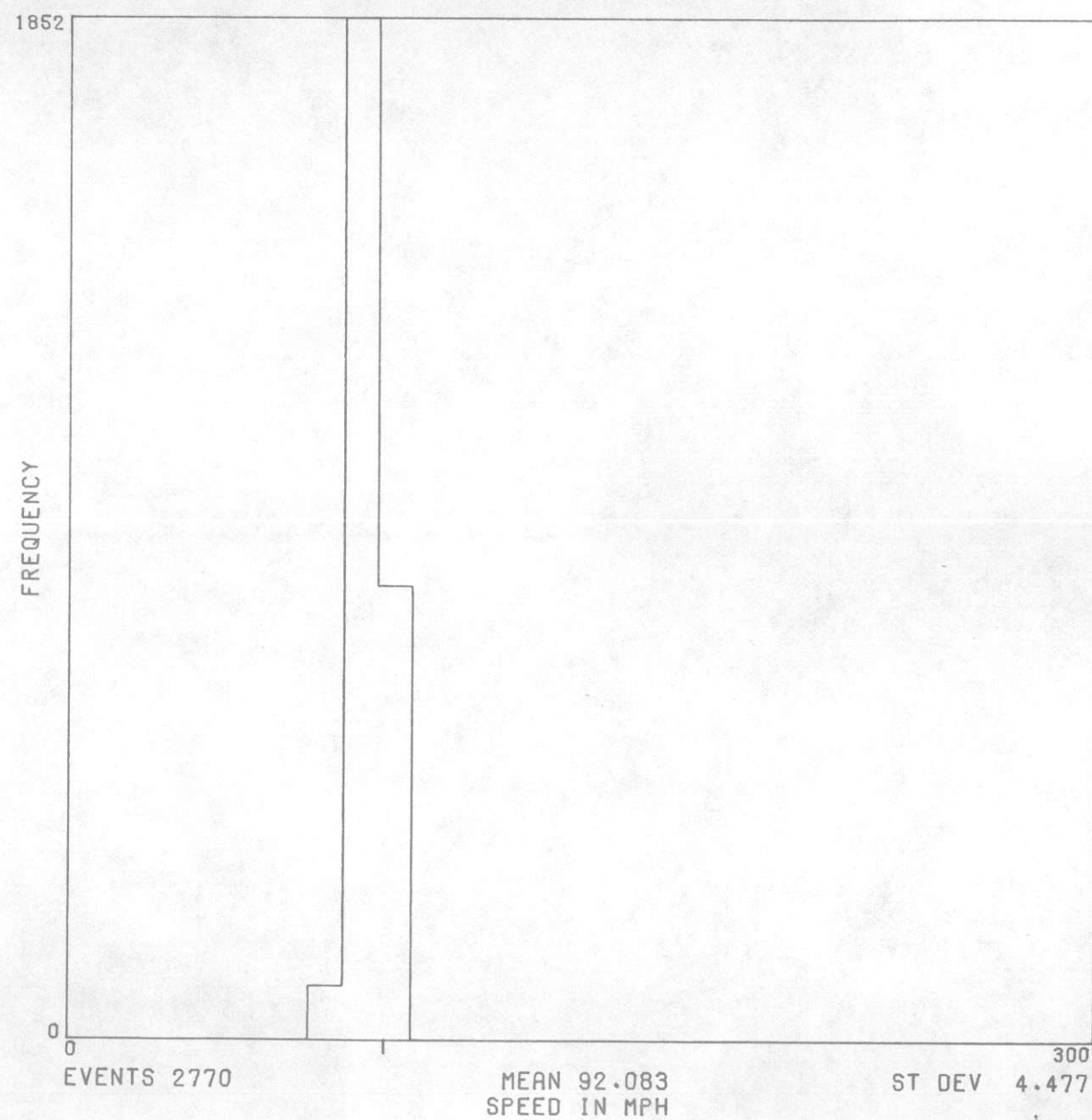


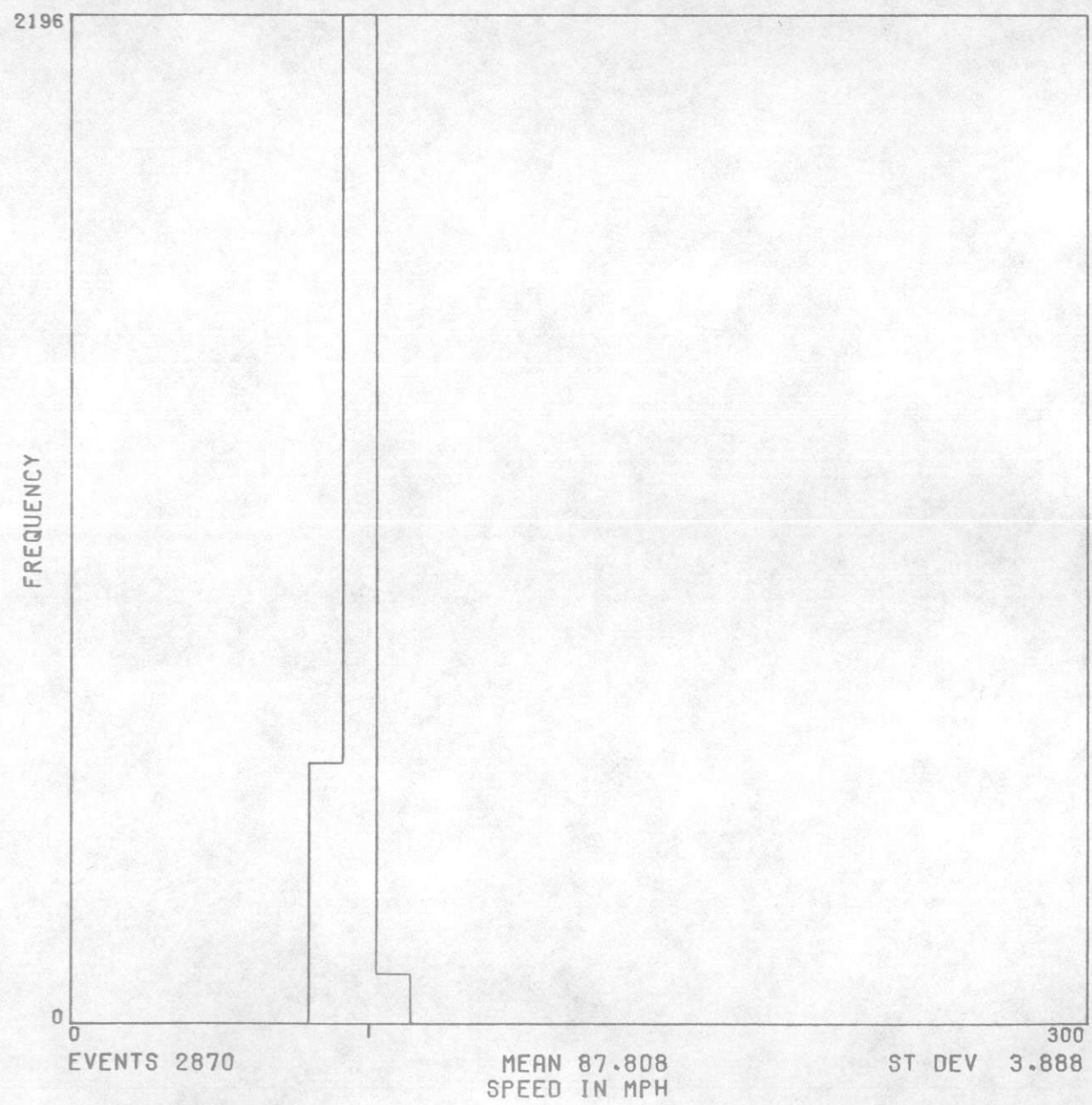
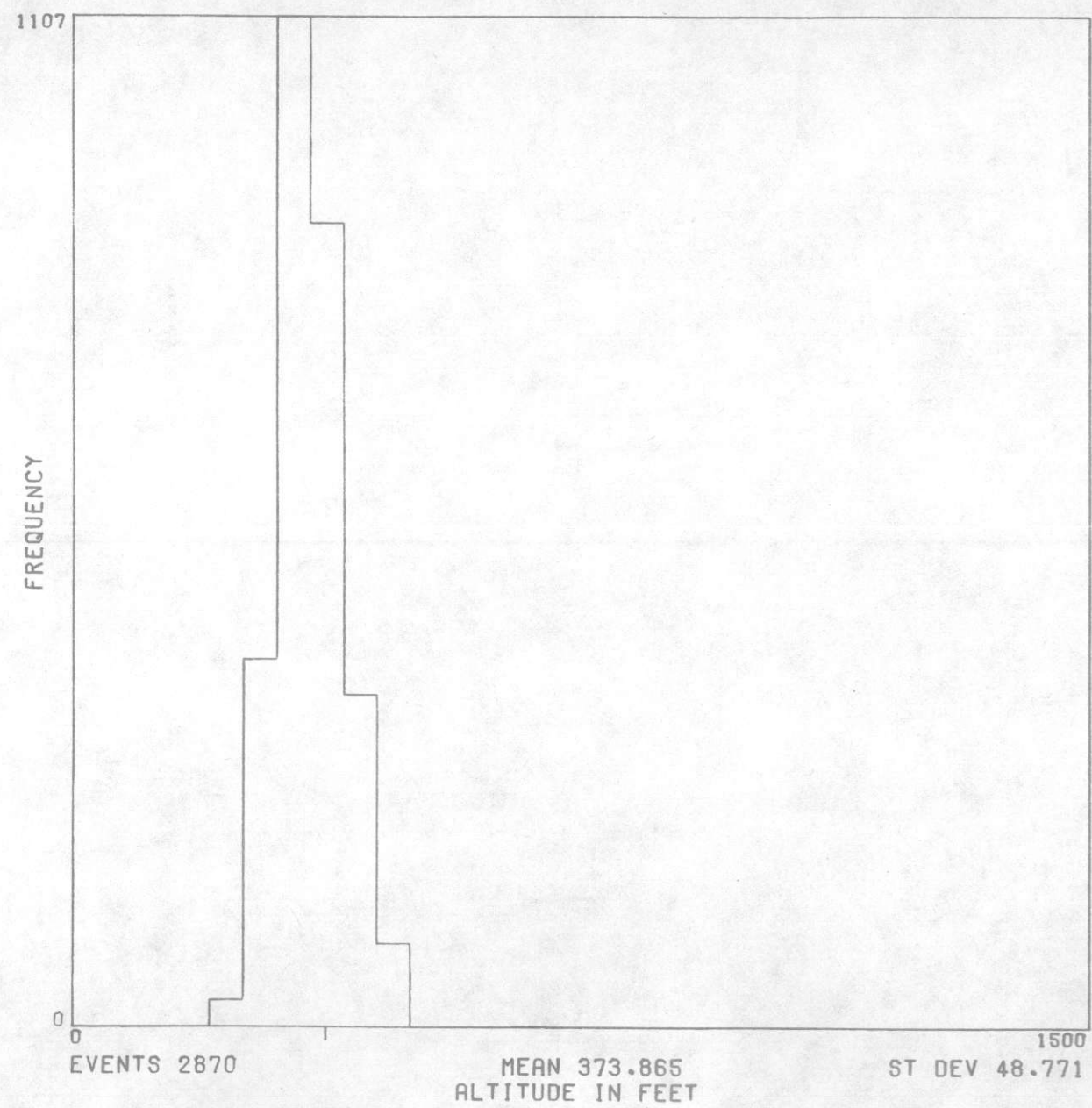


TL4

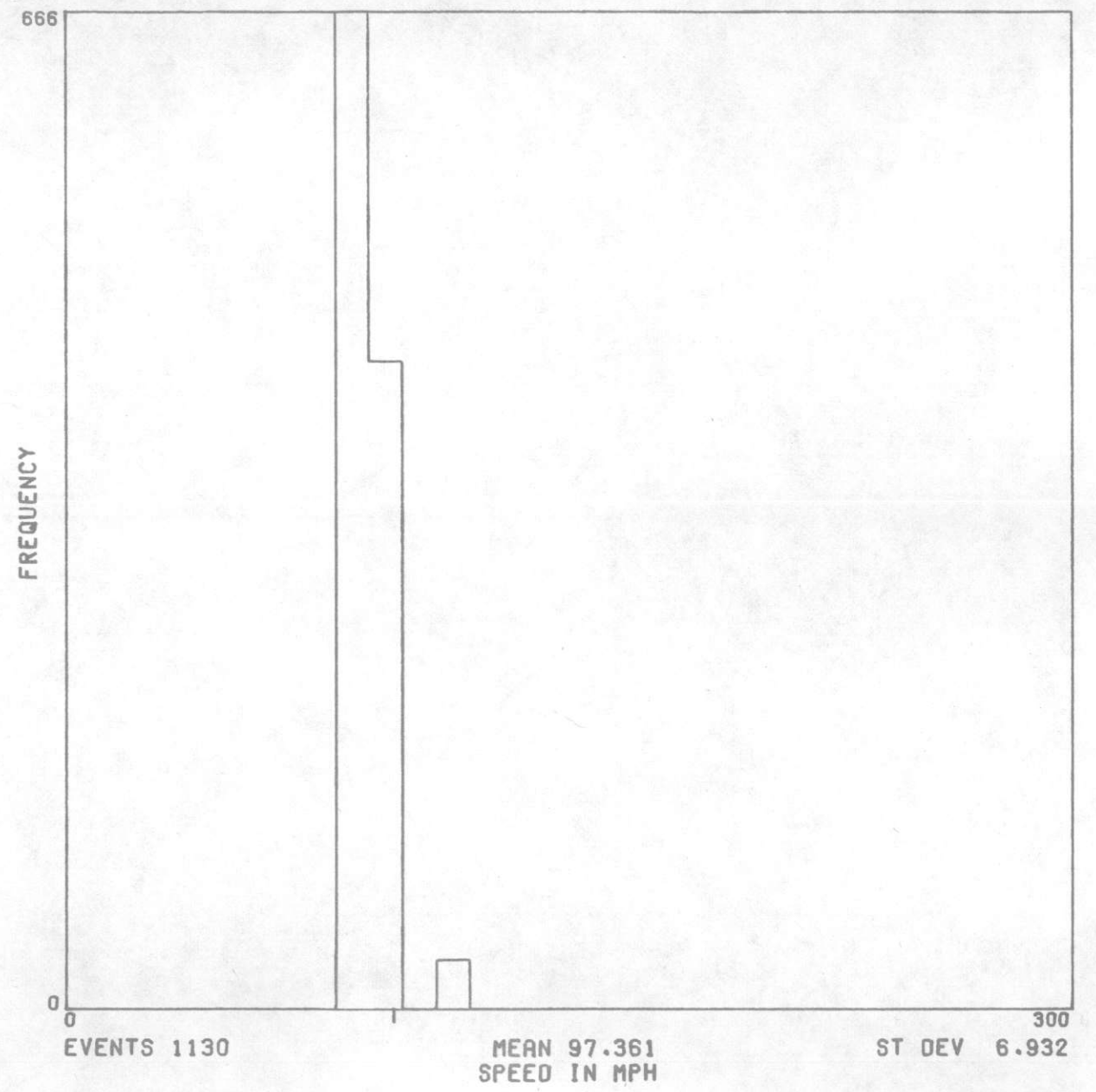
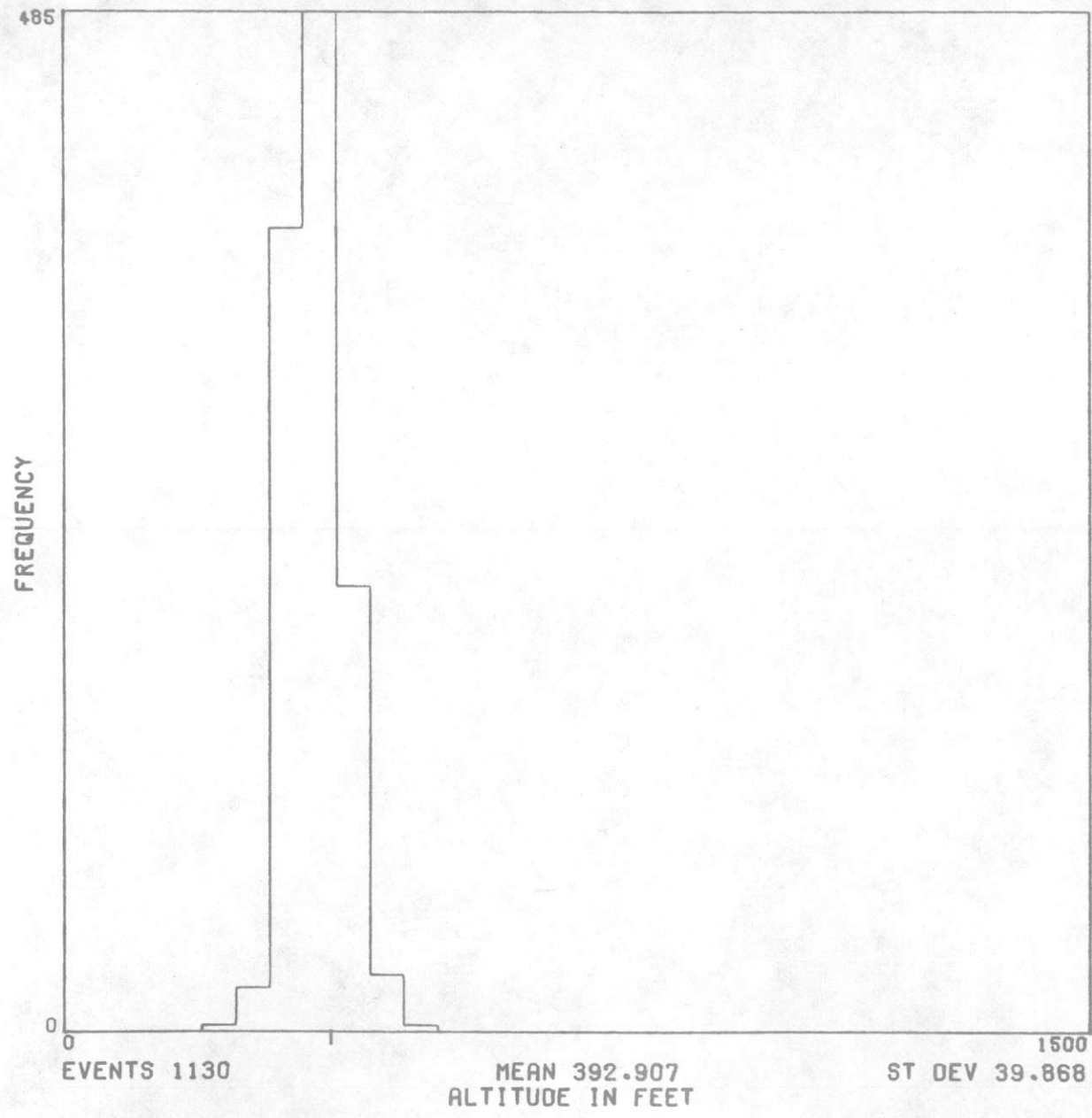


TL5

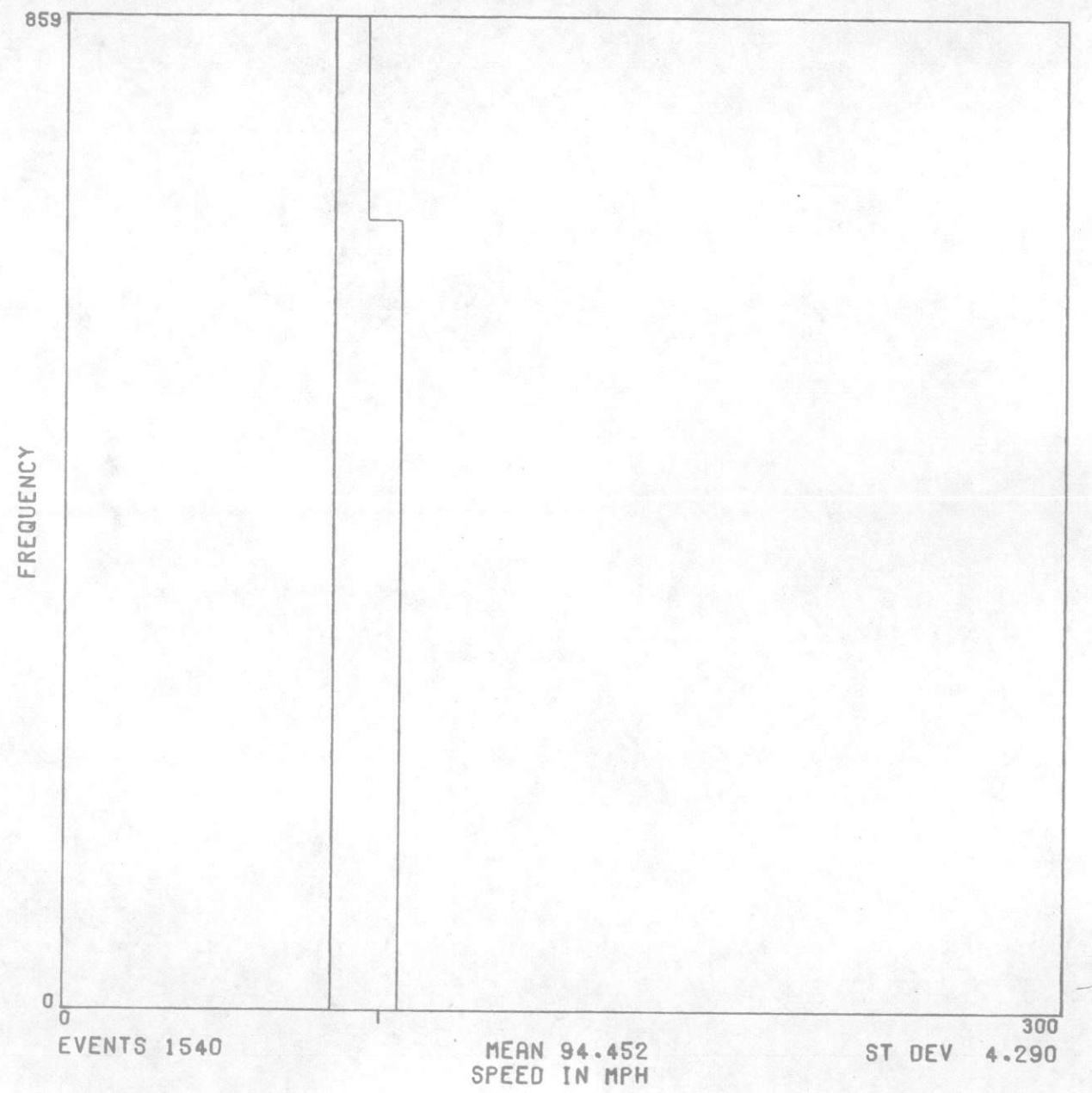
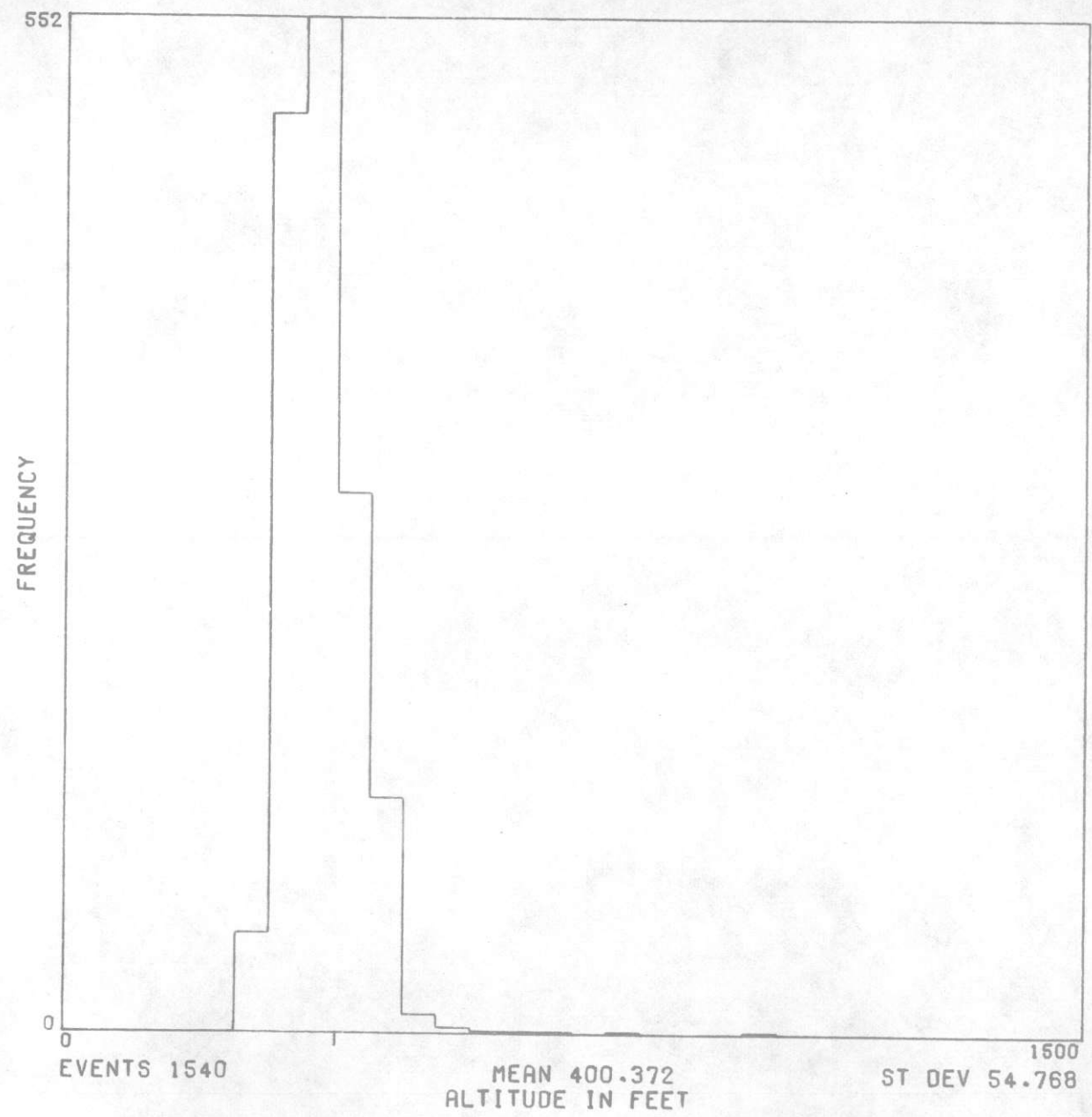




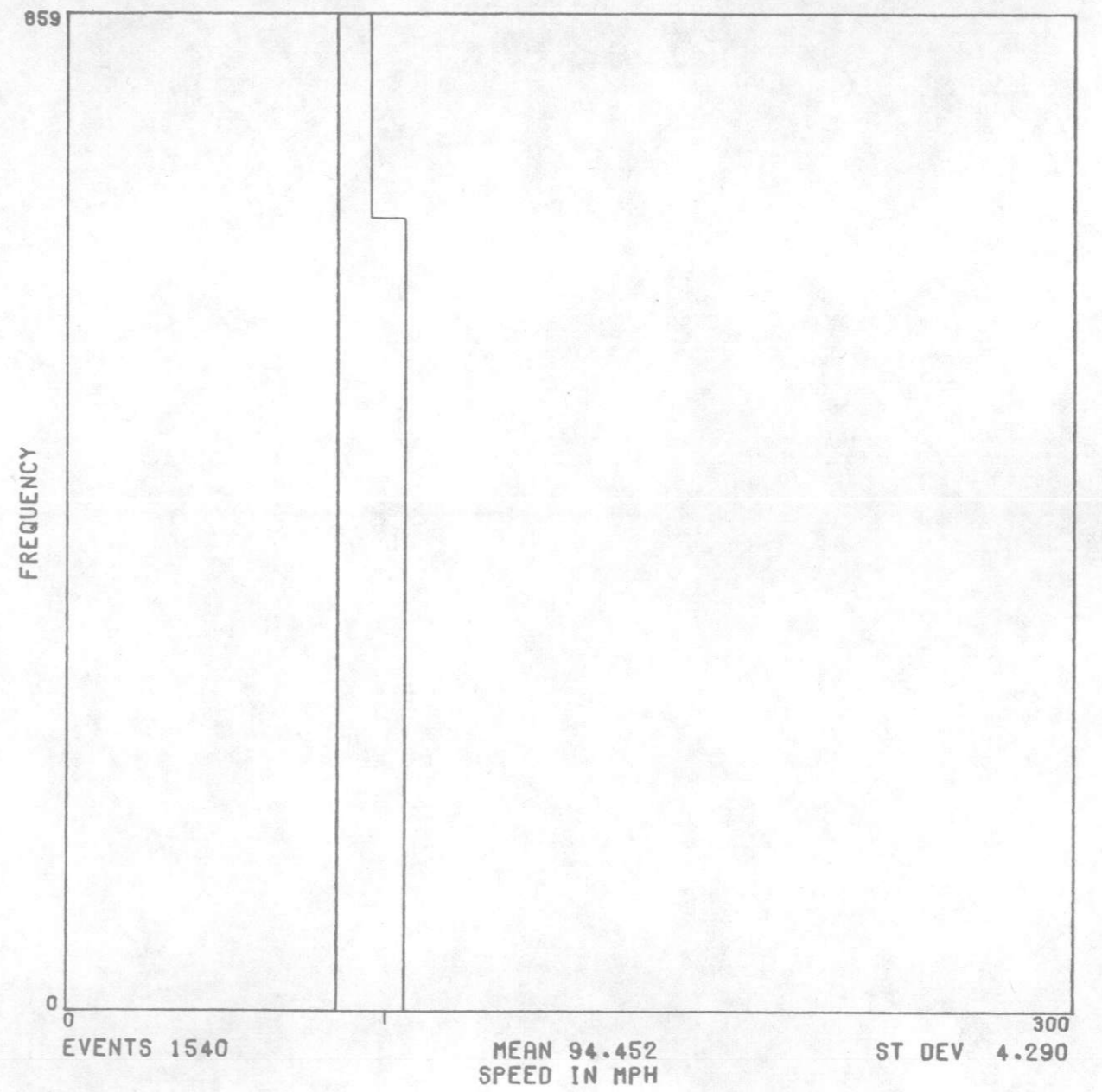
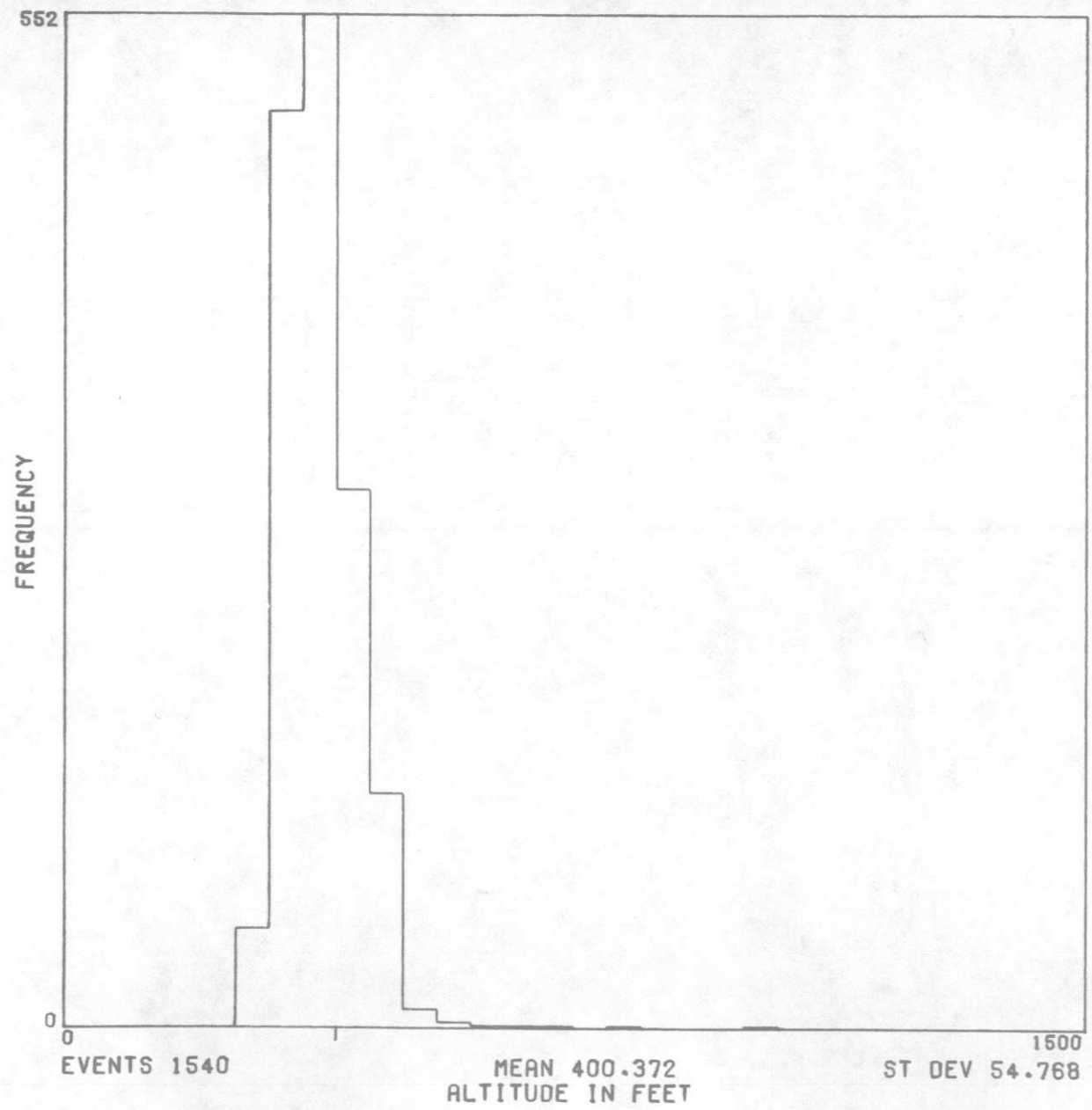
TL6



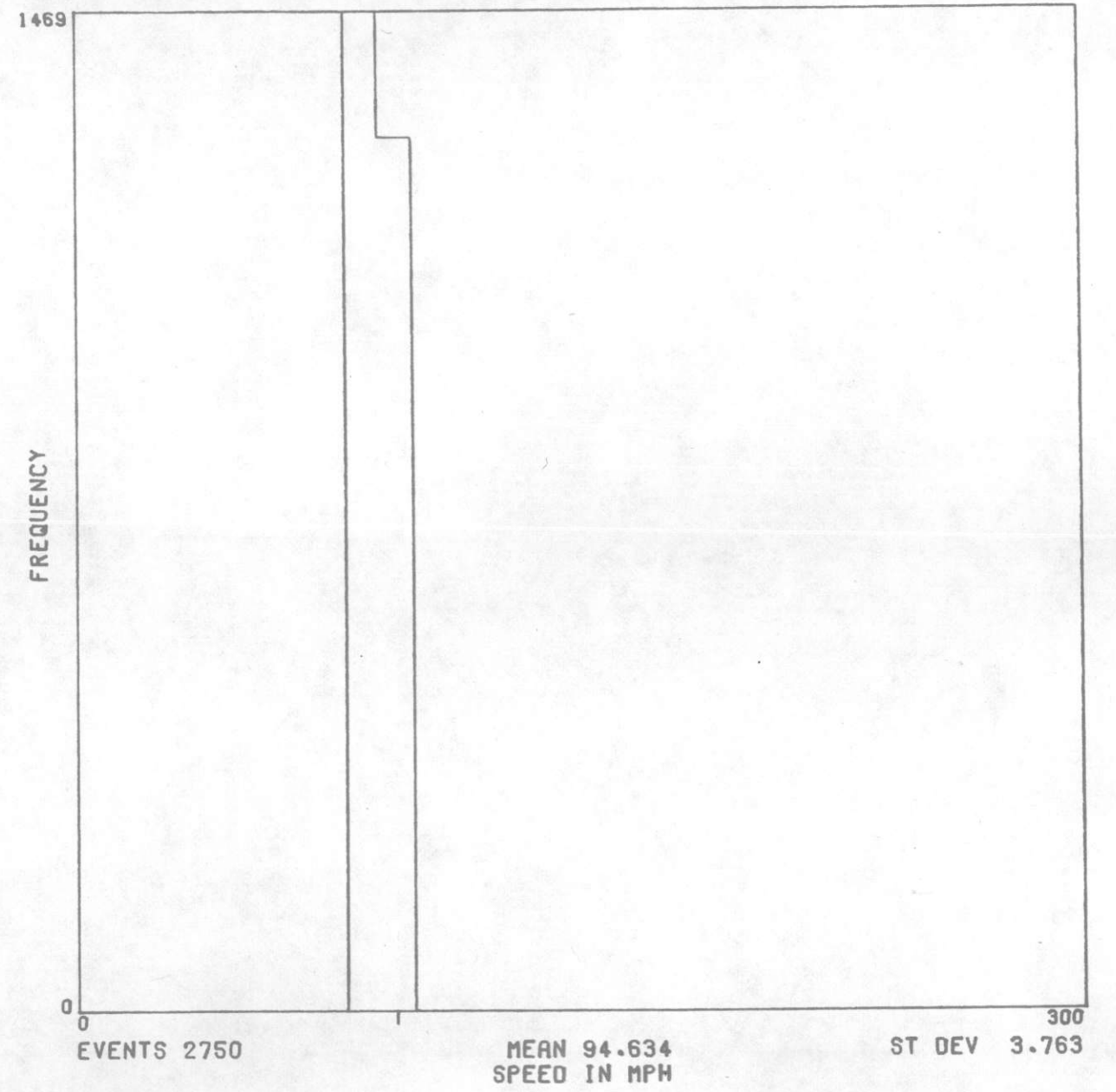
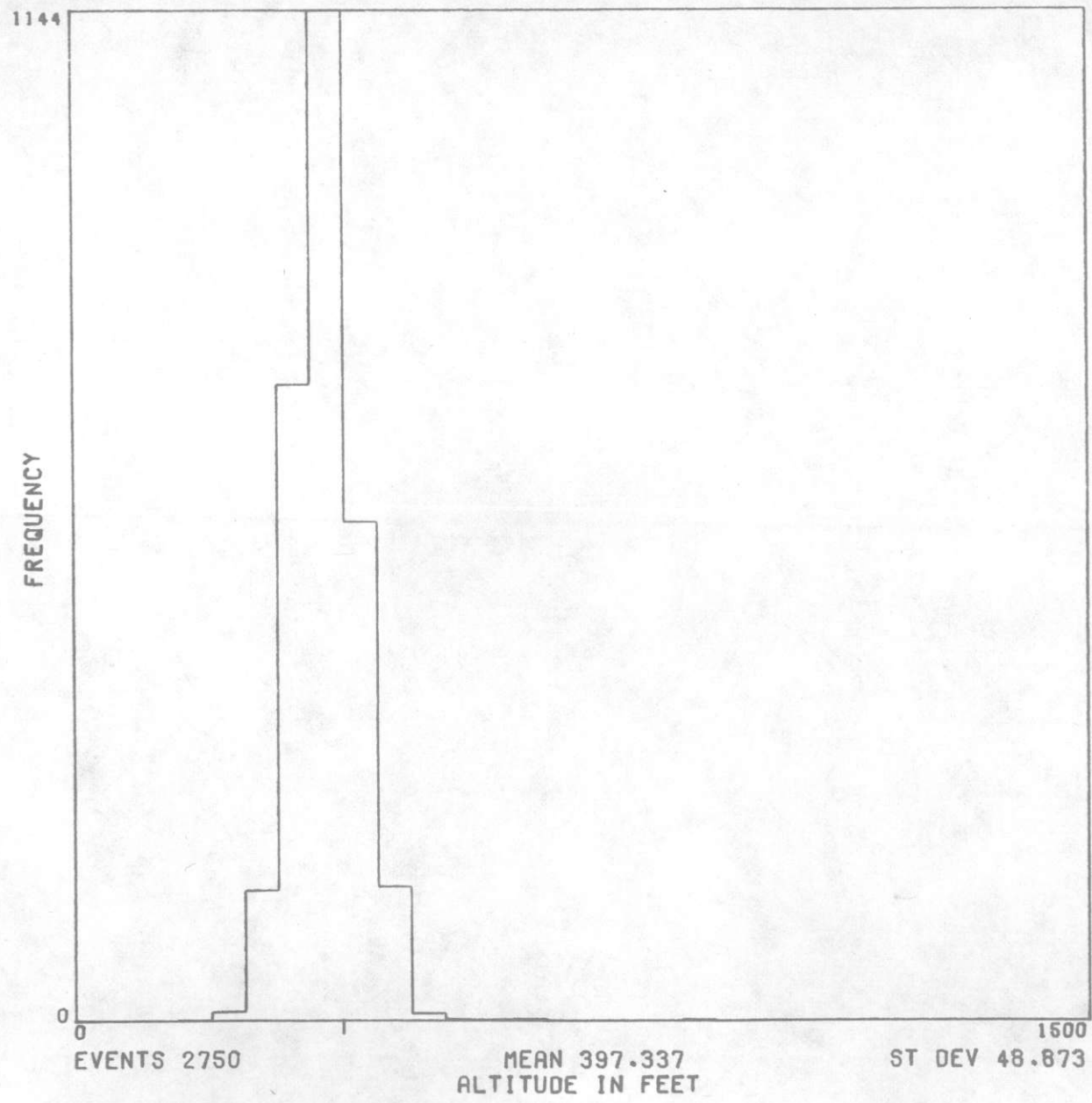
TL7S



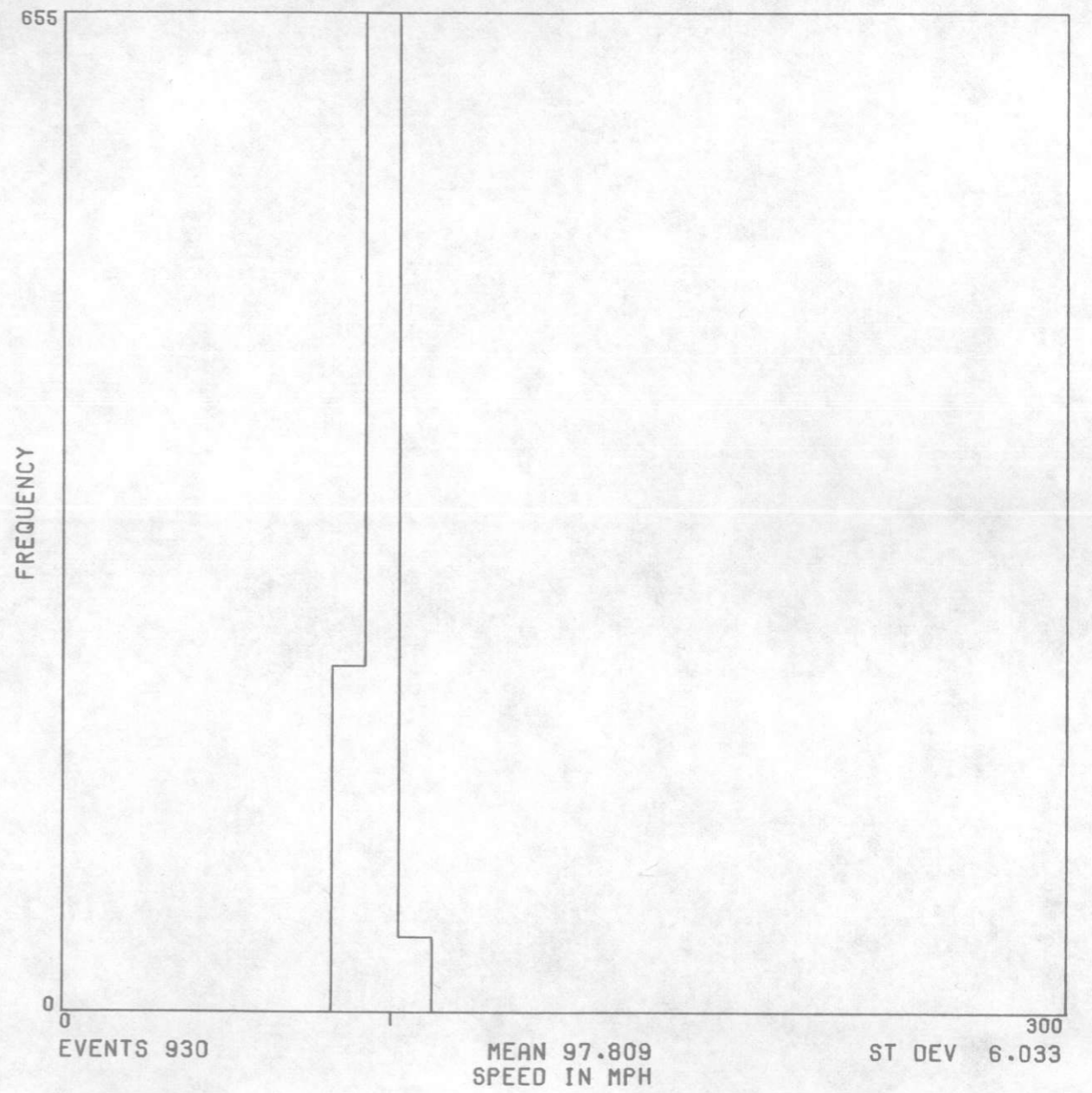
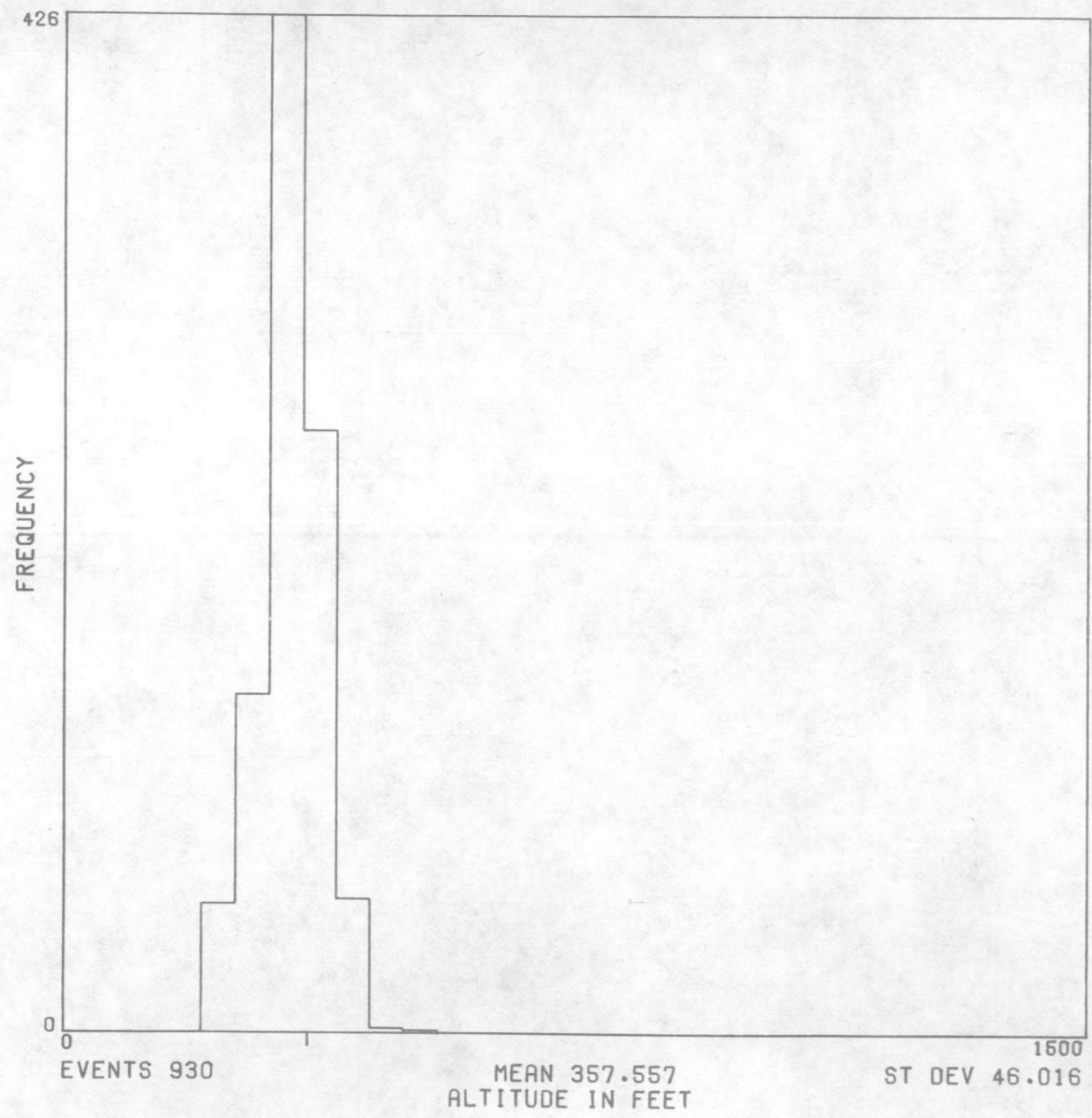
TL7N



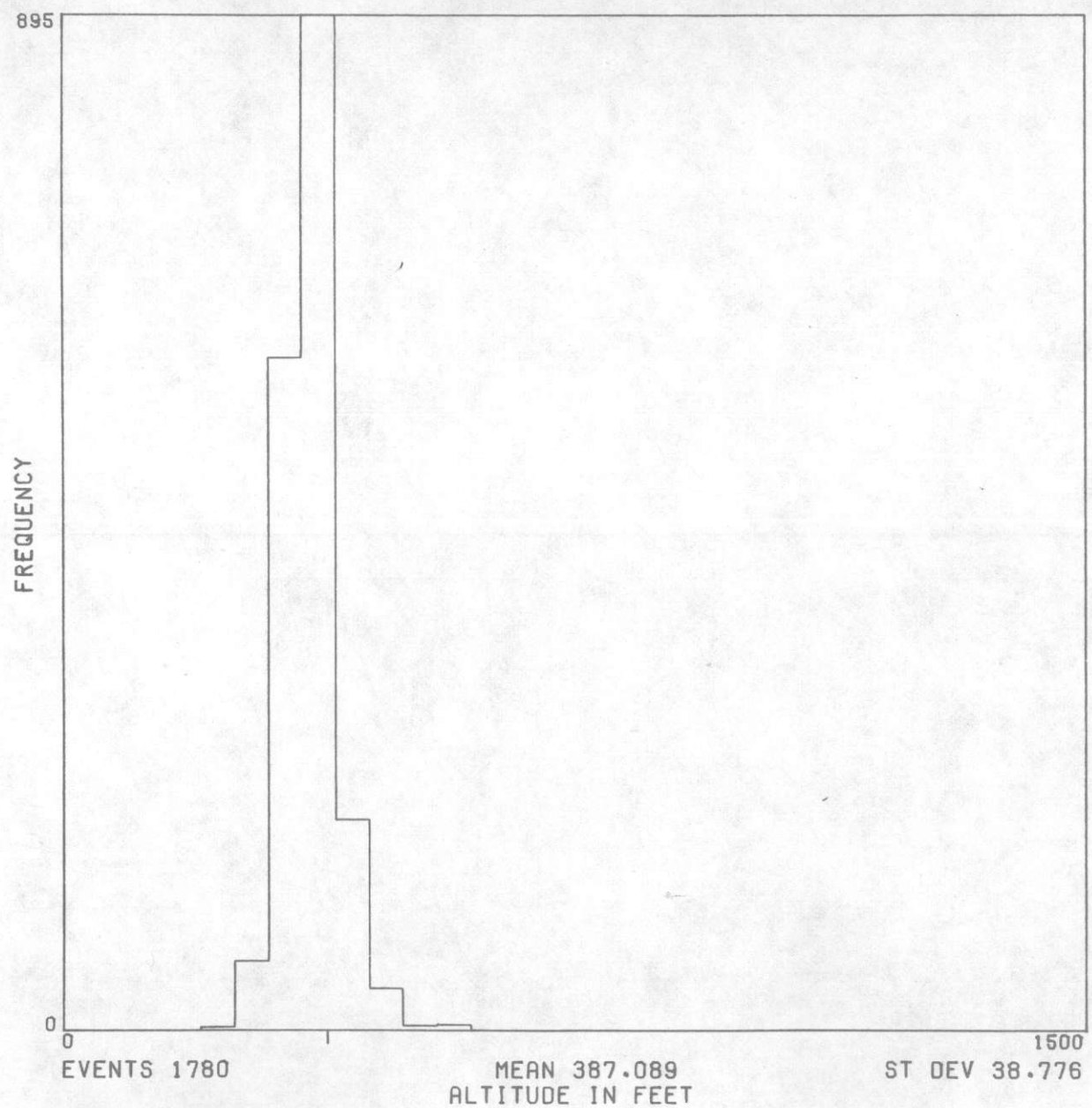
TL7N



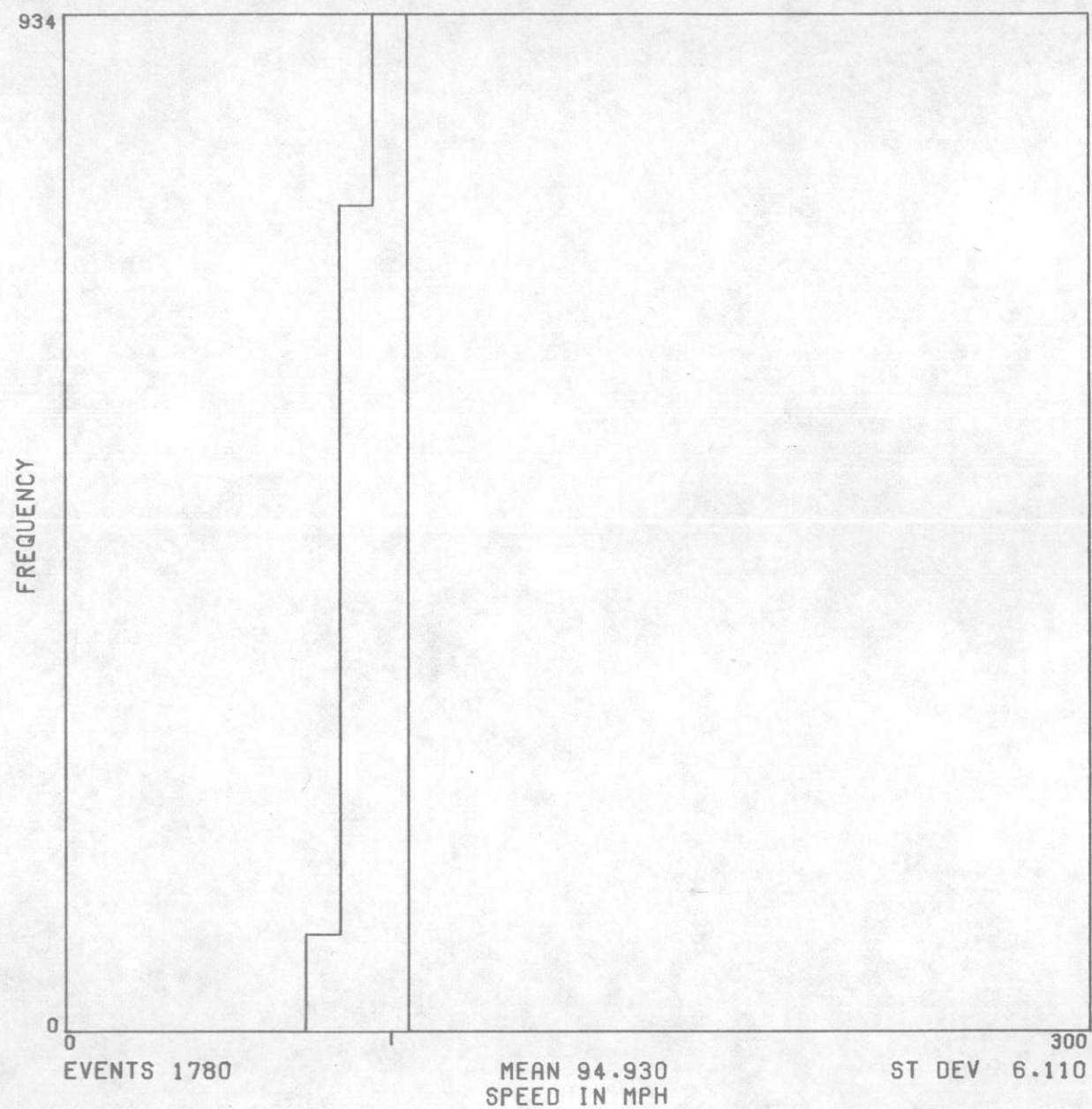
TL8

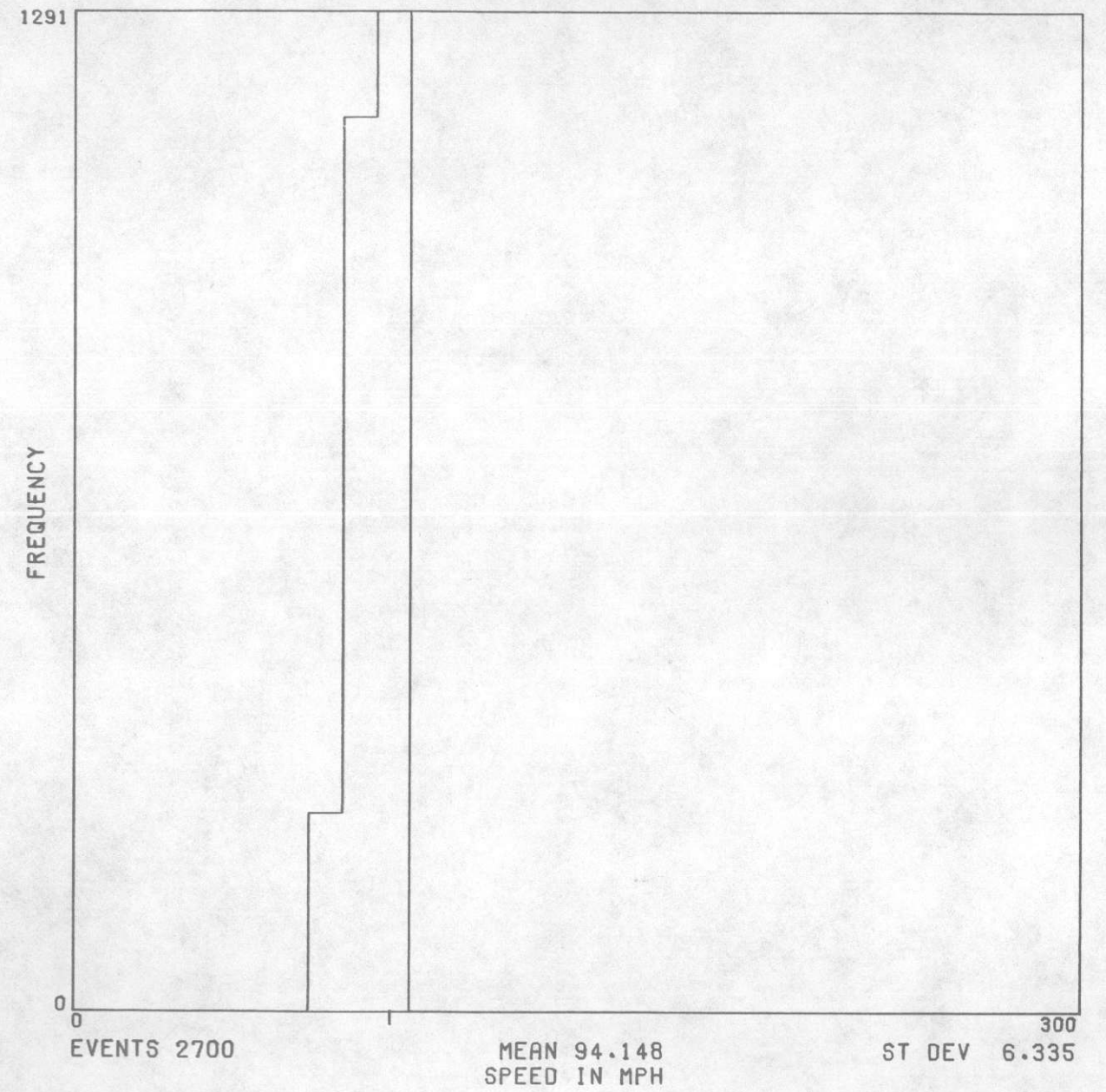
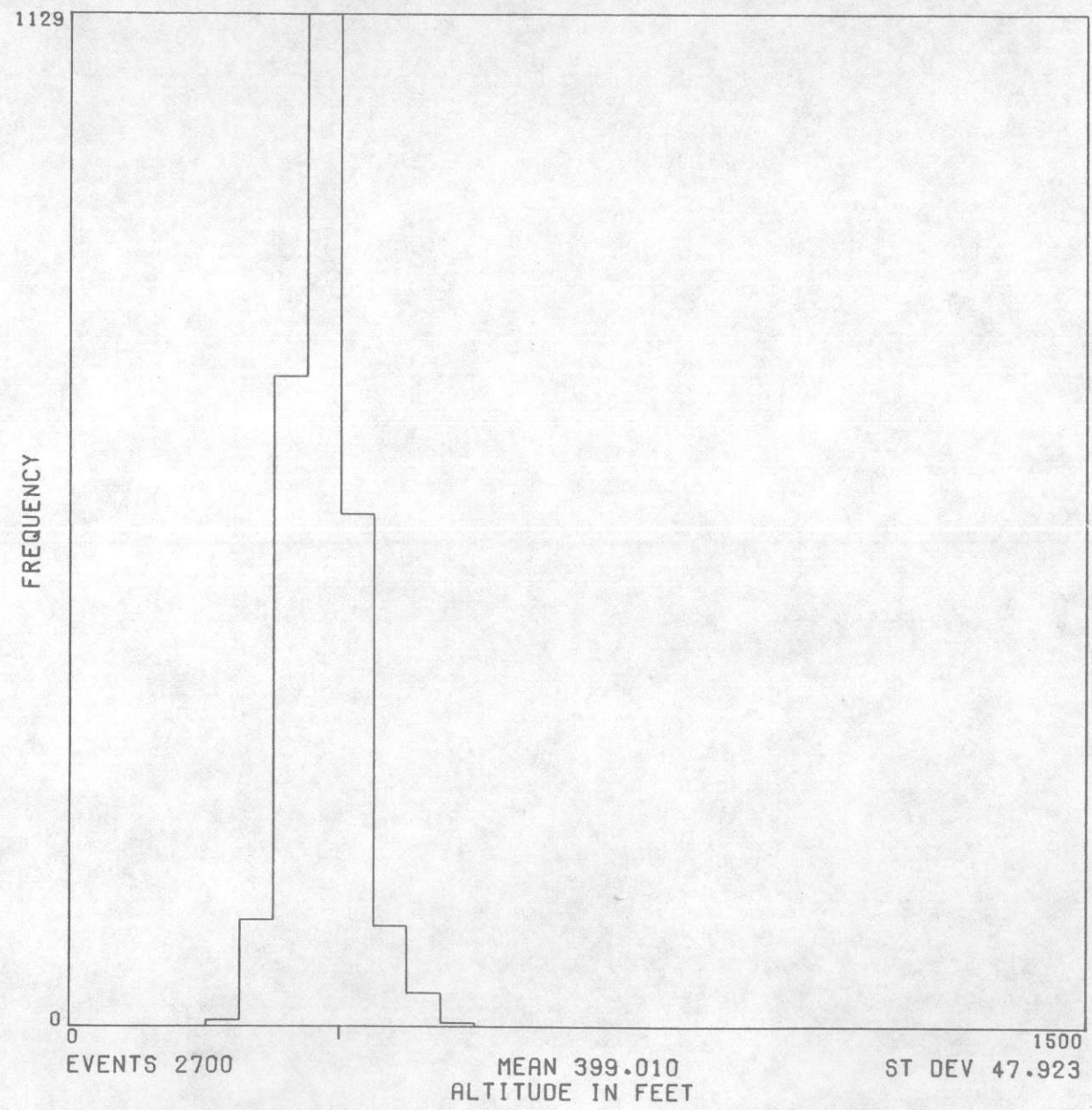


TL9S

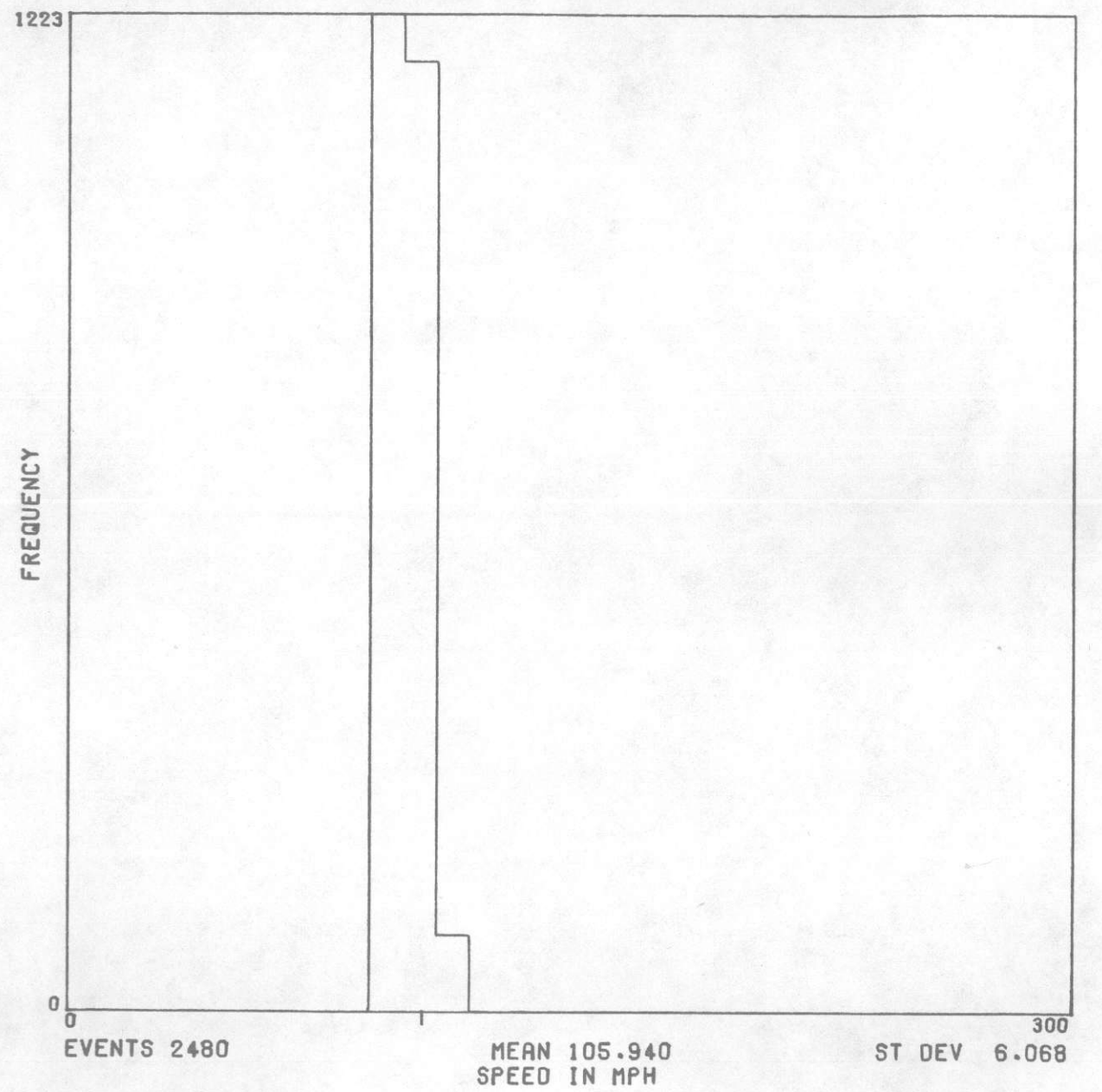
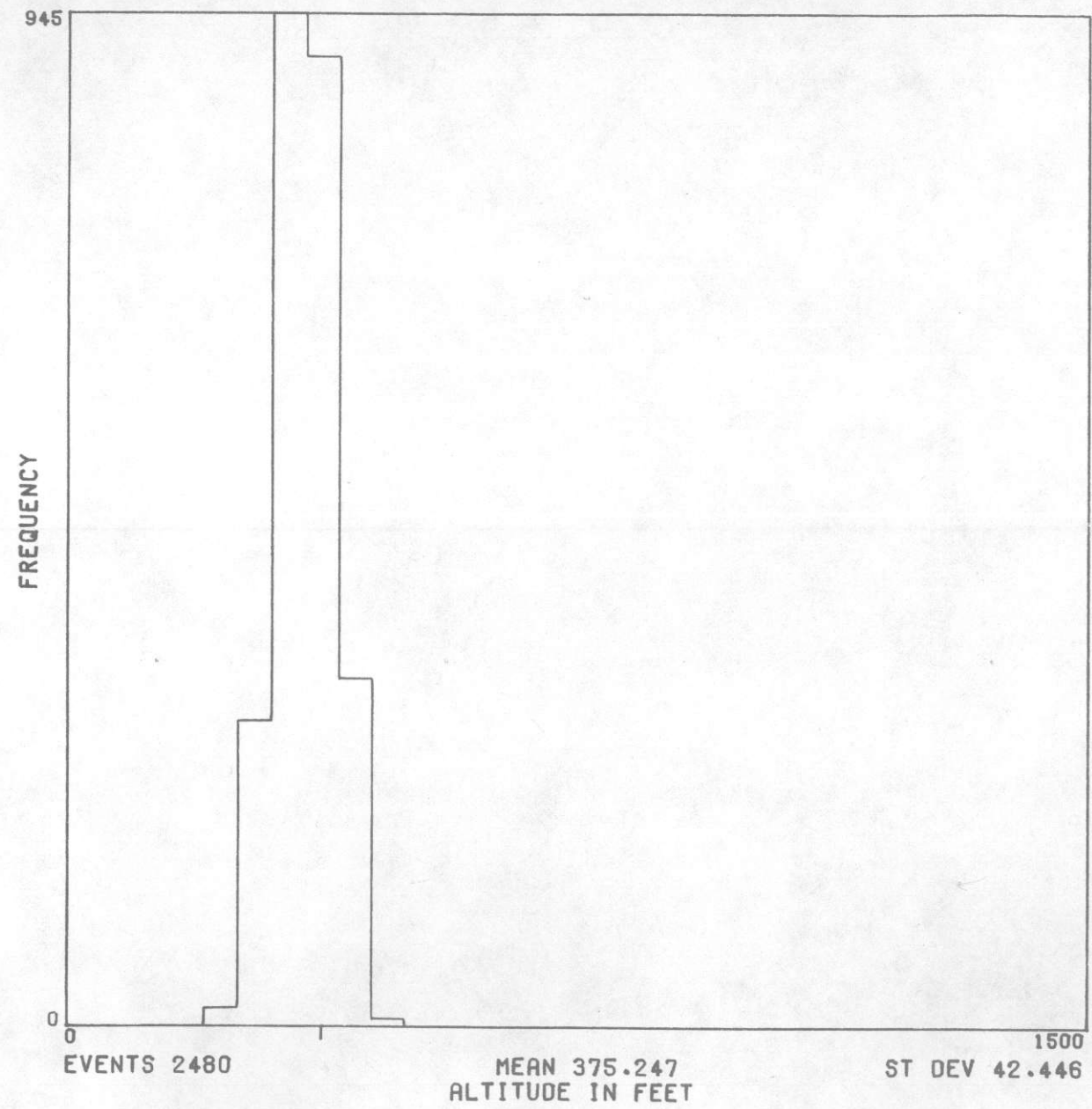


TL9N

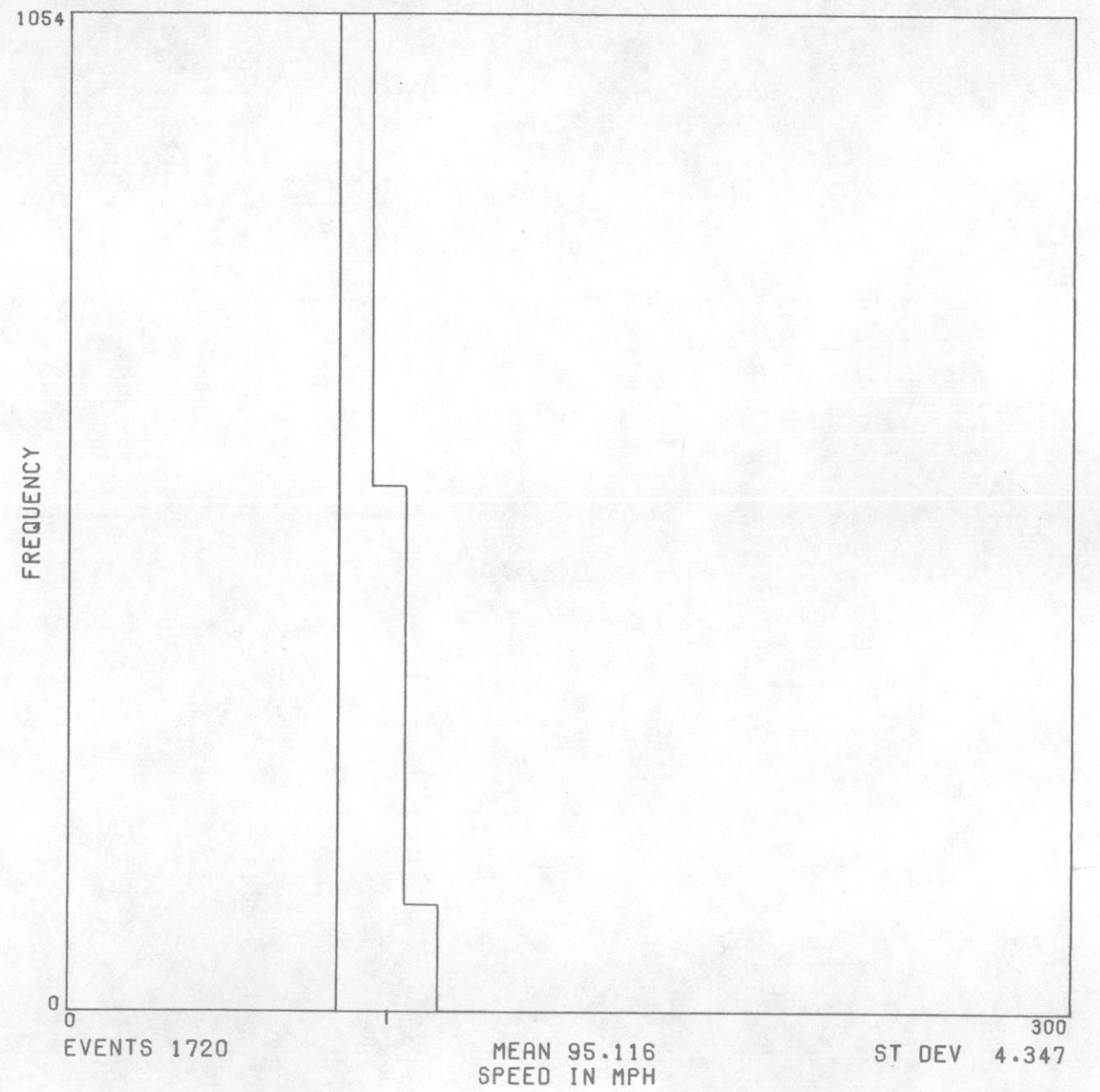
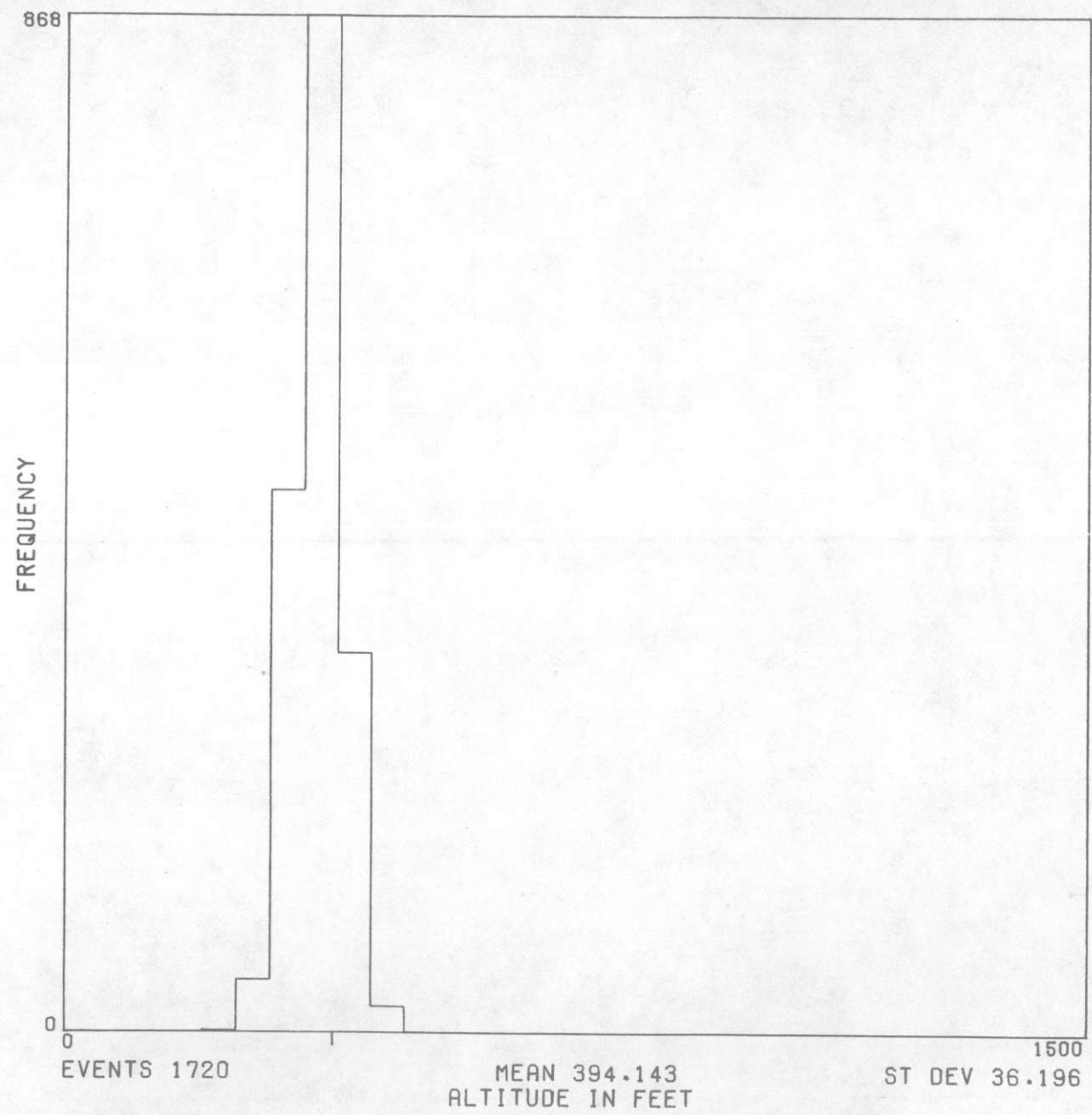


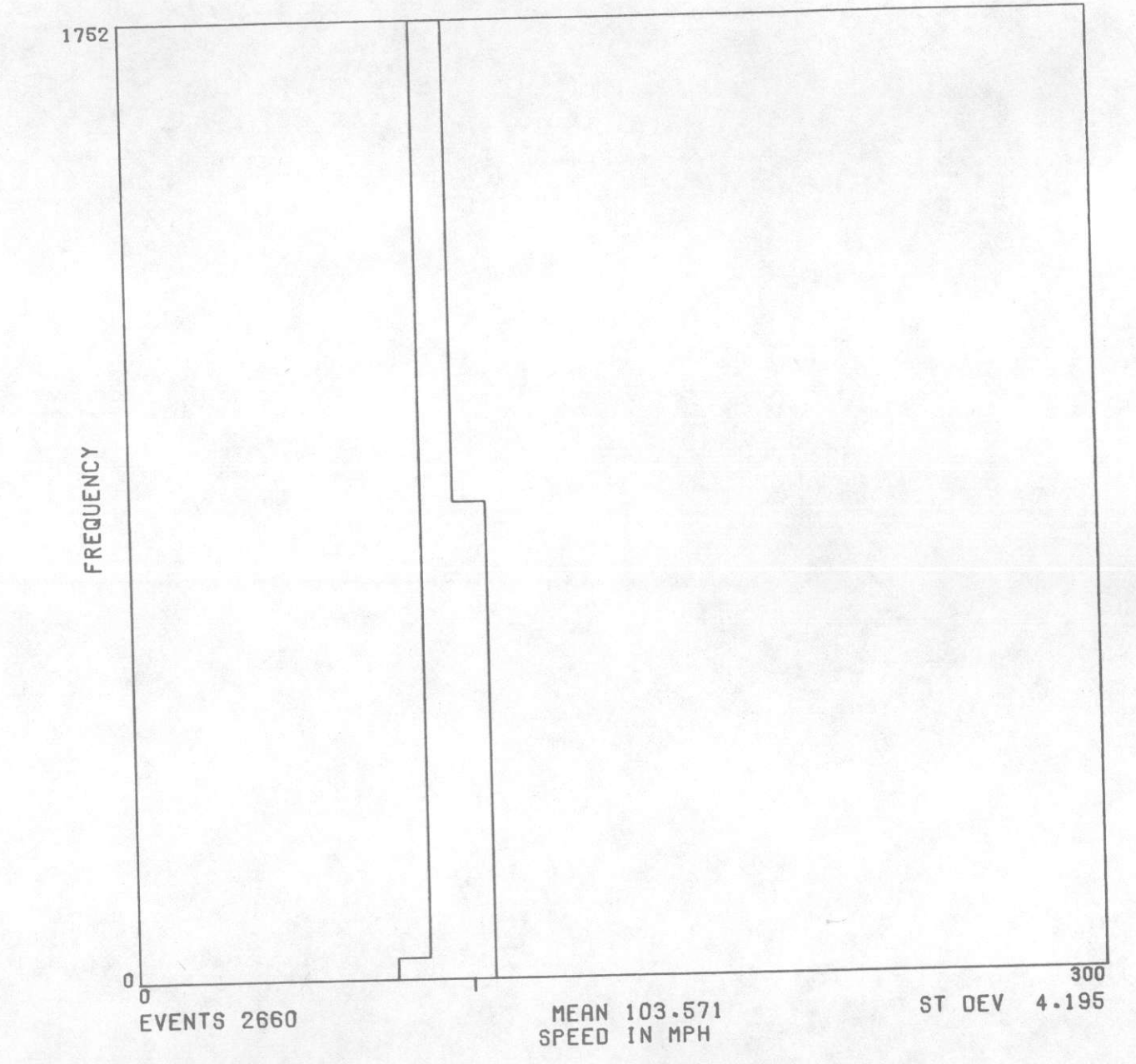
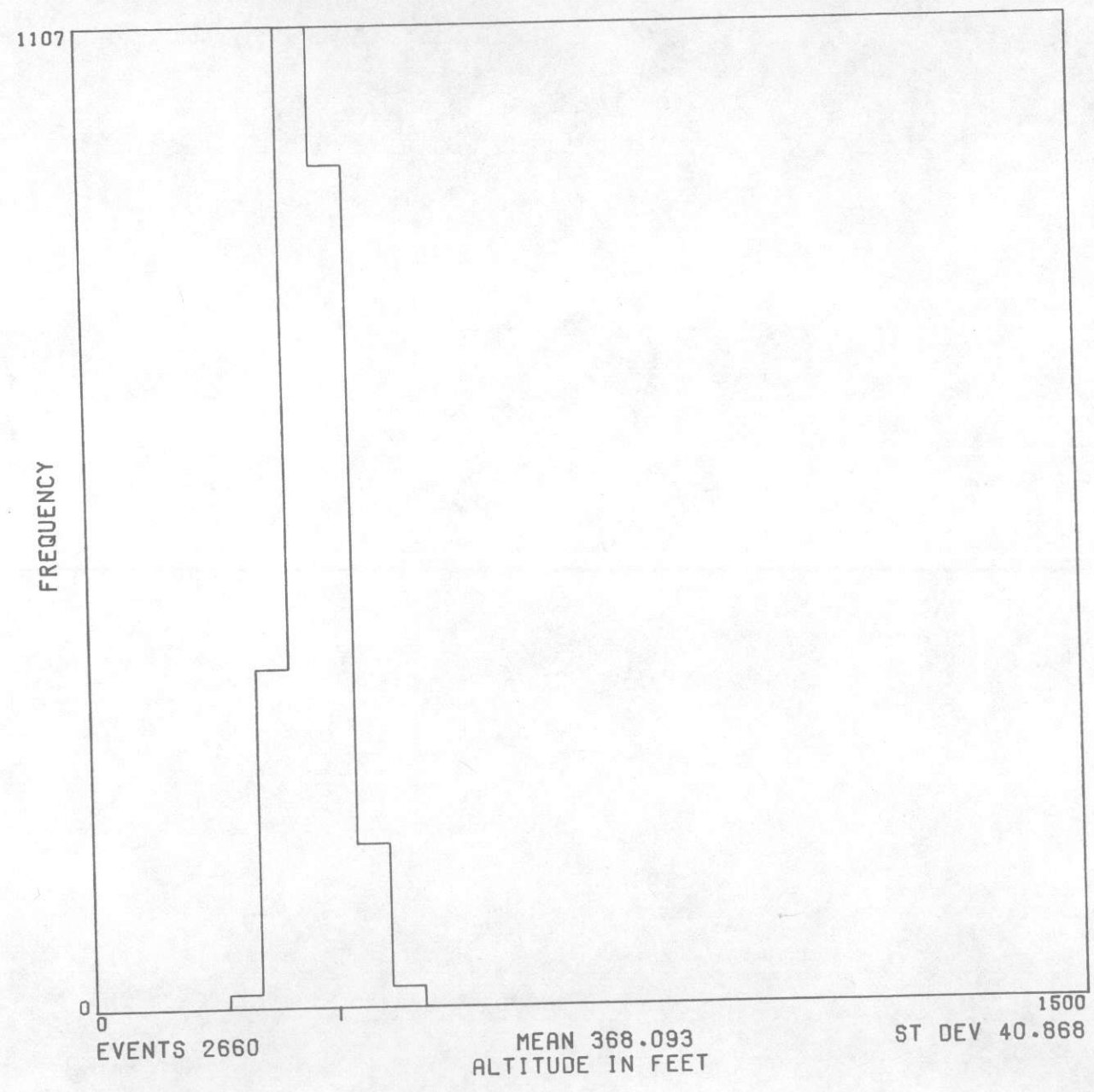


TL10

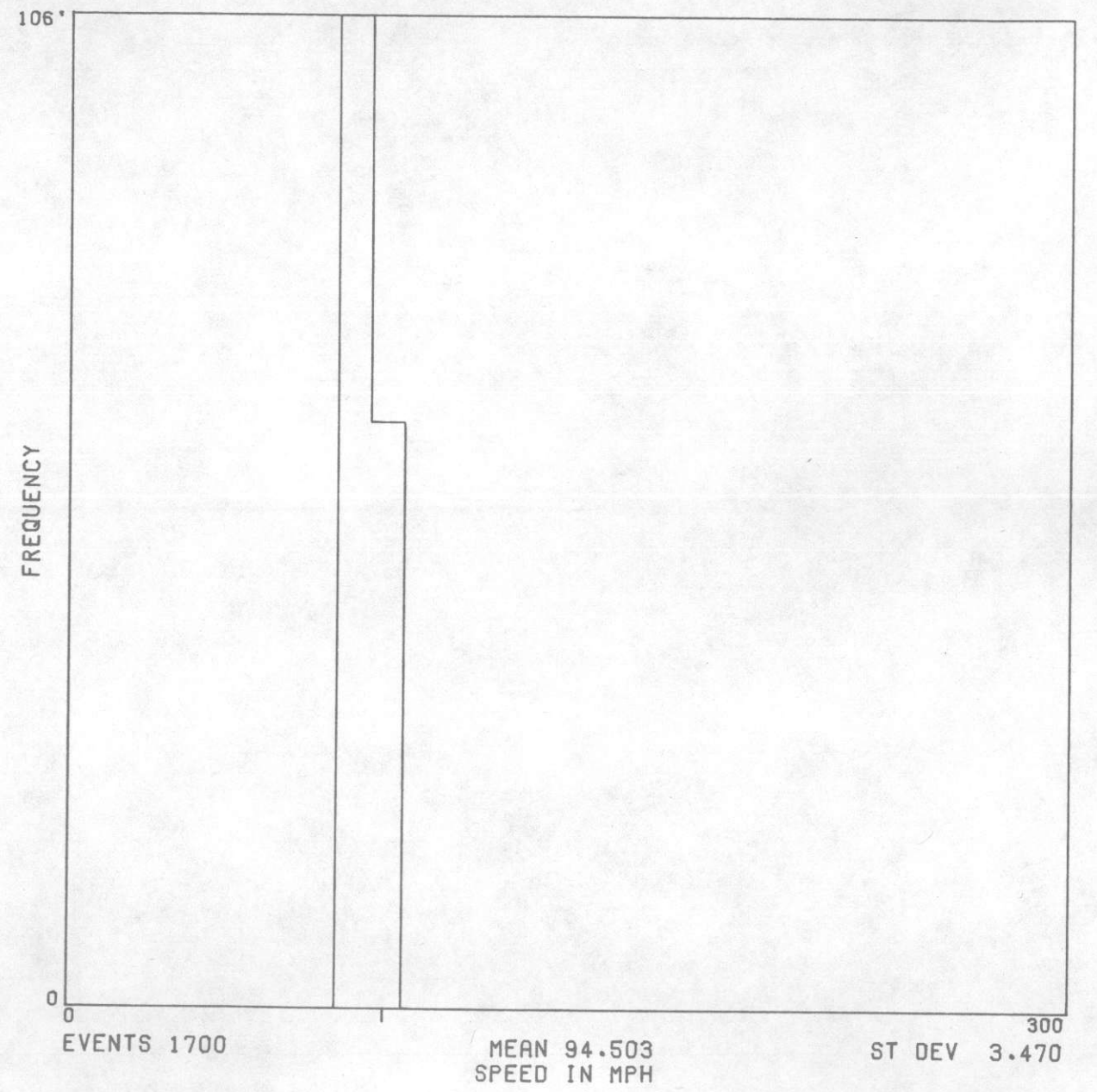
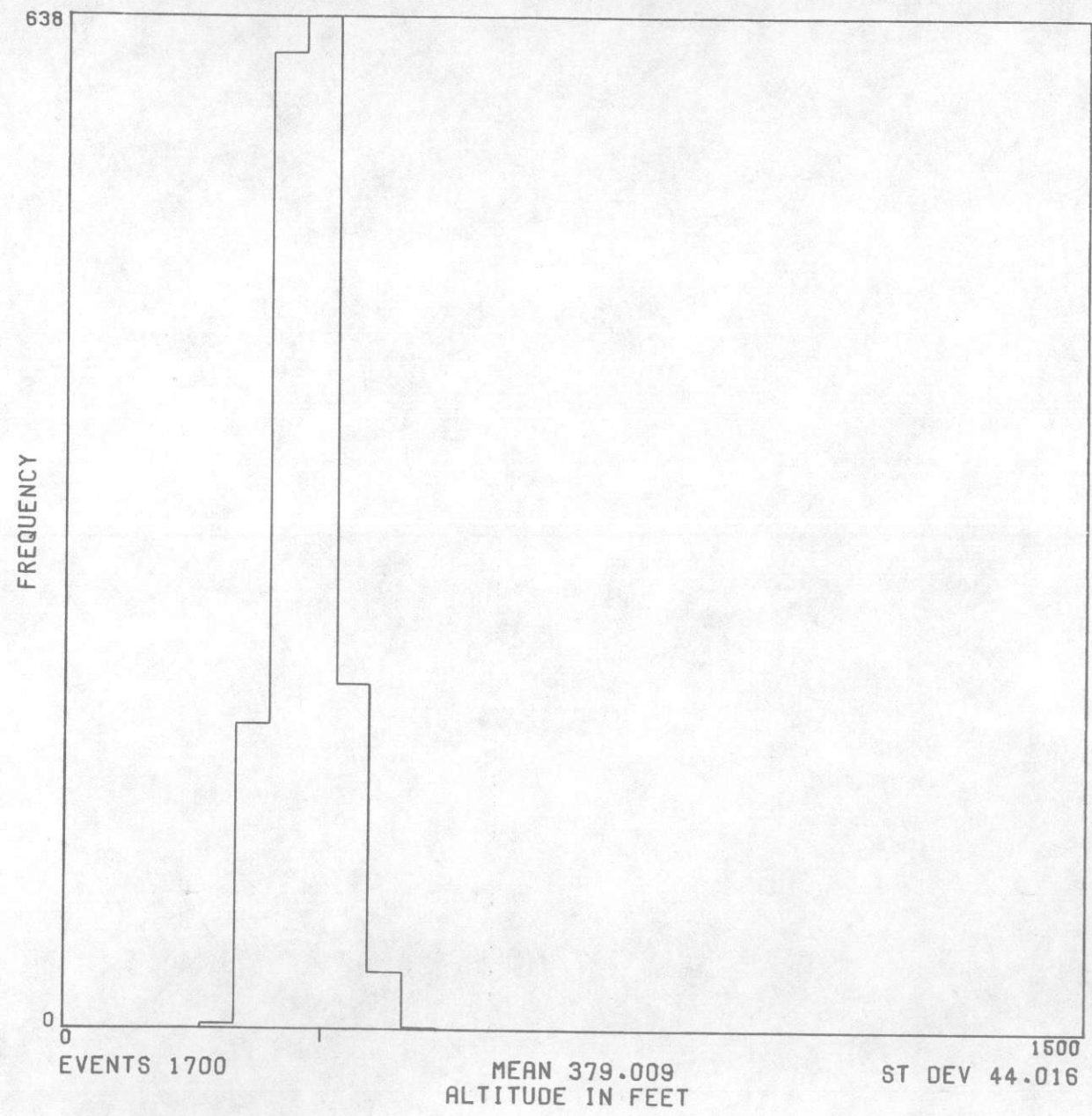


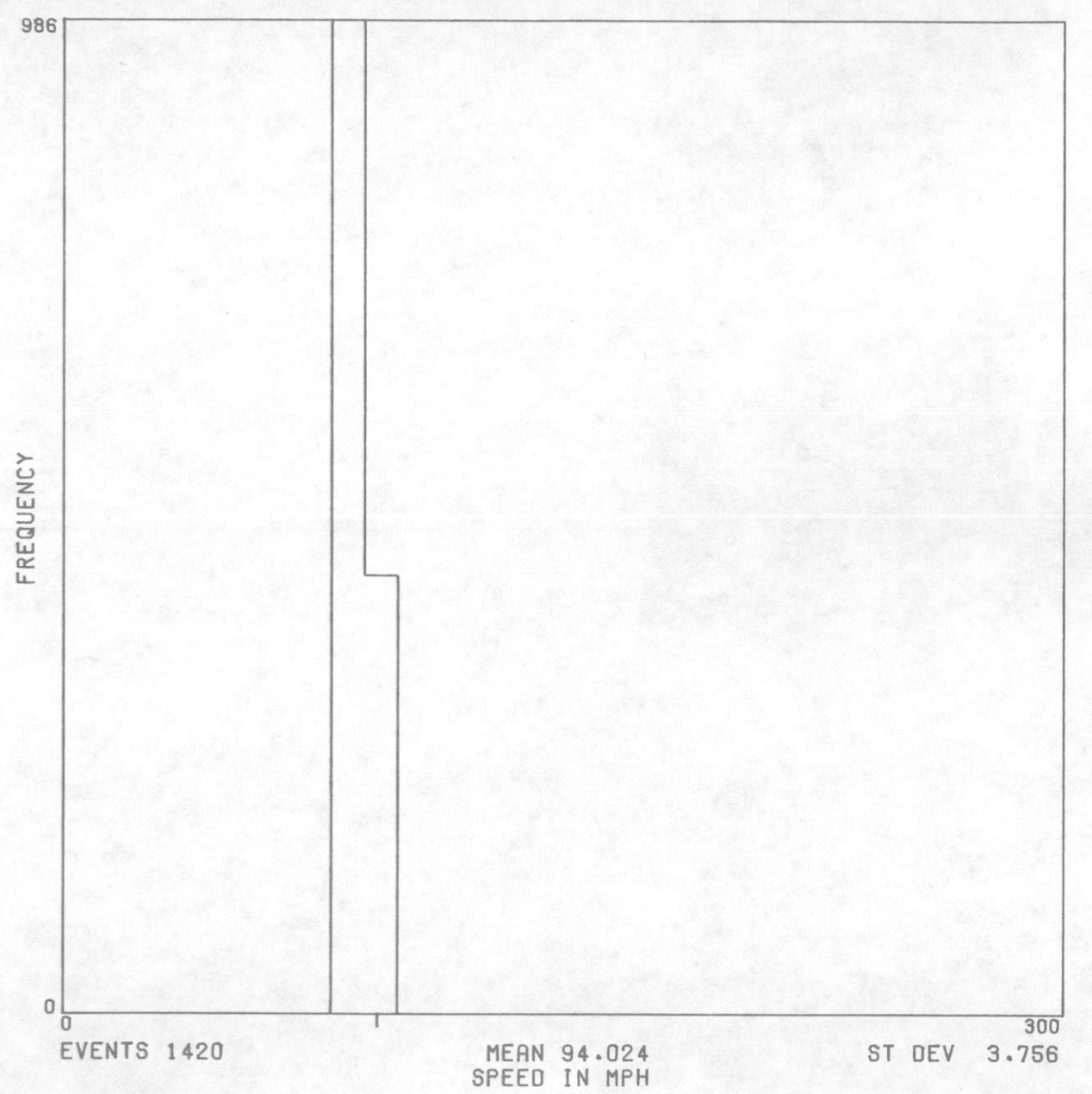
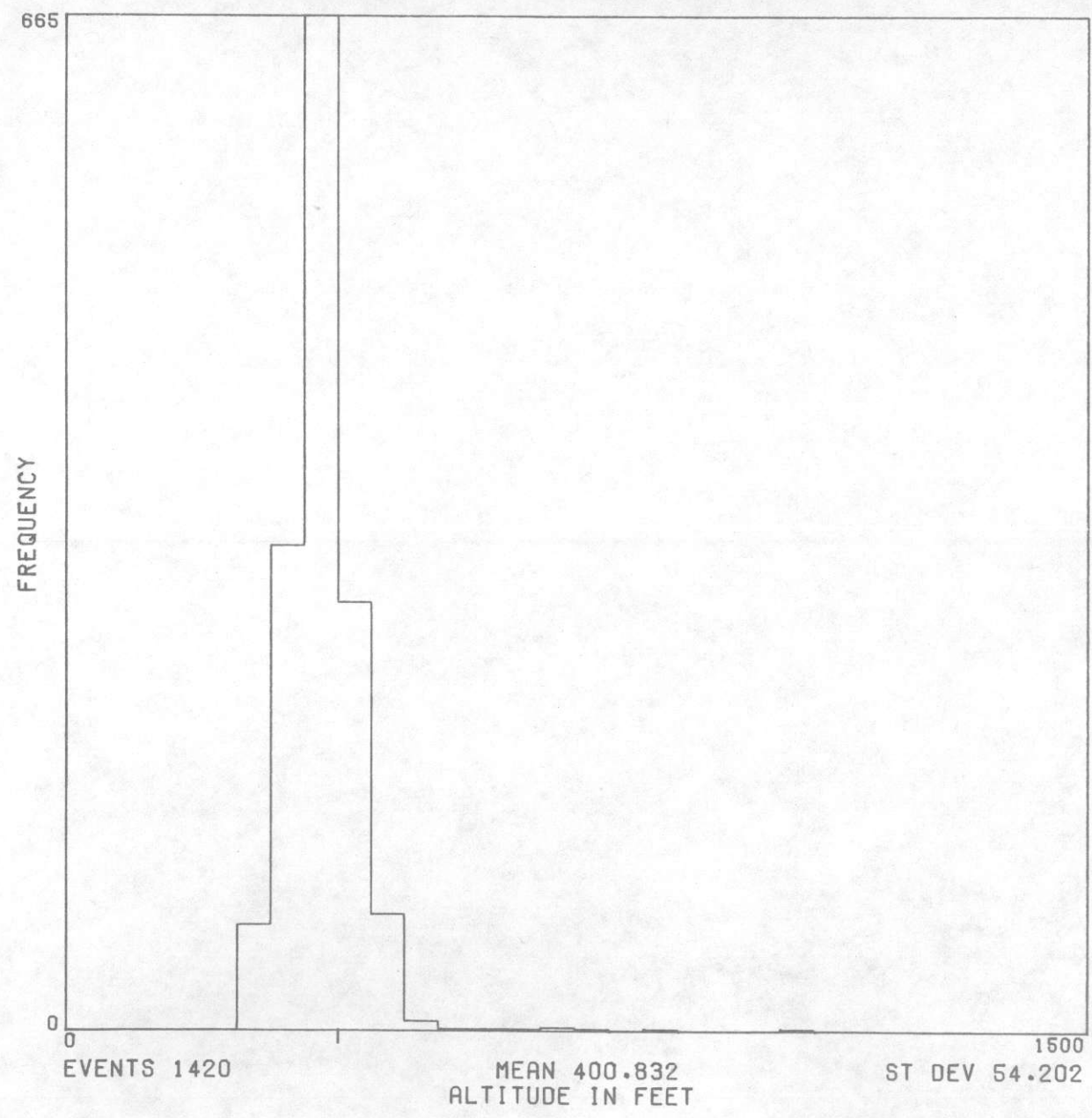
1W

