

241300-55-T
Volume II

Appendix for
P-3/UWB Flight
Portage, Maine
28-29 June 1995

Volume I
(1st Set Passes)

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19990921 024



ERIM

P.O. Box 134001
Ann Arbor, MI 48113-4001

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 1
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 179:21:50:27
Pass 1
Req.# 0

AIRCRAFT & CHANNEL DATA

<u>Altitude</u>			<u>CH 1</u>	<u>CH 2</u>	<u>CH 3</u>	<u>CH 4</u>
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9999 ft	Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18458 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	36.2°	36.2°	36.2°	36.2°
Des. trk:	10.0°	Far Rng Dep:	17.6°	17.6°	17.6°	17.6°
Start Sq:	90.0°	Atten (dB):	58.0	57.0	58.0	57.0
End Sq:	90.0°					

WAYPOINTS

	<u>Latitude</u>	<u>Longitude</u>	
Line up:	N 46:27.53	W 68:37.06	Main Target: GW
Start:	N 46:39.34	W 68:34.06	Mocomp Point:
End:	N 46:49.18	W 68:31.53	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 30:14.66	W 71:50.72	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 62:59.35	W 62:17.14	Alt: 771.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Groundspeed: Real -> 262.0 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	INS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL1U2A	RX Chirp Filename: CRL1N0A

<u>CAL POWER</u>	<u>ANT BIAS</u>	<u>Tape Footage</u>	<u>Drive no.</u>
X: 0.0	Elevation: 0.0°	Starting: 200 ft	(1)
L: 0.0	Azimuth: 0.0°	Ending: 334 ft	(1)
C: 0.0	Pitch: 0.0°		
P: -12.8			

<u>Vel Bias</u>	<u>CAL Atten</u>
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 21:50:27
End: 21:50:28

Mocomp Counters

CPR (UCT): 00:00:00
Alt: 0 ft (GPS)

	<u>Start</u>	<u>End</u>
Ch 1:	14357 00003815h	15361 00003C01h
Ch 2:	14357 00003815h	15361 00003C01h
Ch 3:	14357 00003815h	15361 00003C01h
Ch 4:	14357 00003815h	15361 00003C01h

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 53
Mission: DAY 4 PORTAGE MAINE

Time: 179:22:44:20
Pass 2
Req.# 24

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	4000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	3927 ft s.d.=	8 Swath Ctr Ang:	10.0°	10.0°	10.0°	10.0°
Slt. rng:	19234 ft	Tgt Dep Ang:	10.0°	10.0°	10.0°	10.0°
Look:	Right	St rng (ft):	17700	17700	17700	17700
Depr Ang:	25.0°	Near Rng Dep:	12.8°	12.8°	12.8°	12.8°
Des. trk:	276.0°	Far Rng Dep:	6.7°	6.7°	6.7°	6.7°
Start Sq:	90.0°	Atten (dB):	60.0	65.0	60.0	65.0
End Sq:	90.0°	RMS Video (%FS)	6.3	5.0	4.4	5.6

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.05	W 68:06.22
Start:	N 46:41.34	W 68:23.54
End:	N 46:42.39	W 68:38.00
From:	N 42:35.75	W 45:47.43
To:	N 45:53.01	W 92:36.72

Main Target: SIG

Mocomp Point:

Lat: N 46:44.97

Long: W 68:30.30

Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 253.1 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.4 fps (s.d.= 2.1)
Ave Fil Vel -> -.9 fps (s.d.= 1.5)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°		
L: -70.0	Azimuth: 0.0°	Starting: 350 ft	(1)
C: -70.0	Pitch: 0.0°	Ending: 1590 ft	(1)
P: 40.0			

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 22:44:20
End: 22:46:59

Mocomp Counters

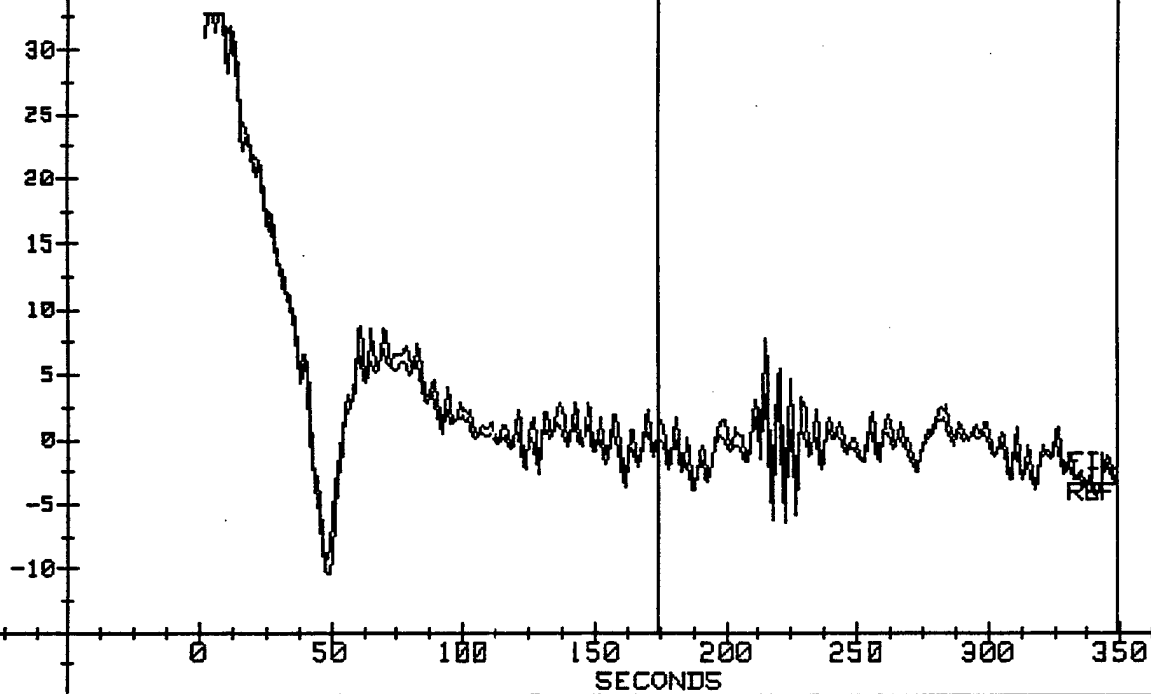
Start: 47206 0000B866h
End: 73874 00012092h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY