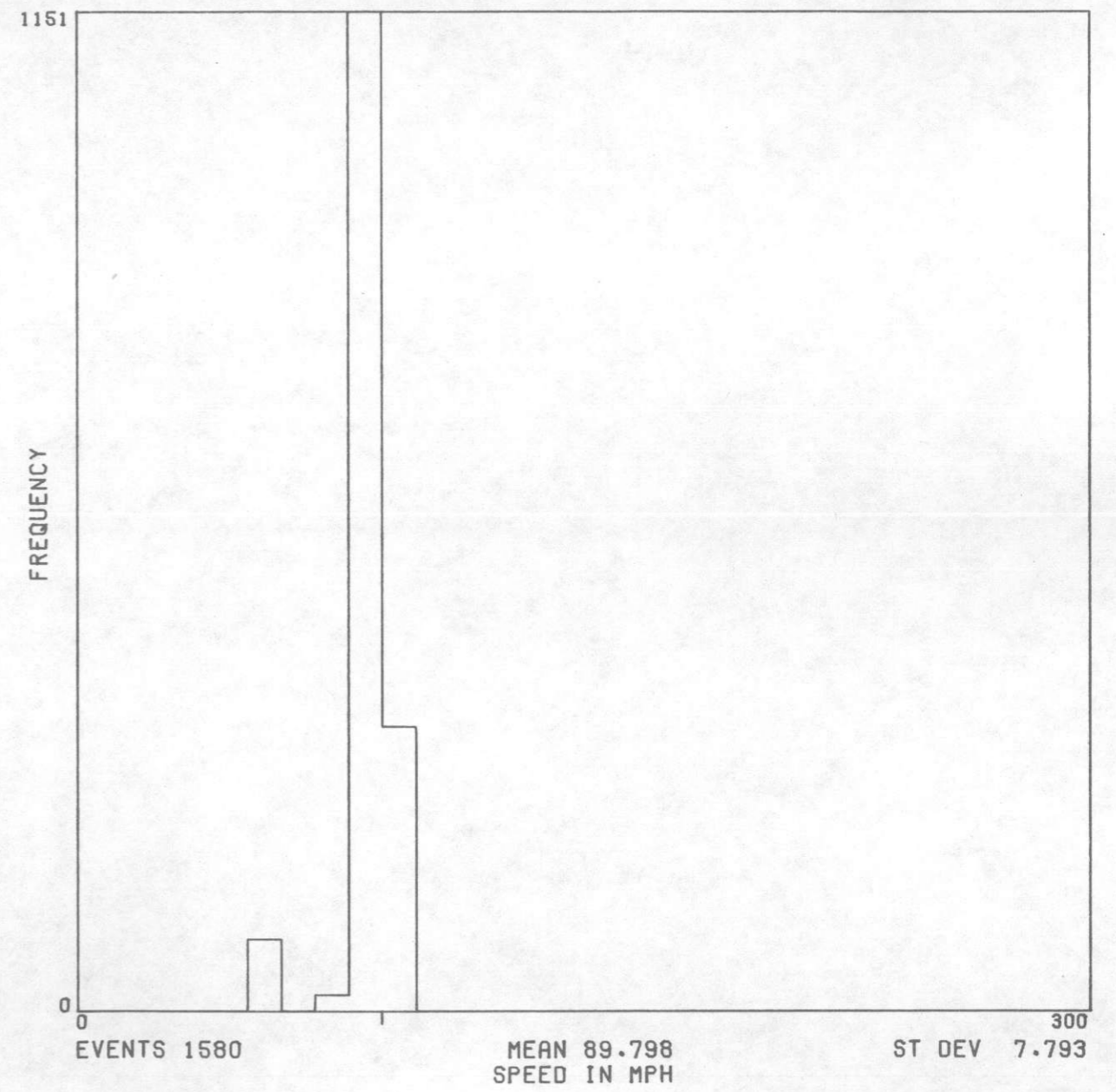
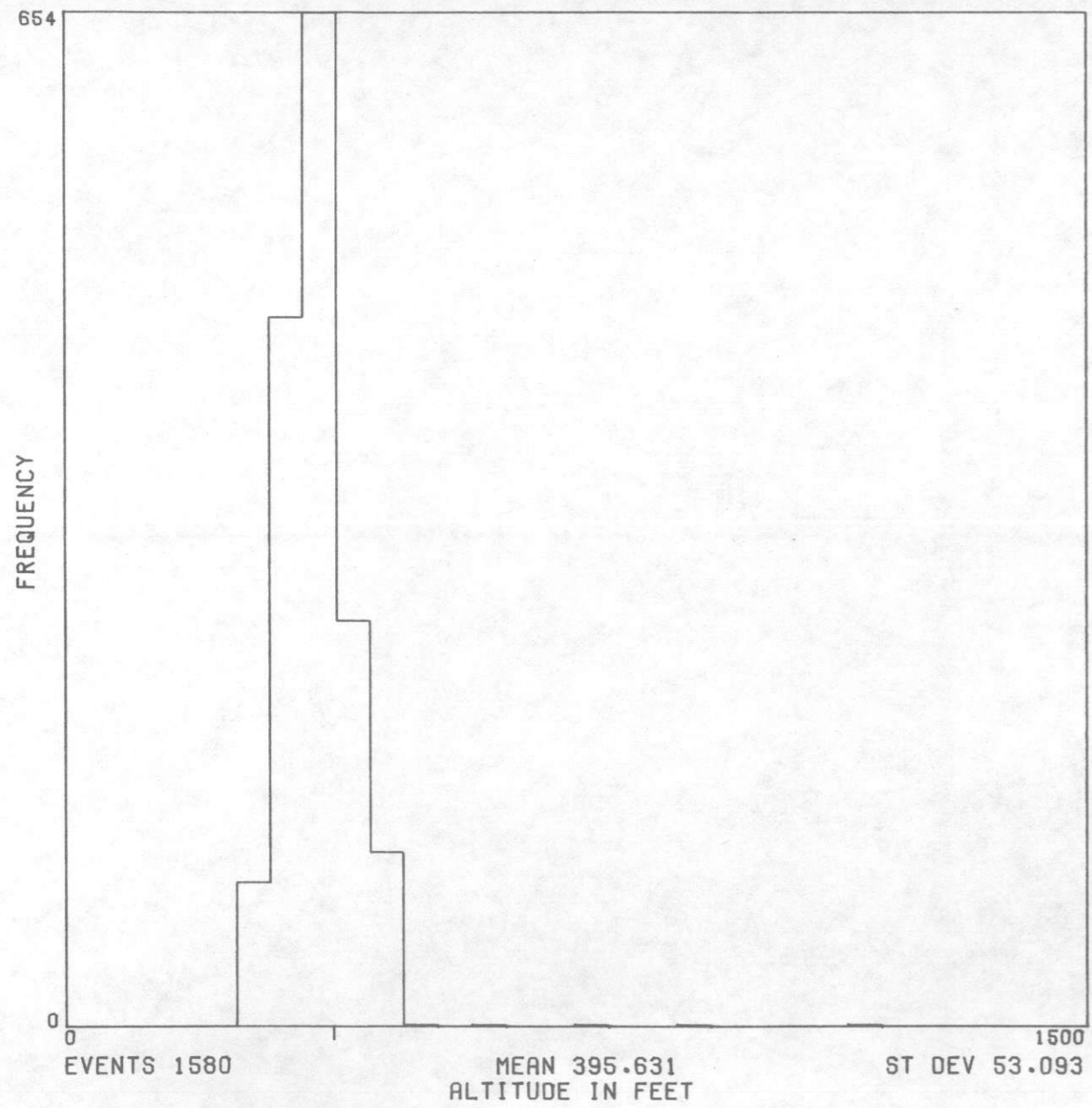


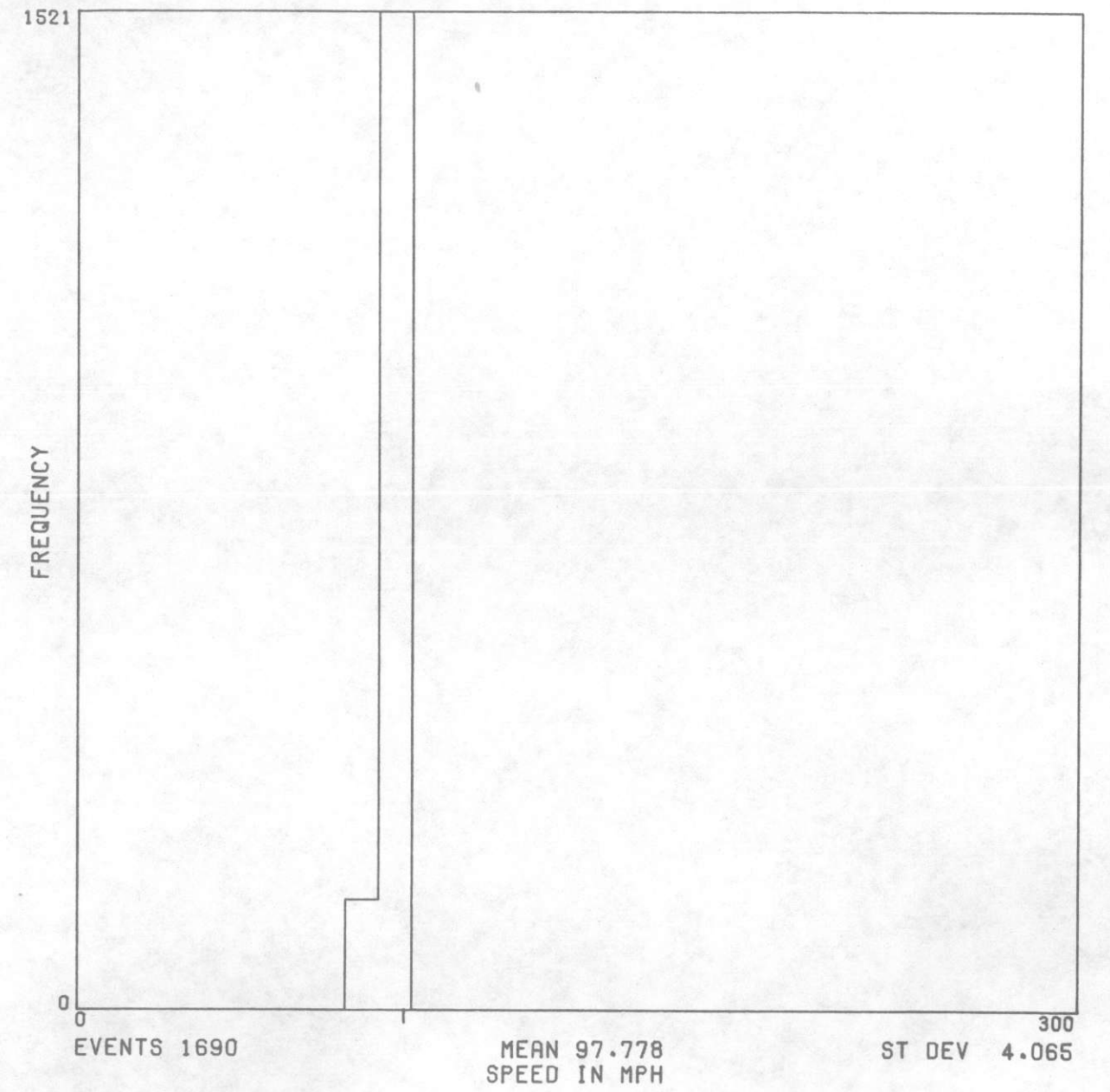
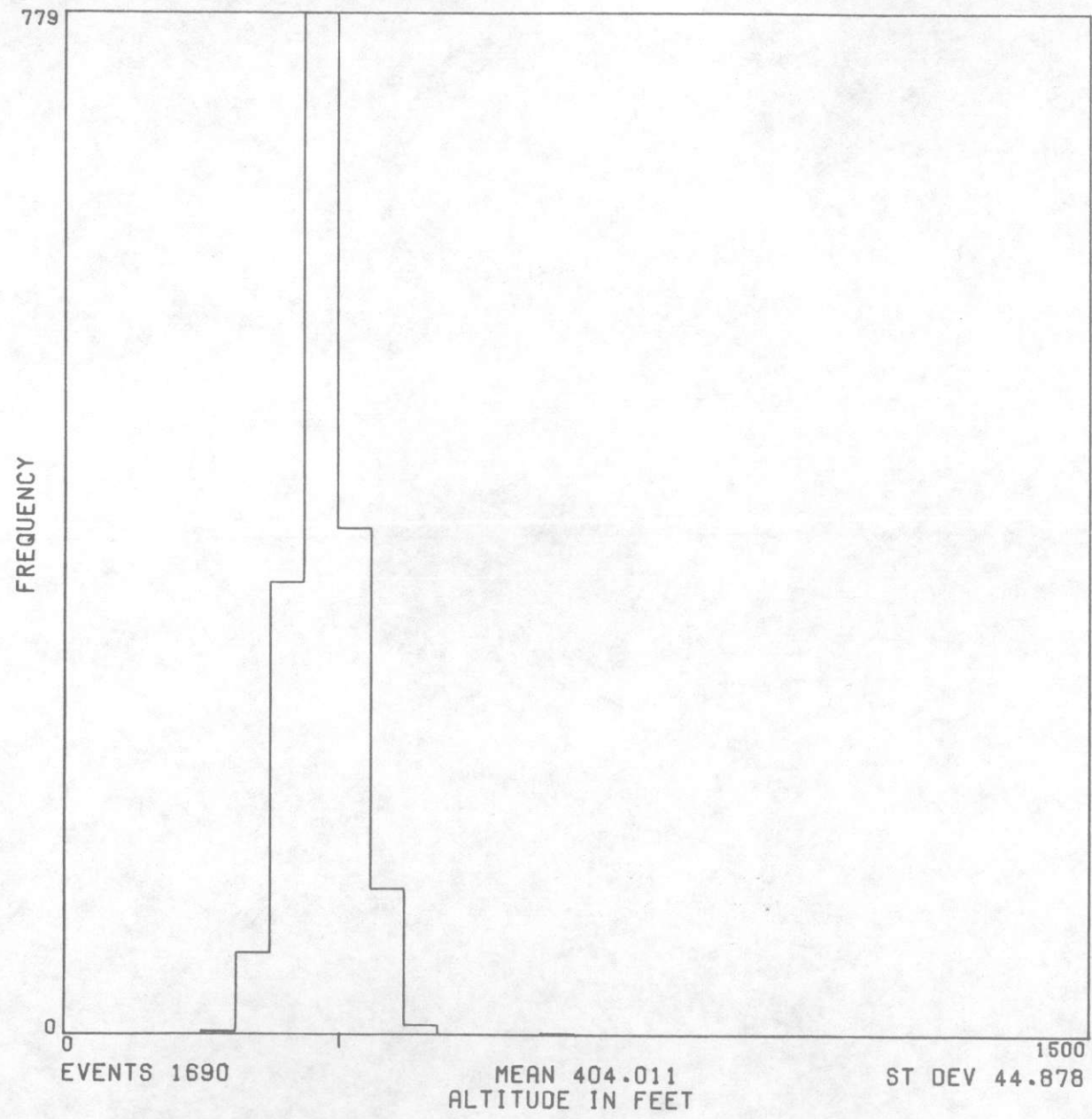


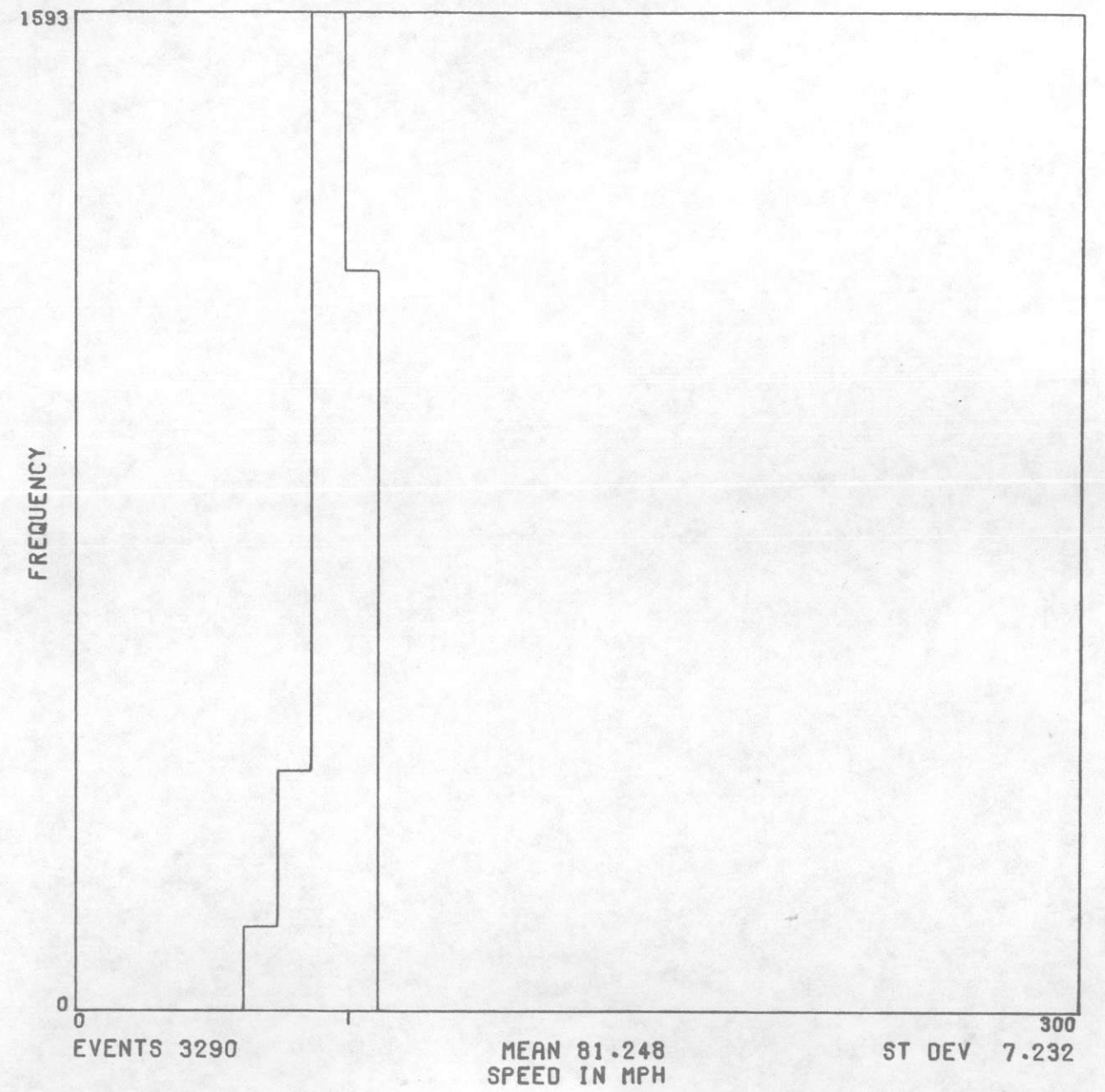
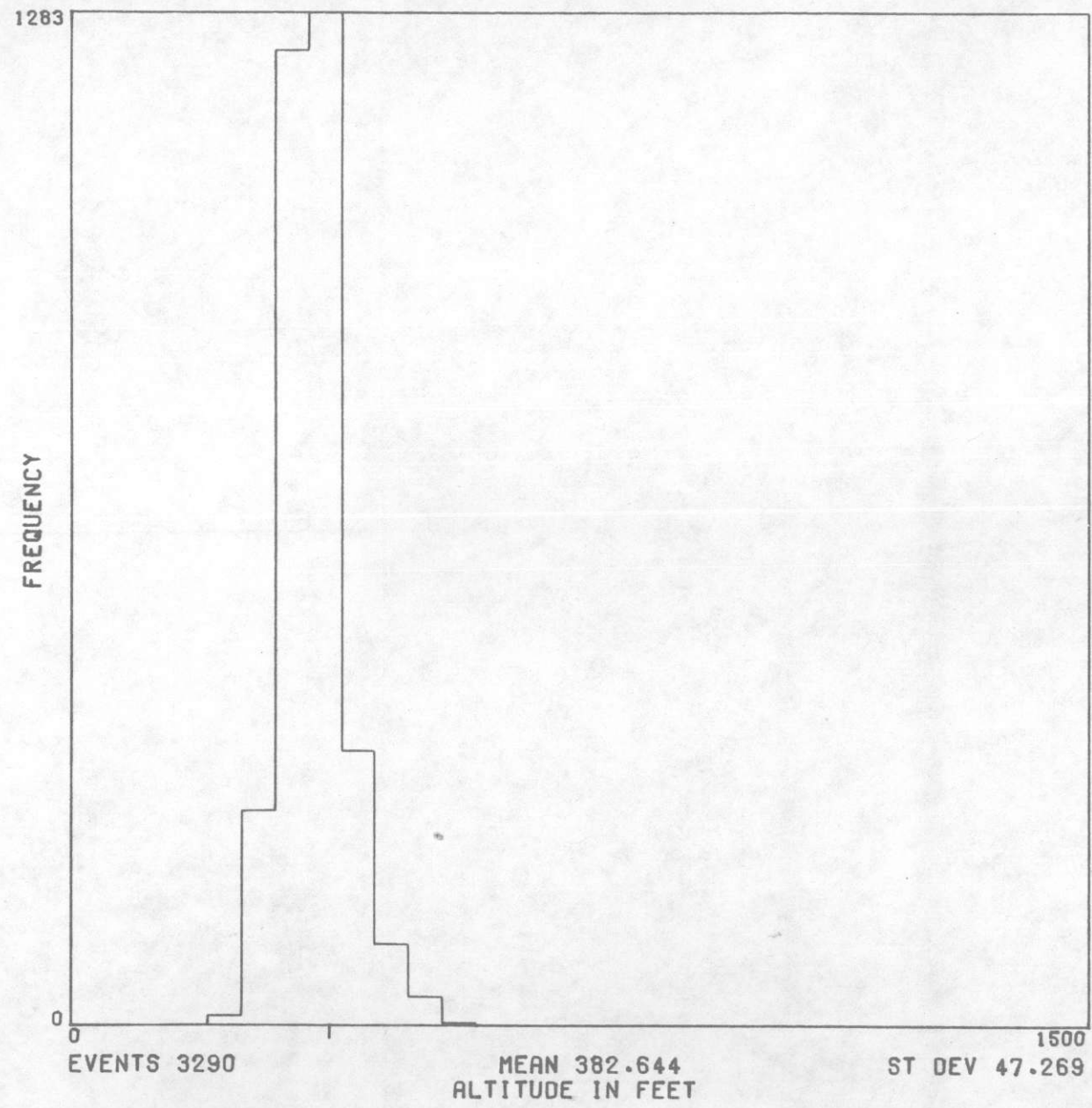
2W

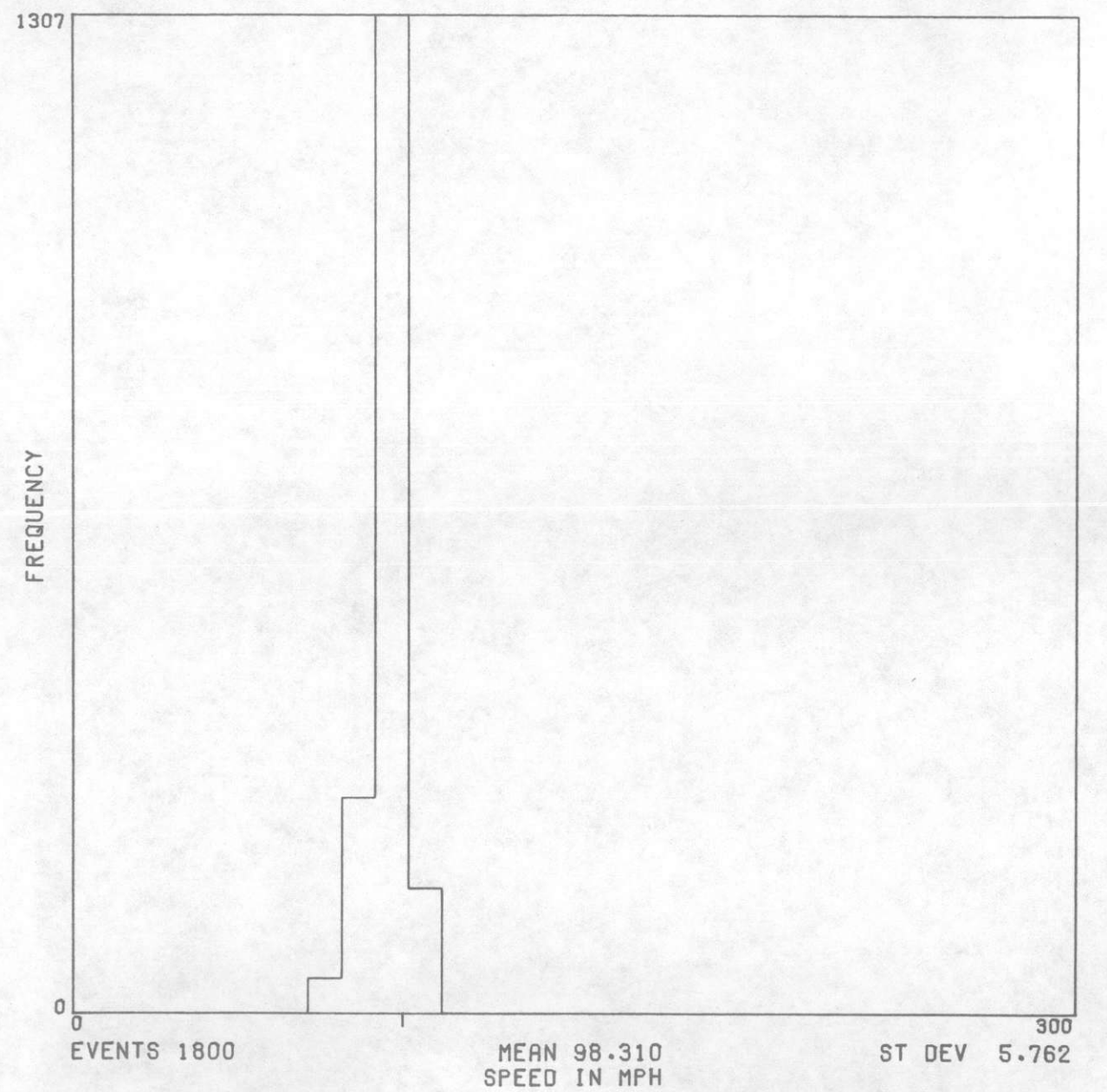
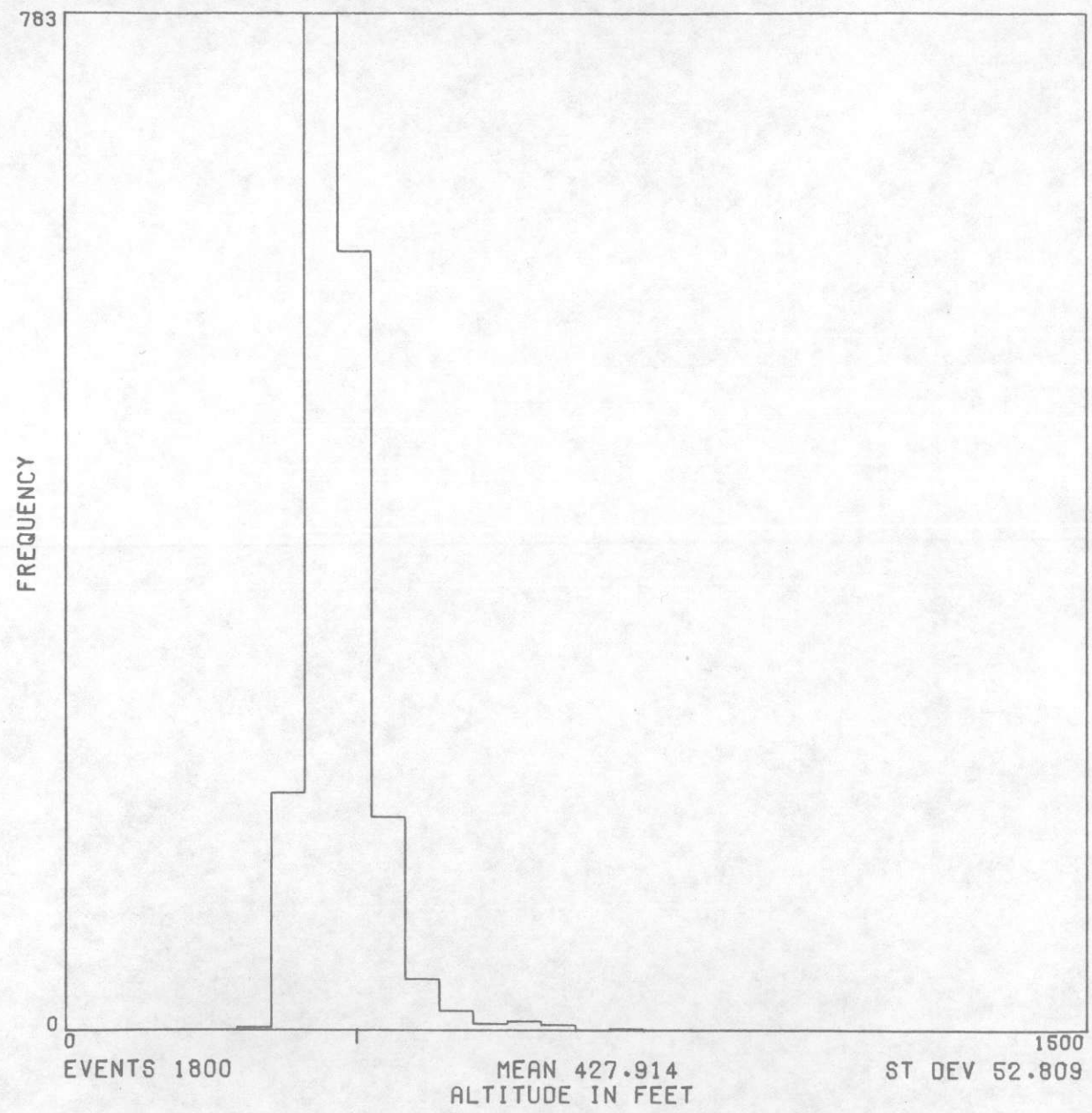


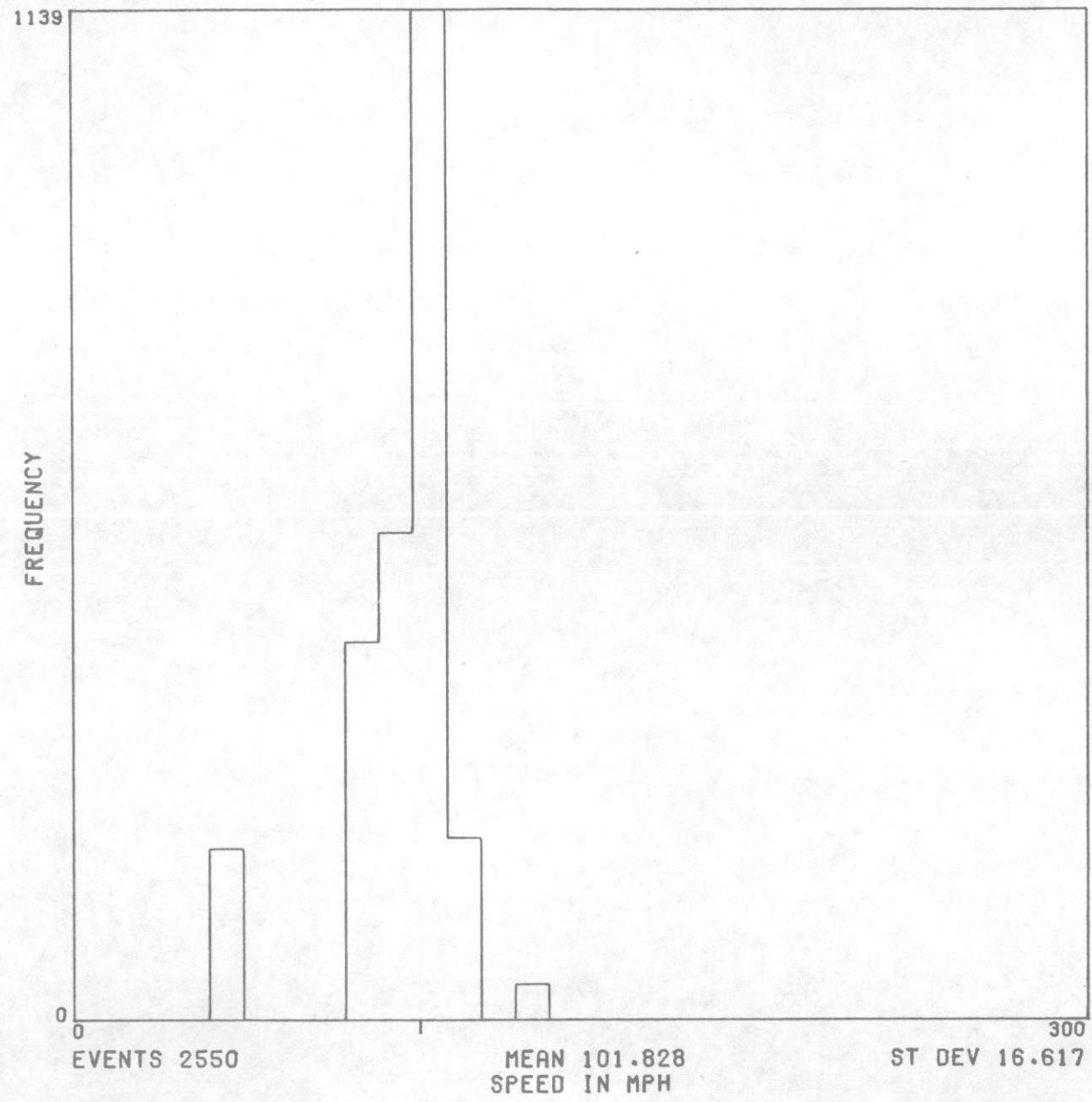
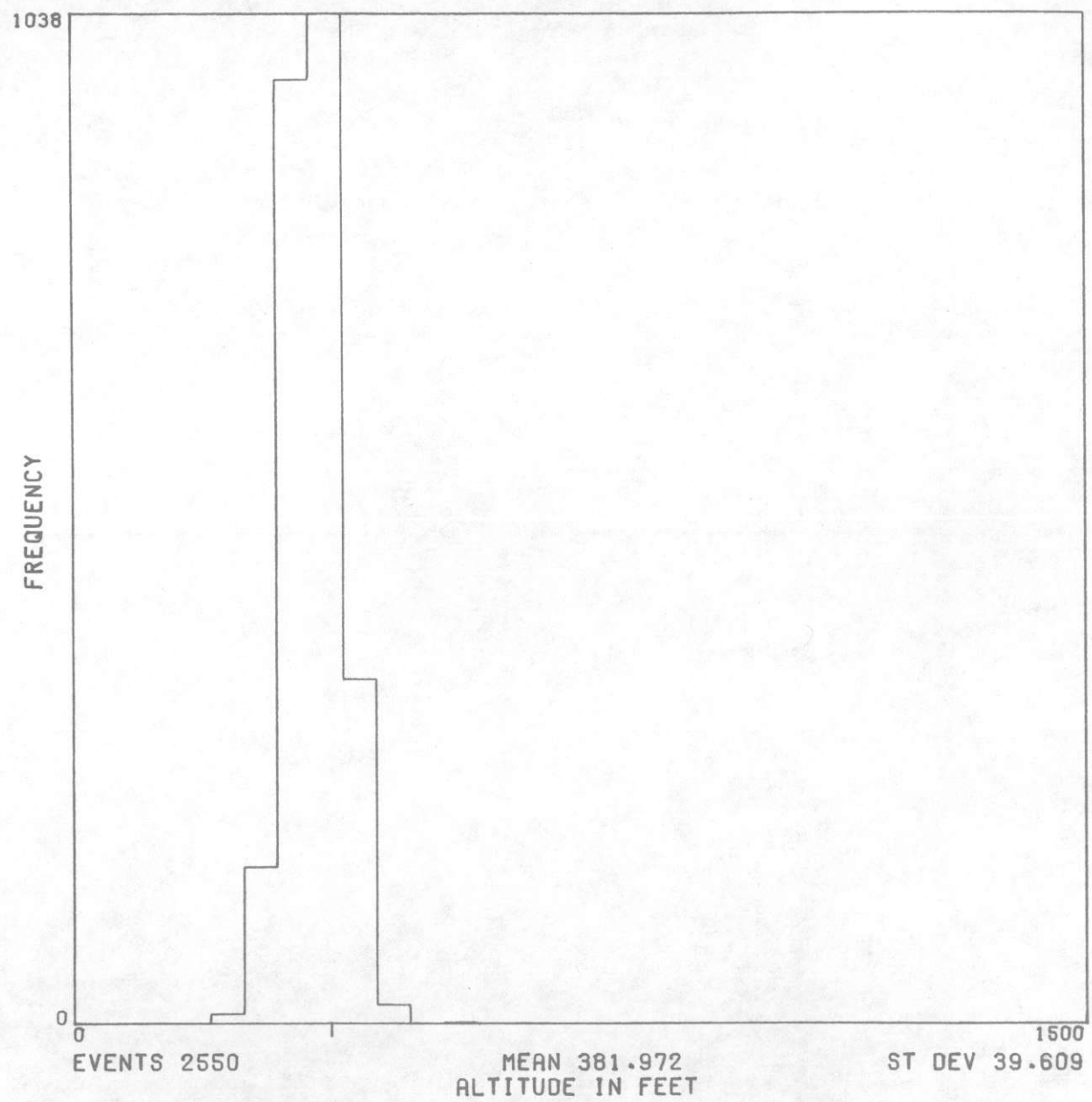




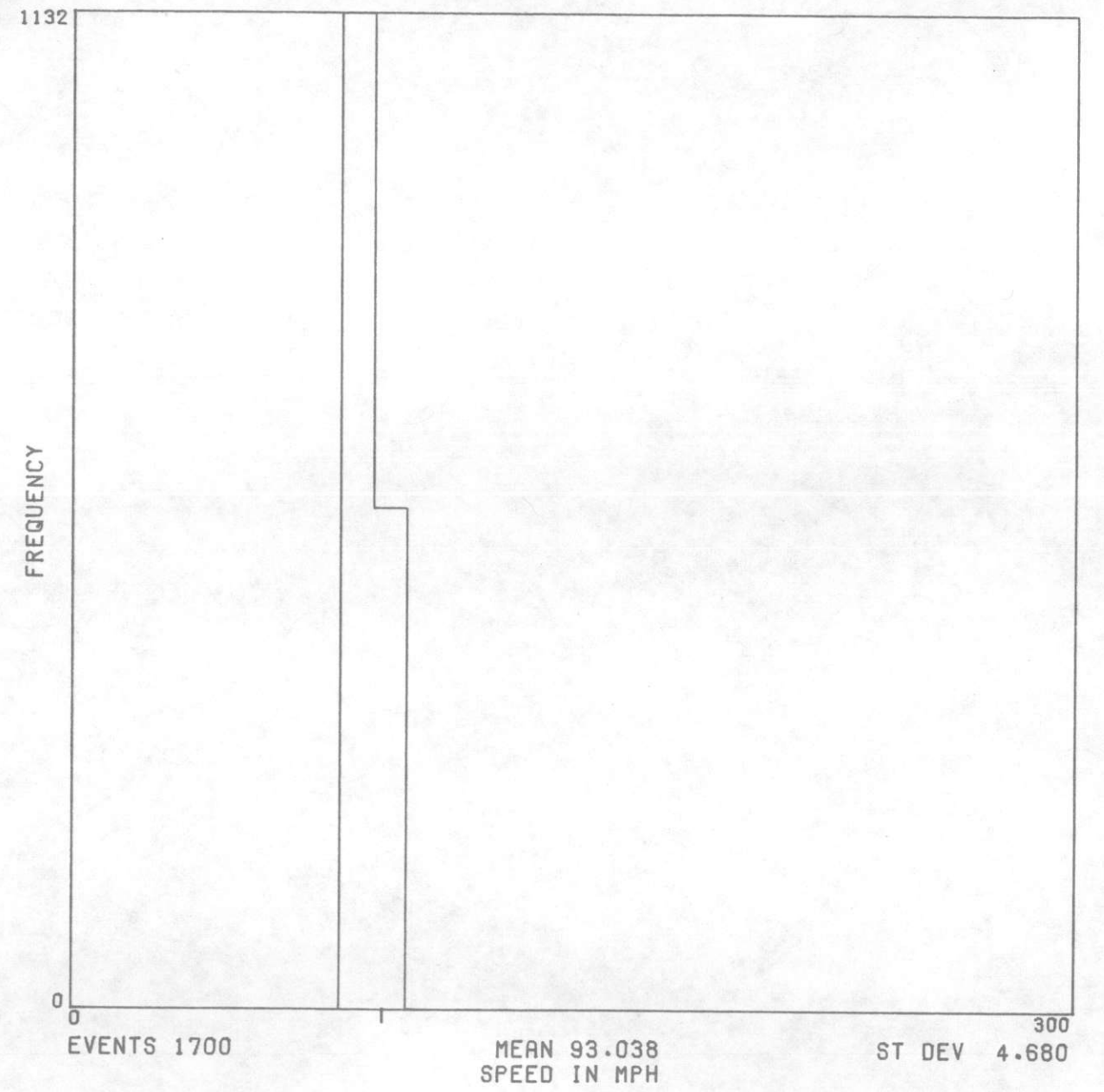
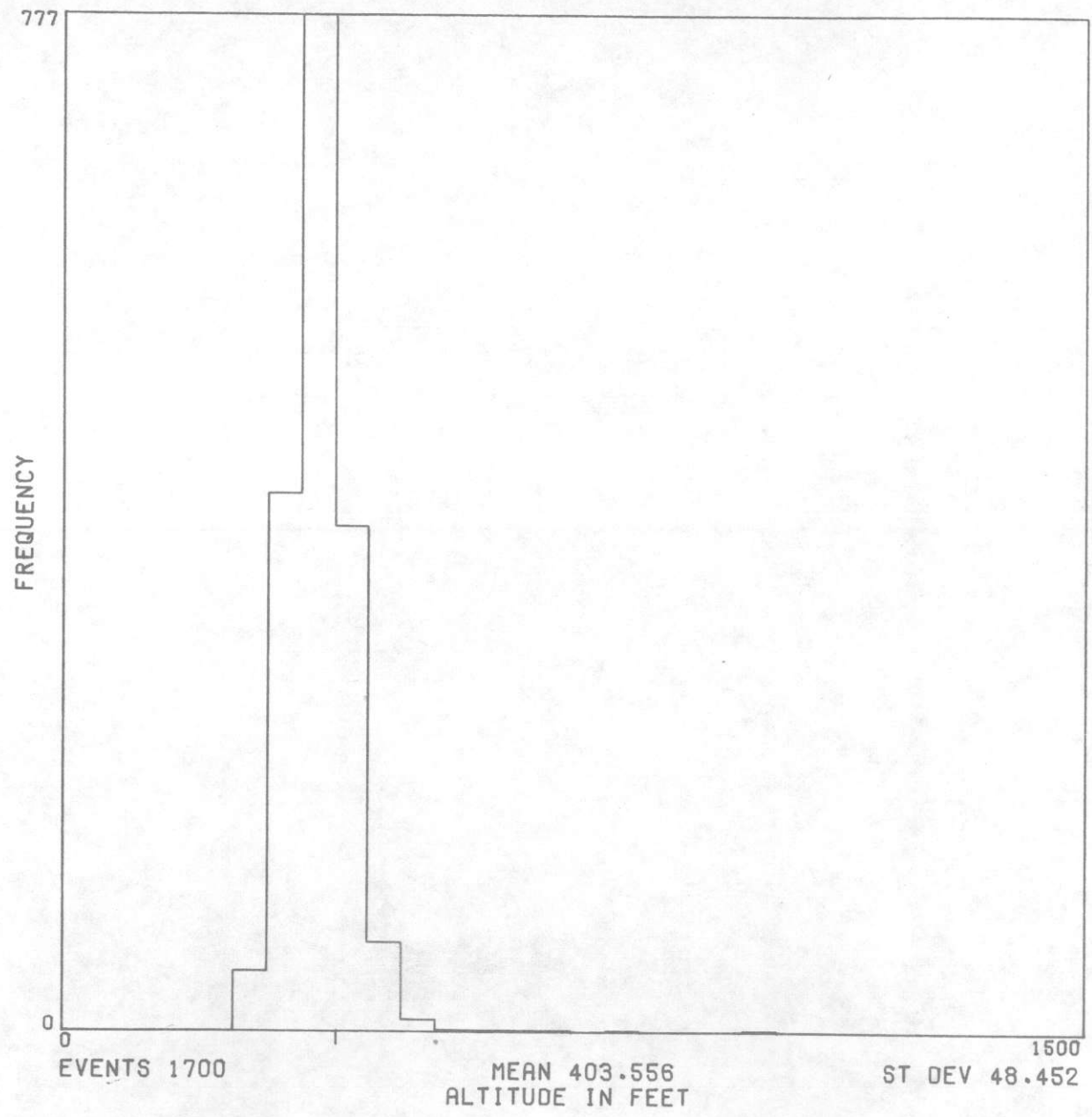




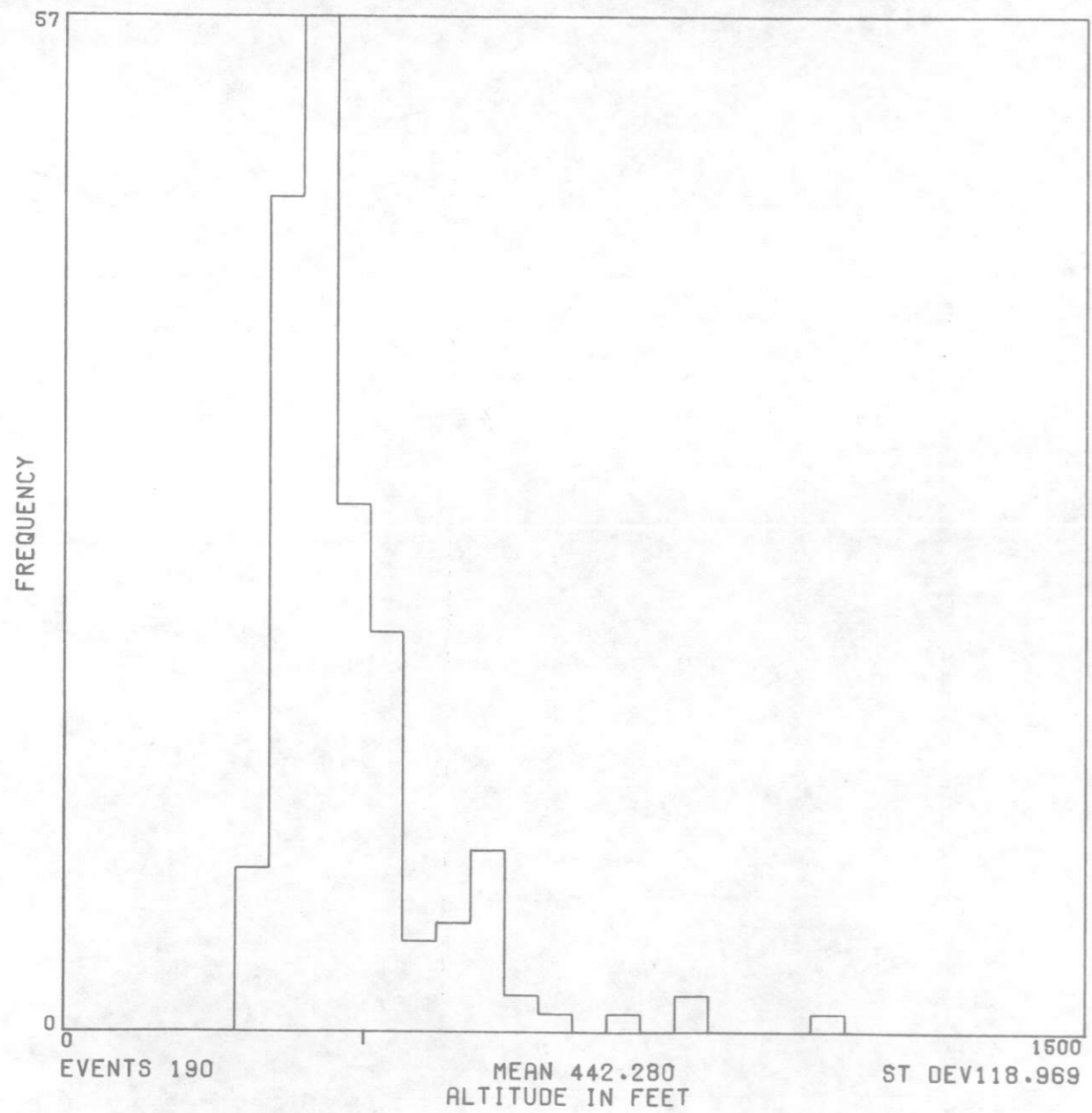




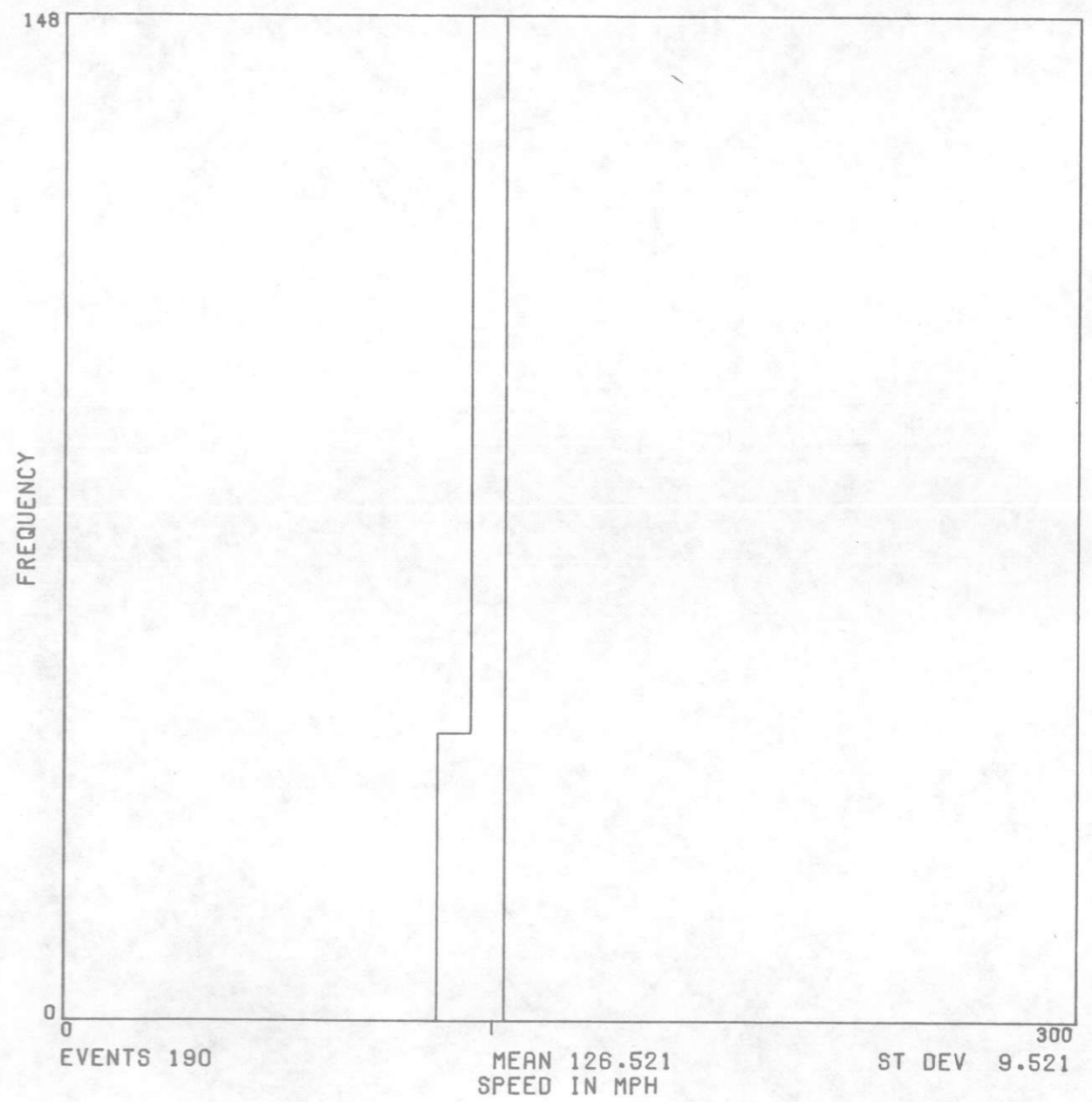
5W

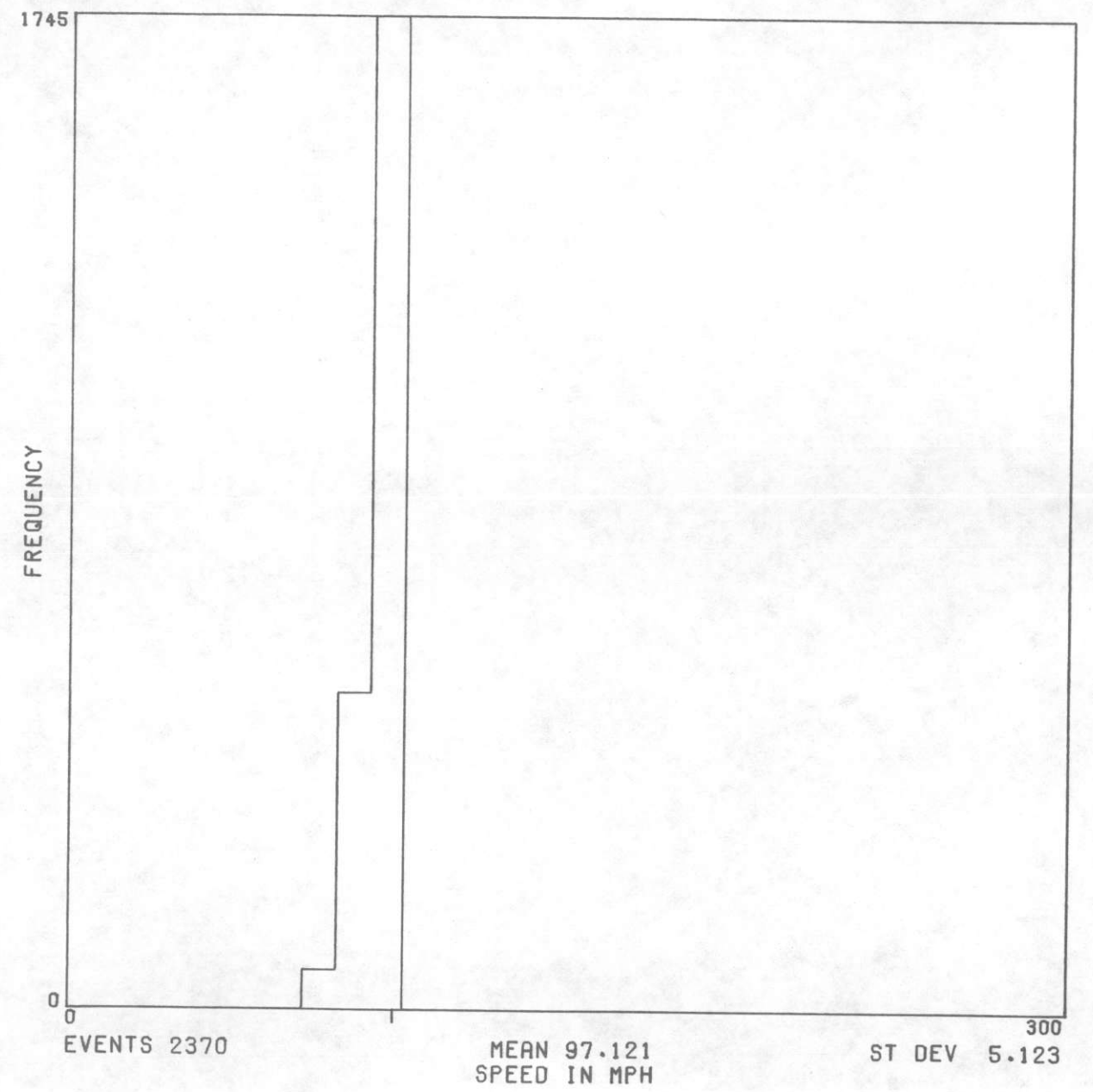
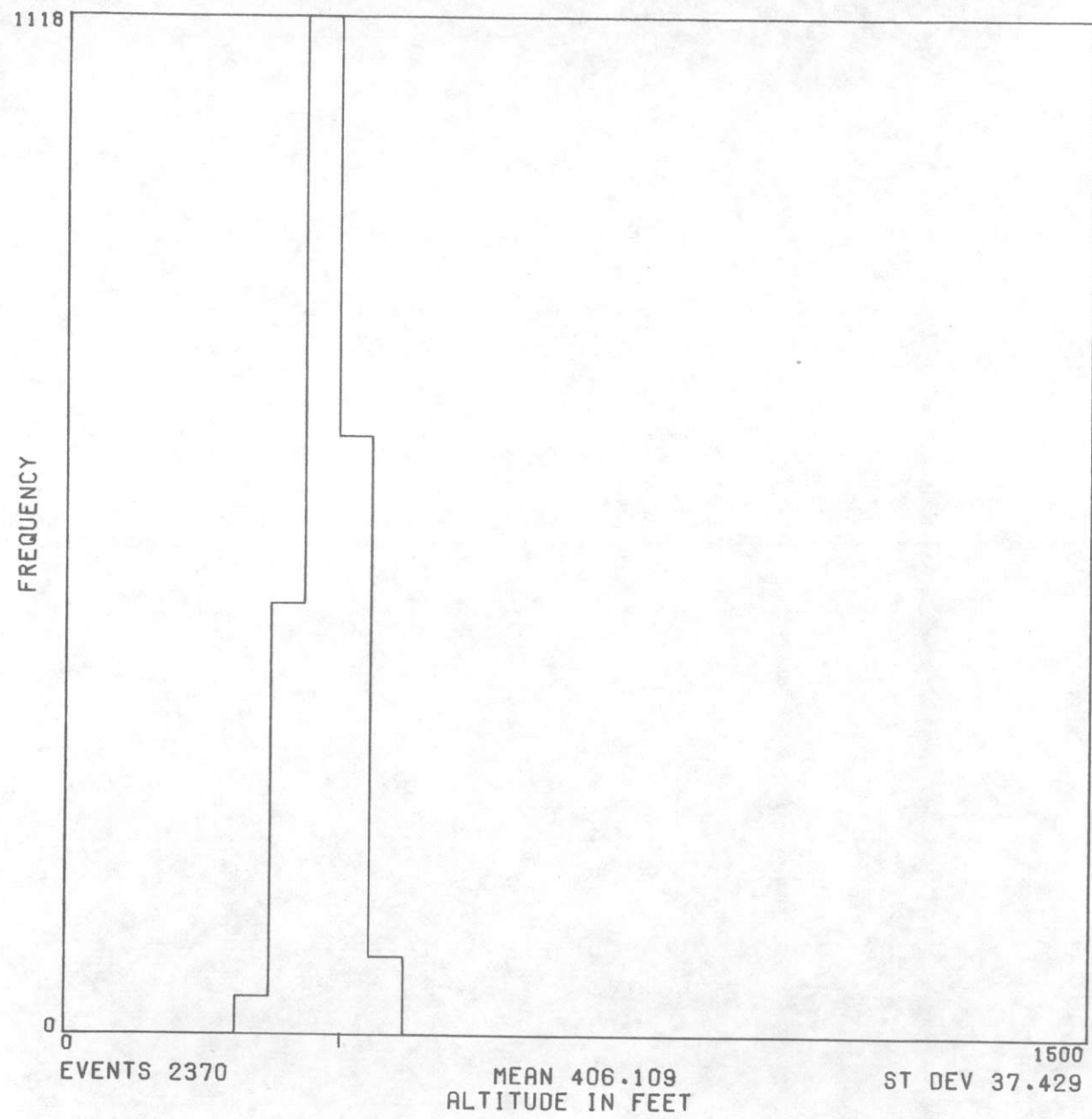


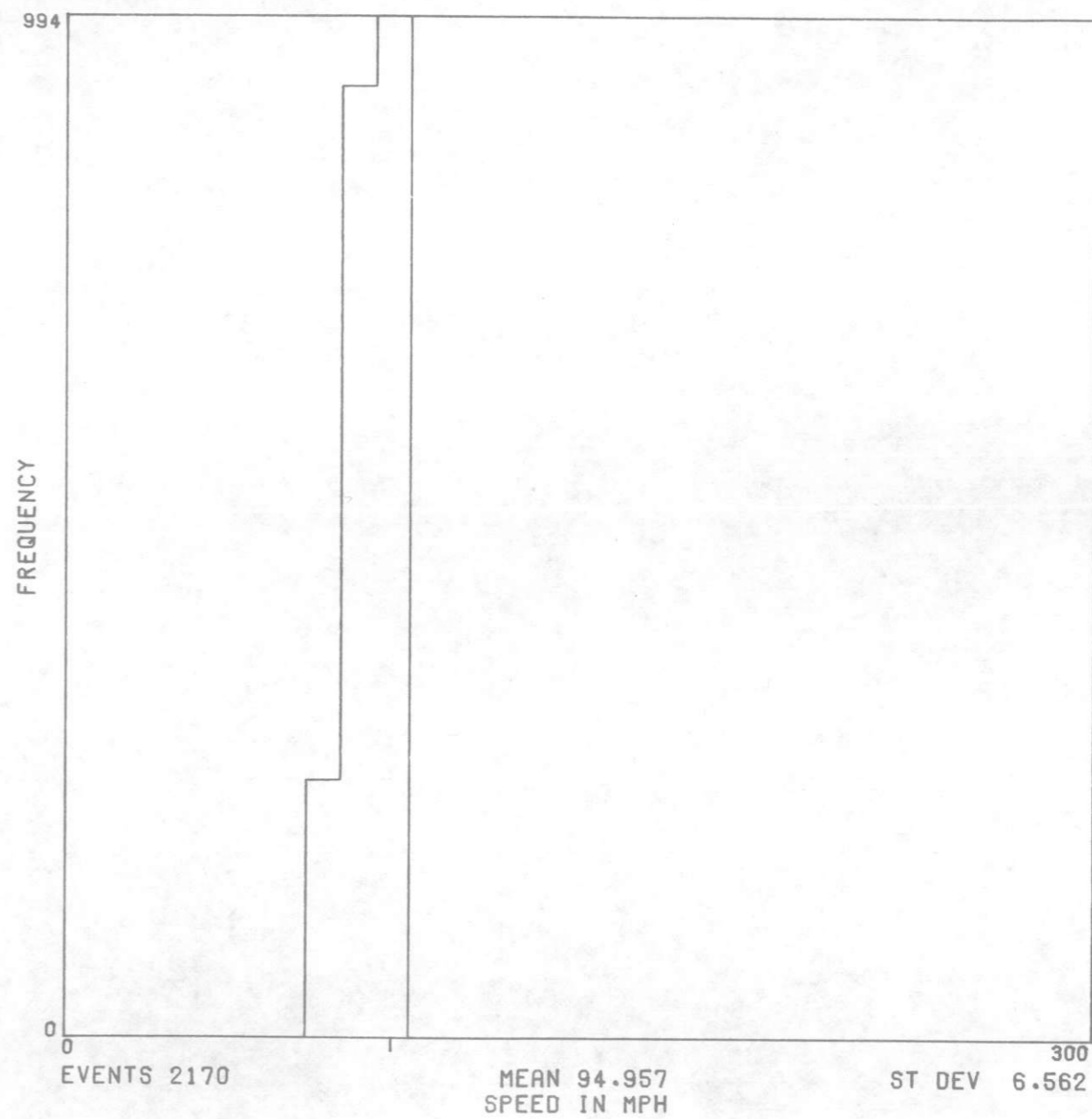
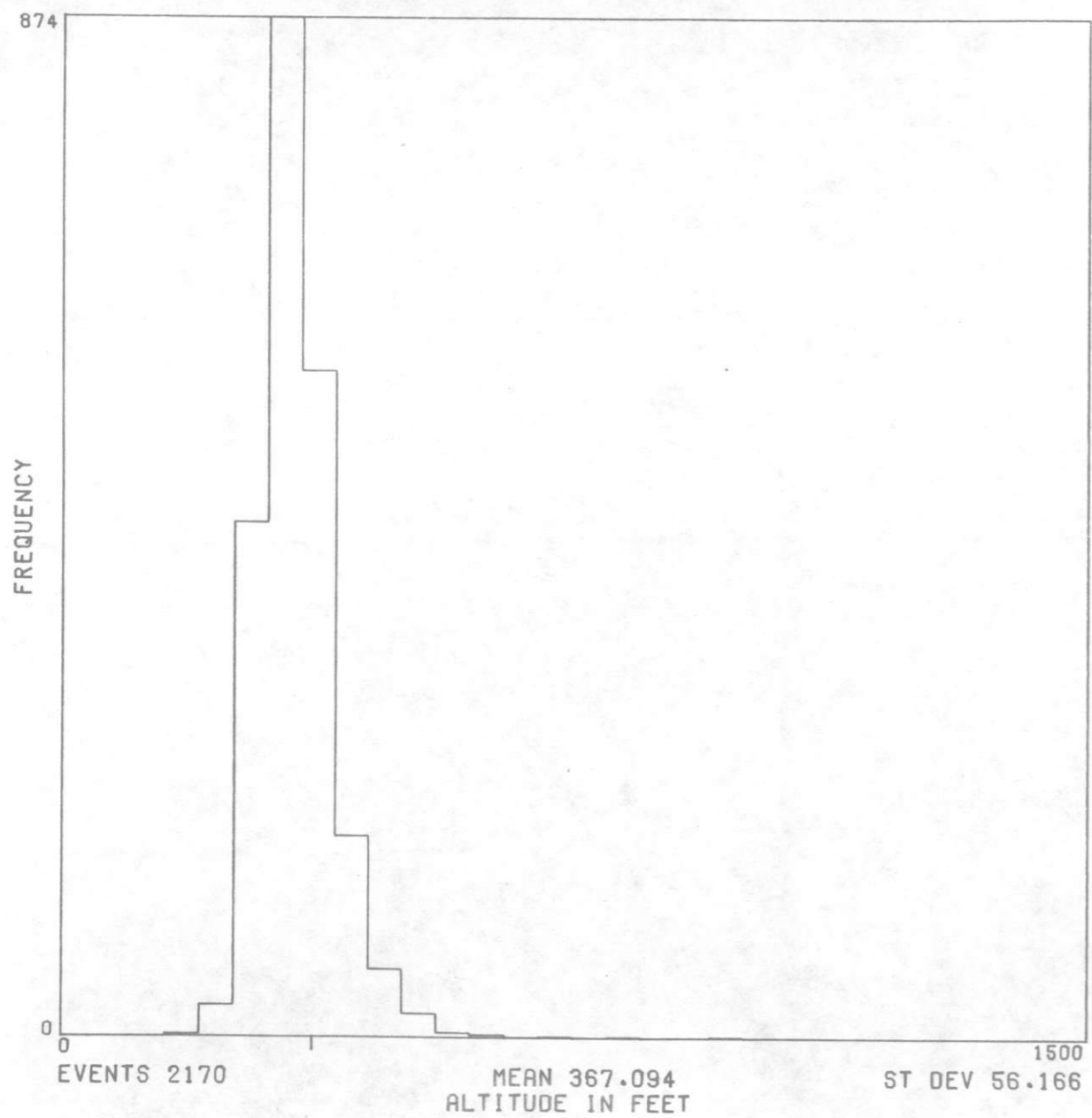
5E

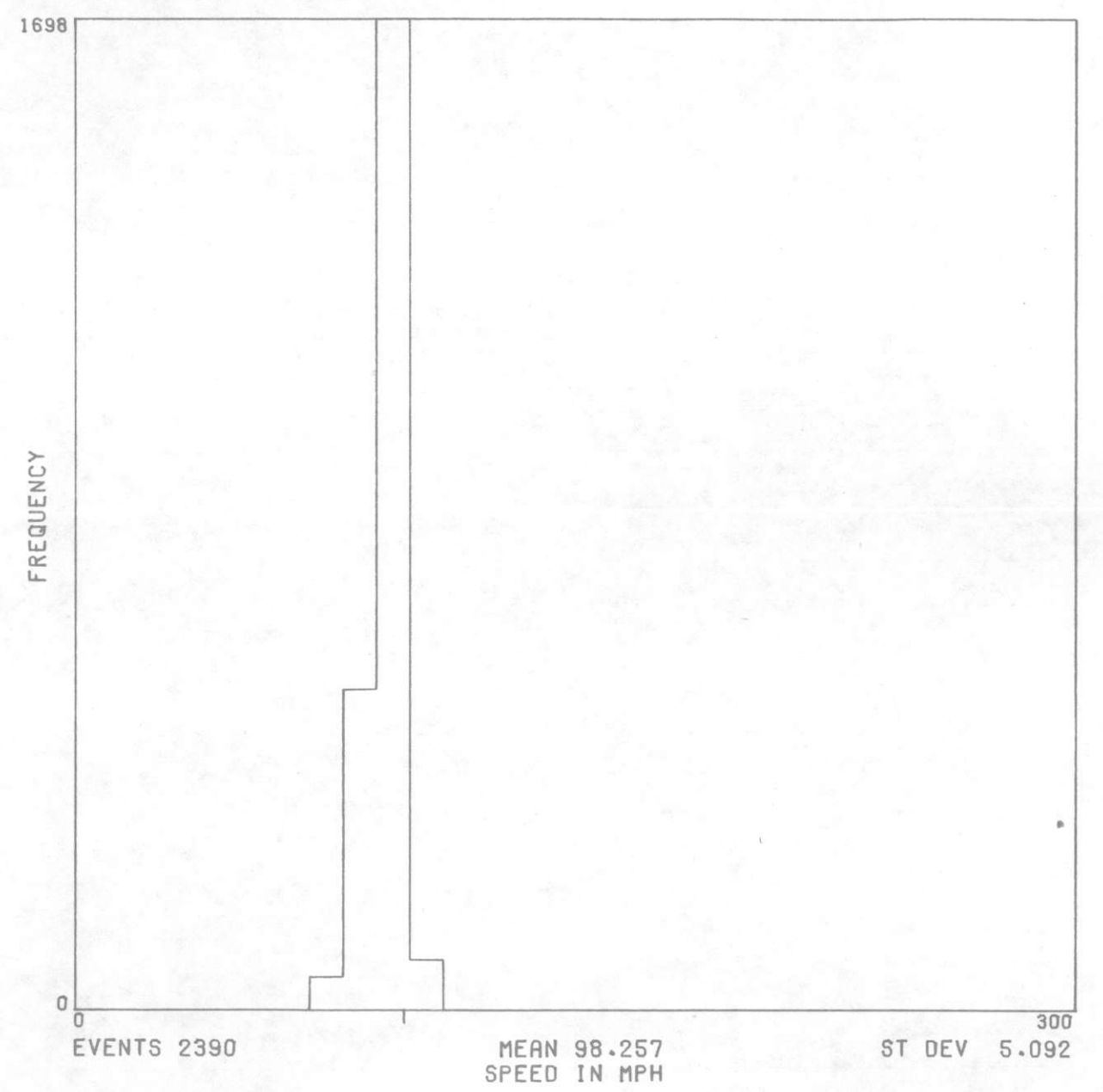
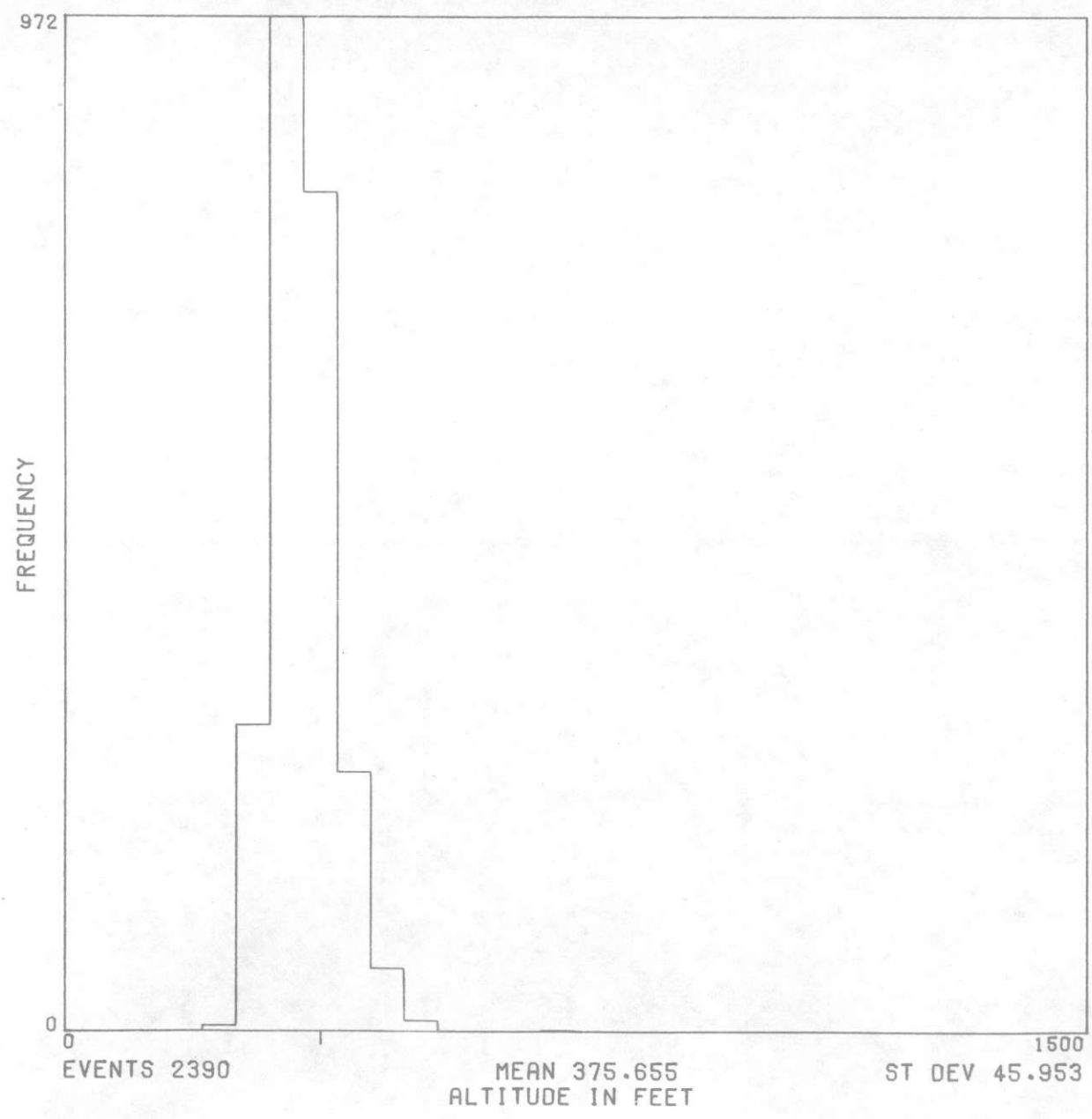


5E

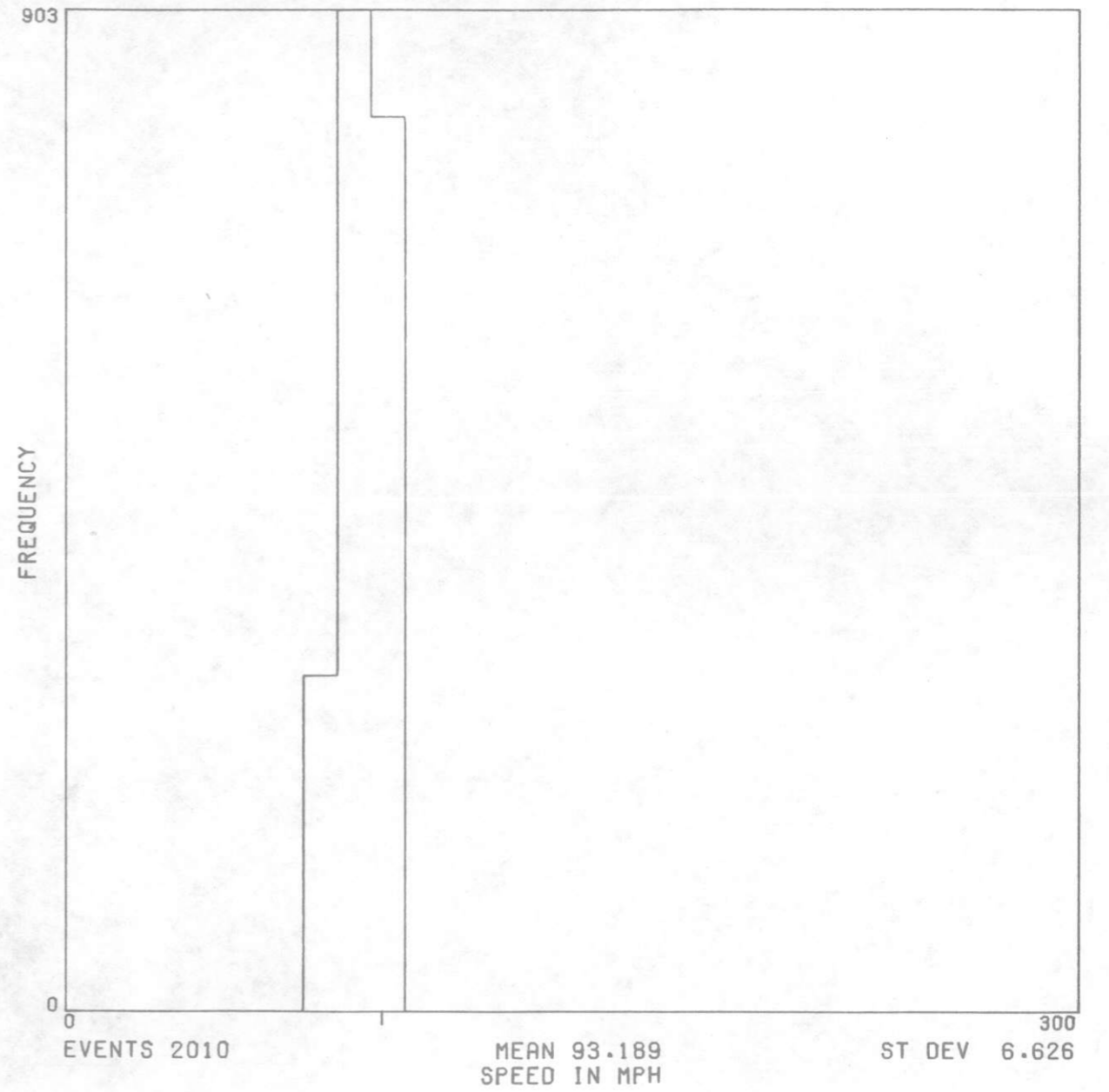
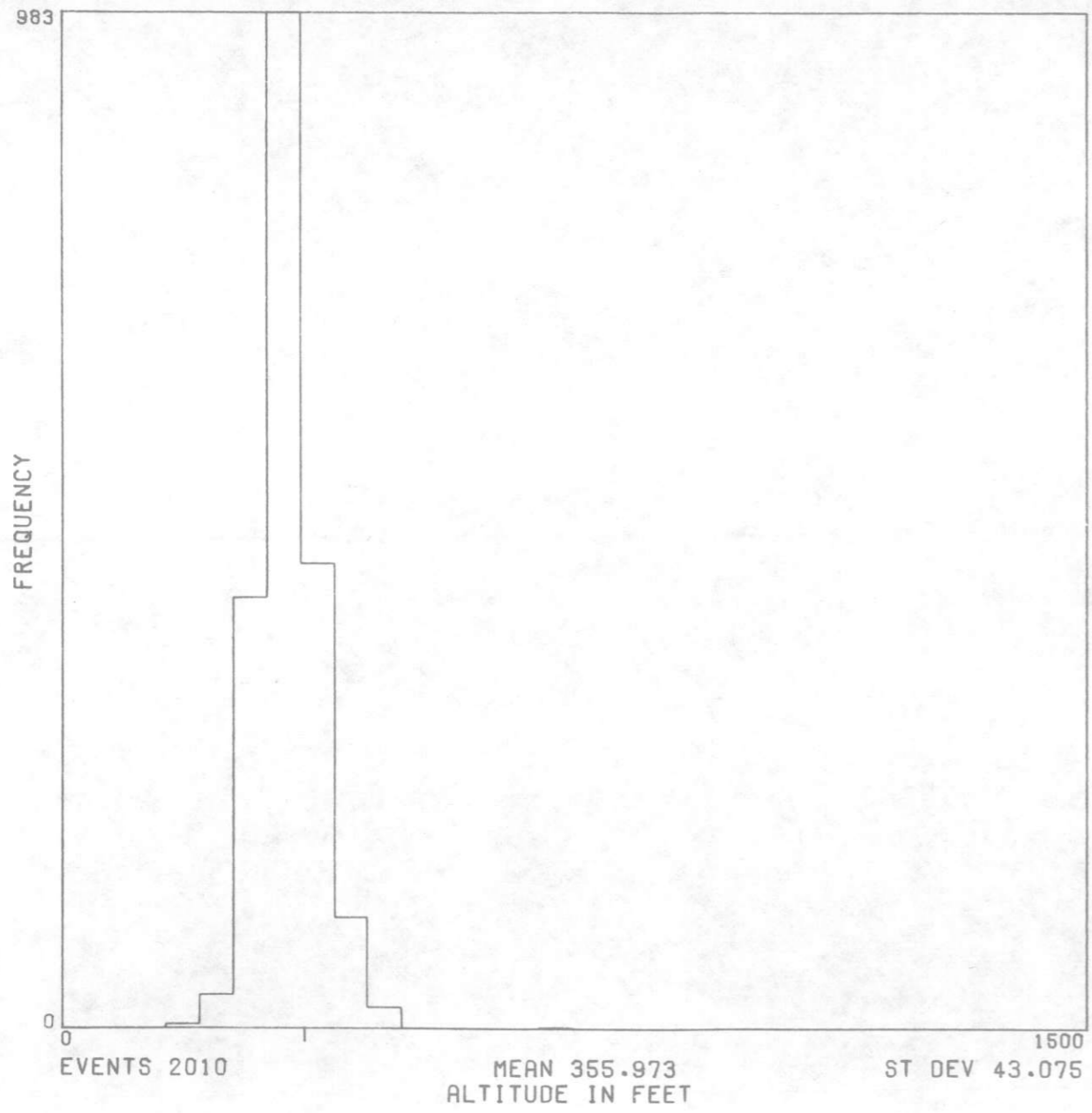


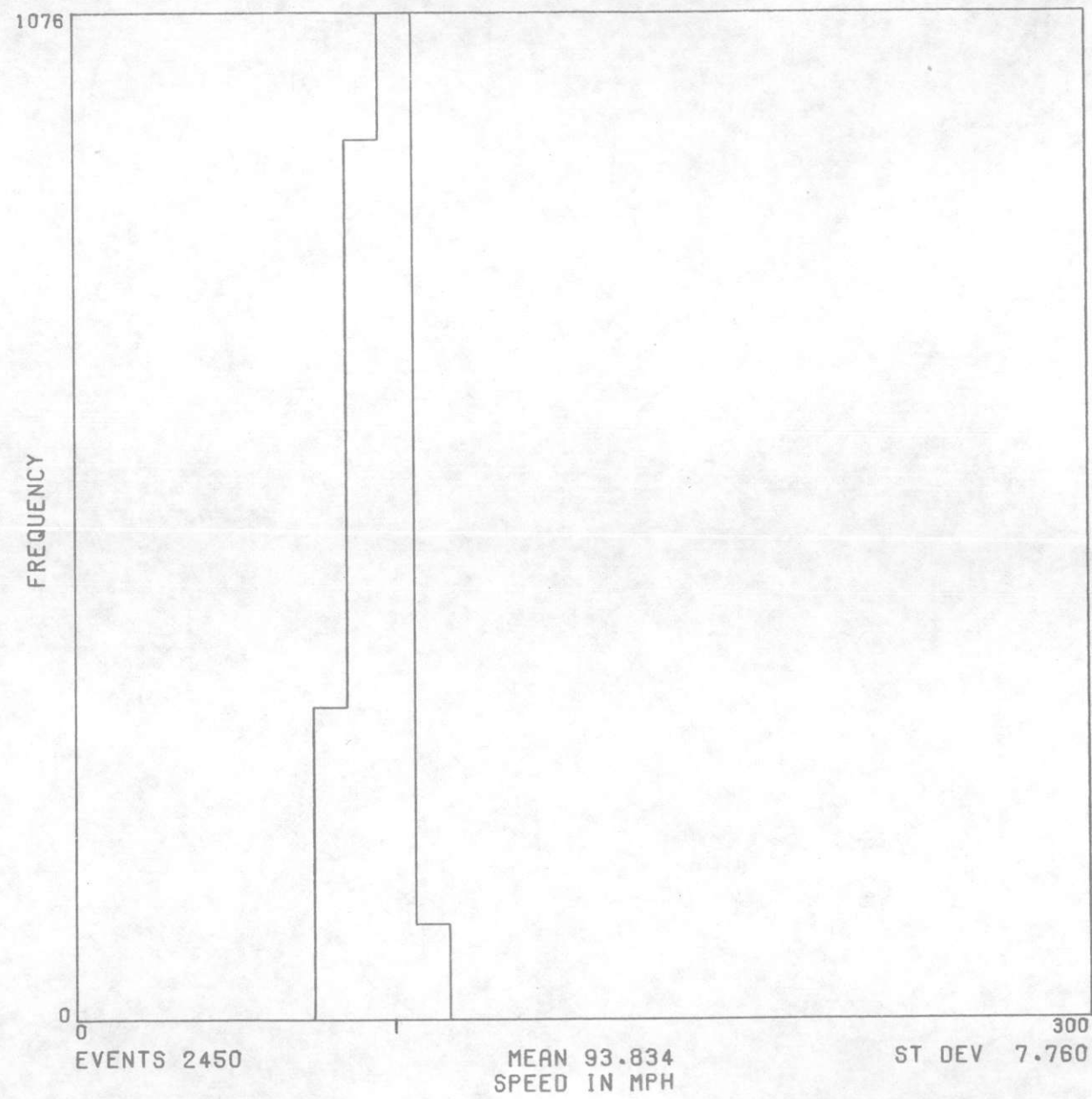
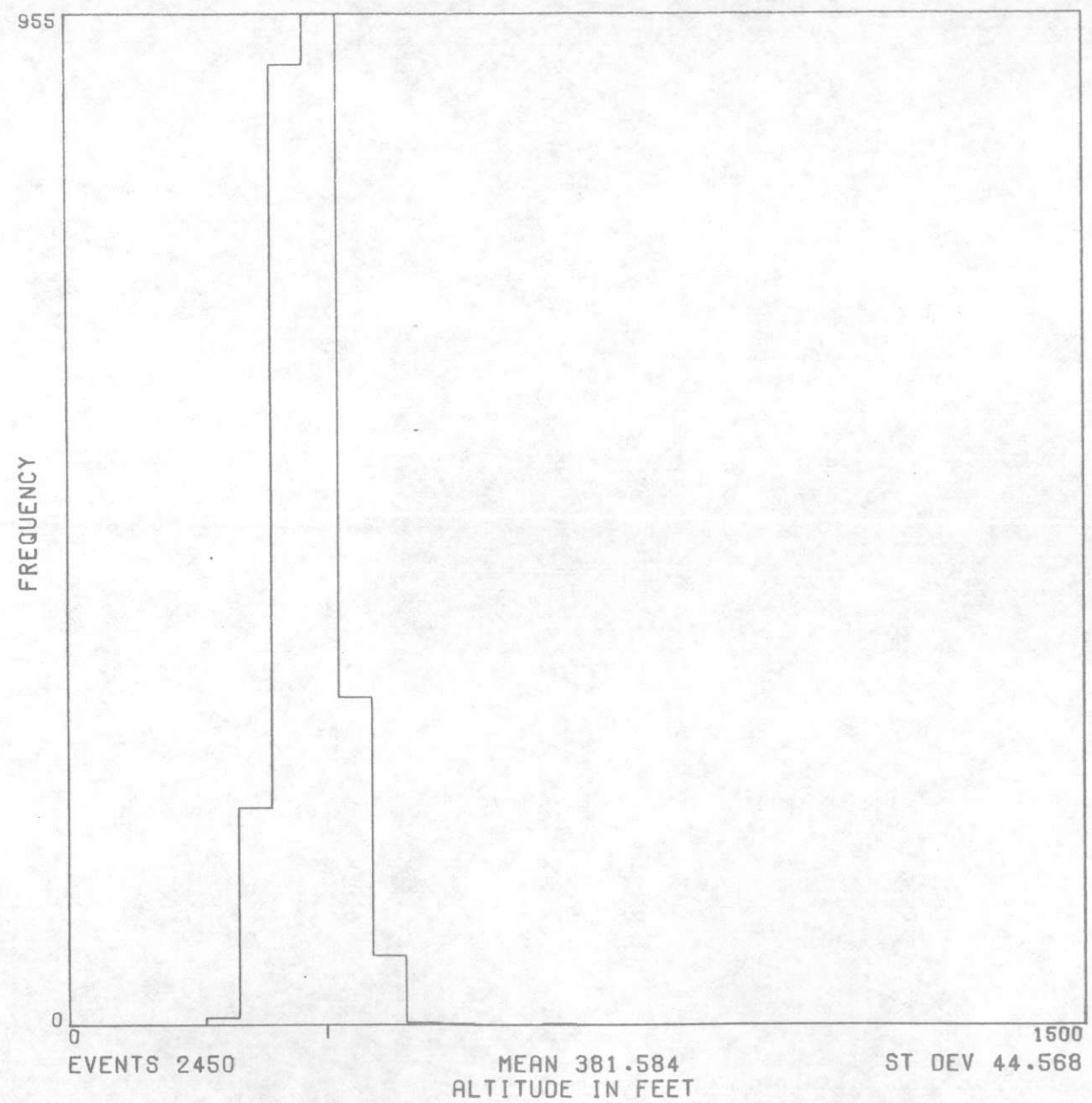




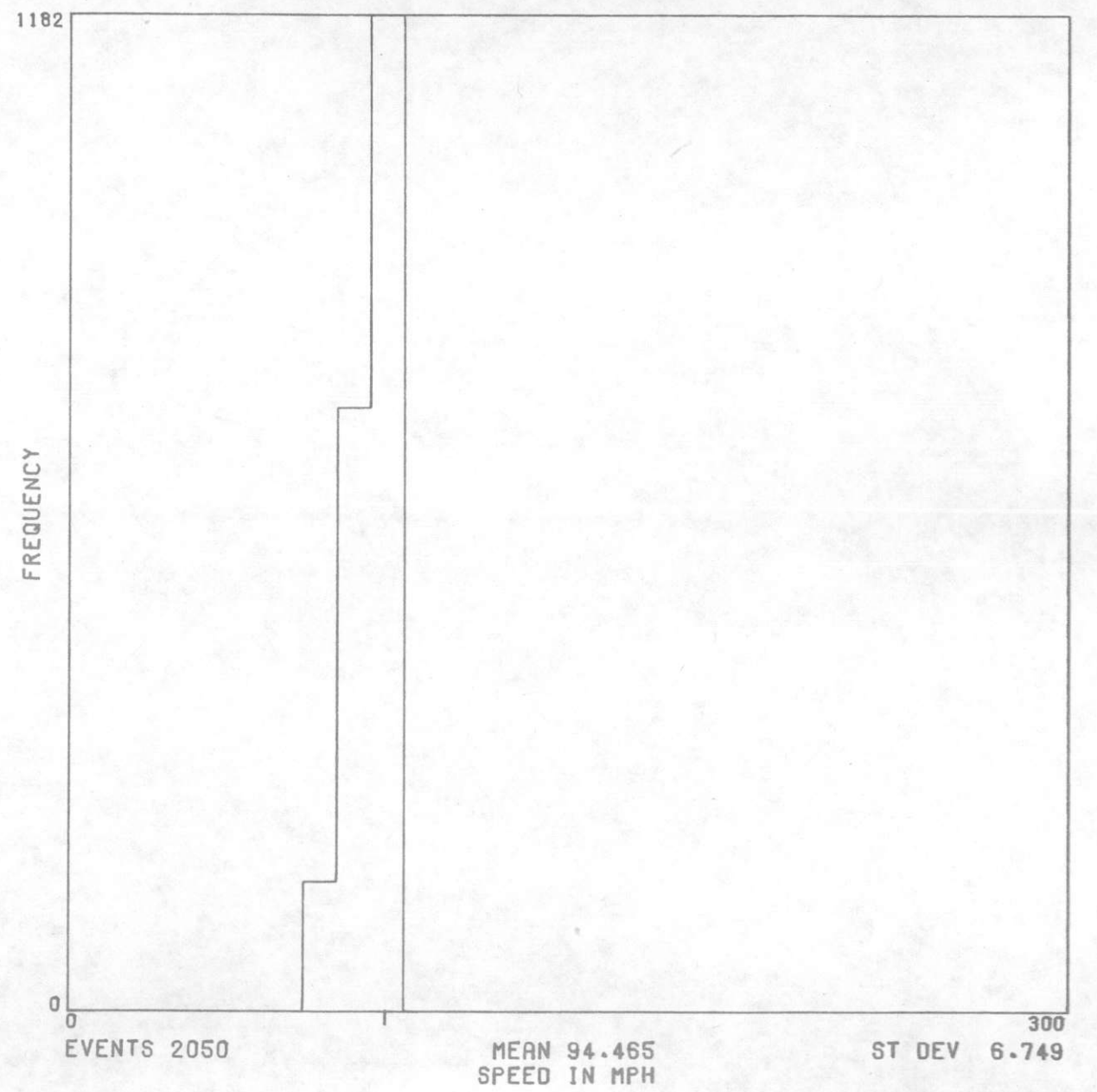
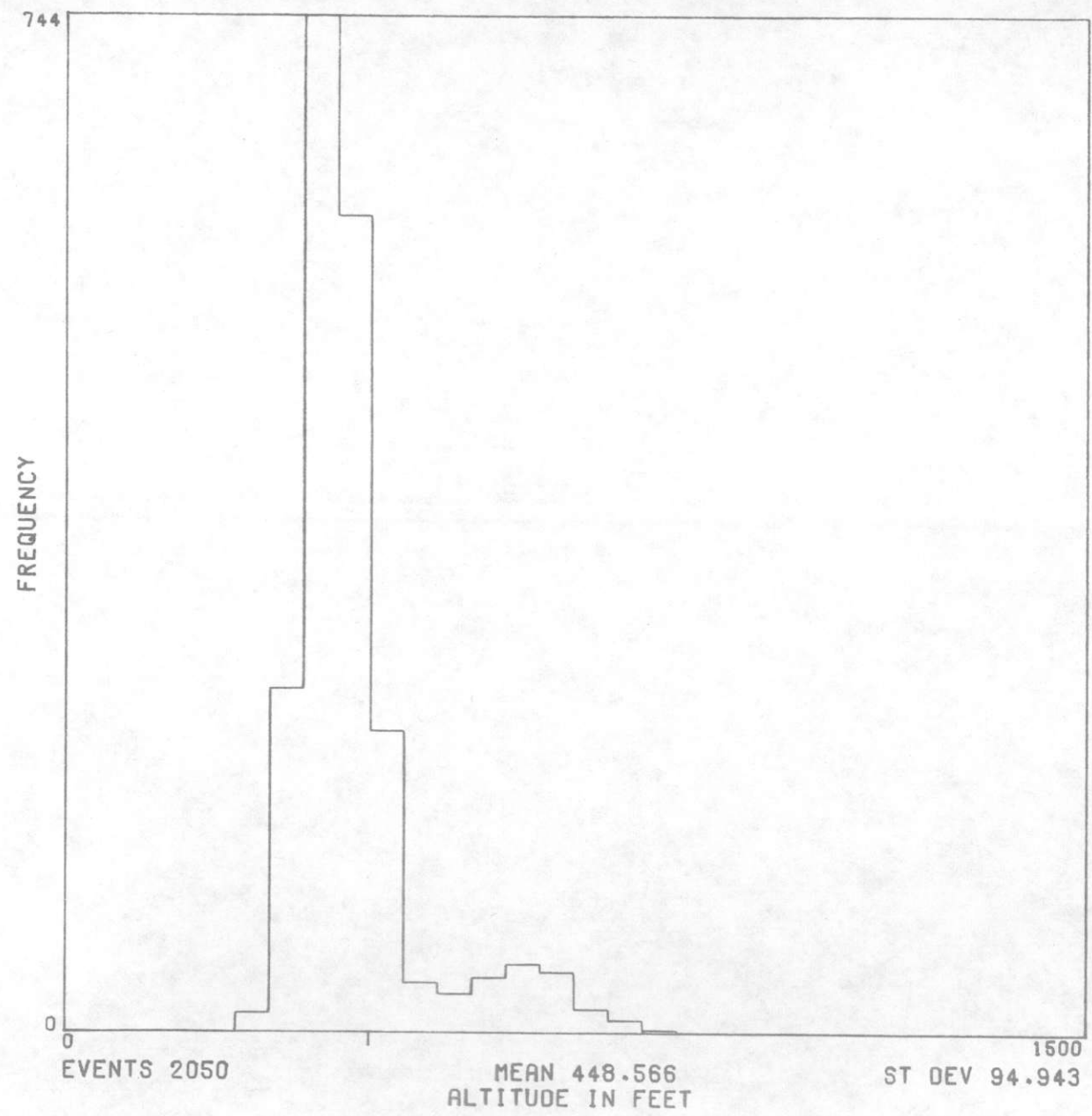


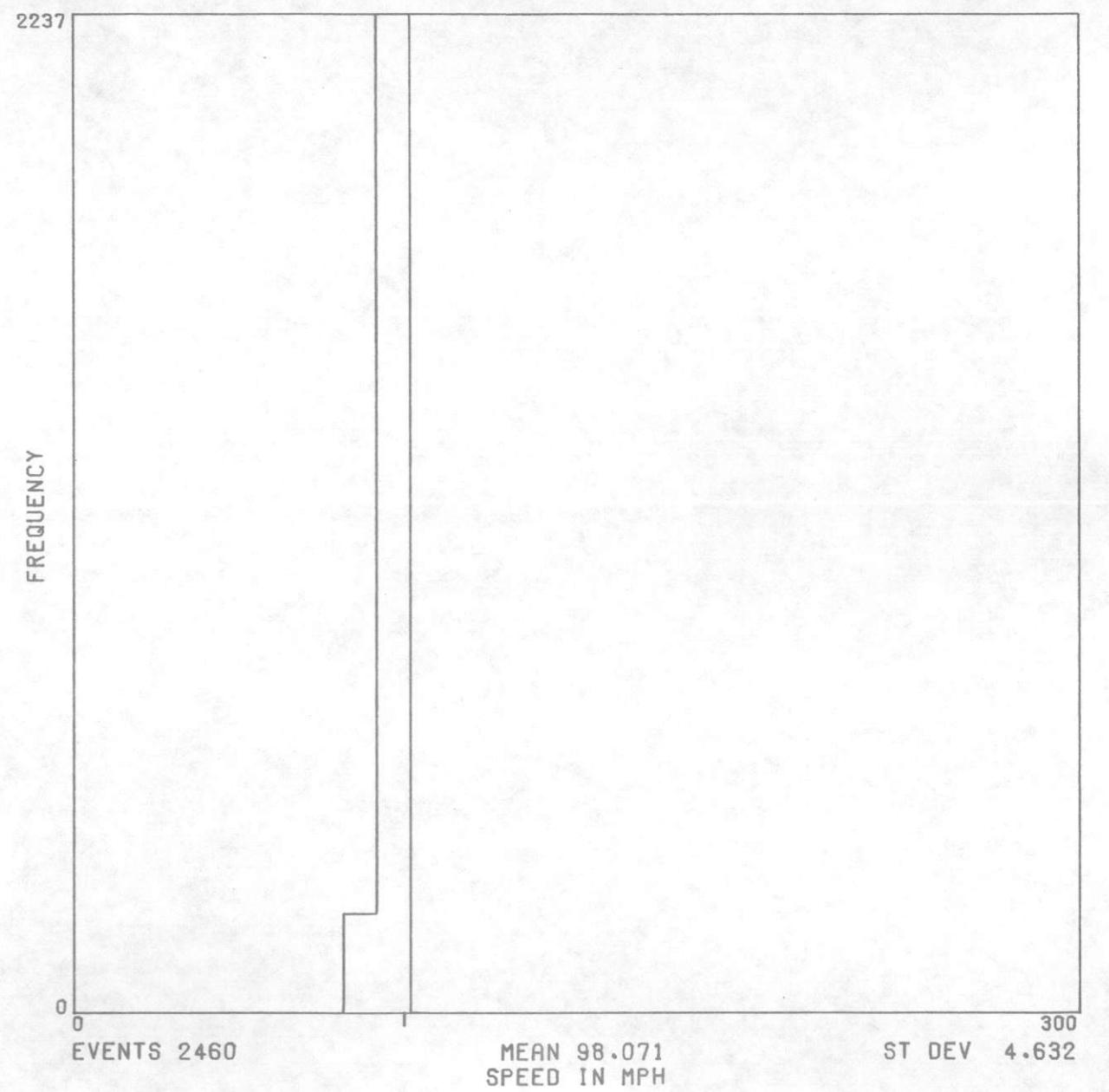
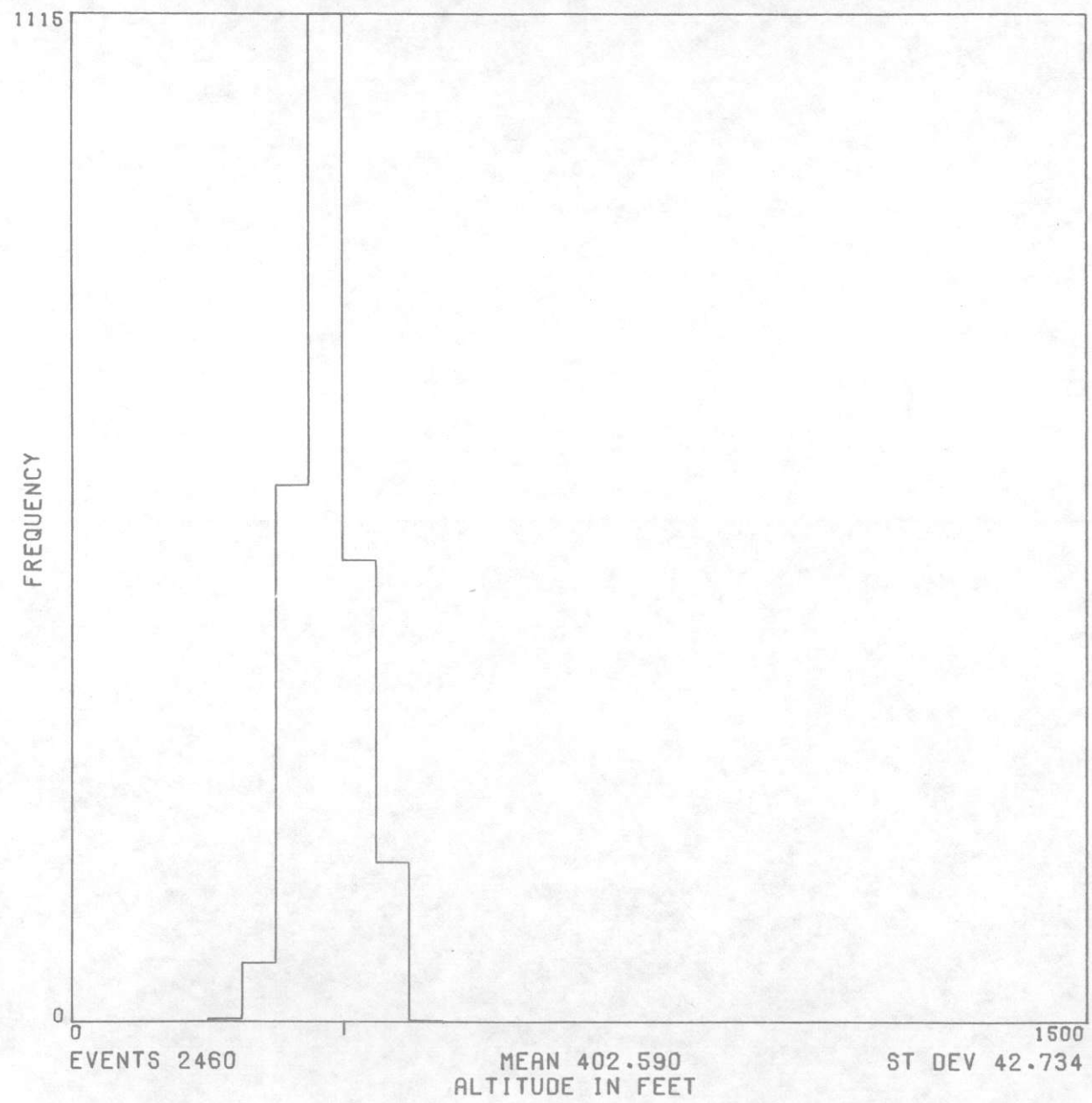
7W