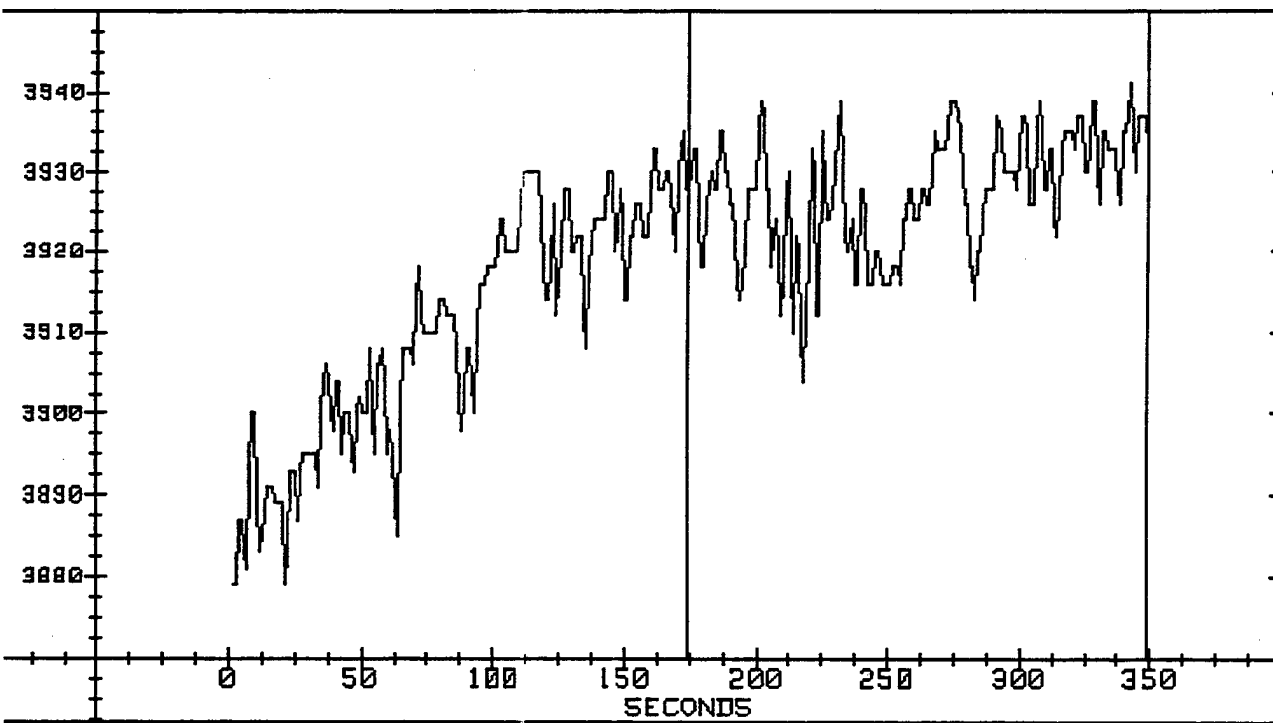
DAY 179 TIME 22:41 PASS 2

INS
LORAN
GPS



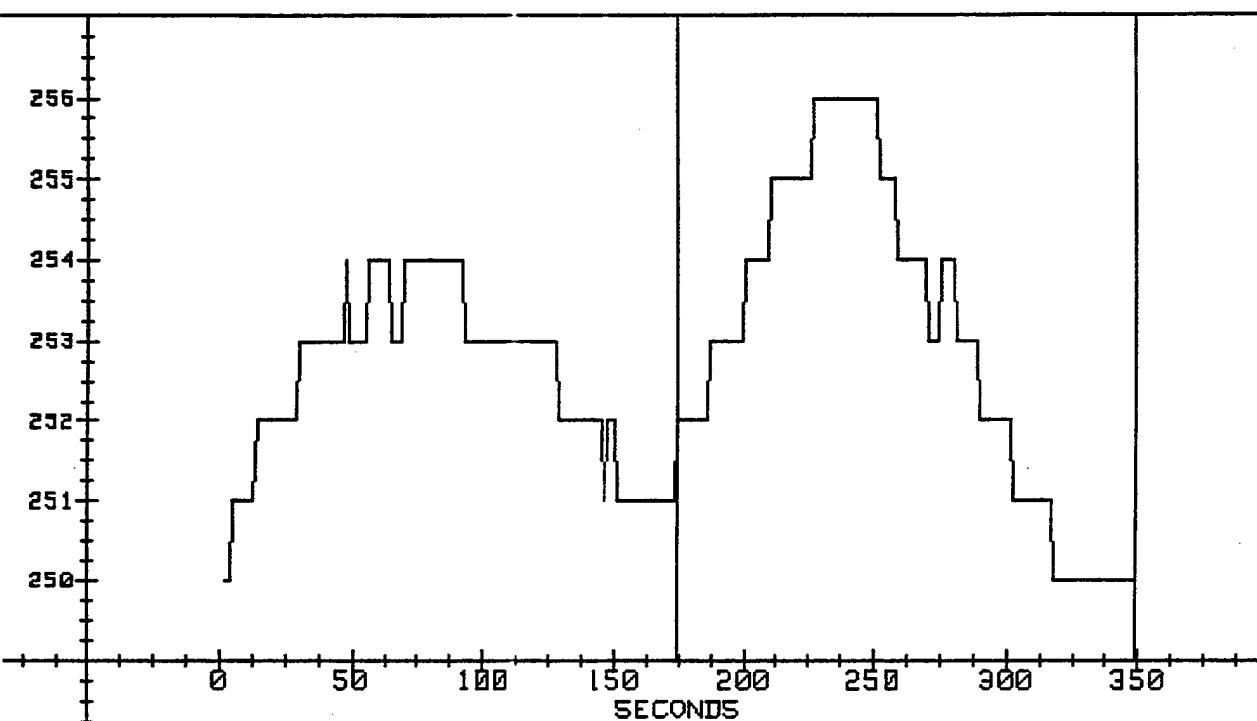
BARO ALTITUDE

DAY 179 TIME 22:41 PASS 2 m= 3927, sd= 7.80381



INS GROUND SPEED

DAY 179 TIME 22:41 PASS 2 m= 253.1, sd= 2.10B58



PASS NUMBER

DAY 179 TIME 22:41 PASS 2 m= 2, sd= 0

2.1

2

1.9

0

50

100

150

200

250

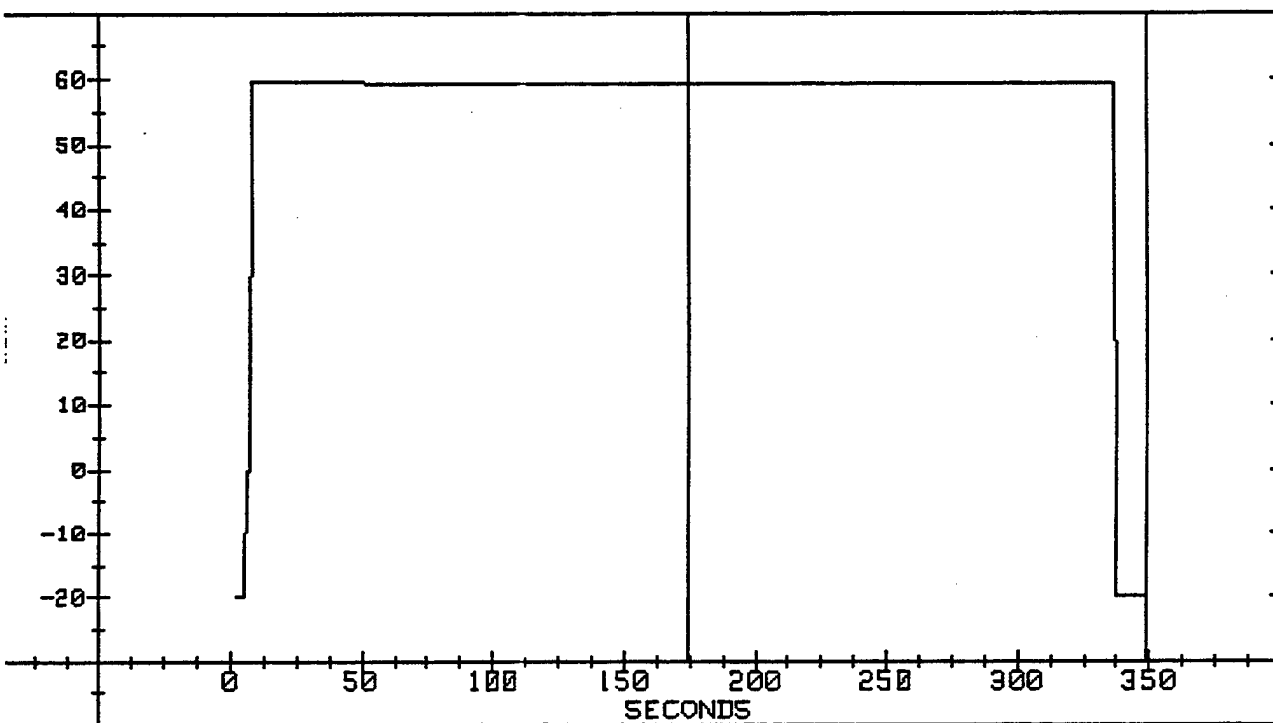
300

350

SECONDS

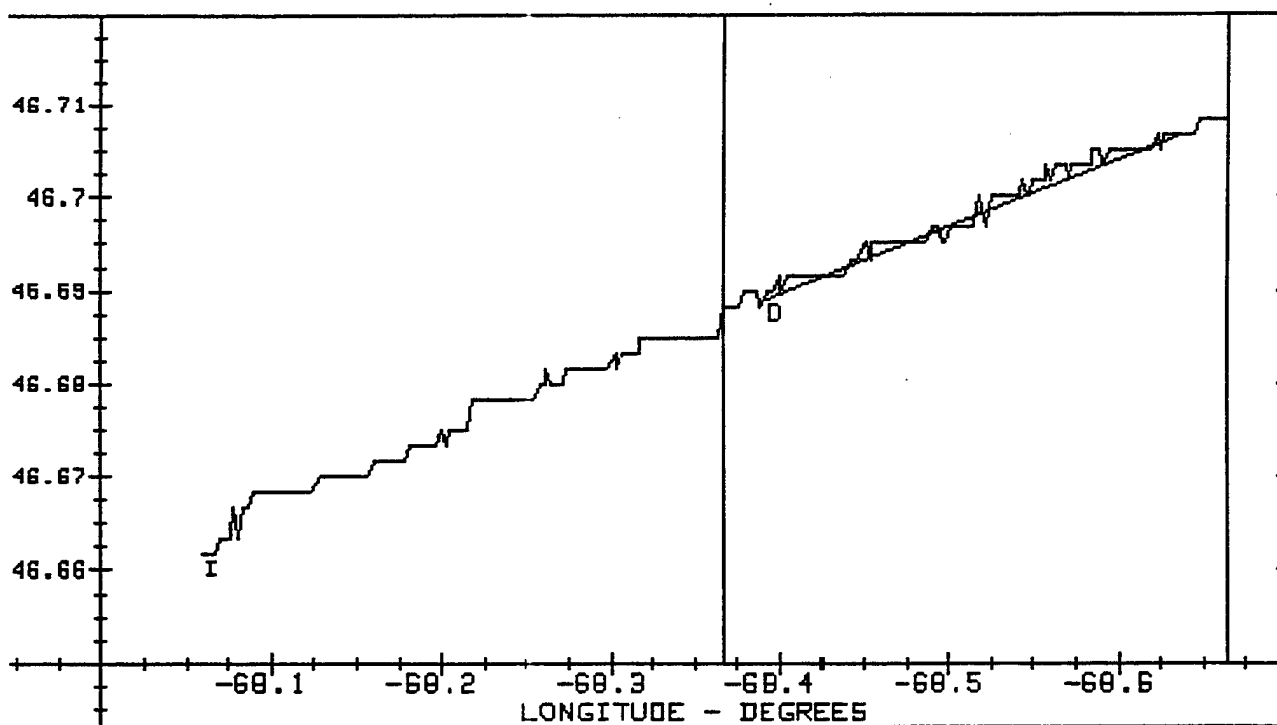
P Band Power

DAY 179 TIME 22:41 PASS 2 m= 52.79, sd= 21.6475



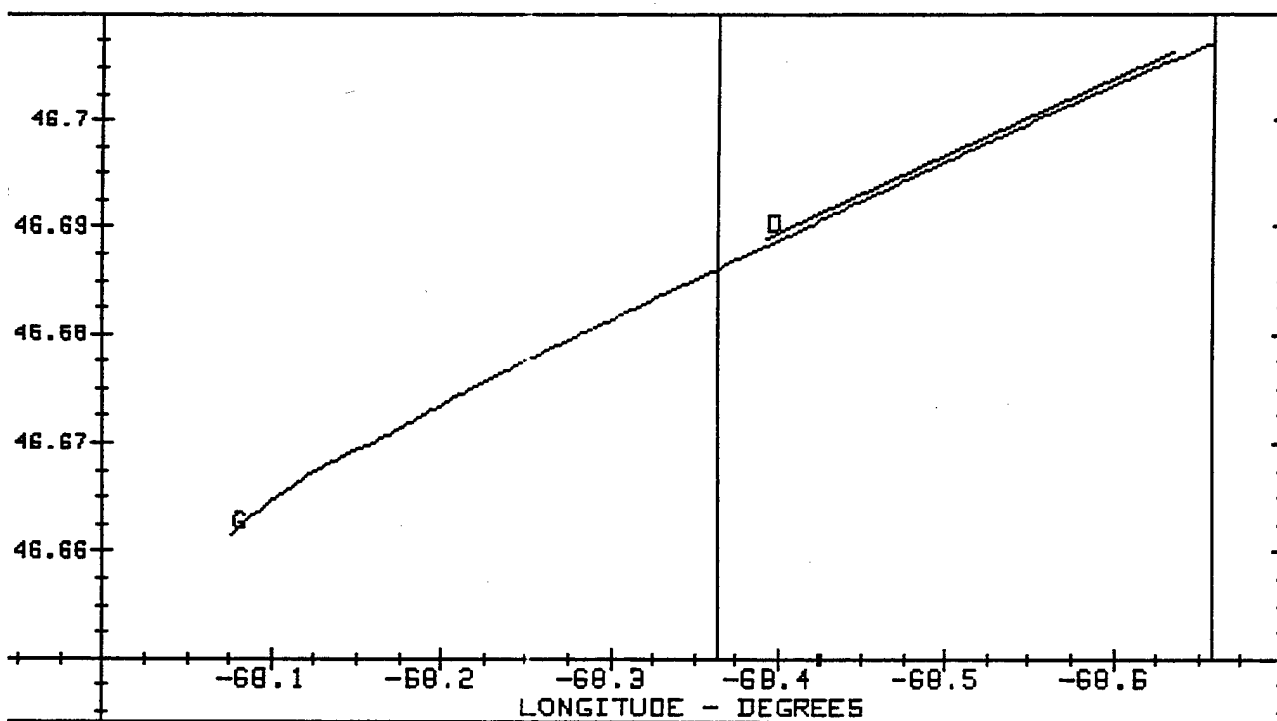
INS AIRCRAFT POSITION

DAY 179 TIME 22:41 PASS 2



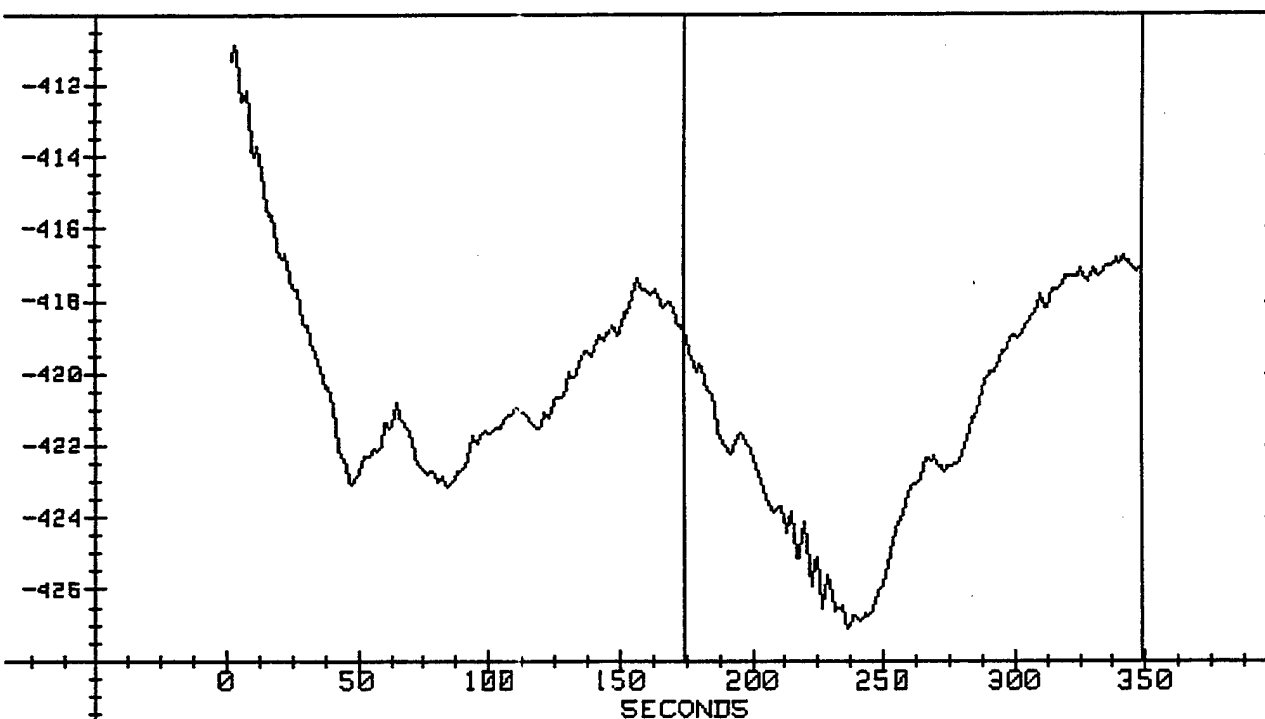
GPS AIRCRAFT POSITION

DAY 179 TIME 22:41 PASS 2



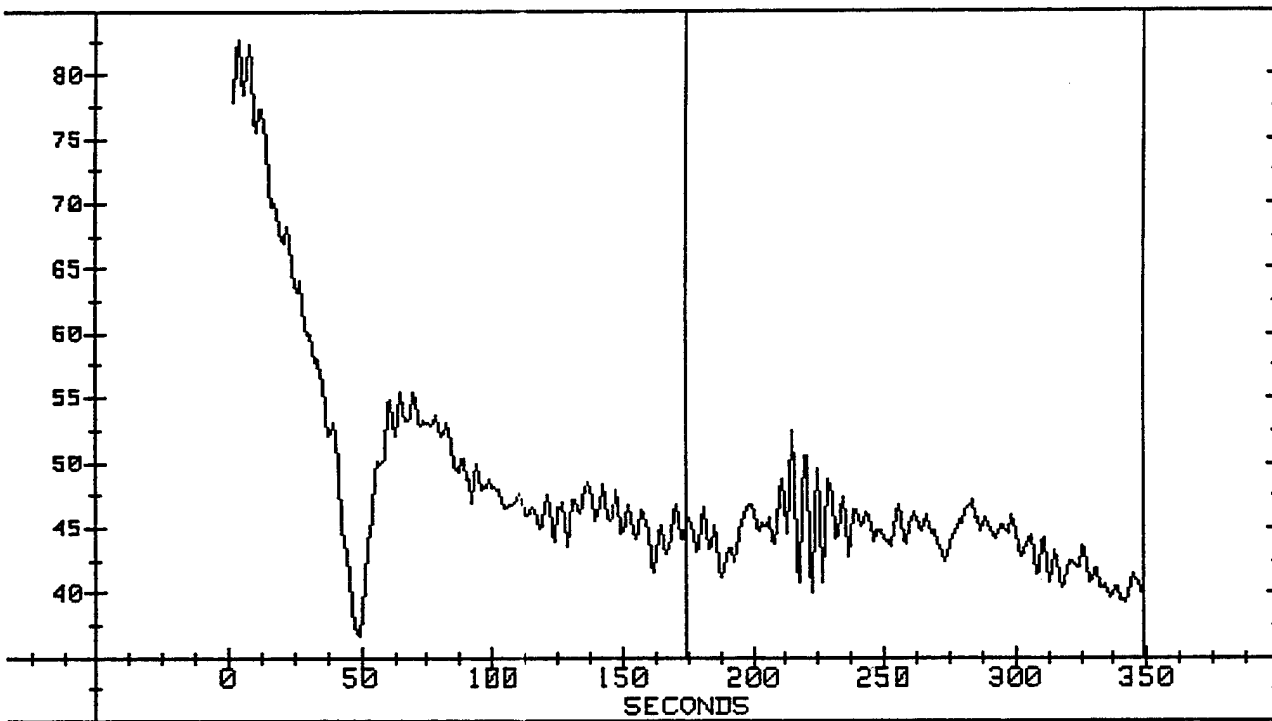
GPS V_b

DAY 179 TIME 22:41 PASS 2 m= -421.7, sd= 3.31081



GPS Vn

DAY 179 TIME 22:41 PASS 2 m= 44.15, sd= 2.4221



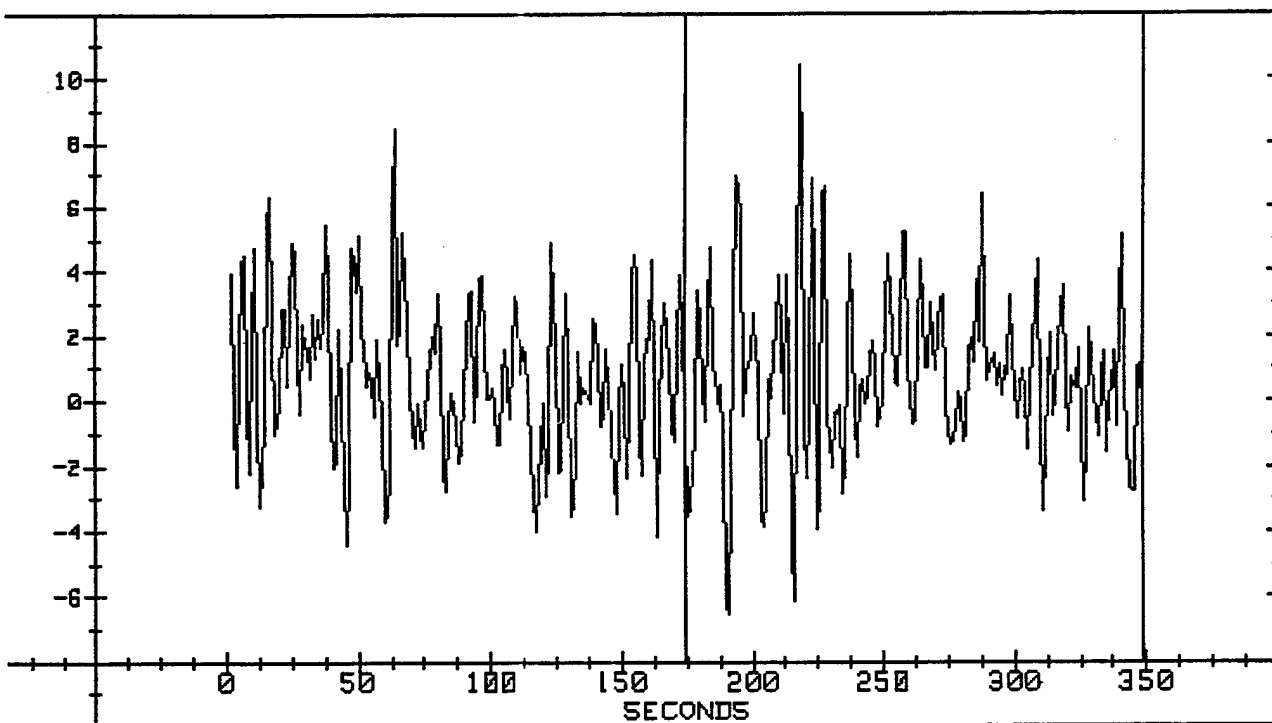
GPS Vv

DAY 179

TIME 22:41

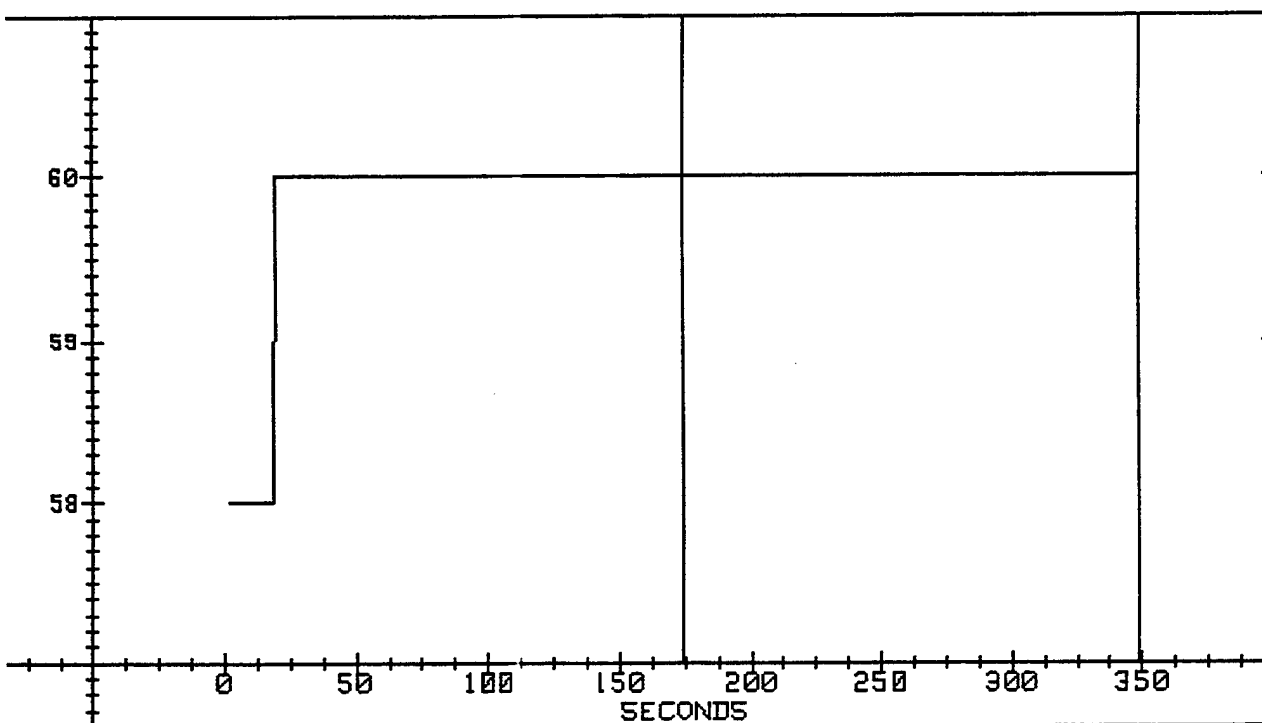