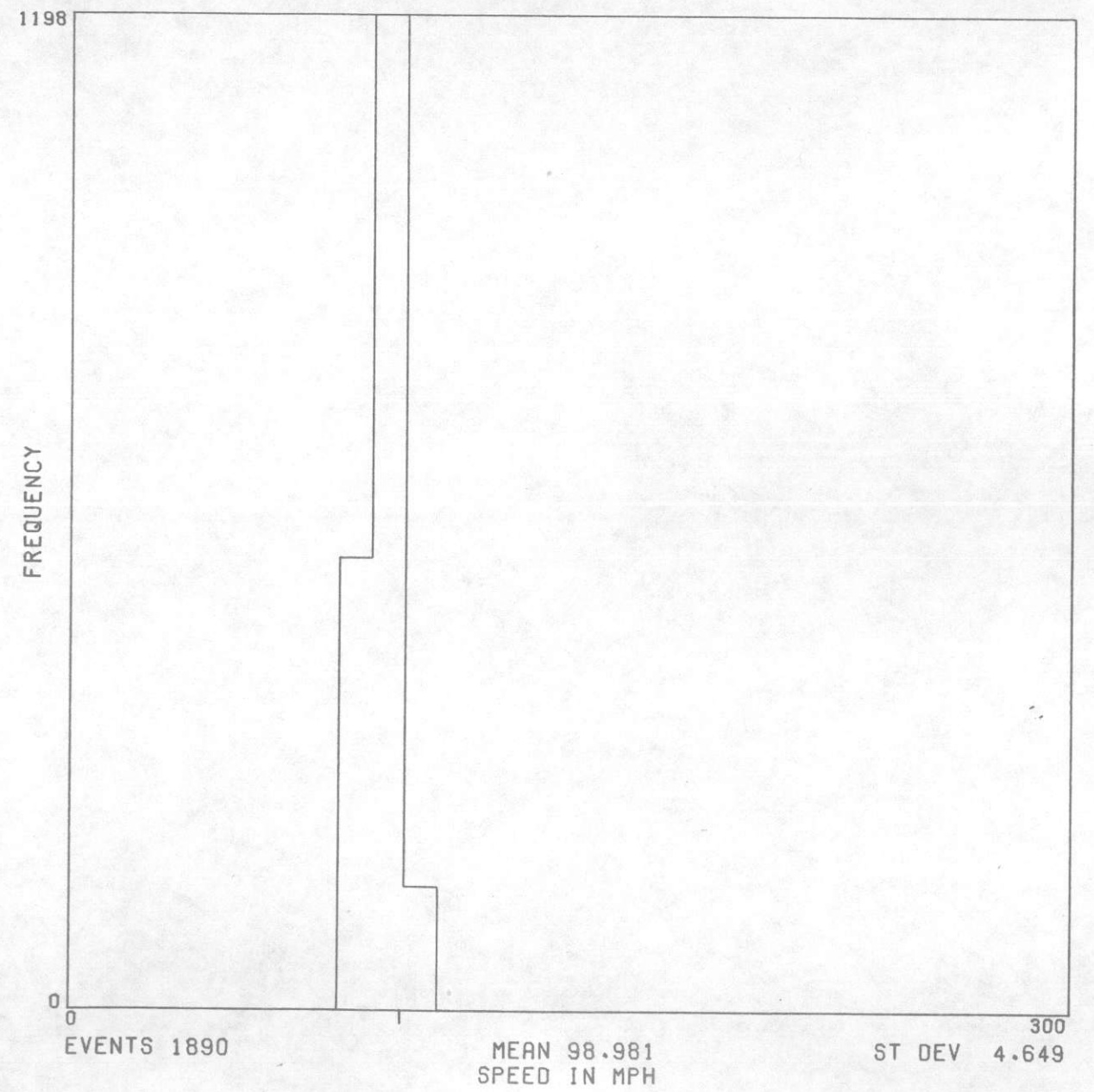
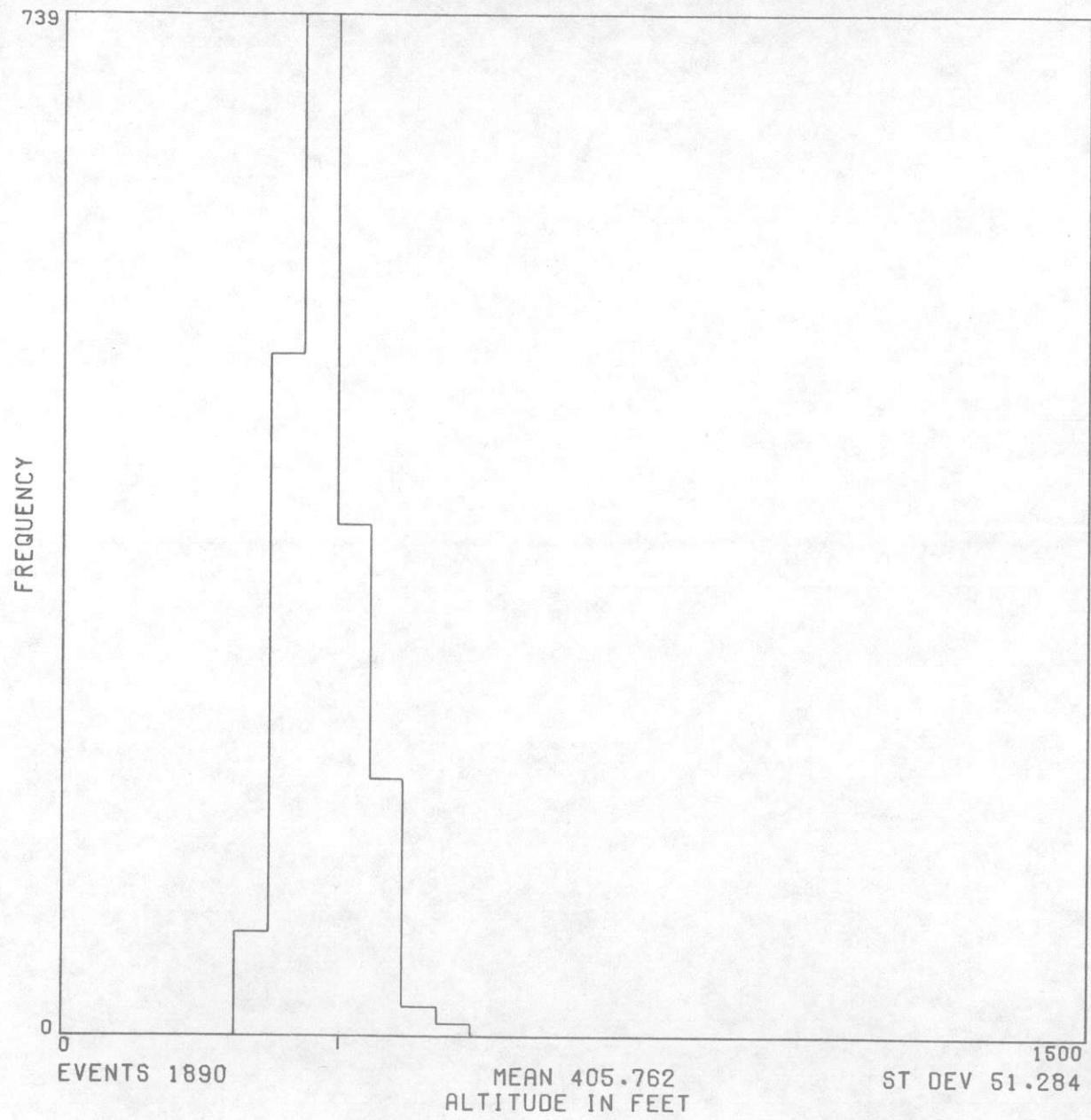


8W

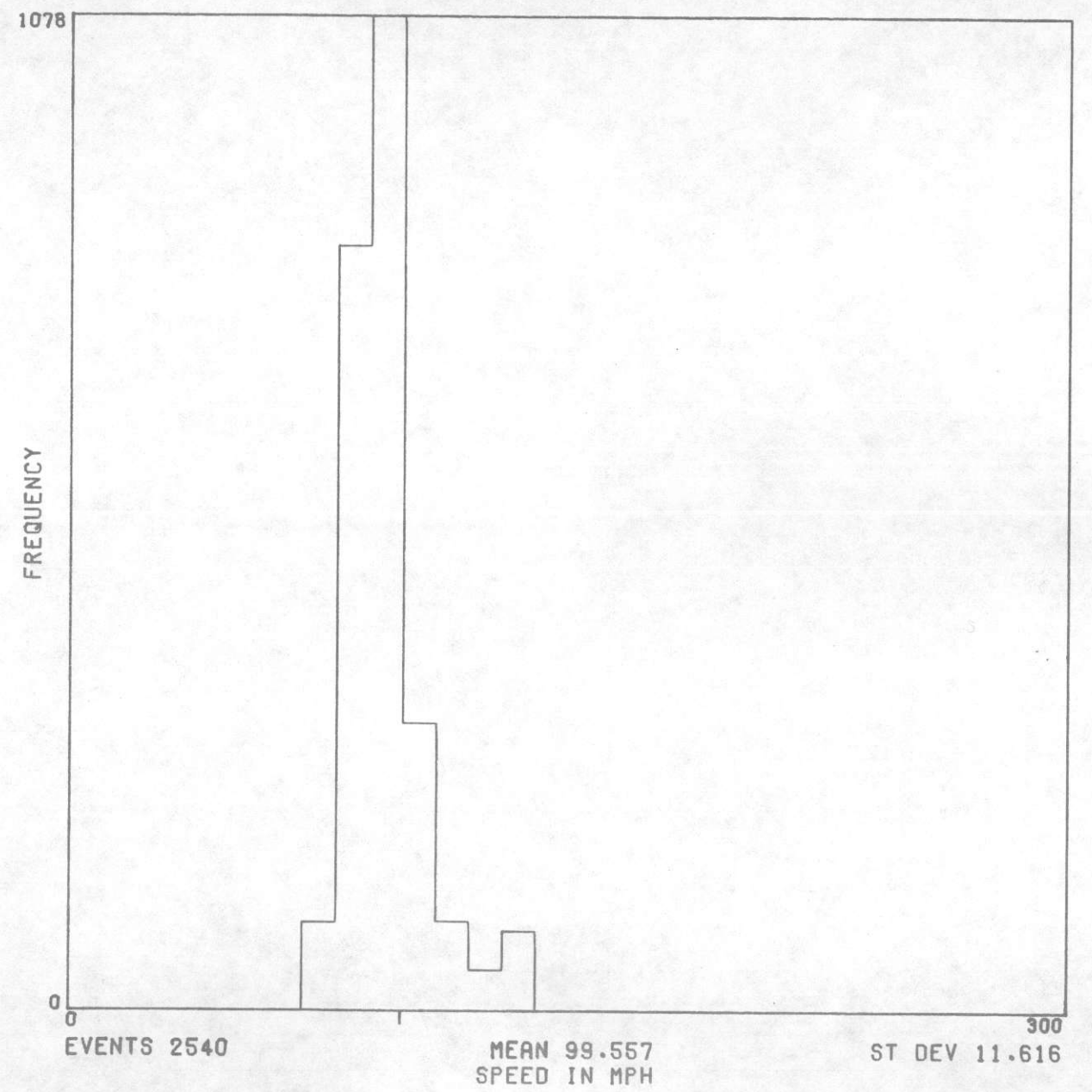
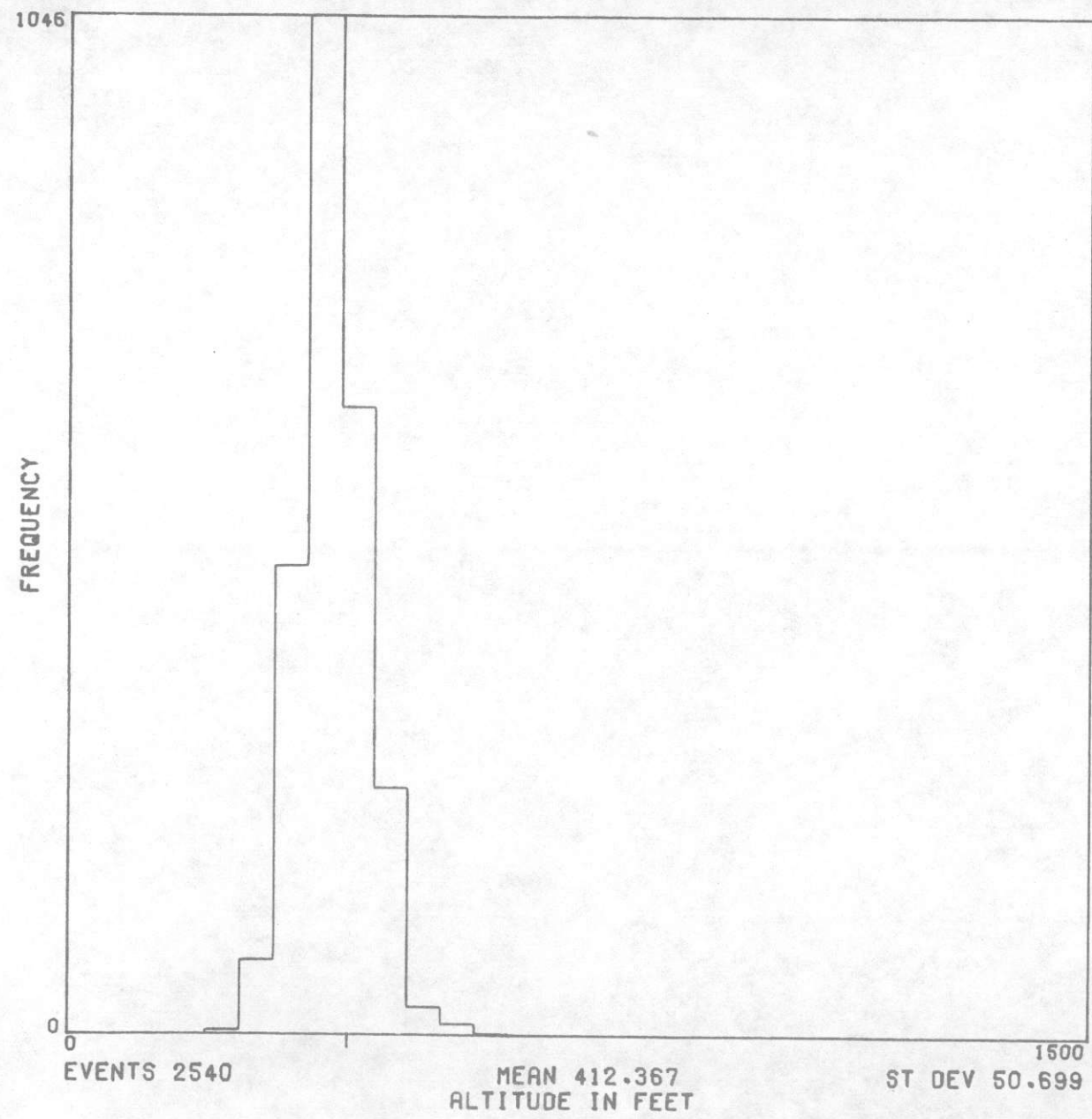


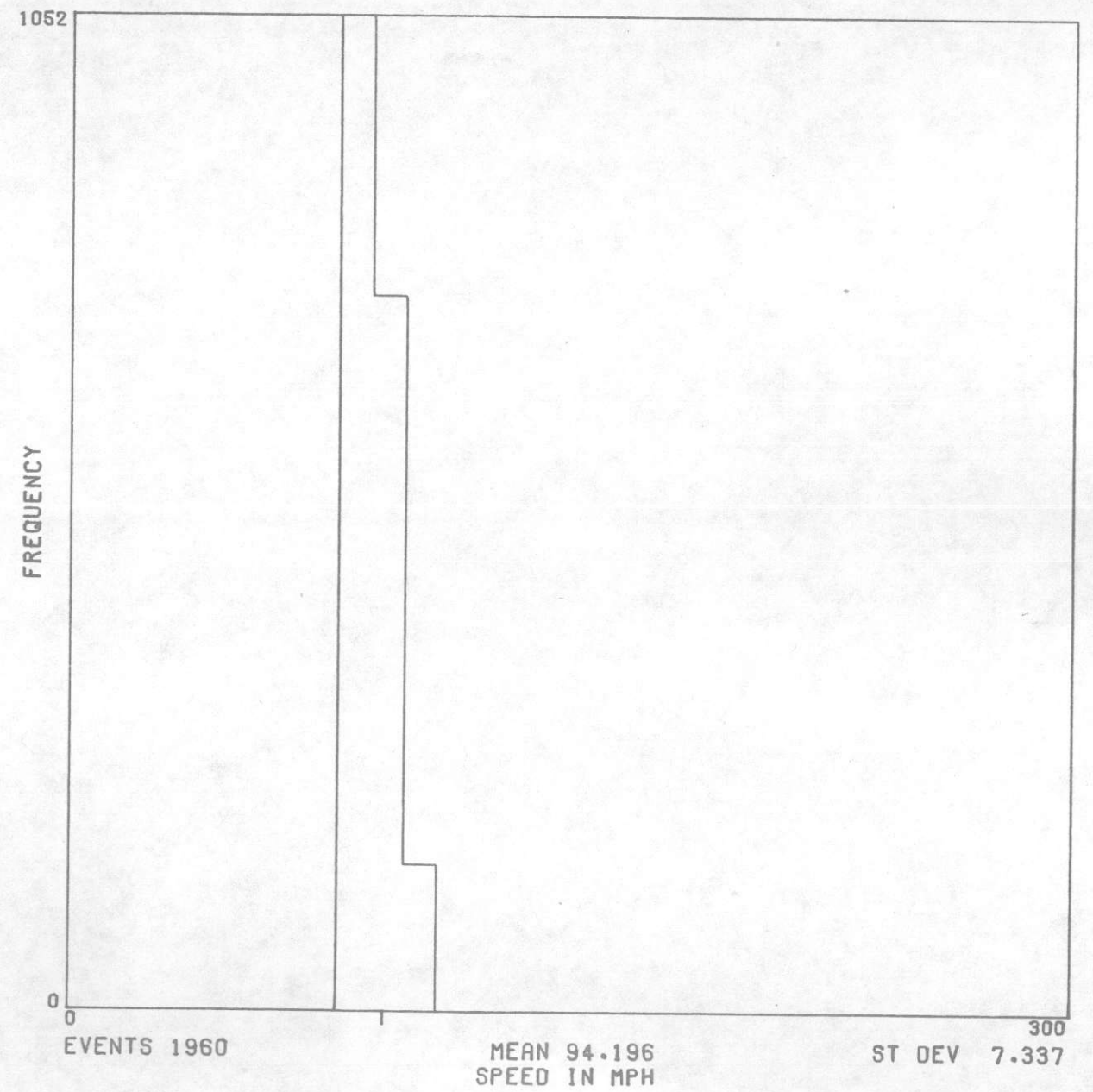
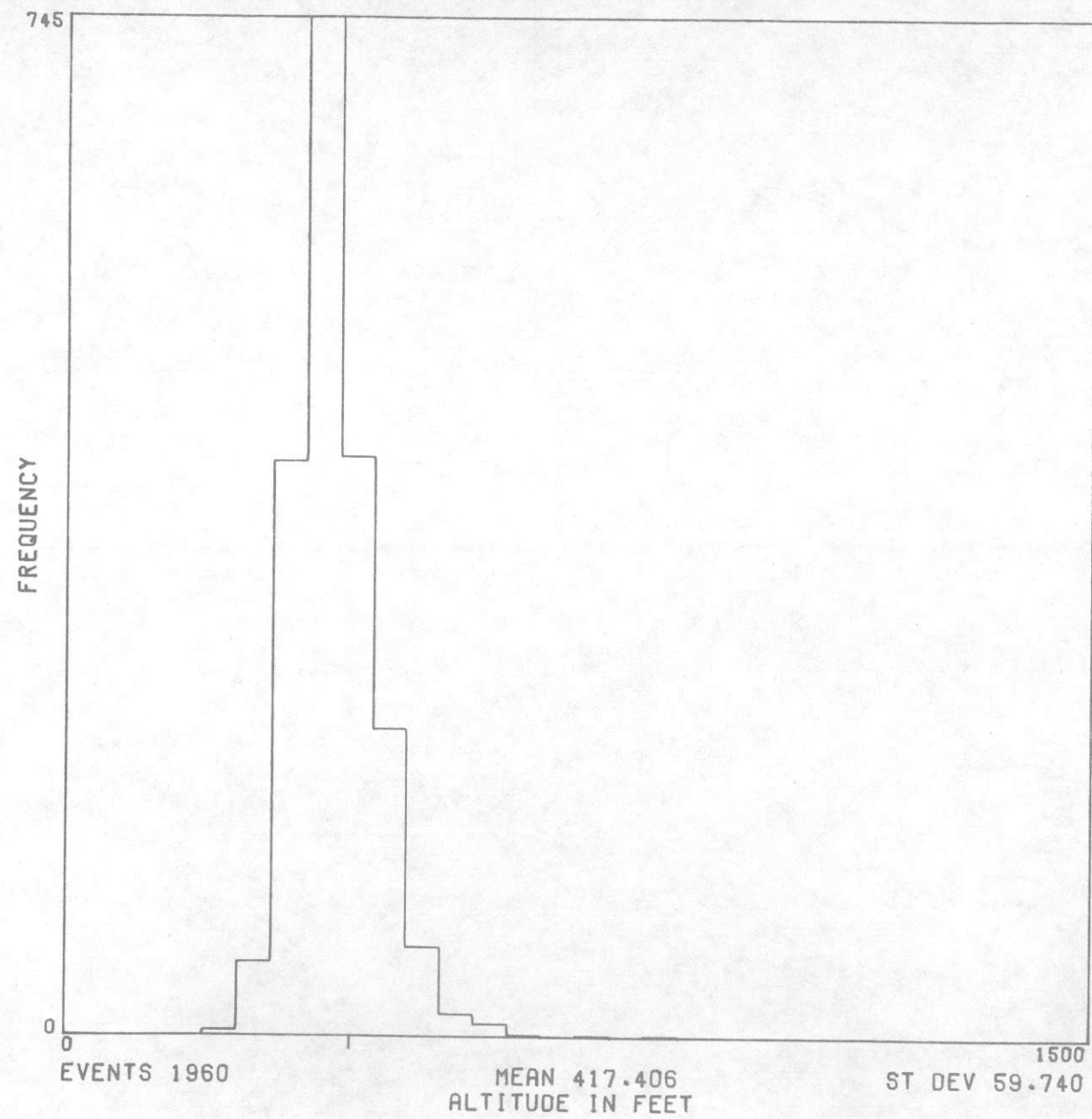


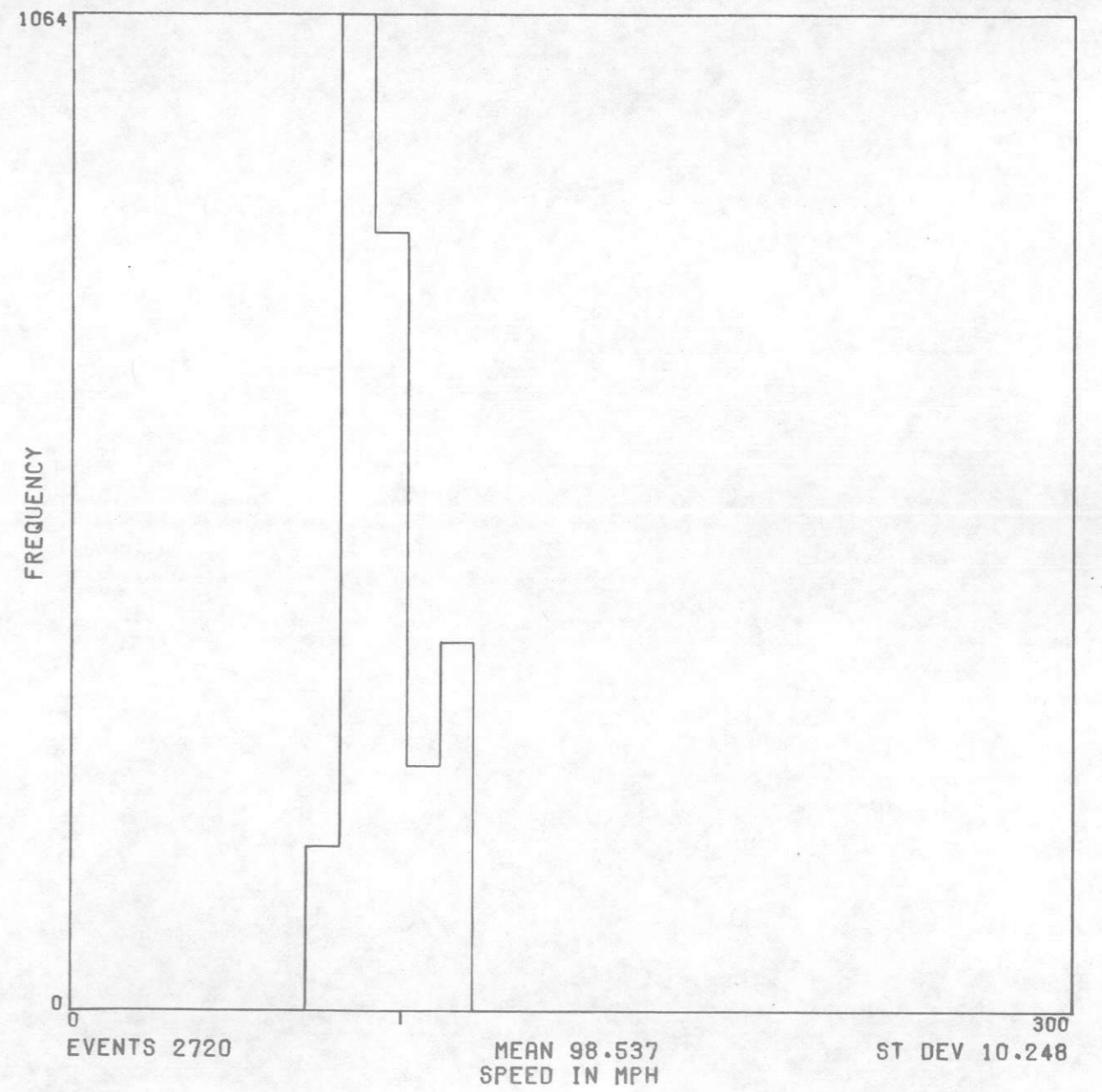
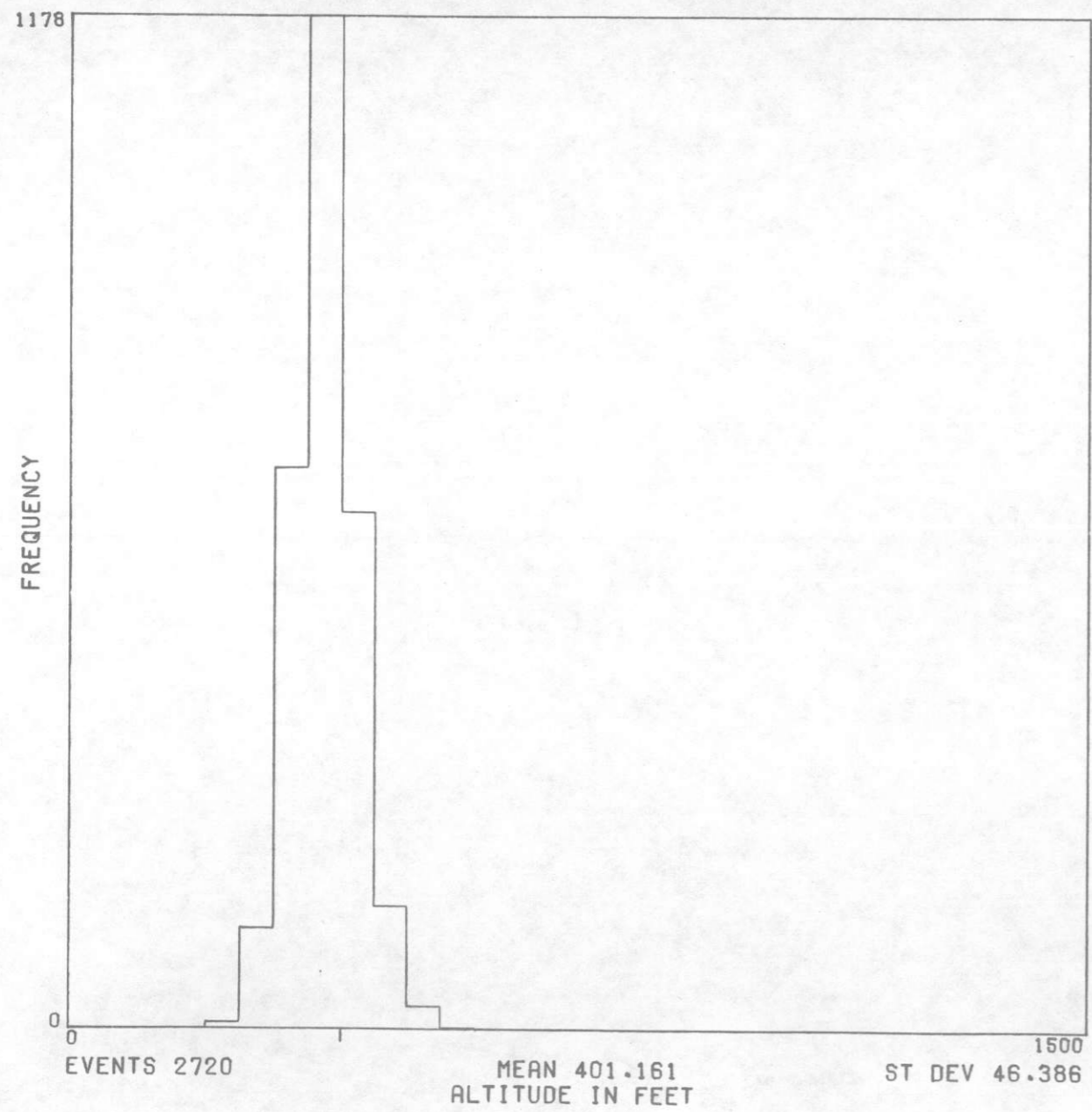
9W

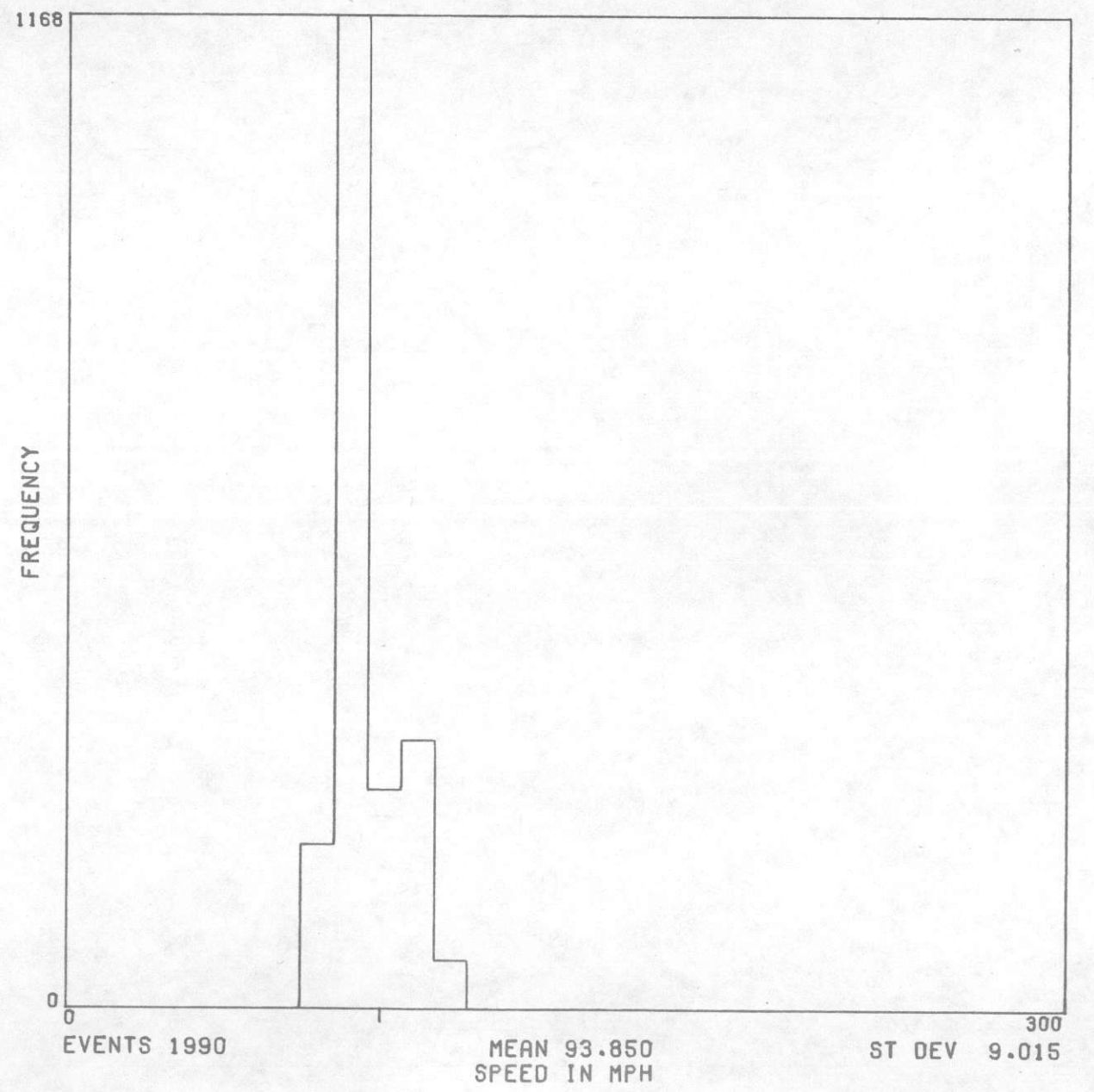
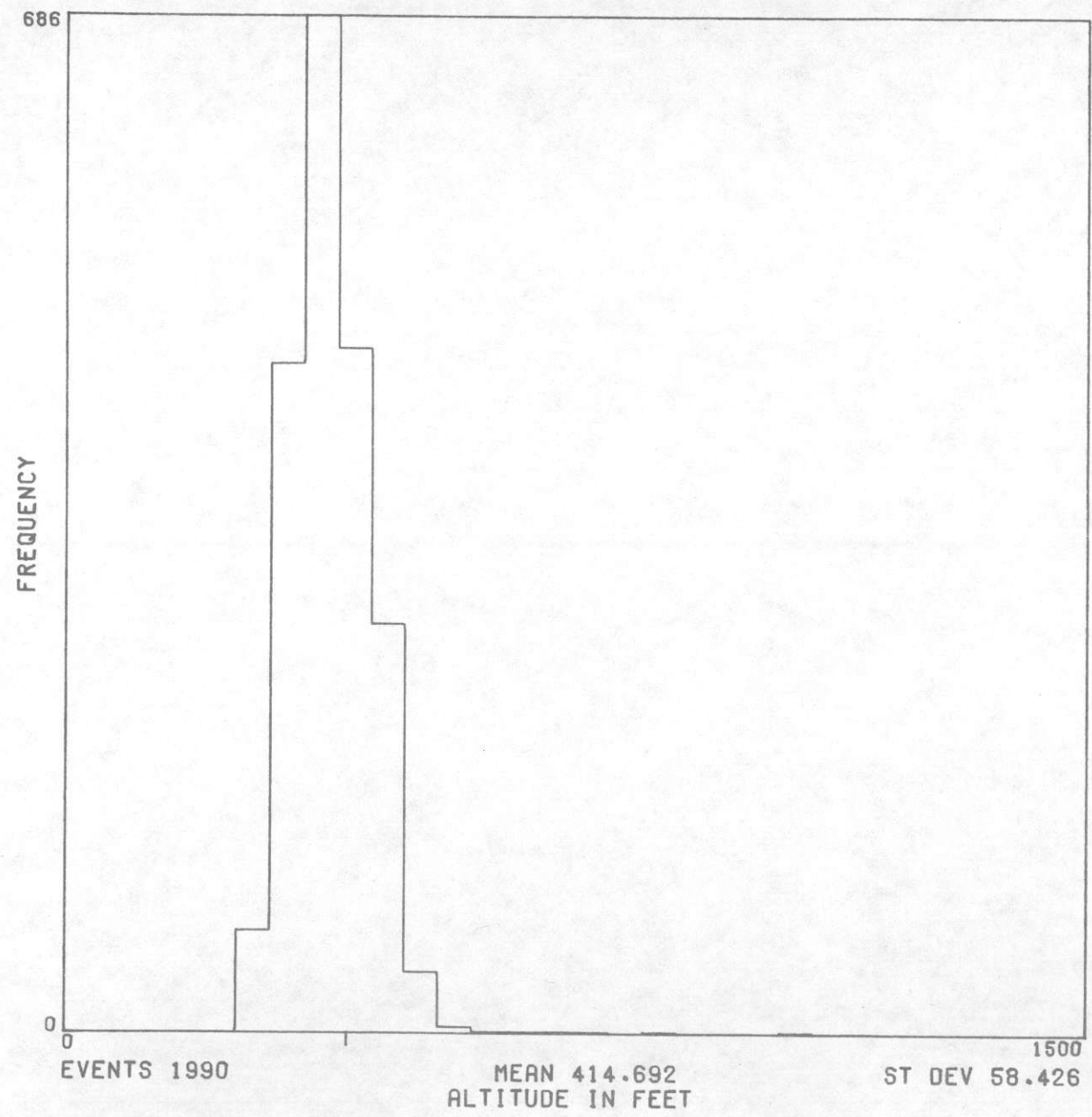


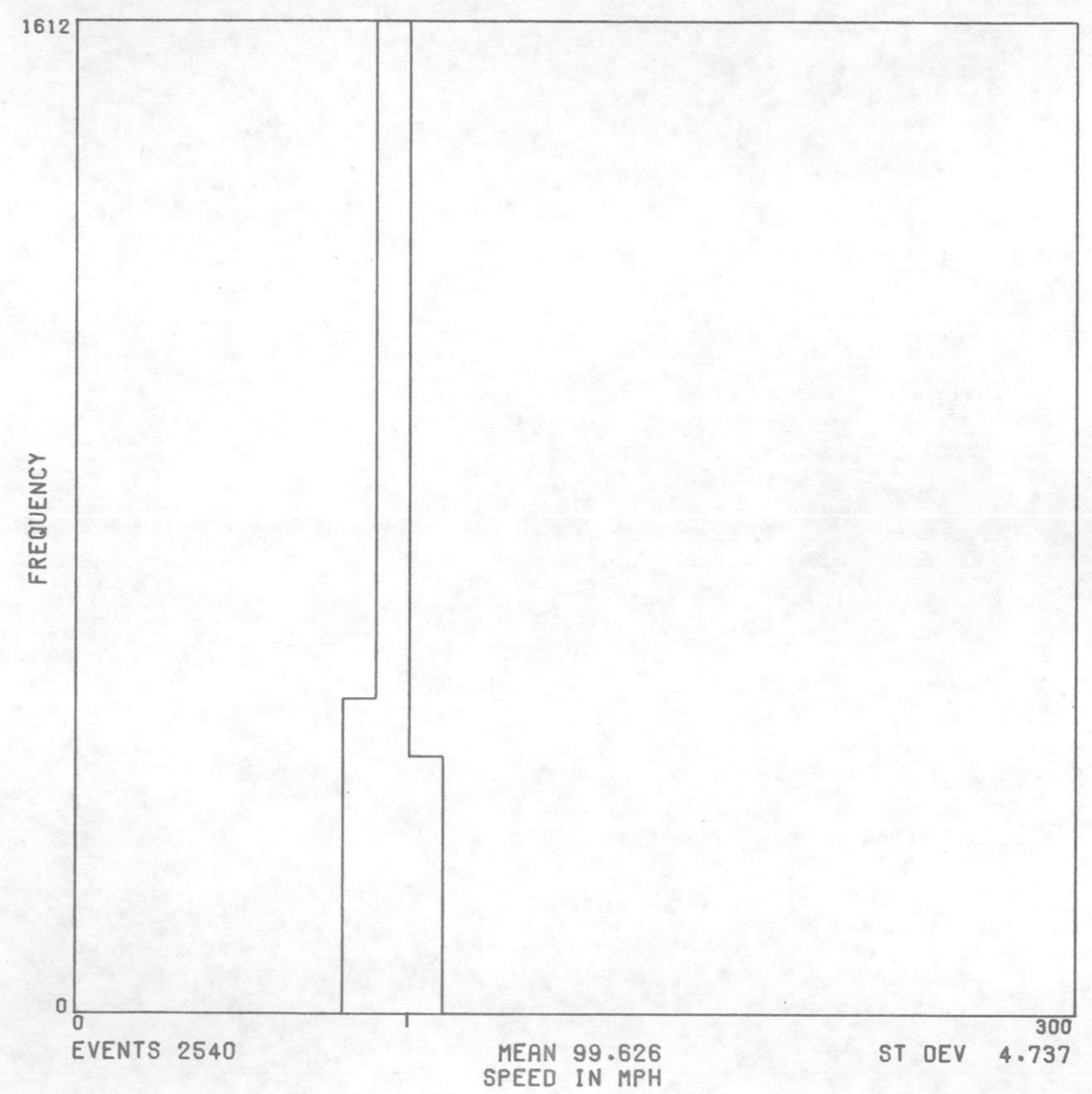
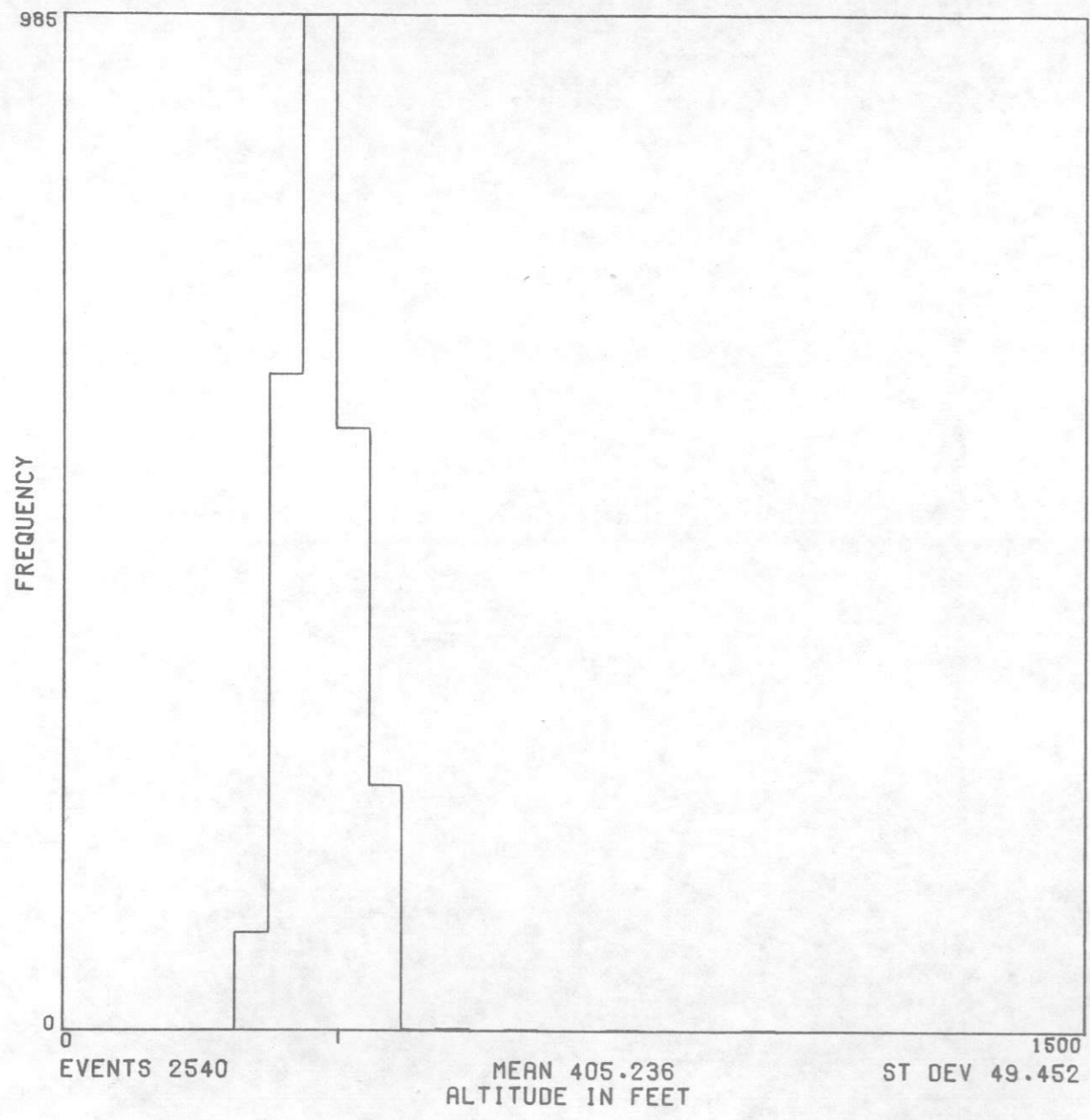
9E

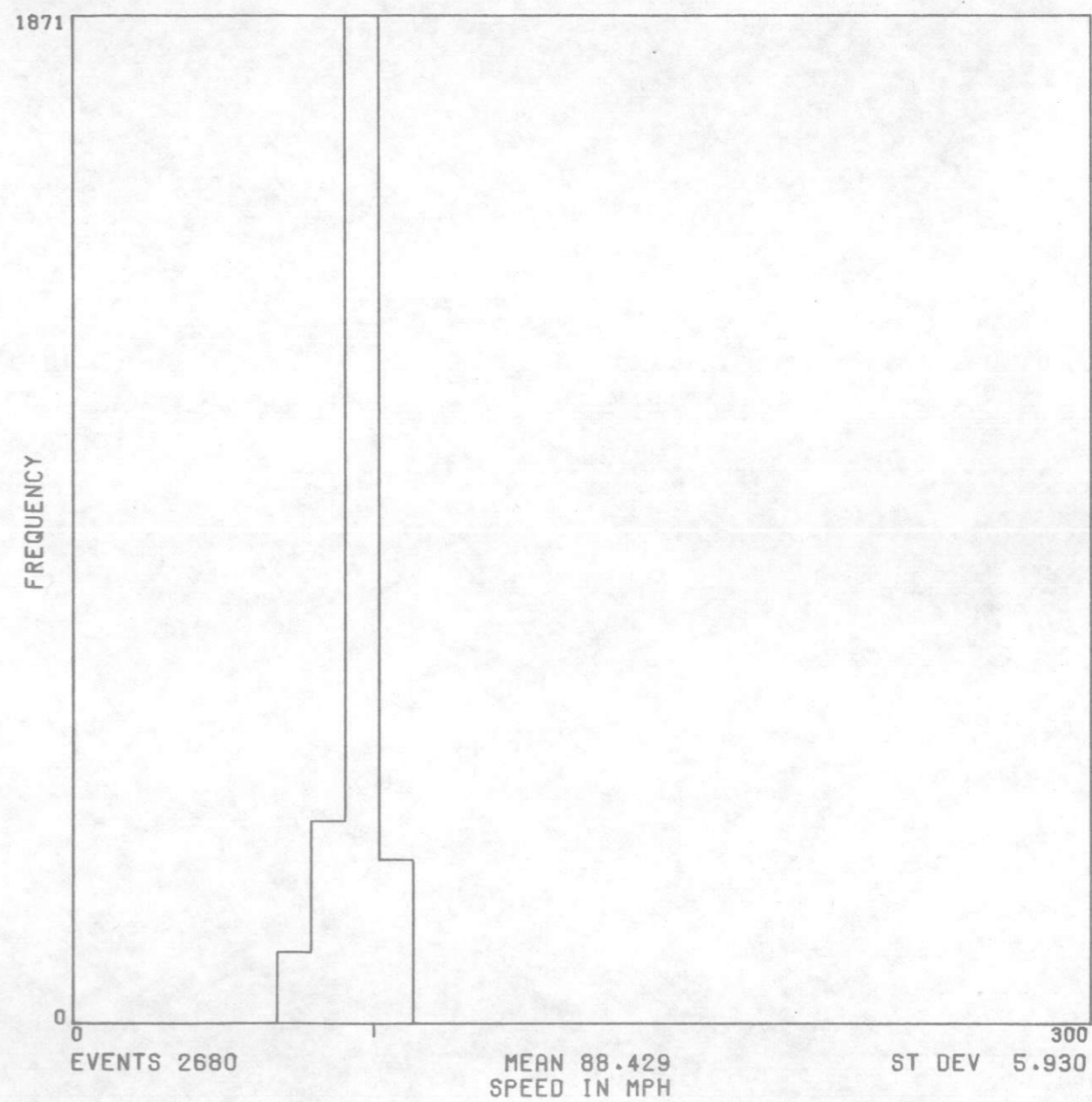
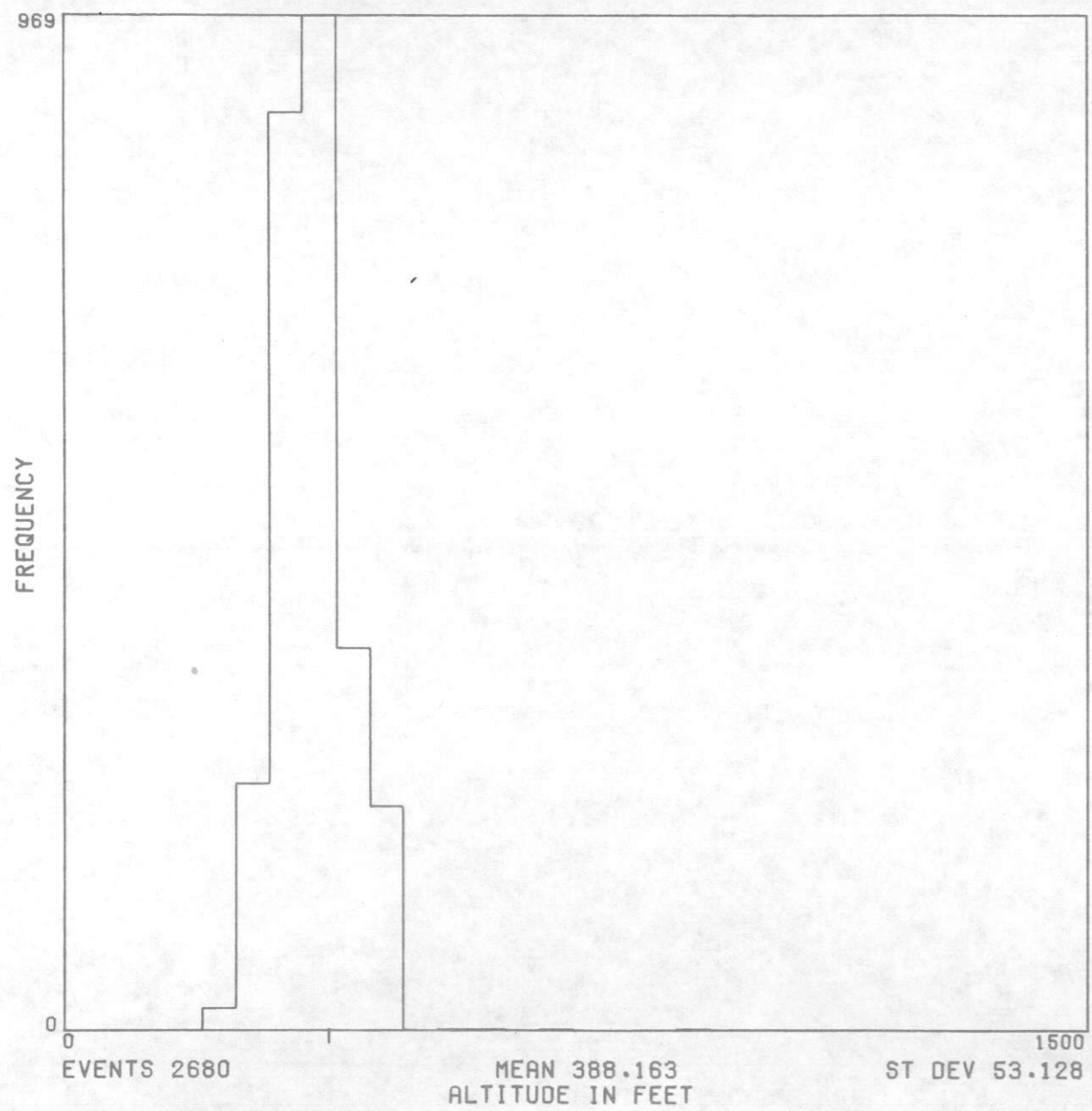


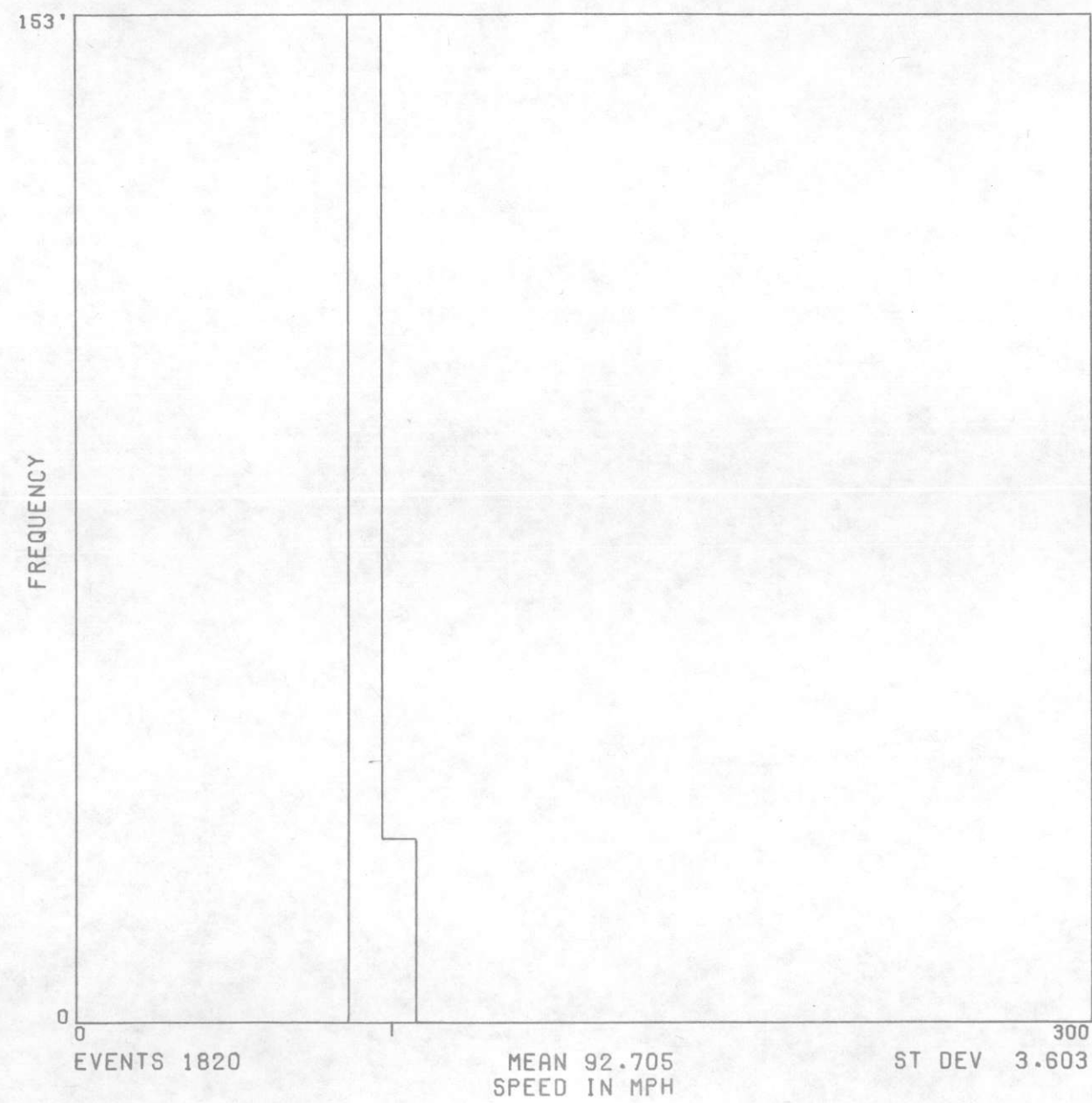
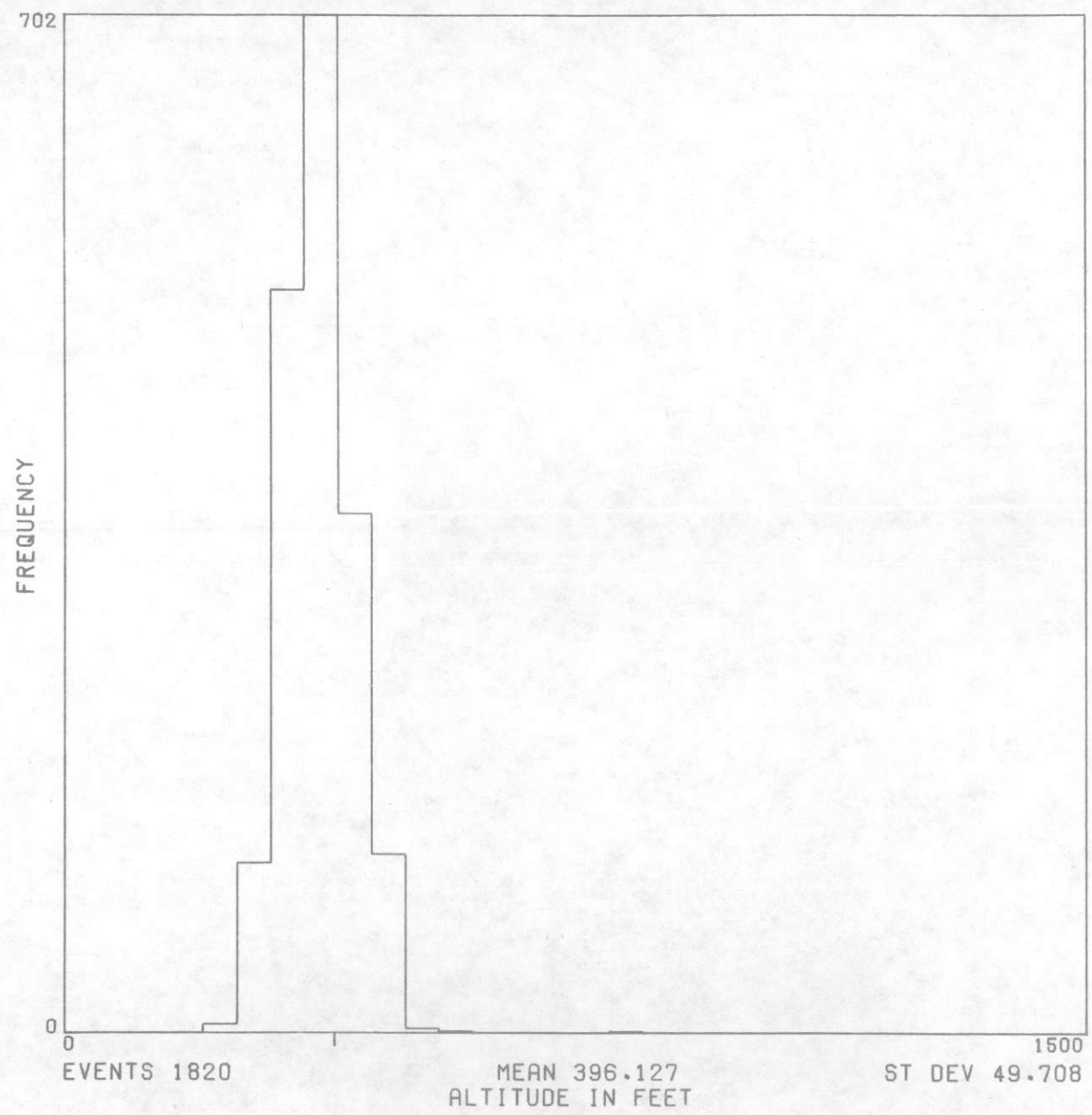


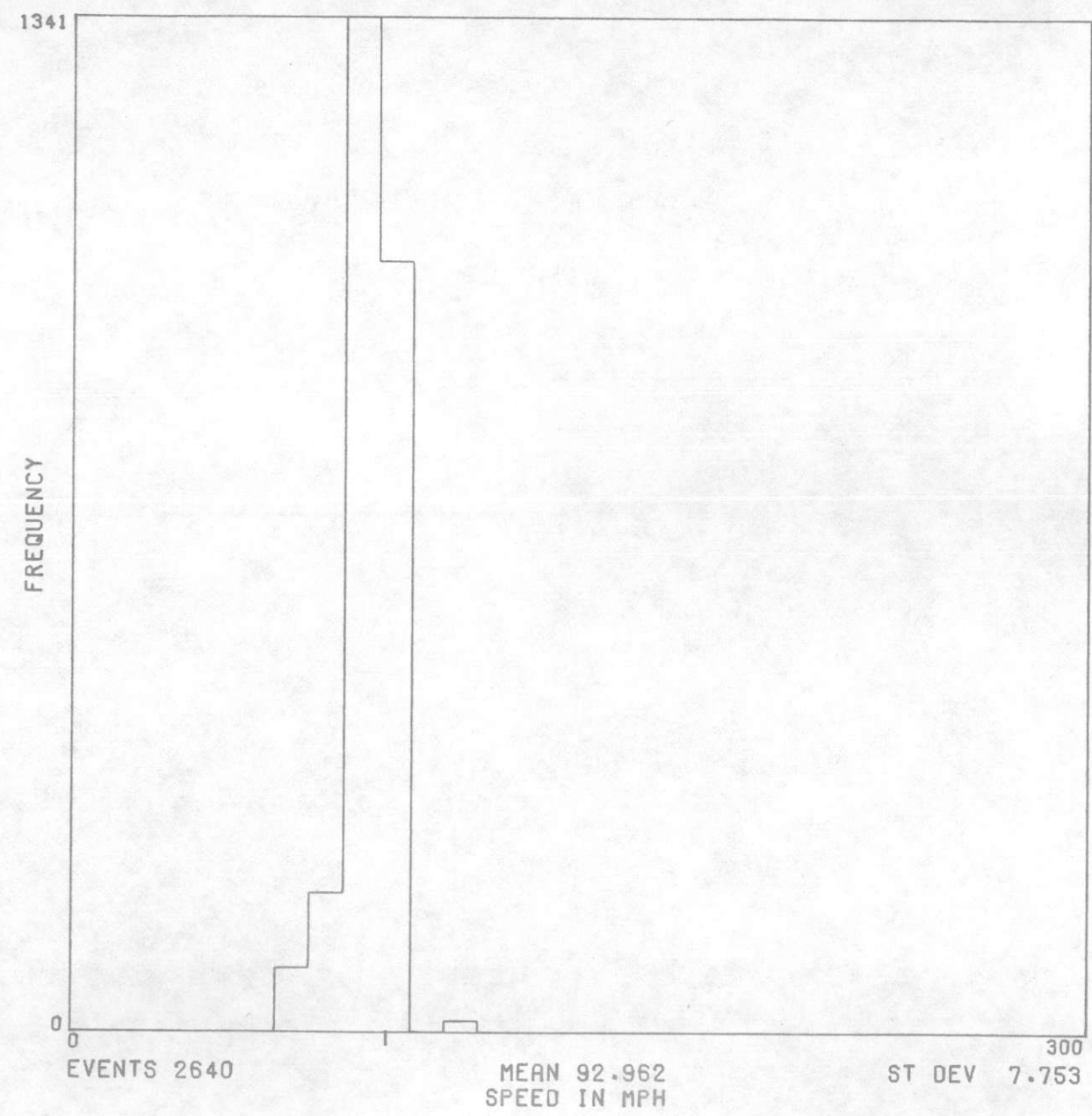
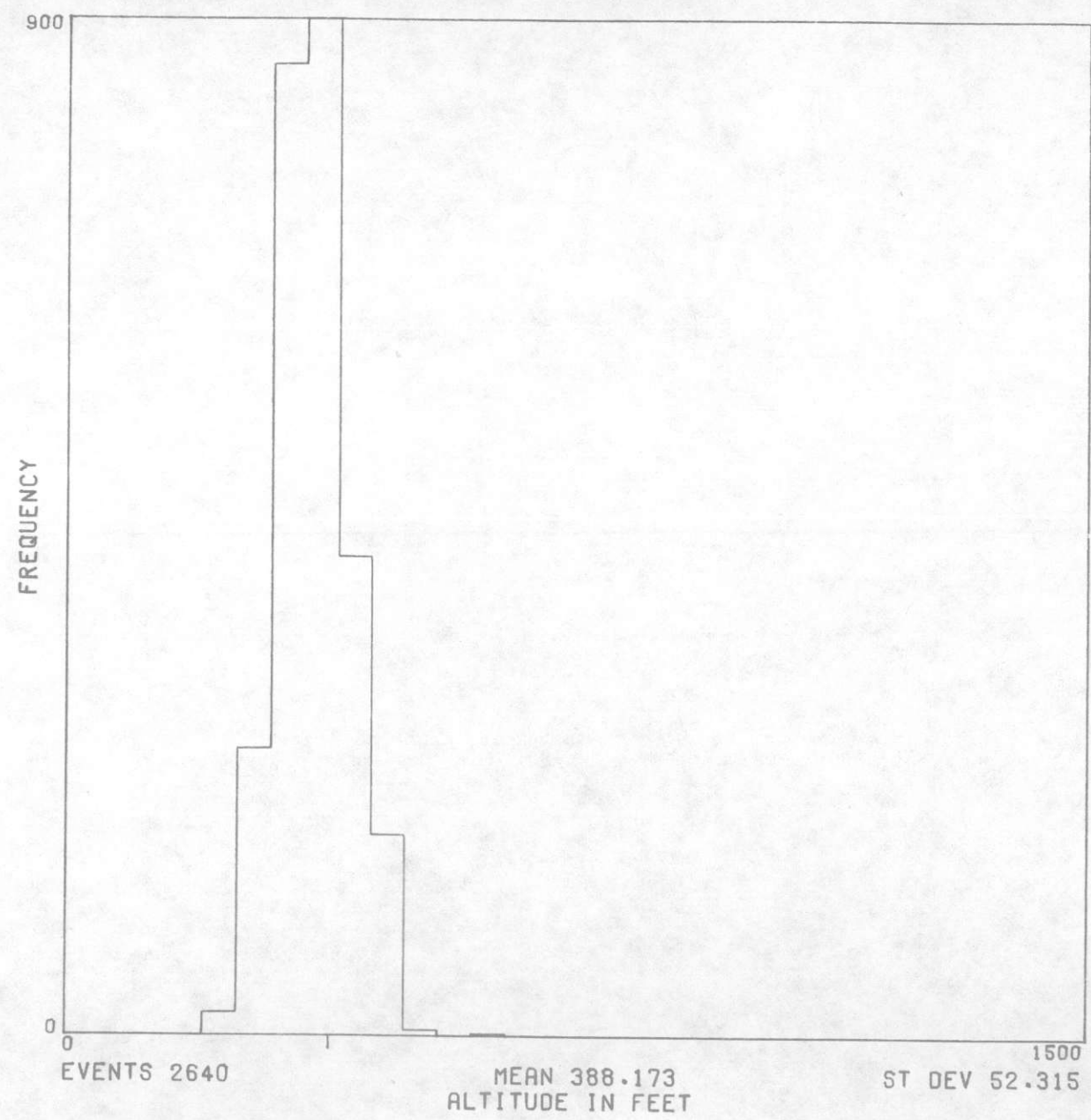


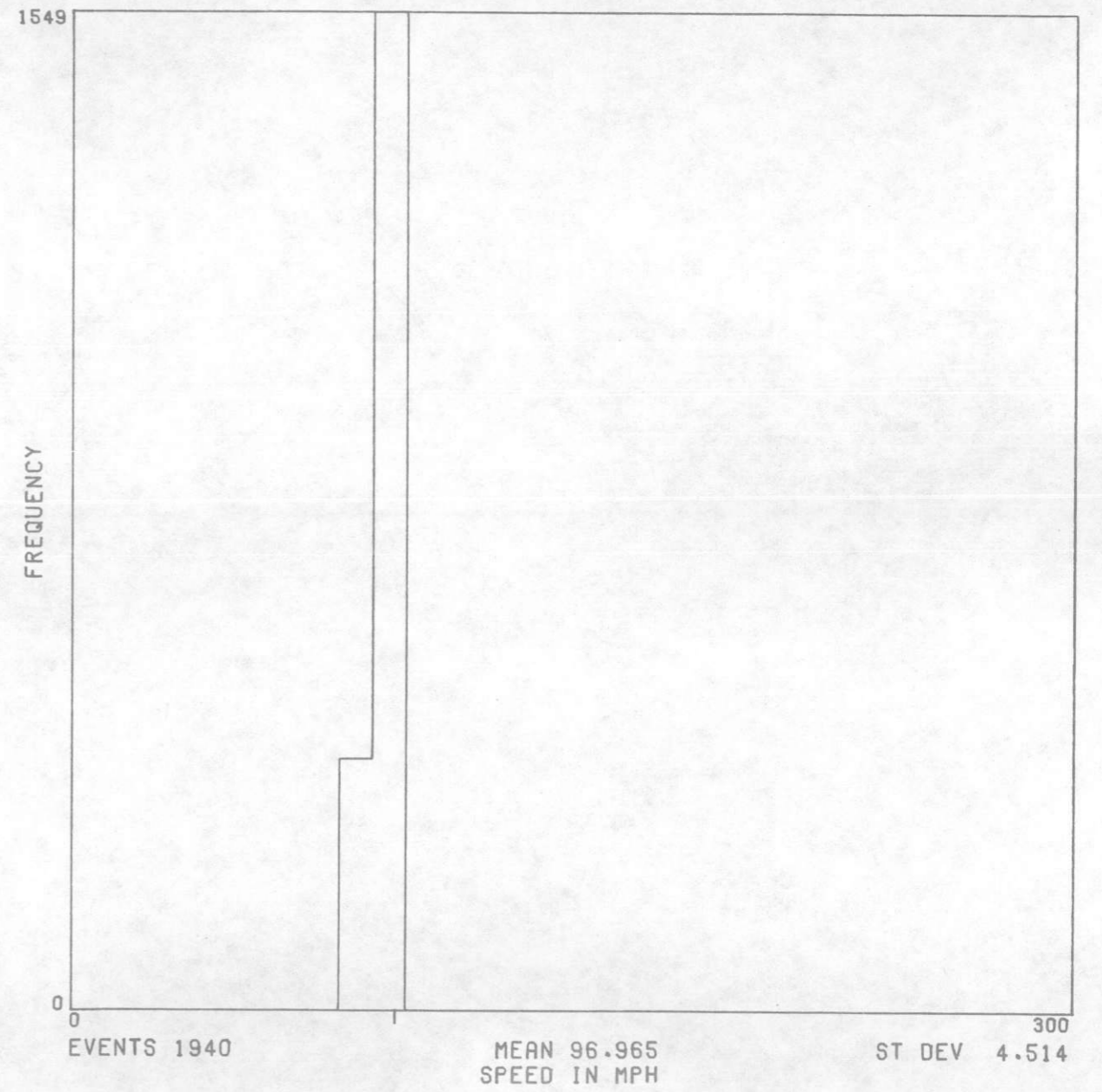
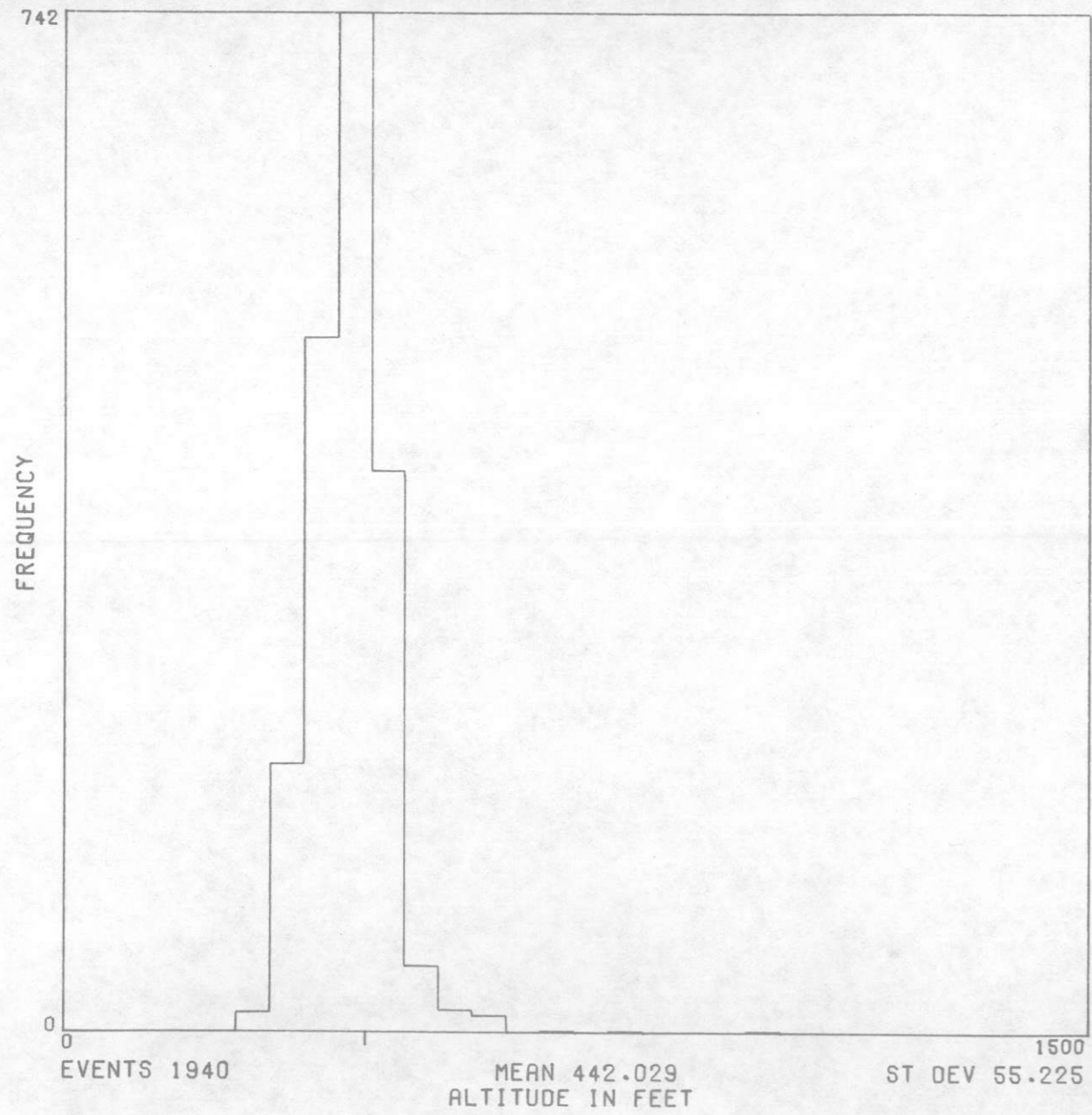


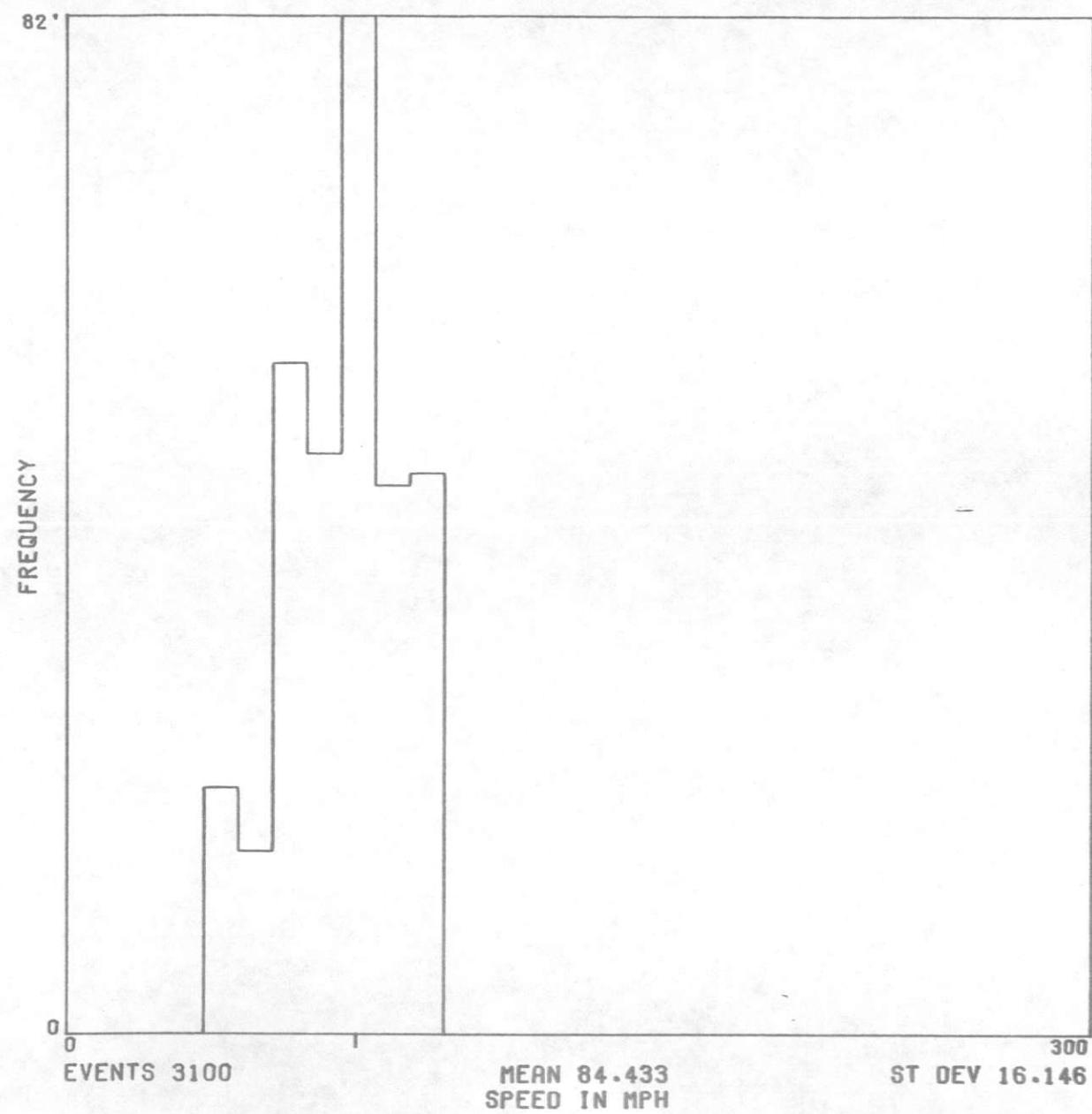
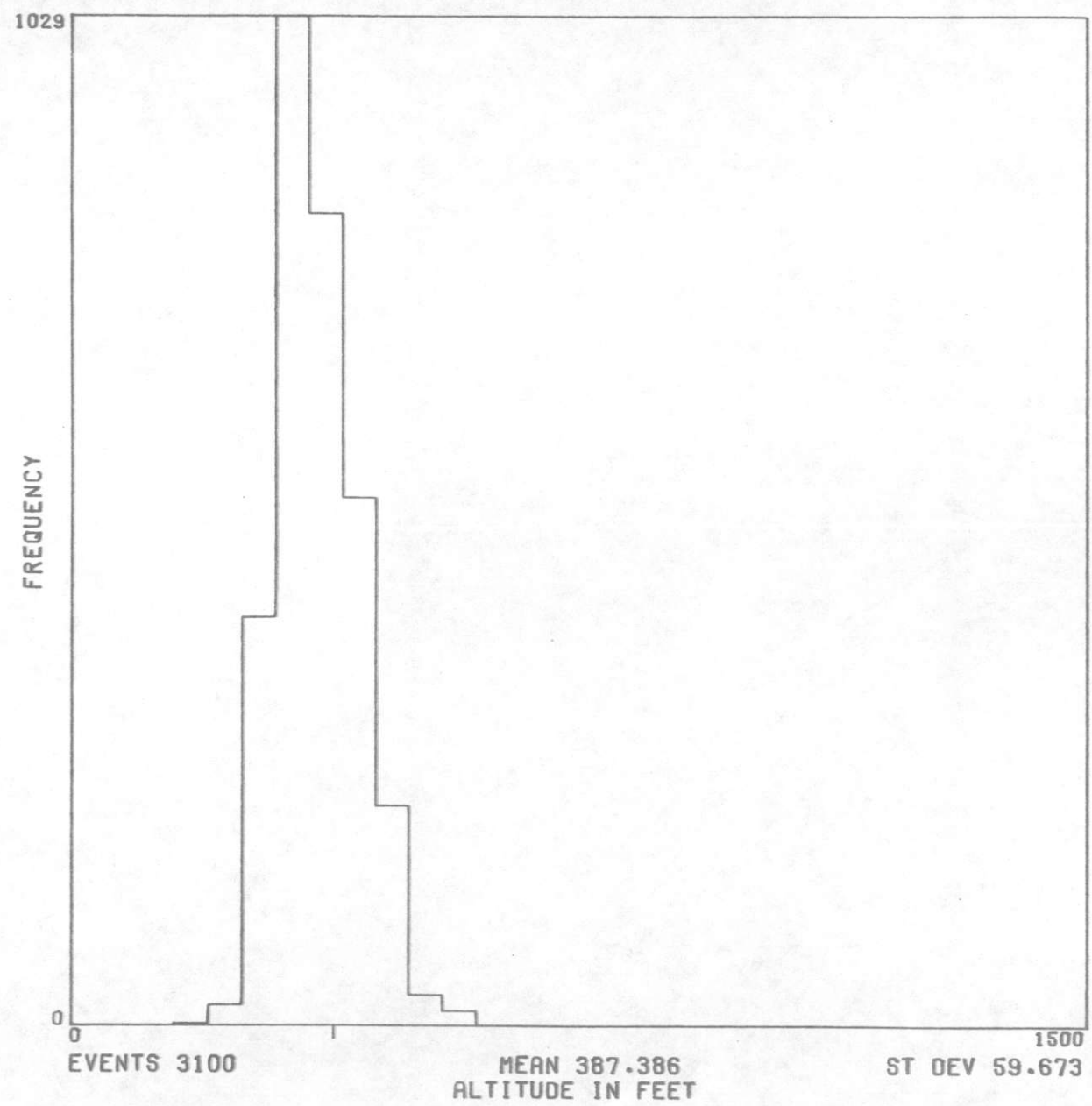


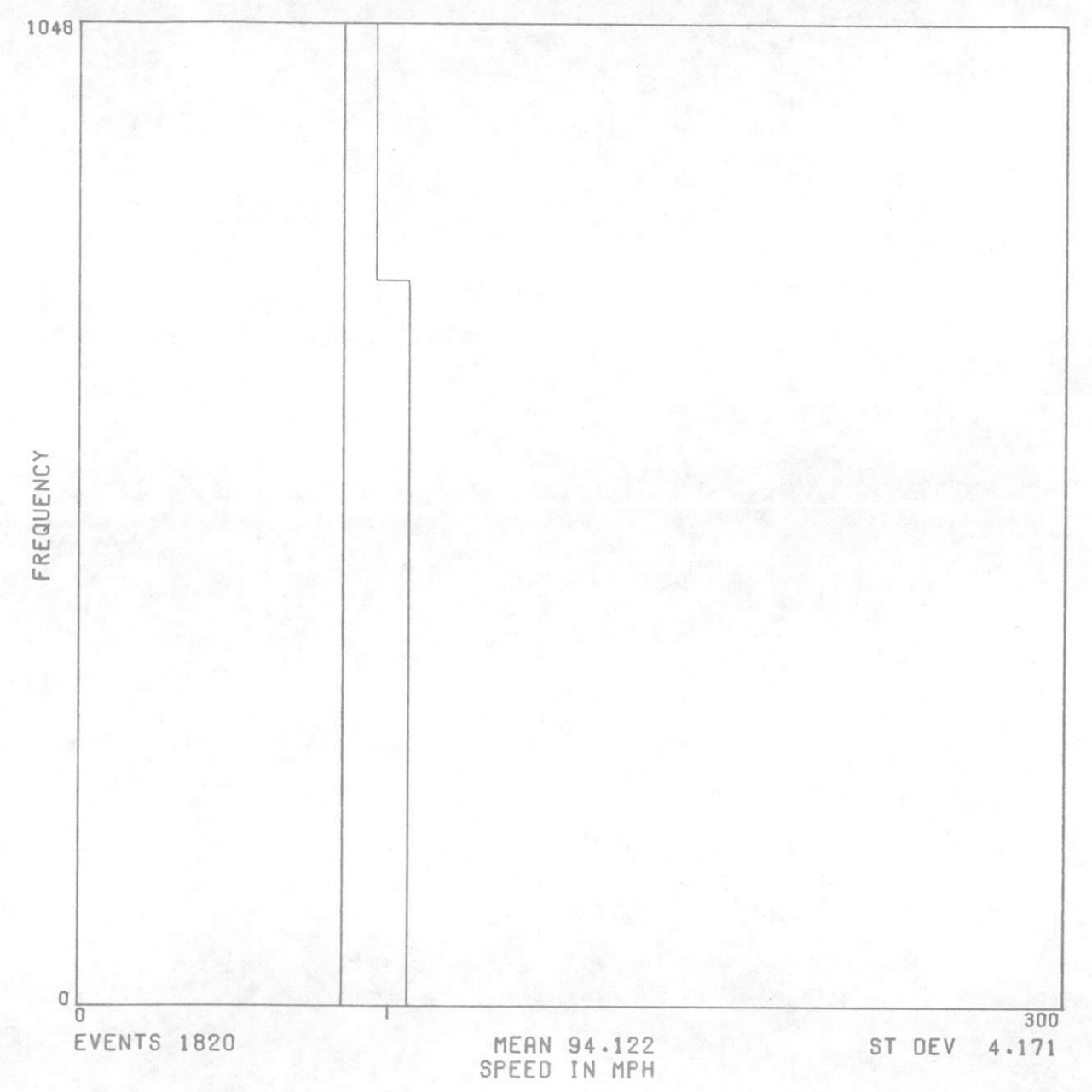
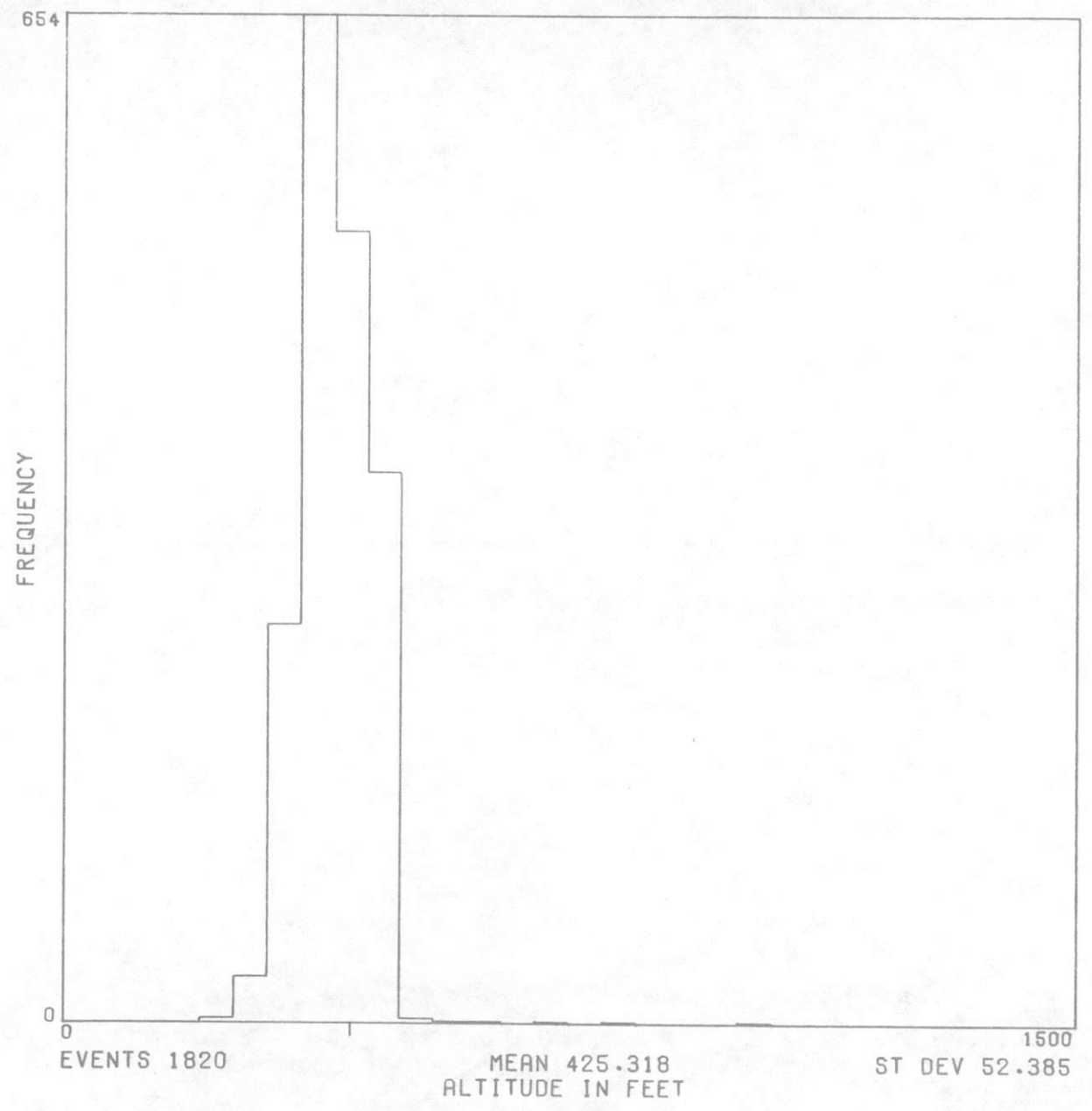


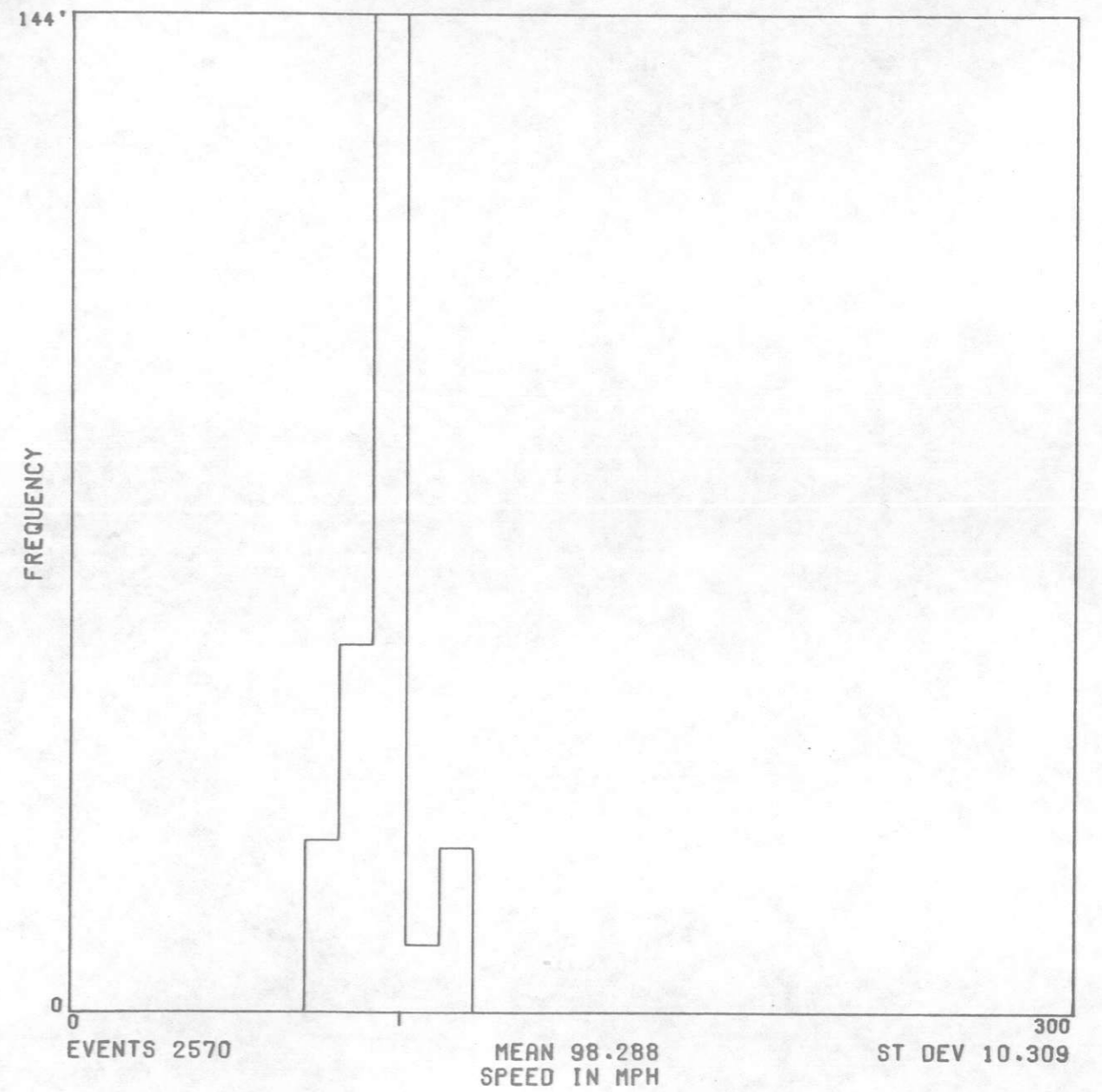
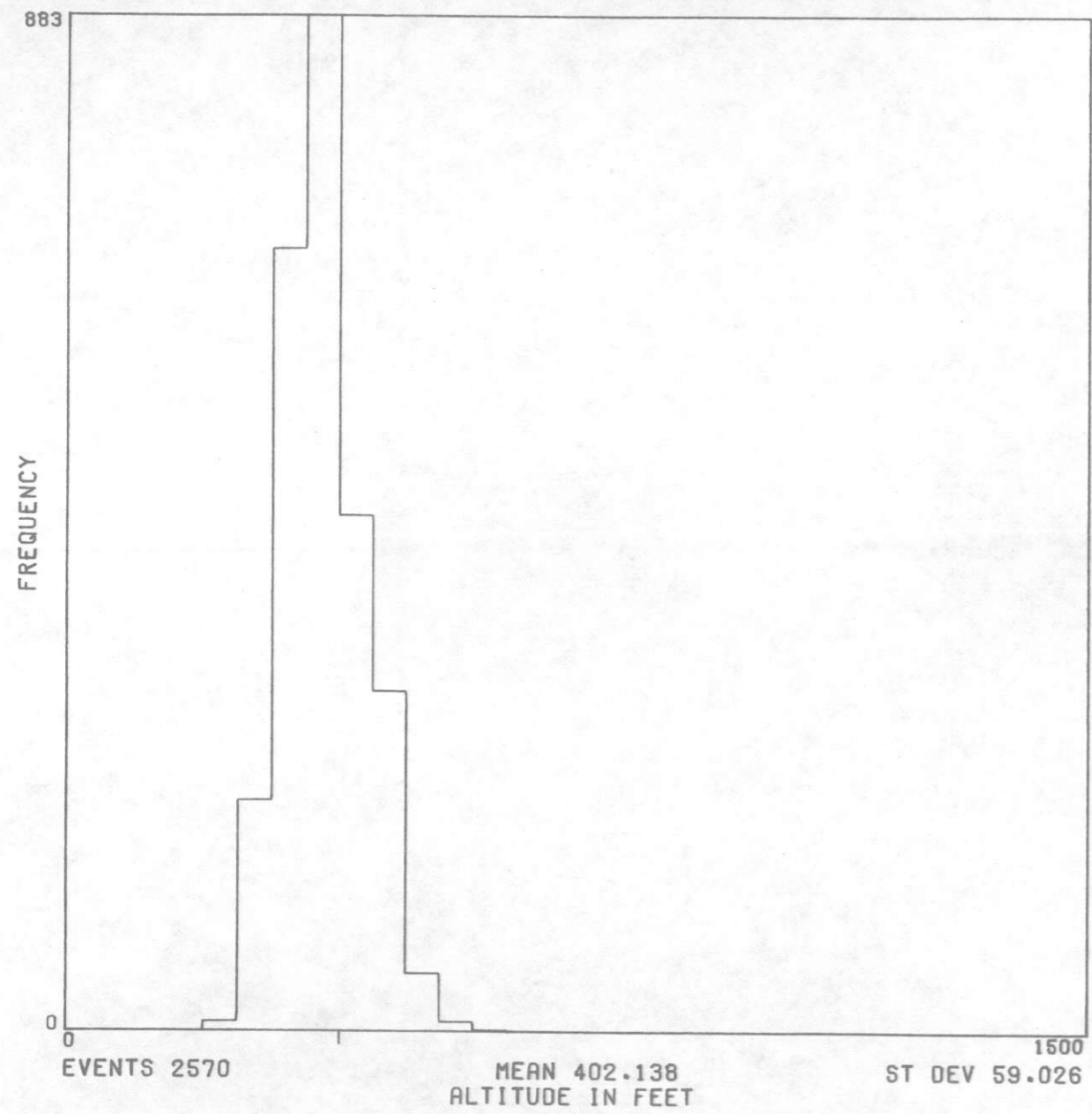


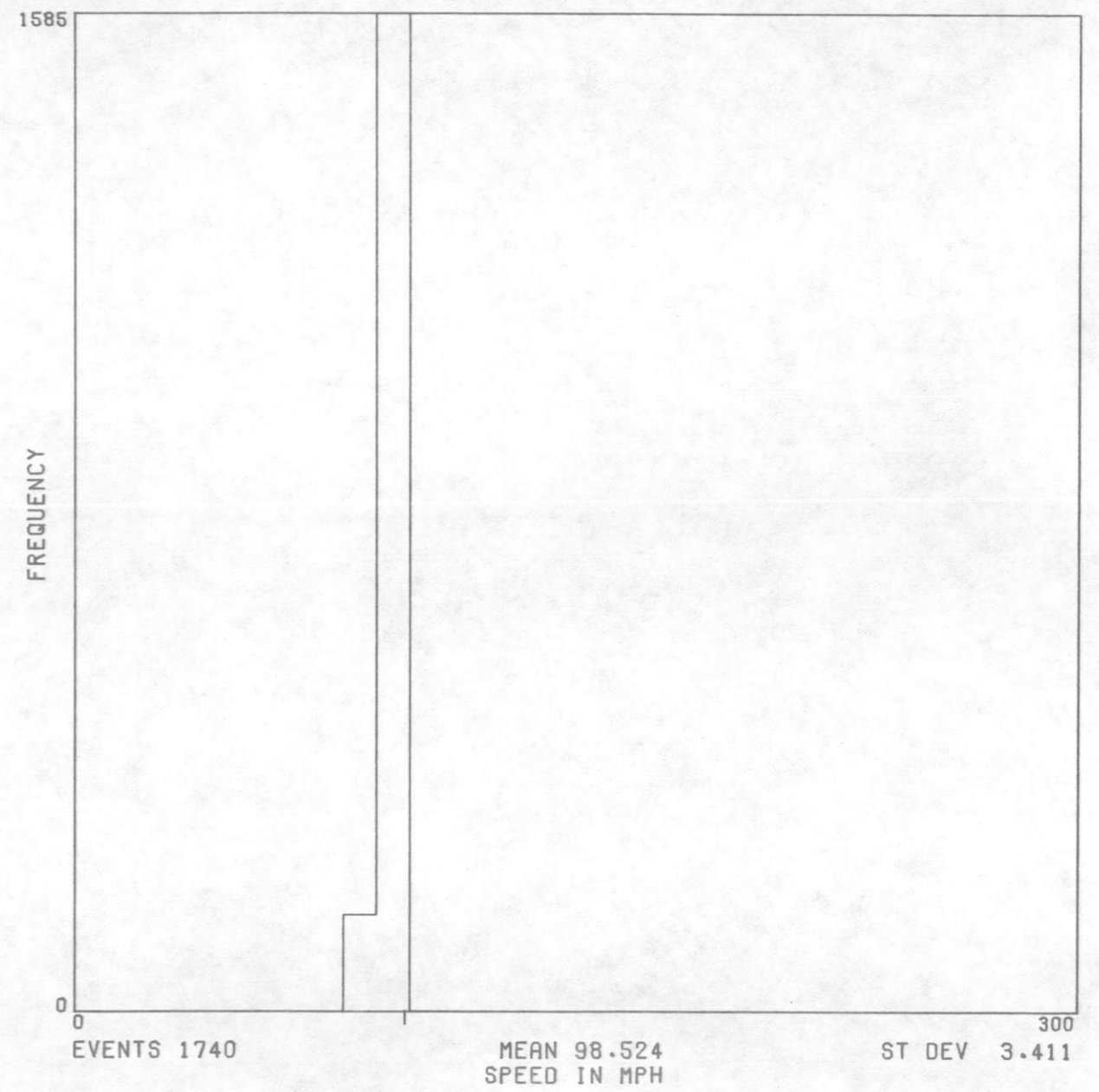
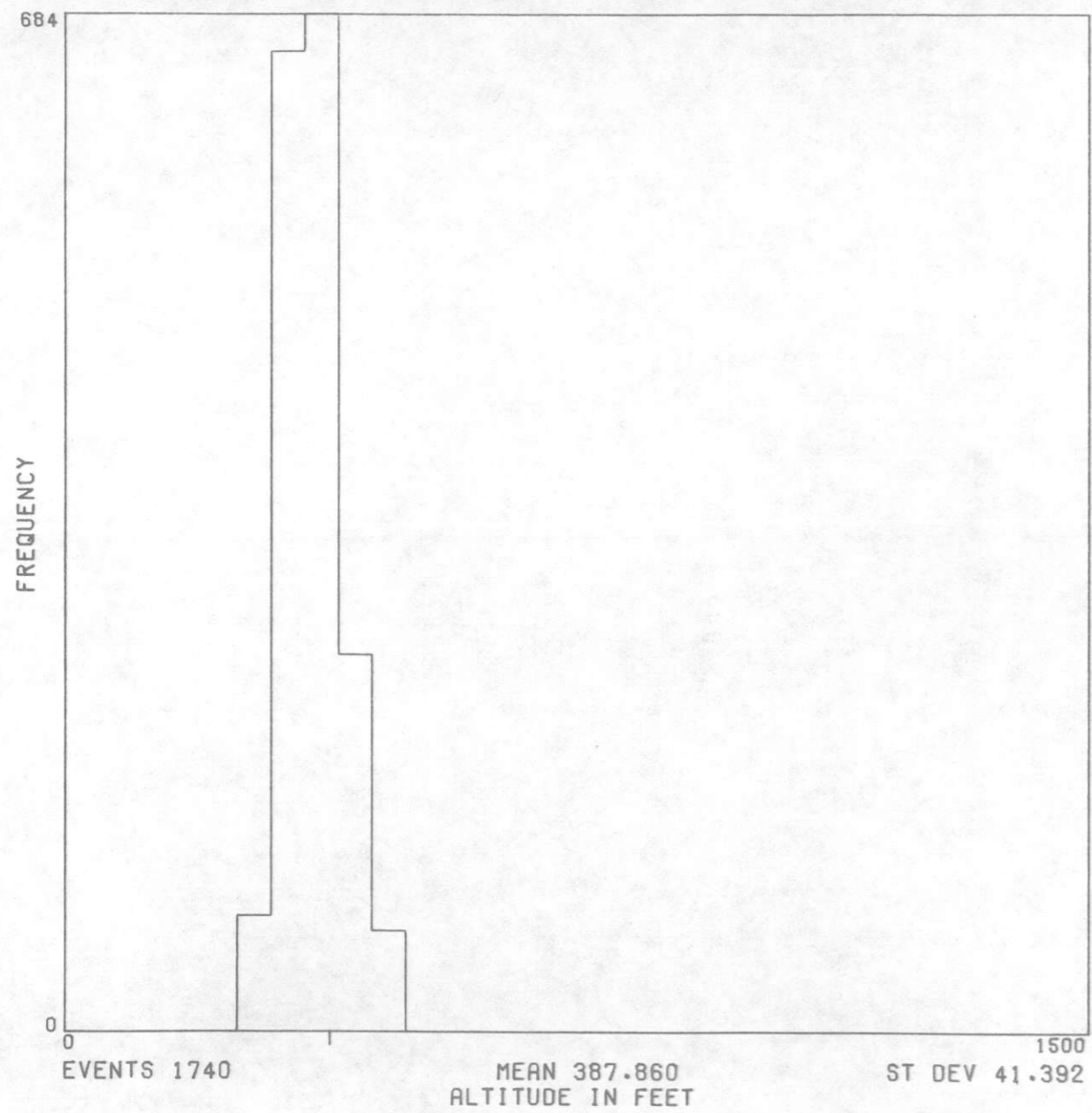


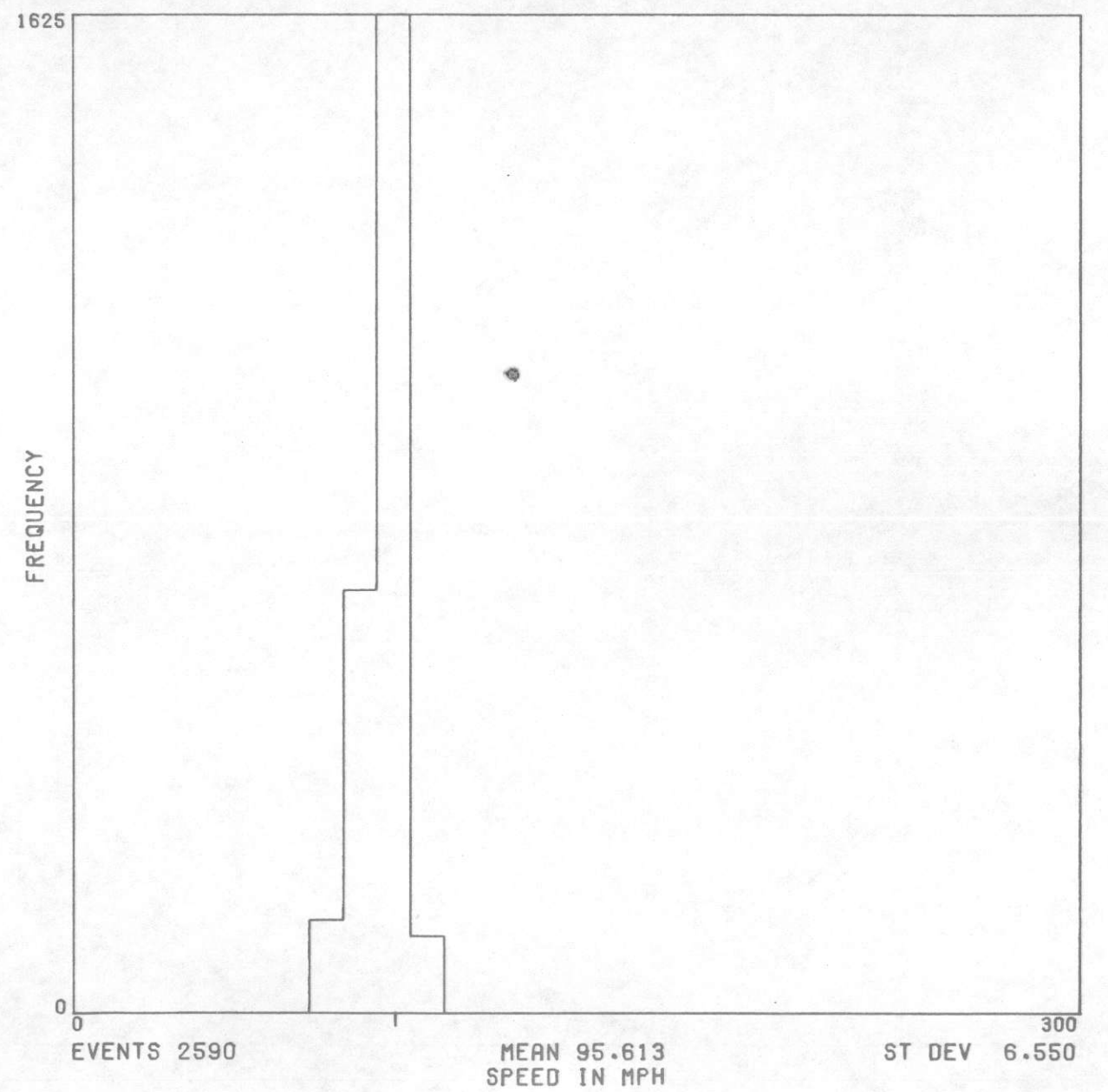
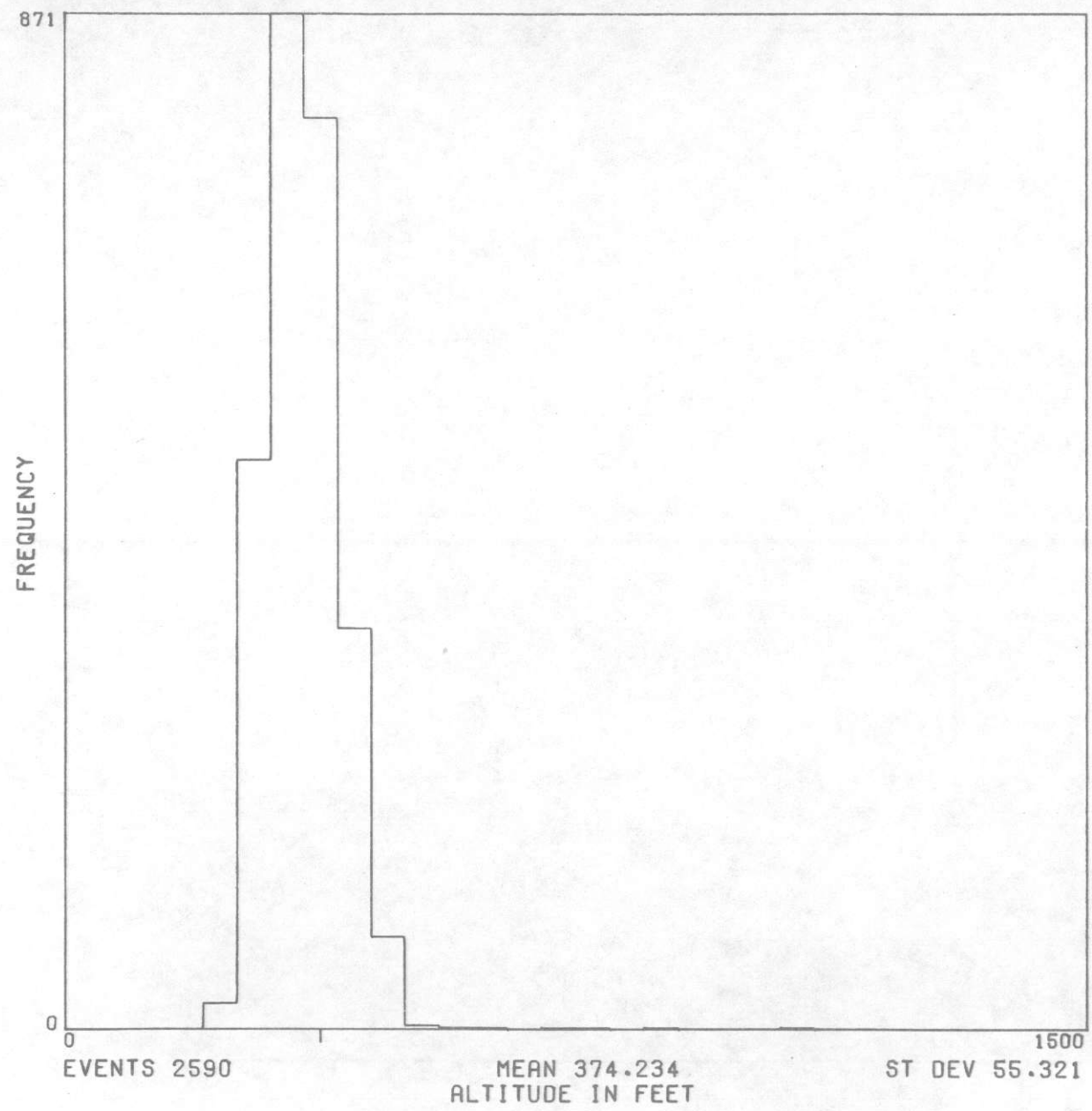


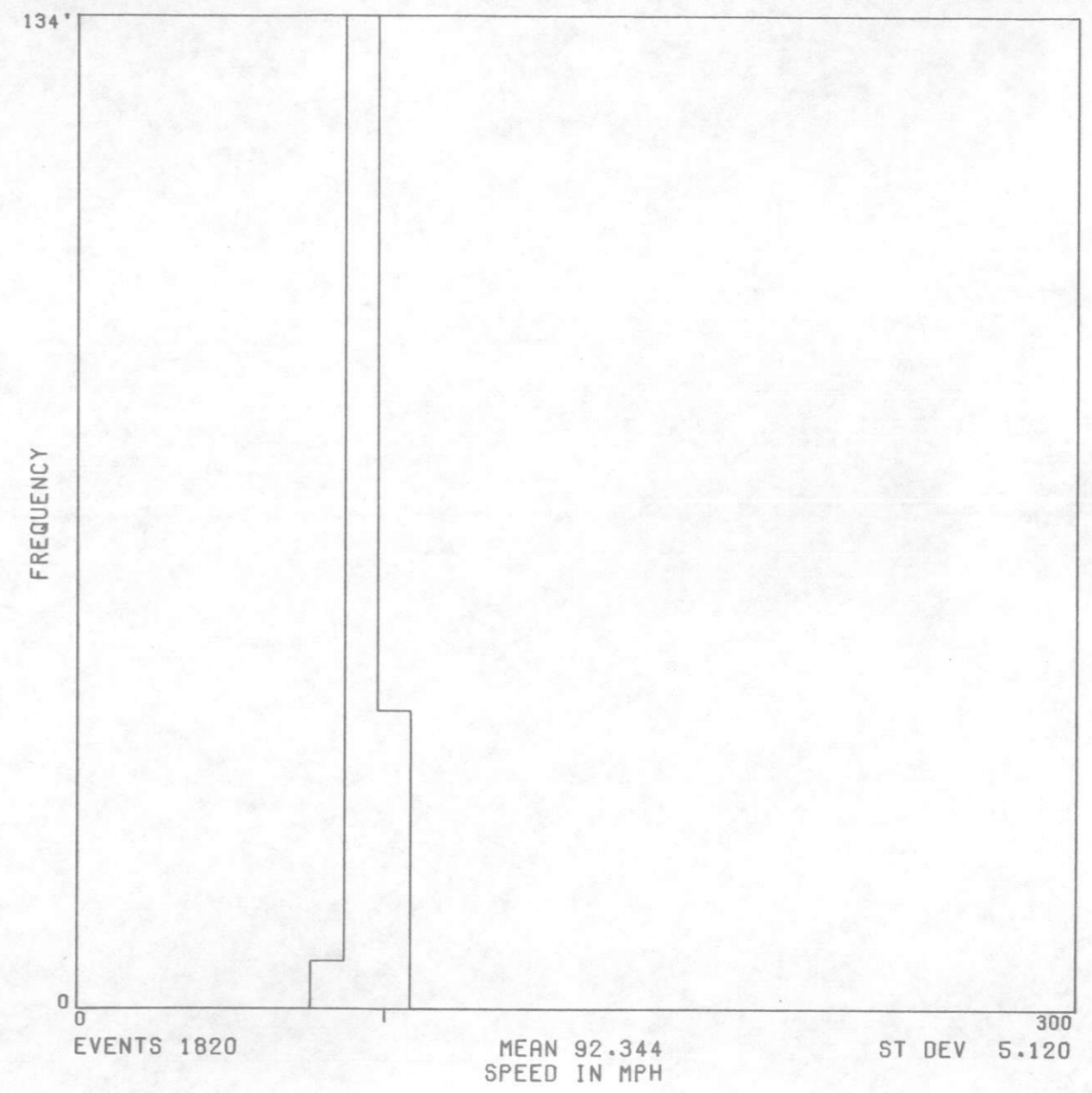
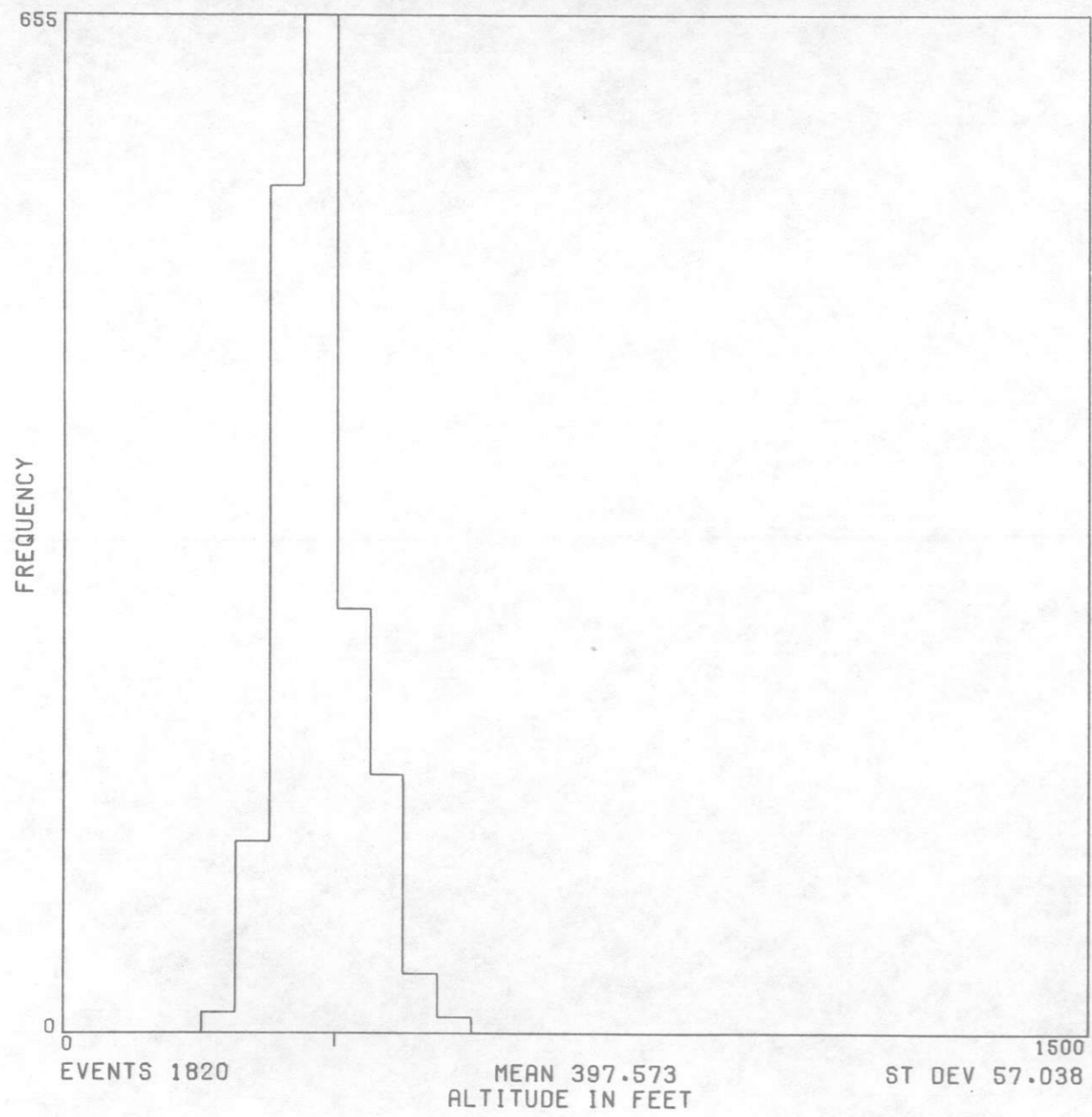


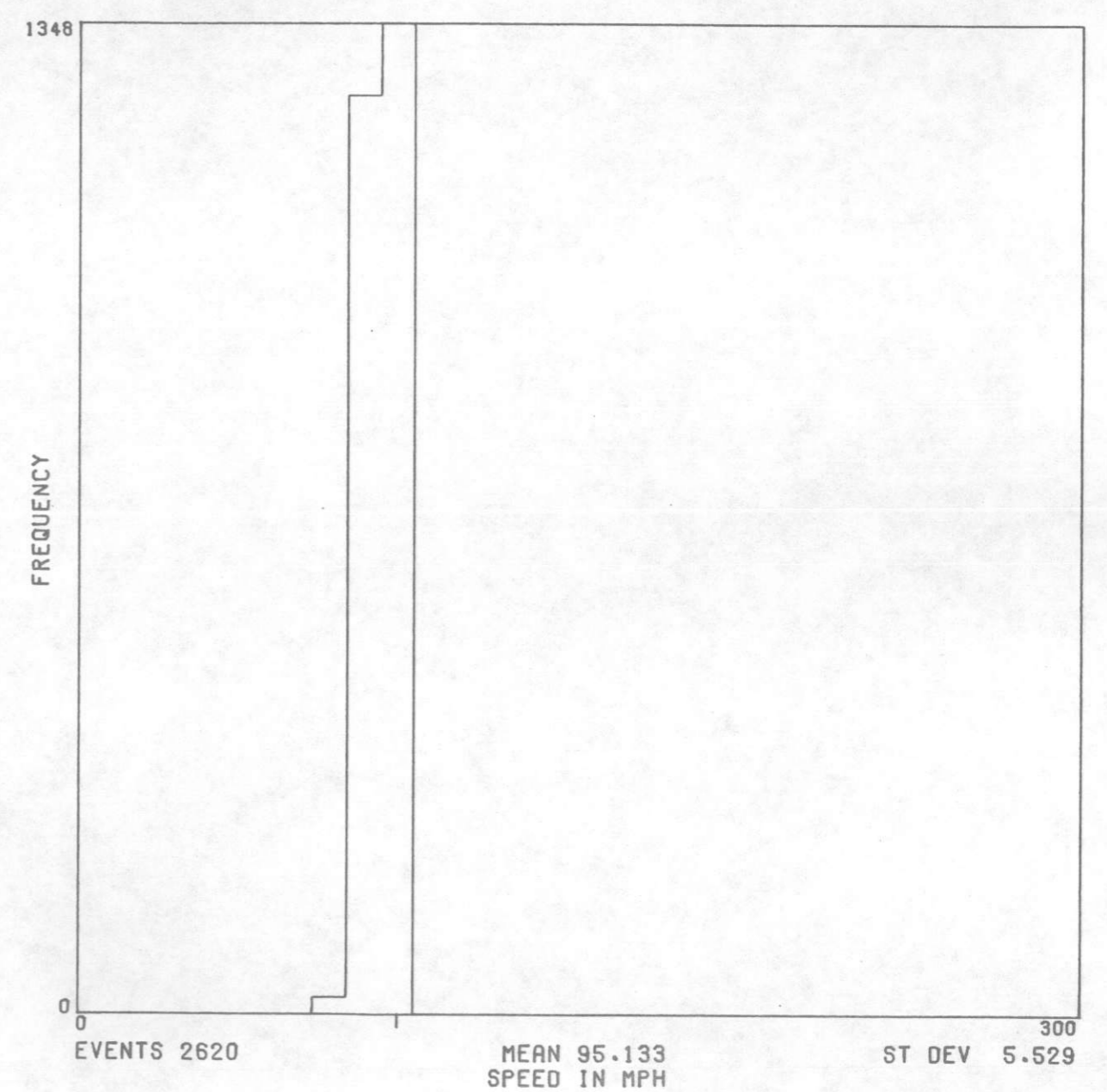
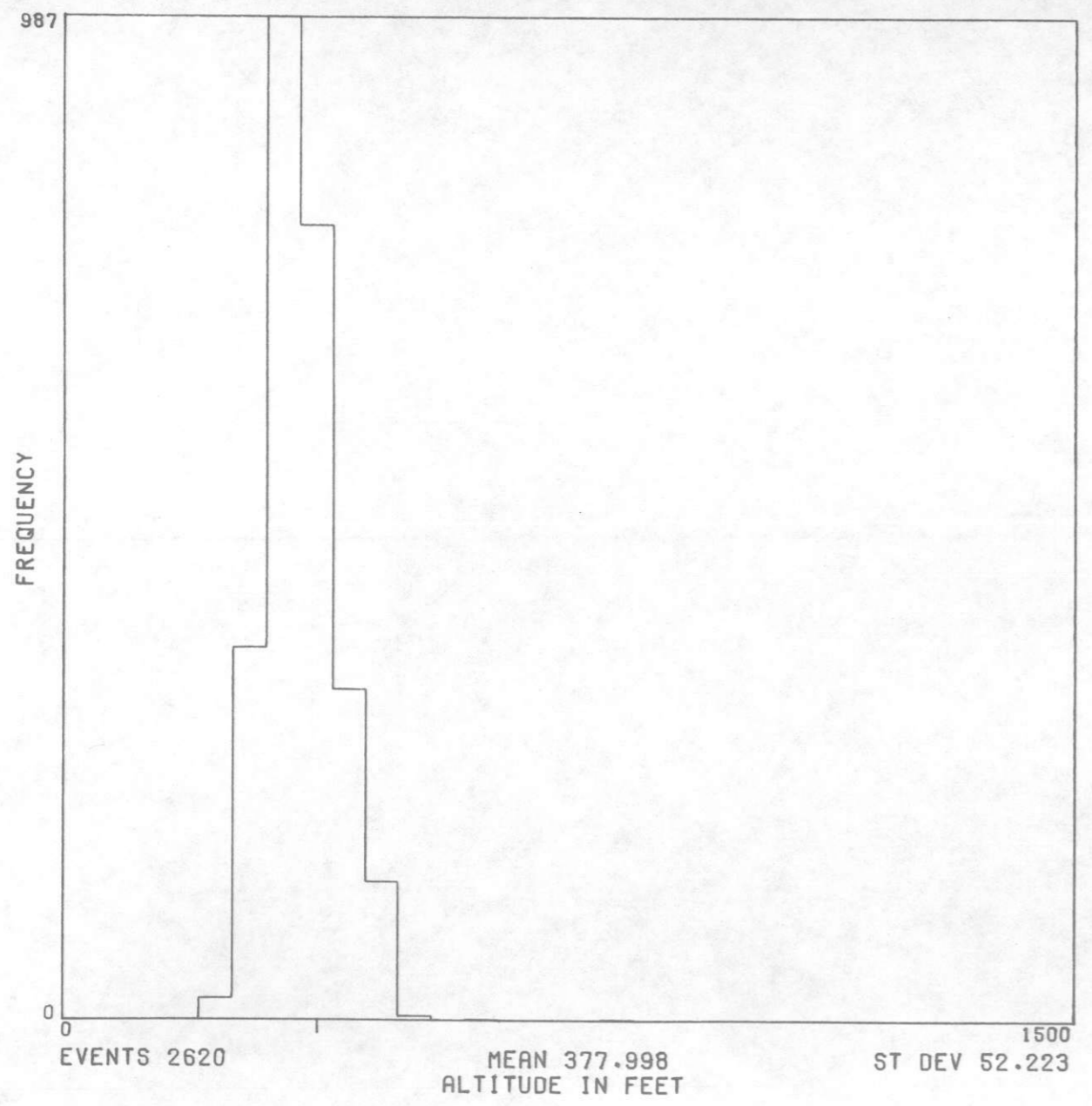


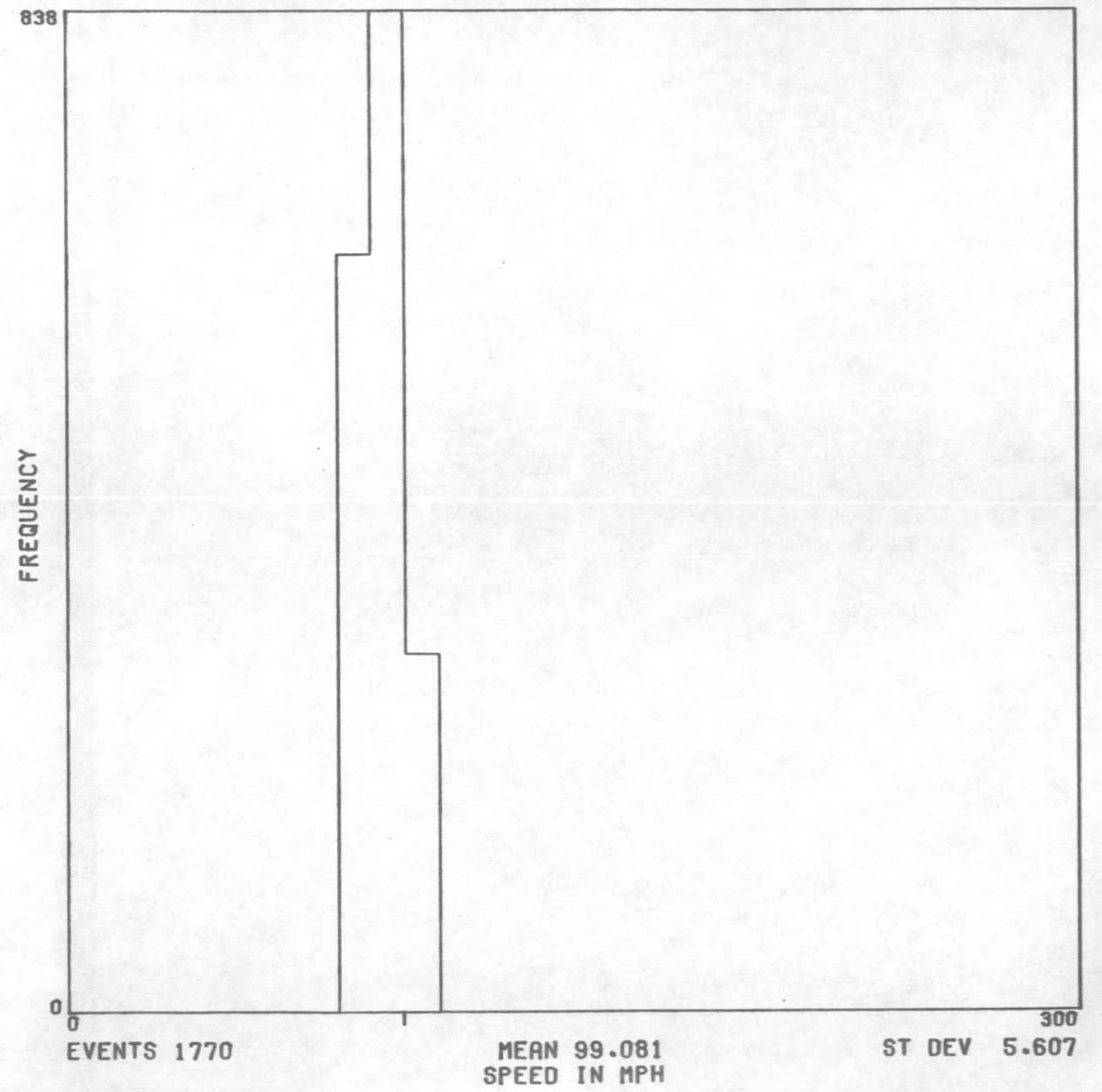
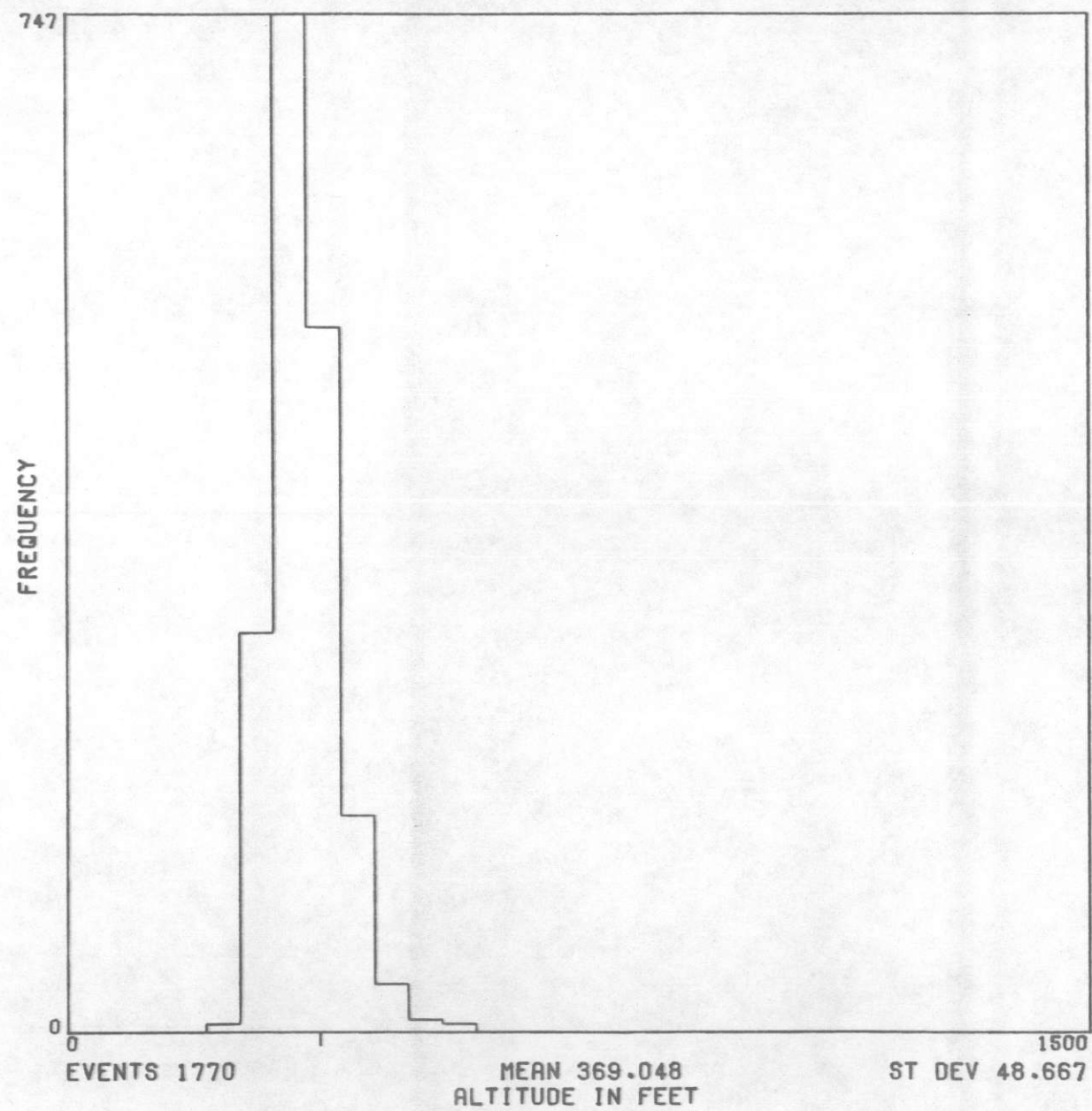


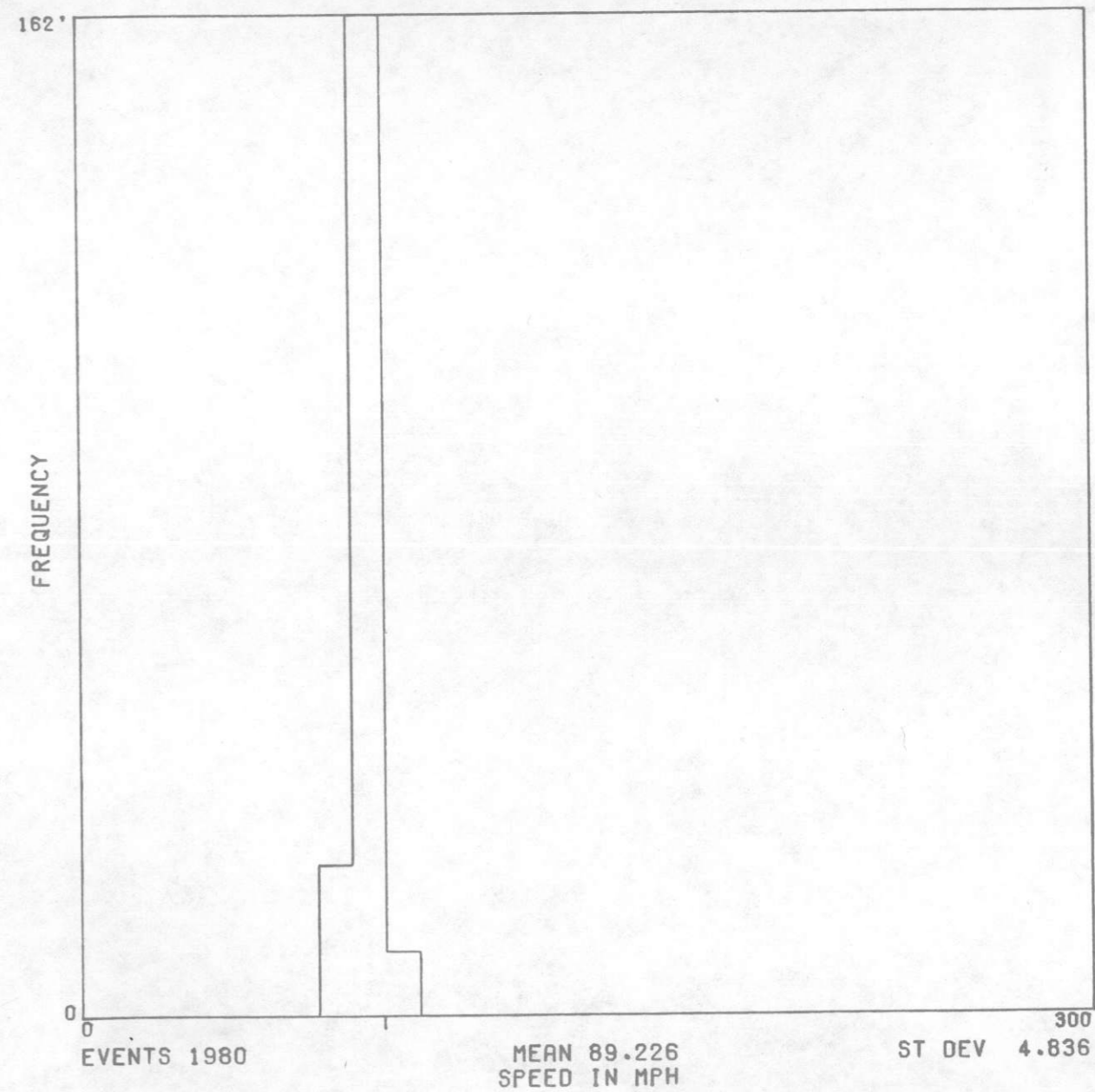
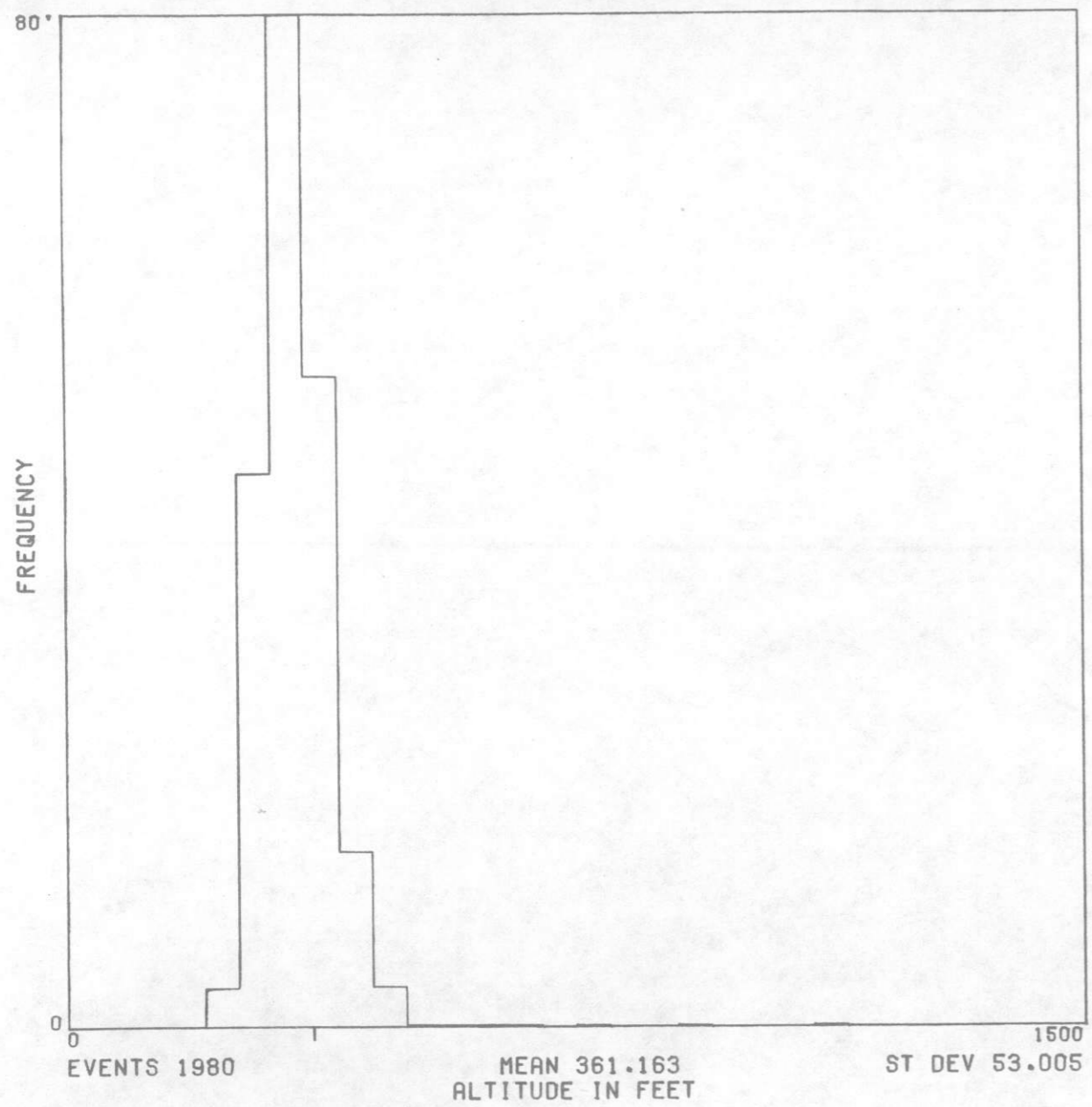


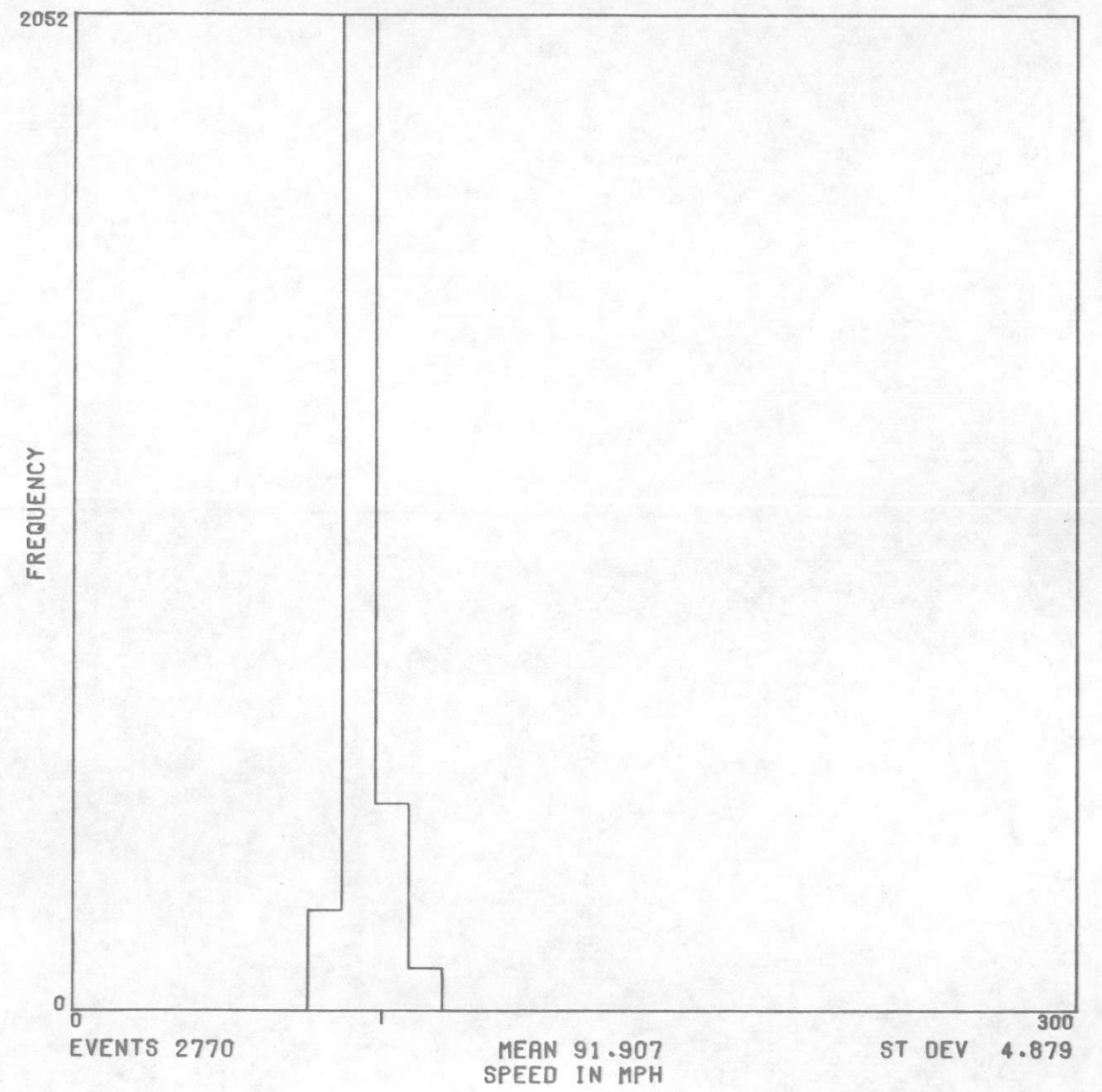
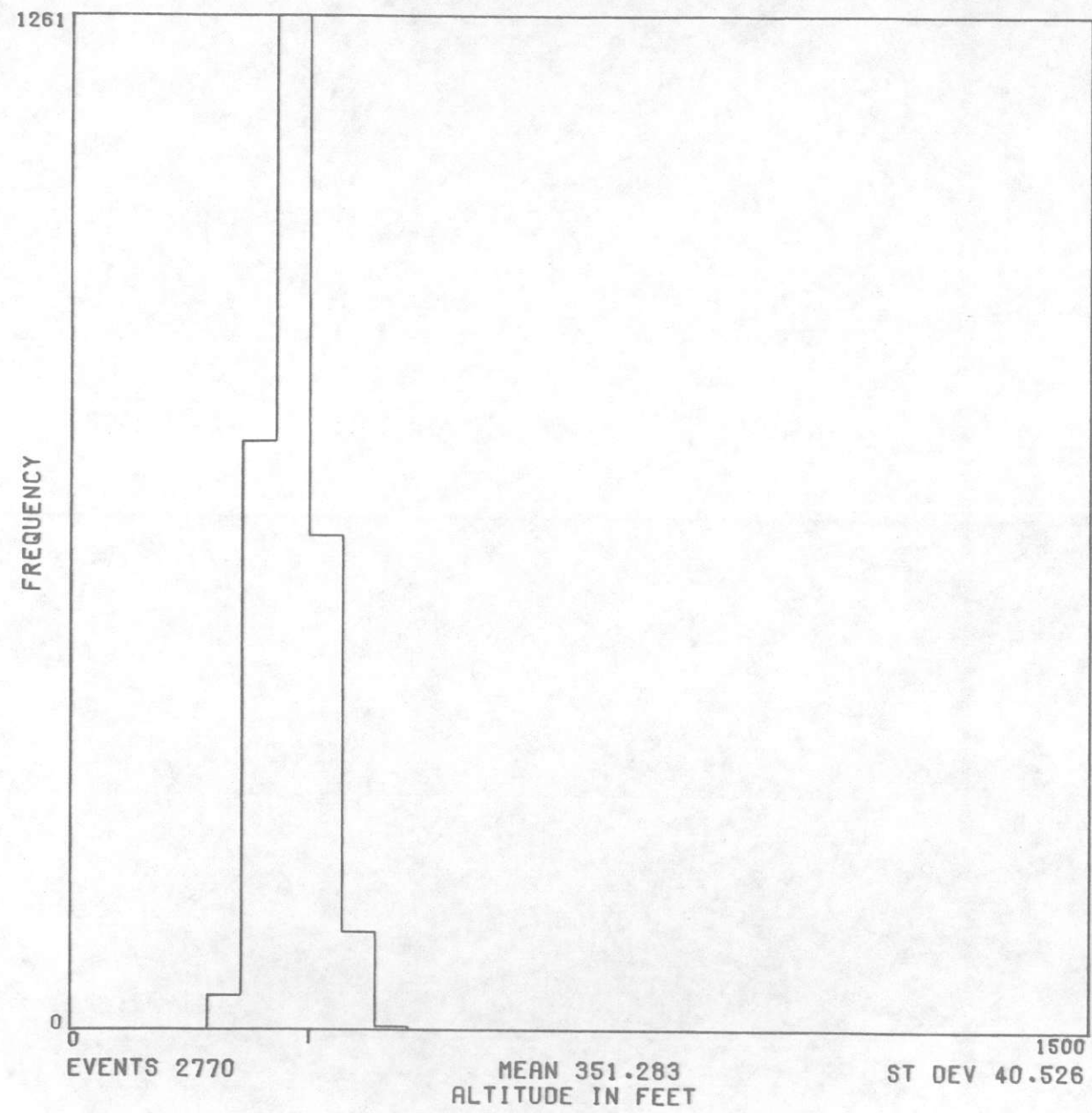




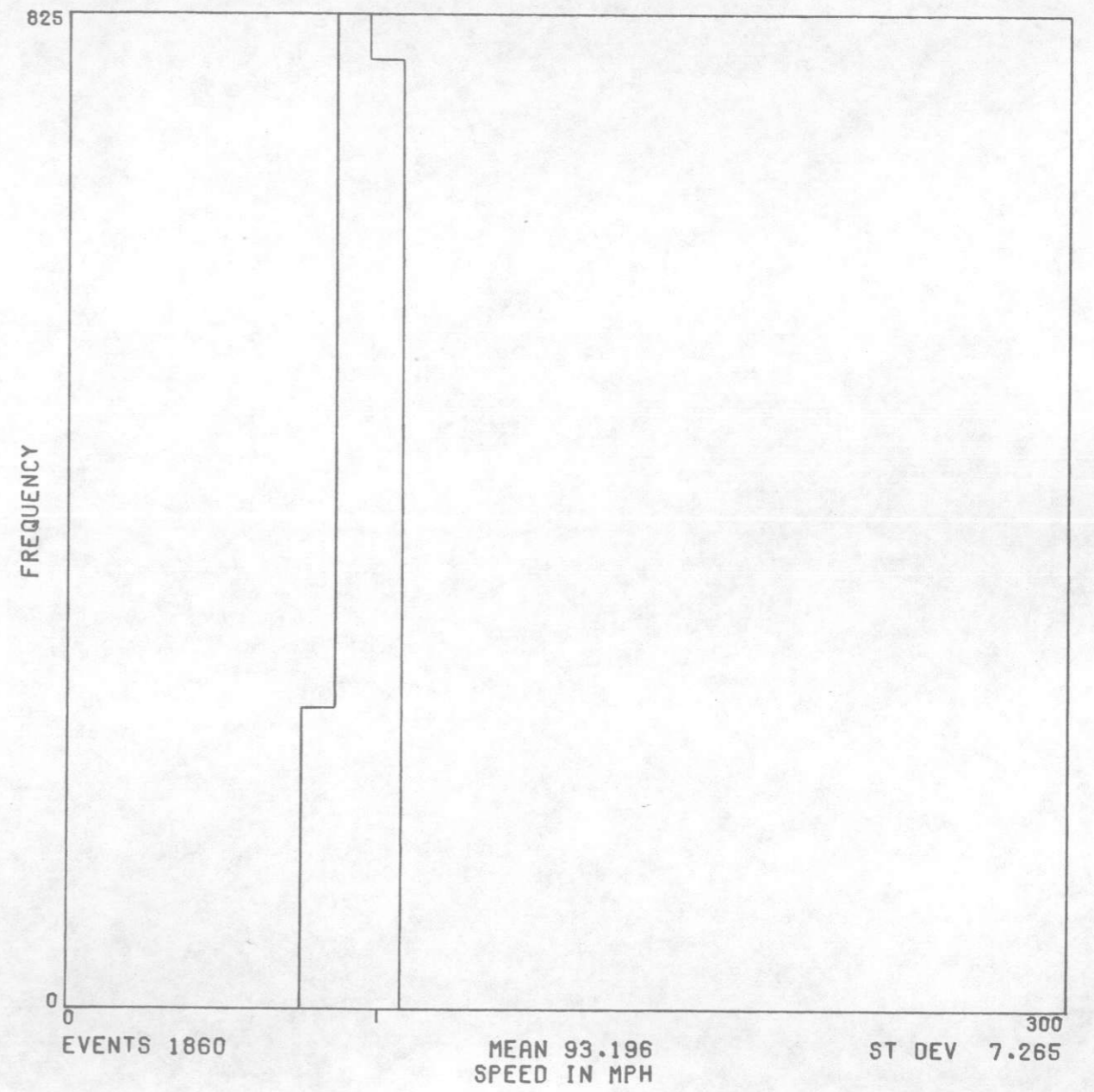
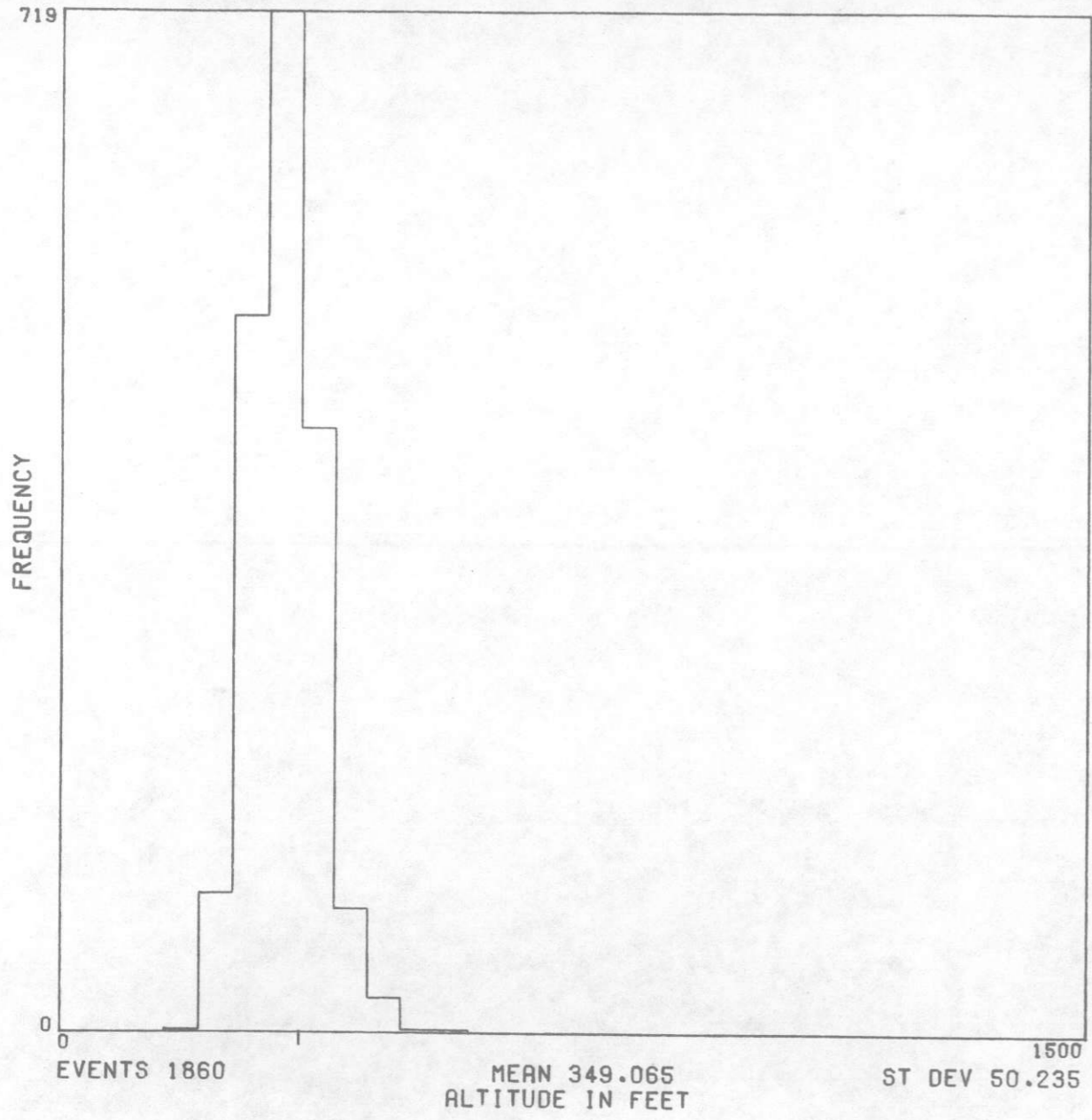


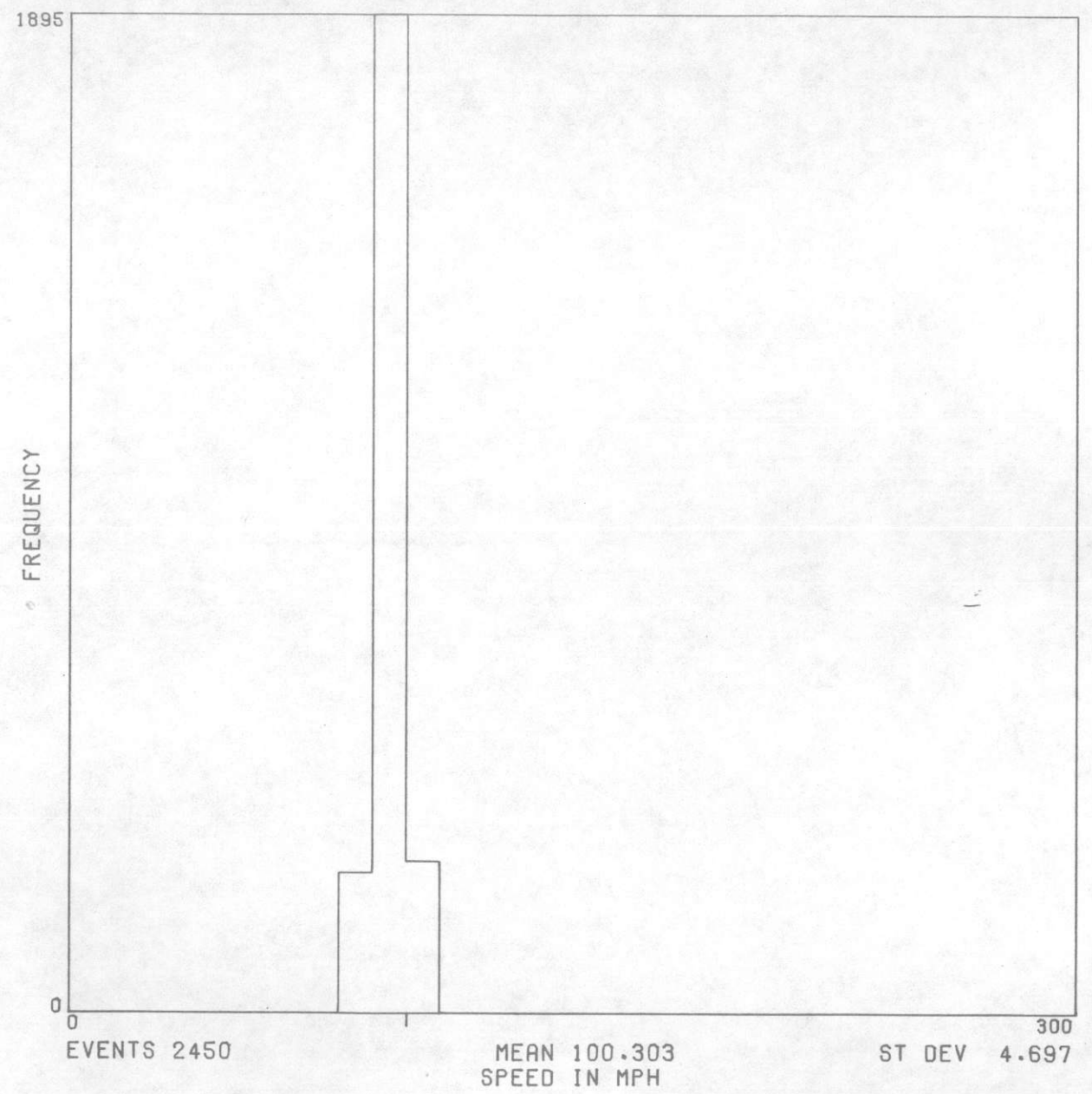
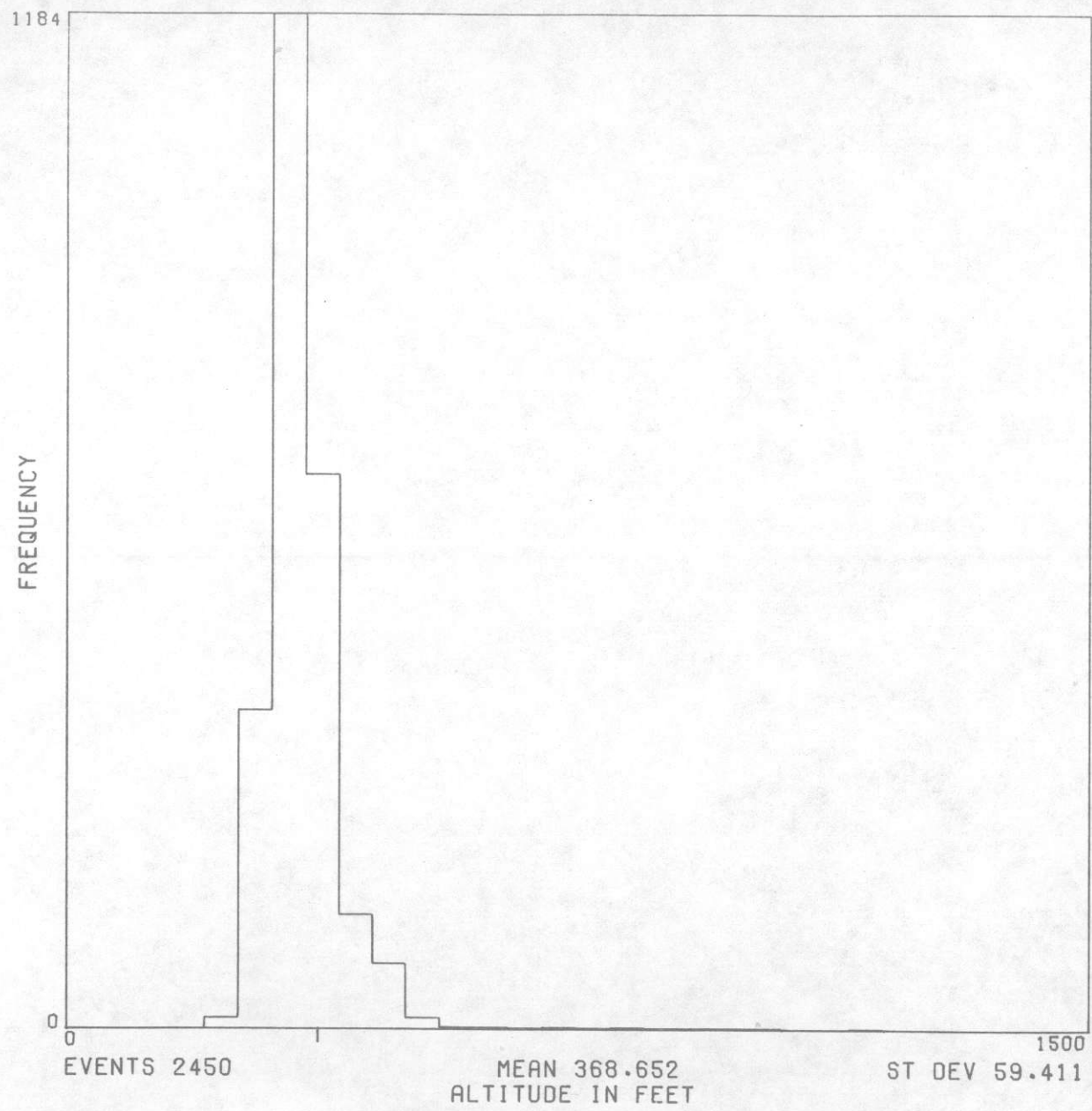


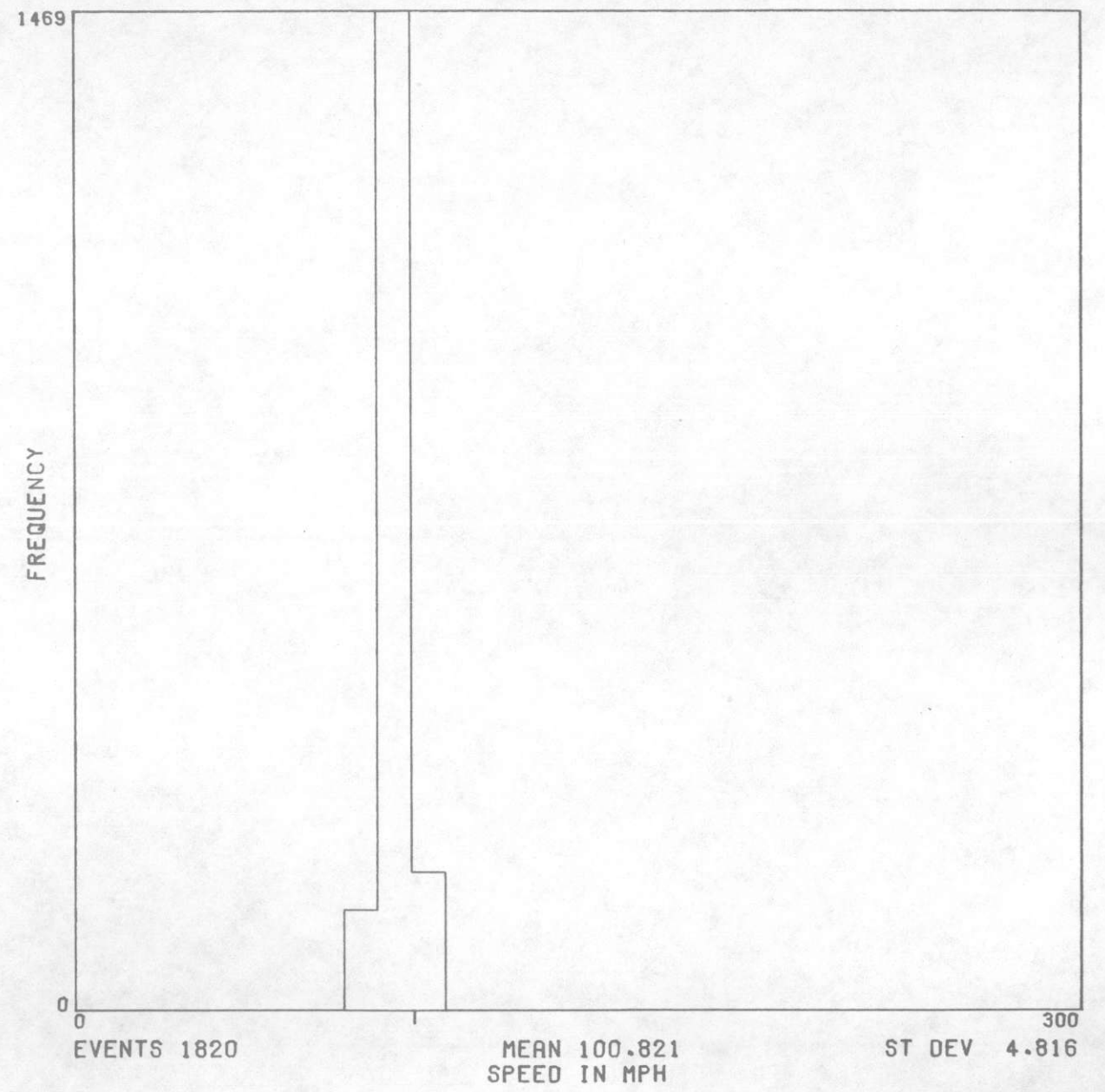
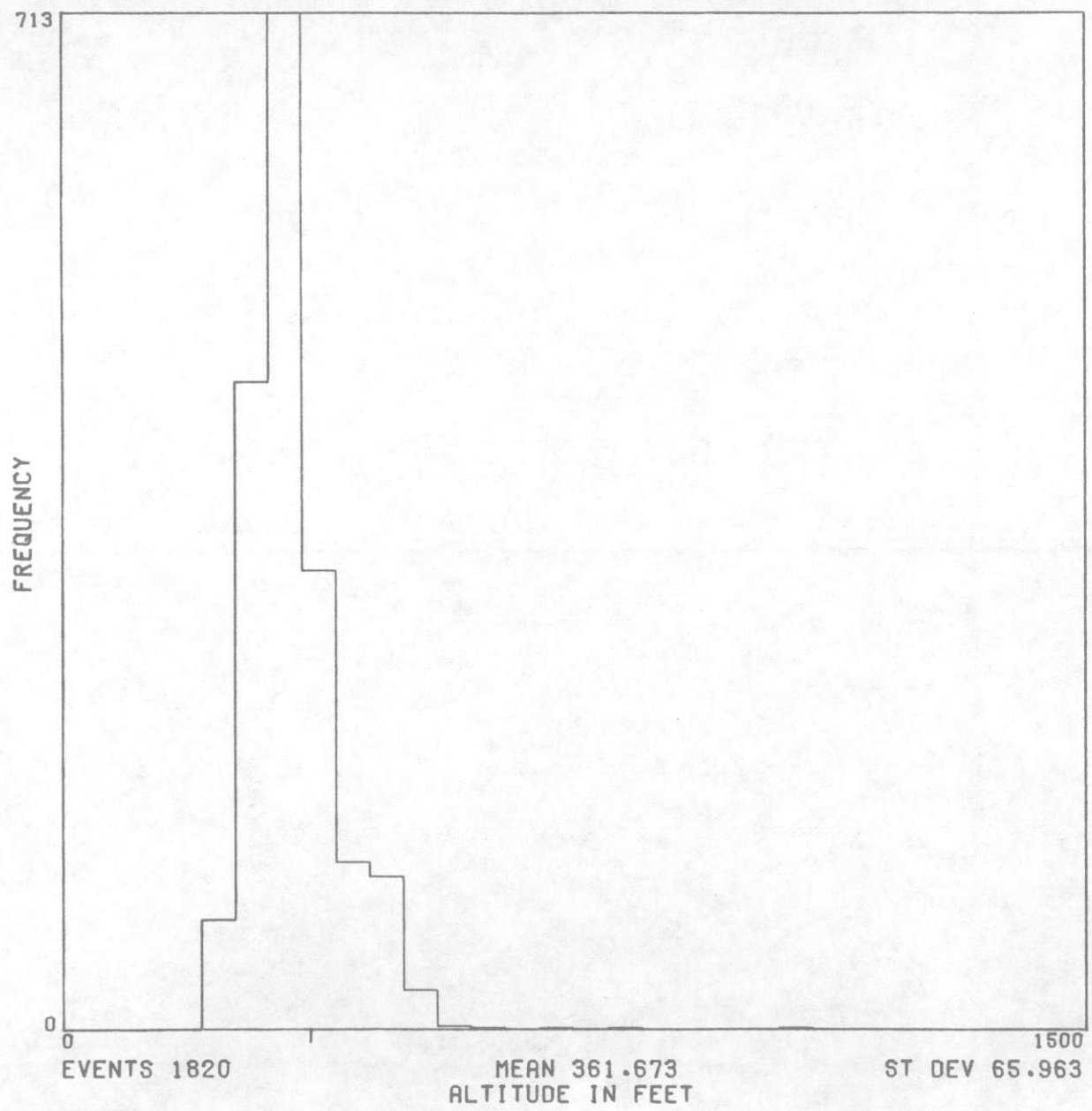


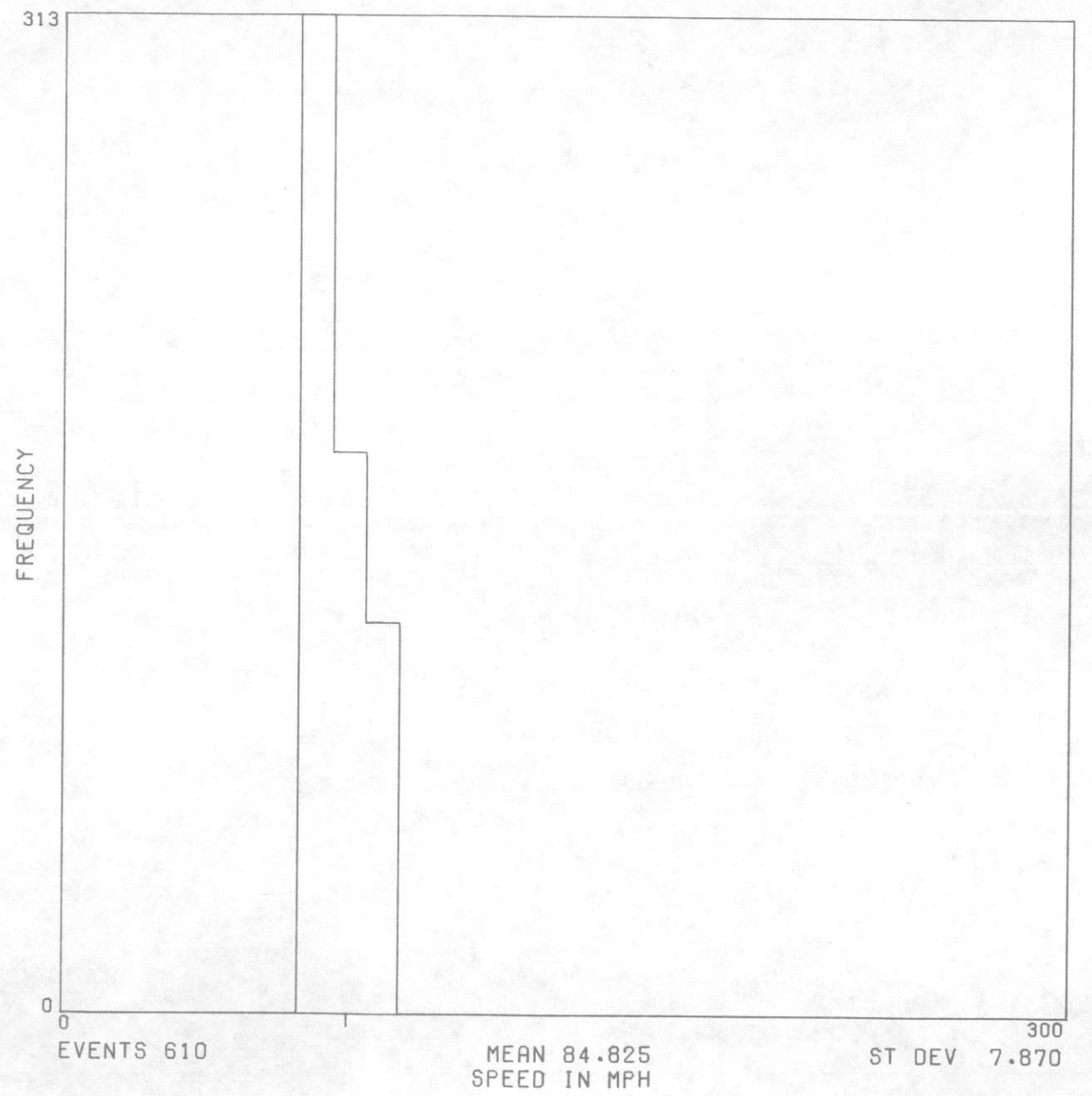
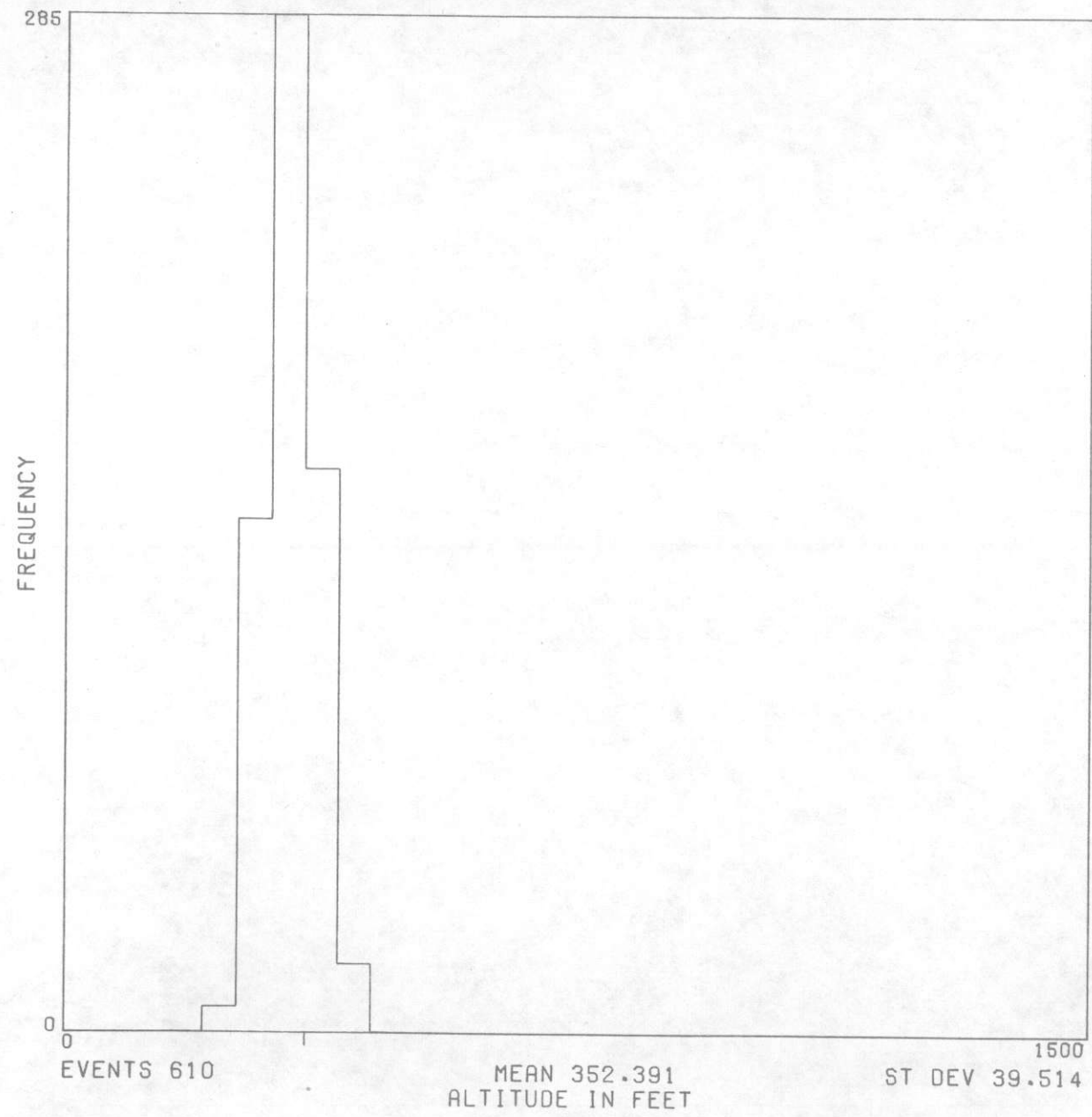


20W

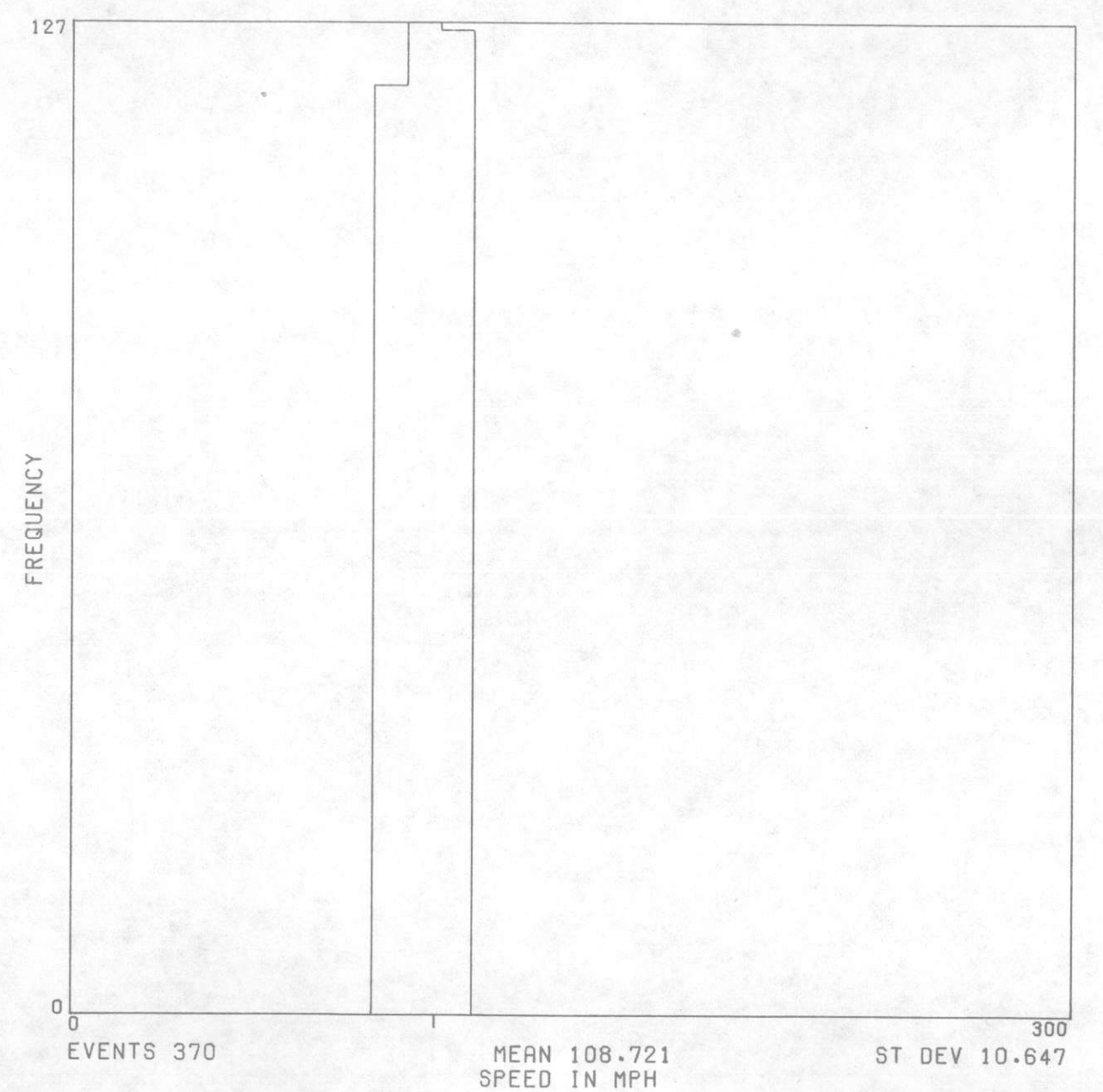
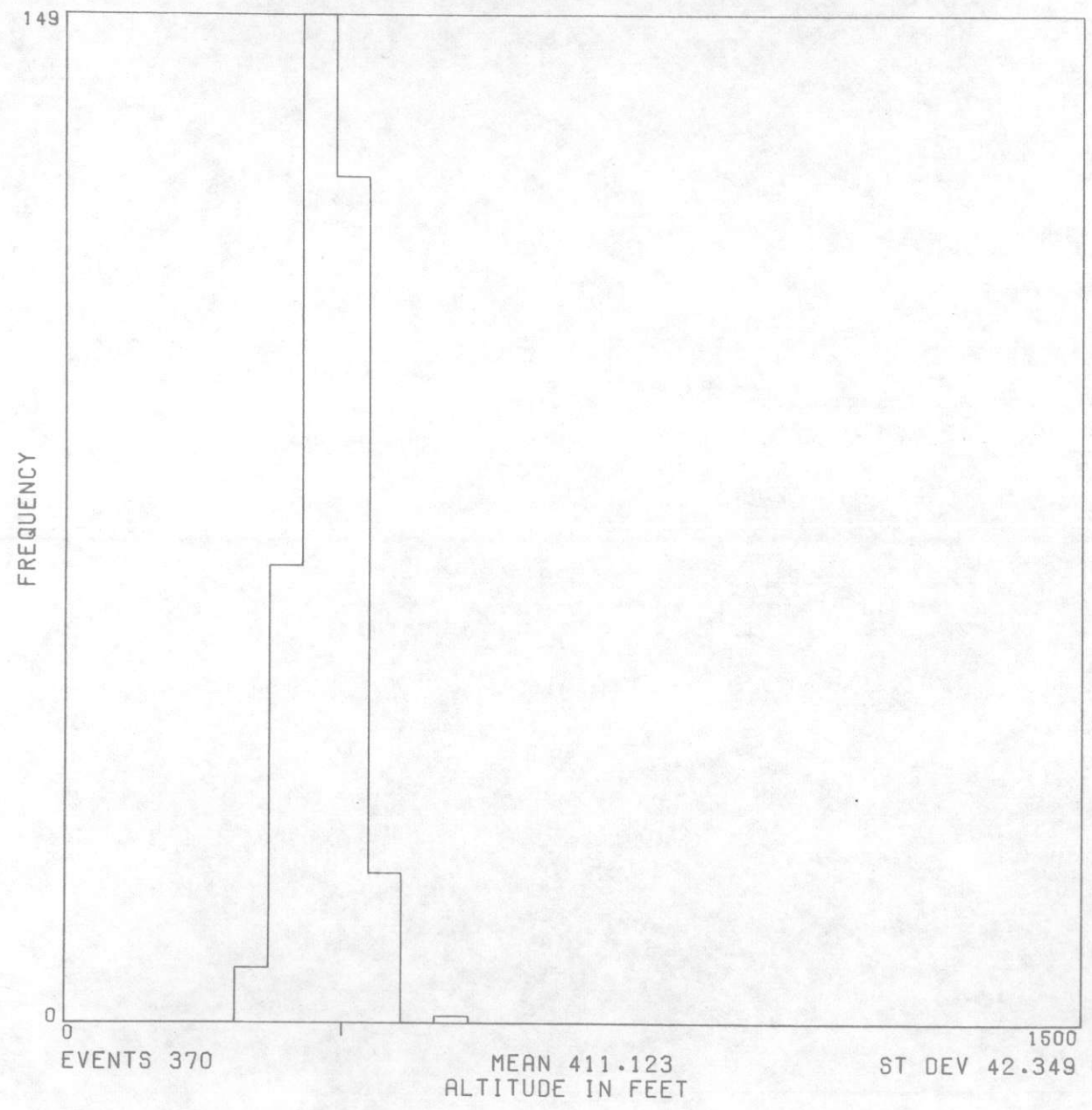


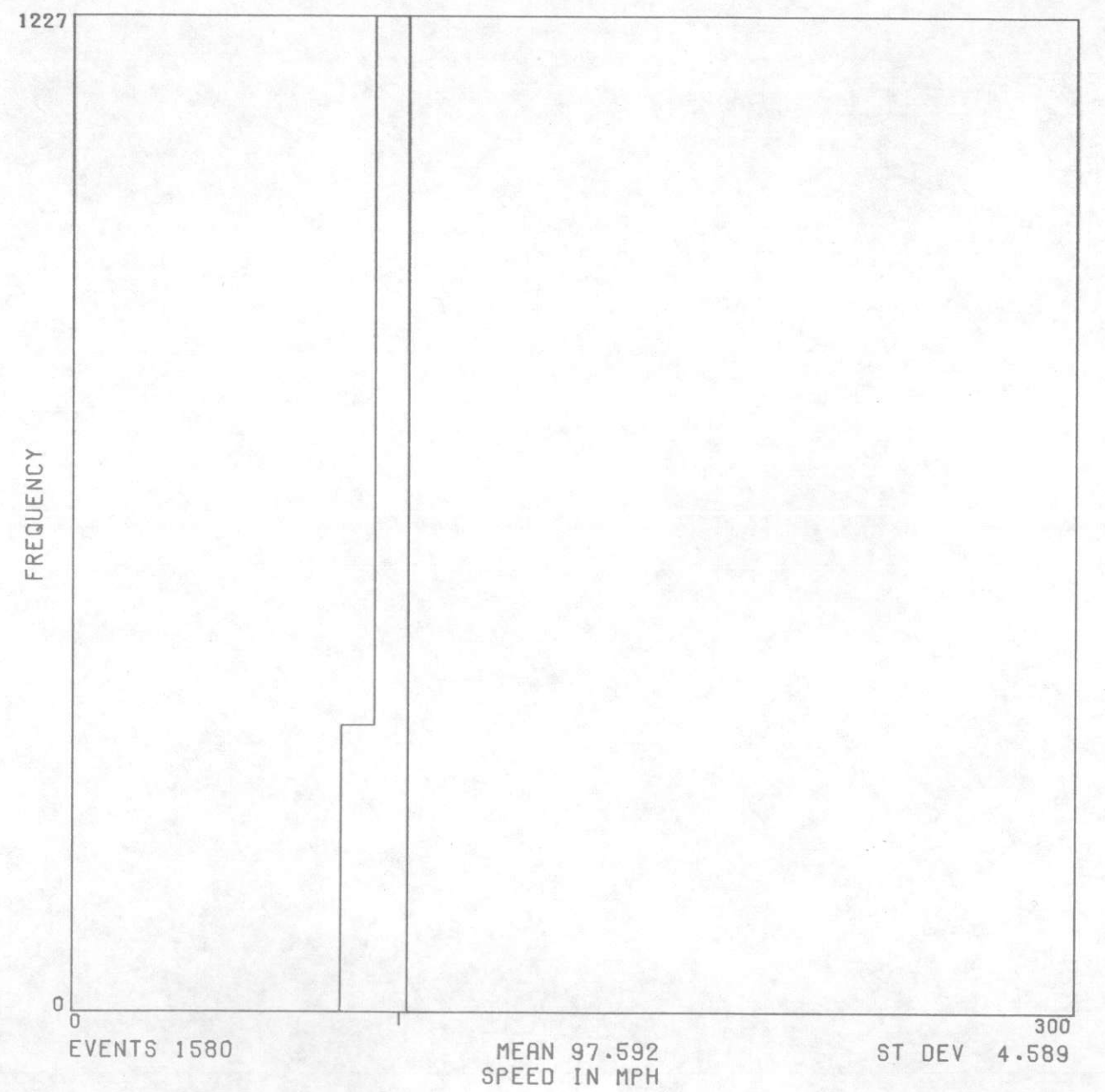
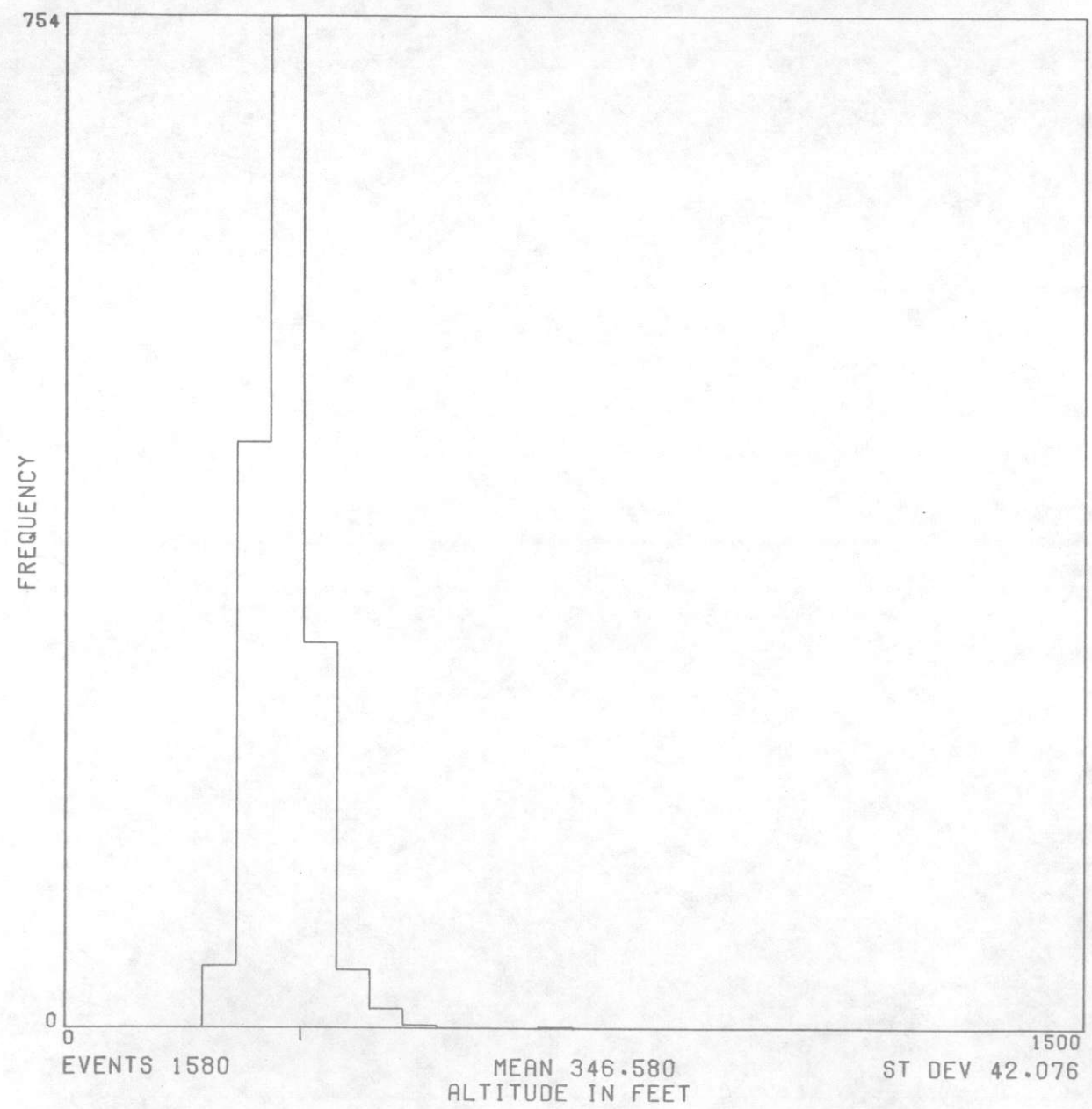


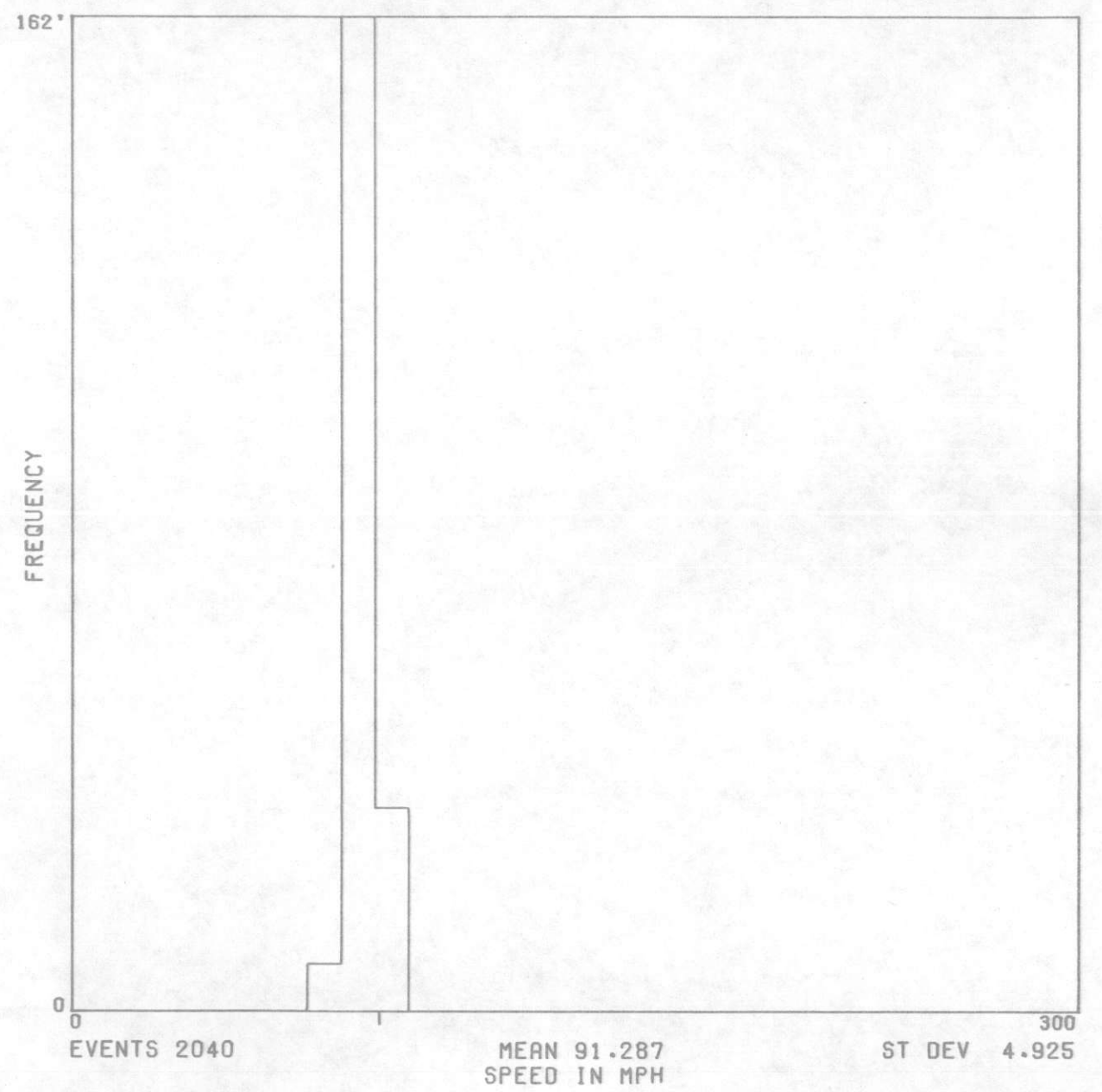
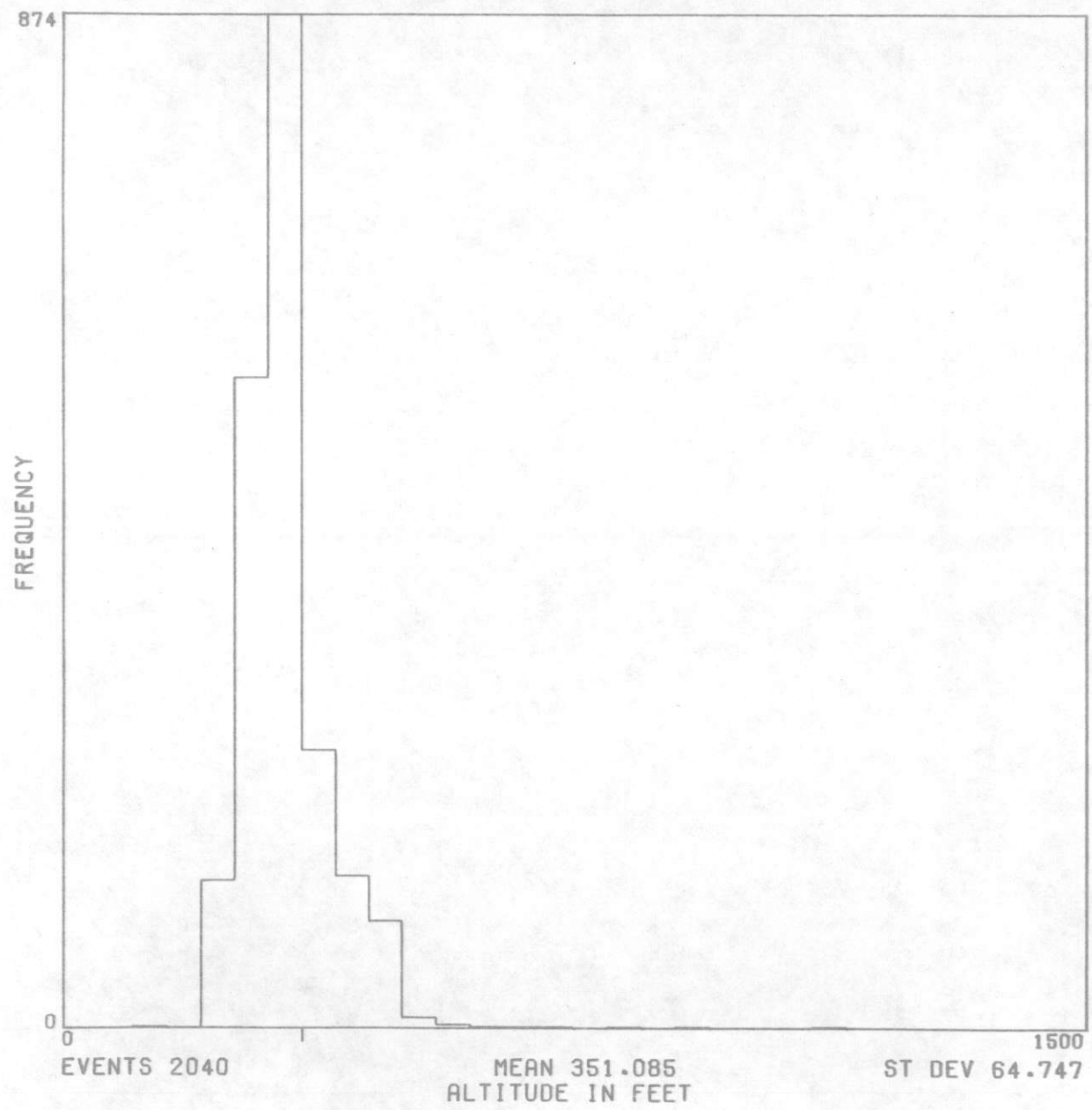