PASS 2

m= .8354, sd= 2.62318



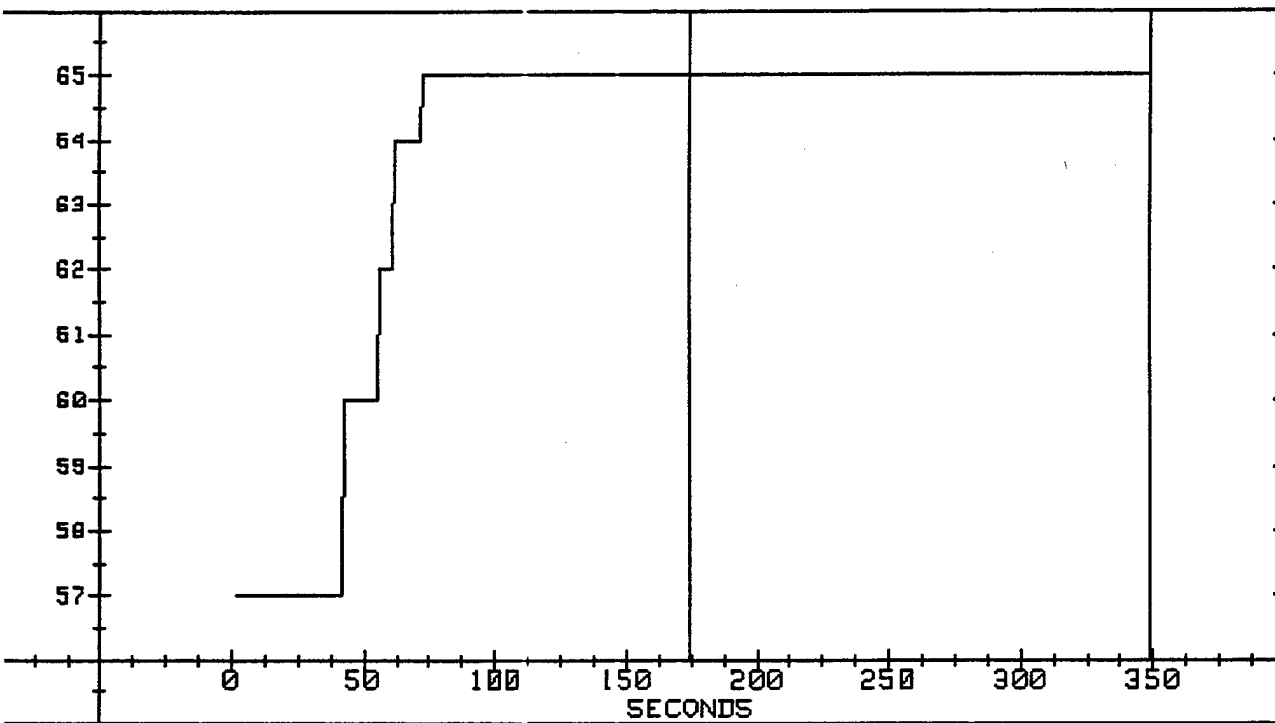
Ch1 RES Attenuation

DAY 179 TIME 22:41 PASS 2 m= 60, sd= 0



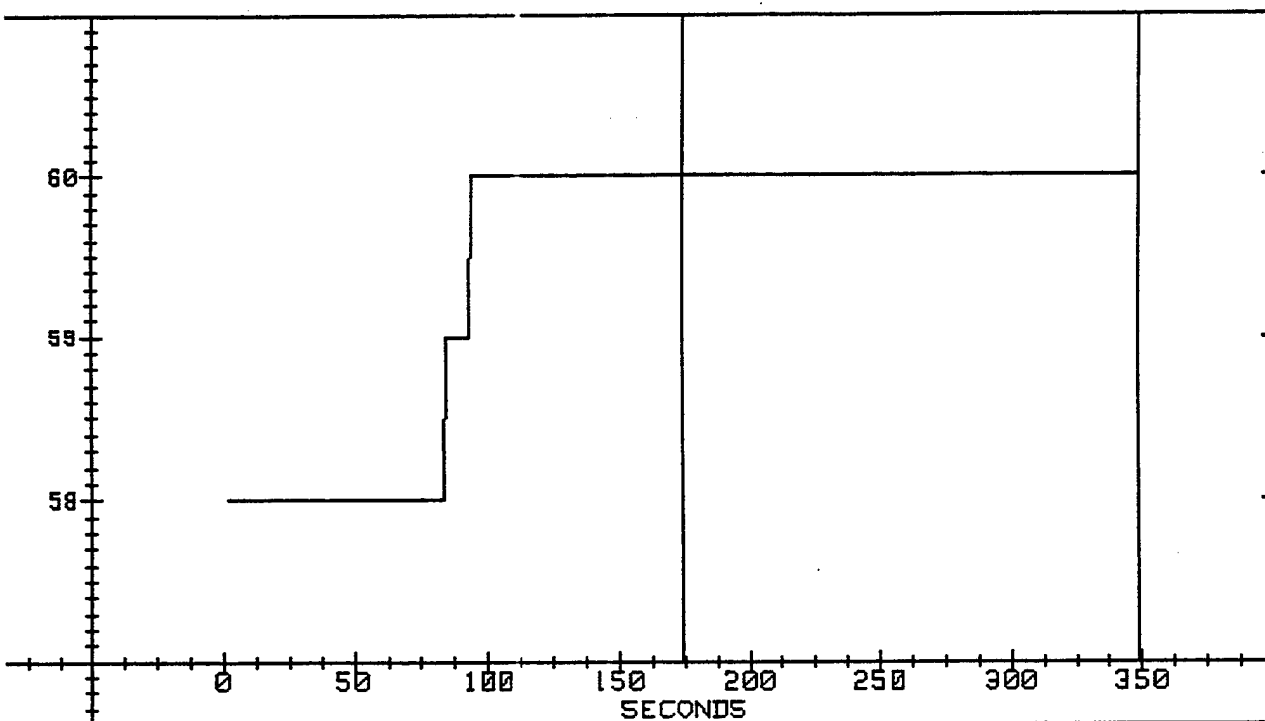
Ch2 RES Attenuation

DAY 179 TIME 22:41 PASS 2 m= 65, sd= 0



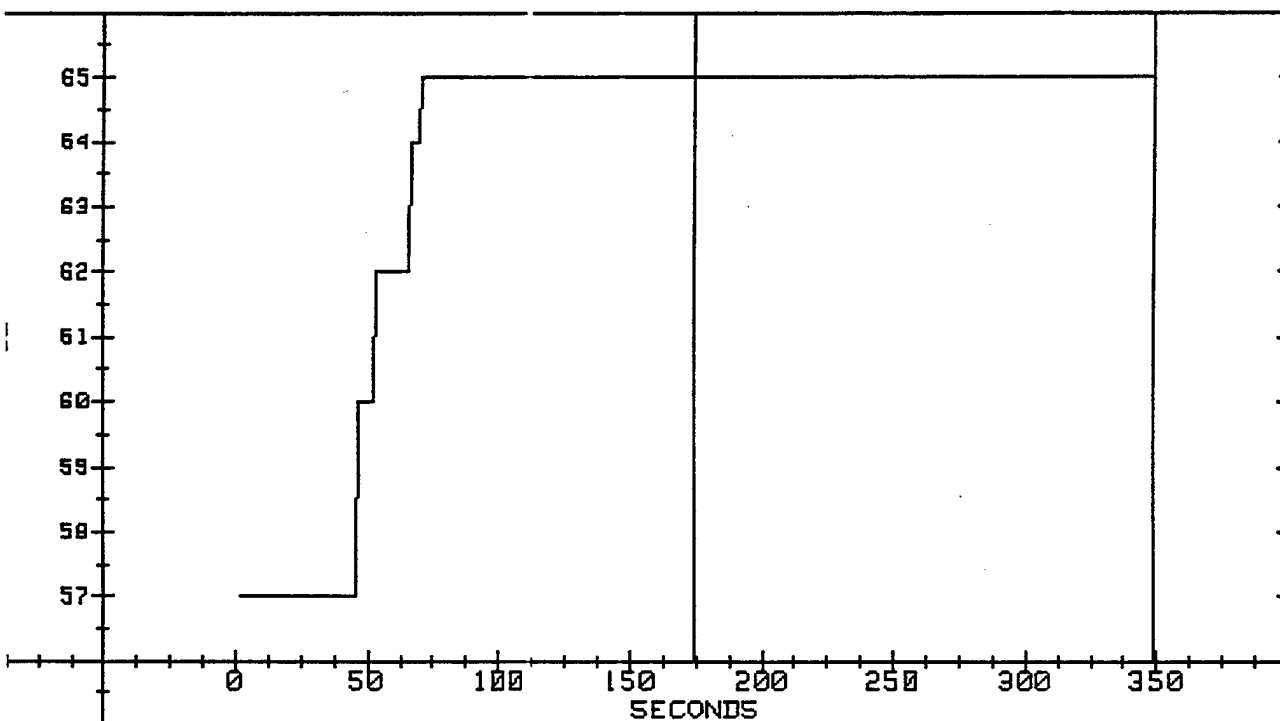
Ch3 RES Attenuation

DAY 179 TIME 22:41 PASS 2 m= 60, sd= 0



Ch4 RES Attenuation

DAY 179 TIME 22:41 PASS 2 m= 65, sd= 0



GPS ALTITUDE

MEAN= 4249.18 STANDARD DEVIATION= 43.3271