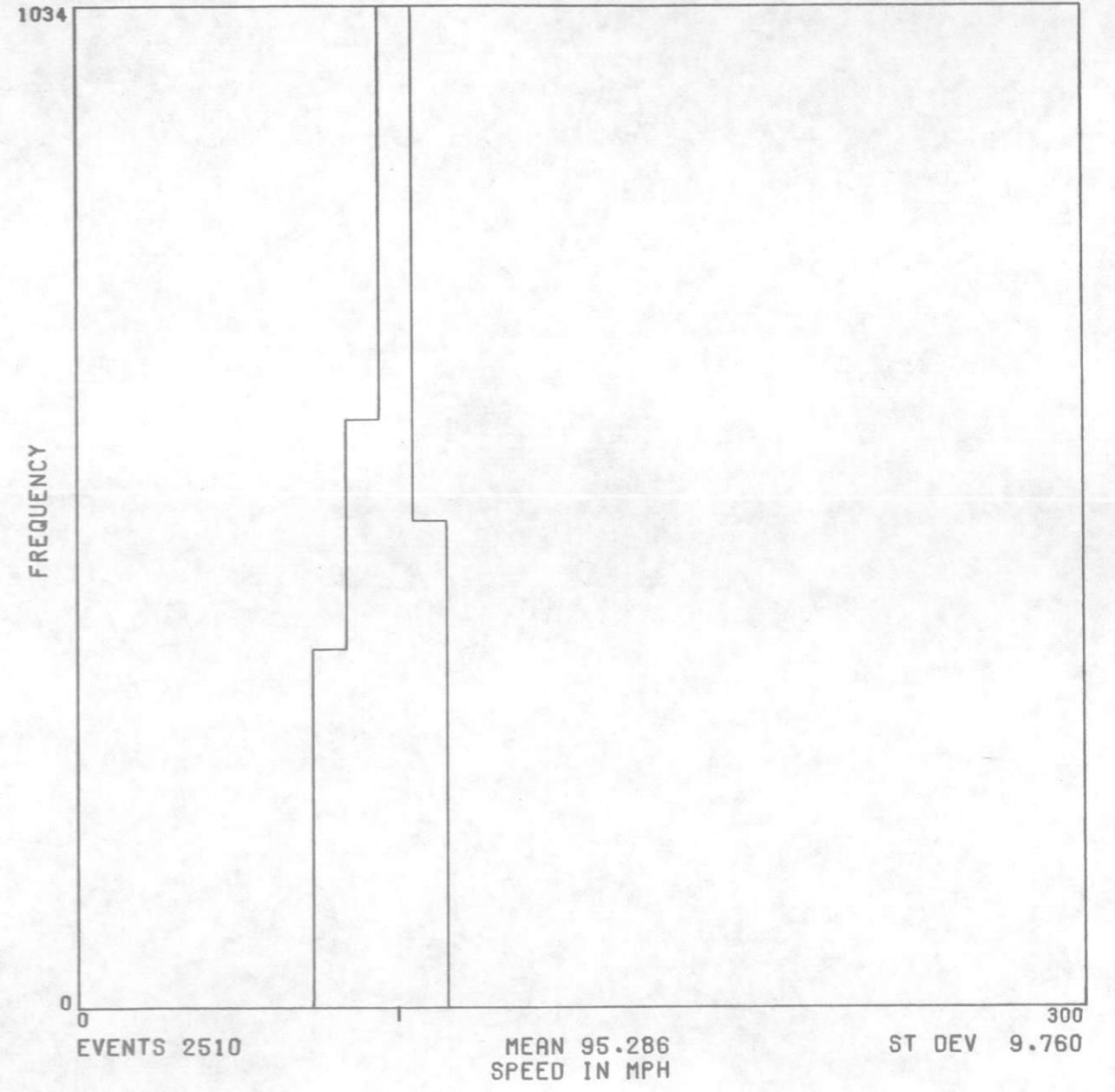
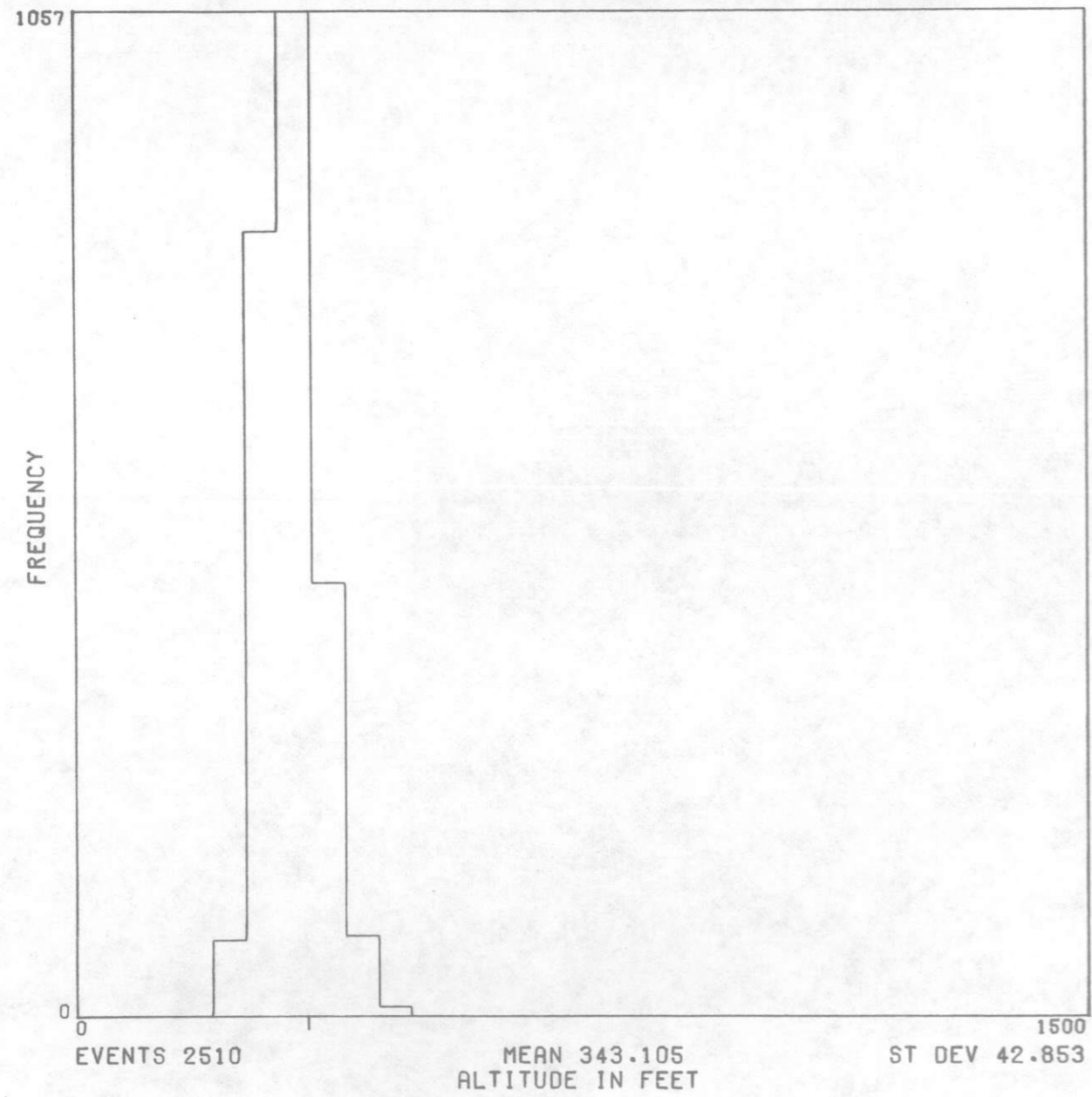


22W

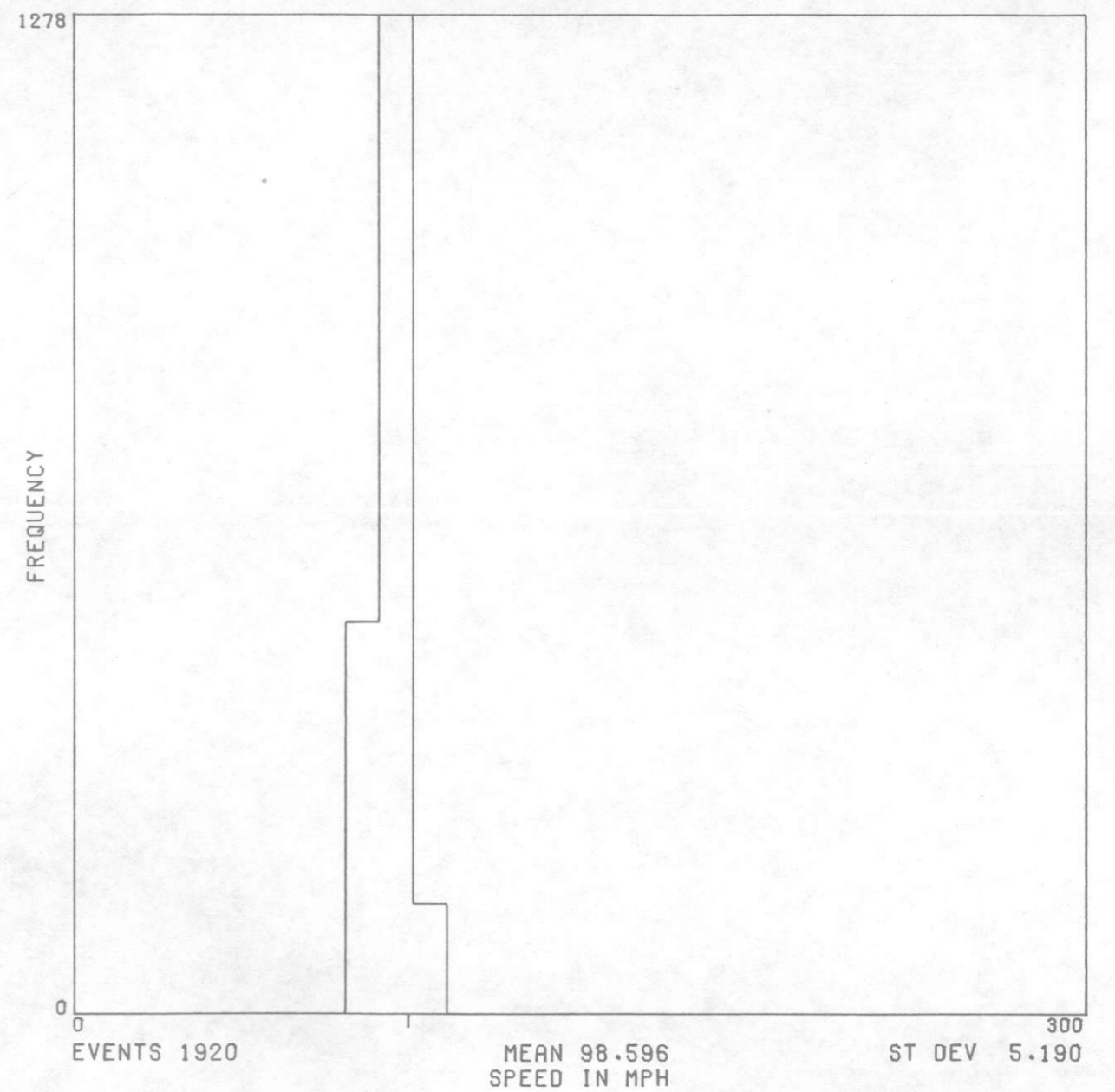
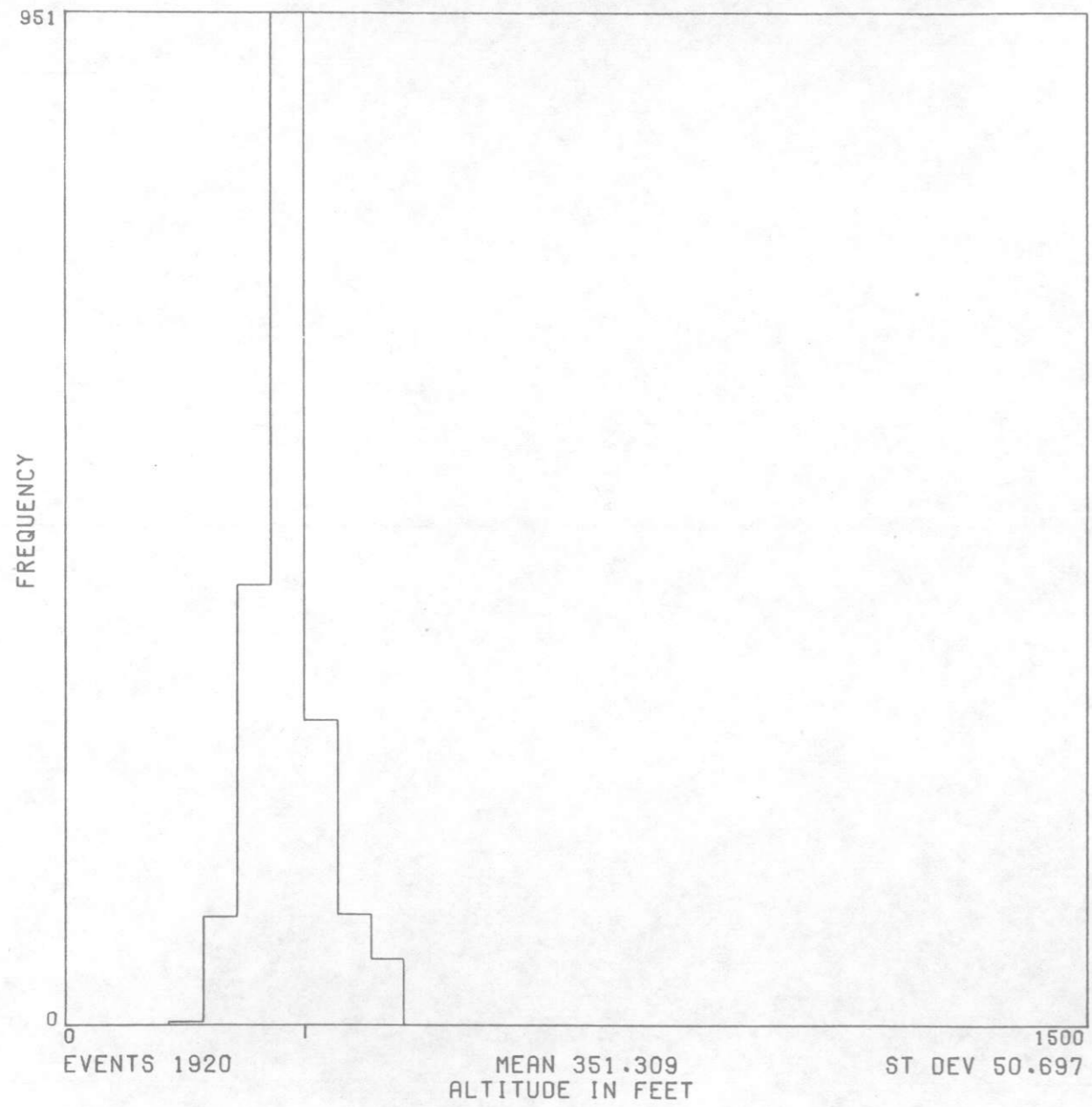








23W



23E

APPENDIX J - STATISTICAL TABLES

APPENDIX I - STATISTICAL TABLES

UNIT	ETH			EU			K			EU/ETH			EU/K			ETH/K		
	MEAN	ST.DEV.	EVENTS	MEAN	ST.DEV.	EVENTS	MEAN	ST.DEV.	EVENTS	MEAN	ST.DEV.	EVENTS	MEAN	ST.DEV.	EVENTS	MEAN	ST.DEV.	EVENTS
AA	7.82	2.64	1495	2.82	.97	1492	.90	.40	1494	.39	.16	1492	3.71	1.99	1491	10.00	4.20	1494
CC	6.02	1.72	3874	2.37	.74	3855	.42	.27	3831	.41	.14	3852	7.23	4.28	3810	17.50	7.88	3828
CCW	6.93	1.78	105	2.61	.52	105	.83	.21	105	.39	.10	105	3.37	1.30	105	8.89	2.85	105
CKT	6.13	1.92	754	2.78	.90	753	.45	.29	752	.48	.16	753	7.89	4.75	751	16.69	8.04	752
COK	5.13	1.02	250	2.15	.55	250	.29	.09	247	.44	.17	250	8.55	4.76	247	19.58	7.39	247
CR	6.91	1.53	788	2.55	.72	786	1.11	.63	788	.38	.12	786	3.27	2.31	786	8.26	4.62	788
CS	6.47	.54	10	2.49	.59	10	.54	.12	10	.39	.12	10	5.10	2.83	10	12.38	2.77	10
CW	6.80	1.31	338	2.48	.63	338	.64	.36	338	.37	.11	338	4.97	2.94	338	13.13	6.14	338
DC	4.63	1.82	100	2.04	.78	100	.30	.13	96	.46	.15	100	7.94	5.19	96	17.54	8.66	96
DCFM	4.35	.77	30	1.98	.27	30	.33	.14	30	.48	.14	30	7.77	4.98	30	16.41	9.62	30
DFM	5.32	1.08	88	1.90	.52	87	.53	.22	88	.36	.10	87	4.37	2.88	87	11.92	5.77	88
HS	3.78	2.23	464	1.75	.86	451	.43	.33	425	.55	.30	450	5.98	3.75	412	11.86	5.45	425
KCK	4.59	1.15	12823	1.90	.56	12637	.35	.16	12770	.44	.16	12637	6.46	3.60	12583	14.84	5.89	12769
KE	4.97	1.20	515	1.87	.61	504	.35	.10	501	.40	.18	503	6.15	3.81	491	15.63	6.15	501
KG	4.18	1.06	6591	1.86	.54	6500	.27	.08	6512	.46	.17	6500	7.83	3.90	6424	17.03	6.23	6512
KM	5.42	1.02	834	1.87	.52	834	.38	.11	834	.36	.12	834	5.50	2.66	834	15.38	4.73	834
KT	4.62	1.16	901	1.76	.58	881	.32	.16	897	.40	.16	881	6.96	4.50	877	16.88	7.24	897
MB	4.29	1.44	1133	1.92	.71	1080	.35	.14	1125	.47	.19	1080	6.35	3.66	1072	13.51	5.75	1125
MDA	7.59	2.99	78	2.11	.74	77	.41	.17	78	.32	.14	77	6.04	3.29	77	20.35	7.89	78
MF	4.93	1.28	6575	1.95	.62	6470	.44	.21	6550	.42	.17	6465	5.29	3.19	6435	12.67	5.21	6541
MFM	4.42	1.52	577	2.06	.67	570	.36	.17	555	.51	.23	570	7.29	4.56	548	14.74	7.37	555
MFP	4.78	1.52	315	1.95	.59	309	.46	.31	309	.45	.21	309	5.78	3.50	303	13.20	6.13	309
MHS	4.05	1.55	821	1.96	.67	790	.29	.11	802	.53	.25	790	7.74	4.28	768	15.11	6.46	799
MP	4.78	1.28	1872	1.93	.62	1827	.47	.19	1868	.43	.17	1827	4.71	2.44	1823	11.24	4.16	1868
MPM	4.36	1.55	68	2.08	.74	68	.26	.10	63	.52	.24	68	9.02	4.99	63	18.45	6.95	63
MPP	4.13	1.26	337	1.74	.59	334	.38	.22	337	.45	.16	334	5.85	3.61	334	12.92	4.87	337
MTM	5.09	1.88	588	2.05	.64	576	.35	.17	588	.44	.18	576	7.06	4.15	576	16.48	7.34	588
OC	5.73	1.84	634	2.32	.81	632	.42	.18	625	.43	.16	632	6.51	3.50	624	15.81	7.44	625
OCA	3.36	.82	12	1.62	.61	12	.24	.06	12	.52	.24	12	7.22	3.67	12	14.22	3.86	12
OCB	3.77	.87	74	1.69	.34	74	.17	.05	60	.48	.17	74	10.46	4.06	60	23.68	7.36	60
OCBF	6.12	1.63	219	2.37	.57	219	.32	.12	213	.41	.15	219	8.74	4.94	213	21.54	8.30	213
OCFK	4.11	.63	22	1.69	.35	22	.42	.14	22	.43	.14	22	5.53	5.03	22	11.76	6.74	22
OCC	4.33	1.95	312	1.99	.63	317	.32	.24	303	.55	.29	312	9.40	6.24	303	17.51	7.65	301
OCCR	3.87	1.15	538	1.85	.61	536	.21	.09	508	.51	.21	532	10.24	5.29	502	21.14	8.58	507
OCK	4.76	1.61	2528	2.16	.71	2514	.31	.20	2491	.49	.19	2514	8.48	4.36	2477	17.90	7.22	2491
OCU	5.18	1.85	6451	2.24	.70	6408	.36	.28	6223	.47	.19	6396	8.47	5.03	6165	18.35	8.37	6210
OLM	4.58	1.35	598	2.01	.68	582	.38	.18	592	.46	.18	582	6.47	4.04	576	14.00	6.24	592
OLV	3.97	.87	153	1.83	.58	153	.23	.14	145	.48	.18	153	9.56	4.54	145	20.67	7.33	145
ONL	4.75	1.53	1789	2.13	.71	1778	.33	.21	1752	.48	.19	1769	8.32	4.80	1727	17.63	7.86	1745
OU	5.49	1.42	106	2.59	.65	106	.33	.11	102	.49	.15	106	8.67	4.43	102	17.83	5.69	102
PBR	5.35	1.50	1480	2.05	.59	1463	.62	.36	1485	.41	.16	1456	4.46	2.84	1457	10.67	4.70	1477
PBY	4.23	1.47	3452	1.89	.59	3395	.40	.26	3437	.48	.18	3393	6.19	3.59	3375	12.83	5.22	3431
PCN	5.50	.84	221	2.07	.56	219	.73	.19	221	.39	.13	219	3.09	1.30	219	8.08	2.42	221
PGR	5.05	.80	11	3.10	.51	11	.80	.05	11	.64	.19	11	3.88	.55	11	6.32	.92	11
PLC	5.87	1.47	313	2.36	.75	305	.84	.37	313	.42	.15	305	3.21	1.52	305	7.73	2.42	313
PMC	4.36	.64	20	1.19	.28	16	.36	.07	20	.27	.05	16	3.42	.78	16	12.35	2.09	20
PPI	3.36	1.33	160	1.51	.49	146	.32	.19	157	.48	.22	146	5.85	3.11	143	12.01	4.35	157
PPS	3.67	1.12	314	1.67	.56	306	.30	.14	308	.48	.20	306	6.66	3.86	300	14.11	6.48	308
PSN	5.20	1.25	124	2.20	.66	124	.80	.25	124	.44	.14	124	2.96	1.17	124	6.70	1.08	124
PSR	4.29	.53	34	1.66	.43	34	.42	.10	34	.39	.12	34	4.19	1.76	34	10.69	2.56	34
PVP	5.58	1.60	43330	2.16	.66	42816	.73	.37	43296	.41	.15	42786	3.76	2.37	42726	9.11	4.00	43253
PWR	3.18	.91	71	1.44	.57	64	.32	.11	71	.50	.26	64	5.44	3.93	64	10.71	3.26	71
QAL	4.84	1.63	7623	1.96	.66	7471	.51	.32	7617	.43	.18	7367	4.94	3.02	7350	11.36	5.11	7566
QT	4.34	1.07	1476	1.86	.57	1453	.32	.13	1473	.45	.16	1453	6.72	3.69	1450	14.97	5.79	1473

SC	5.01	1.35	133	2.25	.91	133	.44	.19	133	.47	.18	133	5.91	2.89	133	13.02	5.52	133
SRM	5.79	1.98	426	2.24	.73	424	.37	.16	417	.42	.17	424	7.07	3.73	415	17.42	7.20	417
TA	7.18	2.35	6496	2.22	.69	6448	1.06	.50	6485	.33	.13	6448	2.77	2.10	6437	8.12	4.15	6485
TB	9.43	1.70	56	2.42	.44	56	1.50	.23	56	.27	.08	56	1.66	.42	56	6.38	1.09	56
TCA	3.70	.73	150	1.46	.46	142	.30	.13	144	.41	.16	142	5.90	3.90	136	14.69	7.14	144
TFS	9.97	.95	71	2.50	.53	71	1.74	.23	71	.26	.07	71	1.46	.35	71	5.78	.73	71
TJ	9.46	.55	10	2.37	.89	10	1.37	.23	10	.25	.10	10	1.86	.95	10	7.01	.93	10
TS	9.44	1.24	39	2.46	.71	39	1.39	.30	39	.26	.07	39	1.90	.92	39	7.05	1.65	39
TSC	6.77	1.75	595	2.26	.65	595	.93	.42	594	.35	.13	595	3.18	2.26	594	8.65	4.11	594
TSS	8.15	.92	9	3.02	.48	9	.90	.10	9	.38	.09	9	3.40	.58	9	9.16	1.13	9
WA	3.95	1.90	1258	1.75	.74	1233	.34	.28	1232	.49	.24	1111	7.30	4.80	1054	15.63	9.31	1156

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	3.03	1.96	2.49	1.98	.00	1.73	.00	.00	.00	.00	.00	2.96	1.76	1.44	1.81
2	3.24	2.31	2.77	.00	.00	2.77	.00	.00	.00	1.98	.00	1.63	1.59	1.51	1.84
3	2.01	2.23	2.39	.00	1.63	1.77	.00	.00	.00	1.99	.00	1.69	1.56	.00	1.48
4	.00	.00	.00	2.32	2.24	.00	.00	.00	.00	.00	.00	1.44	1.76	1.78	1.79
5	.00	2.53	.00	1.86	2.74	2.89	2.49	2.55	.00	.00	.00	.00	2.08	2.01	2.02
6	3.01	2.68	.00	2.21	.00	2.17	.00	.00	.00	.00	.00	1.66	1.80	1.76	2.05
7	.00	2.23	.00	2.51	.00	2.12	.00	.00	.00	.00	.00	1.66	1.78	.00	2.00
8	.00	2.00	.00	2.26	.00	2.54	.00	.00	.00	.00	.00	.00	1.93	.00	1.88
10	.00	2.69	.00	1.53	.00	2.72	.00	2.35	.00	.00	.00	.00	1.80	.00	1.82
11	.00	2.33	.00	2.50	.00	3.36	.00	2.69	.00	.00	1.00	.00	2.02	.00	1.88
12	.00	2.15	.00	3.58	.00	2.31	.00	2.43	.00	.00	.00	.00	1.82	.00	1.76
13	.00	2.55	.00	3.15	.00	2.37	.00	.00	.00	.00	2.00	.00	1.89	.00	1.73
14	.00	2.35	.00	2.64	.00	1.92	.00	.00	.00	.00	1.33	.00	2.52	.00	1.97
15	.00	3.41	.00	2.97	.00	1.56	.00	.00	.00	.00	2.15	.00	2.08	.00	1.90
16	.00	.00	.00	2.43	.00	1.89	.00	.00	.00	.00	1.89	.00	1.93	.00	1.96
17	.00	1.69	.00	.00	.00	2.23	.00	.00	.00	.00	2.23	.00	1.95	.00	1.64
18	.00	2.30	.00	.00	.00	2.55	.00	.00	1.89	.00	1.88	.00	1.73	.00	1.57
19	.00	2.34	.00	1.57	.00	1.93	.00	.00	2.69	.00	1.42	.00	1.77	.00	1.29
20	.00	2.21	.00	2.25	.00	2.27	.00	.00	2.20	.00	1.94	.00	2.01	.00	1.86
21	.00	1.98	.00	2.56	.00	1.92	.00	.00	2.11	.00	.00	.00	1.92	.00	1.90
22	.00	2.14	.00	2.88	.00	.00	.00	.00	3.12	.00	.00	.00	1.93	.00	1.65
23	.00	2.22	.00	.00	.00	.00	.00	.00	1.63	.00	.00	.00	2.01	.00	1.79
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.81	1.94	1.90
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	.00	1.64
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.68	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.86	.00	.00
105	.00	2.04	.00	.00	2.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	3.43	.00	3.15	.00	2.48	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	3.10	.00	2.40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	2.60	.00	1.53	.00	2.09	.00	.00	1.87	.00	.00	.00	.00	.00	.00
109	.00	2.00	.00	.00	.00	2.34	.00	.00	1.46	.00	2.46	1.67	.00	.00	.00
110	2.33	2.37	2.74	.00	.00	2.72	.00	2.21	3.19	.00	1.84	.92	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU

	KM	KT	MB	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	5.61	4.04	.00	.00	5.56	.00	3.31	.00	.00	.00	.00	.00	.00	.00	4.61
2	5.30	4.24	.00	.00	6.15	.00	4.26	.00	3.07	.00	.00	.00	.00	.00	3.96
3	5.45	5.15	.00	.00	4.77	.00	5.11	.00	5.40	.00	.00	2.82	4.88	.00	3.95
4	.00	5.26	.00	.00	5.06	.00	7.67	5.83	4.88	.00	.00	5.59	6.66	.00	.00
5	.00	4.73	.00	.00	5.44	.00	6.42	.00	5.10	.00	.00	3.41	5.31	.00	.00
6	.00	.00	.00	.00	5.00	.00	4.85	.00	4.71	.00	.00	4.74	5.61	.00	.00
7	.00	.00	.00	.00	4.90	.00	4.30	.00	5.05	.00	.00	4.06	4.89	.00	.00
8	.00	.00	.00	.00	5.17	.00	4.43	.00	4.14	.00	.00	5.27	5.71	.00	.00
9	.00	.00	.00	.00	4.77	3.89	.00	.00	4.85	.00	.00	6.87	7.97	.00	.00
10	.00	.00	3.63	6.26	4.99	3.19	3.25	5.88	4.59	.00	3.24	7.41	11.69	.00	.00
11	.00	.00	4.31	12.24	4.72	6.07	.00	5.27	5.04	.00	.00	.00	7.56	.00	.00
12	.00	.00	7.12	6.88	5.45	4.08	.00	6.63	4.65	.00	7.86	.00	7.60	.00	.00
13	.00	.00	4.83	6.54	4.90	5.35	.00	3.53	5.44	7.87	.00	6.95	6.55	.00	.00
14	.00	.00	5.95	3.35	4.51	4.64	.00	4.35	4.91	.00	.00	4.24	7.56	.00	.00
15	.00	.00	5.54	4.42	4.72	4.73	.00	3.98	4.75	4.05	.00	4.58	6.29	3.36	.00
16	.00	.00	5.06	5.52	5.07	4.49	.00	3.94	4.01	.00	.00	4.16	6.40	.00	.00
17	.00	.00	3.71	.00	5.24	4.62	.00	4.21	4.17	3.55	.00	5.46	5.65	.00	.00
18	.00	.00	4.10	.00	3.80	3.53	.00	3.45	.00	.00	3.57	3.91	5.87	.00	.00
19	.00	.00	5.57	.00	4.18	3.18	.00	4.77	.00	.00	4.48	3.51	6.13	.00	.00
20	.00	.00	4.81	.00	4.16	4.76	.00	4.02	.00	.00	4.25	6.07	5.97	.00	.00
21	.00	.00	4.15	.00	.00	2.69	.00	4.47	.00	.00	5.32	5.07	6.67	.00	.00
22	.00	.00	3.29	.00	.00	2.73	1.30	3.34	.00	.00	4.23	6.55	5.81	.00	.00
23	.00	.00	3.76	.00	.00	2.76	.00	3.38	.00	.00	4.02	5.20	4.78	.00	.00
101	5.31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	4.09	.00	.00	4.51	.00	.00	.00	4.24	.00	.00	4.51	4.54	.00	.00
106	.00	.00	4.67	10.86	5.18	.00	.00	4.67	4.91	.00	.00	.00	7.76	.00	2.75
107	.00	.00	3.96	.00	4.93	.00	.00	4.61	4.88	4.29	2.83	4.66	.00	.00	.00
108	.00	.00	3.09	.00	4.46	3.59	3.98	3.44	4.55	.00	3.61	4.02	6.77	.00	.00
109	.00	.00	4.90	.00	5.16	5.28	.00	4.85	.00	.00	3.67	7.67	3.91	.00	.00
110	.00	.00	.00	.00	4.67	4.06	.00	.58	.00	.00	.00	7.08	3.73	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 110.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	8.63	5.17	6.17	5.28	.00	4.96	.00	.00	.00	.00	.00	4.77	4.45	4.65	4.49
2	8.14	8.06	7.23	.00	.00	7.38	.00	.00	.00	4.02	.00	2.53	4.76	5.27	4.40
3	5.80	6.77	7.18	.00	5.12	7.39	.00	.00	.00	4.57	.00	4.15	4.66	.00	4.11
4	.00	.00	.00	6.14	5.36	.00	.00	.00	.00	.00	.00	3.91	5.06	5.25	4.54
5	.00	6.31	.00	4.19	4.27	7.01	6.47	6.91	.00	.00	.00	.00	3.98	4.41	4.28
6	7.60	6.02	.00	5.48	.00	5.61	.00	.00	.00	.00	.00	3.56	4.46	5.31	4.75
7	.00	5.40	.00	7.80	.00	5.57	.00	.00	.00	.00	.00	3.75	4.59	.00	4.76
8	.00	6.77	.00	4.58	.00	8.71	.00	.00	.00	.00	.00	.00	4.44	.00	4.13
9	.00	7.76	.00	5.41	.00	8.37	.00	.00	.00	.00	.00	.00	4.34	.00	4.37
10	.00	7.51	.00	3.70	.00	6.37	.00	6.82	.00	.00	.00	.00	4.29	.00	4.23
11	.00	6.80	.00	6.18	.00	7.04	.00	6.98	.00	.00	.00	.00	4.12	.00	4.19
12	.00	7.97	.00	7.95	.00	8.16	.00	6.56	.00	.00	5.67	.00	4.31	.00	3.83
13	.00	7.61	.00	6.47	.00	6.53	.00	.00	.00	.00	5.27	.00	4.36	.00	3.90
14	.00	6.19	.00	4.88	.00	5.61	.00	.00	.00	.00	4.14	.00	4.63	.00	3.69
15	.00	5.83	.00	5.91	.00	5.94	.00	.00	.00	.00	4.62	.00	4.52	.00	4.56
16	.00	.00	.00	5.65	.00	4.30	.00	.00	.00	.00	5.37	.00	4.84	.00	3.77
17	.00	3.87	.00	.00	.00	3.70	.00	.00	.00	.00	5.47	.00	4.96	.00	3.89
18	.00	5.18	.00	.00	.00	4.54	.00	.00	4.40	.00	4.74	.00	4.73	.00	3.64
19	.00	5.18	.00	4.05	.00	6.08	.00	.00	4.81	.00	5.63	.00	4.27	.00	3.55
20	.00	5.31	.00	3.45	.00	5.04	.00	.00	5.11	.00	6.87	.00	4.85	.00	4.31
21	.00	5.35	.00	3.16	.00	5.09	.00	.00	3.35	.00	.00	.00	4.75	.00	4.60
22	.00	5.41	.00	5.71	.00	.00	.00	.00	8.30	.00	.00	.00	4.75	.00	3.53
23	.00	5.53	.00	.00	.00	.00	.00	.00	4.39	.00	.00	.00	5.23	.00	3.47
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.88	5.15	3.93
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.88	.00	3.83
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.20	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.83	.00	.00
105	.00	5.61	.00	.00	5.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	8.17	.00	7.10	.00	7.41	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	6.50	.00	4.10	.00	4.83	.00	.00	2.93	.00	.00	.00	.00	.00	.00
108	.00	6.50	.00	3.82	.00	4.83	.00	.00	.00	.00	.00	.00	.00	.00	.00
109	.00	5.67	.00	.00	.00	5.67	.00	.00	4.56	.00	5.47	3.34	.00	.00	.00
110	7.67	6.90	7.31	.00	.00	7.13	.00	6.75	7.39	.00	4.75	4.98	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	.38	.40	.41	.38	.00	.35	.00	.00	.00	.00	.00	.63	.41	.33	.41
2	.42	.29	.40	.00	.00	.38	.00	.00	.00	.51	.00	.74	.35	.29	.44
3	.41	.34	.34	.00	.33	.25	.00	.00	.00	.45	.00	.50	.35	.00	.37
4	.00	.00	.00	.39	.45	.00	.00	.00	.00	.00	.00	.38	.36	.35	.42
5	.00	.42	.00	.47	.66	.42	.39	.39	.00	.00	.00	.00	.55	.51	.49
6	.40	.47	.00	.41	.00	.39	.00	.00	.00	.00	.00	.51	.43	.34	.46
7	.00	.42	.00	.32	.00	.38	.00	.00	.00	.00	.00	.57	.41	.00	.43
8	.00	.40	.00	.35	.00	.45	.00	.00	.00	.00	.00	.00	.45	.00	.51
9	.00	.40	.00	.44	.00	.35	.00	.00	.00	.00	.00	.00	.47	.00	.44
10	.00	.36	.00	.42	.00	.44	.00	.35	.00	.00	.00	.00	.45	.00	.46
11	.00	.38	.00	.44	.00	.48	.00	.40	.00	.00	.00	.00	.52	.00	.46
12	.00	.40	.00	.47	.00	.29	.00	.38	.00	.00	.23	.00	.48	.00	.48
13	.00	.43	.00	.49	.00	.38	.00	.00	.00	.00	.40	.00	.45	.00	.46
14	.00	.40	.00	.55	.00	.34	.00	.00	.00	.00	.33	.00	.57	.00	.55
15	.00	.60	.00	.53	.00	.26	.00	.00	.00	.00	.47	.00	.49	.00	.44
16	.00	.00	.00	.44	.00	.45	.00	.00	.00	.00	.37	.00	.42	.00	.56
17	.00	.43	.00	.00	.00	.62	.00	.00	.00	.00	.41	.00	.41	.00	.44
18	.00	.46	.00	.00	.00	.57	.00	.00	.46	.00	.38	.00	.38	.00	.46
19	.00	.47	.00	.40	.00	.33	.00	.00	.58	.00	.36	.00	.44	.00	.37
20	.00	.44	.00	.66	.00	.47	.00	.00	.24	.00	.38	.00	.44	.00	.45
21	.00	.38	.00	.83	.00	.38	.00	.00	.62	.00	.00	.00	.42	.00	.43
22	.00	.42	.00	.52	.00	.00	.00	.00	.38	.00	.00	.00	.42	.00	.47
101	.00	.43	.00	.00	.00	.00	.00	.00	.38	.00	.00	.00	.40	.00	.54
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.49	.00	.51
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.45	.00	.24
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00
105	.00	.38	.00	.00	.43	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	.44	.00	.46	.00	.34	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	.87	.00	.62	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	.42	.00	.40	.00	.44	.00	.00	.65	.00	.00	.00	.00	.00	.00
109	.00	.36	.00	.00	.00	.42	.00	.00	.32	.00	.45	.55	.00	.00	.00
110	.31	.35	.38	.00	.00	.38	.00	.34	.43	.00	.40	.18	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/ppm eTh

	KM	KT	MB	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	2.00	1.73	.00	.00	1.76	.00	.90	.00	.00	.00	.00	.00	.00	.00	1.62
2	1.81	1.47	.00	.00	2.06	.00	1.86	.00	1.16	.00	.00	.00	.00	.00	1.72
3	1.60	1.55	.00	.00	1.73	.00	1.78	.00	1.46	.00	.00	1.54	1.27	.00	1.62
4	.00	2.19	.00	.00	1.73	.00	2.69	1.97	2.10	.00	.00	2.02	2.56	.00	.00
5	.00	2.28	.00	.00	1.85	.00	2.15	.00	2.01	.00	.00	1.88	2.90	.00	.00
6	.00	.00	.00	.00	1.88	.00	1.97	.00	1.78	.00	.00	1.80	1.94	.00	.00
7	.00	.00	.00	.00	1.79	.00	1.89	.00	1.89	.00	.00	.80	2.08	.00	.00
8	.00	.00	.00	.00	1.82	.00	2.25	.00	1.62	.00	.00	2.33	2.34	.00	.00
9	.00	.00	.00	.00	2.01	2.59	.00	.00	1.78	.00	.00	2.19	2.06	.00	.00
10	.00	.00	2.10	1.78	2.03	1.34	2.29	1.94	2.03	.00	1.27	2.63	3.50	.00	.00
11	.00	.00	2.33	2.26	2.66	3.11	.00	2.98	2.17	.00	.00	.00	1.98	.00	.00
12	.00	.00	2.43	2.55	2.19	1.99	.00	2.40	1.86	.00	2.94	.00	2.68	.00	.00
13	.00	.00	2.63	2.42	2.26	2.09	.00	2.01	2.48	2.03	.00	2.01	3.37	.00	.00
14	.00	.00	2.10	1.60	2.26	1.96	.00	1.76	2.18	1.00	.00	2.00	2.42	.00	.00
15	.00	.00	2.80	1.61	2.05	2.11	.00	1.80	2.05	1.94	.00	2.19	2.64	1.62	.00
16	.00	.00	1.57	1.84	1.88	1.80	.00	1.73	1.60	.00	.00	2.08	2.29	.00	.00
17	.00	.00	1.92	.00	2.09	2.22	.00	2.15	1.95	1.43	.00	2.75	1.98	.00	.00
18	.00	.00	1.84	.00	1.74	1.32	.00	1.69	.00	.00	1.43	1.45	2.28	.00	.00
19	.00	.00	2.18	.00	2.06	2.02	.00	2.42	.00	.00	2.07	1.56	2.76	.00	.00
20	.00	.00	2.17	.00	1.74	2.02	.00	1.73	.00	.00	1.47	2.18	2.63	.00	.00
21	.00	.00	1.80	.00	.00	2.37	.00	2.14	.00	.00	1.87	1.55	2.60	.00	.00
22	.00	.00	1.46	.00	.00	1.68	1.35	1.98	.00	.00	1.62	2.19	2.57	.00	.00
23	.00	.00	1.96	.00	.00	1.42	.00	1.63	.00	.00	1.70	1.74	2.60	.00	.00
101	2.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	1.62	.00	.00	1.50	.00	.00	.00	1.66	.00	.00	1.76	1.69	.00	.00
106	.00	.00	1.25	2.20	2.29	.00	.00	1.44	2.08	.00	.00	.00	2.52	.00	1.83
107	.00	.00	2.09	.00	1.96	.00	.00	2.18	1.93	2.63	1.61	2.46	.00	.00	.00
108	.00	.00	1.56	.00	1.73	2.33	1.83	1.85	1.64	.00	1.42	2.07	3.44	.00	.00
109	.00	.00	1.71	.00	1.65	1.72	.00	1.77	.00	.00	1.62	2.33	1.67	.00	.00
110	.00	.00	.00	.00	1.76	1.81	.00	.00	.00	.00	.00	2.43	1.58	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 110.

Geologic Unit Average Value as a
Function of Map Line for ppm eU

	OCBF	OCBK	OCC	OCCR	OCK	OCU	OLM	OLV	ONL	OU	PBR	PBY	PCN	PGR	PLC
1	6.22	3.27	4.10	4.53	4.25	.00	3.87	3.94	4.60	.00	.00	.00	.00	5.05	.00
2	5.76	4.30	2.96	3.45	3.88	.00	4.14	4.41	4.96	.00	.00	.00	.00	.00	.00
3	7.03	.00	5.40	4.34	3.83	6.94	4.99	4.91	5.58	.00	.00	.00	.00	.00	.00
4	6.40	.00	3.93	4.45	6.30	7.71	5.58	3.85	5.68	.00	.00	.00	.00	.00	.00
5	.00	.00	2.77	3.48	4.40	6.48	5.24	4.15	4.32	.00	.00	4.58	.00	.00	.00
6	.00	.00	3.93	3.75	4.61	5.69	4.22	3.67	5.62	.00	5.42	6.13	5.37	.00	.00
7	.00	.00	4.90	8.29	5.19	6.12	5.59	3.26	4.56	.00	6.22	4.79	5.48	.00	.00
8	.00	.00	6.39	2.84	5.31	7.48	5.90	4.36	4.72	.00	6.14	5.51	6.67	.00	.00
9	.00	.00	.00	4.39	4.52	5.51	4.03	3.65	4.47	.00	6.00	4.17	.00	.00	.00
10	.00	.00	3.31	3.47	7.96	5.01	4.53	3.66	4.51	.00	.00	2.46	5.57	.00	.00
11	.00	.00	2.01	2.45	6.82	5.01	.00	.00	4.66	6.40	.00	2.84	.00	.00	.00
12	.00	.00	.00	.00	7.65	4.87	6.17	.00	4.67	5.45	.00	3.16	.00	.00	.00
13	.00	.00	.00	.00	6.02	4.43	4.81	.00	.00	5.28	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	4.54	5.02	6.36	.00	4.07	.00	.00	.00	.00	.00	6.55
15	.00	.00	.00	.00	4.40	3.95	4.03	.00	3.41	.00	.00	.00	.00	.00	6.09
16	.00	.00	.00	.00	3.63	3.73	5.04	.00	4.03	.00	.00	.00	.00	.00	6.08
17	.00	.00	.00	.00	4.02	3.02	4.37	.00	4.12	.00	.00	.00	.00	.00	7.43
18	.00	.00	.00	.00	4.72	3.78	4.71	.00	4.59	.00	.00	4.34	.00	.00	5.72
19	.00	.00	.00	.00	4.79	3.33	.00	.00	6.23	.00	.00	3.76	.00	.00	5.75
20	.00	.00	.00	.00	4.60	4.24	.00	.00	2.95	.00	5.61	4.09	.00	.00	.00
21	.00	.00	.00	.00	4.16	4.89	.00	.00	.00	.00	5.31	4.21	.00	.00	.00
22	.00	.00	.00	.00	4.86	4.38	.00	.00	.00	.00	4.71	3.87	.00	.00	.00
23	.00	.00	.00	.00	5.17	4.80	.00	.00	.00	.00	5.14	4.89	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.00	2.87	.00	2.70	.00	5.68	5.29	.00	.00	.00
106	4.79	.00	.00	3.54	7.14	.00	.00	.00	.00	.00	4.16	3.92	4.58	.00	4.00
107	.00	.00	3.27	2.49	4.13	.00	4.04	3.28	4.37	.00	.00	3.19	.00	.00	.00
108	.00	.00	.00	.00	4.16	.00	4.09	.00	5.06	5.32	.00	4.17	.00	.00	.00
109	.00	.00	.00	.00	6.36	4.81	4.02	.00	2.97	.00	.00	.00	.00	.00	.00
110	.00	.00	.00	.00	.00	5.23	4.69	.00	4.96	.00	.00	.00	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 110.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh

	PMC	FPI	FPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	4.15	.00	3.88	2.51	.00	.00	7.59	10.06	.00	10.19
2	.00	.00	.00	.00	.00	4.56	.00	4.32	6.35	.00	.00	7.68	8.42	.00	.00
3	.00	.00	.00	.00	.00	4.72	.00	4.82	4.72	.00	.00	7.43	.00	.00	.00
4	.00	.00	.00	.00	.00	5.05	.00	4.54	4.46	.00	6.09	6.68	.00	2.99	.00
5	.00	.00	.00	4.57	.00	4.78	.00	3.90	4.44	.00	.00	8.13	.00	4.39	.00
6	.00	2.89	3.29	5.30	.00	4.31	3.43	3.95	4.46	.00	4.29	6.12	.00	.00	.00
7	.00	4.64	3.70	.00	4.04	4.95	.00	3.85	4.26	.00	4.64	7.41	.00	2.88	.00
8	.00	3.67	4.28	.00	4.67	5.28	3.39	4.80	3.66	.00	7.78	7.90	.00	4.14	.00
9	.00	3.57	3.10	.00	3.69	4.90	2.42	3.71	4.11	.00	6.96	7.69	.00	.00	.00
10	.00	2.95	3.50	.00	.00	5.42	3.25	4.46	.00	.00	8.48	7.97	.00	.00	.00
11	.00	.00	3.91	.00	.00	5.71	.00	4.87	3.53	.00	7.41	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	4.99	.00	3.31	3.89	.00	7.07	.00	.00	.00	.00
13	5.05	.00	.00	.00	.00	5.46	.00	5.41	4.36	.00	4.86	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	5.72	.00	4.40	.00	.00	6.96	.00	.00	.00	.00
15	3.78	.00	.00	.00	.00	6.11	.00	4.90	.00	.00	6.56	.00	.00	.00	.00
16	4.21	.00	.00	.00	.00	5.99	.00	5.54	.00	.00	6.73	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	6.03	.00	4.89	.00	4.82	4.99	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	5.99	.00	6.09	4.14	4.33	5.77	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	6.01	.00	5.94	3.19	7.94	5.15	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	6.11	.00	5.38	5.03	3.83	4.82	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	5.52	.00	4.98	.00	6.05	3.78	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	5.27	.00	5.32	.00	3.24	7.27	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	5.11	.00	5.35	.00	5.94	5.64	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	4.47	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	4.90	.00	4.64	5.90	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	5.37	.00	5.34	4.25	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	5.71	.00	5.63	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	6.51	.00	7.47	.00	.00	4.42	.00	.00	.00	.00
106	.00	3.42	4.64	4.85	.00	5.65	.00	6.58	.00	.00	5.25	.00	.00	.00	.00
107	.00	2.63	.00	.00	4.60	5.00	3.28	3.51	.00	.00	.00	8.95	10.13	.00	9.62
108	.00	.00	.00	.00	.00	4.71	.00	.00	.00	5.44	4.06	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	4.63	.00	.00	.00	.00	5.67	5.87	.00	.00	.00
110	.00	.00	.00	.00	.00	2.36	.00	4.96	.00	.00	4.39	5.41	.00	3.86	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 110.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh

	TJ	TS	TSC	TSS	WA
1	9.46	9.67	.00	.00	5.15
2	.00	9.25	9.39	.00	5.42
3	.00	.00	6.33	.00	5.48
4	.00	.00	5.12	.00	6.64
5	.00	.00	7.06	.00	4.75
6	.00	.00	8.29	.00	9.47
7	.00	.00	6.13	.00	3.01
8	.00	.00	8.03	.00	3.17
9	.00	.00	6.90	.00	5.95
10	.00	.00	9.20	.00	5.30
11	.00	.00	.00	.00	4.80
12	.00	.00	.00	.00	3.39
13	.00	.00	.00	.00	5.58
14	.00	.00	.00	.00	4.10
15	.00	.00	.00	.00	5.23
16	.00	.00	.00	.00	4.99
17	.00	.00	.00	.00	9.93
18	.00	.00	.00	.00	4.67
19	.00	.00	.00	.00	3.63
20	.00	.00	.00	.00	4.30
21	.00	.00	.00	.00	4.29
22	.00	.00	.00	.00	4.05
23	.00	.00	.00	.00	2.89
101	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	3.56
104	.00	.00	.00	.00	4.06
105	.00	.00	.00	.00	3.51
106	.00	.00	.00	.00	.00
107	.00	9.25	.00	6.04	.00
108	.00	.00	.00	.00	5.85
109	.00	.00	5.67	.00	4.07
110	.00	.00	3.57	.00	6.93

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 110.

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	.91	.32	.88	.25	.00	.96	.00	.00	.00	.00	.00	.79	.33	.43	.33
2	1.17	1.27	.92	.00	.00	1.19	.00	.00	.00	.42	.00	.21	.36	.36	.25
3	.55	.30	.95	.00	.28	1.60	.00	.00	.00	.28	.00	.43	.40	.00	.29
4	.00	.00	.00	.27	.28	.00	.00	.00	.00	.00	.00	.55	.37	.39	.27
5	.00	.45	.00	.31	.22	.83	.54	.82	.00	.00	.00	.00	.25	.30	.29
6	.59	.43	.00	.66	.00	1.13	.00	.00	.00	.00	.00	.40	.38	.35	.29
7	.00	.39	.00	1.63	.00	1.09	.00	.00	.00	.00	.00	.38	.37	.00	.29
8	.00	.46	.00	.28	.00	.88	.00	.00	.00	.00	.00	.00	.31	.00	.25
9	.00	.45	.00	.62	.00	.90	.00	.00	.00	.00	.00	.00	.35	.00	.27
10	.00	.65	.00	.30	.00	.80	.00	.94	.00	.00	.00	.00	.36	.00	.28
11	.00	1.08	.00	.46	.00	.72	.00	.50	.00	.00	.00	.00	.35	.00	.26
12	.00	.62	.00	.44	.00	1.00	.00	.63	.00	.00	.60	.00	.30	.00	.23
13	.00	.45	.00	.33	.00	1.93	.00	.00	.00	.00	.43	.00	.29	.00	.25
14	.00	.38	.00	.40	.00	.86	.00	.00	.00	.00	.29	.00	.35	.00	.23
15	.00	.34	.00	.46	.00	.89	.00	.00	.00	.00	.14	.00	.35	.00	.28
16	.00	.00	.00	.46	.00	.59	.00	.00	.00	.00	.64	.00	.35	.00	.30
17	.00	.35	.00	.00	.00	.36	.00	.00	.00	.00	.53	.00	.35	.00	.25
18	.00	.31	.00	.00	.00	.94	.00	.00	.36	.00	.51	.00	.30	.00	.27
19	.00	.32	.00	.31	.00	1.67	.00	.00	.19	.00	.77	.00	.29	.00	.27
20	.00	.31	.00	.21	.00	1.15	.00	.00	.24	.00	.41	.00	.32	.00	.26
21	.00	.33	.00	.12	.00	.26	.00	.00	.26	.00	.00	.00	.34	.00	.31
22	.00	.32	.00	.64	.00	.00	.00	.00	.42	.00	.00	.00	.35	.00	.26
23	.00	.39	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00	.43	.00	.28
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.28	.35	.25
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	.24
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00
105	.00	.41	.00	.00	.33	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	.73	.00	.41	.00	1.14	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	.27	.00	.75	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	.41	.00	.16	.00	.73	.00	.00	.25	.00	.00	.00	.00	.00	.00
109	.00	.42	.00	.00	.00	.37	.00	.00	.27	.00	.52	.31	.00	.00	.00
110	.72	.46	.63	.00	.00	1.07	.00	.55	.46	.00	.79	.76	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for %K

	KM	KT	MB	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	.43	.26	.00	.00	.48	.00	.43	.00	.00	.00	.00	.00	.00	.00	.20
2	.32	.32	.00	.00	.84	.00	.37	.00	.18	.00	.00	.00	.00	.00	.17
3	.41	.43	.00	.00	.42	.00	.47	.00	.40	.00	.00	.17	.39	.00	.16
4	.00	.28	.00	.00	.41	.00	1.45	.34	.48	.00	.00	.32	.68	.00	.00
5	.00	.20	.00	.00	.48	.00	.73	.00	.49	.00	.00	.43	.48	.00	.00
6	.00	.00	.00	.00	.41	.00	.42	.00	.49	.00	.00	.28	.30	.00	.00
7	.00	.00	.00	.00	.44	.00	.38	.00	.51	.00	.00	.27	.25	.00	.00
8	.00	.00	.00	.00	.47	.00	.40	.00	.42	.00	.00	.39	.27	.00	.00
9	.00	.00	.00	.00	.38	.22	.00	.00	.43	.00	.00	.28	.35	.00	.00
10	.00	.00	.21	.26	.43	.24	.19	.30	.44	.00	.29	.34	.47	.00	.00
11	.00	.00	.33	.63	.42	.28	.00	.39	.50	.00	.00	.00	.45	.00	.00
12	.00	.00	.41	.51	.47	.34	.00	.35	.50	.00	.73	.00	.47	.00	.00
13	.00	.00	.26	.34	.40	.35	.00	.19	.55	.32	.00	.45	.49	.00	.00
14	.00	.00	.42	.44	.37	.36	.00	.30	.54	.00	.00	.37	.41	.00	.00
15	.00	.00	.30	.32	.45	.35	.00	.23	.45	.30	.00	.31	.54	.24	.00
16	.00	.00	.41	.25	.48	.43	.00	.30	.36	.00	.00	.25	.49	.00	.00
17	.00	.00	.40	.00	.53	.49	.00	.35	.45	.21	.00	.36	.56	.00	.00
18	.00	.00	.37	.00	.34	.32	.00	.28	.00	.00	.22	.26	.49	.00	.00
19	.00	.00	.46	.00	.29	.22	.00	.29	.00	.00	.43	.25	.46	.00	.00
20	.00	.00	.43	.00	.22	.23	.00	.30	.00	.00	.40	.56	.48	.00	.00
21	.00	.00	.32	.00	.00	.38	.00	.29	.00	.00	.72	.41	.57	.00	.00
22	.00	.00	.28	.00	.00	.18	.10	.28	.00	.00	.34	.30	.54	.00	.00
23	.00	.00	.33	.00	.00	.29	.00	.30	.00	.00	.43	.42	.35	.00	.00
101	.37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.33	.00	.00	.50	.00	.00	.00	.55	.00	.00	.32	.22	.00	.00
106	.00	.00	.24	.44	.44	.00	.00	.23	.44	.00	.00	.00	.66	.00	.15
107	.00	.00	.26	.00	.41	.00	.00	.23	.43	.24	.24	.26	.00	.00	.00
108	.00	.00	.34	.00	.40	.30	.28	.30	.49	.00	.25	.33	.61	.00	.00
109	.00	.00	.36	.00	.45	.48	.00	.33	.00	.00	.34	.77	.28	.00	.00
110	.00	.00	.00	.00	.36	.40	.00	.07	.00	.00	.00	.54	.19	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for %K

	OCBF	OCBK	OCC	OCCR	OCK	OCU	OLM	OLV	ONL	OU	PBR	PBY	PCN	PGR	PLC
1	.33	.15	.22	.24	.27	.00	.26	.21	.31	.00	.00	.00	.00	.80	.00
2	.34	.48	.13	.15	.21	.00	.43	.18	.25	.00	.00	.00	.00	.00	.00
3	.34	.00	.28	.17	.21	.57	.42	.36	.60	.00	.00	.00	.00	.00	.00
4	.31	.00	.16	.22	.34	.84	.57	.19	.36	.00	.00	.00	.00	.00	.00
5	.00	.00	.14	.18	.26	.59	.31	.20	.21	.00	.00	.22	.00	.00	.00
6	.00	.00	.19	.15	.33	.41	.43	.21	.46	.00	.61	.65	.77	.00	.00
7	.00	.00	.29	.81	.26	.57	.50	.15	.27	.00	.90	.62	.74	.00	.00
8	.00	.00	.53	.23	.27	.79	.38	.68	.30	.00	.92	.79	.77	.00	.00
9	.00	.00	.00	.31	.21	.35	.35	.14	.29	.00	.95	.58	.00	.00	.00
10	.00	.00	.16	.17	.37	.34	.33	.20	.36	.00	.00	.18	.61	.00	.00
11	.00	.00	.13	.18	.33	.29	.00	.00	.38	.40	.00	.34	.00	.00	.00
12	.00	.00	.00	.00	.50	.31	.55	.00	.54	.38	.00	.23	.00	.00	.00
13	.00	.00	.00	.00	.33	.21	.49	.00	.00	.32	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.29	.31	.47	.00	.25	.00	.00	.00	.00	.00	.88
15	.00	.00	.00	.00	.25	.27	.25	.00	.20	.00	.00	.00	.00	.00	.83
16	.00	.00	.00	.00	.24	.23	.39	.00	.19	.00	.00	.00	.00	.00	.71
17	.00	.00	.00	.00	.37	.19	.37	.00	.26	.00	.00	.00	.00	.00	1.36
18	.00	.00	.00	.00	.34	.21	.34	.00	.25	.00	.00	.32	.00	.00	.75
19	.00	.00	.00	.00	.26	.21	.00	.00	.48	.00	.00	.30	.00	.00	.83
20	.00	.00	.00	.00	.37	.47	.00	.00	.14	.00	.73	.33	.00	.00	.00
21	.00	.00	.00	.00	.35	.28	.00	.00	.00	.00	.41	.36	.00	.00	.00
22	.00	.00	.00	.00	.32	.22	.00	.00	.00	.00	.42	.35	.00	.00	.00
23	.00	.00	.00	.00	.59	.28	.00	.00	.00	.00	.51	.53	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.00	.24	.00	.21	.00	.80	.79	.00	.00	.00
106	.29	.00	.00	.19	.40	.00	.00	.00	.00	.00	.39	.31	.61	.00	.53
107	.00	.00	.40	.13	.24	.00	.24	.14	.22	.00	.00	.23	.00	.00	.00
108	.00	.00	.00	.00	.30	.00	.39	.00	.31	.24	.00	.41	.00	.00	.00
109	.00	.00	.00	.00	.40	.30	.30	.00	.17	.00	.00	.00	.00	.00	.00
110	.00	.00	.00	.00	.00	.30	.32	.00	.52	.00	.00	.00	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for %K

	PMC	PPI	PPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	.44	.00	.35	.36	.00	.00	1.22	1.51	.00	1.83
2	.00	.00	.00	.00	.00	.42	.00	.45	.51	.00	.00	1.16	1.55	.00	.00
3	.00	.00	.00	.00	.00	.53	.00	.51	.33	.00	.00	1.08	.00	.00	.00
4	.00	.00	.00	.00	.00	.65	.00	.45	.29	.00	.23	.90	.00	.28	.00
5	.00	.00	.00	.68	.00	.59	.00	.41	.31	.00	.00	1.14	.00	.35	.00
6	.00	.26	.24	.82	.00	.51	.35	.34	.35	.00	.24	.83	.00	.00	.00
7	.00	.50	.30	.00	.41	.64	.00	.34	.34	.00	.22	1.06	.00	.24	.00
8	.00	.42	.24	.00	.30	.78	.35	.38	.29	.00	.44	1.32	.00	.32	.00
9	.00	.34	.24	.00	.30	.68	.21	.35	.27	.00	.23	1.34	.00	.00	.00
10	.00	.20	.34	.00	.00	.78	.33	.49	.00	.00	.49	1.46	.00	.00	.00
11	.00	.00	.31	.00	.00	.75	.00	.40	.39	.00	.53	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.63	.00	.29	.25	.00	.38	.00	.00	.00	.00
13	.40	.00	.00	.00	.00	.69	.00	.62	.30	.00	.42	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.76	.00	.55	.00	.00	.25	.00	.00	.00	.00
15	.31	.00	.00	.00	.00	.86	.00	.51	.00	.00	.40	.00	.00	.00	.00
16	.38	.00	.00	.00	.00	.85	.00	.68	.00	.00	.41	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.86	.00	.61	.00	.38	.33	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.82	.00	.94	.27	.40	.40	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.82	.00	.75	.20	.59	.59	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.77	.00	.63	.42	.36	.32	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.64	.00	.50	.00	.60	.15	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.56	.00	.54	.00	.26	.31	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.51	.00	.49	.00	.60	.49	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.37	.00	.40	.77	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.68	.00	.62	.33	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.76	.00	.84	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.96	.00	1.09	.00	.00	.32	.00	.00	.00	.00
106	.00	.34	.36	.76	.00	.75	.00	.58	.00	.00	1.04	.00	.00	.00	.00
107	.00	.15	.00	.00	.38	.60	.33	.29	.00	.00	.00	1.36	1.36	.00	1.61
108	.00	.00	.00	.00	.00	.55	.00	.00	.00	.79	.35	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	.50	.00	.00	.00	.00	.37	.77	.00	.00	.00
110	.00	.00	.00	.00	.00	.20	.00	.25	.00	.00	.43	.71	.00	.31	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for %K

	TJ	TS	TSC	TSS	WA
1	1.37	1.51	.00	.00	.41
2	.00	1.55	1.42	.00	.98
3	.00	.00	.53	.00	1.24
4	.00	.00	.46	.00	.33
5	.00	.00	1.09	.00	.60
6	.00	.00	1.46	.00	.44
7	.00	.00	.38	.00	.27
8	.00	.00	1.08	.00	.32
9	.00	.00	.76	.00	.85
10	.00	.00	1.53	.00	.38
11	.00	.00	.00	.00	.47
12	.00	.00	.00	.00	.22
13	.00	.00	.00	.00	.34
14	.00	.00	.00	.00	.23
15	.00	.00	.00	.00	.23
16	.00	.00	.00	.00	.29
17	.00	.00	.00	.00	.26
18	.00	.00	.00	.00	.26
19	.00	.00	.00	.00	.26
20	.00	.00	.00	.00	.32
21	.00	.00	.00	.00	.24
22	.00	.00	.00	.00	.25
23	.00	.00	.00	.00	.22
101	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.23
104	.00	.00	.00	.00	.21
105	.00	.00	.00	.00	.21
106	.00	.00	.00	.00	.00
107	.00	.95	.00	.47	.00
108	.00	.00	.00	.00	.88
109	.00	.00	.44	.00	.38
110	.00	.00	.20	.00	.72

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for %K

	KM	KT	MR	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	.37	.46	.00	.00	.33	.00	.28	.00	.00	.00	.00	.00	.00	.00	.36
2	.35	.35	.00	.00	.37	.00	.45	.00	.39	.00	.00	.00	.00	.00	.44
3	.31	.31	.00	.00	.37	.00	.38	.00	.27	.00	.00	.55	.27	.00	.43
4	.00	.43	.00	.00	.35	.00	.36	.35	.44	.00	.00	.39	.39	.00	.00
5	.00	.49	.00	.00	.35	.00	.35	.00	.40	.00	.00	.55	.56	.00	.00
6	.00	.00	.00	.00	.39	.00	.44	.00	.40	.00	.00	.40	.35	.00	.00
7	.00	.00	.00	.00	.37	.00	.43	.00	.38	.00	.00	.20	.47	.00	.00
8	.00	.00	.00	.00	.36	.00	.54	.00	.40	.00	.00	.46	.43	.00	.00
9	.00	.00	.00	.00	.44	.70	.00	.00	.39	.00	.00	.36	.27	.00	.00
10	.00	.00	.61	.33	.42	.46	.70	.34	.47	.00	.35	.39	.30	.00	.00
11	.00	.00	.56	.19	.60	.59	.00	.58	.48	.00	.00	.00	.27	.00	.00
12	.00	.00	.34	.37	.41	.58	.00	.37	.42	.00	.37	.00	.36	.00	.00
13	.00	.00	.59	.39	.48	.40	.00	.60	.47	.27	.00	.33	.52	.00	.00
14	.00	.00	.36	.50	.54	.42	.00	.42	.48	.00	.00	.49	.36	.00	.00
15	.00	.00	.51	.36	.46	.46	.00	.50	.45	.50	.00	.50	.41	.52	.00
16	.00	.00	.33	.34	.39	.46	.00	.45	.41	.00	.00	.54	.37	.00	.00
17	.00	.00	.53	.00	.42	.51	.00	.54	.51	.42	.00	.51	.36	.00	.00
18	.00	.00	.49	.00	.47	.40	.00	.53	.00	.00	.41	.37	.42	.00	.00
19	.00	.00	.41	.00	.49	.68	.00	.58	.00	.00	.48	.46	.52	.00	.00
20	.00	.00	.48	.00	.44	.43	.00	.45	.00	.00	.36	.36	.46	.00	.00
21	.00	.00	.45	.00	.00	.86	.00	.51	.00	.00	.36	.37	.39	.00	.00
22	.00	.00	.49	.00	.00	.74	1.05	.69	.00	.00	.41	.34	.47	.00	.00
101	.40	.00	.00	.00	.00	.53	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.42	.00	.00	.34	.00	.00	.00	.42	.00	.00	.44	.37	.00	.00
106	.00	.00	.27	.20	.45	.00	.00	.32	.44	.00	.00	.00	.33	.00	.67
107	.00	.00	.54	.00	.41	.00	.00	.49	.42	.66	.58	.56	.00	.00	.00
108	.00	.00	.53	.00	.41	.65	.51	.57	.40	.00	.41	.56	.54	.00	.00
109	.00	.00	.36	.00	.35	.34	.00	.40	.00	.00	.45	.30	.45	.00	.00
110	.00	.00	.00	.00	.40	.47	.00	.00	.00	.00	.00	.34	.45	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/ppm eTh

	OCBF	OCBK	OCC	OCCR	OCK	OCU	OLM	OLV	ONL	OU	PBR	PBY	PCN	PGR	PLC
1	.37	.63	.43	.41	.38	.00	.35	.27	.38	.00	.00	.00	.00	.64	.00
2	.33	.39	.56	.37	.45	.00	.58	.41	.46	.00	.00	.00	.00	.00	.00
3	.32	.00	.42	.36	.45	.34	.43	.40	.46	.00	.00	.00	.00	.00	.00
4	.42	.00	.56	.52	.45	.35	.33	.59	.45	.00	.00	.00	.00	.00	.00
5	.00	.00	.79	.56	.51	.38	.48	.51	.56	.00	.00	.48	.00	.00	.00
6	.00	.00	.46	.61	.44	.41	.59	.57	.45	.00	.45	.37	.42	.00	.00
7	.00	.00	.41	.33	.41	.41	.37	.45	.47	.00	.33	.48	.39	.00	.00
8	.00	.00	.35	.73	.44	.35	.41	.61	.49	.00	.43	.42	.31	.00	.00
9	.00	.00	.00	.54	.43	.42	.52	.43	.47	.00	.41	.44	.00	.00	.00
10	.00	.00	.75	.52	.34	.54	.55	.58	.50	.00	.00	.56	.35	.00	.00
11	.00	.00	.90	.74	.37	.55	.00	.00	.66	.53	.00	.54	.00	.00	.00
12	.00	.00	.00	.00	.50	.50	.26	.00	.37	.41	.00	.39	.00	.00	.00
13	.00	.00	.00	.00	.53	.58	.54	.00	.00	.53	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.45	.45	.46	.00	.57	.00	.00	.00	.00	.00	.43
15	.00	.00	.00	.00	.52	.55	.60	.00	.61	.00	.00	.00	.00	.00	.27
16	.00	.00	.00	.00	.59	.44	.43	.00	.59	.00	.00	.00	.00	.00	.32
17	.00	.00	.00	.00	.53	.73	.53	.00	.50	.00	.00	.00	.00	.00	.34
18	.00	.00	.00	.00	.42	.49	.37	.00	.45	.00	.00	.41	.00	.00	.36
19	.00	.00	.00	.00	.58	.58	.00	.00	.29	.00	.00	.51	.00	.00	.50
20	.00	.00	.00	.00	.66	.43	.00	.00	.54	.00	.41	.49	.00	.00	.00
21	.00	.00	.00	.00	.51	.51	.00	.00	.00	.00	.38	.44	.00	.00	.00
22	.00	.00	.00	.00	.47	.54	.00	.00	.00	.00	.46	.51	.00	.00	.00
23	.00	.00	.00	.00	.42	.43	.00	.00	.00	.00	.38	.47	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.00	.53	.00	.73	.00	.38	.38	.00	.00	.00
106	.56	.00	.00	.56	.44	.00	.00	.00	.00	.00	.54	.53	.35	.00	.45
107	.00	.00	.62	.52	.56	.00	.42	.50	.37	.00	.00	.54	.00	.00	.00
108	.00	.00	.00	.00	.56	.00	.52	.00	.47	.45	.00	.46	.00	.00	.00
109	.00	.00	.00	.00	.32	.45	.47	.00	.64	.00	.00	.00	.00	.00	.00
110	.00	.00	.00	.00	.00	.41	.40	.00	.35	.00	.00	.00	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/ppm eTh

	PMC	PPI	PPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	.50	.00	.48	.62	.00	.00	.29	.24	.00	.24
2	.00	.00	.00	.00	.00	.37	.00	.40	.36	.00	.00	.32	.31	.00	.00
3	.00	.00	.00	.00	.00	.32	.00	.39	.39	.00	.00	.32	.00	.00	.00
4	.00	.00	.00	.00	.00	.39	.00	.42	.46	.00	.43	.35	.00	.53	.00
5	.00	.00	.00	.40	.00	.47	.00	.57	.48	.00	.00	.32	.00	.32	.00
6	.00	.60	.41	.42	.00	.43	.35	.45	.46	.00	.48	.36	.00	.00	.00
7	.00	.37	.38	.00	.52	.42	.00	.48	.39	.00	.38	.36	.00	.52	.00
8	.00	.39	.37	.00	.34	.40	.50	.44	.47	.00	.27	.30	.00	.38	.00
9	.00	.51	.53	.00	.42	.43	.97	.58	.46	.00	.31	.32	.00	.00	.00
10	.00	.52	.50	.00	.00	.43	.51	.46	.00	.00	.35	.41	.00	.00	.00
11	.00	.00	.56	.00	.00	.42	.00	.44	.43	.00	.50	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.46	.00	.49	.43	.00	.39	.00	.00	.00	.00
13	.28	.00	.00	.00	.00	.41	.00	.44	.34	.00	.55	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.46	.00	.52	.00	.00	.40	.00	.00	.00	.00
15	.28	.00	.00	.00	.00	.39	.00	.44	.00	.00	.30	.00	.00	.00	.00
16	.23	.00	.00	.00	.00	.39	.00	.37	.00	.00	.34	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.39	.00	.41	.00	.41	.52	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.37	.00	.36	.46	.55	.45	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.40	.00	.40	.63	.44	.34	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.38	.00	.42	.36	.63	.32	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.39	.00	.44	.00	.47	.51	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.41	.00	.42	.00	.66	.37	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.42	.00	.43	.00	.31	.53	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.53	.00	.48	.50	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.42	.00	.43	.45	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.38	.00	.42	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.34	.00	.30	.00	.00	.41	.00	.00	.00	.00
106	.00	.35	.45	.59	.00	.43	.00	.40	.00	.00	.49	.00	.00	.00	.00
107	.00	.40	.00	.00	.34	.44	.30	.73	.00	.00	.00	.31	.23	.00	.27
108	.00	.00	.00	.00	.00	.44	.00	.00	.00	.90	.67	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.29	.40	.00	.00	.00
110	.00	.00	.00	.00	.00	.49	.00	.45	.00	.00	.61	.35	.00	.39	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/ppm eTh

	TJ	TS	TSC	TSS	WA
1	.25	.24	.00	.00	.33
2	.00	.23	.29	.00	.47
3	.00	.00	.46	.00	.44
4	.00	.00	.40	.00	.37
5	.00	.00	.33	.00	.47
6	.00	.00	.29	.00	.38
7	.00	.00	.50	.00	.60
8	.00	.00	.38	.00	.43
9	.00	.00	.36	.00	.29
10	.00	.00	.24	.00	.86
11	.00	.00	.00	.00	.39
12	.00	.00	.00	.00	.64
13	.00	.00	.00	.00	.50
14	.00	.00	.00	.00	.50
15	.00	.00	.00	.00	.53
16	.00	.00	.00	.00	.53
17	.00	.00	.00	.00	.48
18	.00	.00	.00	.00	.52
19	.00	.00	.00	.00	.52
20	.00	.00	.00	.00	.57
21	.00	.00	.00	.00	.46
22	.00	.00	.00	.00	.45
23	.00	.00	.00	.00	.62
101	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.49
104	.00	.00	.00	.00	.79
105	.00	.00	.00	.00	.39
106	.00	.00	.00	.00	.00
107	.00	.35	.00	.54	.00
108	.00	.00	.00	.00	.29
109	.00	.00	.41	.00	.40
110	.00	.00	.58	.00	.32

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/ppm eTh

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	3.62	7.52	2.87	8.13	.00	2.32	.00	.00	.00	.00	.00	4.51	6.26	3.72	6.11
2	3.09	1.86	3.05	.00	.00	2.78	.00	.00	.00	5.17	.00	9.20	5.45	4.21	8.08
3	5.03	7.63	2.60	.00	6.18	1.36	.00	.00	.00	9.51	.00	5.99	4.49	.00	5.62
4	.00	.00	.00	10.30	9.20	.00	.00	.00	.00	.00	.00	2.85	5.68	4.98	7.58
5	.00	8.35	.00	6.40	14.91	4.67	5.10	4.19	.00	.00	.00	.00	9.83	8.07	8.10
6	5.39	6.61	.00	4.10	.00	2.10	.00	.00	.00	.00	.00	4.89	5.56	5.29	7.79
7	.00	6.86	.00	1.86	.00	2.05	.00	.00	.00	.00	.00	6.64	5.95	.00	7.66
8	.00	6.69	.00	6.65	.00	5.46	.00	.00	.00	.00	.00	.00	7.35	.00	8.75
9	.00	8.63	.00	4.39	.00	3.75	.00	.00	.00	.00	.00	.00	7.28	.00	7.99
10	.00	4.67	.00	5.80	.00	5.14	.00	3.40	.00	.00	.00	.00	6.07	.00	7.12
11	.00	3.05	.00	6.81	.00	5.11	.00	5.84	.00	.00	.00	.00	6.81	.00	7.90
12	.00	6.74	.00	8.85	.00	2.65	.00	5.33	.00	.00	2.17	.00	7.33	.00	8.80
13	.00	7.63	.00	10.18	.00	1.77	.00	.00	.00	.00	4.88	.00	7.50	.00	7.71
14	.00	7.41	.00	7.31	.00	2.22	.00	.00	.00	.00	4.73	.00	8.23	.00	9.43
15	.00	11.53	.00	7.52	.00	1.76	.00	.00	.00	.00	15.87	.00	7.48	.00	7.58
16	.00	.00	.00	5.39	.00	3.20	.00	.00	.00	.00	3.85	.00	6.26	.00	7.05
17	.00	5.11	.00	.00	.00	6.47	.00	.00	.00	.00	4.52	.00	6.07	.00	7.34
18	.00	8.47	.00	.00	.00	3.00	.00	.00	5.74	.00	3.82	.00	6.27	.00	6.43
19	.00	9.02	.00	5.27	.00	1.33	.00	.00	17.94	.00	1.85	.00	6.91	.00	4.91
20	.00	8.34	.00	11.19	.00	2.92	.00	.00	9.45	.00	4.76	.00	7.38	.00	8.19
21	.00	7.78	.00	21.02	.00	7.91	.00	.00	9.09	.00	.00	.00	6.24	.00	6.80
22	.00	7.66	.00	5.40	.00	.00	.00	.00	7.48	.00	.00	.00	6.17	.00	6.91
23	.00	6.53	.00	.00	.00	.00	.00	.00	7.47	.00	.00	.00	5.27	.00	7.19
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.26	6.50	8.41
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.53	.00	7.61
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.47	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.54	.00	.00
105	.00	5.18	.00	.00	7.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	5.54	.00	8.65	.00	2.48	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	11.59	.00	5.89	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	7.35	.00	10.16	.00	2.87	.00	.00	7.39	.00	.00	.00	.00	.00	.00
109	.00	5.41	.00	.00	.00	6.38	.00	.00	5.43	.00	4.90	7.47	.00	.00	.00
110	3.54	6.48	4.66	.00	.00	2.99	.00	4.52	6.88	.00	2.35	1.29	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	3.62	7.52	2.87	8.13	.00	2.32	.00	.00	.00	.00	.00	4.51	6.26	3.72	6.11
2	3.09	1.86	3.05	.00	.00	2.78	.00	.00	.00	5.17	.00	9.20	5.45	4.21	8.08
3	5.03	7.63	2.60	.00	6.18	1.36	.00	.00	.00	9.51	.00	5.99	4.49	.00	5.62
4	.00	.00	.00	10.30	9.20	.00	.00	.00	.00	.00	.00	2.85	5.68	4.98	7.58
5	.00	8.35	.00	6.40	14.91	4.67	5.10	4.19	.00	.00	.00	.00	9.83	8.07	8.10
6	5.39	6.61	.00	4.10	.00	2.10	.00	.00	.00	.00	.00	4.89	5.56	5.29	7.79
7	.00	6.86	.00	1.86	.00	2.05	.00	.00	.00	.00	.00	6.64	5.95	.00	7.66
8	.00	6.69	.00	6.65	.00	5.46	.00	.00	.00	.00	.00	.00	7.35	.00	8.75
9	.00	8.63	.00	4.39	.00	3.75	.00	.00	.00	.00	.00	.00	7.28	.00	7.99
10	.00	4.67	.00	5.80	.00	5.14	.00	3.40	.00	.00	.00	.00	6.07	.00	7.12
11	.00	3.05	.00	6.81	.00	5.11	.00	5.84	.00	.00	.00	.00	6.81	.00	7.90
12	.00	6.74	.00	8.85	.00	2.65	.00	5.33	.00	.00	2.17	.00	7.33	.00	8.80
13	.00	7.63	.00	10.18	.00	1.77	.00	.00	.00	.00	4.88	.00	7.50	.00	7.71
14	.00	7.41	.00	7.31	.00	2.22	.00	.00	.00	.00	4.73	.00	8.23	.00	9.43
15	.00	11.53	.00	7.52	.00	1.76	.00	.00	.00	.00	15.87	.00	7.48	.00	7.58
16	.00	.00	.00	5.39	.00	3.20	.00	.00	.00	.00	3.85	.00	6.26	.00	7.05
17	.00	5.11	.00	.00	.00	6.47	.00	.00	.00	.00	4.52	.00	6.07	.00	7.34
18	.00	8.47	.00	.00	.00	3.00	.00	.00	5.74	.00	3.82	.00	6.27	.00	6.43
19	.00	9.02	.00	5.27	.00	1.33	.00	.00	17.94	.00	1.85	.00	6.91	.00	4.91
20	.00	8.34	.00	11.19	.00	2.92	.00	.00	9.45	.00	4.76	.00	7.38	.00	8.19
21	.00	7.78	.00	21.02	.00	7.91	.00	.00	9.09	.00	.00	.00	6.24	.00	6.80
22	.00	7.66	.00	5.40	.00	.00	.00	.00	7.48	.00	.00	.00	6.17	.00	6.91
23	.00	6.53	.00	.00	.00	.00	.00	.00	7.47	.00	.00	.00	5.27	.00	7.19
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.26	6.50	8.41
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.53	.00	7.61
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.47	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.54	.00	.00
105	.00	5.18	.00	.00	7.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	5.54	.00	8.65	.00	2.48	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	11.59	.00	5.89	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	7.35	.00	10.16	.00	2.87	.00	.00	7.39	.00	.00	.00	.00	.00	.00
109	.00	5.41	.00	.00	.00	6.38	.00	.00	5.43	.00	4.90	7.47	.00	.00	.00
110	3.54	6.48	4.66	.00	.00	2.99	.00	4.52	6.88	.00	2.35	1.29	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	KM	KT	MB	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	5.02	8.12	.00	.00	4.77	.00	2.17	.00	.00	.00	.00	.00	.00	.00	8.29
2	6.17	5.34	.00	.00	3.59	.00	5.52	.00	7.82	.00	.00	.00	.00	.00	11.28
3	4.07	4.22	.00	.00	4.82	.00	5.10	.00	4.25	.00	.00	10.01	3.37	.00	11.12
4	.00	8.59	.00	.00	5.11	.00	2.54	6.82	5.42	.00	.00	7.35	3.80	.00	.00
5	.00	12.37	.00	.00	4.08	.00	4.15	.00	4.43	.00	.00	4.41	6.47	.00	.00
6	.00	.00	.00	.00	4.98	.00	6.24	.00	4.34	.00	.00	6.84	6.88	.00	.00
7	.00	.00	.00	.00	4.34	.00	4.89	.00	3.92	.00	.00	3.26	8.85	.00	.00
8	.00	.00	.00	.00	4.62	.00	6.29	.00	4.50	.00	.00	6.92	9.59	.00	.00
9	.00	.00	.00	.00	6.04	12.35	.00	.00	4.76	.00	.00	8.33	6.12	.00	.00
10	.00	.00	11.75	6.94	5.65	6.38	12.45	6.90	5.27	.00	4.69	8.18	7.50	.00	.00
11	.00	.00	8.58	3.96	7.15	11.98	.00	7.58	4.89	.00	.00	.00	4.53	.00	.00
12	.00	.00	6.68	5.74	4.96	7.56	.00	7.98	4.50	.00	4.10	.00	5.84	.00	.00
13	.00	.00	10.96	7.38	6.61	6.35	.00	11.69	4.80	6.57	.00	4.88	6.93	.00	.00
14	.00	.00	5.84	3.87	6.78	5.91	.00	7.17	4.62	.00	.00	5.88	5.94	.00	.00
15	.00	.00	10.59	5.07	5.74	7.37	.00	8.98	5.24	8.38	.00	7.91	4.92	7.22	.00
16	.00	.00	3.95	9.88	4.77	4.81	.00	7.04	4.55	.00	.00	10.18	5.14	.00	.00
17	.00	.00	5.47	.00	4.90	5.71	.00	6.72	4.82	7.49	.00	7.86	4.02	.00	.00
18	.00	.00	6.37	.00	7.29	6.55	.00	6.81	.00	.00	6.82	6.01	5.65	.00	.00
19	.00	.00	5.10	.00	7.83	10.73	.00	9.83	.00	.00	6.62	6.40	7.26	.00	.00
20	.00	.00	5.55	.00	8.06	9.88	.00	6.28	.00	.00	3.68	5.22	6.28	.00	.00
21	.00	.00	6.34	.00	.00	6.30	.00	8.20	.00	.00	2.69	4.64	6.39	.00	.00
22	.00	.00	6.24	.00	.00	9.64	12.37	8.48	.00	.00	5.65	7.46	7.02	.00	.00
23	.00	.00	6.62	.00	.00	5.41	.00	5.92	.00	.00	4.77	5.28	7.76	.00	.00
101	6.22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	6.49	.00	.00	3.46	.00	.00	.00	3.39	.00	.00	6.42	6.33	.00	.00
106	.00	.00	5.42	5.07	5.78	.00	.00	6.66	5.56	.00	.00	.00	3.86	.00	11.44
107	.00	.00	9.28	.00	5.02	.00	.00	11.33	5.03	11.36	7.04	10.31	.00	.00	.00
108	.00	.00	5.17	.00	5.15	7.81	6.87	7.28	4.01	.00	5.95	6.61	5.73	.00	.00
109	.00	.00	5.01	.00	4.58	3.89	.00	6.28	.00	.00	5.45	3.06	6.41	.00	.00
110	.00	.00	.00	.00	6.39	4.58	.00	.00	.00	.00	.00	4.58	9.01	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	OCBF	OCBK	OCC	OCCR	OCK	OCU	OLM	OLV	ONL	OU	PBR	PBY	PCN	PGR	PLC
1	7.38	14.88	8.43	7.89	6.48	.00	5.65	5.26	6.24	.00	.00	.00	.00	3.88	.00
2	6.85	3.45	14.68	8.69	8.80	.00	5.68	10.08	10.25	.00	.00	.00	.00	.00	.00
3	6.46	.00	7.52	9.61	9.68	5.07	5.86	5.64	6.44	.00	.00	.00	.00	.00	.00
4	9.62	.00	14.47	11.28	9.52	4.38	4.42	11.71	8.09	.00	.00	.00	.00	.00	.00
5	.00	.00	16.19	12.33	9.30	5.58	8.36	10.82	12.90	.00	.00	10.40	.00	.00	.00
6	.00	.00	9.67	15.50	6.52	7.44	5.85	10.47	6.52	.00	4.19	3.77	3.05	.00	.00
7	.00	.00	7.72	3.34	9.01	5.18	4.27	8.80	8.32	.00	2.38	4.12	3.10	.00	.00
8	.00	.00	4.59	8.63	9.10	3.88	7.55	3.85	8.35	.00	2.99	3.31	2.58	.00	.00
9	.00	.00	.00	10.24	9.68	8.27	7.10	10.97	8.66	.00	3.04	4.46	.00	.00	.00
10	.00	.00	16.20	12.40	9.19	9.36	7.53	11.01	7.65	.00	.00	9.02	3.30	.00	.00
11	.00	.00	12.82	10.50	8.16	10.58	.00	.00	7.89	8.63	.00	4.62	.00	.00	.00
12	.00	.00	.00	.00	8.63	8.75	3.10	.00	3.44	5.79	.00	6.01	.00	.00	.00
13	.00	.00	.00	.00	9.91	13.46	5.41	.00	.00	9.35	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	7.84	7.59	6.34	.00	9.58	.00	.00	.00	.00	.00	3.25
15	.00	.00	.00	.00	9.36	10.02	12.23	.00	11.39	.00	.00	.00	.00	.00	2.13
16	.00	.00	.00	.00	8.98	8.03	5.59	.00	13.87	.00	.00	.00	.00	.00	2.58
17	.00	.00	.00	.00	7.21	12.36	5.96	.00	7.94	.00	.00	.00	.00	.00	2.03
18	.00	.00	.00	.00	6.66	9.61	4.99	.00	9.45	.00	.00	5.88	.00	.00	2.93
19	.00	.00	.00	.00	12.28	9.56	.00	.00	3.59	.00	.00	7.02	.00	.00	3.79
20	.00	.00	.00	.00	8.78	8.31	.00	.00	11.52	.00	3.52	7.24	.00	.00	.00
21	.00	.00	.00	.00	7.44	9.80	.00	.00	.00	.00	5.18	5.47	.00	.00	.00
22	.00	.00	.00	.00	7.89	11.50	.00	.00	.00	.00	6.06	6.59	.00	.00	.00
23	.00	.00	.00	.00	5.91	7.53	.00	.00	.00	.00	4.68	5.20	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.00	6.56	.00	9.80	.00	3.17	3.12	.00	.00	.00
106	10.65	.00	.00	10.73	8.47	.00	.00	.00	.00	.00	7.85	7.33	2.78	.00	4.06
107	.00	.00	6.91	10.19	10.20	.00	7.46	11.50	8.74	.00	.00	7.75	.00	.00	.00
108	.00	.00	.00	.00	8.77	.00	7.40	.00	7.99	10.56	.00	5.22	.00	.00	.00
109	.00	.00	.00	.00	5.11	8.68	6.79	.00	11.18	.00	.00	.00	.00	.00	.00
110	.00	.00	.00	.00	.00	7.92	8.19	.00	3.94	.00	.00	.00	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	PMC	PPI	PPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	4.90	.00	5.29	4.90	.00	.00	2.09	1.64	.00	1.36
2	.00	.00	.00	.00	.00	4.61	.00	4.21	4.64	.00	.00	2.26	1.64	.00	.00
3	.00	.00	.00	.00	.00	3.43	.00	3.91	5.72	.00	.00	2.46	.00	.00	.00
4	.00	.00	.00	.00	.00	3.64	.00	4.63	7.37	.00	11.48	3.08	.00	5.55	.00
5	.00	.00	.00	2.68	.00	5.25	.00	6.10	7.49	.00	.00	2.75	.00	4.02	.00
6	.00	6.75	7.24	2.86	.00	4.19	3.66	5.74	6.64	.00	9.05	3.77	.00	.00	.00
7	.00	4.18	5.69	.00	5.67	3.69	.00	5.40	5.65	.00	7.59	3.31	.00	6.53	.00
8	.00	3.53	4.72	.00	2.82	3.29	4.85	5.87	7.04	.00	4.81	1.92	.00	4.55	.00
9	.00	6.04	7.12	.00	4.34	3.95	12.63	6.78	7.26	.00	9.95	1.84	.00	.00	.00
10	.00	8.09	5.32	.00	.00	3.75	5.22	4.58	.00	.00	6.28	2.22	.00	.00	.00
11	.00	.00	8.00	.00	.00	3.89	.00	5.79	4.05	.00	8.04	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	4.25	.00	5.20	7.37	.00	7.78	.00	.00	.00	.00
13	3.59	.00	.00	.00	.00	3.83	.00	5.06	5.14	.00	6.24	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	3.80	.00	5.44	.00	.00	12.32	.00	.00	.00	.00
15	3.48	.00	.00	.00	.00	3.28	.00	5.15	.00	.00	5.24	.00	.00	.00	.00
16	2.60	.00	.00	.00	.00	3.07	.00	3.67	.00	.00	6.14	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	3.13	.00	3.08	.00	6.17	7.84	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	3.29	.00	3.11	7.64	5.54	6.41	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	3.61	.00	3.61	11.04	6.09	2.98	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	3.52	.00	4.44	4.39	6.52	7.11	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	4.16	.00	5.85	.00	4.73	11.81	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	4.58	.00	5.00	.00	9.15	8.63	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	4.89	.00	5.11	.00	3.35	6.45	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	7.80	.00	5.90	.00	3.30	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	7.66	.00	5.96	4.28	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	4.10	.00	4.32	6.41	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	3.24	.00	4.10	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	2.73	.00	2.13	.00	.00	6.28	.00	.00	.00	.00
106	.00	3.49	6.37	4.02	.00	3.75	.00	4.59	.00	.00	10.71	.00	.00	.00	.00
107	.00	7.41	.00	.00	4.15	4.27	3.27	9.47	.00	.00	.00	2.16	1.74	.00	1.61
108	.00	.00	.00	.00	.00	4.30	.00	.00	.00	6.16	8.23	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	3.81	.00	.00	.00	.00	4.87	3.17	.00	.00	.00
110	.00	.00	.00	.00	.00	3.29	.00	9.52	.00	.00	6.20	4.17	.00	6.17	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	PMC	PPI	PPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	4.90	.00	5.29	4.90	.00	.00	2.09	1.64	.00	1.36
2	.00	.00	.00	.00	.00	4.61	.00	4.21	4.64	.00	.00	2.26	1.64	.00	.00
3	.00	.00	.00	.00	.00	3.43	.00	3.91	5.72	.00	.00	2.46	.00	.00	.00
4	.00	.00	.00	.00	.00	3.64	.00	4.63	7.37	.00	11.48	3.08	.00	5.55	.00
5	.00	.00	.00	2.68	.00	5.25	.00	6.10	7.49	.00	.00	2.75	.00	4.02	.00
6	.00	6.75	7.24	2.86	.00	4.19	3.66	5.74	6.64	.00	9.05	3.77	.00	.00	.00
7	.00	4.18	5.69	.00	5.67	3.69	.00	5.40	5.65	.00	7.59	3.31	.00	6.53	.00
8	.00	3.53	4.72	.00	2.82	3.29	4.85	5.87	7.04	.00	4.81	1.92	.00	4.55	.00
9	.00	6.04	7.12	.00	4.34	3.95	12.63	6.78	7.26	.00	9.95	1.84	.00	.00	.00
10	.00	8.09	5.32	.00	.00	3.75	5.22	4.58	.00	.00	6.28	2.22	.00	.00	.00
11	.00	.00	8.00	.00	.00	3.89	.00	5.79	4.05	.00	8.04	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	4.25	.00	5.20	7.37	.00	7.78	.00	.00	.00	.00
13	3.59	.00	.00	.00	.00	3.83	.00	5.06	5.14	.00	6.24	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	3.80	.00	5.44	.00	.00	12.32	.00	.00	.00	.00
15	3.48	.00	.00	.00	.00	3.28	.00	5.15	.00	.00	5.24	.00	.00	.00	.00
16	2.60	.00	.00	.00	.00	3.07	.00	3.67	.00	.00	6.14	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	3.13	.00	4.00	.00	.00	7.84	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	3.29	.00	4.11	7.64	6.54	6.41	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	3.61	.00	3.61	11.04	6.09	2.98	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	3.52	.00	4.44	4.39	6.52	7.11	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	4.16	.00	5.85	.00	4.73	11.81	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	4.58	.00	5.00	.00	9.15	8.63	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	4.89	.00	5.11	.00	3.35	6.45	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	7.66	.00	5.96	4.28	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	7.66	.00	5.96	4.28	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	4.10	.00	4.32	6.41	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	3.24	.00	4.10	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	2.73	.00	2.13	.00	.00	6.28	.00	.00	.00	.00
106	.00	3.49	6.37	4.02	.00	3.75	.00	4.59	.00	.00	10.71	.00	.00	.00	.00
107	.00	7.41	.00	.00	4.15	4.27	3.27	9.47	.00	.00	.00	2.16	1.74	.00	1.61
108	.00	.00	.00	.00	.00	4.30	.00	.00	.00	6.16	8.23	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	3.81	.00	.00	.00	.00	4.87	3.17	.00	.00	.00
110	.00	.00	.00	.00	.00	3.29	.00	9.52	.00	.00	6.20	4.17	.00	6.17	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/%K

	TJ	TS	TSC	TSS	WA
1	1.86	1.54	.00	.00	2.75
2	.00	1.34	1.98	.00	2.72
3	.00	.00	5.53	.00	6.03
4	.00	.00	4.67	.00	2.94
5	.00	.00	2.32	.00	8.14
6	.00	.00	1.62	.00	4.85
7	.00	.00	8.51	.00	7.88
8	.00	.00	2.83	.00	7.04
9	.00	.00	3.59	.00	7.26
10	.00	.00	1.41	.00	6.21
11	.00	.00	.00	.00	8.54
12	.00	.00	.00	.00	10.01
13	.00	.00	.00	.00	10.55
14	.00	.00	.00	.00	8.57
15	.00	.00	.00	.00	8.47
16	.00	.00	.00	.00	7.56
17	.00	.00	.00	.00	7.20
18	.00	.00	.00	.00	7.99
19	.00	.00	.00	.00	7.81
20	.00	.00	.00	.00	7.77
21	.00	.00	.00	.00	7.34
22	.00	.00	.00	.00	9.78
23	.00	.00	.00	.00	8.70
101	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	5.00
104	.00	.00	.00	.00	10.93
105	.00	.00	.00	.00	8.86
106	.00	.00	.00	.00	.00
107	.00	.00	.00	.00	.00
108	.00	.00	.00	.00	.00
109	.00	.00	5.89	.00	4.74
110	.00	.00	11.25	.00	3.16

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eU/K

	AA	CC	CCW	CKT	COK	CR	CS	CW	DC	DCFM	DFM	HS	KCK	KE	KG
1	10.39	17.74	7.13	21.32	.00	6.30	.00	.00	.00	.00	.00	7.04	15.15	11.51	14.86
2	7.51	6.52	7.86	.00	.00	7.37	.00	.00	.00	10.25	.00	14.09	15.22	14.62	19.03
3	11.98	22.83	7.68	.00	19.12	5.35	.00	.00	.00	20.52	.00	12.40	12.64	.00	15.29
4	.00	.00	.00	25.91	21.31	.00	.00	.00	.00	.00	.00	7.78	15.50	14.31	18.20
5	.00	19.47	.00	13.50	23.55	10.74	12.38	10.42	.00	.00	.00	.00	17.96	17.61	16.41
6	13.78	14.83	.00	9.51	.00	5.25	.00	.00	.00	.00	.00	10.80	13.13	15.51	17.40
7	.00	15.98	.00	5.38	.00	5.61	.00	.00	.00	.00	.00	13.75	14.37	.00	17.92
8	.00	16.62	.00	17.36	.00	11.95	.00	.00	.00	.00	.00	.00	16.38	.00	17.47
9	.00	21.00	.00	10.39	.00	10.44	.00	.00	.00	.00	.00	.00	15.56	.00	18.12
10	.00	12.92	.00	13.37	.00	11.46	.00	9.33	.00	.00	.00	.00	13.57	.00	15.79
11	.00	8.52	.00	15.53	.00	10.47	.00	14.86	.00	.00	.00	.00	13.26	.00	17.03
12	.00	15.97	.00	19.10	.00	9.12	.00	13.83	.00	.00	9.42	.00	15.13	.00	18.58
13	.00	17.88	.00	20.40	.00	4.50	.00	.00	.00	.00	12.66	.00	16.59	.00	16.81
14	.00	18.61	.00	13.06	.00	6.53	.00	.00	.00	.00	14.45	.00	14.42	.00	17.36
15	.00	18.37	.00	15.04	.00	6.72	.00	.00	.00	.00	33.30	.00	14.82	.00	17.46
16	.00	.00	.00	12.73	.00	7.31	.00	.00	.00	.00	9.96	.00	15.01	.00	13.03
17	.00	11.86	.00	.00	.00	10.64	.00	.00	.00	.00	10.69	.00	15.13	.00	16.73
18	.00	18.46	.00	.00	.00	5.20	.00	.00	12.79	.00	11.00	.00	16.49	.00	14.86
19	.00	19.24	.00	13.28	.00	3.98	.00	.00	31.50	.00	7.30	.00	16.01	.00	13.93
20	.00	19.01	.00	16.96	.00	6.02	.00	.00	22.86	.00	16.80	.00	17.02	.00	18.30
21	.00	19.69	.00	27.49	.00	20.98	.00	.00	14.51	.00	.00	.00	15.10	.00	15.66
22	.00	18.69	.00	10.18	.00	.00	.00	.00	19.96	.00	.00	.00	14.64	.00	14.65
23	.00	15.90	.00	.00	.00	.00	.00	.00	18.50	.00	.00	.00	13.29	.00	13.54
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15.16	16.34	16.75
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14.69	.00	17.11
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12.90	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	13.85	.00	.00
105	.00	14.64	.00	.00	16.97	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
106	.00	13.13	.00	18.61	.00	7.56	.00	.00	.00	.00	.00	.00	.00	.00	.00
107	.00	13.42	.00	9.69	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108	.00	17.59	.00	24.82	.00	16.62	.00	.00	11.59	.00	10.00	14.00	.00	.00	.00
109	.00	14.85	.00	.00	.00	15.41	.00	.00	17.01	.00	6.87	14.18	.00	.00	.00
110	11.84	18.17	12.33	.00	.00	8.23	.00	13.69	15.92	.00	6.26	7.36	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh/%K

	KM	KT	MB	MDA	MF	MFM	MFP	MHS	MP	MPM	MPP	MTM	OC	OCA	OCB
1	13.62	17.63	.00	.00	14.48	.00	7.83	.00	.00	.00	.00	.00	.00	.00	23.30
2	17.44	15.00	.00	.00	9.38	.00	11.87	.00	20.07	.00	.00	.00	.00	.00	26.56
3	13.48	13.78	.00	.00	12.83	.00	13.17	.00	15.71	.00	.00	17.22	12.90	.00	26.61
4	.00	20.18	.00	.00	13.63	.00	6.39	18.42	12.86	.00	.00	18.55	9.89	.00	.00
5	.00	24.99	.00	.00	11.78	.00	11.39	.00	11.65	.00	.00	8.09	11.41	.00	.00
6	.00	.00	.00	.00	12.90	.00	14.46	.00	10.55	.00	.00	17.73	19.77	.00	.00
7	.00	.00	.00	.00	11.79	.00	12.02	.00	10.57	.00	.00	15.61	20.70	.00	.00
8	.00	.00	.00	.00	12.49	.00	11.96	.00	11.11	.00	.00	15.04	22.78	.00	.00
9	.00	.00	.00	.00	13.78	18.52	.00	.00	12.23	.00	.00	26.06	23.36	.00	.00
10	.00	.00	18.30	23.83	13.21	13.29	18.63	20.43	11.51	.00	11.71	22.72	25.05	.00	.00
11	.00	.00	15.71	20.74	12.18	22.36	.00	13.45	10.89	.00	.00	.00	17.63	.00	.00
12	.00	.00	19.04	14.88	12.19	13.96	.00	21.40	10.68	.00	10.90	.00	16.50	.00	.00
13	.00	.00	23.74	19.03	13.70	16.02	.00	19.27	10.18	24.83	.00	17.84	13.70	.00	.00
14	.00	.00	15.69	7.74	13.82	13.49	.00	16.49	9.68	.00	.00	12.03	18.80	.00	.00
15	.00	.00	20.52	14.00	12.37	16.45	.00	18.79	11.61	16.51	.00	16.12	12.23	14.22	.00
16	.00	.00	12.21	26.21	12.17	10.96	.00	15.64	12.04	.00	.00	18.91	13.77	.00	.00
17	.00	.00	10.10	.00	11.47	10.93	.00	12.30	9.69	18.33	.00	15.53	11.16	.00	.00
18	.00	.00	12.68	.00	14.20	15.88	.00	13.30	.00	.00	16.82	16.21	13.57	.00	.00
19	.00	.00	12.50	.00	15.42	18.00	.00	17.87	.00	.00	13.34	13.85	13.99	.00	.00
20	.00	.00	11.83	.00	19.12	22.61	.00	14.21	.00	.00	10.62	14.34	14.50	.00	.00
21	.00	.00	14.12	.00	.00	7.04	.00	16.54	.00	.00	7.93	14.30	17.05	.00	.00
22	.00	.00	12.68	.00	.00	16.60	13.17	13.46	.00	.00	13.63	22.00	16.90	.00	.00
23	.00	.00	12.58	.00	.00	10.25	.00	11.87	.00	.00	10.15	14.34	14.05	.00	.00
101	15.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	14.97	.00	.00	9.81	.00	.00	.00	8.55	.00	.00	15.12	16.95	.00	.00
106	.00	.00	20.58	26.06	13.14	.00	.00	20.70	12.61	.00	.00	.00	11.82	.00	17.85
107	.00	.00	16.88	.00	12.53	.00	.00	24.23	11.66	18.46	12.55	18.89	.00	.00	.00
108	.00	.00	9.97	.00	12.64	12.07	15.16	12.78	10.17	.00	14.79	12.19	11.45	.00	.00
109	.00	.00	13.92	.00	12.47	11.54	.00	15.42	.00	.00	11.54	10.28	14.42	.00	.00
110	.00	.00	.00	.00	16.01	10.21	.00	7.73	.00	.00	.00	13.55	21.99	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh/%K

	OCBF	OCBK	CCC	CCCR	OCK	OCU	OLM	OLV	ONL	OU	PBR	PBY	PCN	PGR	PLC
1	19.69	23.52	19.28	19.85	16.79	.00	15.53	19.90	16.01	.00	.00	.00	.00	6.32	.00
2	20.98	9.15	25.71	25.65	20.68	.00	9.73	25.53	23.64	.00	.00	.00	.00	.00	.00
3	21.18	.00	19.72	27.37	21.75	14.98	13.54	14.06	12.84	.00	.00	.00	.00	.00	.00
4	22.72	.00	25.56	21.89	21.17	12.17	12.78	21.02	17.84	.00	.00	.00	.00	.00	.00
5	.00	.00	20.85	22.42	18.55	14.51	17.19	21.13	23.42	.00	.00	21.69	.00	.00	.00
6	.00	.00	21.40	26.16	15.34	17.80	9.97	18.18	14.41	.00	9.20	10.22	7.29	.00	.00
7	.00	.00	18.28	10.24	22.16	12.55	11.53	21.14	18.17	.00	7.35	8.47	7.88	.00	.00
8	.00	.00	17.25	12.99	20.91	11.05	19.32	6.43	17.89	.00	6.94	8.17	8.74	.00	.00
9	.00	.00	.00	18.77	22.94	19.70	12.83	28.18	18.74	.00	7.19	10.06	.00	.00	.00
10	.00	.00	22.56	24.24	25.14	17.59	14.28	19.09	14.98	.00	.00	15.23	9.94	.00	.00
11	.00	.00	15.46	14.66	21.58	20.21	.00	.00	12.65	16.10	.00	8.48	.00	.00	.00
12	.00	.00	.00	.00	16.88	18.33	11.42	.00	9.23	14.50	.00	14.27	.00	.00	.00
13	.00	.00	.00	.00	18.95	24.40	10.02	.00	.00	18.09	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	17.46	17.84	13.75	.00	17.47	.00	.00	.00	.00	.00	7.53
15	.00	.00	.00	.00	18.30	19.13	18.96	.00	19.54	.00	.00	.00	.00	.00	8.02
16	.00	.00	.00	.00	16.67	19.62	13.43	.00	23.18	.00	.00	.00	.00	.00	8.50
17	.00	.00	.00	.00	13.79	17.51	12.29	.00	16.55	.00	.00	.00	.00	.00	5.99
18	.00	.00	.00	.00	15.98	20.12	14.33	.00	21.54	.00	.00	14.43	.00	.00	8.32
19	.00	.00	.00	.00	21.01	17.48	.00	.00	13.10	.00	.00	13.76	.00	.00	7.56
20	.00	.00	.00	.00	13.98	19.64	.00	.00	22.42	.00	8.63	14.59	.00	.00	.00
21	.00	.00	.00	.00	15.32	20.35	.00	.00	.00	.00	13.75	12.60	.00	.00	.00
22	.00	.00	.00	.00	16.48	22.27	.00	.00	.00	.00	13.14	12.95	.00	.00	.00
23	.00	.00	.00	.00	13.87	18.07	.00	.00	.00	.00	12.10	10.97	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	.00	12.56	.00	14.52	.00	8.13	8.01	.00	.00	.00
106	20.03	.00	.00	19.72	19.05	.00	.00	.00	.00	.00	14.03	14.02	7.61	.00	8.29
107	.00	.00	13.09	20.60	18.47	.00	17.45	23.95	23.08	.00	.00	14.76	.00	.00	.00
108	.00	.00	.00	.00	15.52	.00	14.32	.00	17.80	23.06	.00	11.25	.00	.00	.00
109	.00	.00	.00	.00	15.94	19.55	14.44	.00	20.62	.00	.00	.00	.00	.00	.00
110	.00	.00	.00	.00	.00	19.80	17.31	.00	11.31	.00	.00	.00	.00	.00	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh/%K

	PMC	PPI	PPS	PSN	PSR	PVP	PWR	QAL	QT	SC	SRM	TA	TB	TCA	TFS
1	.00	.00	.00	.00	.00	9.70	.00	11.39	7.57	.00	.00	7.01	6.73	.00	5.66
2	.00	.00	.00	.00	.00	12.72	.00	10.49	13.22	.00	.00	7.07	5.45	.00	.00
3	.00	.00	.00	.00	.00	10.79	.00	10.37	14.89	.00	.00	7.62	.00	.00	.00
4	.00	.00	.00	.00	.00	9.38	.00	11.42	16.07	.00	27.09	8.53	.00	11.86	.00
5	.00	.00	.00	6.68	.00	10.65	.00	11.48	15.55	.00	.00	8.40	.00	12.57	.00
6	.00	11.61	16.47	6.70	.00	9.94	10.60	12.87	14.77	.00	19.01	9.95	.00	.00	.00
7	.00	10.17	14.83	.00	10.59	8.85	.00	12.41	14.08	.00	23.09	8.97	.00	12.62	.00
8	.00	9.40	13.30	.00	8.52	8.04	9.76	13.33	15.20	.00	18.03	6.39	.00	13.58	.00
9	.00	12.08	14.50	.00	10.66	8.98	12.16	11.97	15.75	.00	30.67	5.82	.00	.00	.00
10	.00	15.79	11.09	.00	.00	8.62	10.23	10.07	.00	.00	17.71	5.55	.00	.00	.00
11	.00	.00	14.94	.00	.00	9.10	.00	13.18	9.16	.00	15.75	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	9.29	.00	11.50	17.55	.00	19.32	.00	.00	.00	.00
13	13.00	.00	.00	.00	.00	9.13	.00	11.13	15.13	.00	11.47	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	8.35	.00	10.19	.00	.00	30.19	.00	.00	.00	.00
15	12.51	.00	.00	.00	.00	8.17	.00	11.33	.00	.00	17.97	.00	.00	.00	.00
16	11.39	.00	.00	.00	.00	7.92	.00	9.73	.00	.00	17.20	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	8.06	.00	9.76	.00	14.72	15.98	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	8.71	.00	8.38	16.99	10.96	14.55	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	8.77	.00	8.99	17.41	13.98	8.85	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	9.05	.00	10.33	12.13	10.45	20.98	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	10.26	.00	13.03	.00	10.31	24.04	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	10.95	.00	11.71	.00	13.86	23.42	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	11.81	.00	11.77	.00	10.40	12.00	.00	.00	.00	.00
101	.00	.00	.00	.00	.00	.00	.00	17.34	.00	.00	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00	14.49	.00	12.77	8.85	.00	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	.00	9.48	.00	10.01	14.26	.00	.00	.00	.00	.00	.00
104	.00	.00	.00	.00	.00	8.51	.00	8.90	.00	.00	.00	.00	.00	.00	.00
105	.00	.00	.00	.00	.00	7.91	.00	7.00	.00	.00	14.90	.00	.00	.00	.00
106	.00	10.09	14.66	6.66	.00	8.67	.00	11.65	.00	.00	8.17	.00	.00	.00	.00
107	.00	18.15	.00	.00	12.34	9.73	11.12	12.75	.00	.00	.00	7.04	7.51	.00	5.98
108	.00	.00	.00	.00	.00	9.78	.00	.00	.00	6.88	12.65	.00	.00	.00	.00
109	.00	.00	.00	.00	.00	10.47	.00	.00	.00	.00	16.26	8.20	.00	.00	.00
110	.00	.00	.00	.00	.00	10.64	.00	22.32	.00	.00	10.20	11.51	.00	15.73	.00

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

Geologic Unit Average Value as a
Function of Map Line for ppm eTh/%K

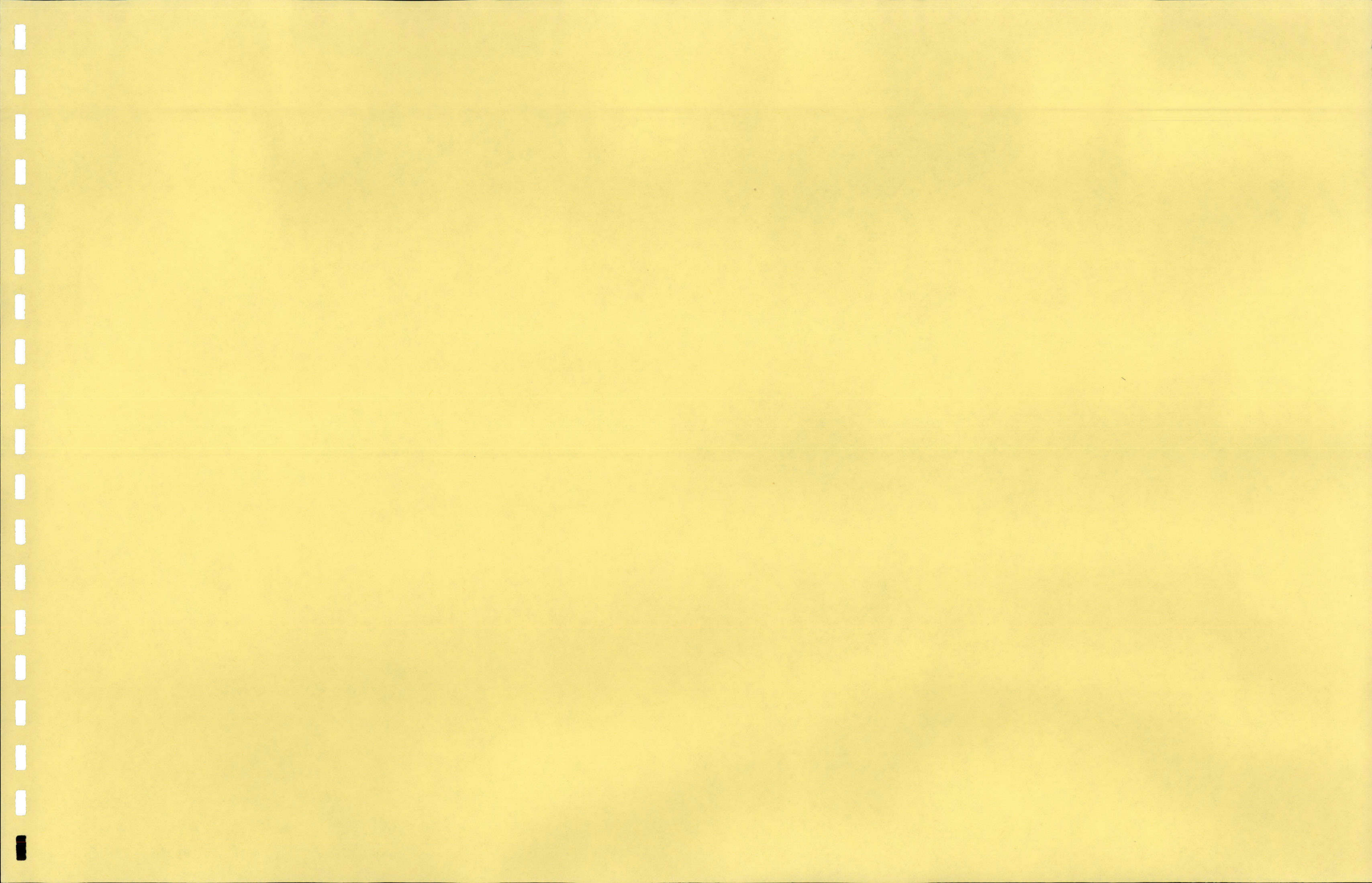
	TJ	TS	TSC	TSS	WA
1	7.01	6.39	.00	.00	9.12
2	.00	6.00	6.66	.00	5.96
3	.00	.00	12.02	.00	6.25
4	.00	.00	11.82	.00	7.42
5	.00	.00	6.92	.00	17.03
6	.00	.00	5.67	.00	13.26
7	.00	.00	17.16	.00	11.80
8	.00	.00	7.52	.00	11.04
9	.00	.00	10.76	.00	16.50
10	.00	.00	6.03	.00	14.86
11	.00	.00	.00	.00	15.18
12	.00	.00	.00	.00	12.26
13	.00	.00	.00	.00	20.93
14	.00	.00	.00	.00	13.43
15	.00	.00	.00	.00	18.10
16	.00	.00	.00	.00	17.37
17	.00	.00	.00	.00	15.53
18	.00	.00	.00	.00	15.07
19	.00	.00	.00	.00	15.39
20	.00	.00	.00	.00	14.83
21	.00	.00	.00	.00	16.09
22	.00	.00	.00	.00	20.64
23	.00	.00	.00	.00	14.14
101	.00	.00	.00	.00	.00
102	.00	.00	.00	.00	.00
103	.00	.00	.00	.00	17.29
104	.00	.00	.00	.00	20.67
105	.00	.00	.00	.00	18.70
106	.00	.00	.00	.00	.00
107	.00	9.77	.00	14.61	.00
108	.00	.00	.00	.00	7.92
109	.00	.00	14.14	.00	11.77
110	.00	.00	19.31	.00	346.81

Computer Lines 1 thru 23 refer to Profile Lines 1 thru 23.

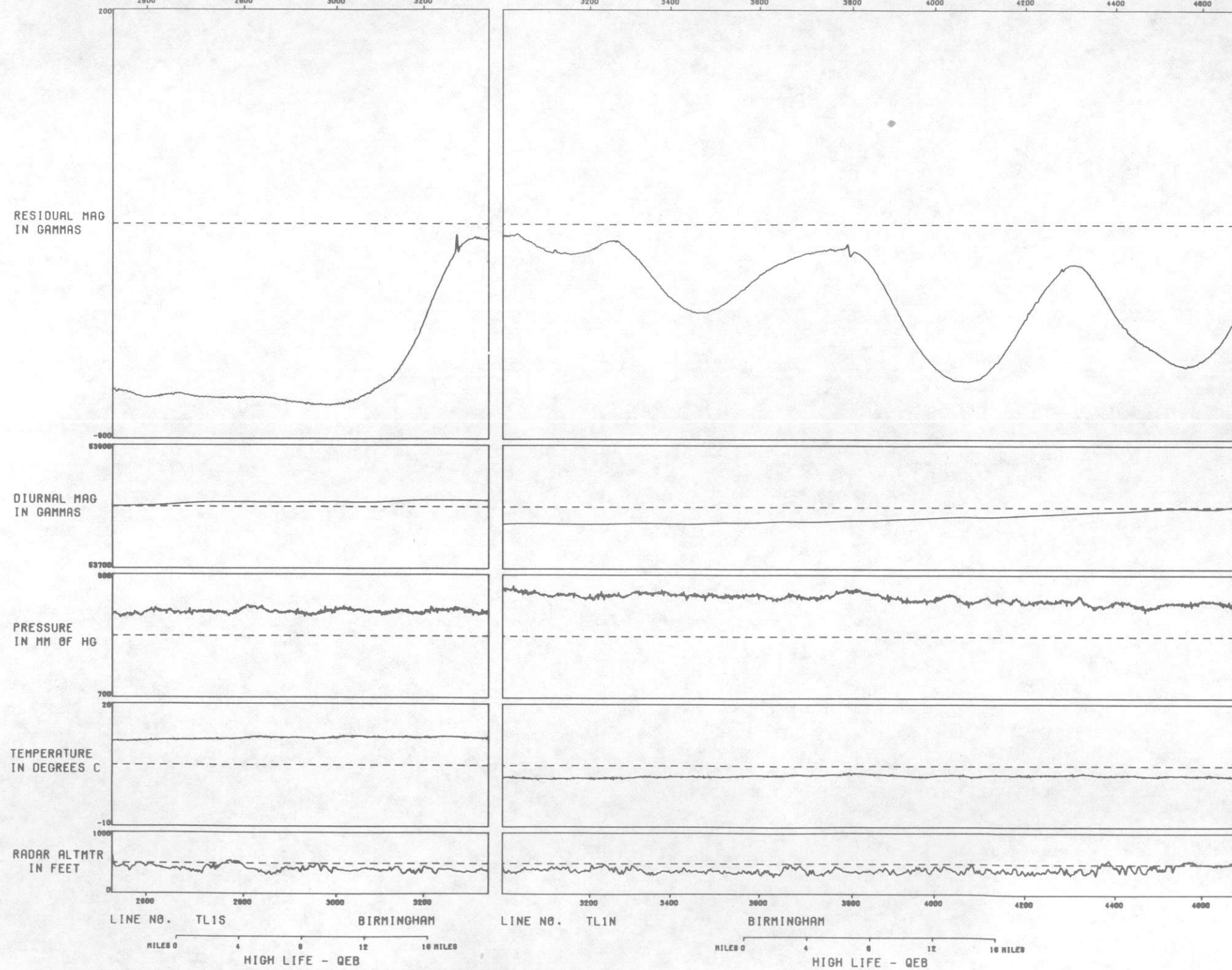
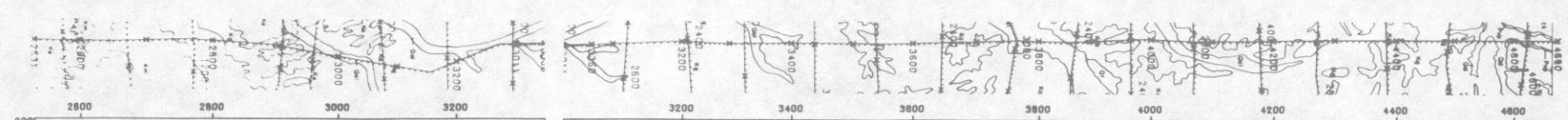
@FIN

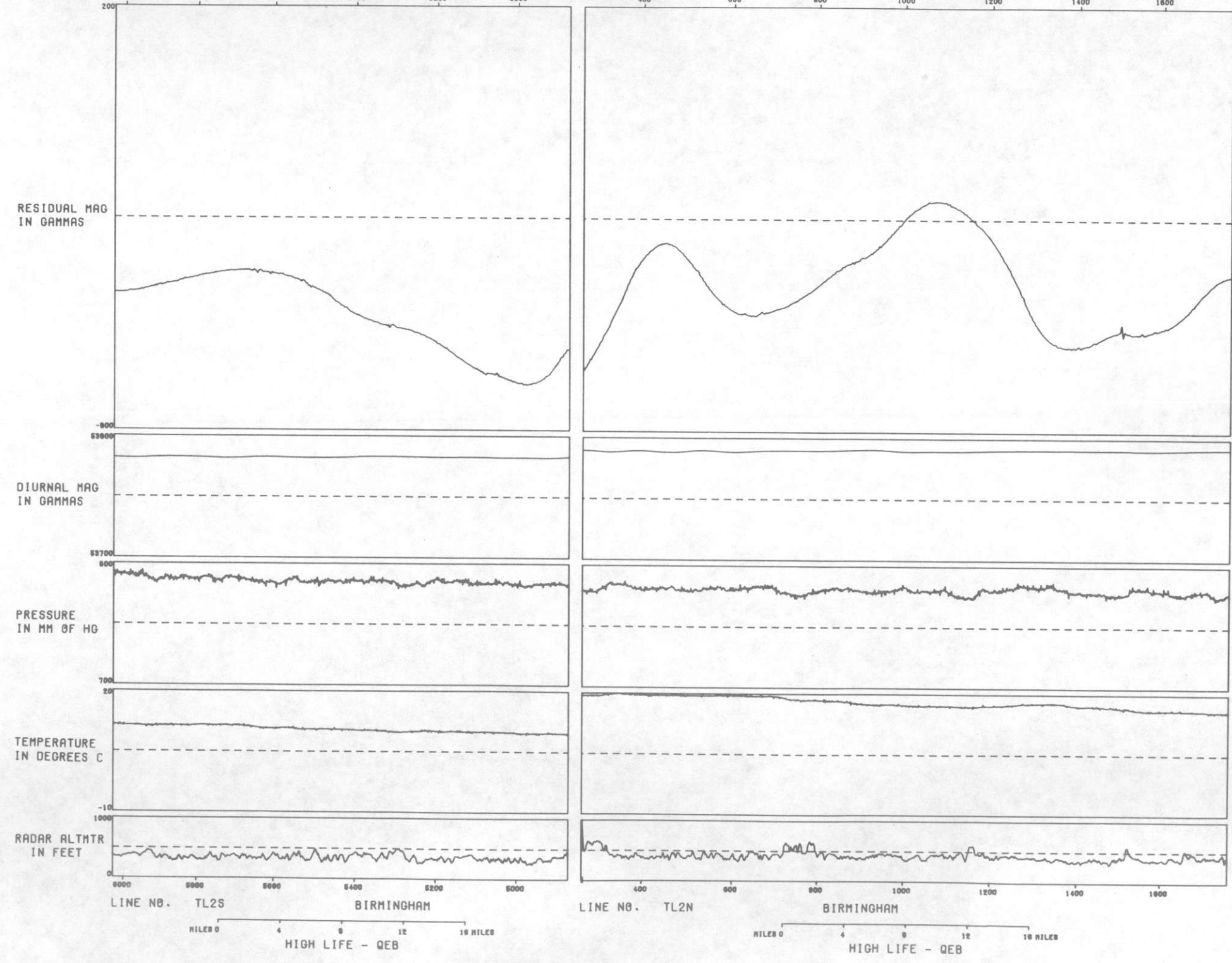
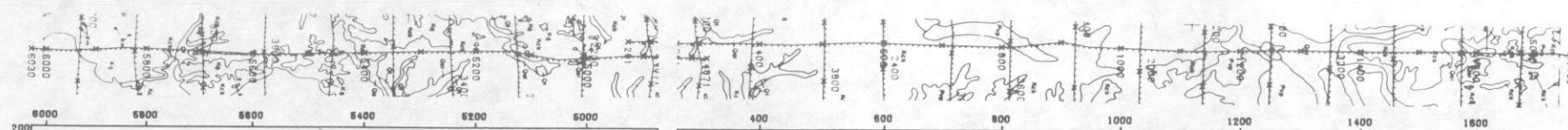
Computer Lines 101 thru 110 refer to North-South Tie Lines 1 thru 10.

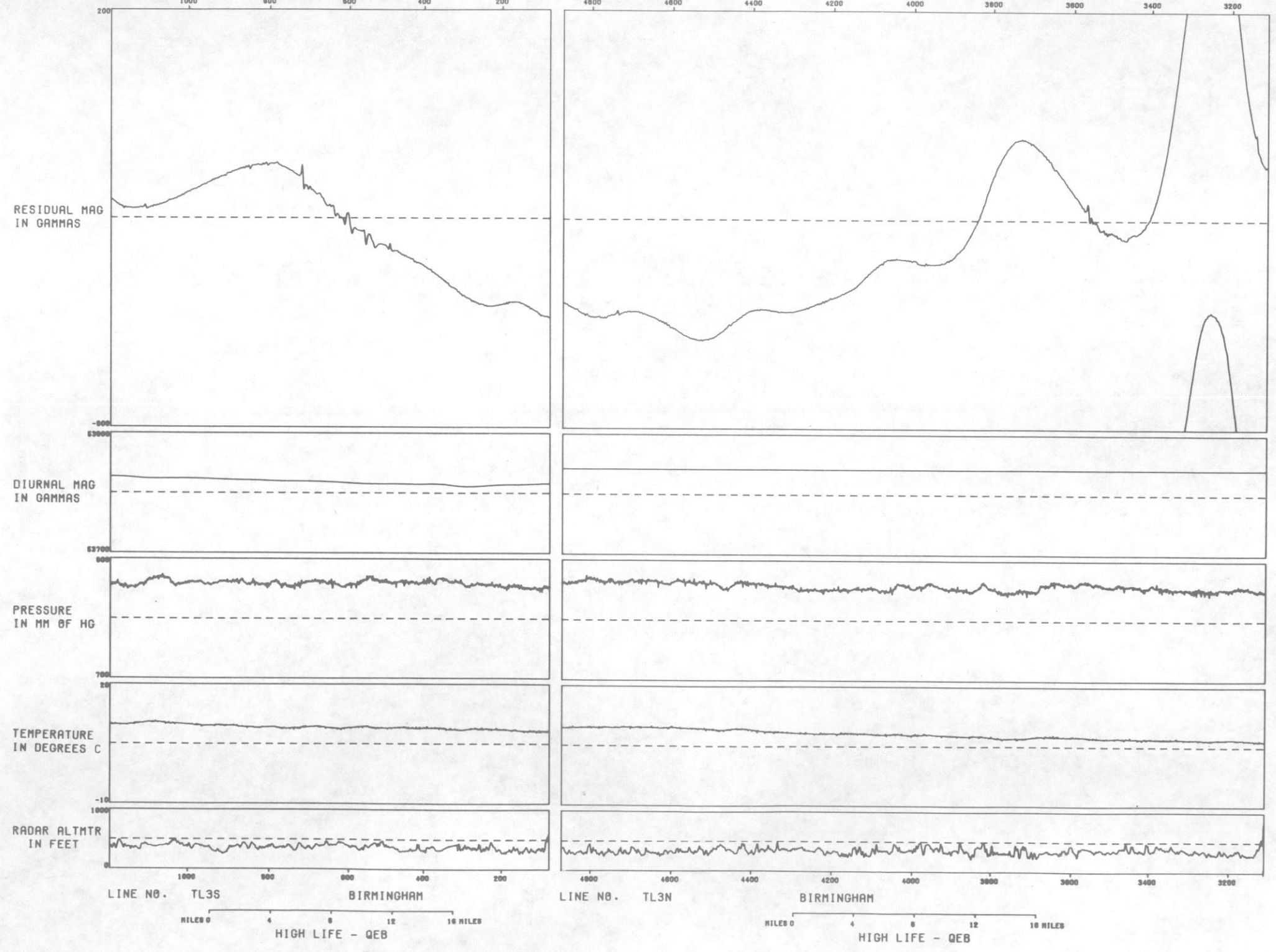
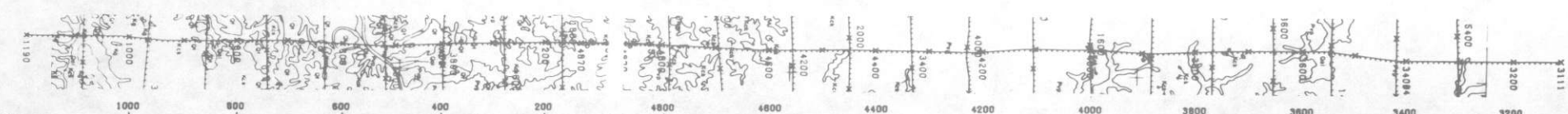
Geologic Unit Average Value as a
Function of Map Line for ppm eTh/%K

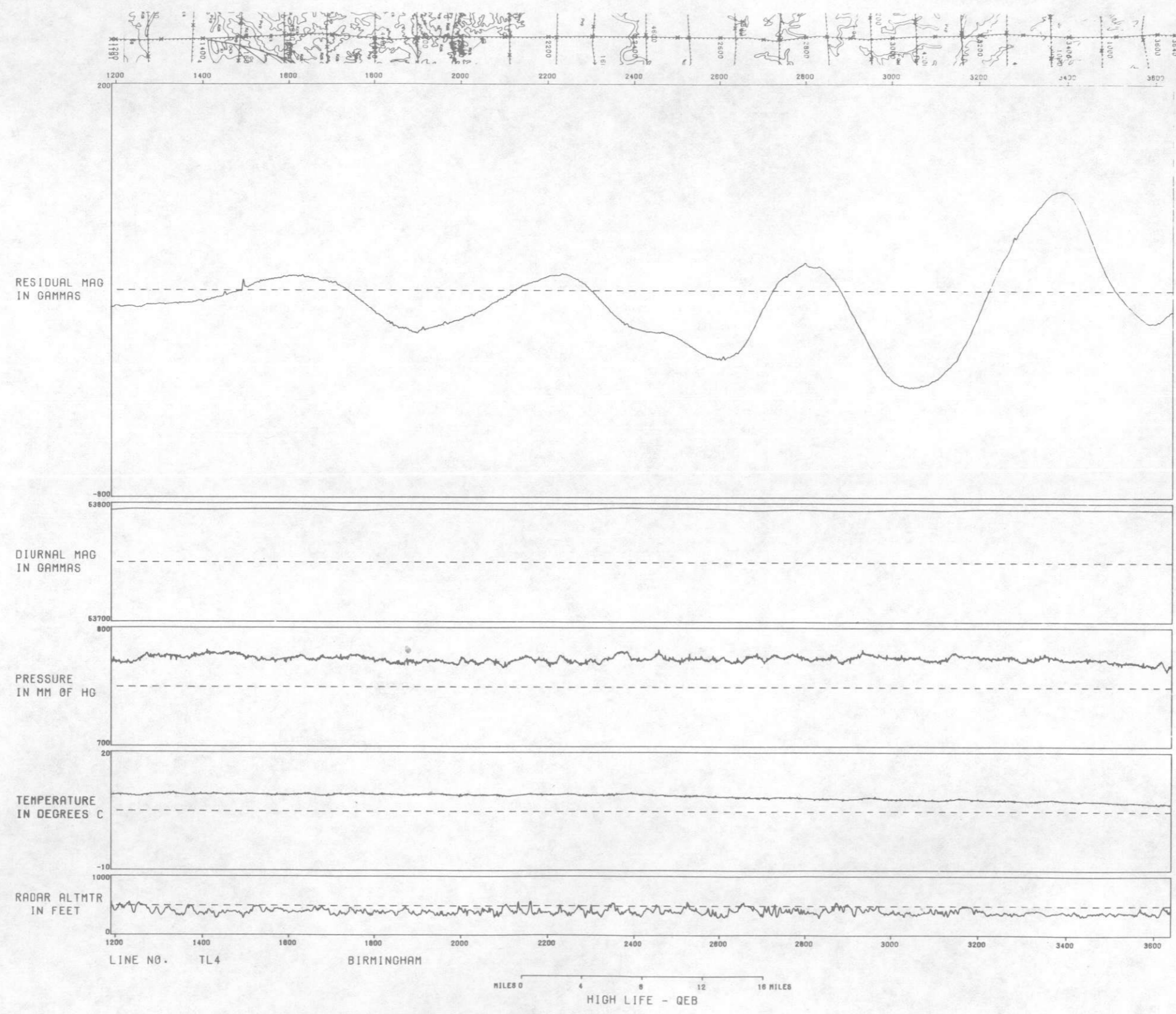


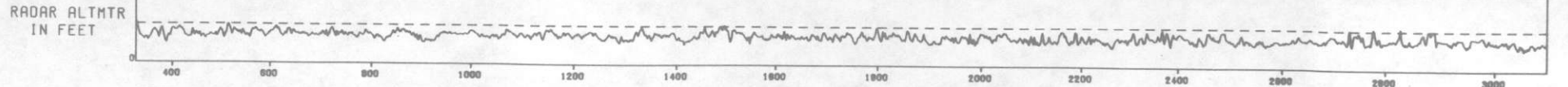
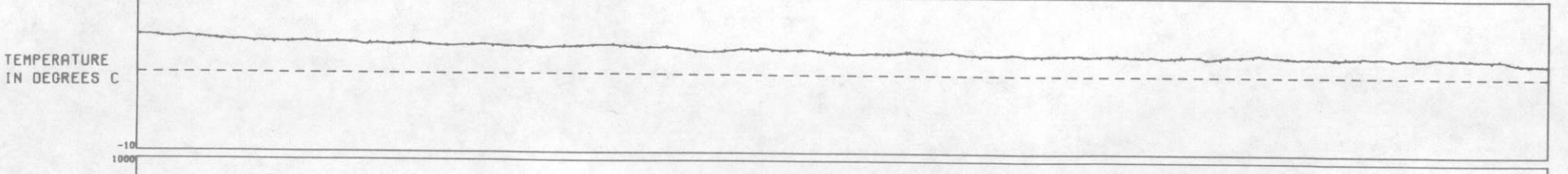
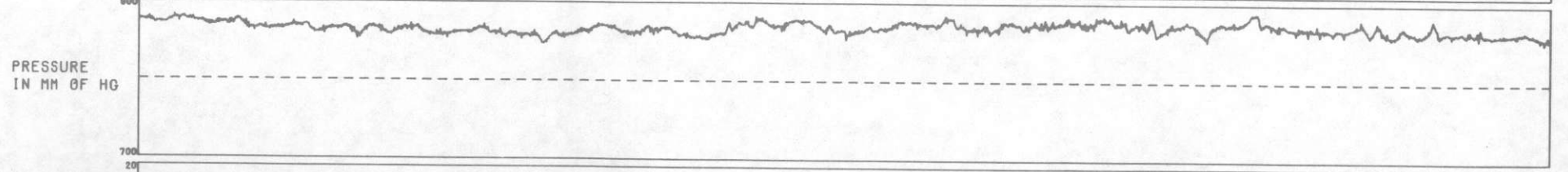
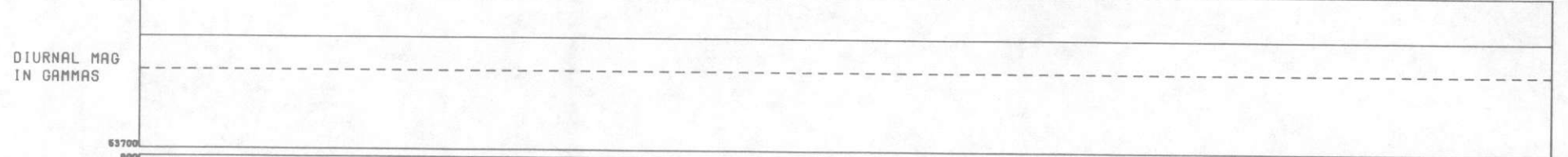
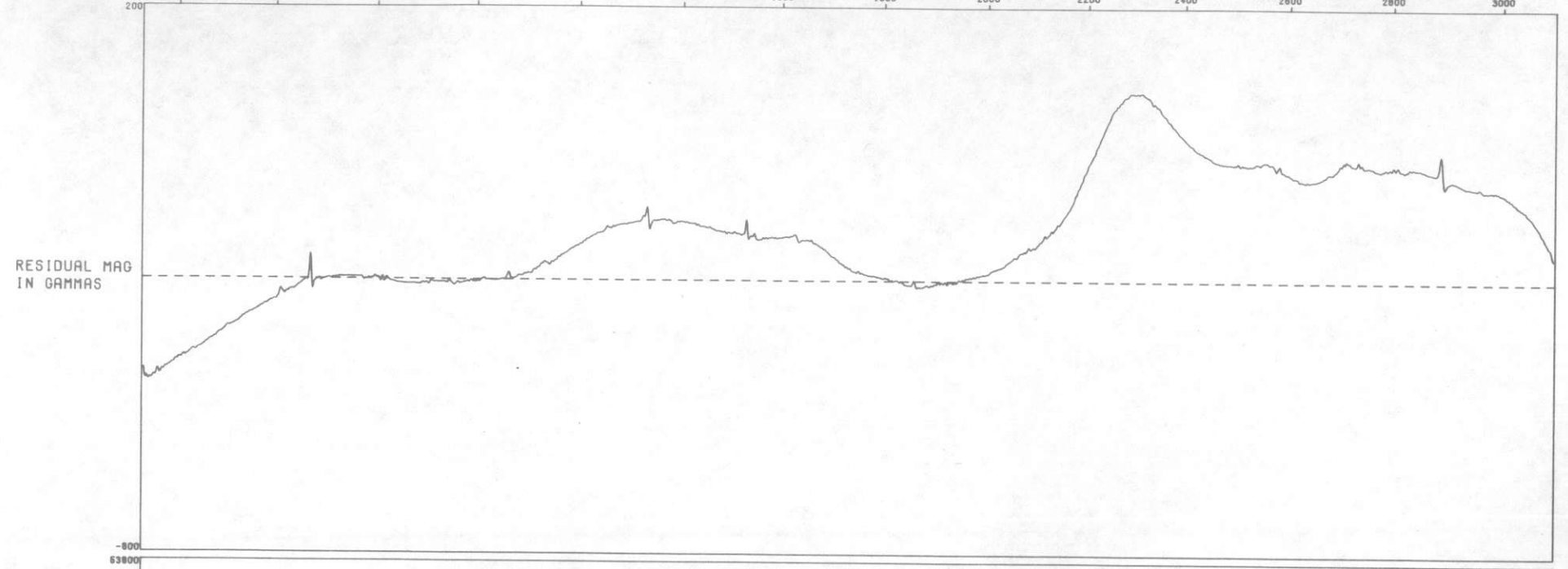
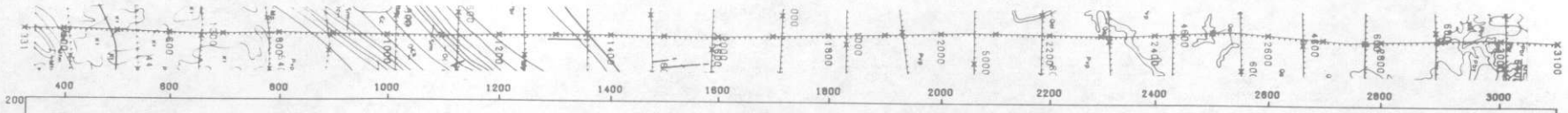








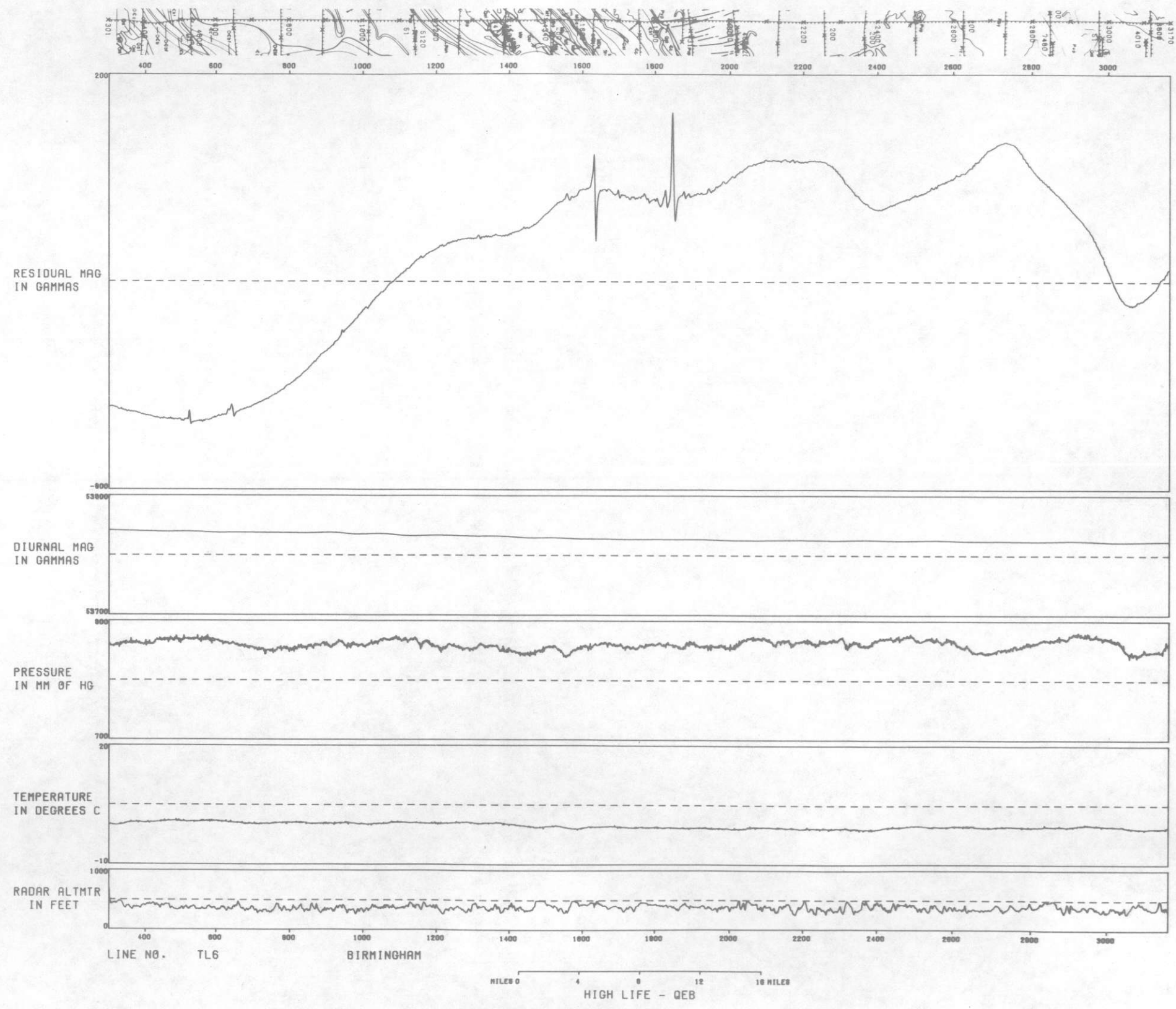


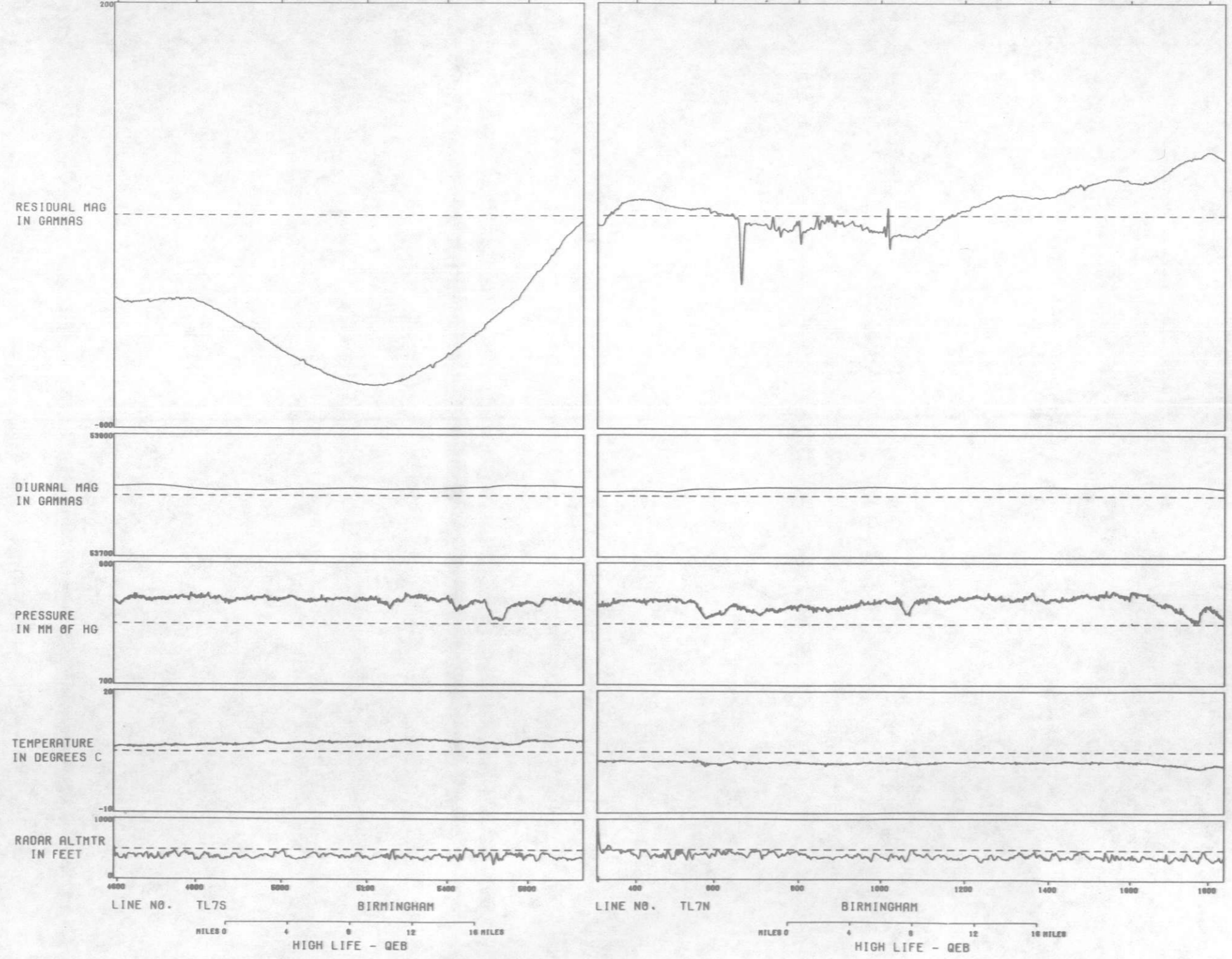
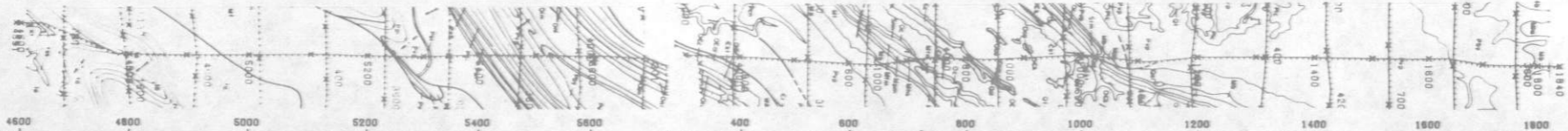


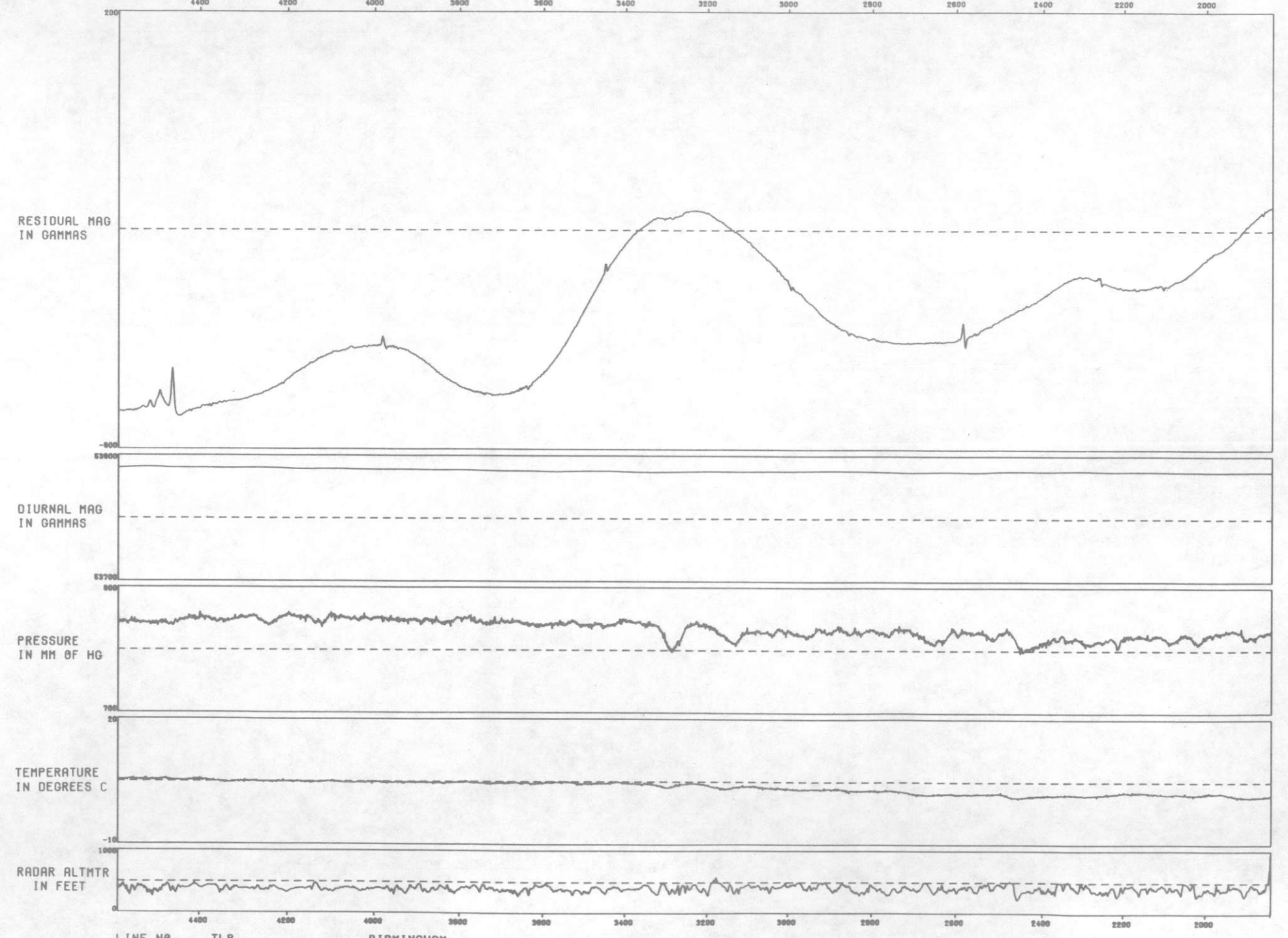
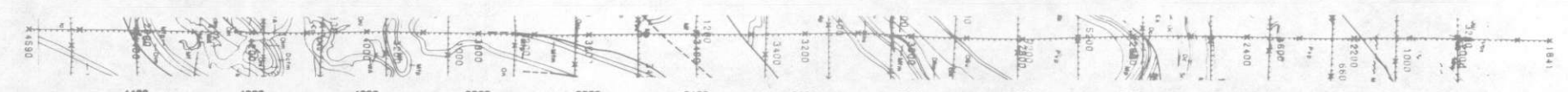
LINE NO. TLS BIRMINGHAM

HILES 0 4 8 12 16 HILES

HIGH LIFE - QEB

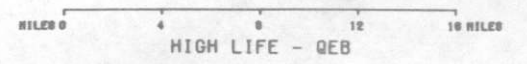


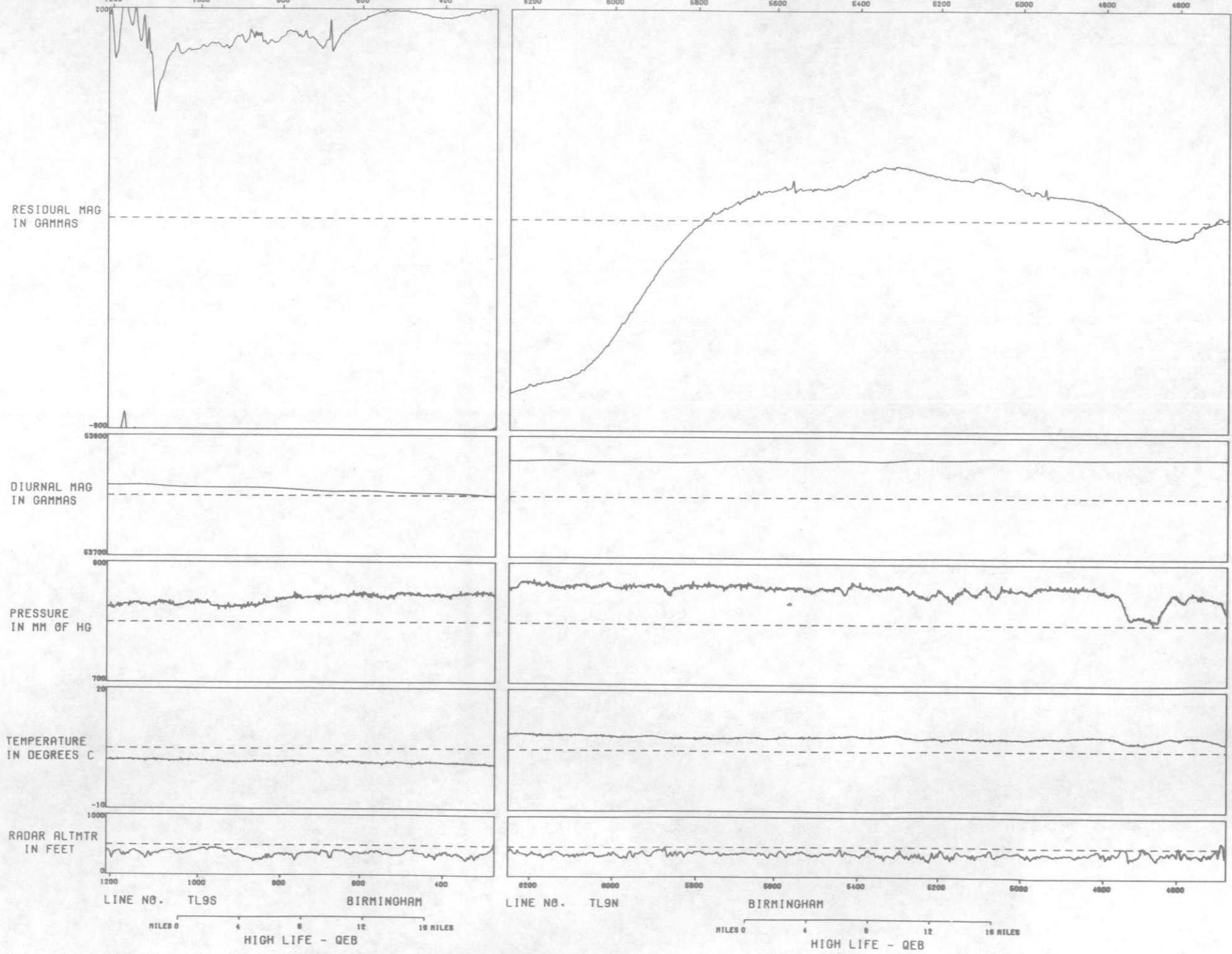
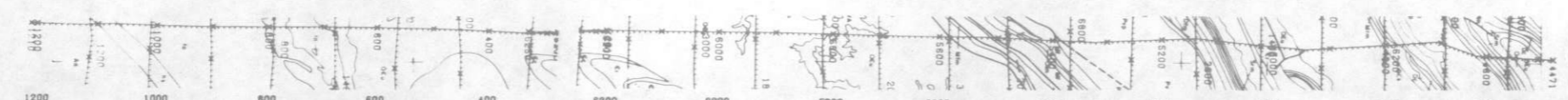


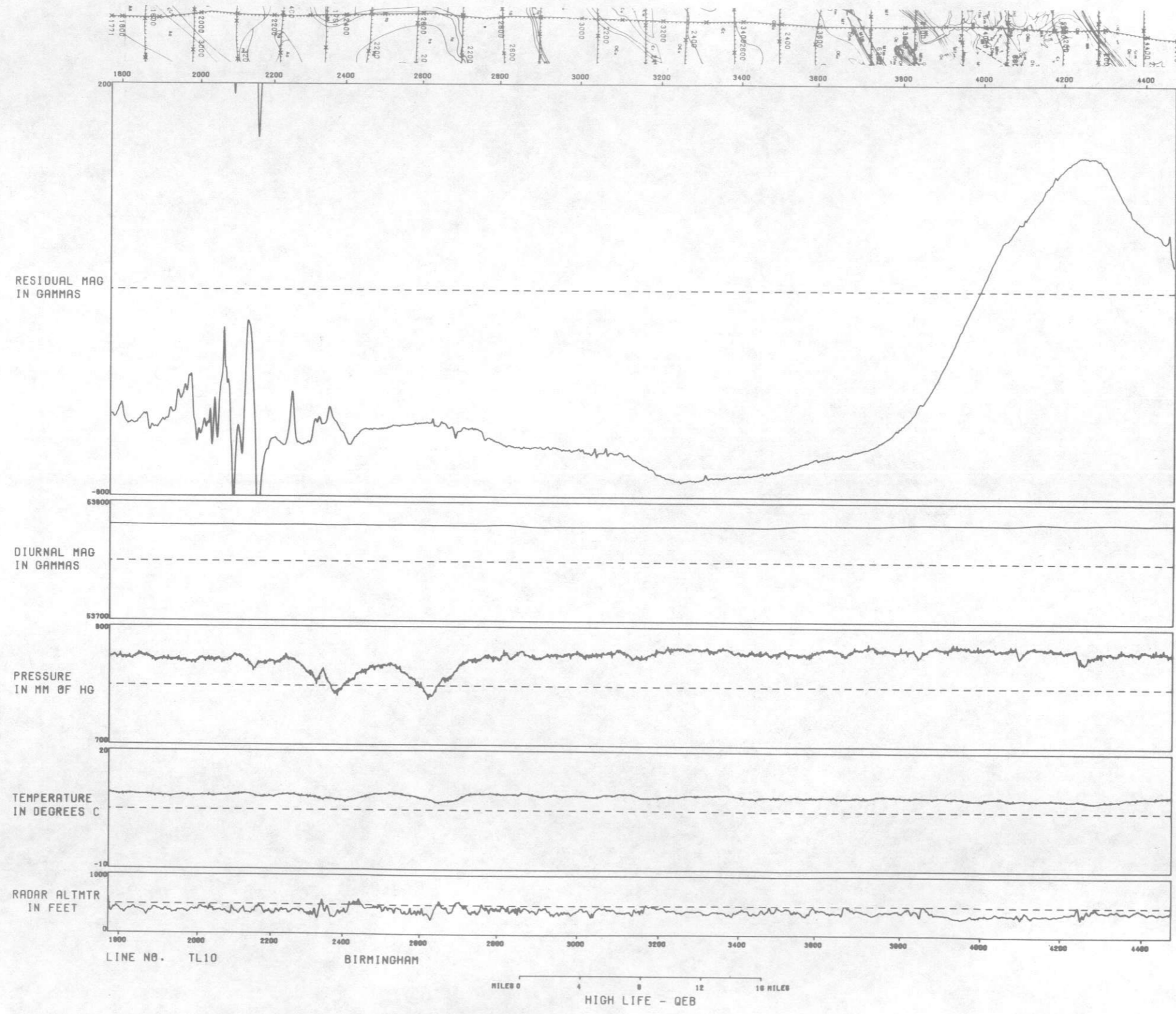


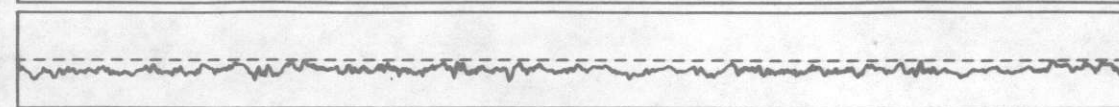
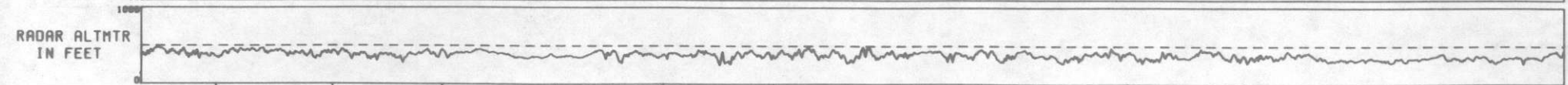
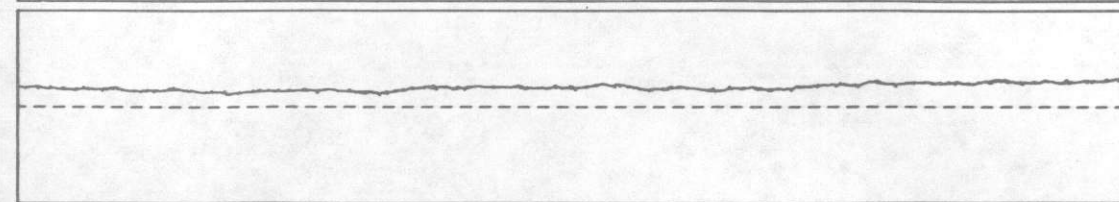
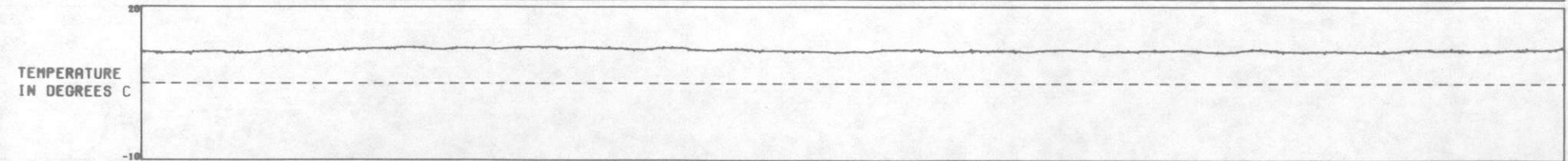
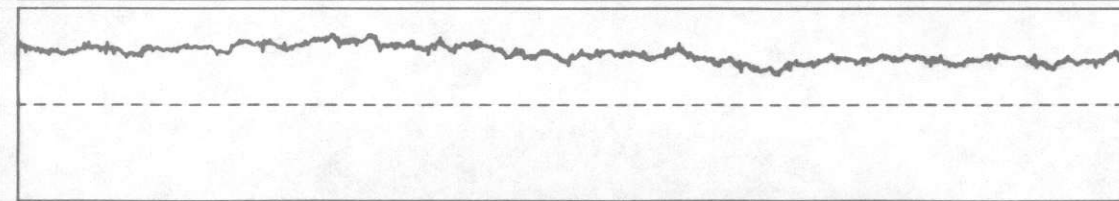
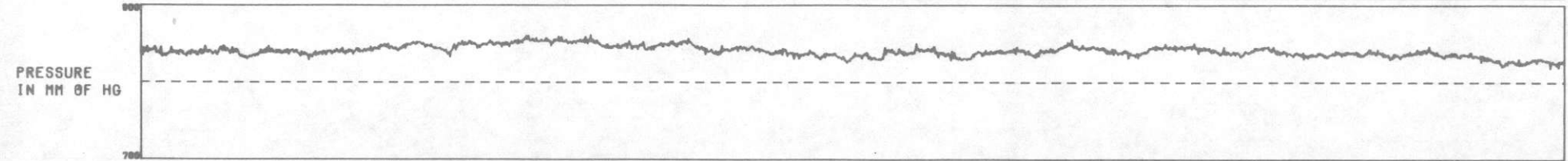
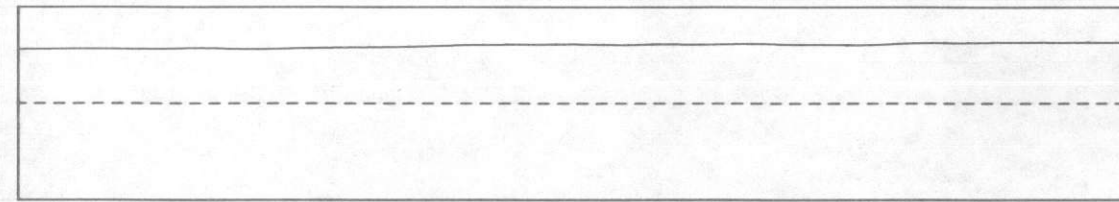
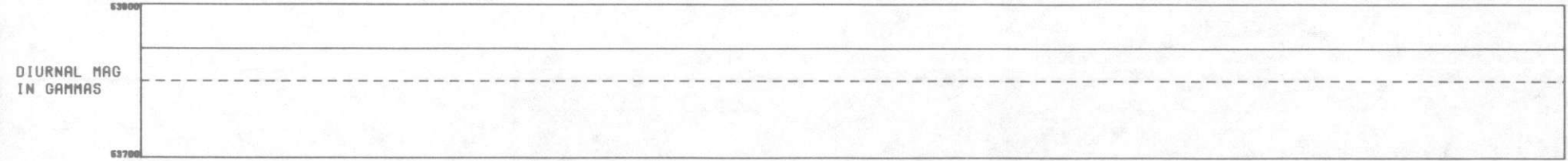
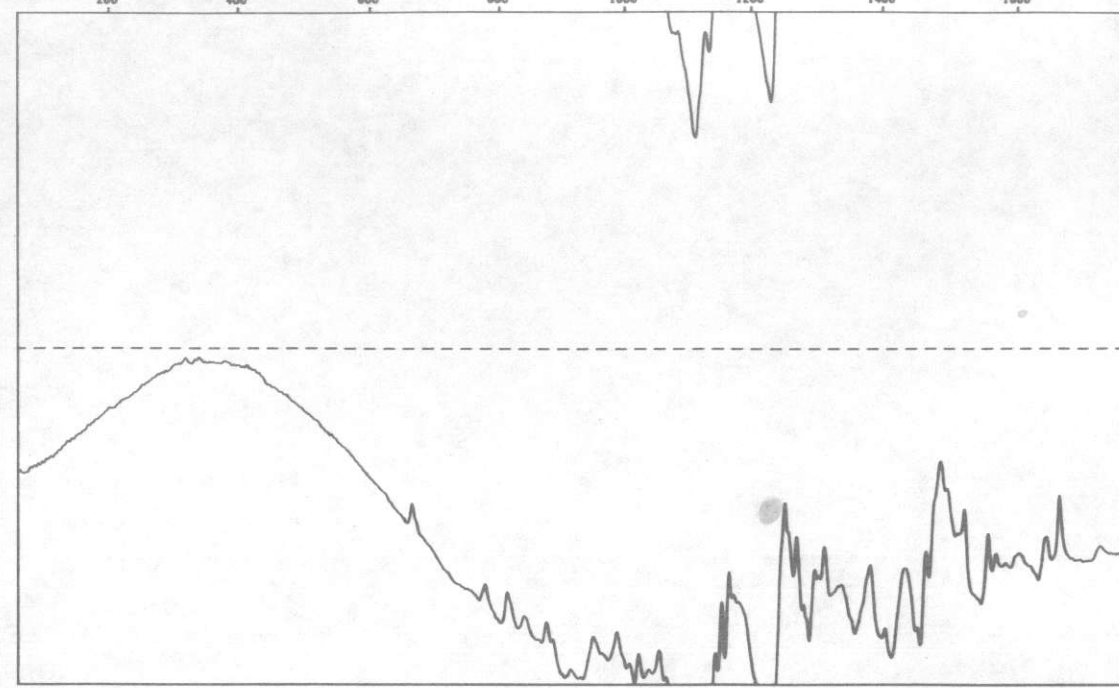
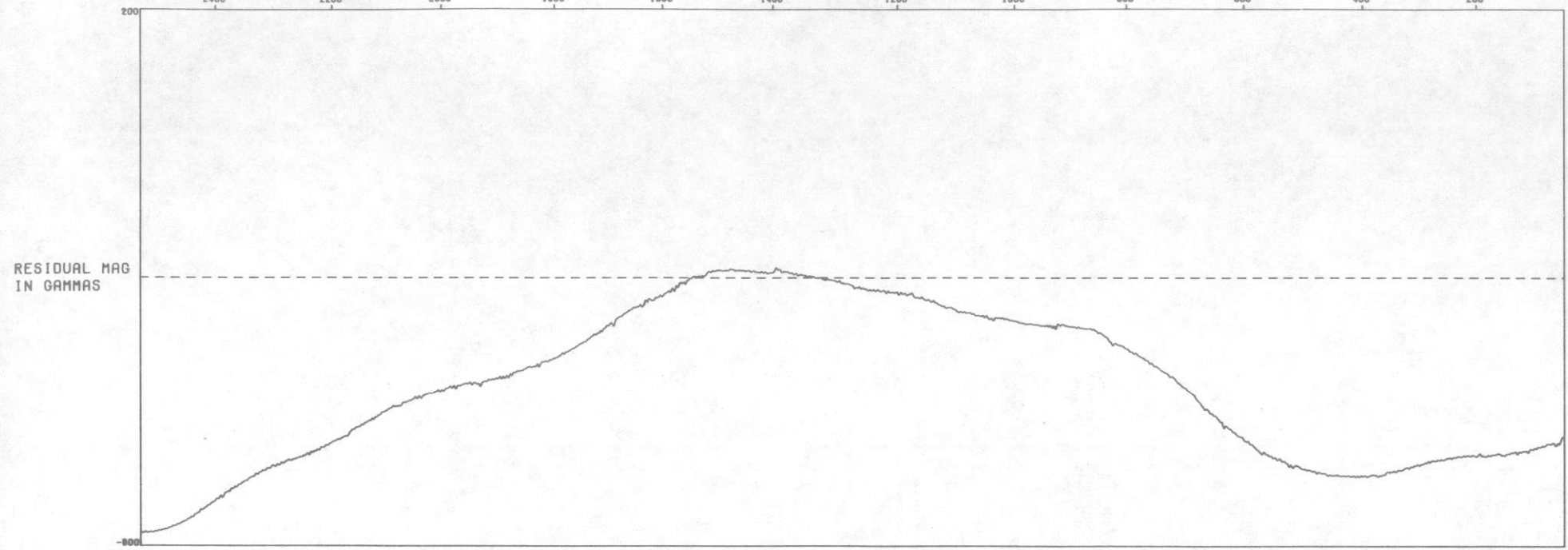
LINE NO. TL8

BIRMINGHAM







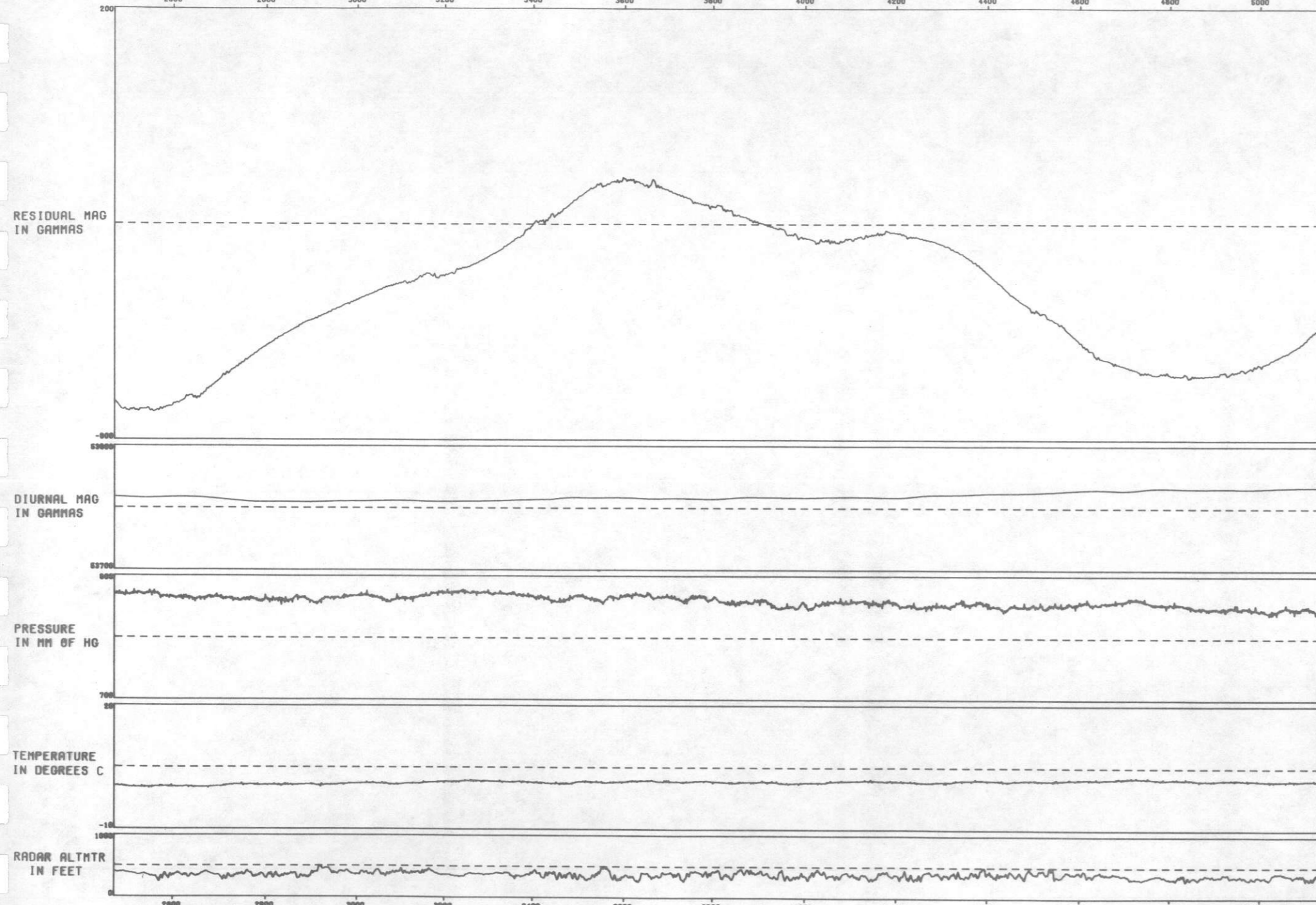
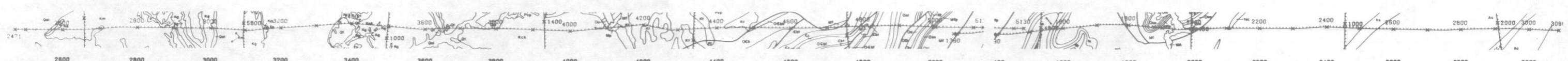


LINE NO. 1W BIRMINGHAM

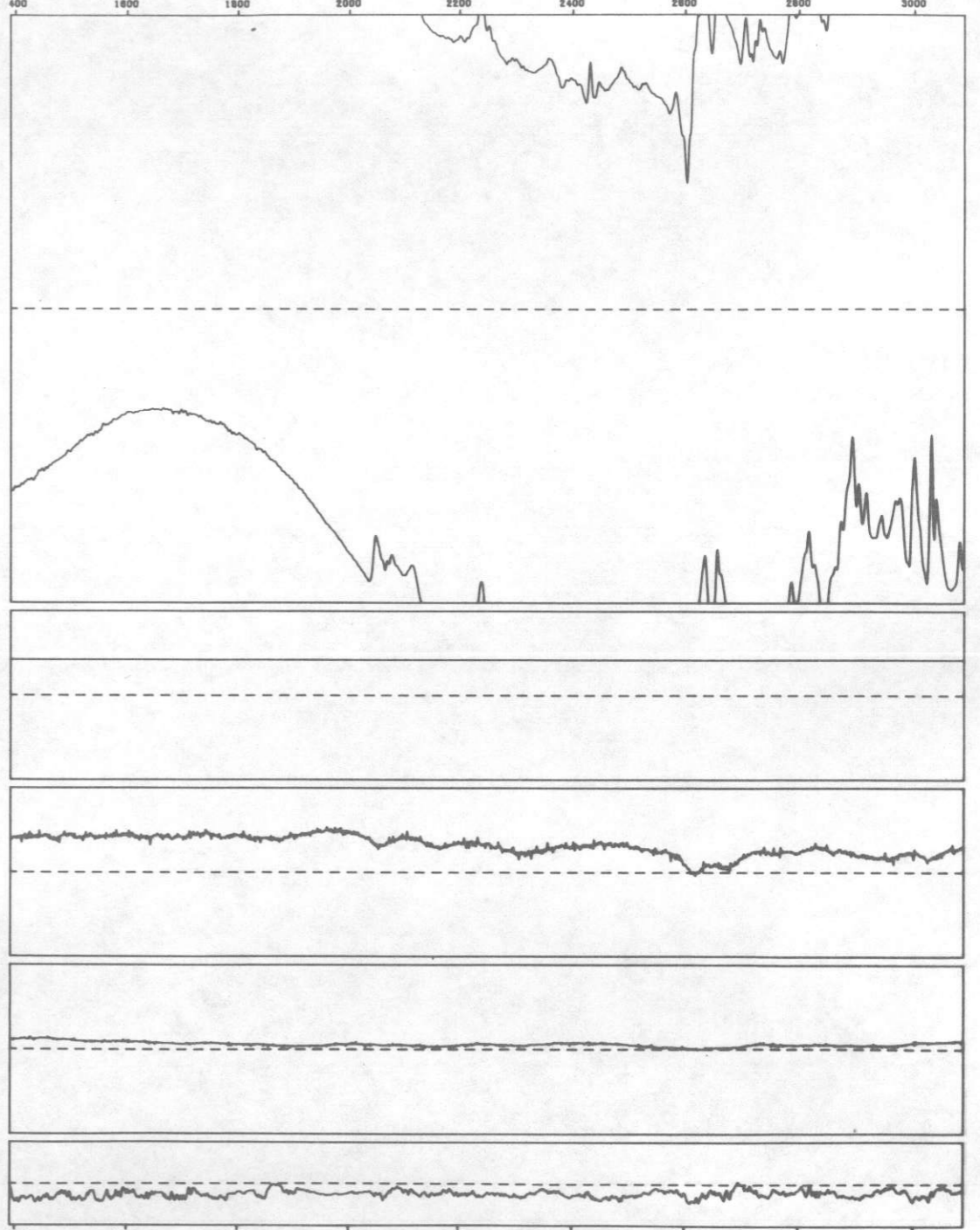
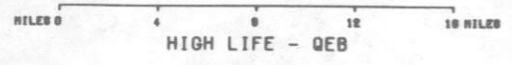
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

LINE NO. 1E BIRMINGHAM

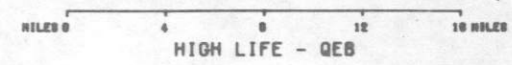
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

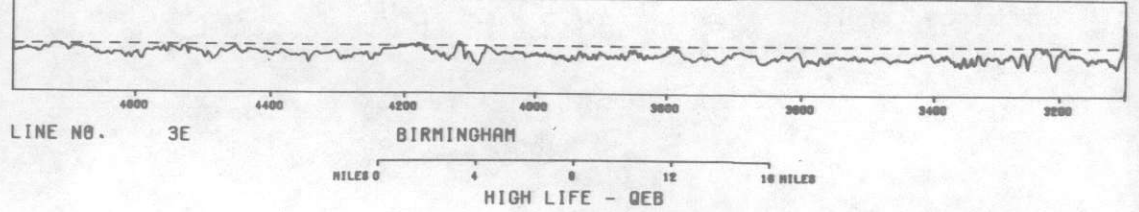
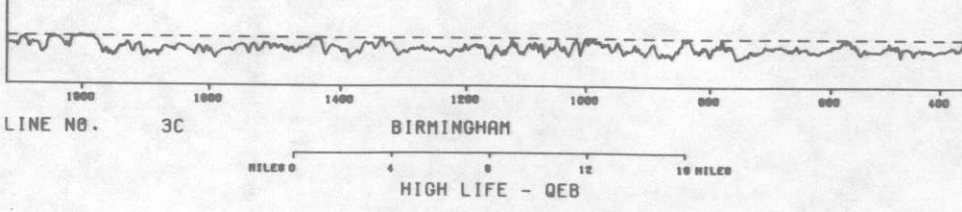
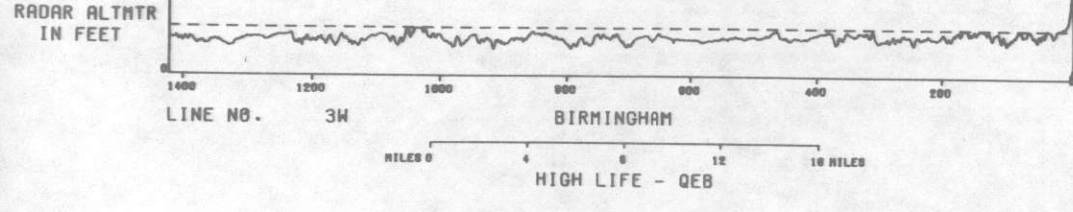
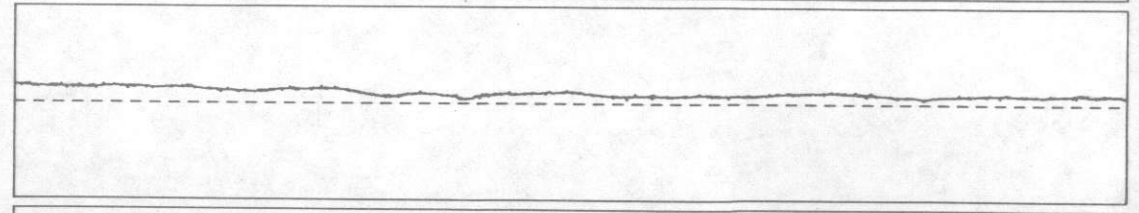
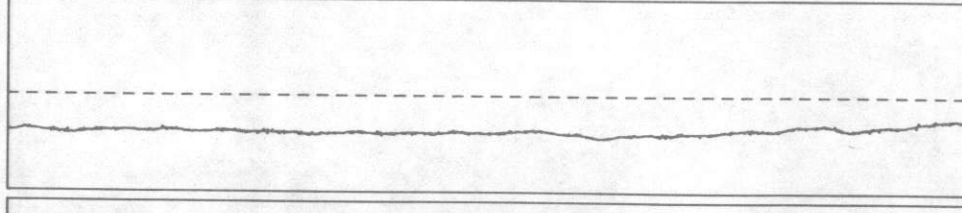
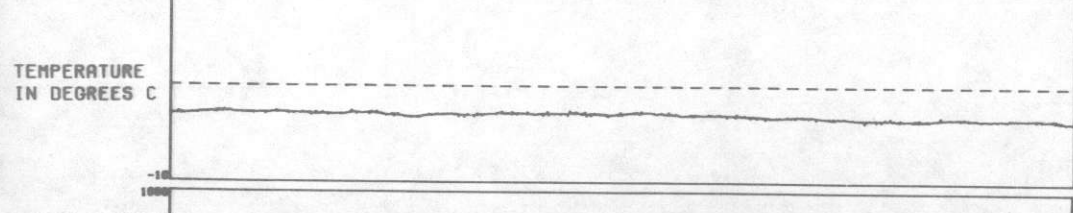
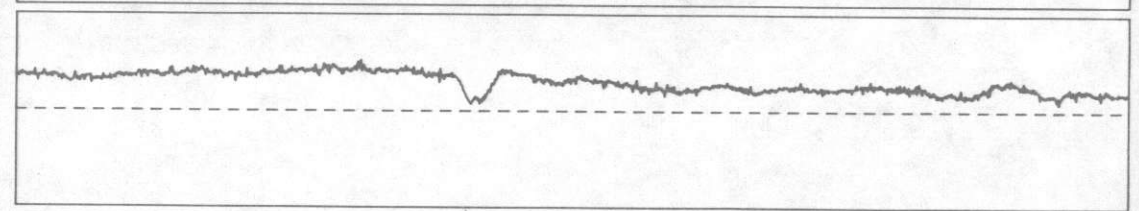
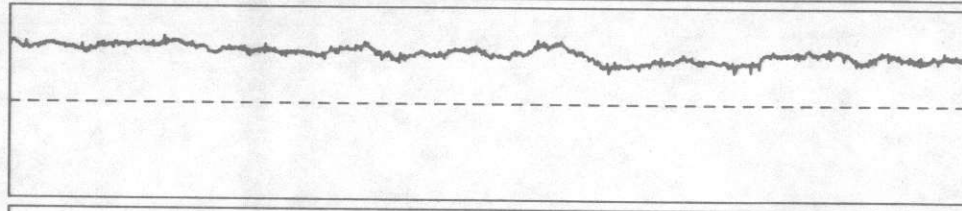
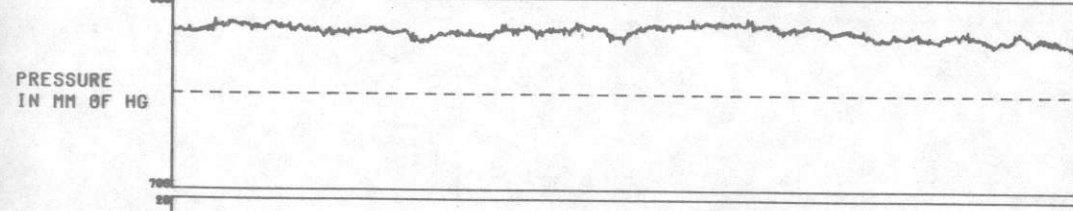
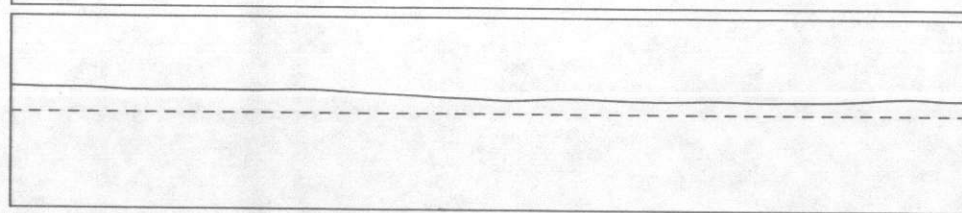
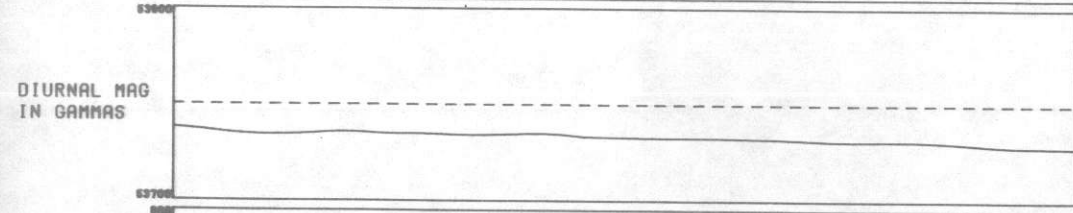
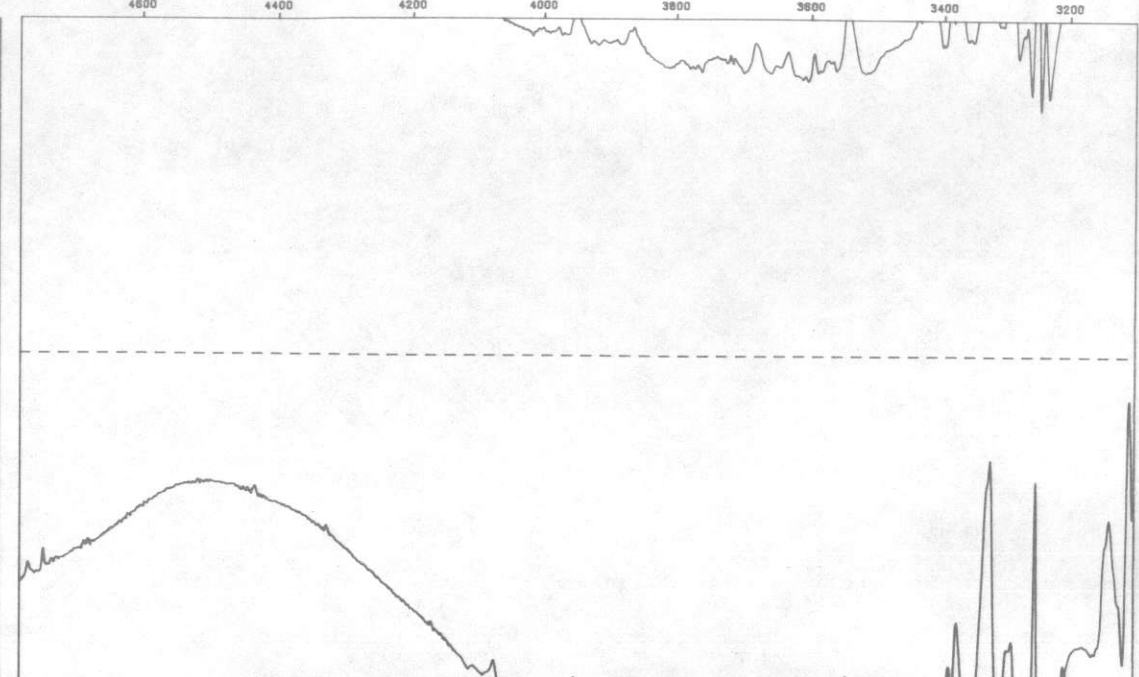
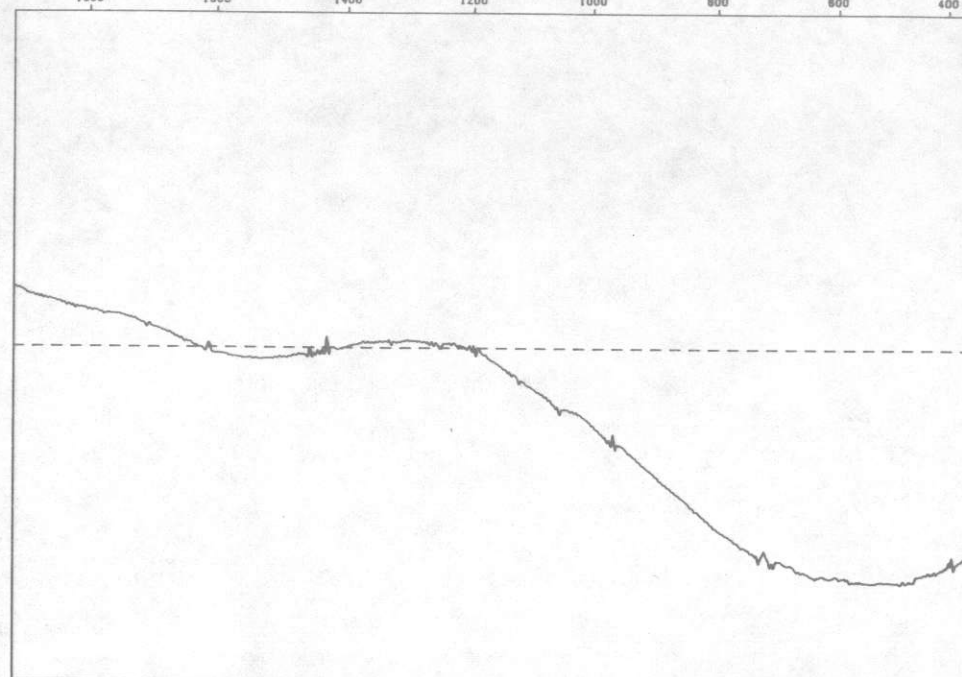
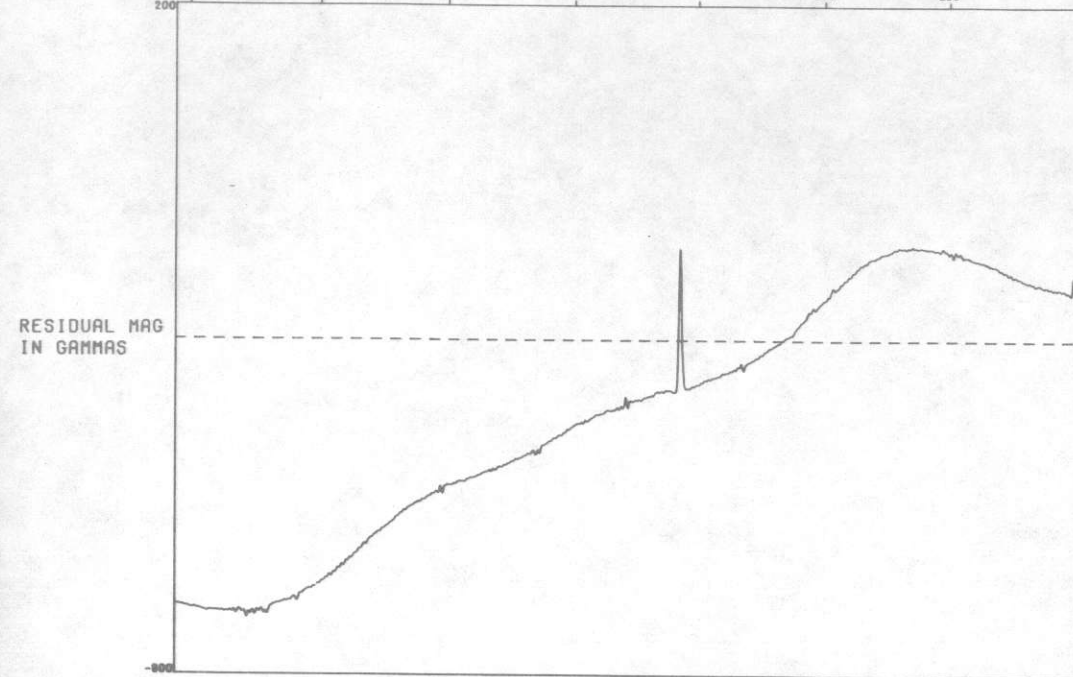
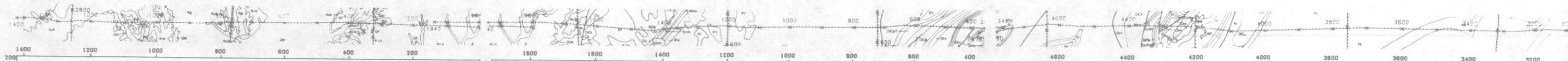


LINE NO. 2W BIRMINGHAM



LINE NO. 2E BIRMINGHAM

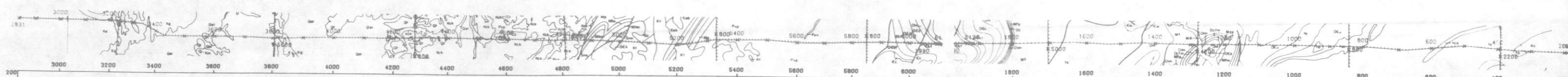




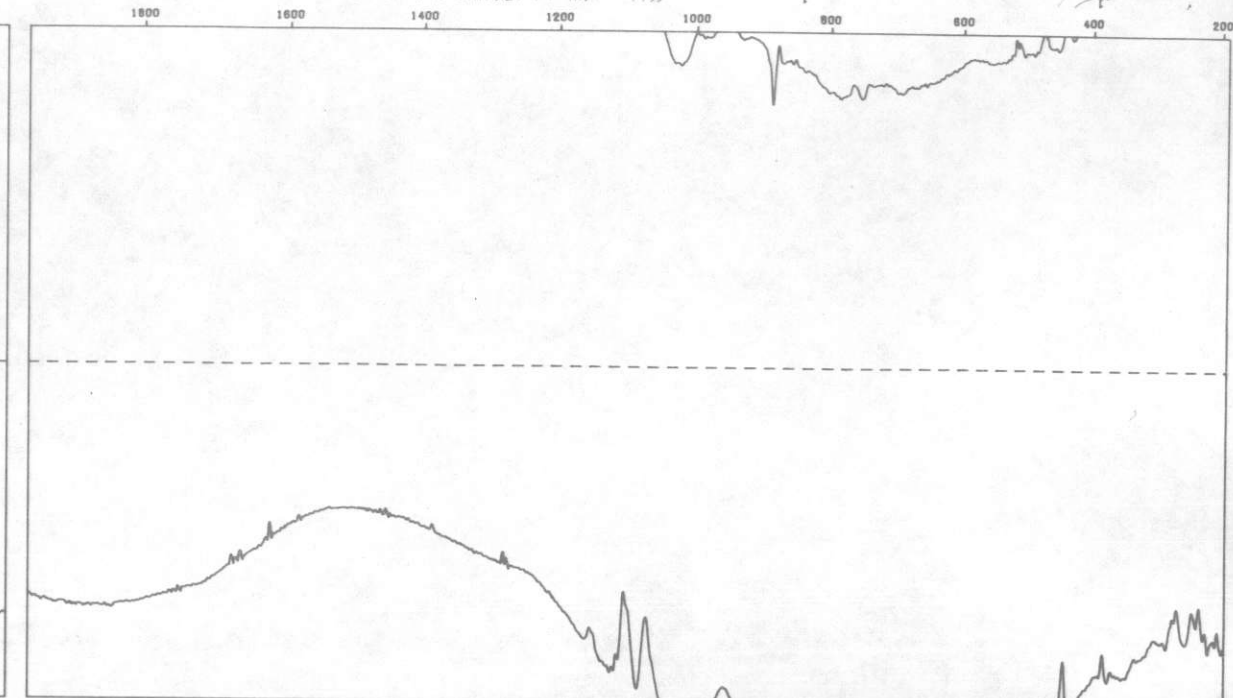
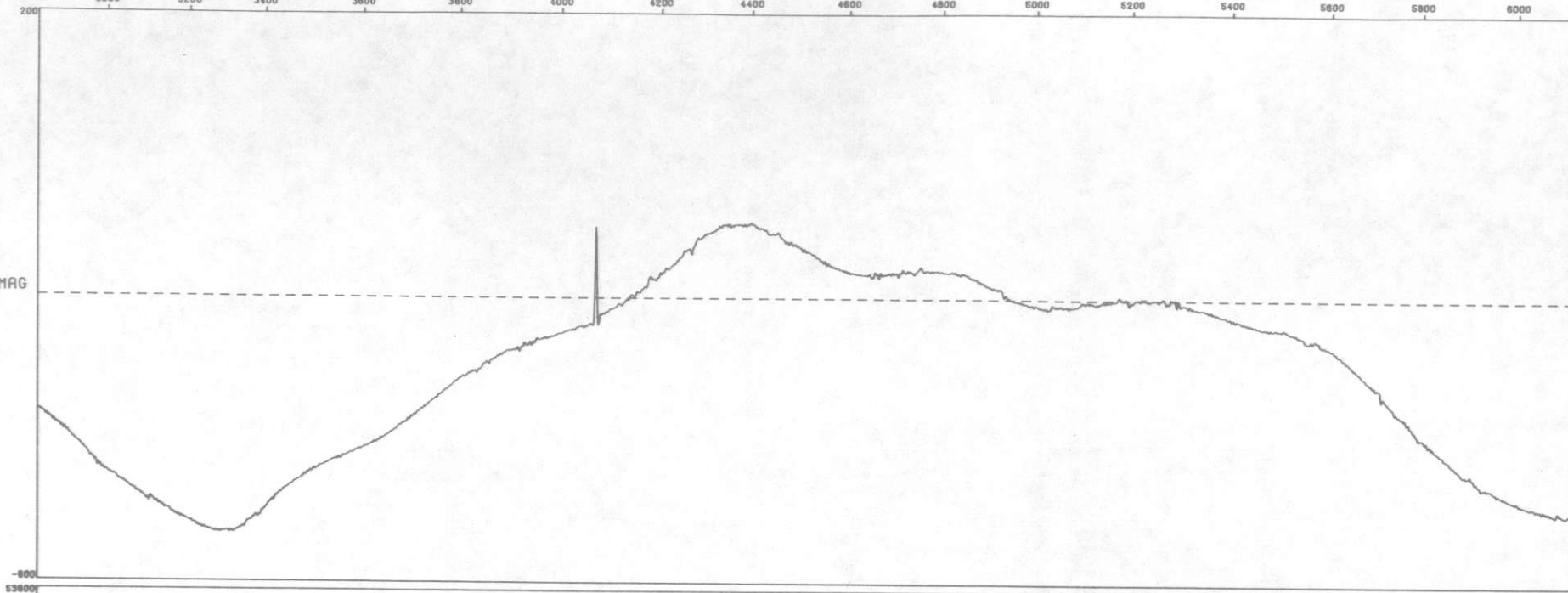
LINE NO. 3W BIRMINGHAM
MILES 0 4 8 12 16 MILES
HIGH LIFE - QEB