DATE: June 28, 1995 PASS 2

OFF
ON
BAR

4300

4280

4260

4240

4220

4200

4180

320

325

330

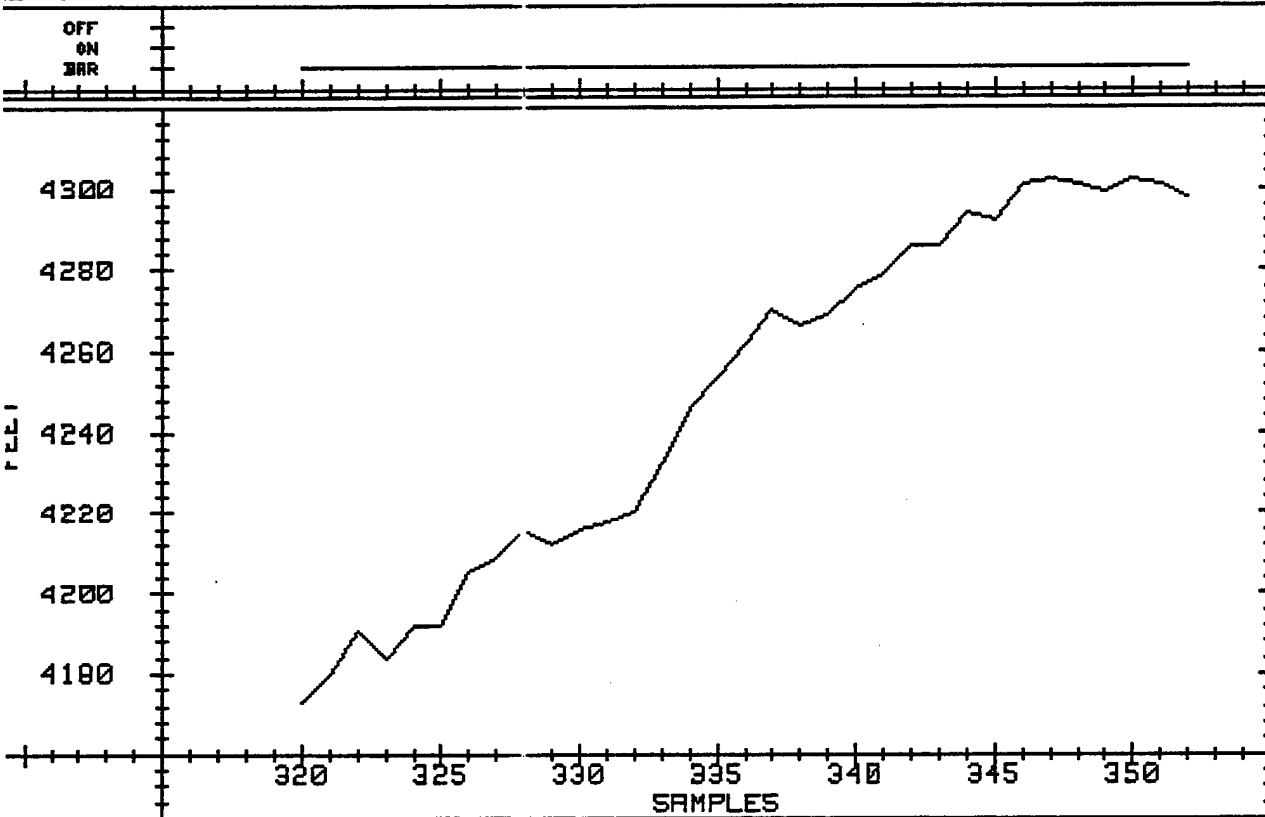
335

340

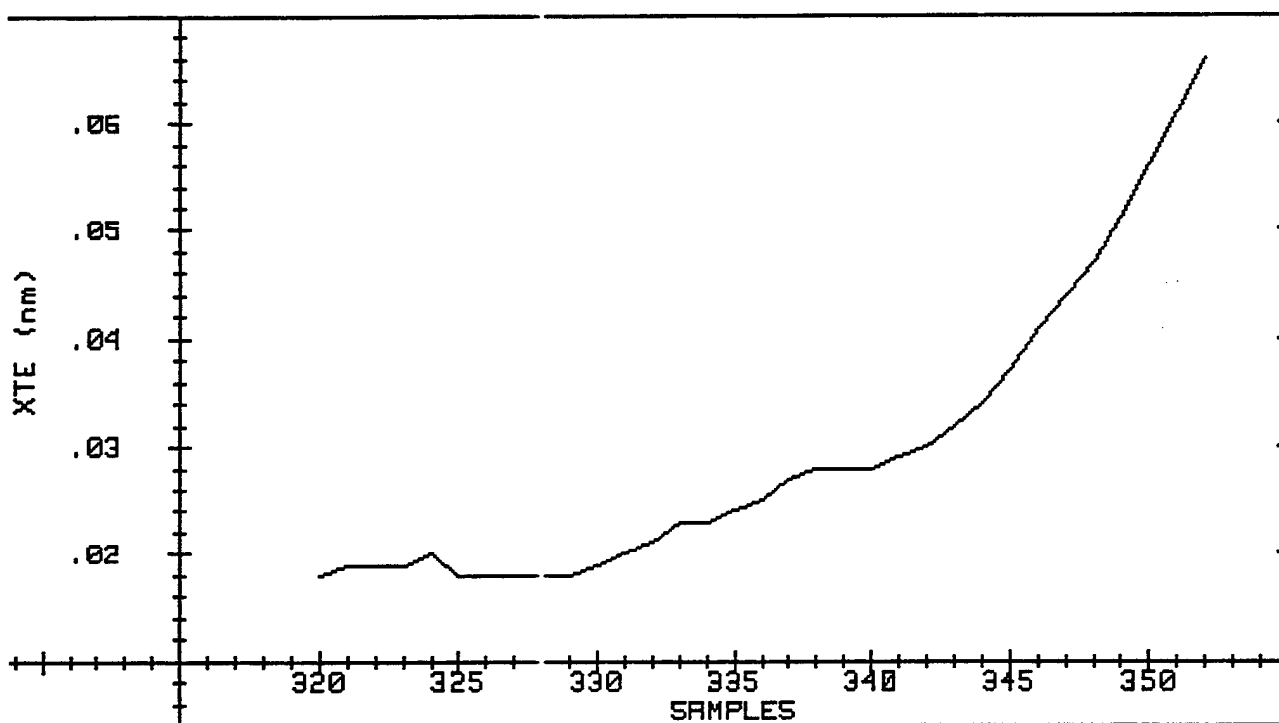
345

350

SAMPLES

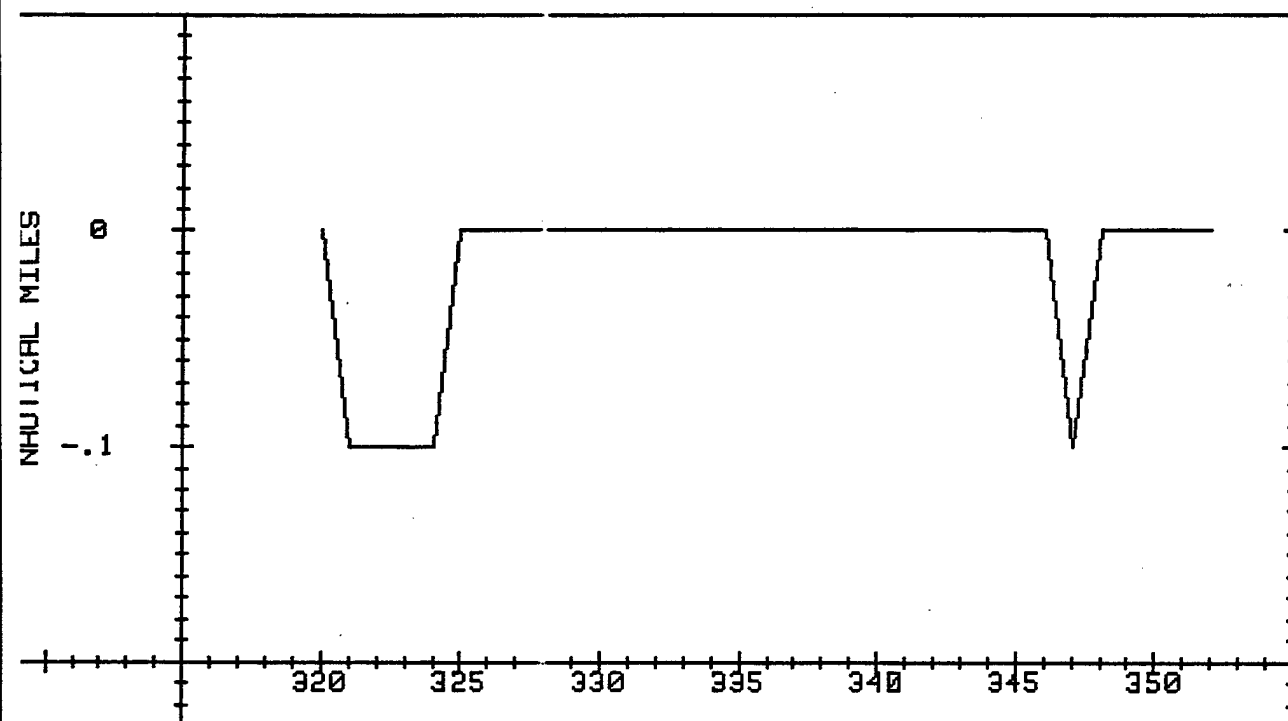


GPS Cross Track Error
MEAN= .0296667 STANDARD DEVIATION= .0133204
DATE: June 28, 1995 PASS 2



INS CROSS TRACK ERROR

MEAN- -.0151515 STANDARD DEVIATION- .035855
DATE: June 28, 1995 PASS 2



29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 41
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:10:32
Pass 9
Req.# 18

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5429 ft s.d.=	5 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	250.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	57.0	61.0	56.0	61.0
End Sq:	90.0°	RMS Video (%FS)	11.1	8.2	8.7	10.2

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:46.84	W 68:04.33
Start:	N 46:42.77	W 68:20.74
End:	N 46:39.35	W 68:34.40
From:	N 49:51.41	W 43:51.05
To:	N 39:02.51	W 88:42.50

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 254.3 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 4.6 fps (s.d.= 12.5)
Ave Fil Vel -> 4.4 fps (s.d.= 12.5)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.7	

Tape Footage	Drive no.
Starting: 200 ft	(2)
Ending: 1454 ft	(2)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

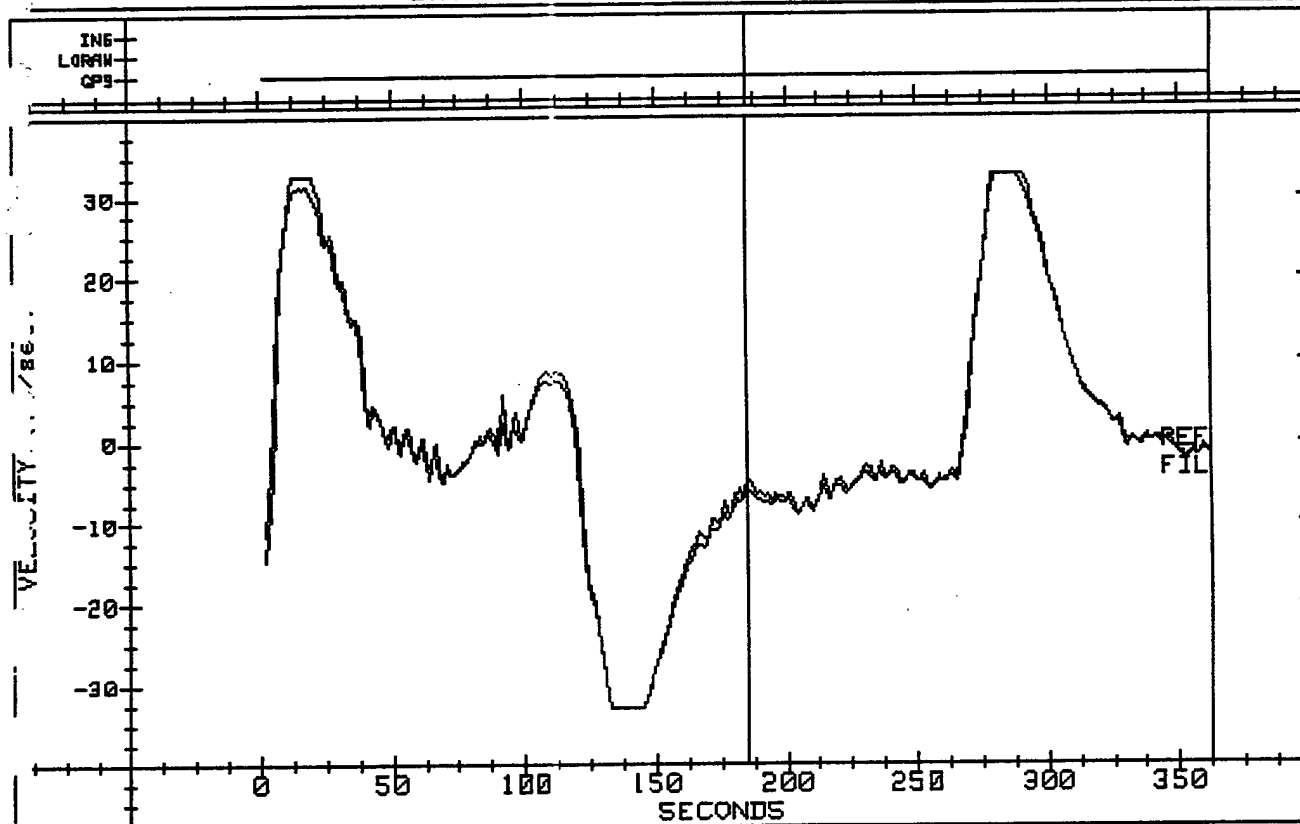
LINE Map Time (UCT)
Start: 00:10:32
End: 00:13:11