LINE NO. 3C BIRMINGHAM
MILES 0 4 8 12 16 MILES
HIGH LIFE - QEB

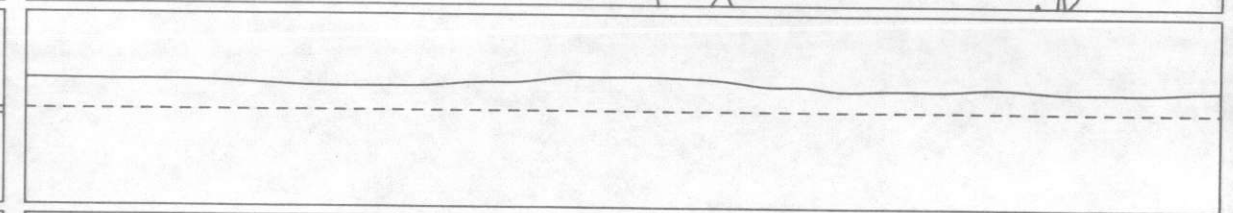
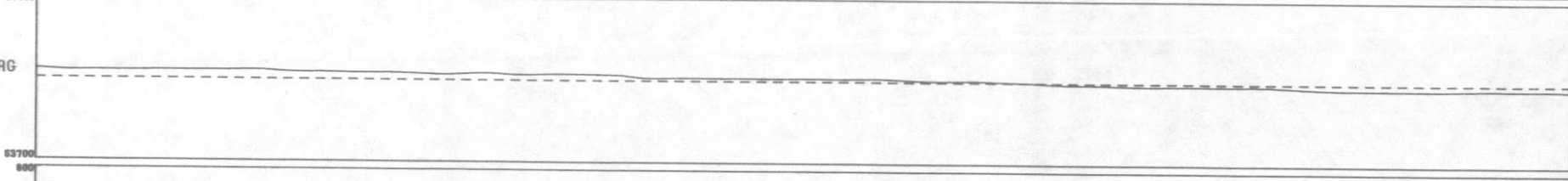
LINE NO. 3E BIRMINGHAM
MILES 0 4 8 12 16 MILES
HIGH LIFE - QEB



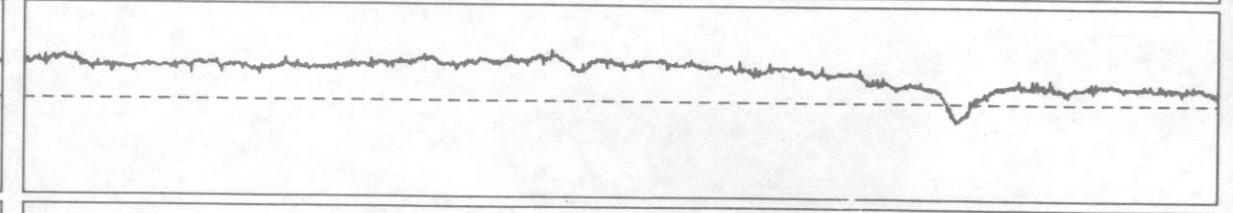
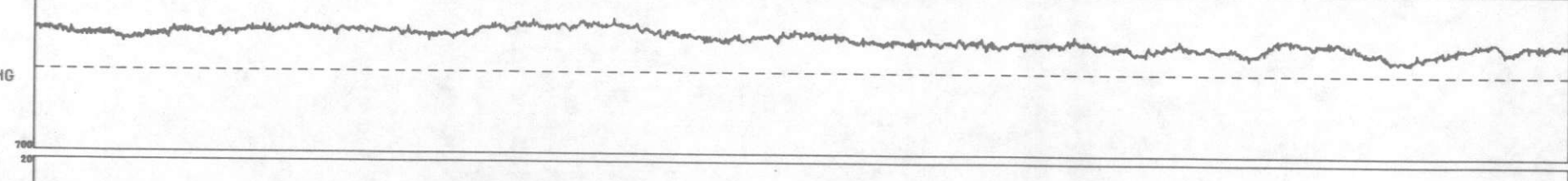
RESIDUAL MAG
IN GAMMAS



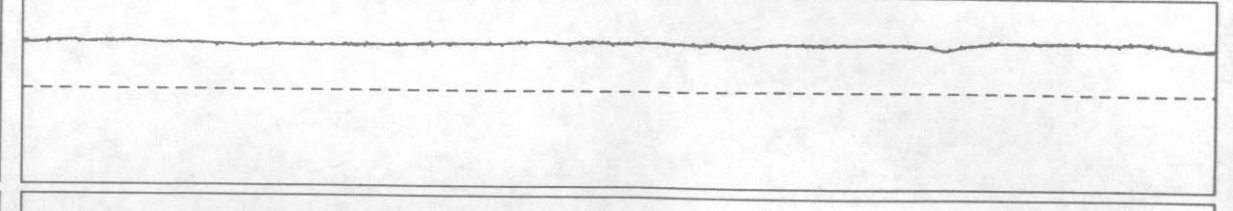
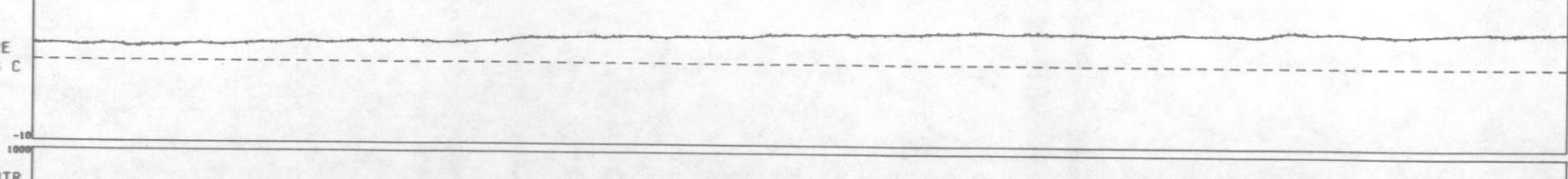
DIURNAL MAG
IN GAMMAS



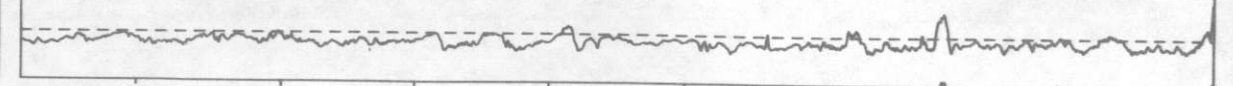
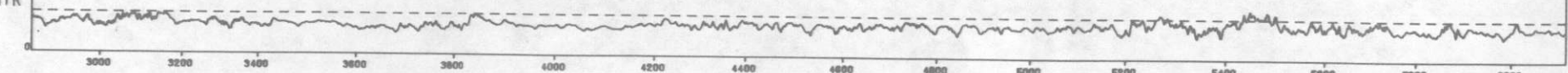
PRESSURE
IN MM OF HG



TEMPERATURE
IN DEGREES C



RADAR ALTHTR
IN FEET

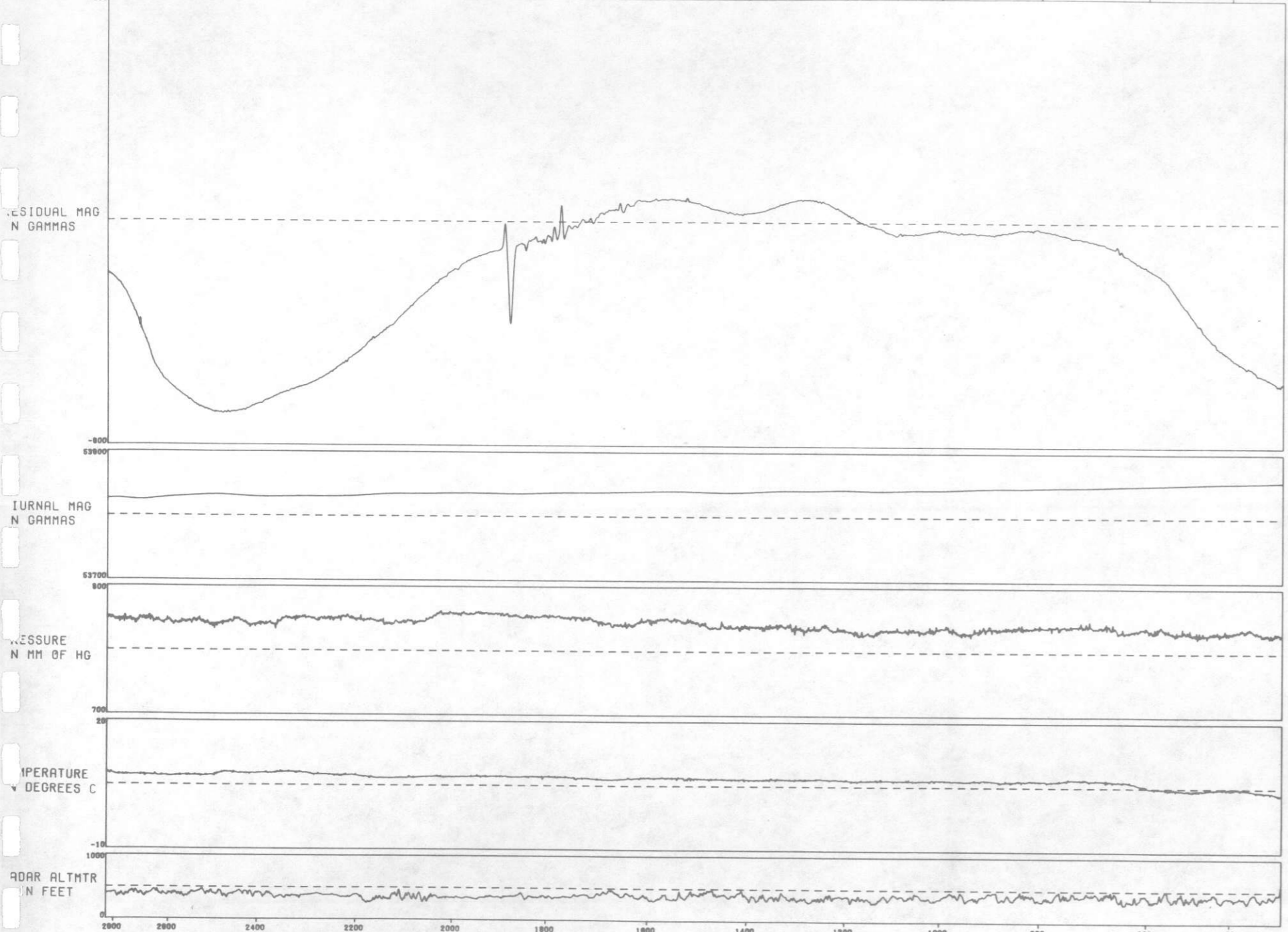


LINE NO. 4H BIRMINGHAM

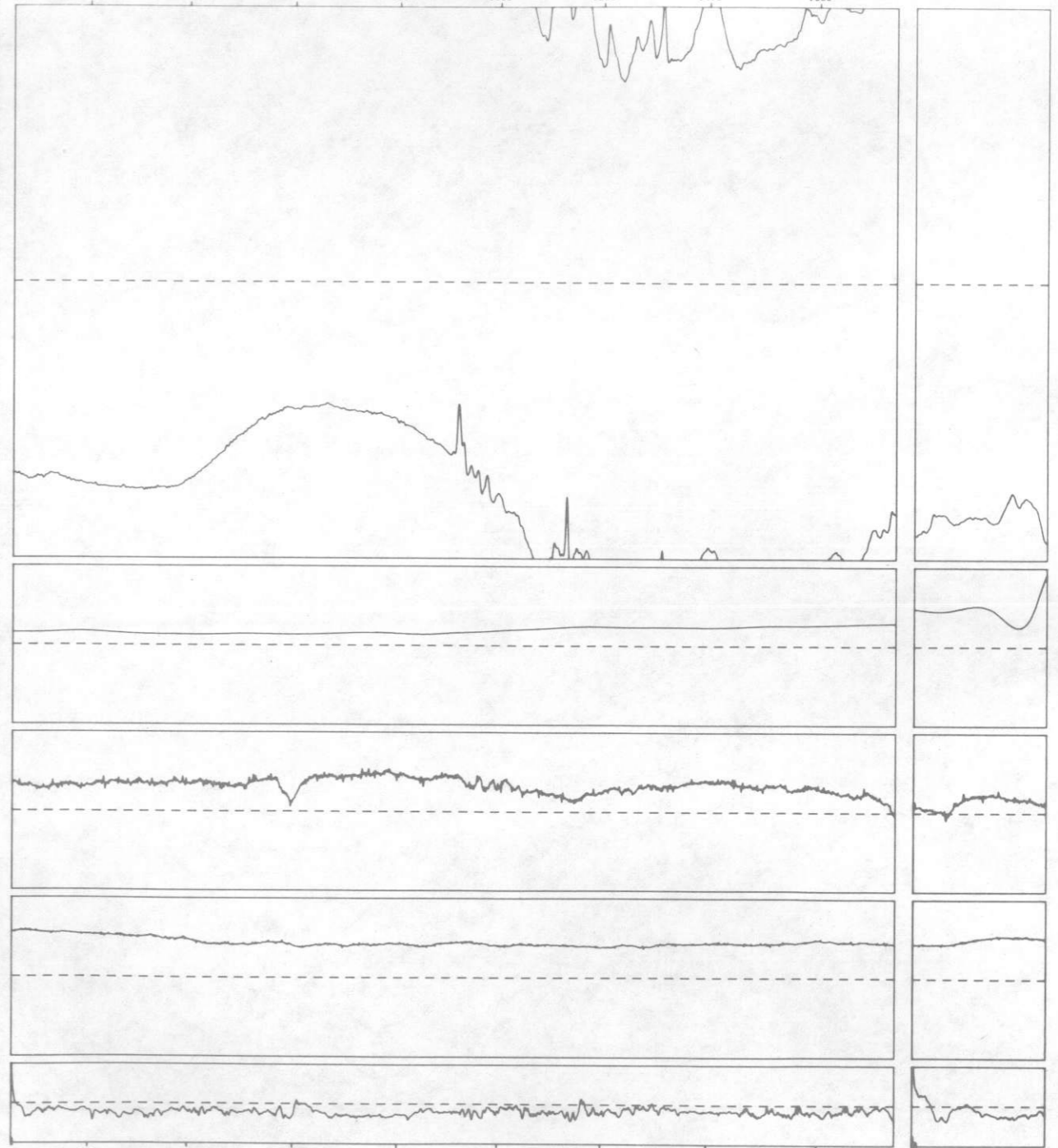
0 4 8 12 16 MILES
HIGH LIFE - QEB

LINE NO. 4E BIRMINGHAM

0 4 8 12 16 MILES
HIGH LIFE - QEB



LINE NO. 5W BIRMINGHAM
 0 4 8 12 16 MILES
 HIGH LIFE - QEB



LINE NO. 5E BIRMINGHAM
 0 4 8 12 16 MILES
 HIGH LIFE - QEB

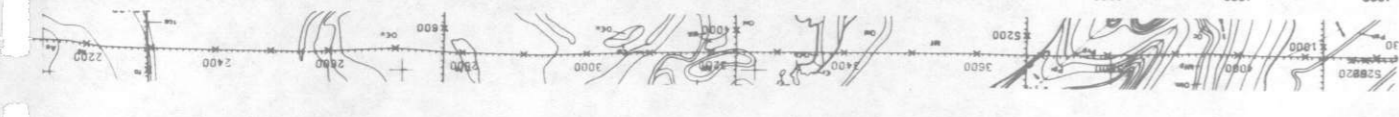
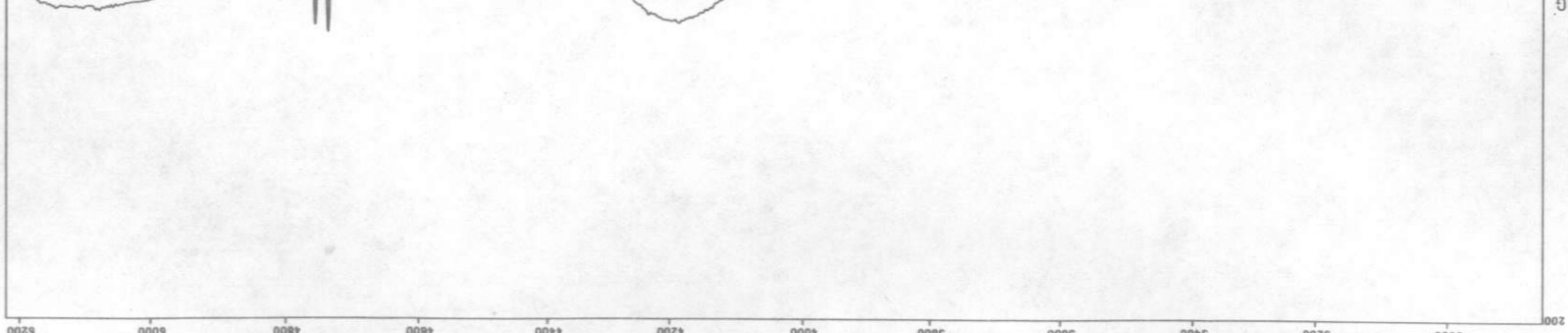
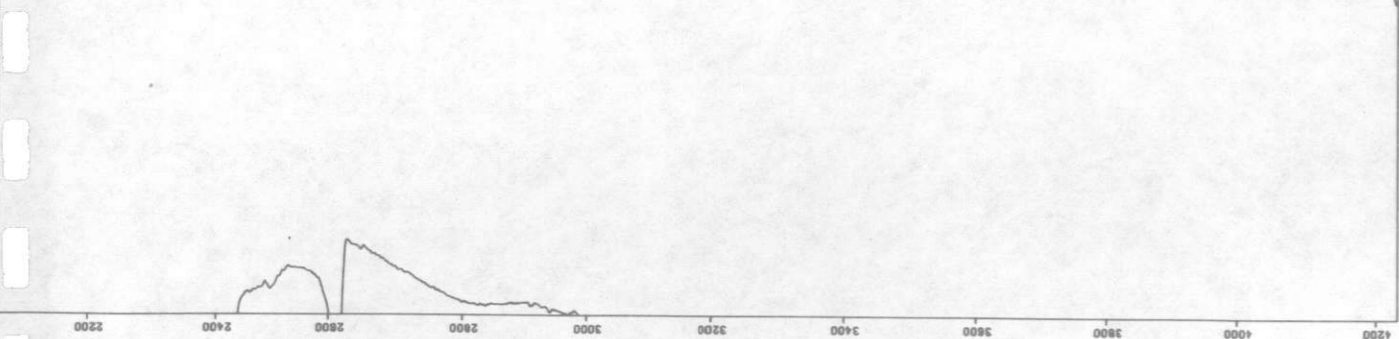
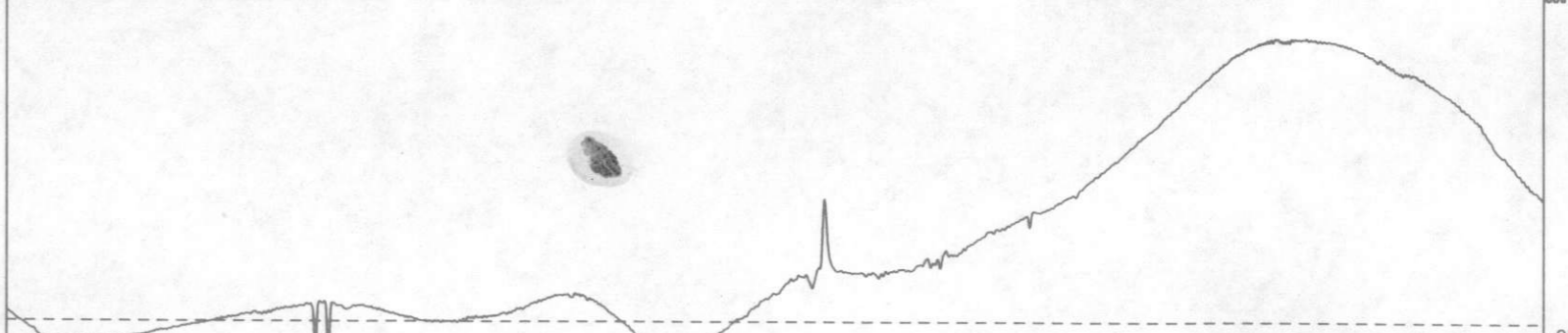
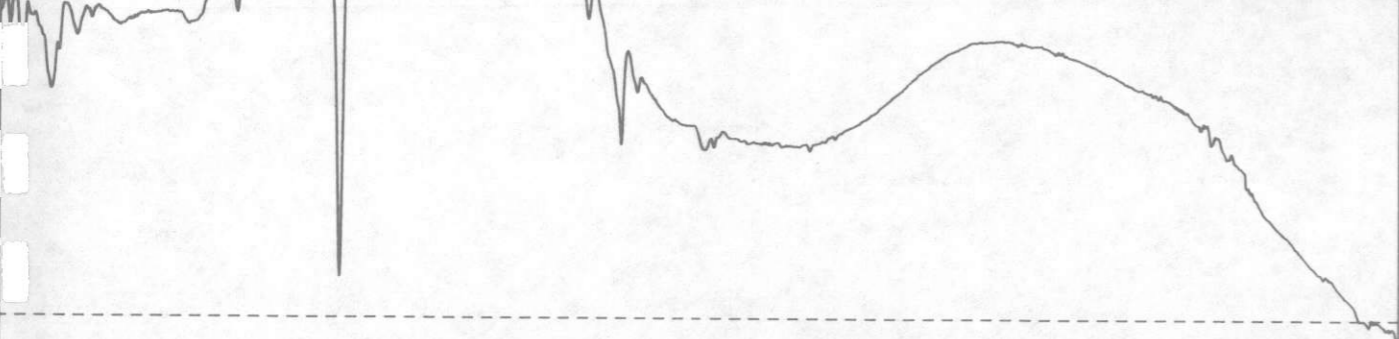
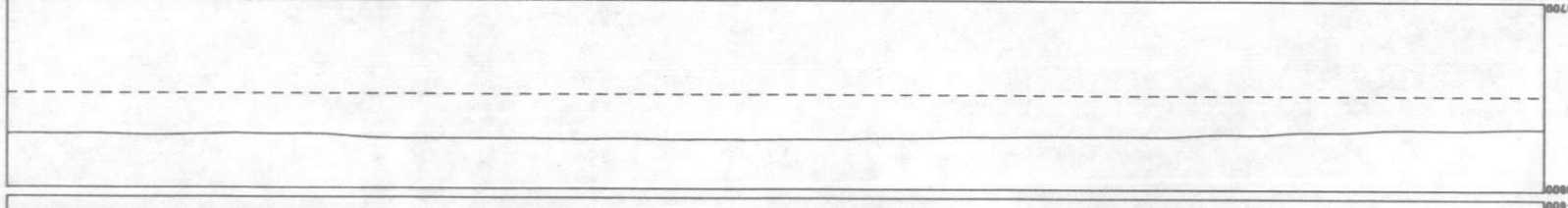
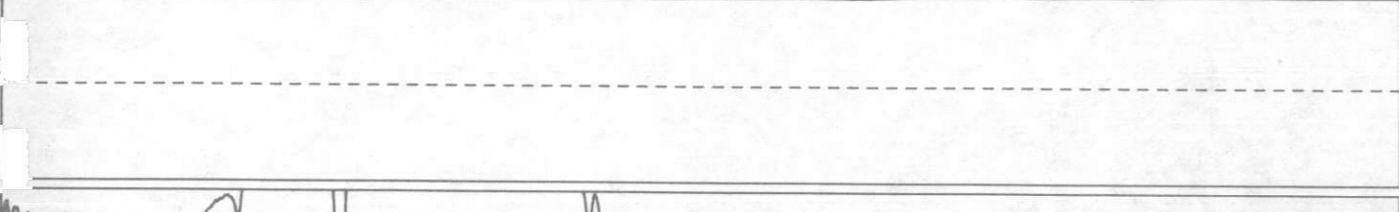
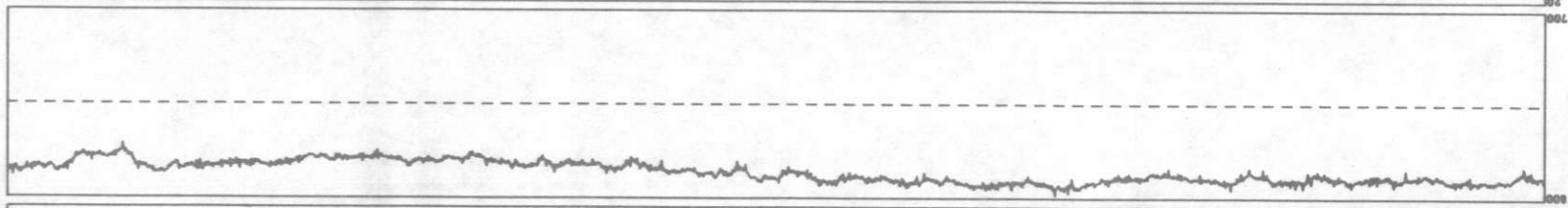
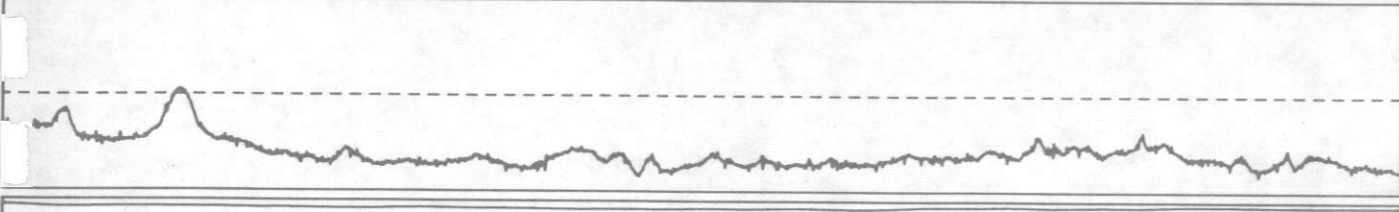
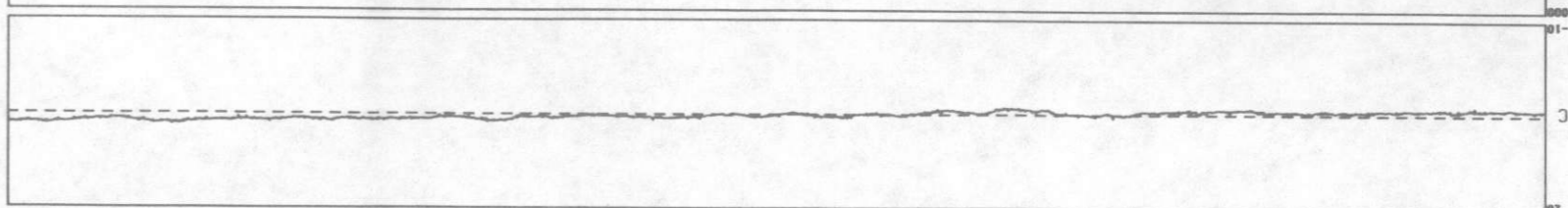
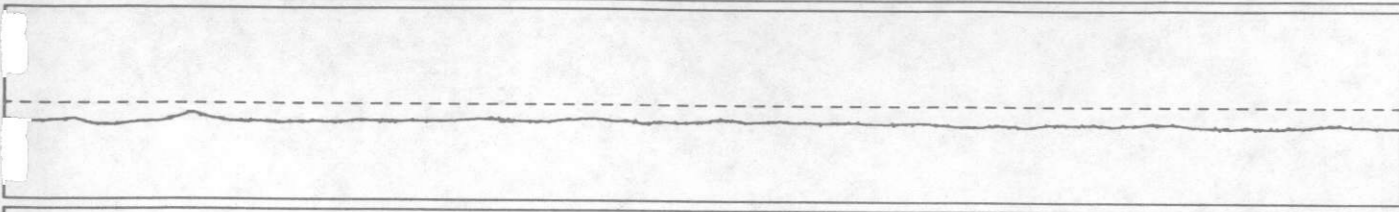
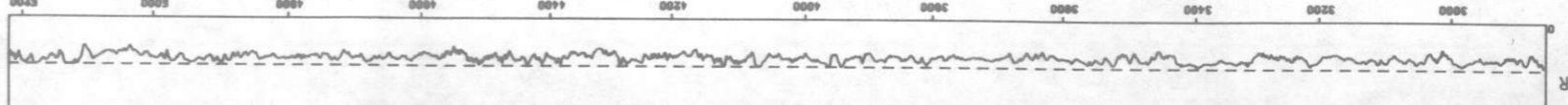
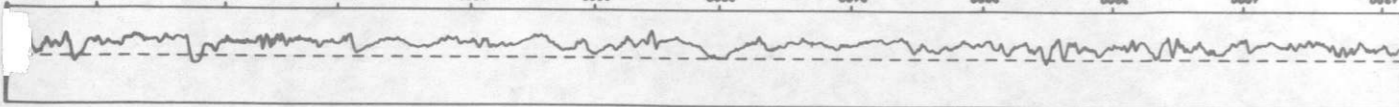
LINE NO. 5E
 0 4 8 12 16 MILES
 HIGH LIFE - QEB

HIGH LIFE - DEB
MILES 0 4 8 12 16

BIRMINGHAM
LINE NO. 6E

HIGH LIFE - DEB
MILES 0 4 8 12 16

BIRMINGHAM
LINE NO. 6M



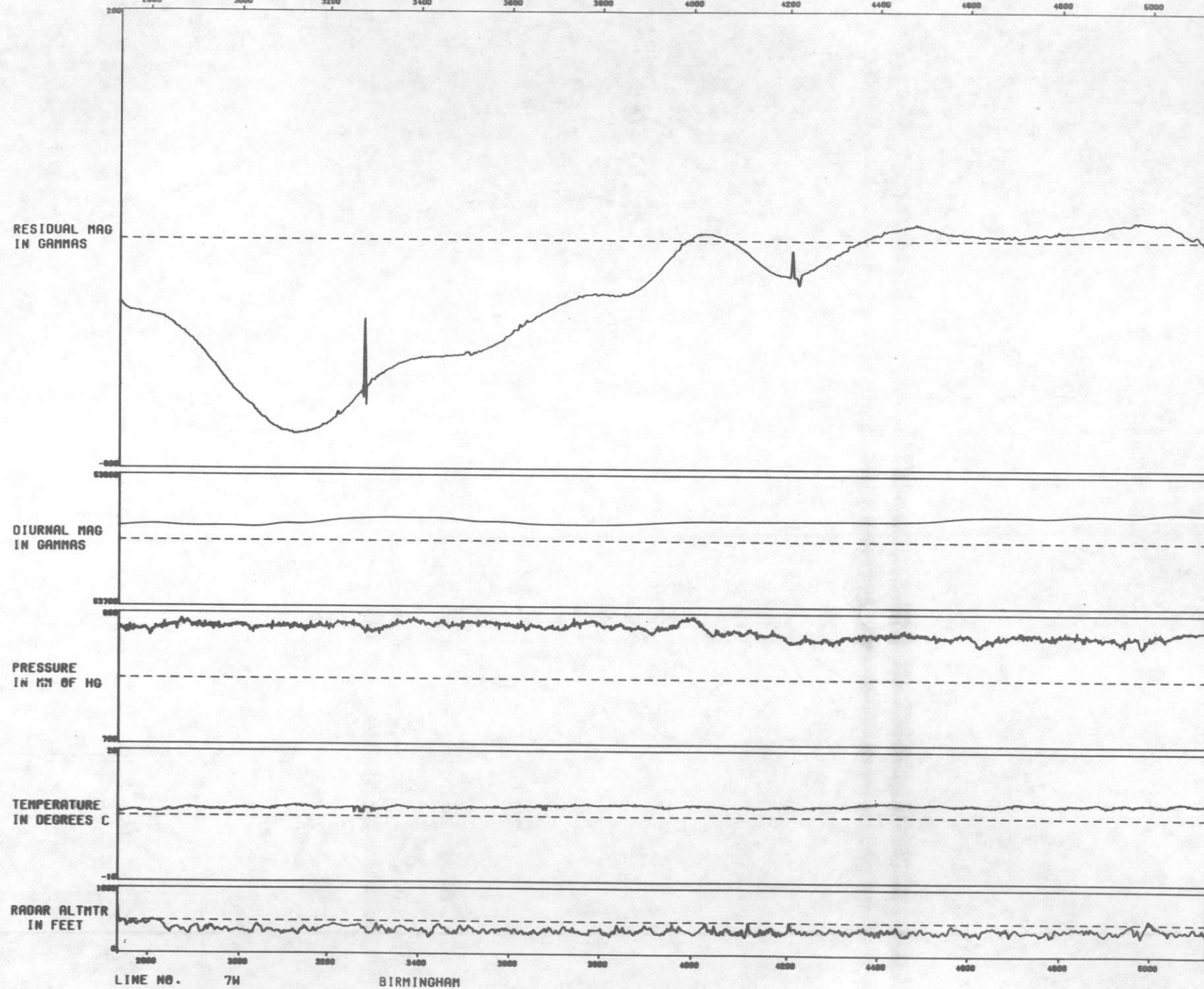
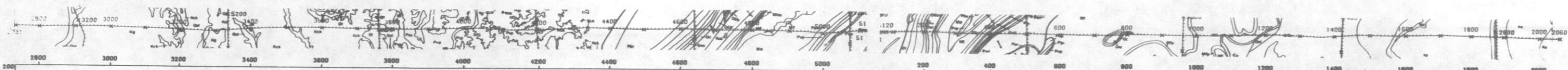
RADAR ALTIMETER
IN FEET

TEMPERATURE
IN DEGREES C

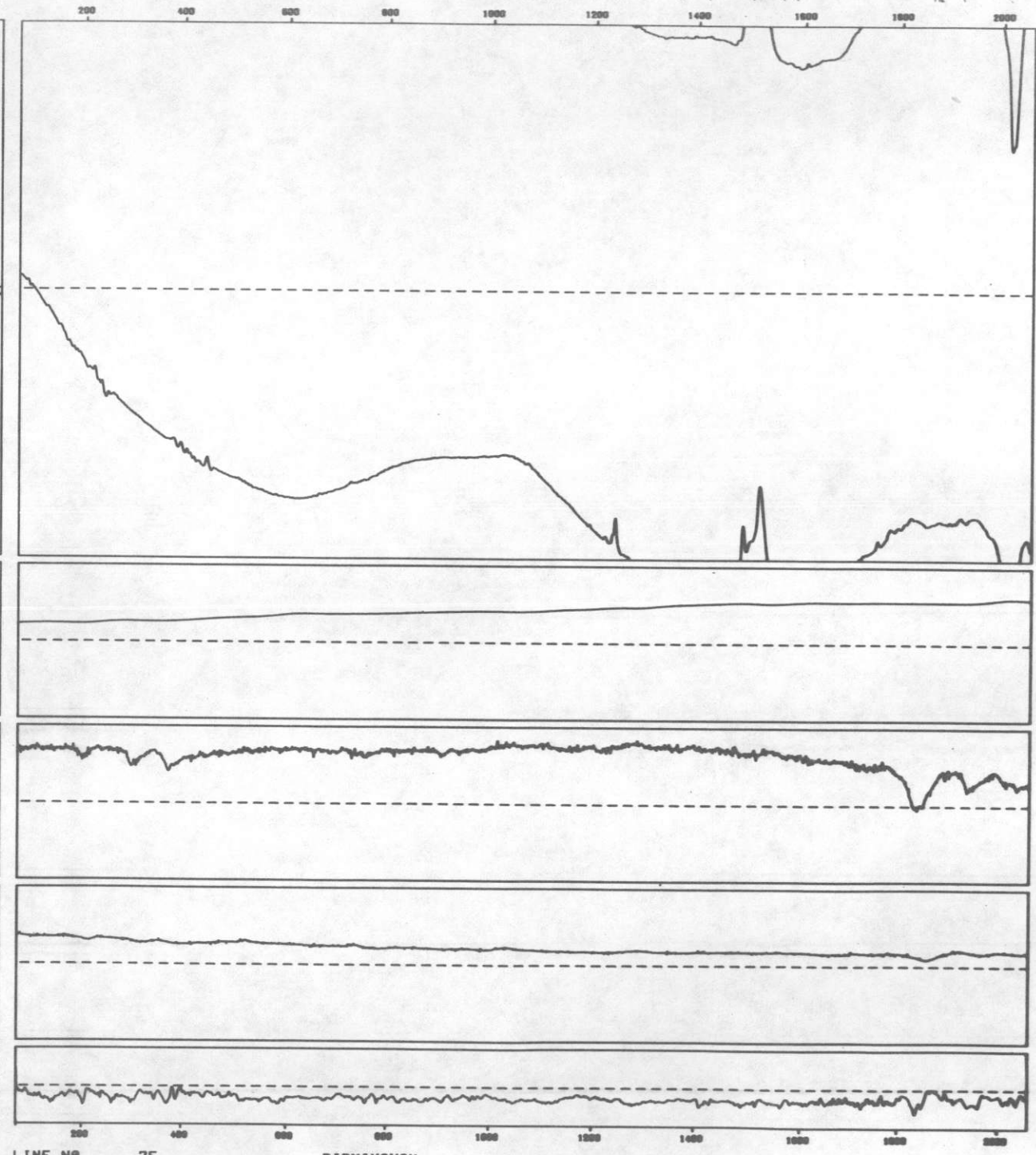
PRESSURE
IN MM OF HG

DIURNAL MAG
IN GAMMAS

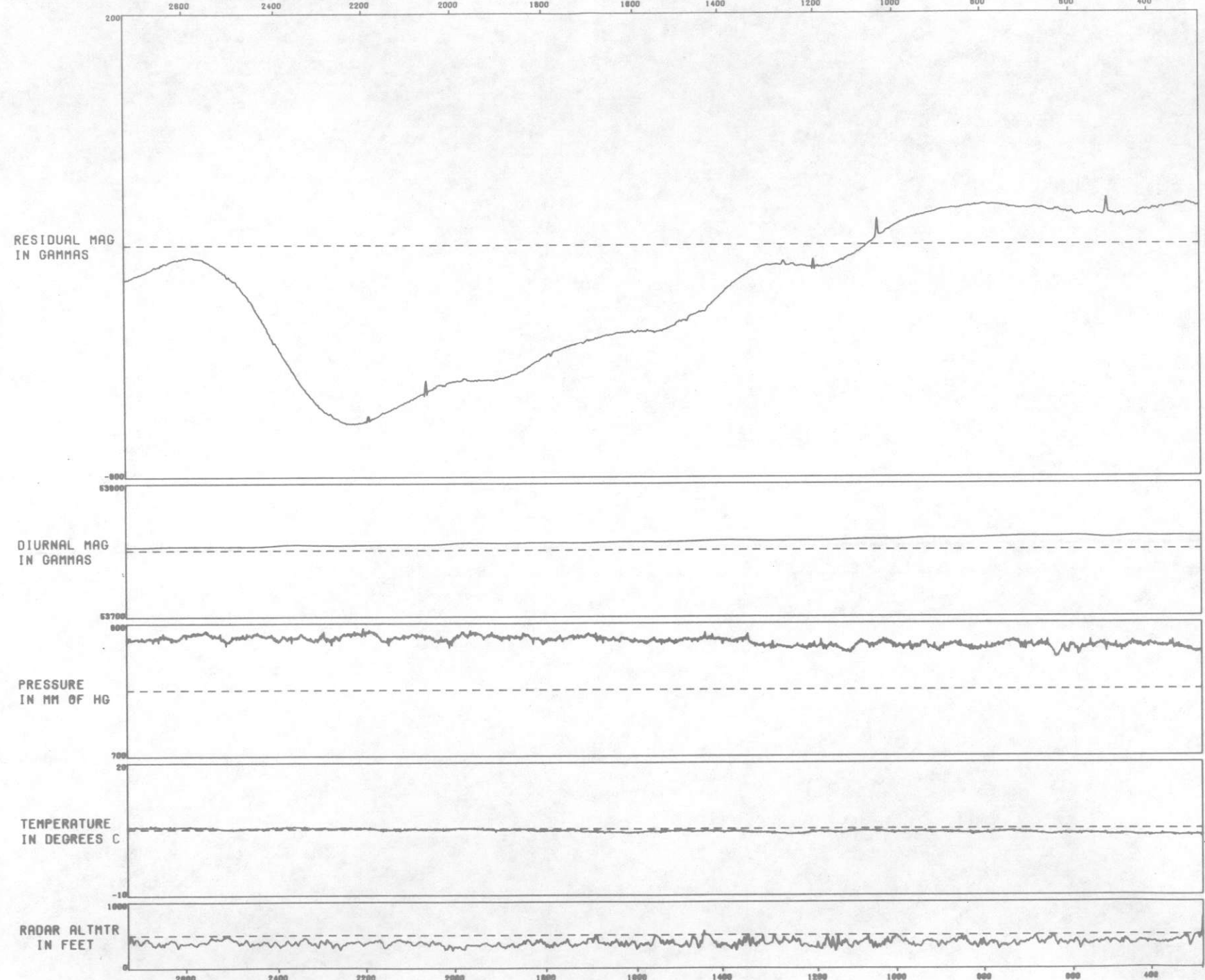
RESIDUAL MAG
IN GAMMAS



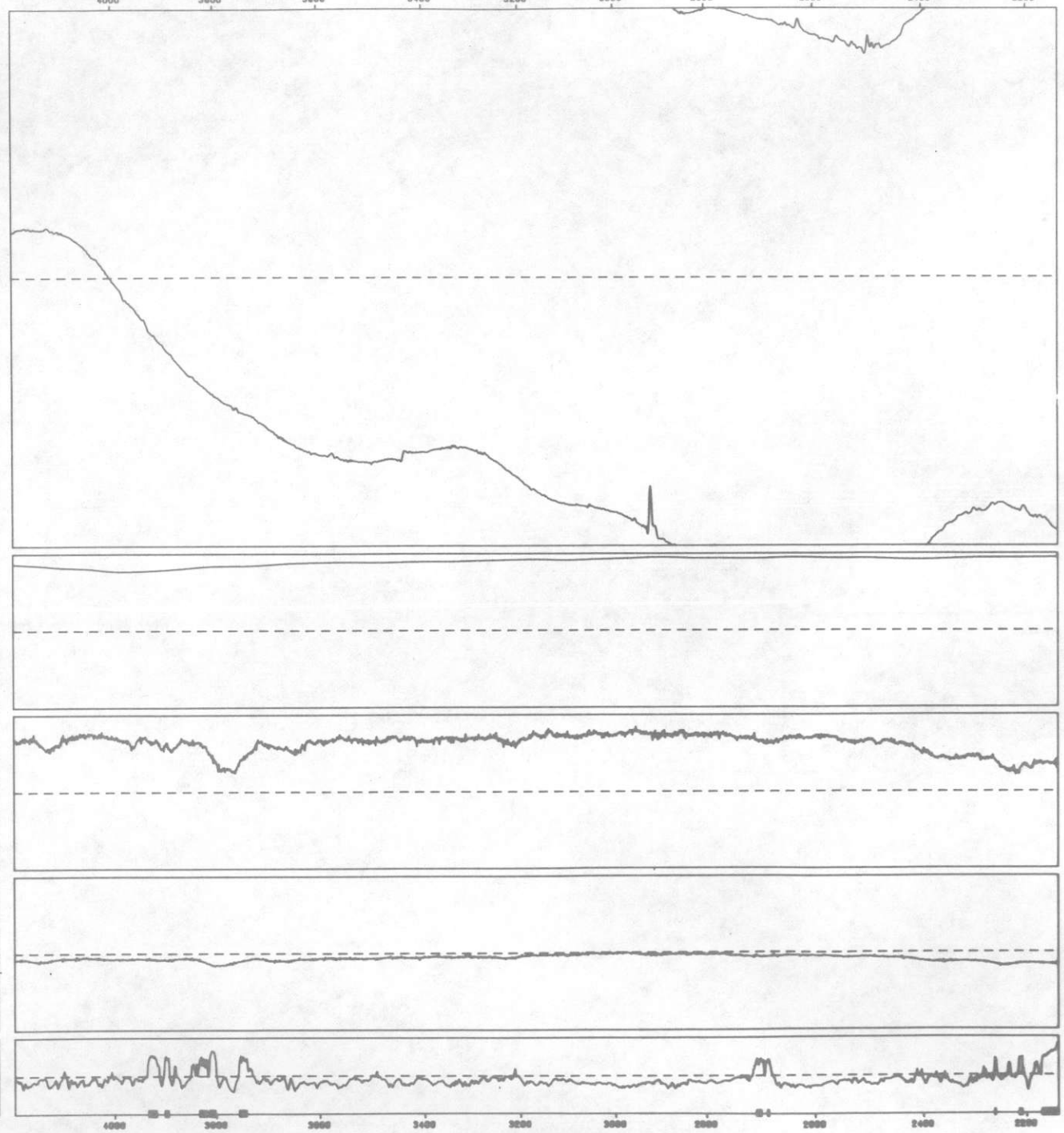
HIGH LIFE - QEB



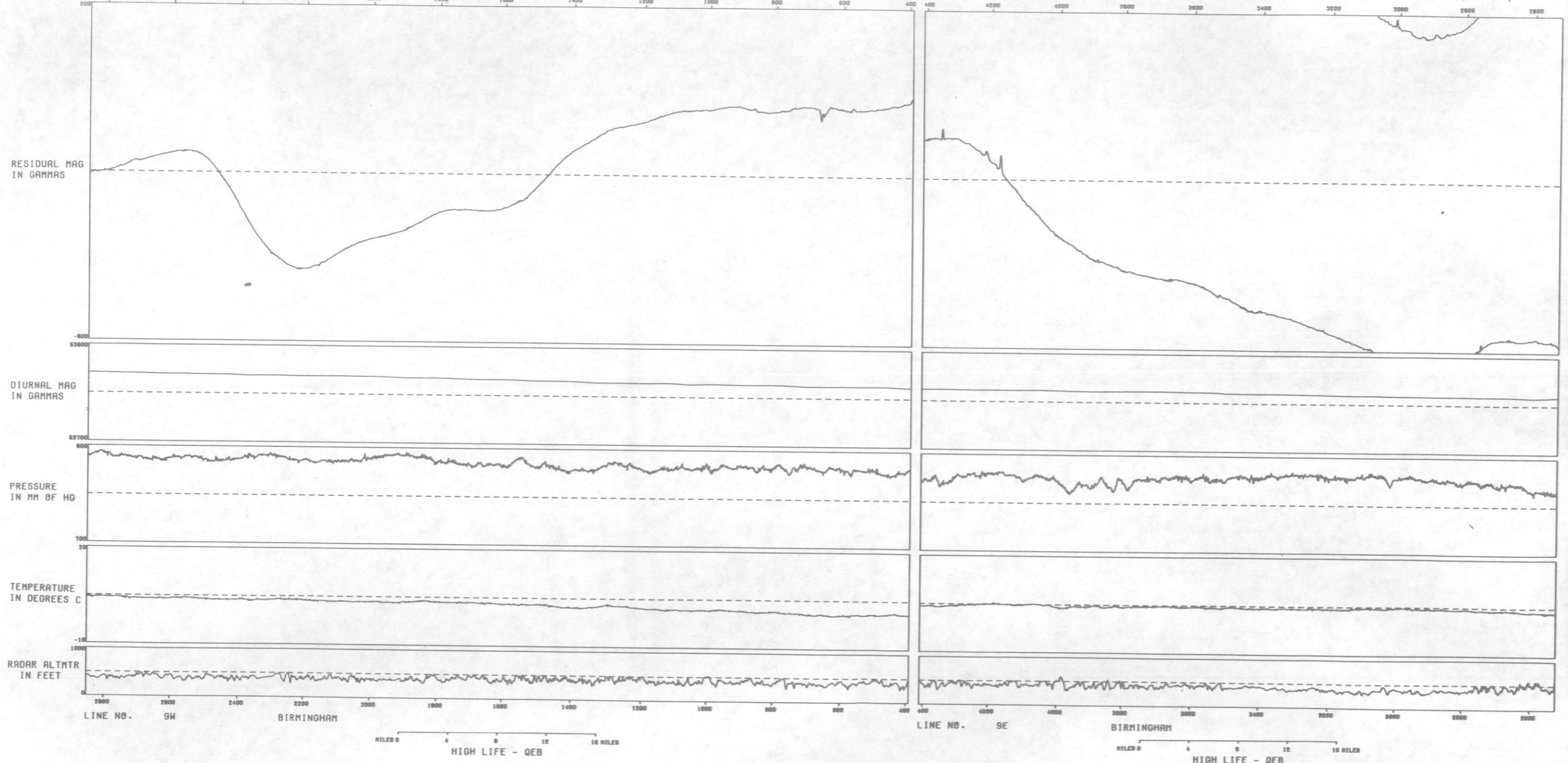
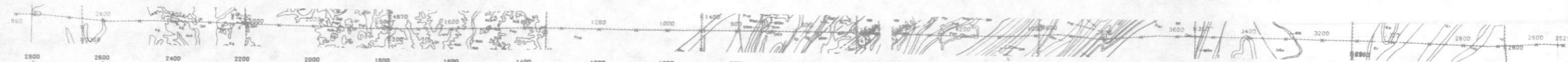
HIGH LIFE - QEB



LINE NO. 8W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



LINE NO. 8E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

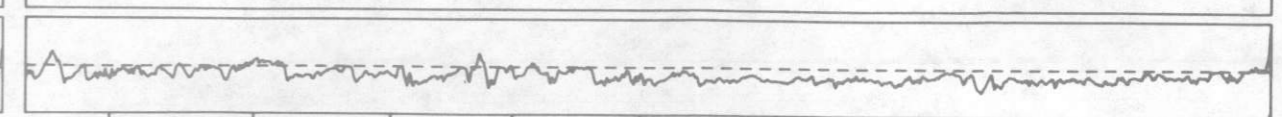
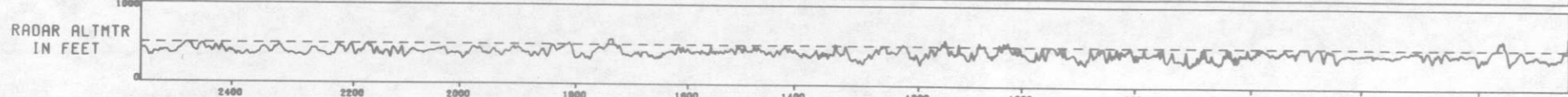
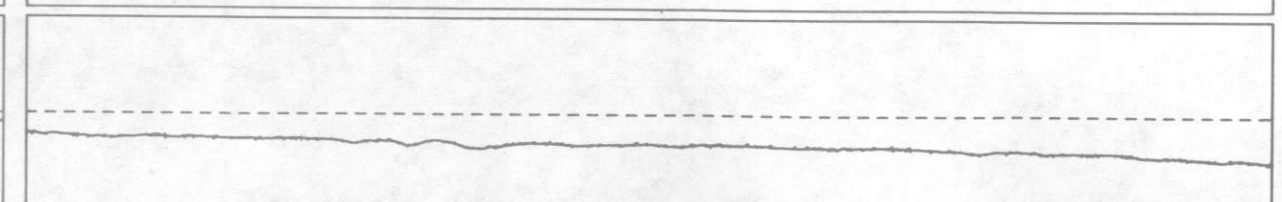
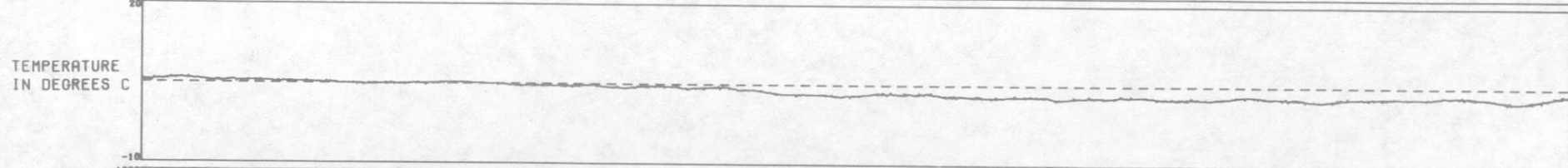
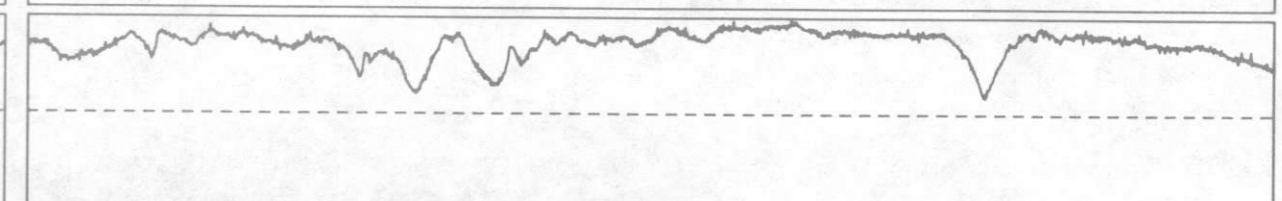
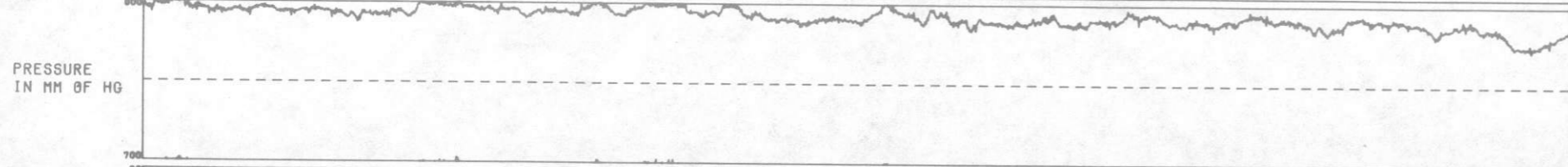
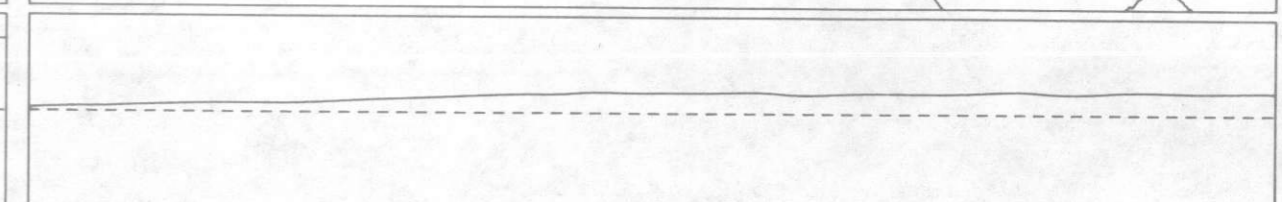
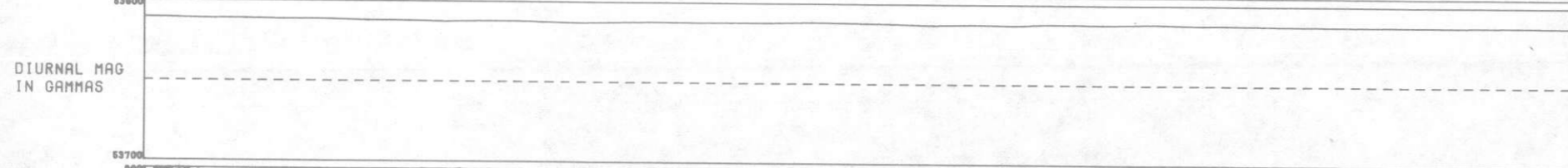
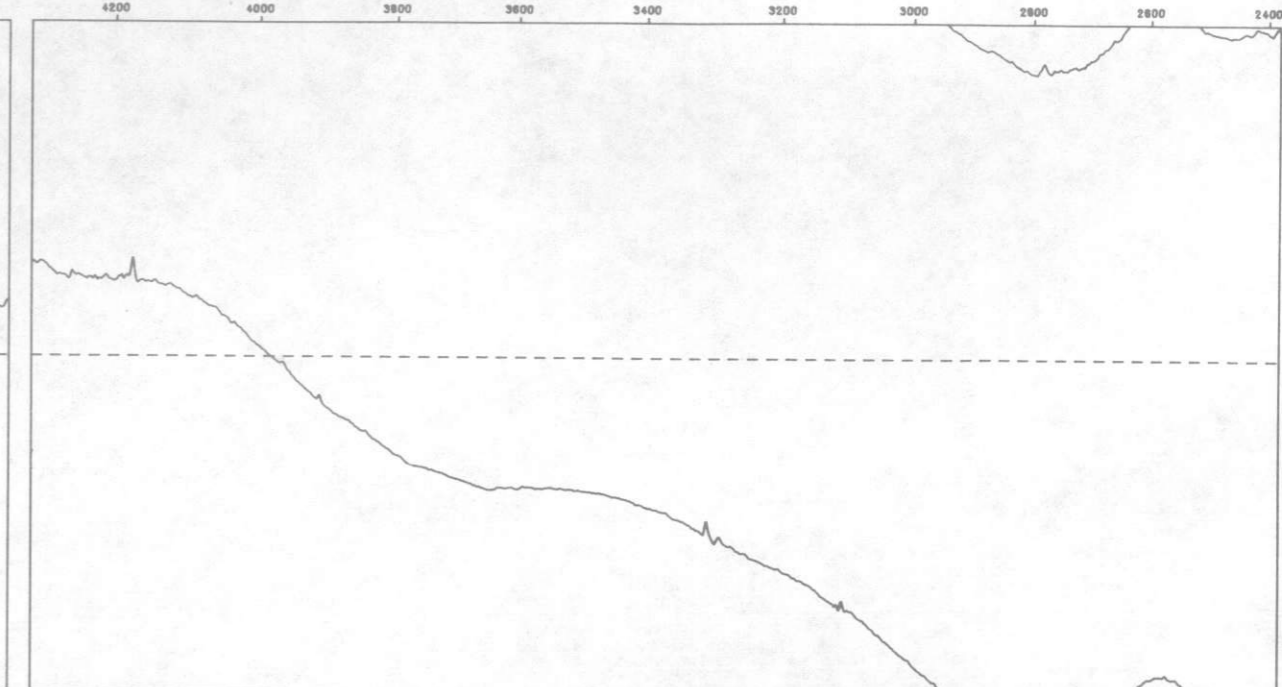
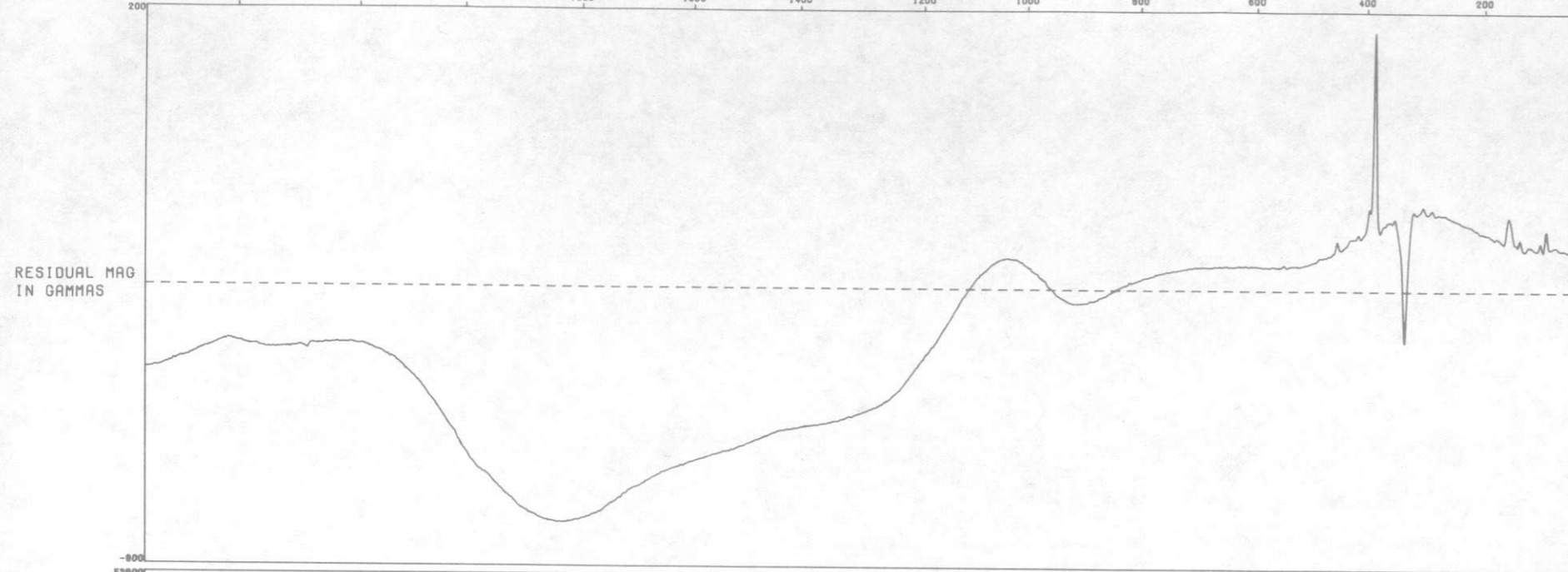


LINE NO. 9W BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

LINE NO. 9E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

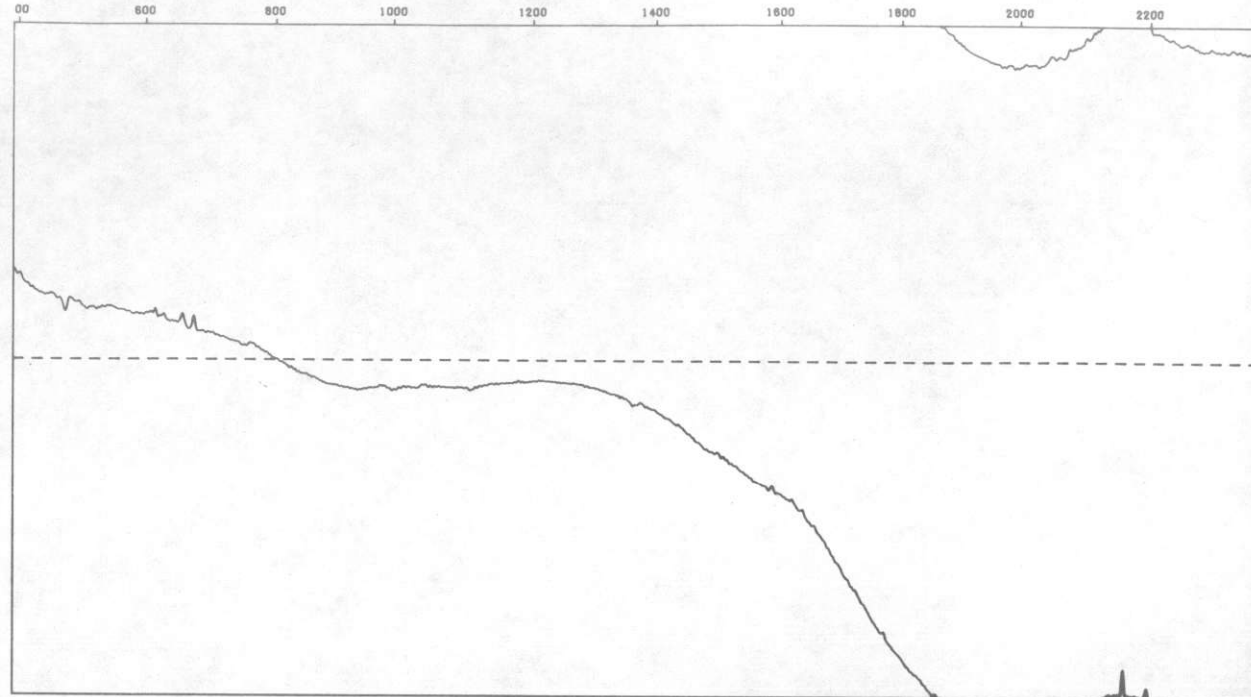
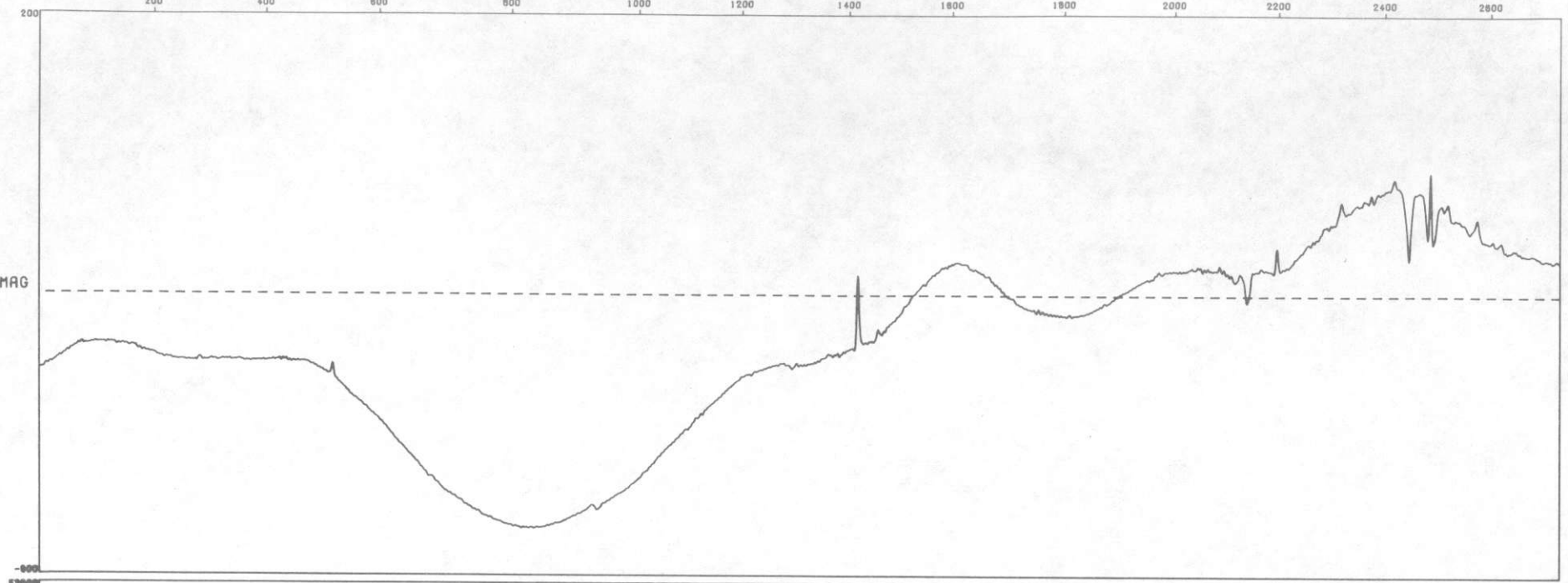


LINE NO. 10W BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB

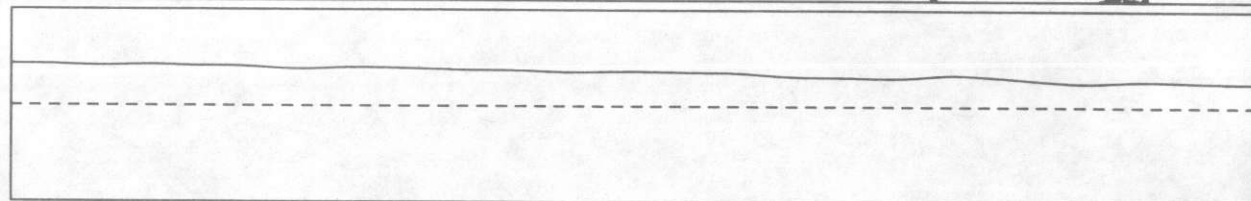
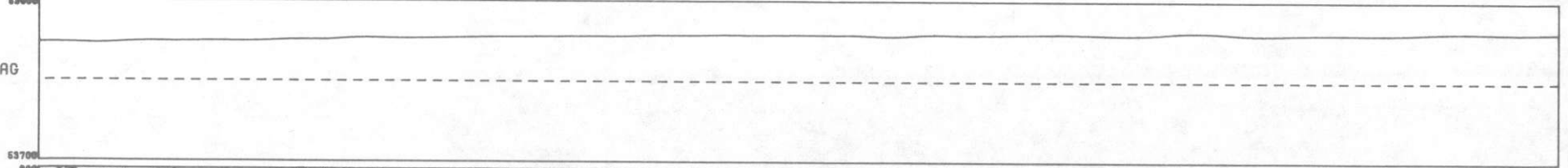
LINE NO. 10E BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB



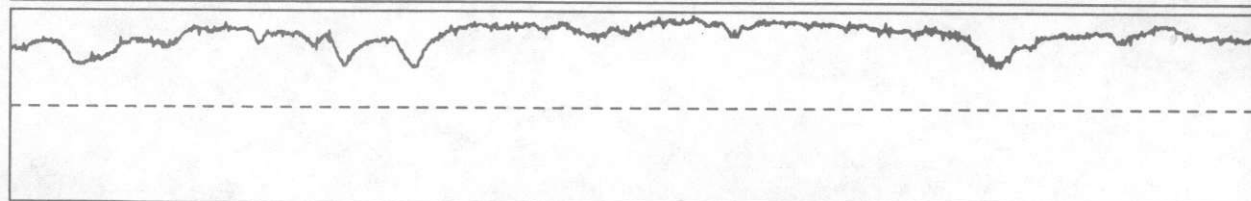
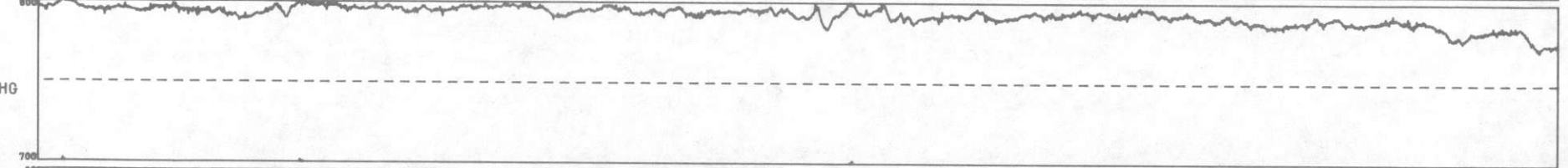
RESIDUAL MAG
N GAMMAS



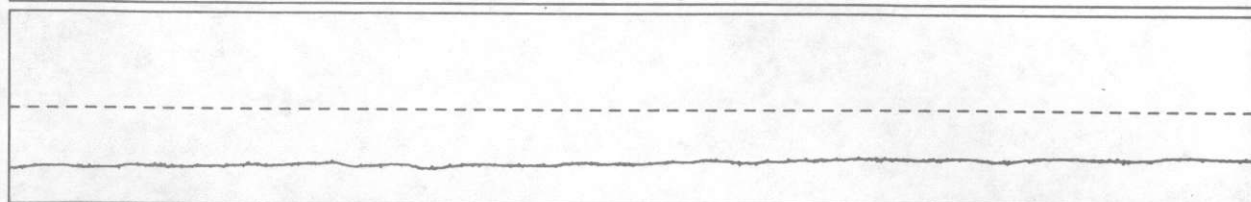
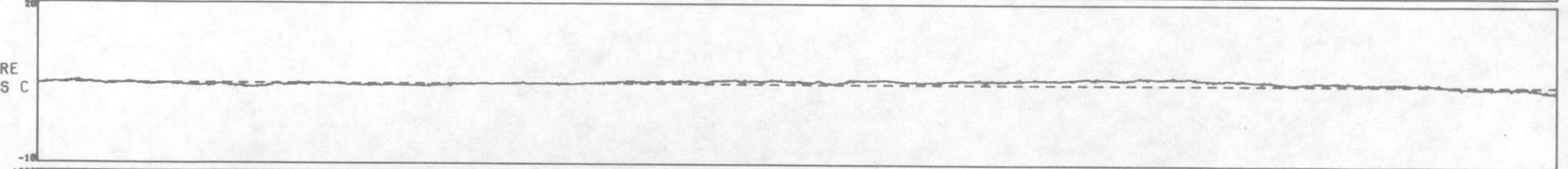
JOURNAL MAG
N GAMMAS



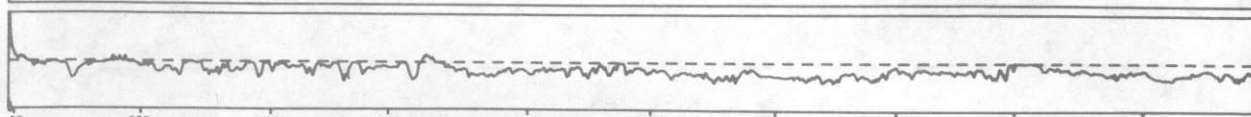
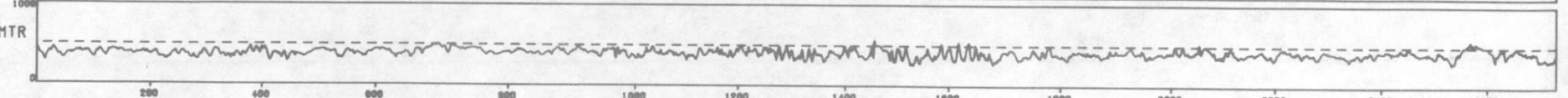
PRESSURE
N MM OF HG



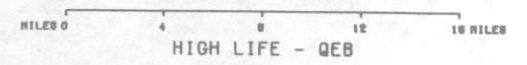
TEMPERATURE
N DEGREES C



SOAR ALTMTR
IN FEET

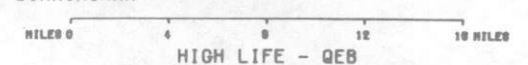


LINE NO. 11W BIRMINGHAM

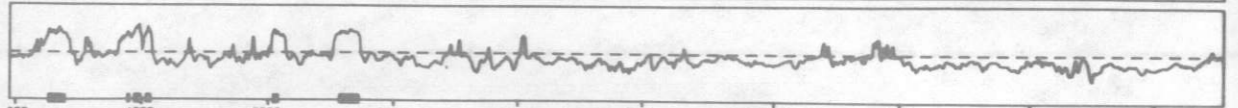
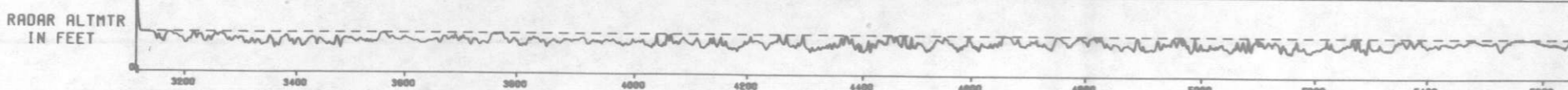
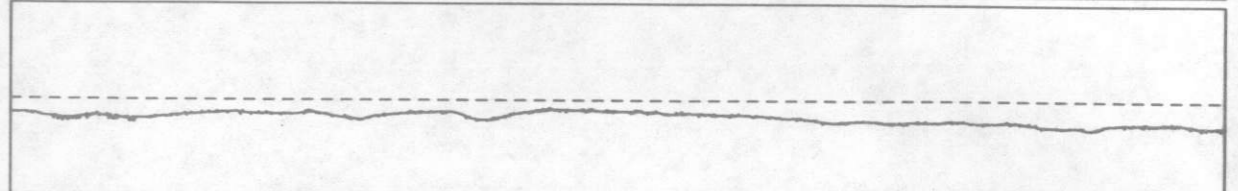
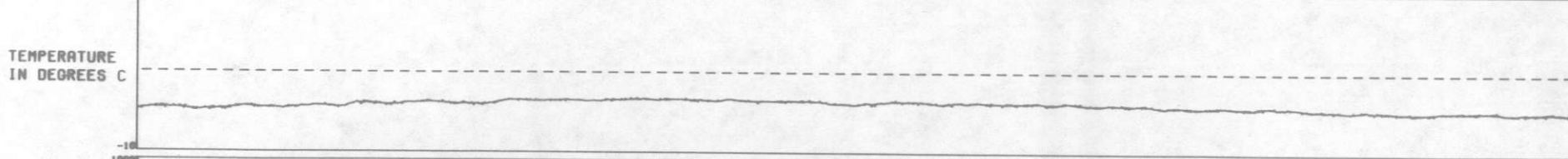
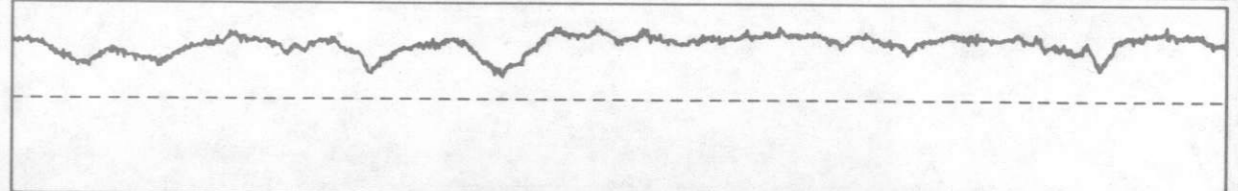
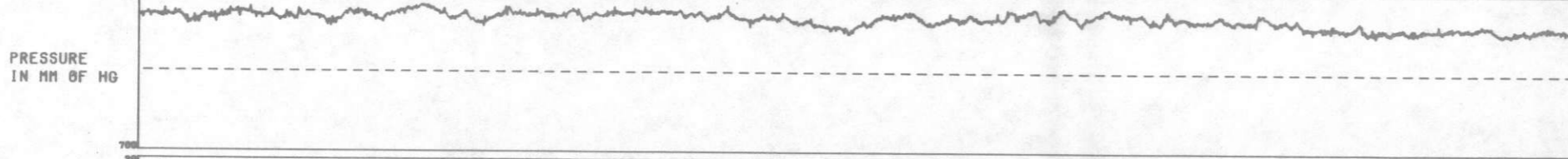
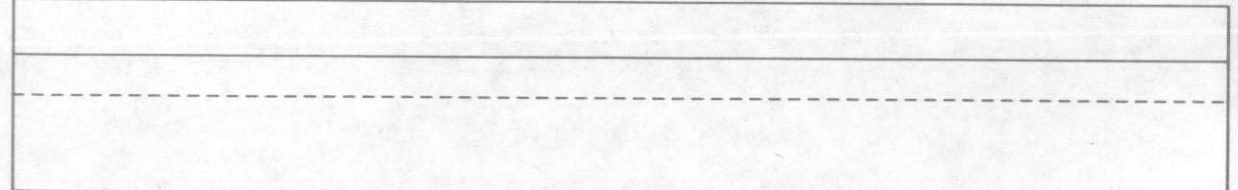
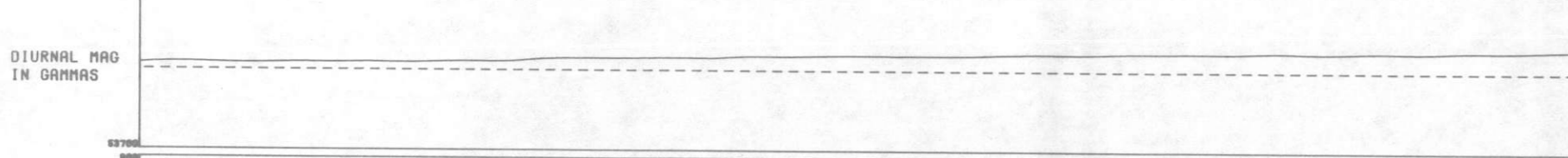
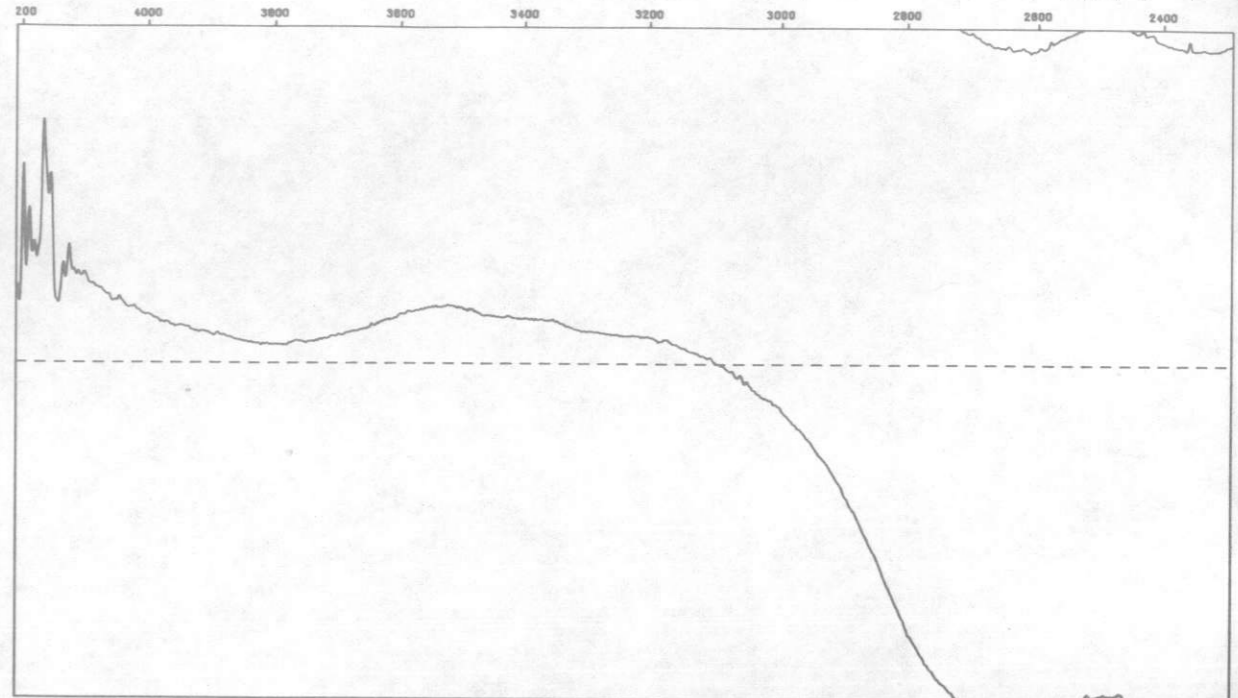
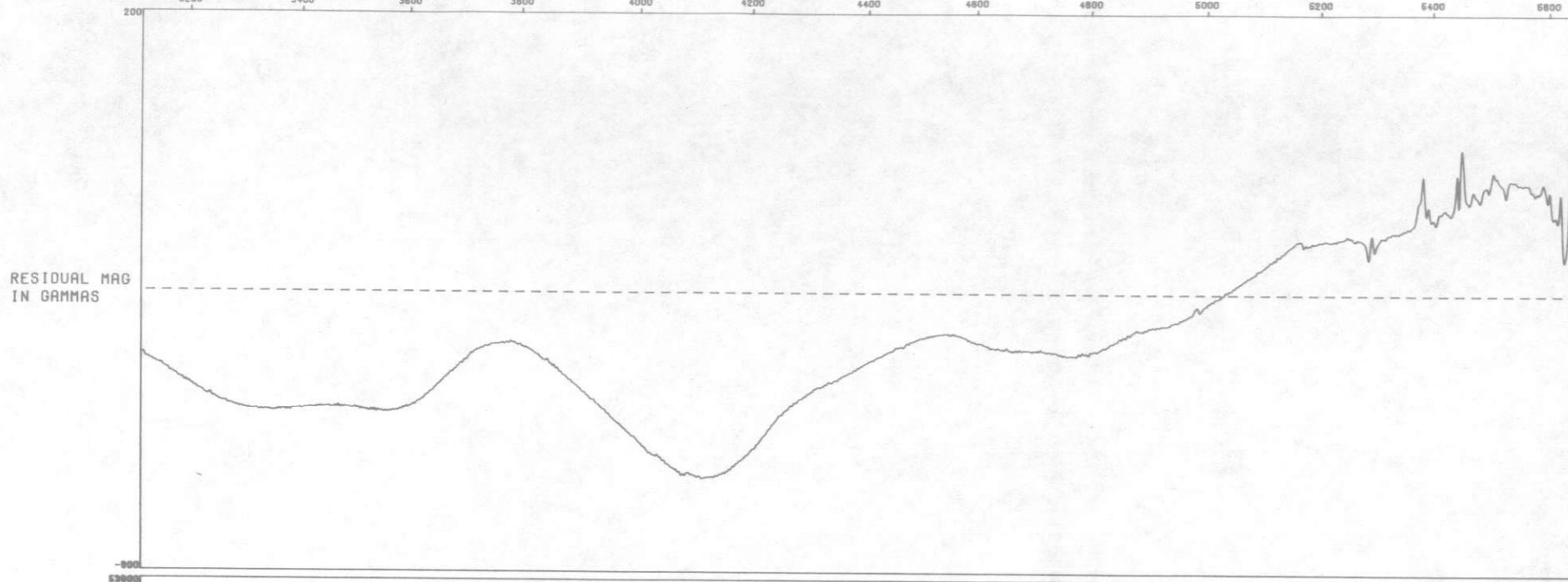
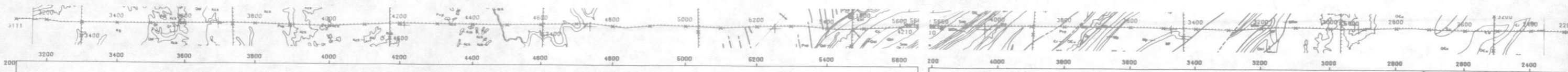


HIGH LIFE - QEB

LINE NO. 11E BIRMINGHAM



HIGH LIFE - QEB

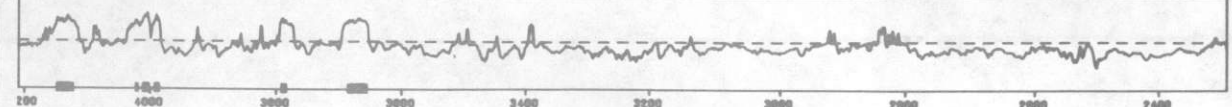
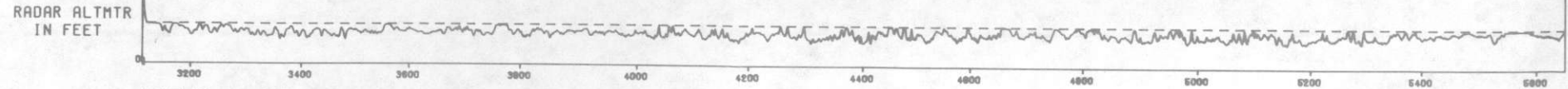
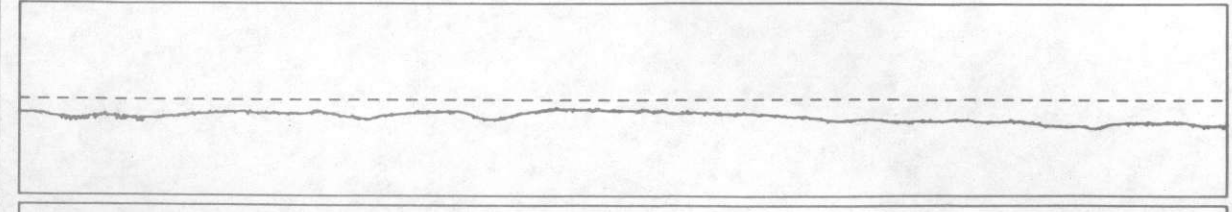
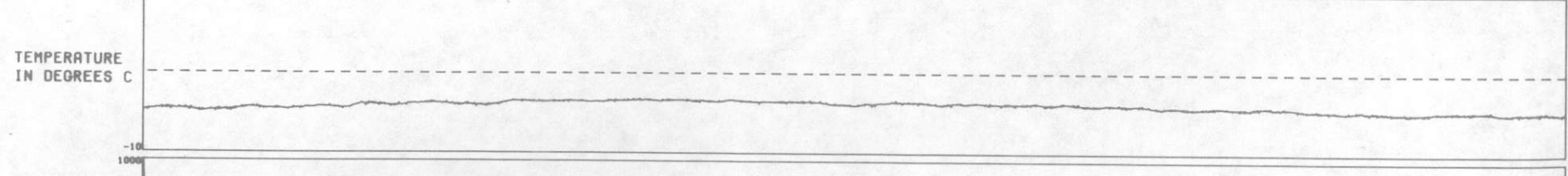
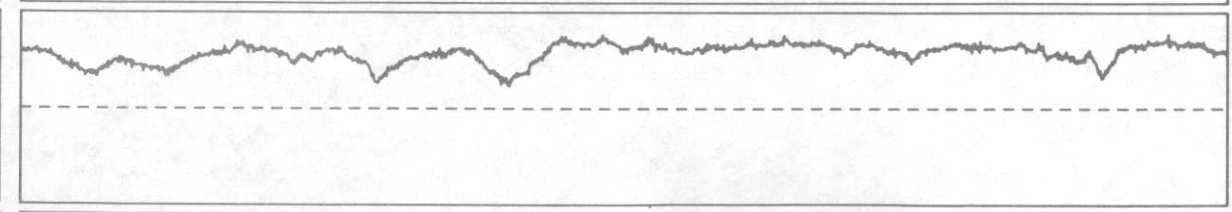
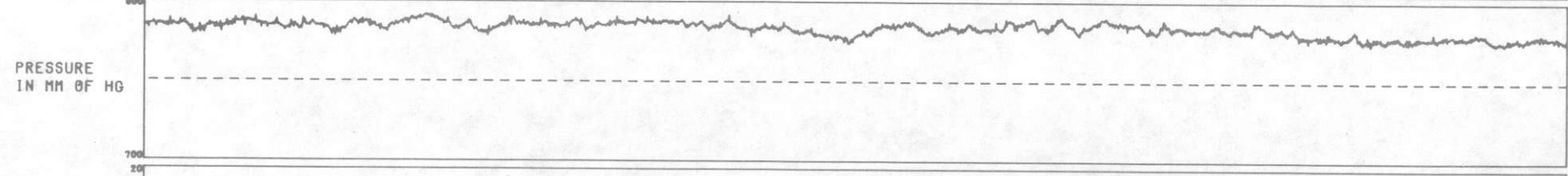
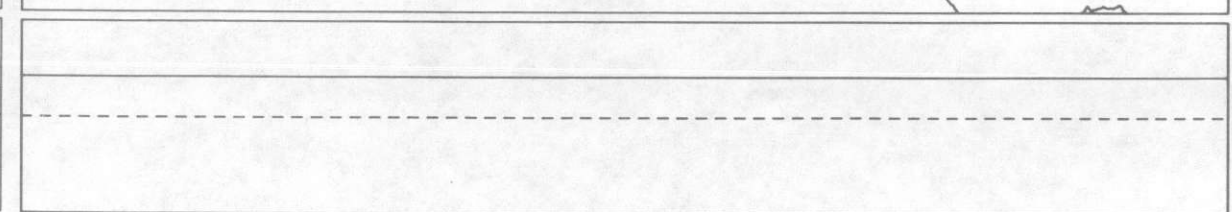
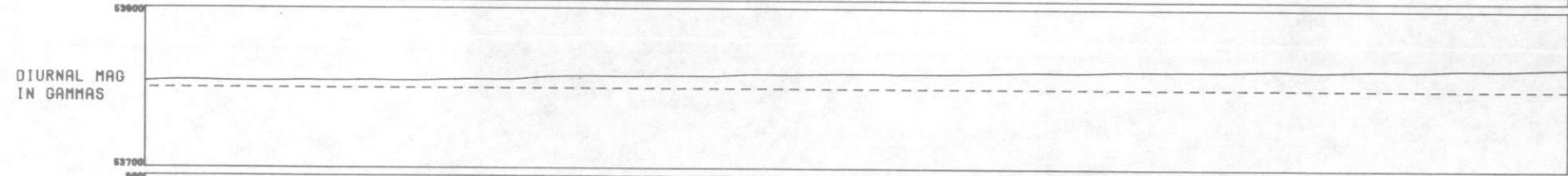
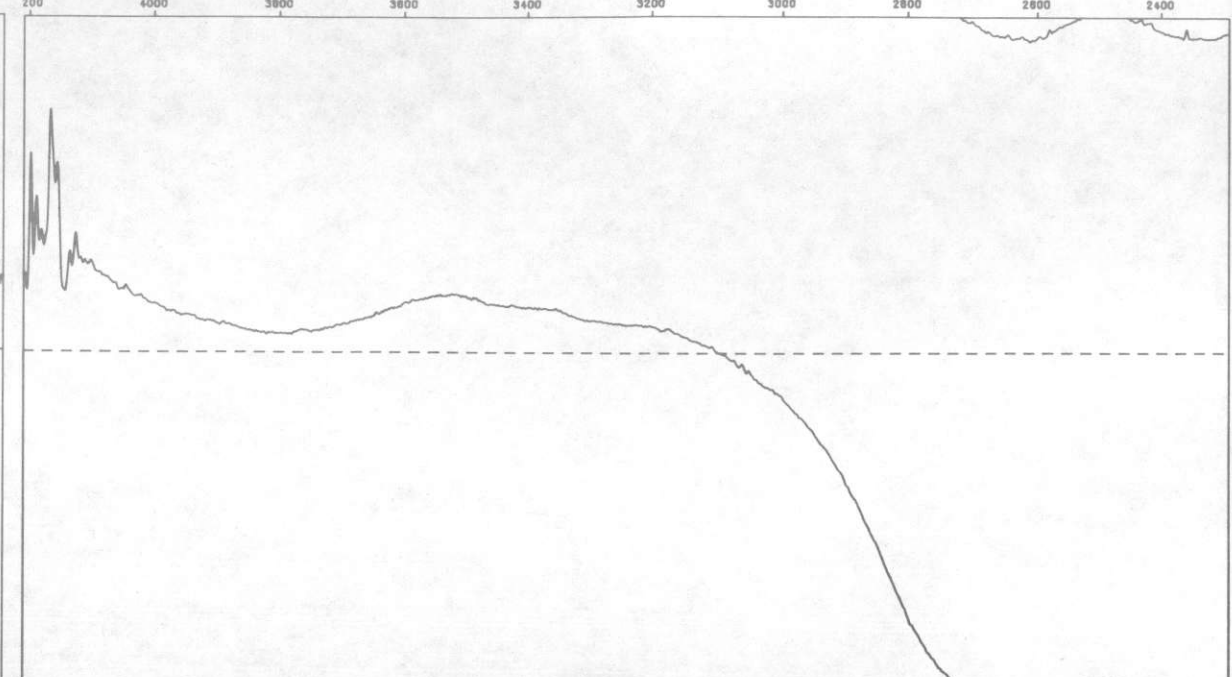
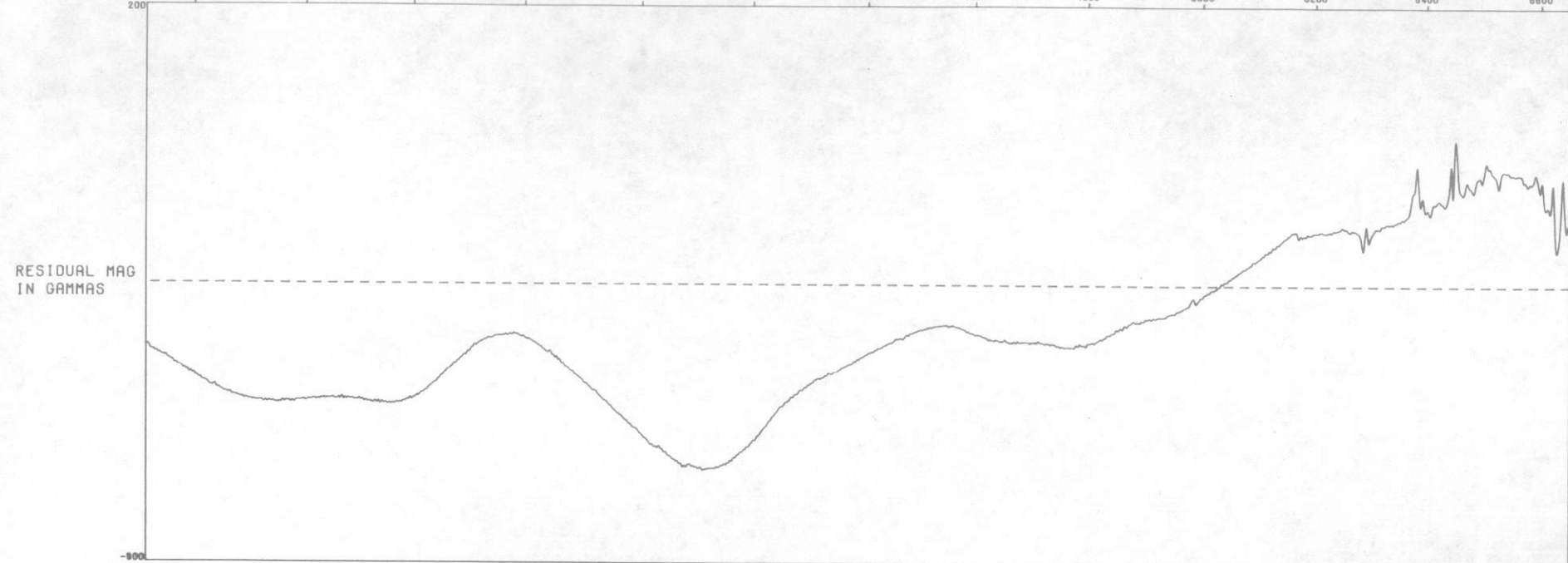
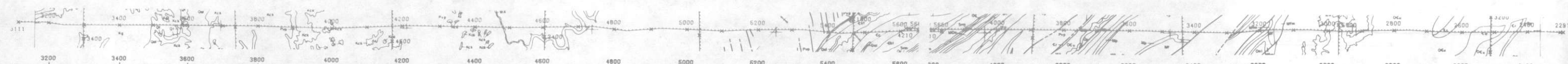


LINE NO. 12W BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

LINE NO. 12E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

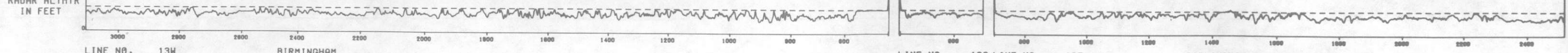
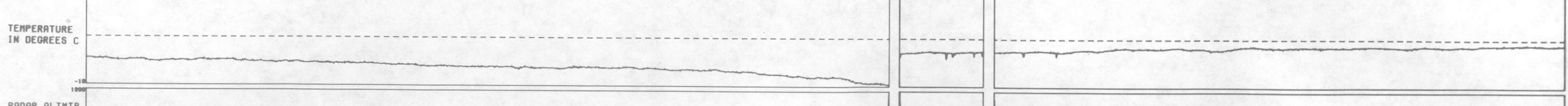
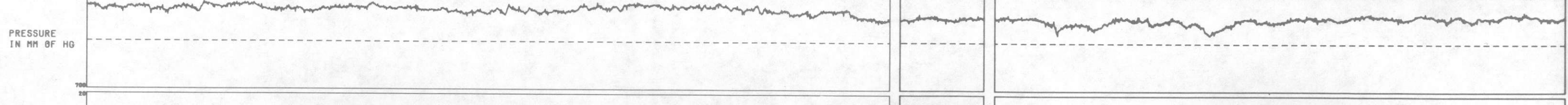
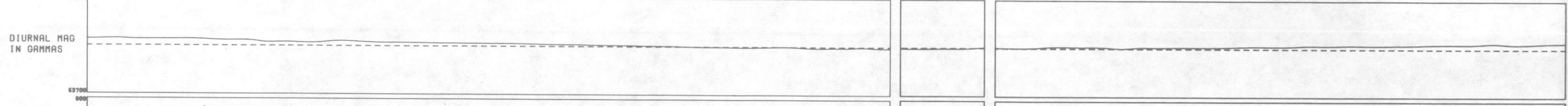
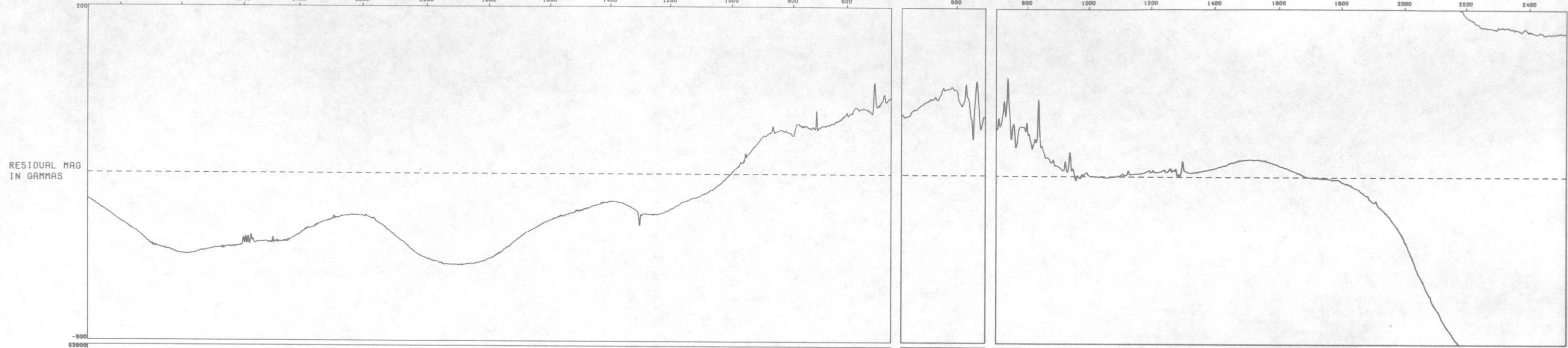
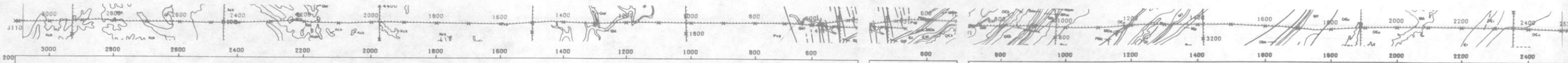


LINE NO. 12H BIRMINGHAM

LINE NO. 12E BIRMINGHAM

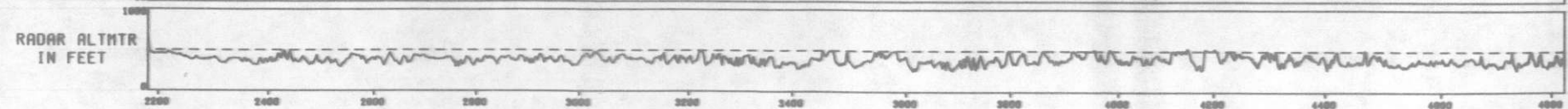
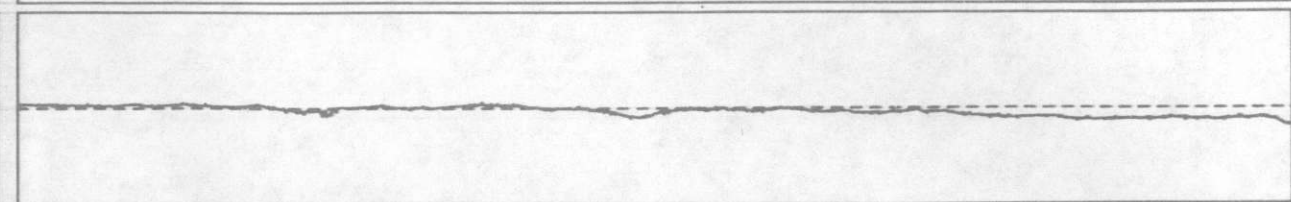
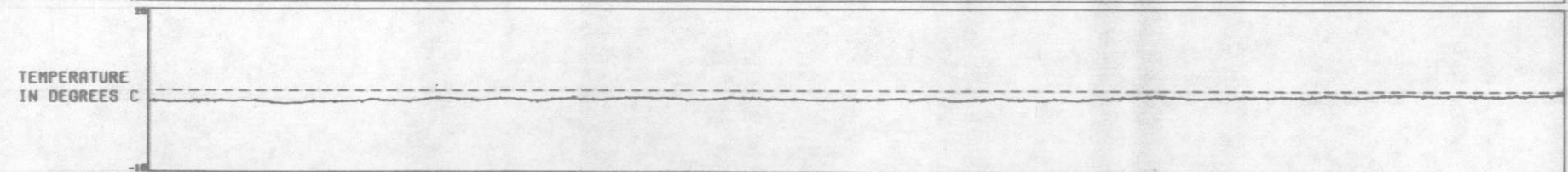
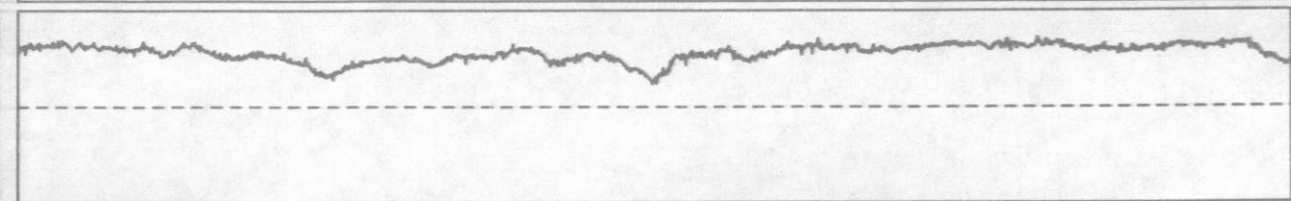
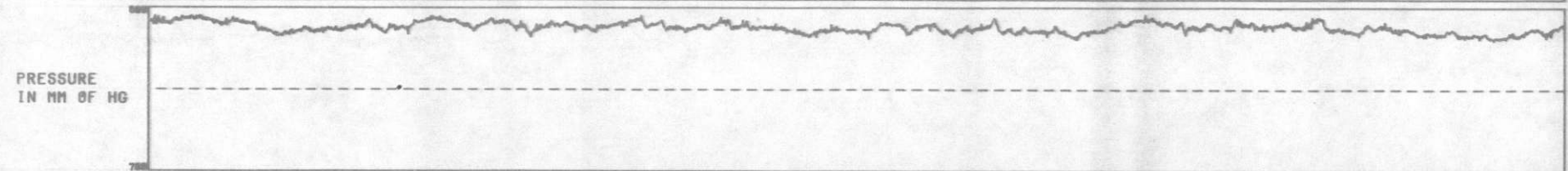
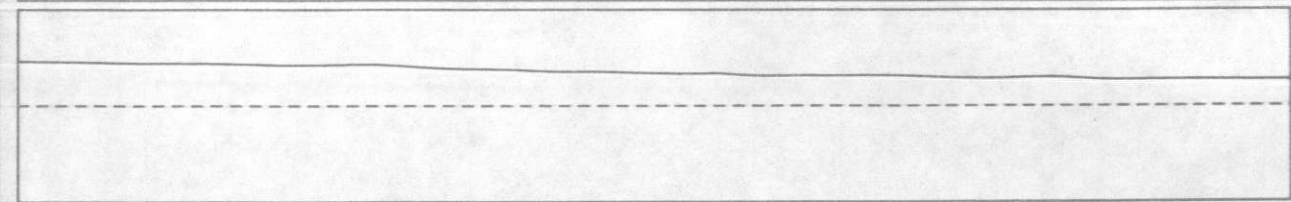
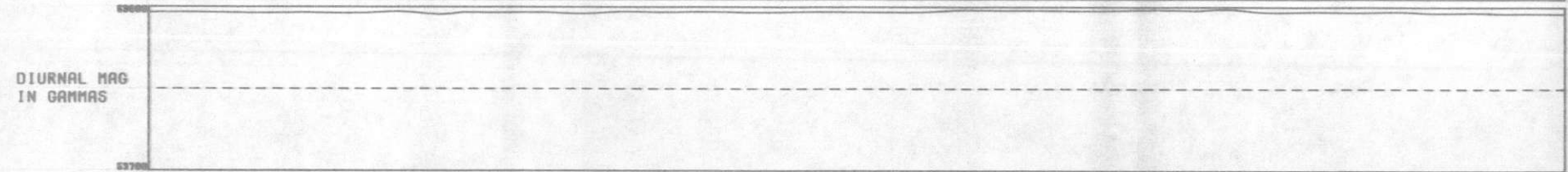
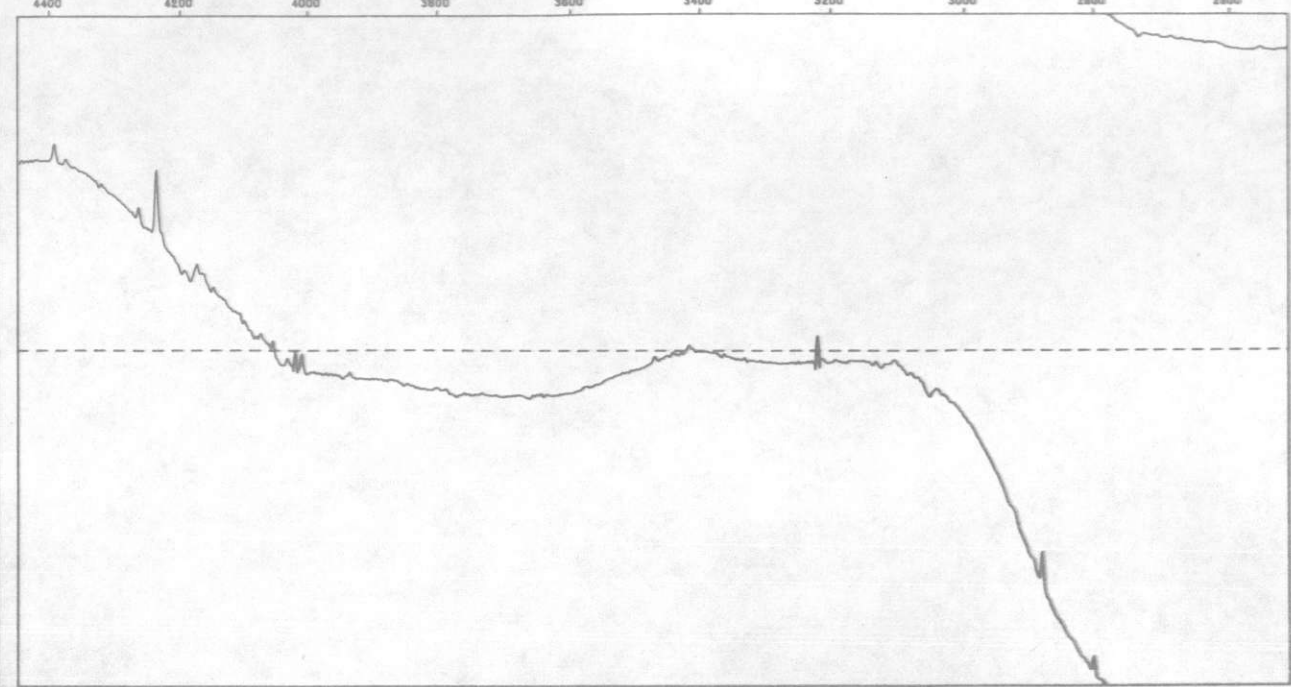
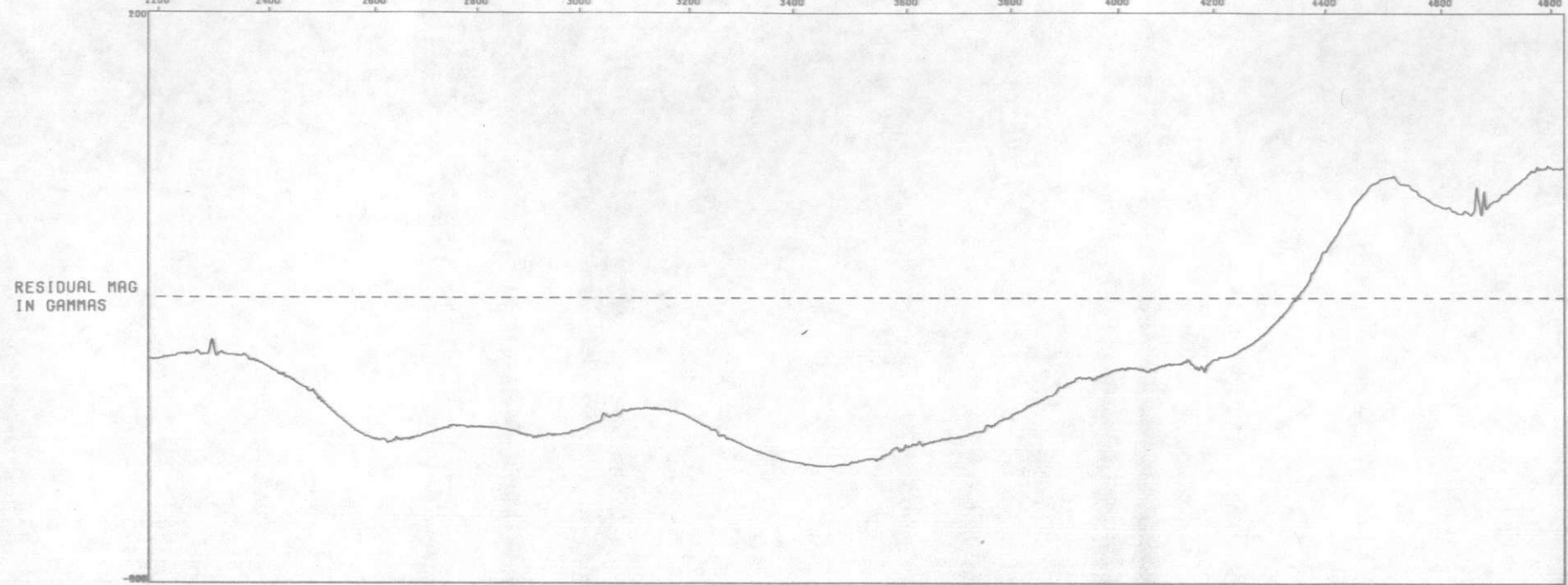
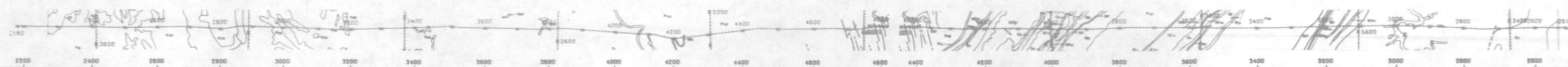
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



LINE NO. 13H BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 13C LINE NO. 13E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

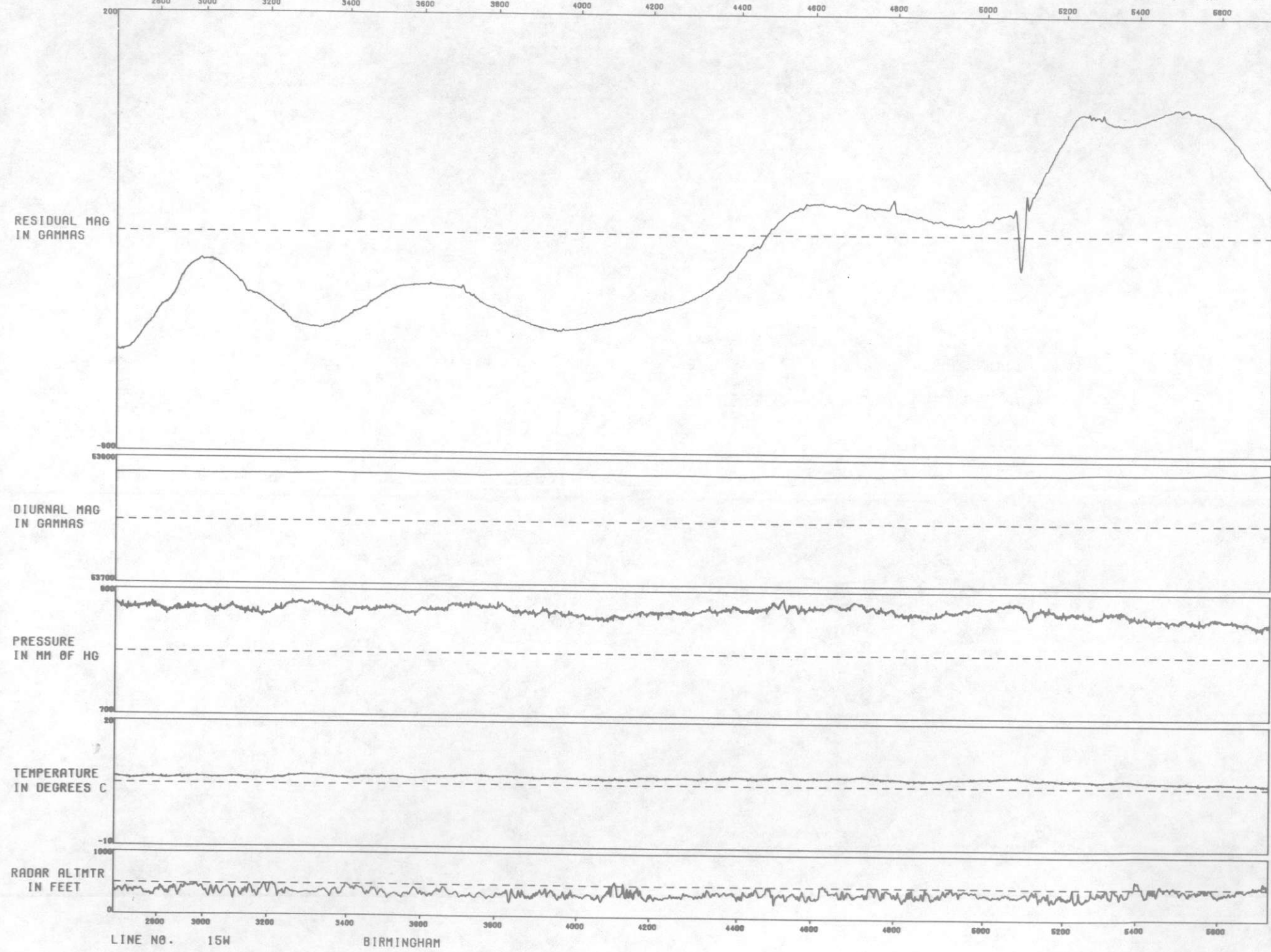
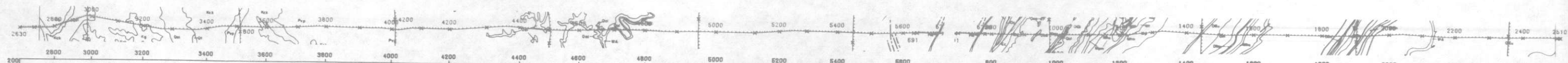


LINE NO. 14W BIRMINGHAM

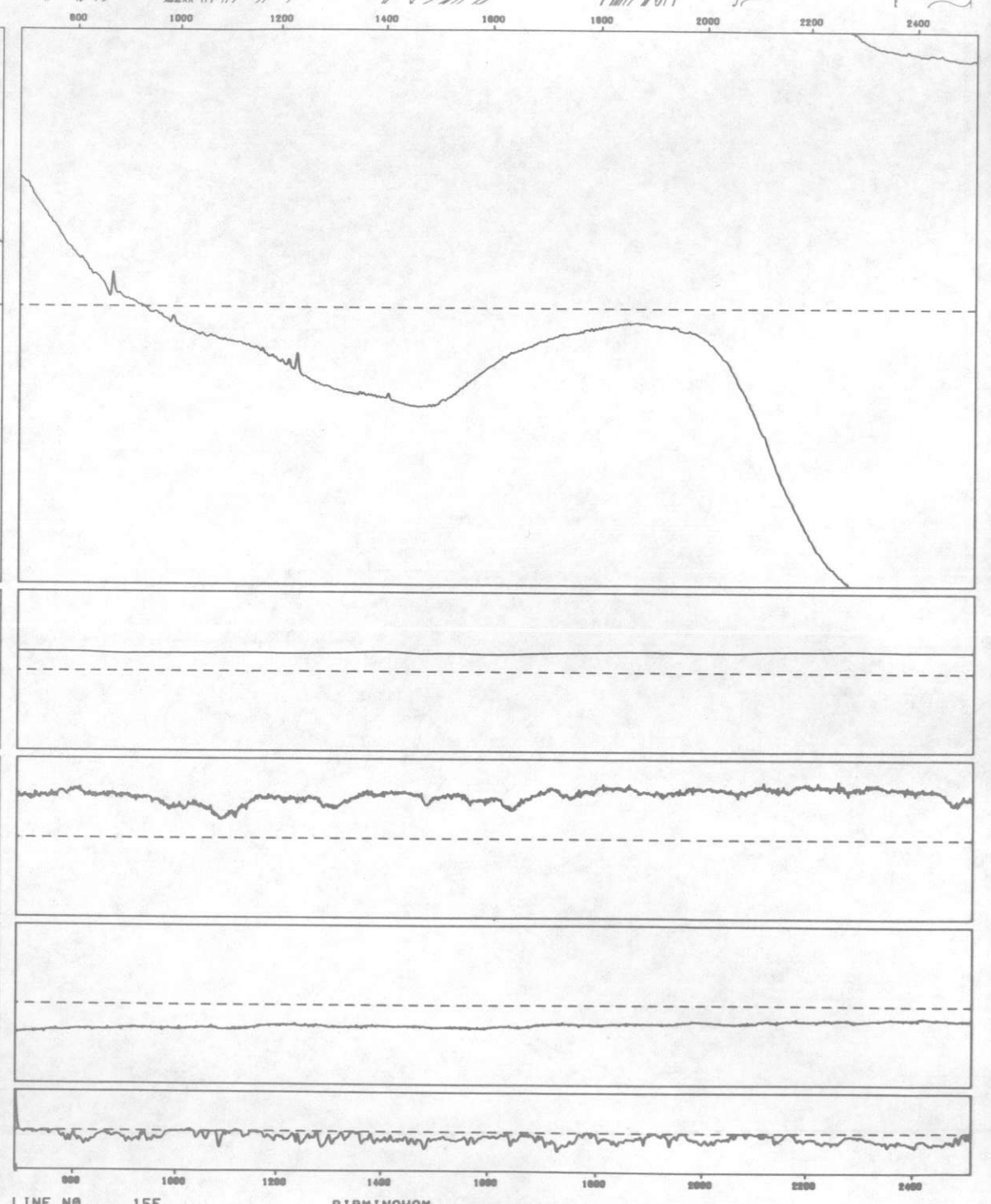
LINE NO. 14E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

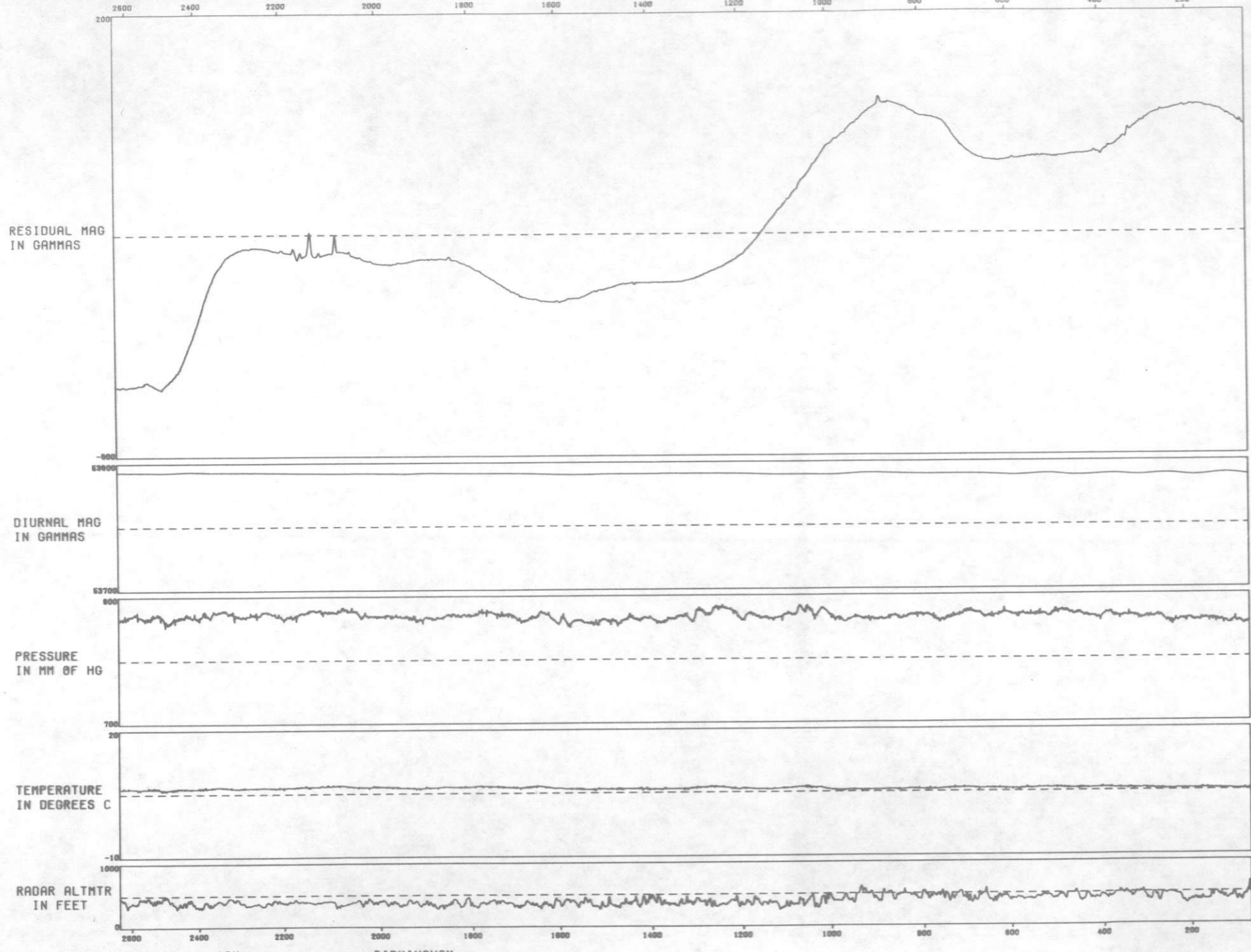
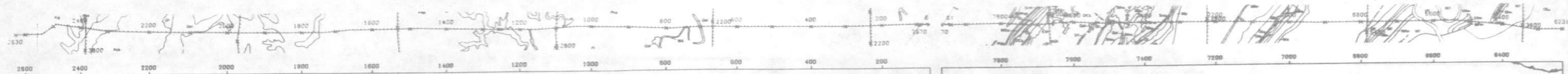
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



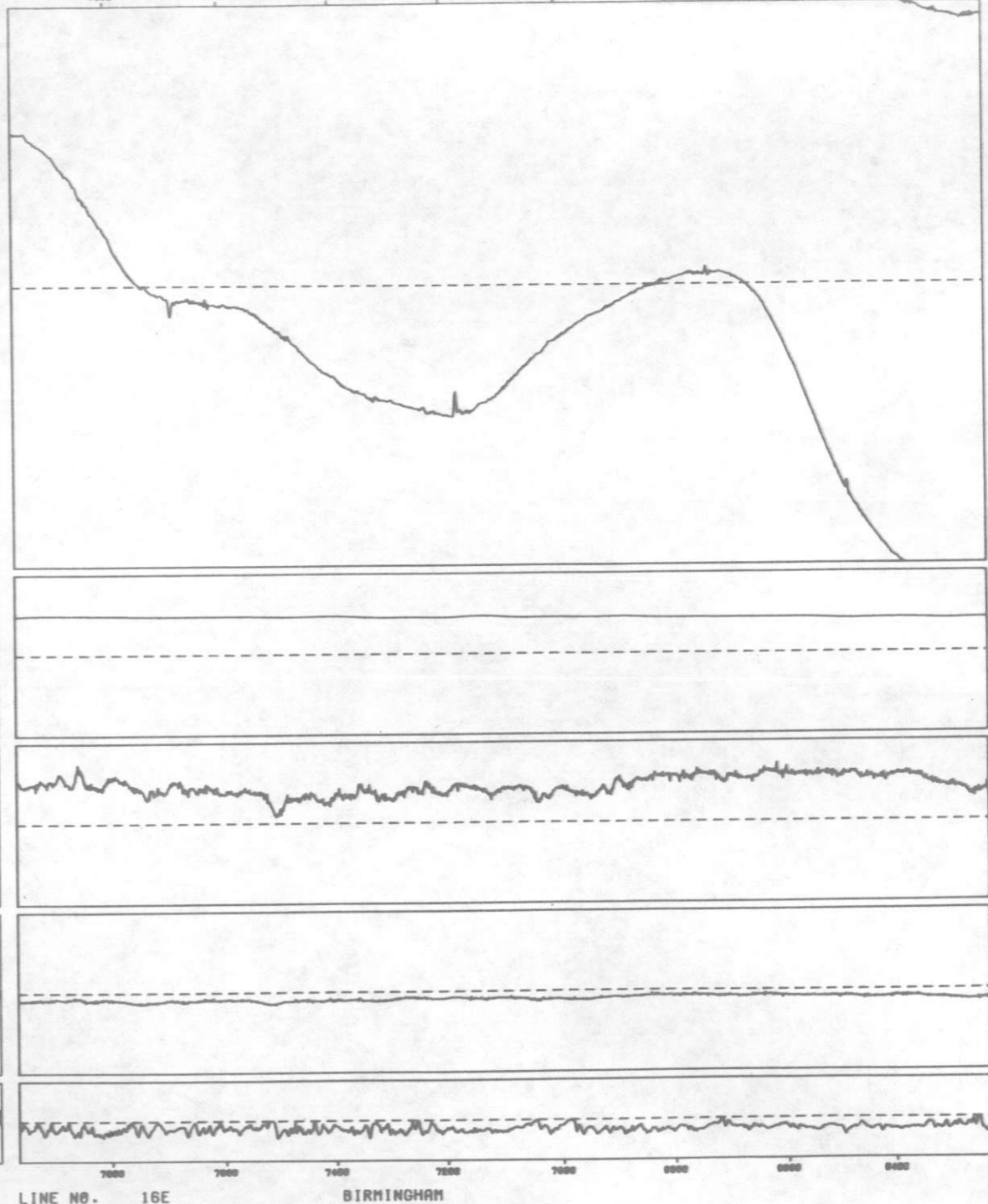
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



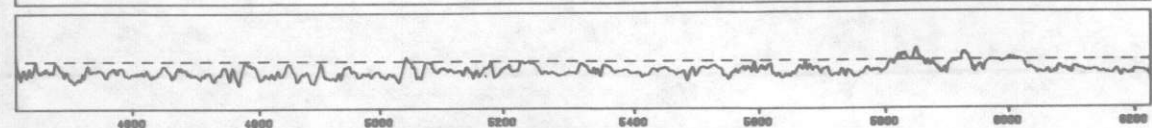
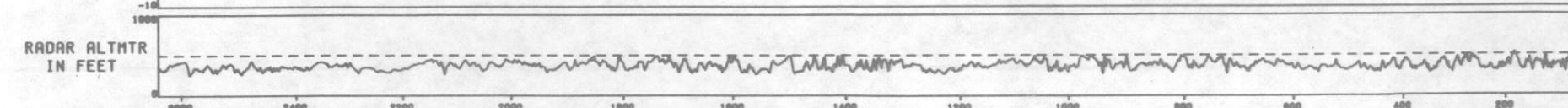
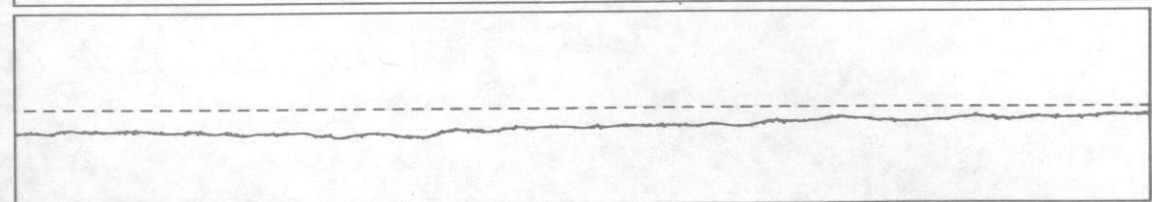
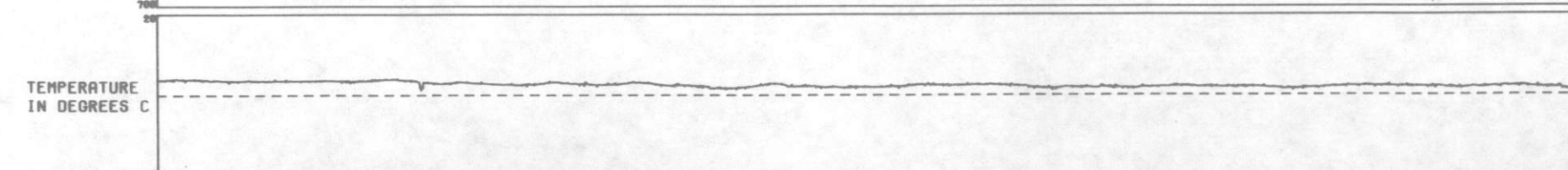
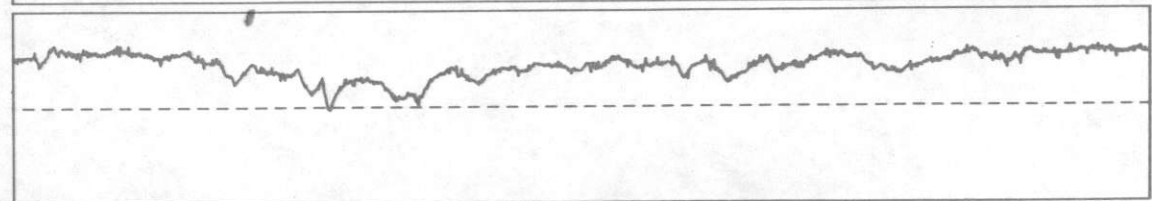
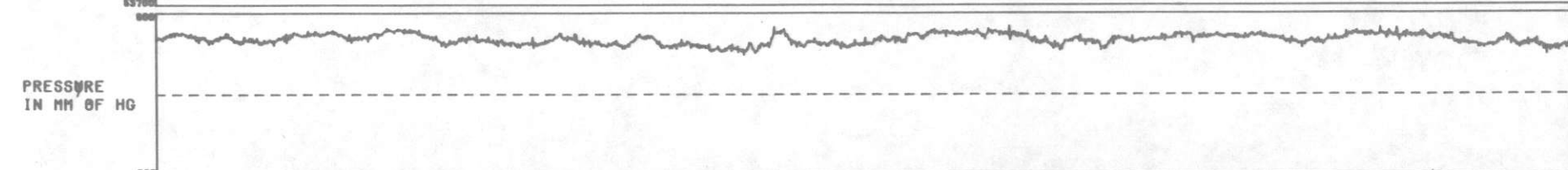
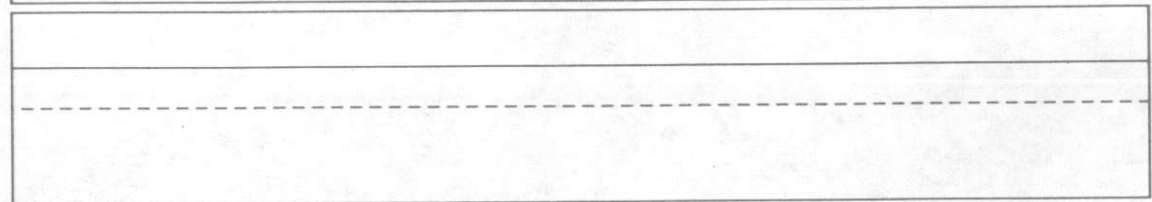
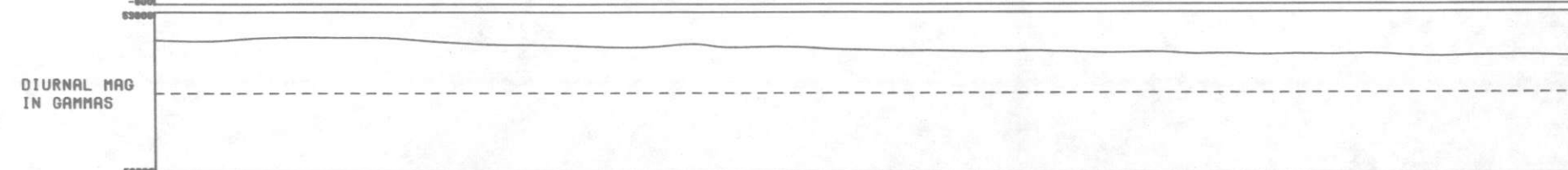
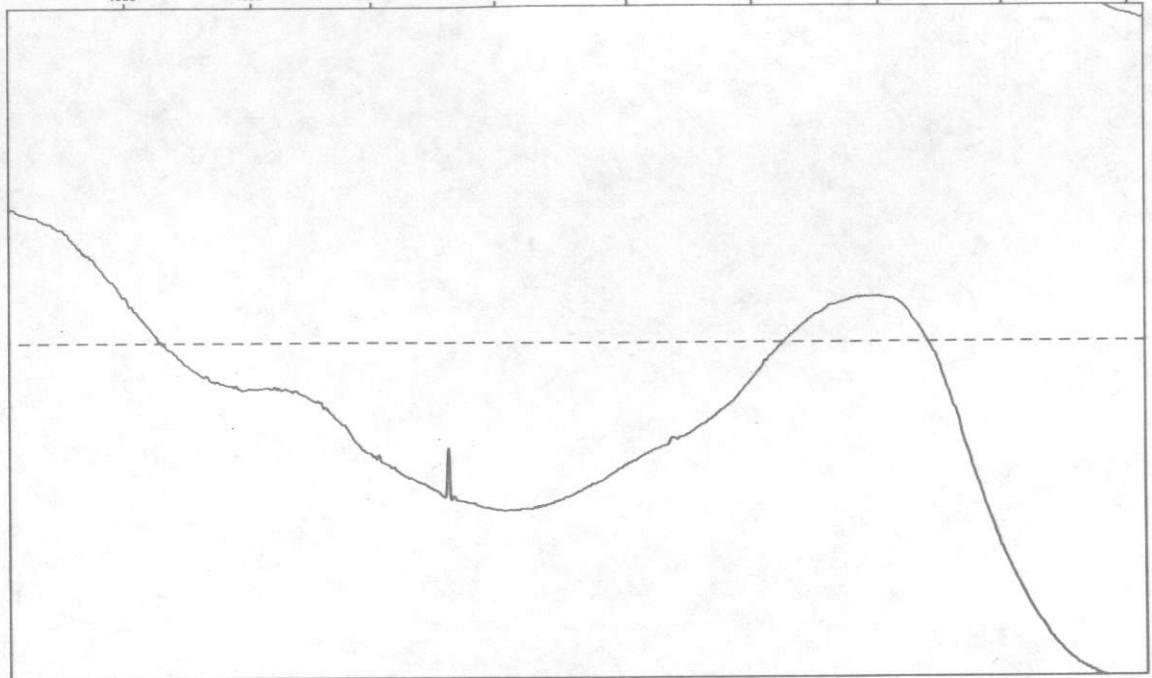
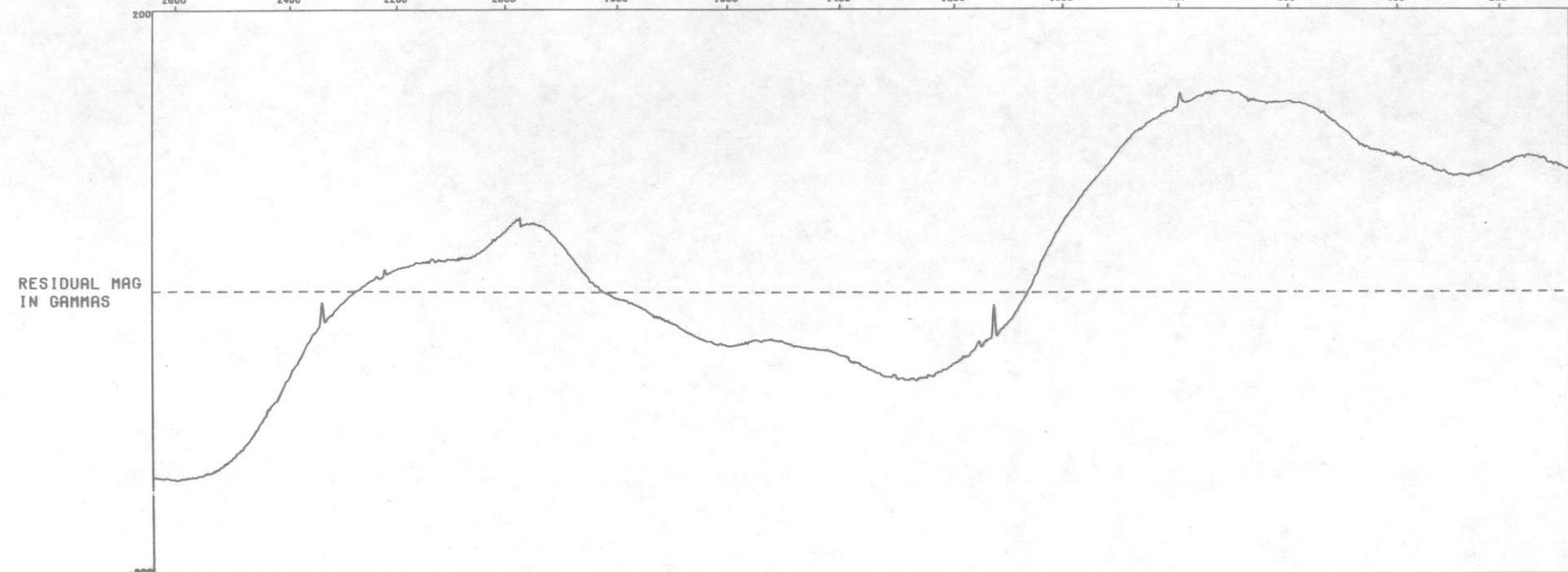
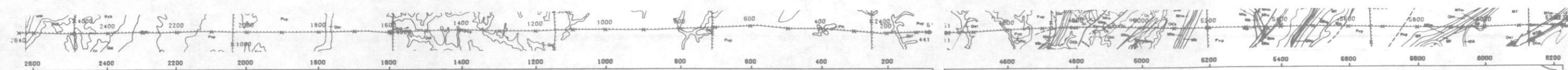
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



LINE NO. 16W BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB

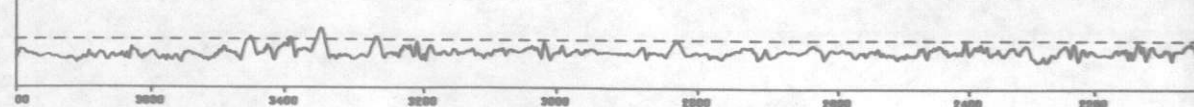
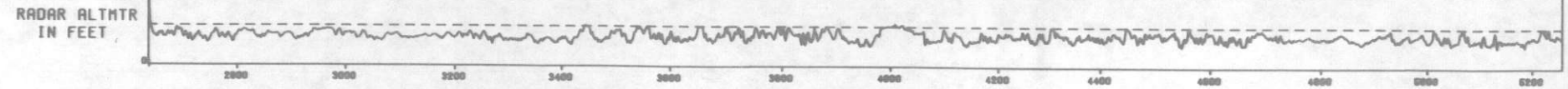
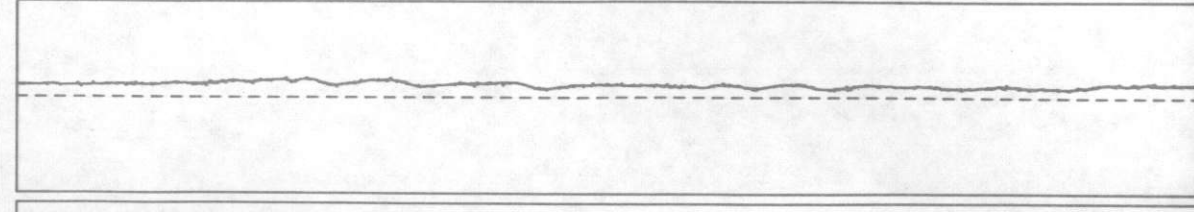
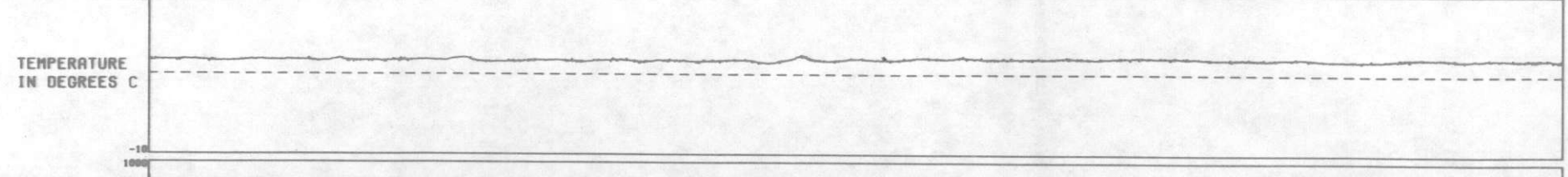
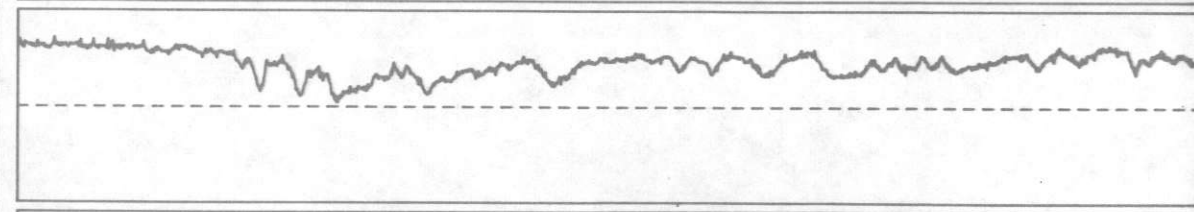
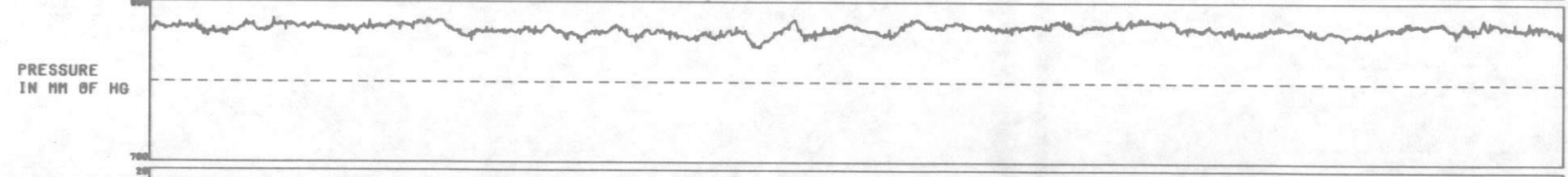
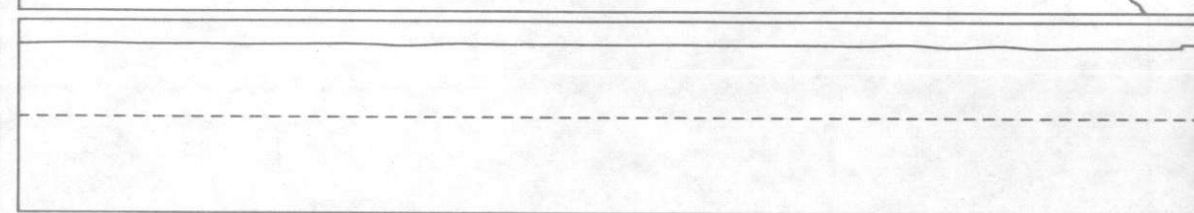
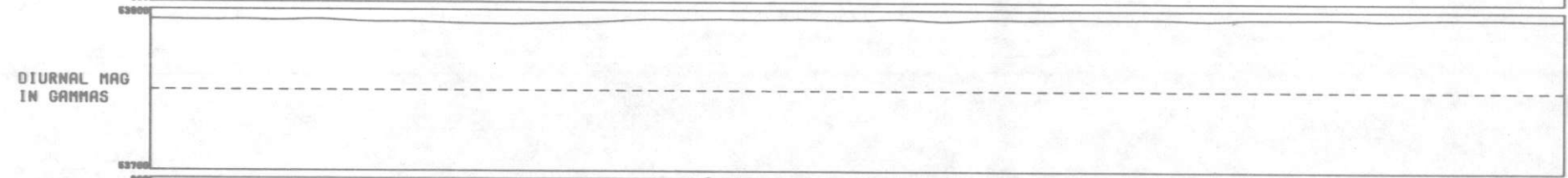
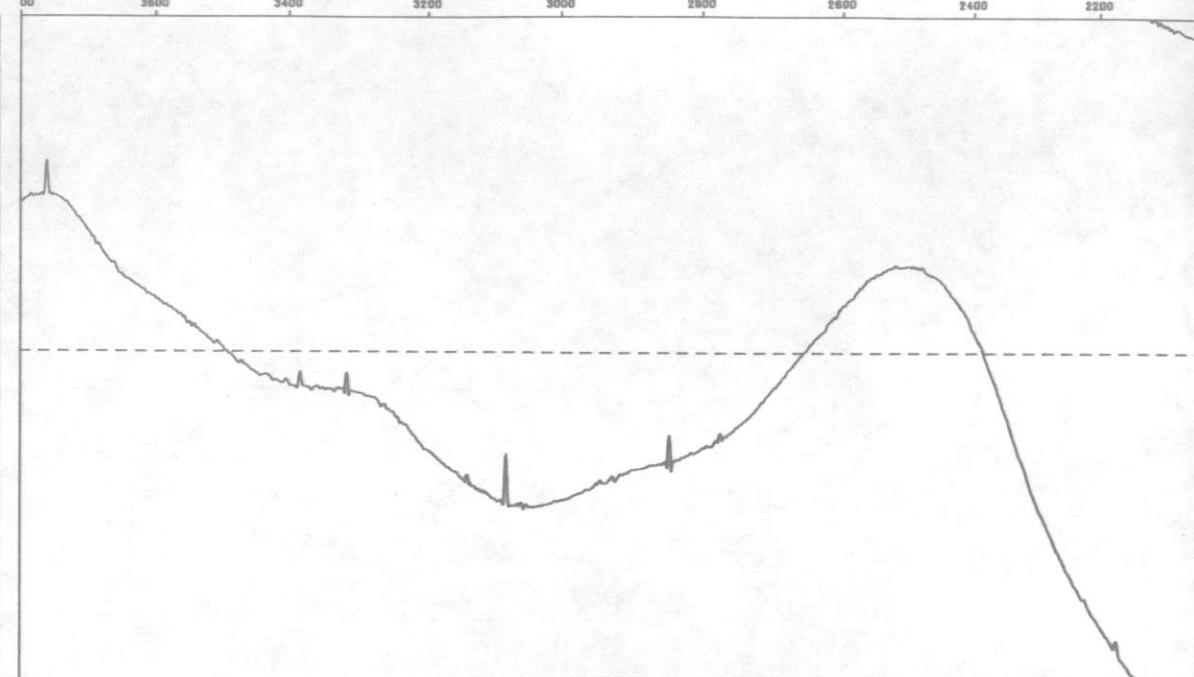
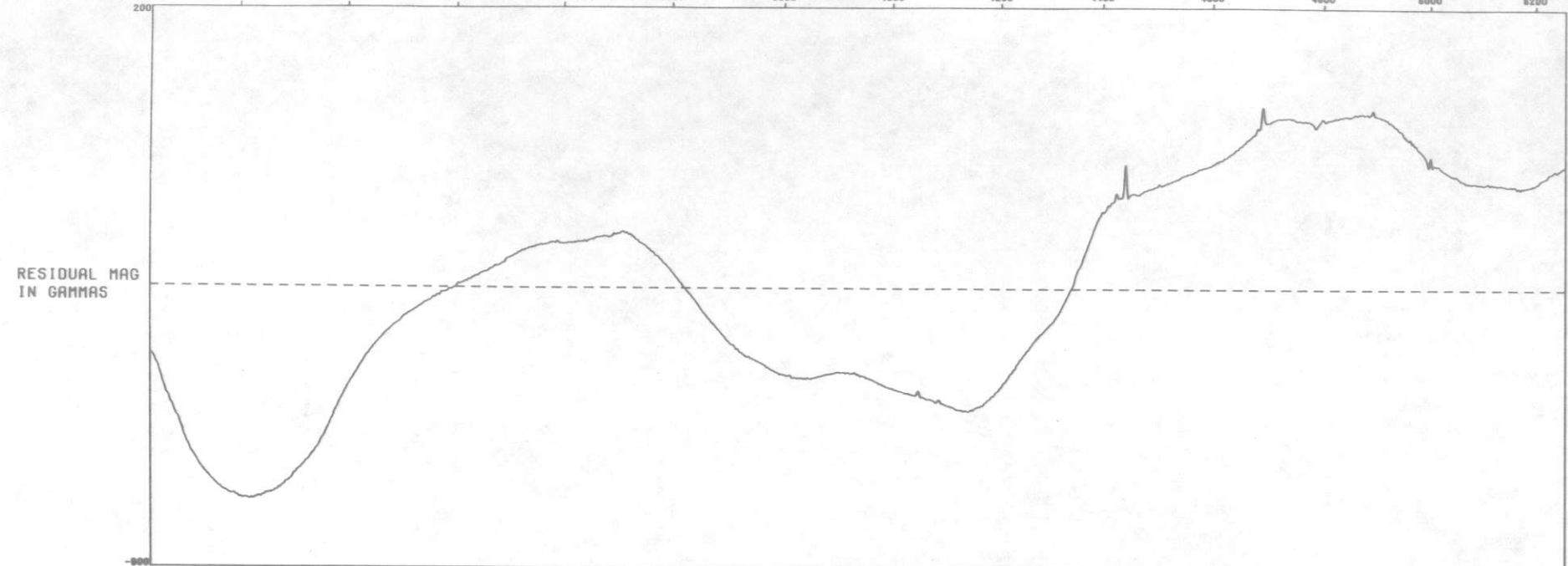
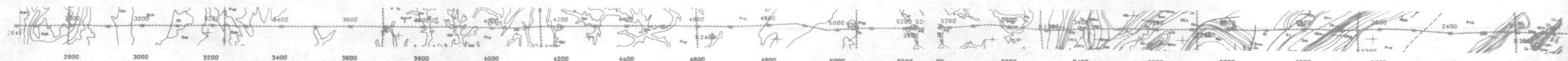


LINE NO. 16E BIRMINGHAM
 MILES 0 4 8 12 16 MILES
 HIGH LIFE - QEB



LINE NO. 17W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 17E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

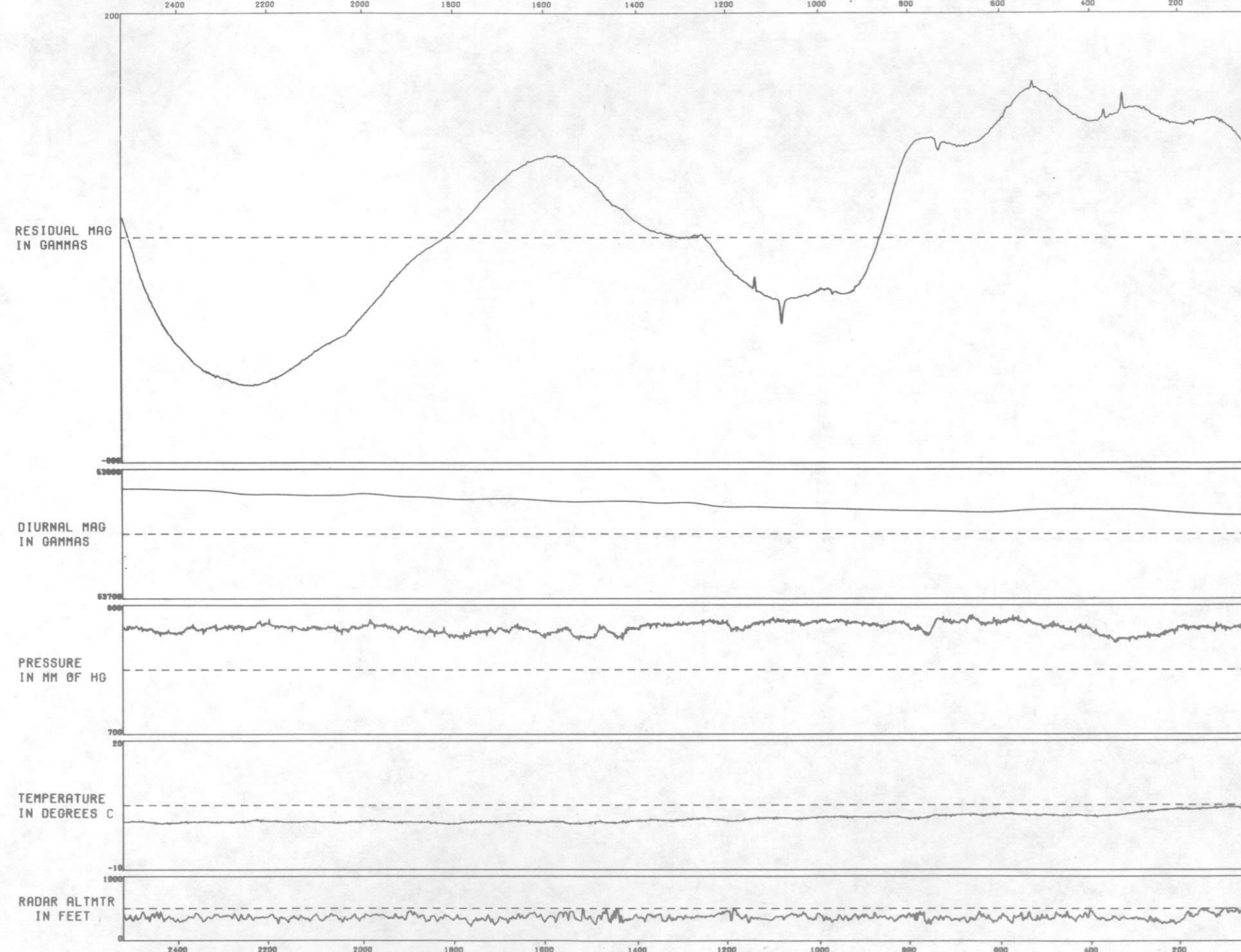
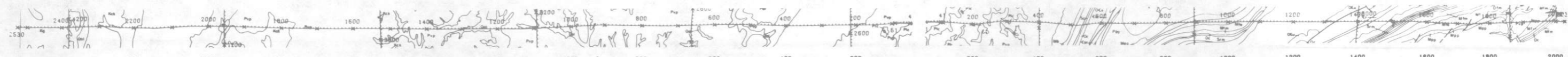


LINE NO. 18W BIRMINGHAM

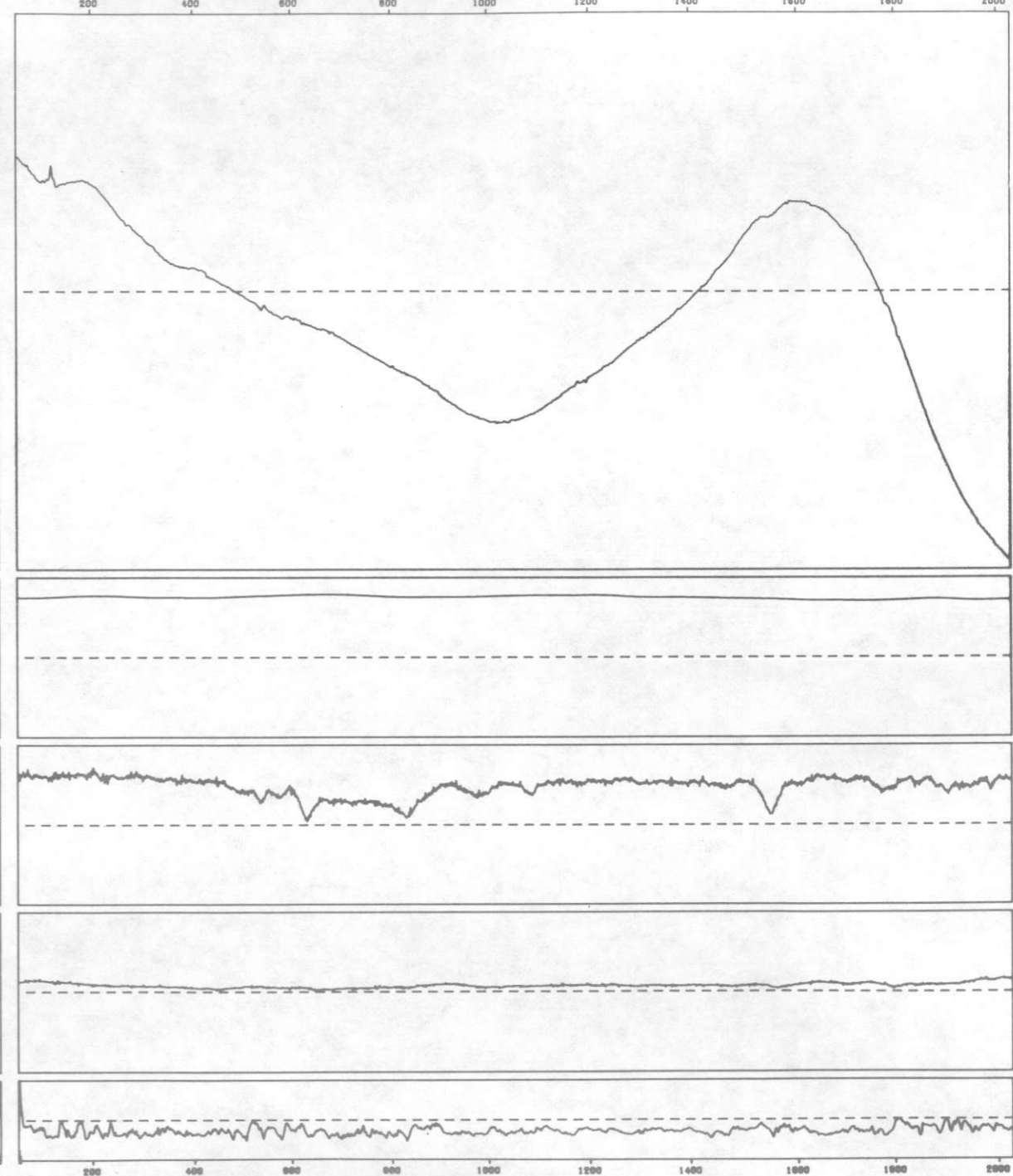
LINE NO. 18E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

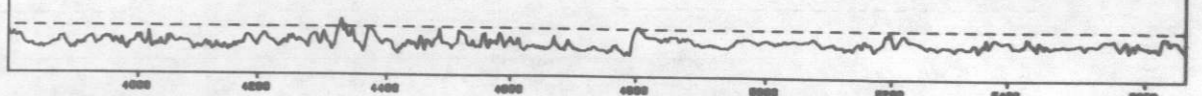
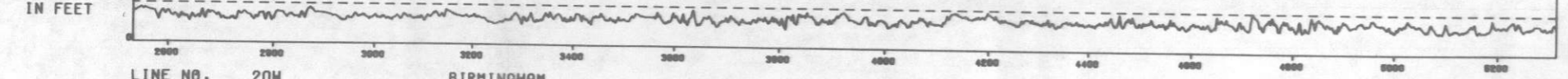
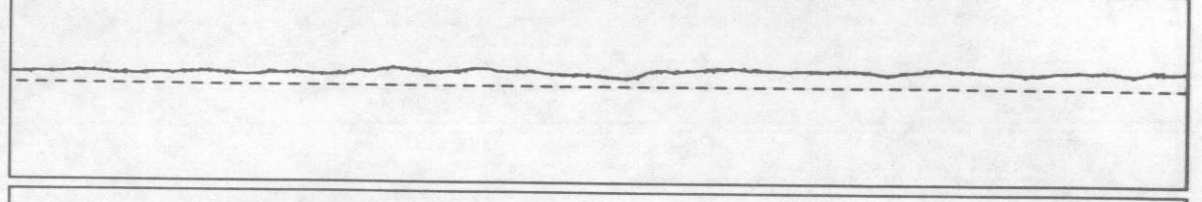
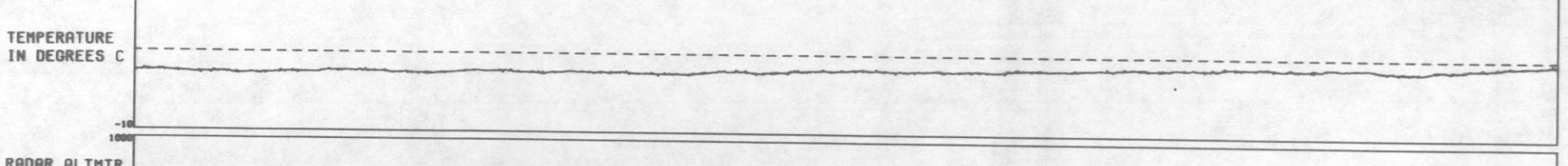
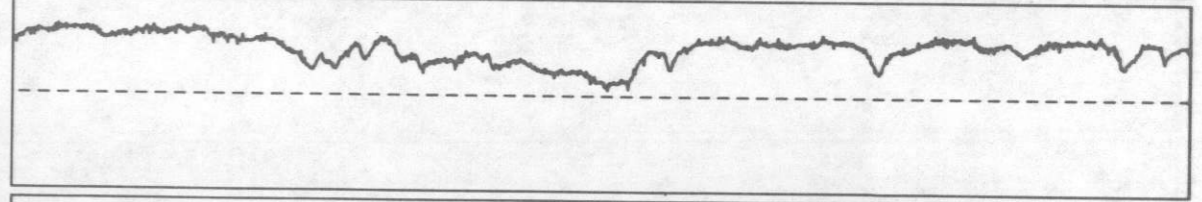
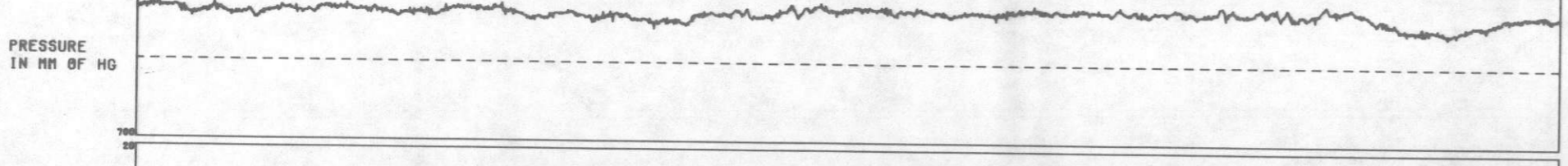
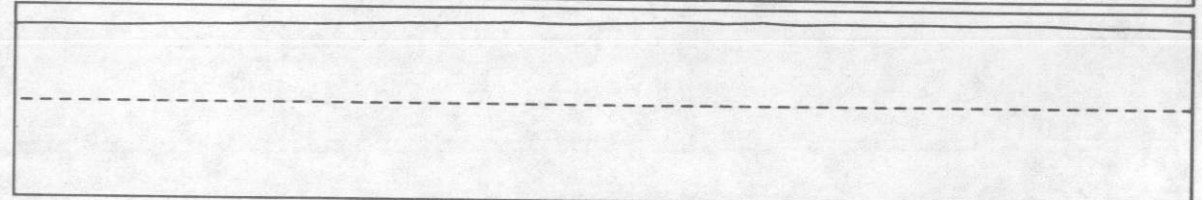
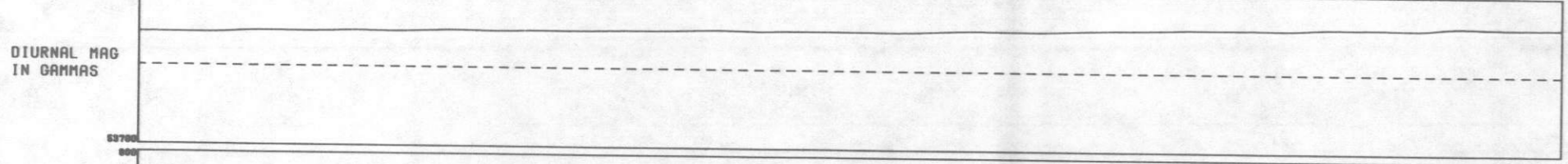
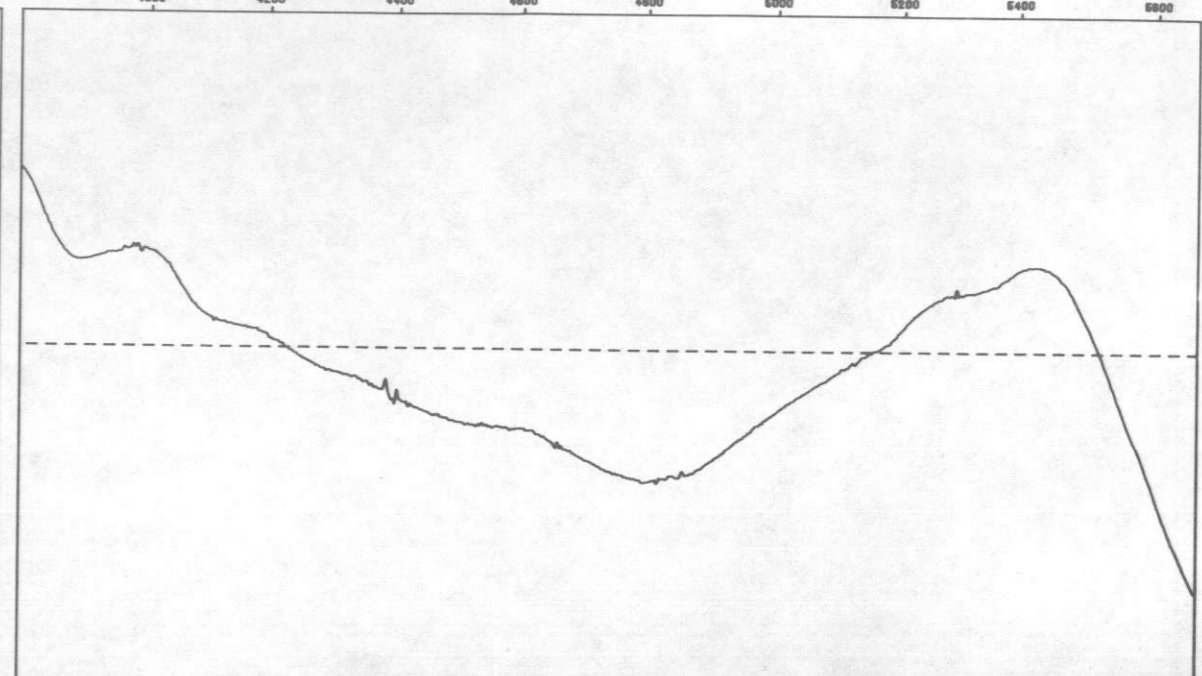
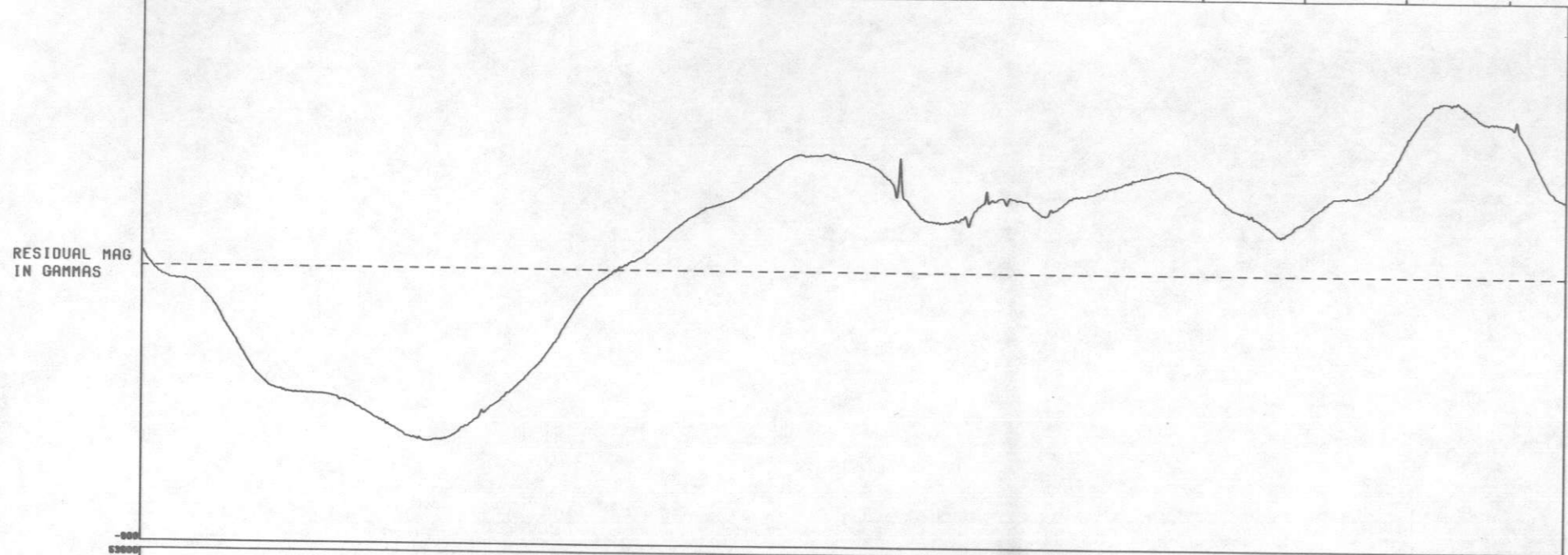
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB



LINE NO. 19W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



LINE NO. 19E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

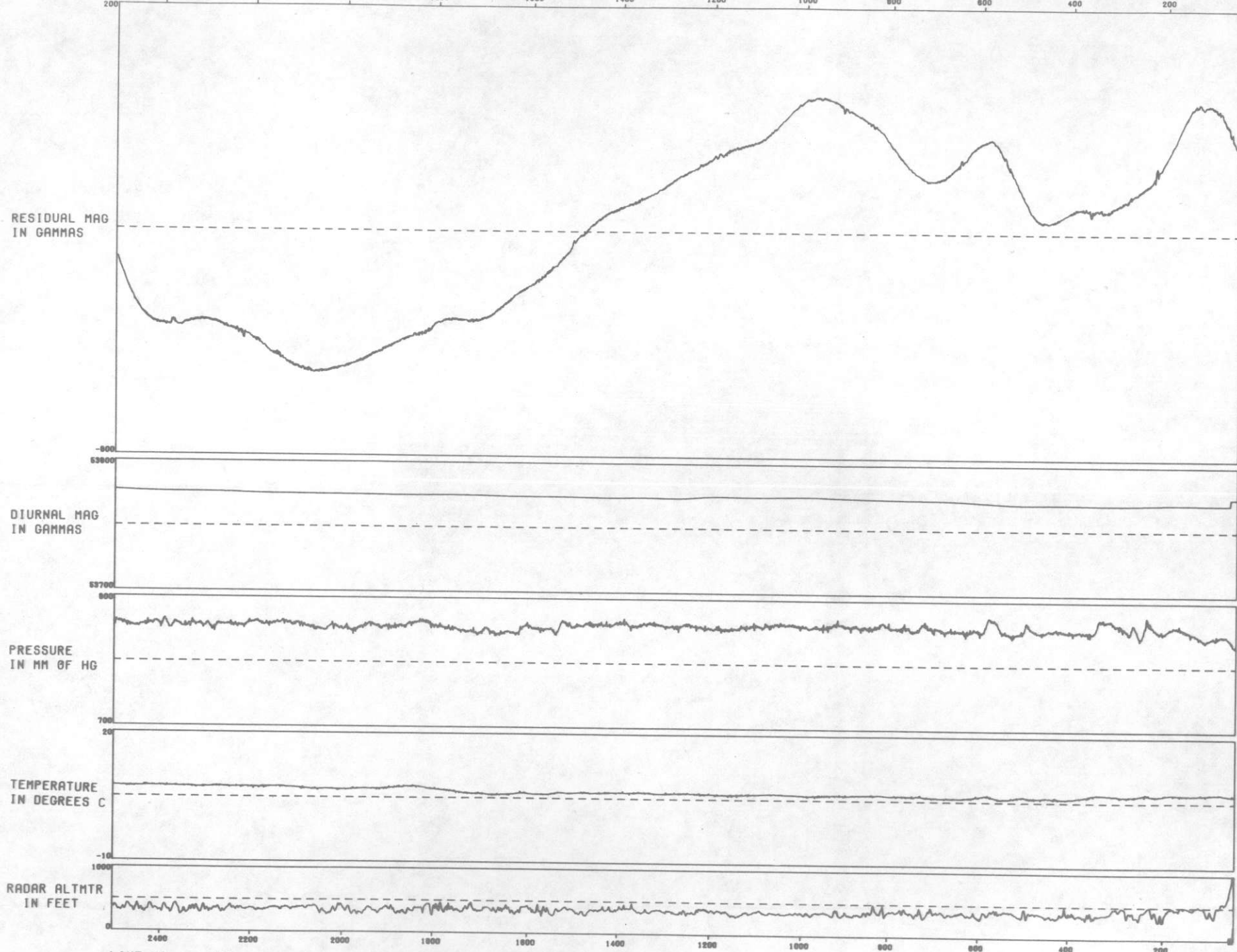


LINE NO. 20W BIRMINGHAM

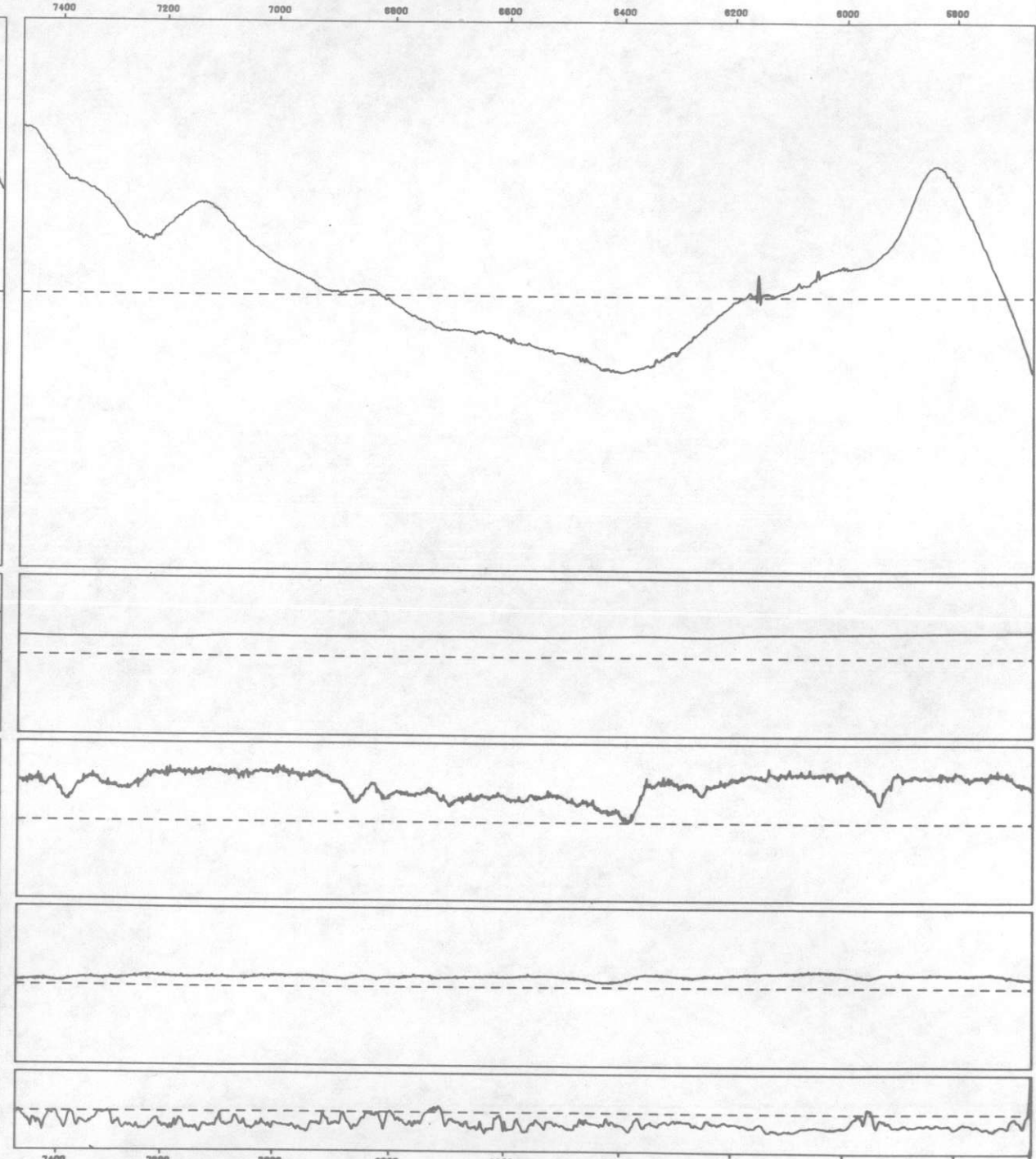
LINE NO. 20E BIRMINGHAM

HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

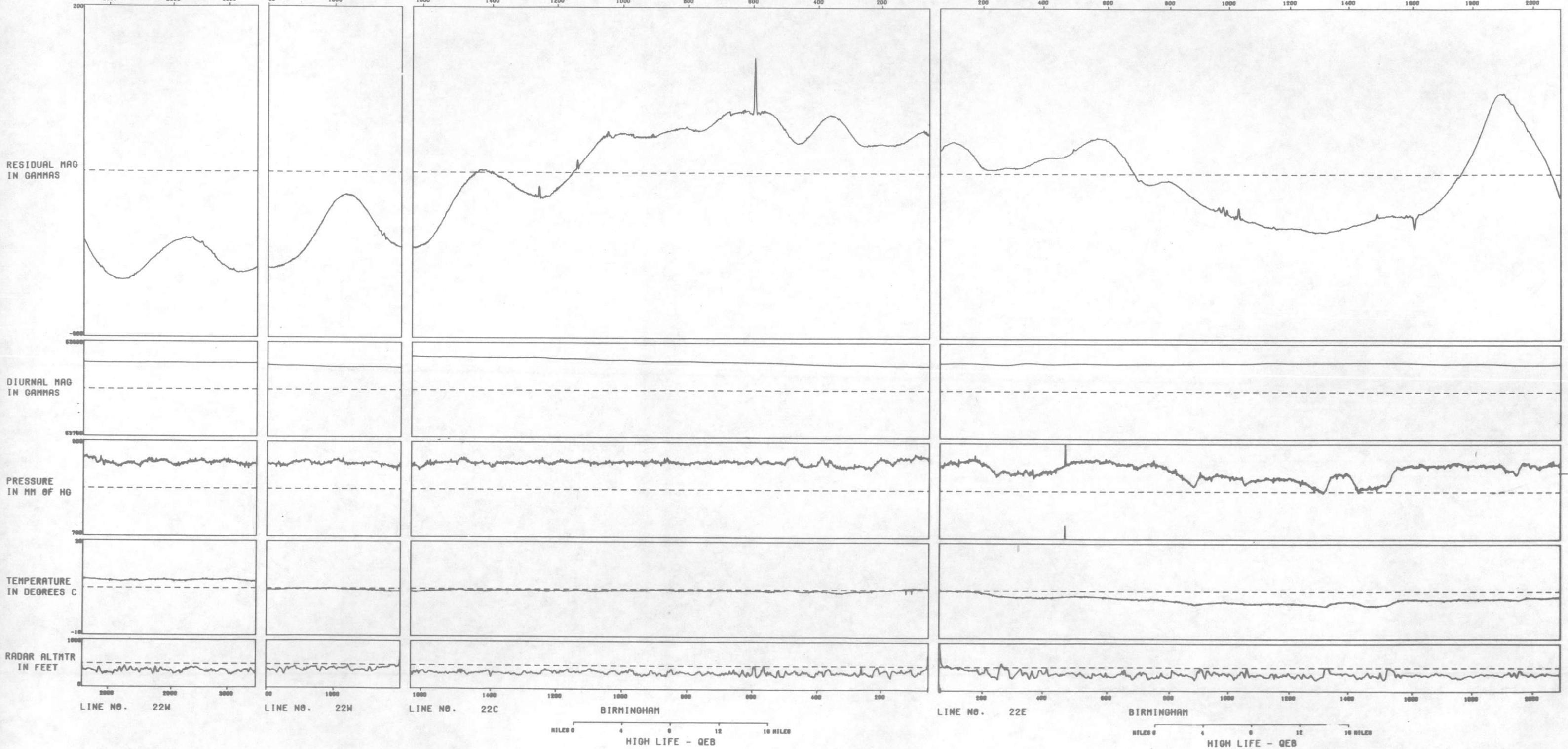
HILES 0 4 8 12 16 HILES
HIGH LIFE - QEB

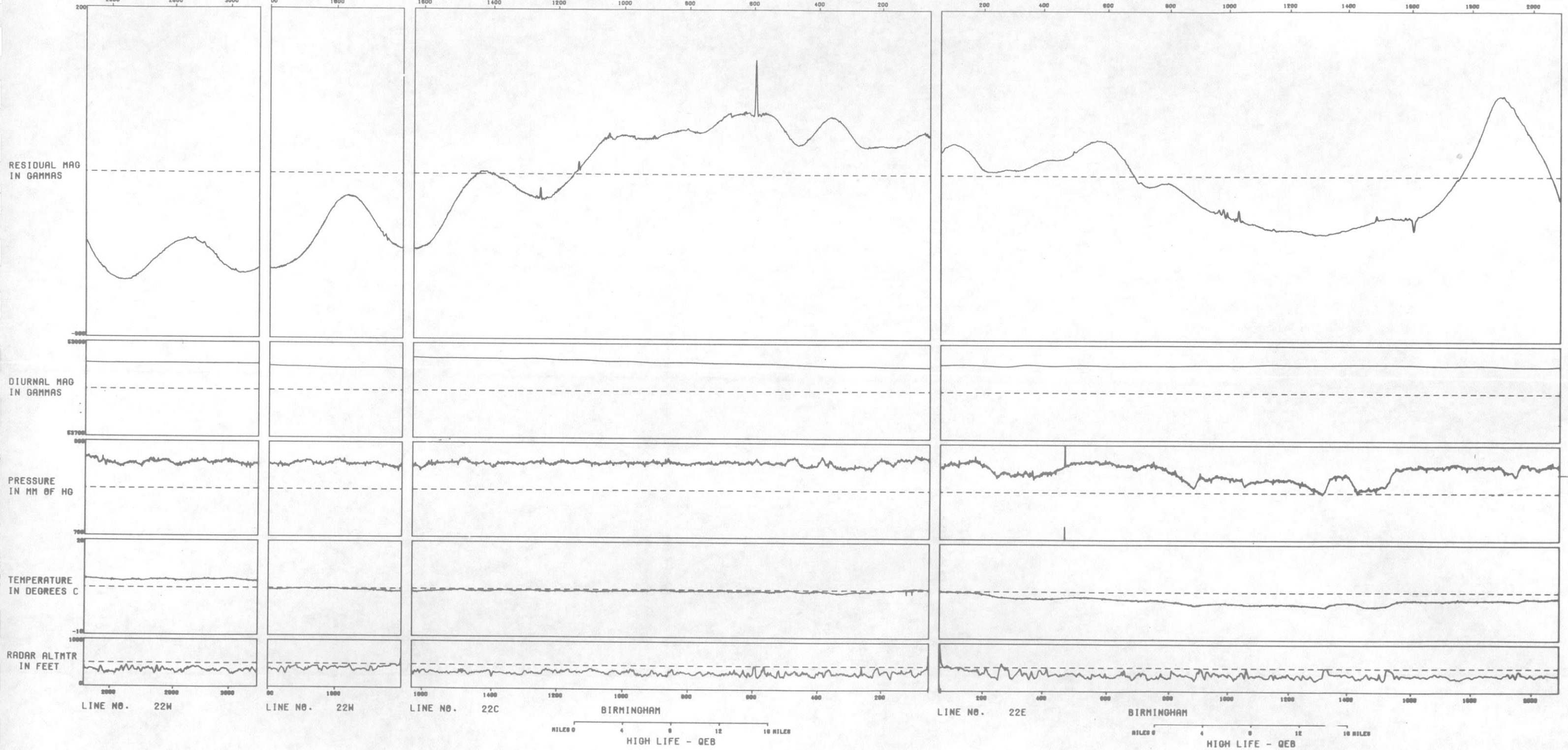
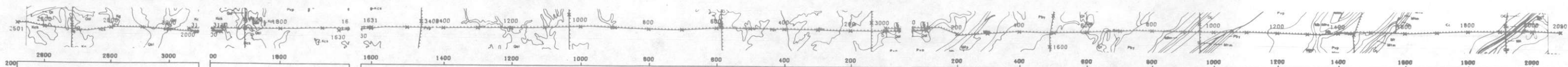


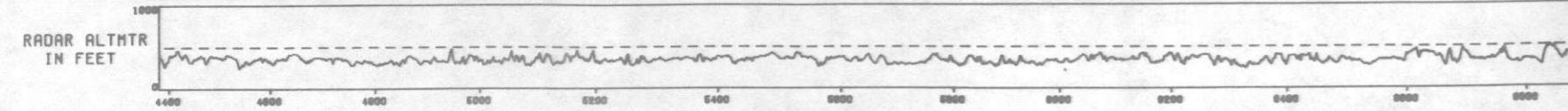
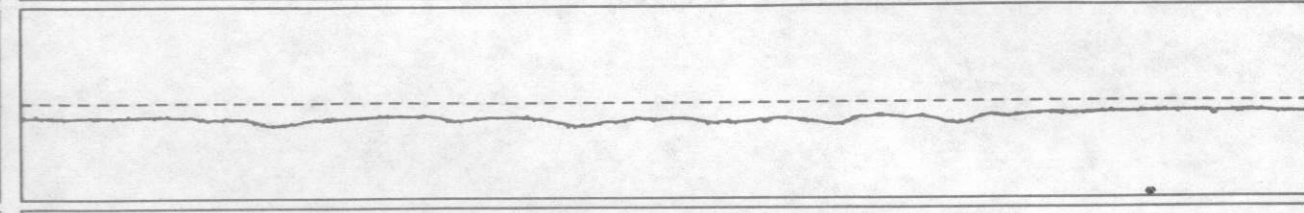
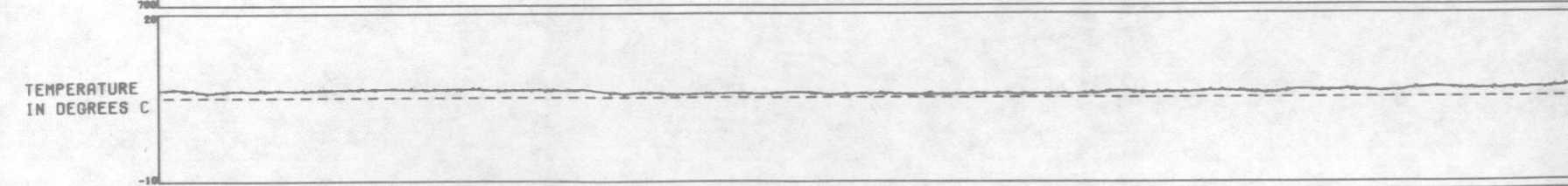
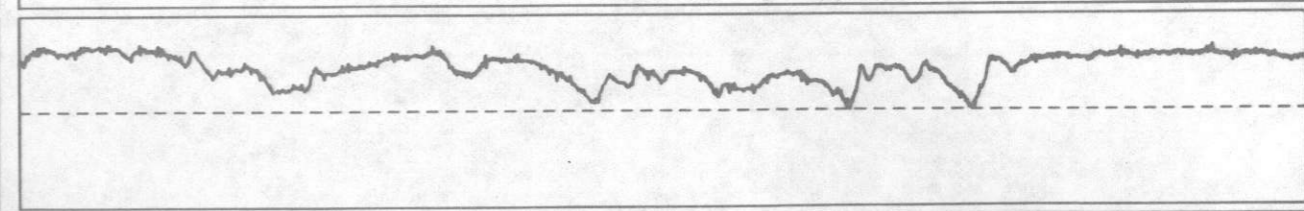
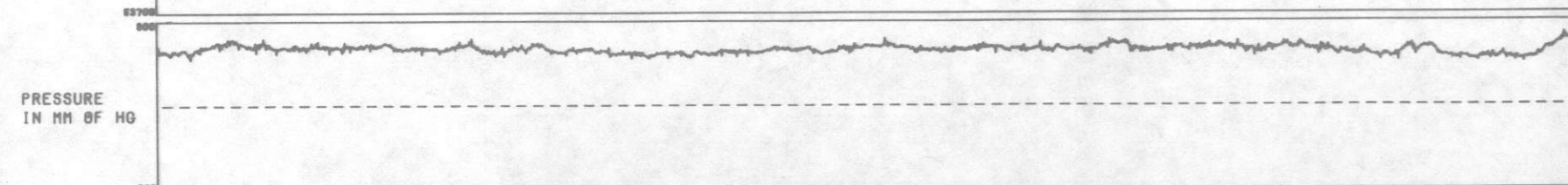
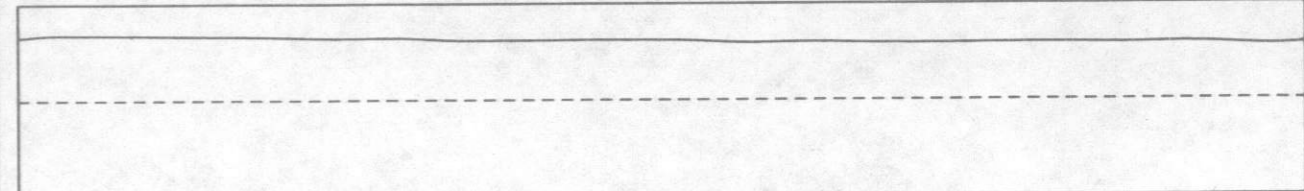
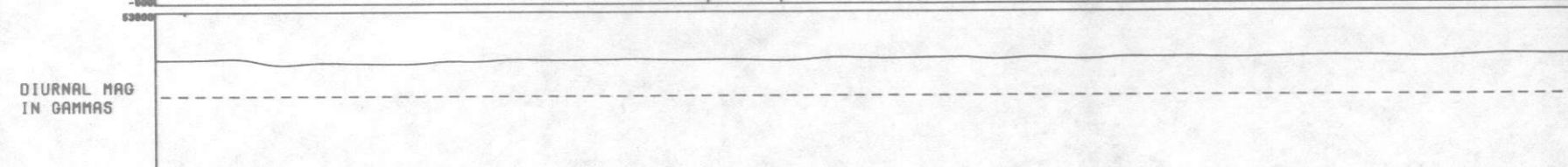
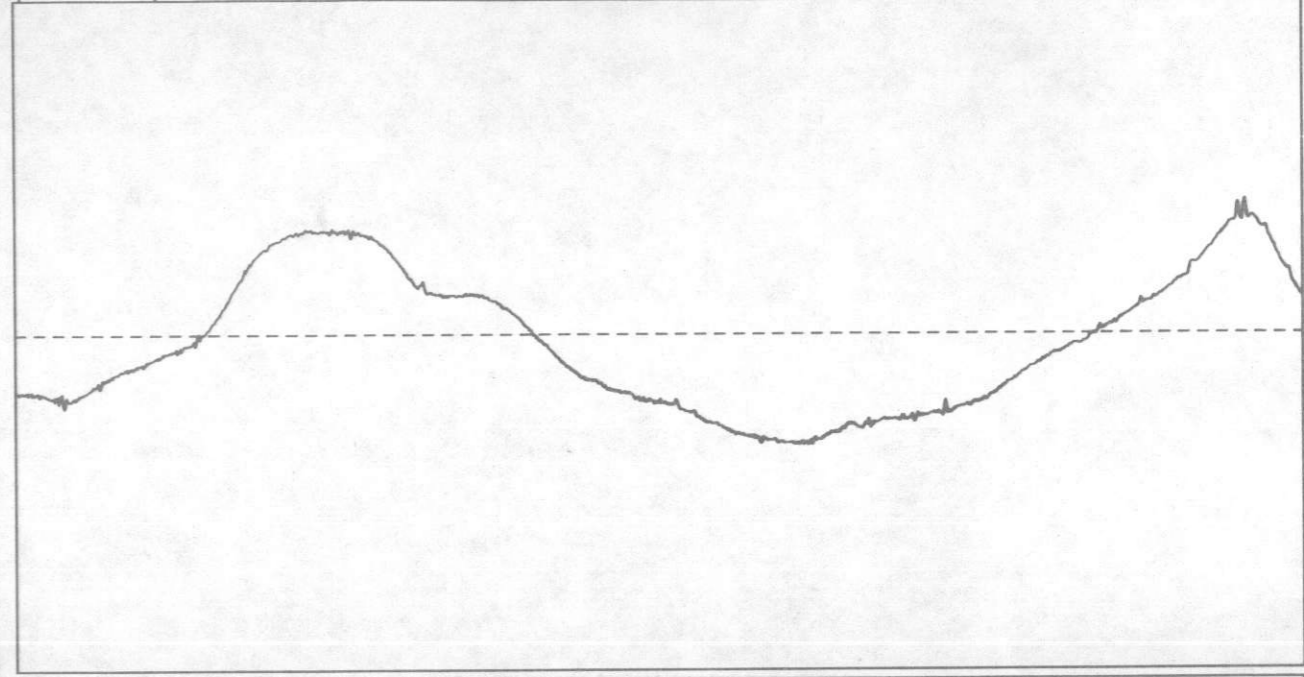
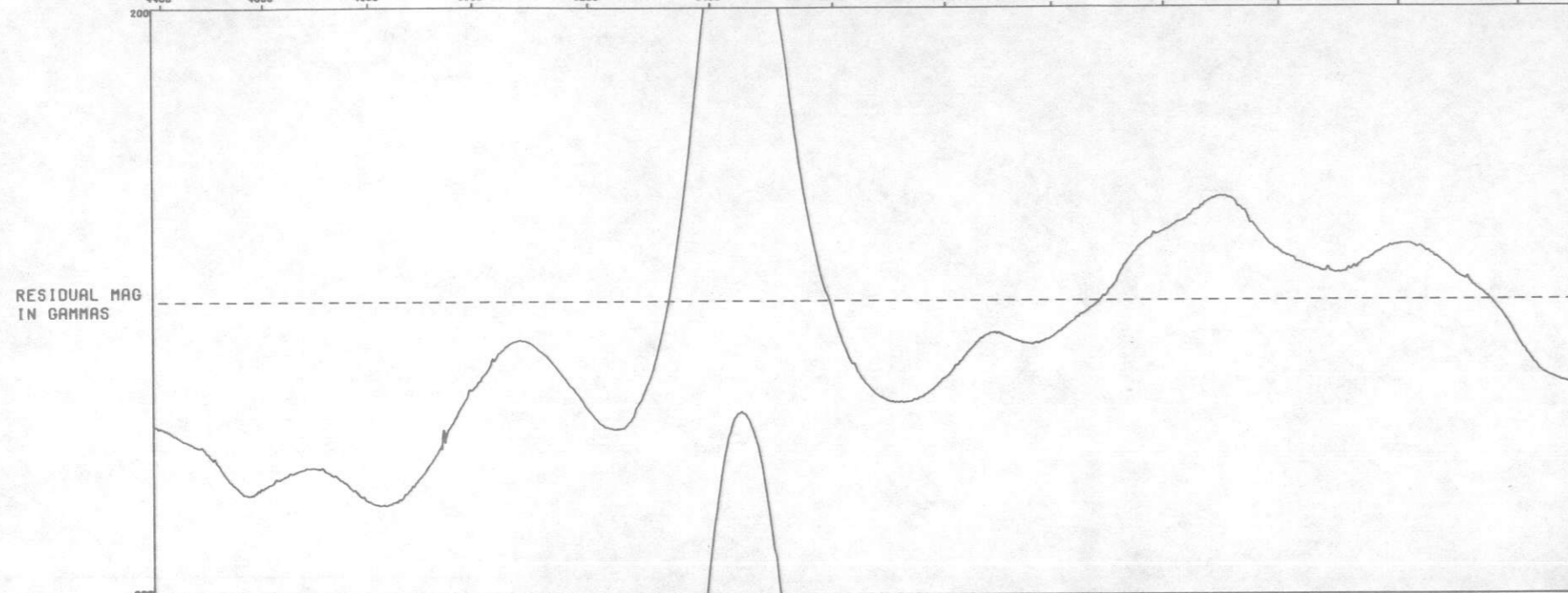
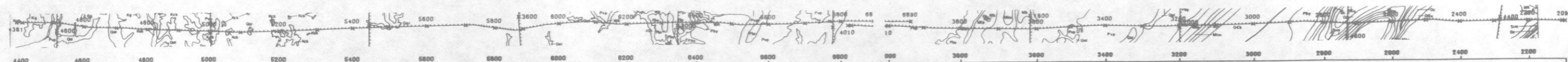
LINE NO. 21W BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB



LINE NO. 21E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB







LINE NO. 23H BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

LINE NO. 23E BIRMINGHAM
 HILES 0 4 8 12 16 HILES
 HIGH LIFE - QEB

APPENDIX L - TEST LINE DATA

AD-801111 - TEST BIRM DATA

PRE-FLIGHT AND POST-FLIGHT TEST LINE DATA

BIRMINGHAM QUADRANGLE

DATE - 1979	1/4	1/5	1/9	1/10	1/11	1/15	1/16	1/17	1/22	1/23	1/25	1/26
Pre-Tl	49.73	51.68	49.58	51.36	55.25	52.74	54.09	57.17	49.33	53.48	50.54	55.27
Post-Tl	54.56	53.74	54.62	53.70	55.46	57.64	50.66	57.04		50.78	54.63	54.85
Pre-Bi	20.05	22.14	19.49	23.53	25.50	21.34	21.54	23.65	22.53	23.94	17.43	20.02
Post-Bi	21.64	20.37	20.97	21.48	28.64	22.95	18.67	24.05		21.48	18.68	19.35
Pre-K	33.85	34.14	33.28	34.34	33.60	34.26	38.24	36.85	31.42	33.78	31.38	36.69
Post-K	32.26	36.90	36.34	36.16	33.57	37.49	41.34	38.87		36.01	34.17	36.26
Pre-TC	1130.31	1102.97	1085.53	1186.48	1322.02	1180.80	1198.83	1244.55	1177.59	1228.45	1081.80	1190.09
Post-TC	1209.51	1248.81	1290.85	1284.53	1426.18	1300.11	1321.22	1660.64		1340.16	1169.73	1210.14

Note: Substantially higher BiAir contributions were reflected in TC for late afternoon test on 1/17/79

Note: No post-flight line flown because of equipment malfunction at end of production flight on 1/22/79

PRE-FLIGHT AND POST-FLIGHT TEST LINE DATA (Ctd.)

BIRMINGHAM QUADRANGLE

DATE-1979	2/1	2/2	2/5	2/10
Pre-T1	53.13	54.35	53.49	56.54
Post-T1			54.36	53.65
Pre-Bi	21.62	18.29	19.28	18.87
Post-Bi			19.55	20.73
Pre-K	34.83	37.99	37.21	37.02
Post-K			34.28	33.55
Pre-TC	1141.68	1182.76	1204.38	1209.55
Post-TC			1307.37	1019.40

Note: No post-flight line flown because of equipment malfunction at end of production flight on 2/1/79

Note: No post-flight line flown because of darkness on 2/2/79

PRE-FLIGHT AND POST-FLIGHT TEST LINE DATA (Ctd.)

BIRMINGHAM QUADRANGLE

DATE-1979	2/1	2/2	2/5	2/10
Pre-T1	53.13	54.35	53.49	56.54
Post-T1			54.36	53.65
Pre-Bi	21.62	18.29	19.28	18.87
Post-Bi			19.55	20.73
Pre-K	34.83	37.99	37.21	37.02
Post-K			34.28	33.55
Pre-TC	1141.68	1182.76	1204.38	1209.55
Post-TC			1307.37	1019.40

Note: No post-flight line flown because of equipment malfunction at end of production flight on 2/1/79
Note: No post-flight line flown because of darkness on 2/2/79