Mocomp Counters

Start: 435984 0006A710h
End: 462650 00070F3Ah

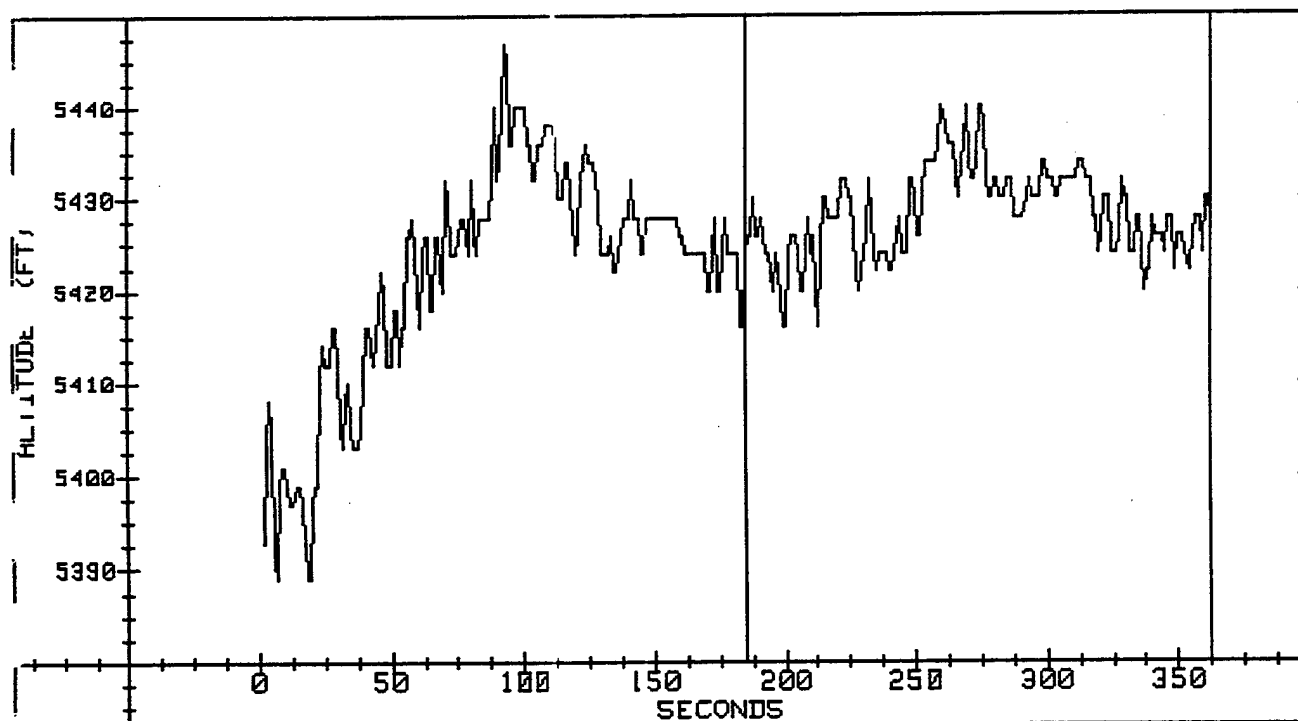
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 100 TIME 0:7 PASS 9



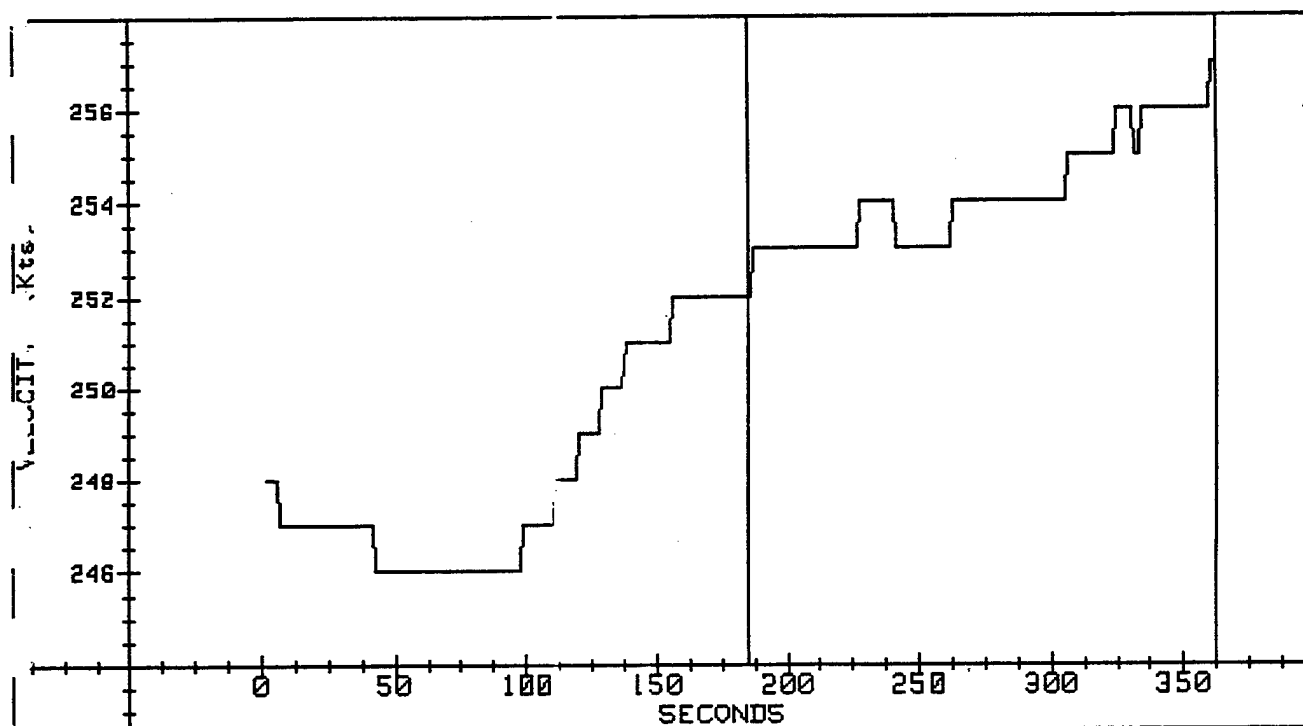
BARO ALTITUDE

DAY 100 TIME 0:7 PASS 9 m= 5429, sd= 4.52631



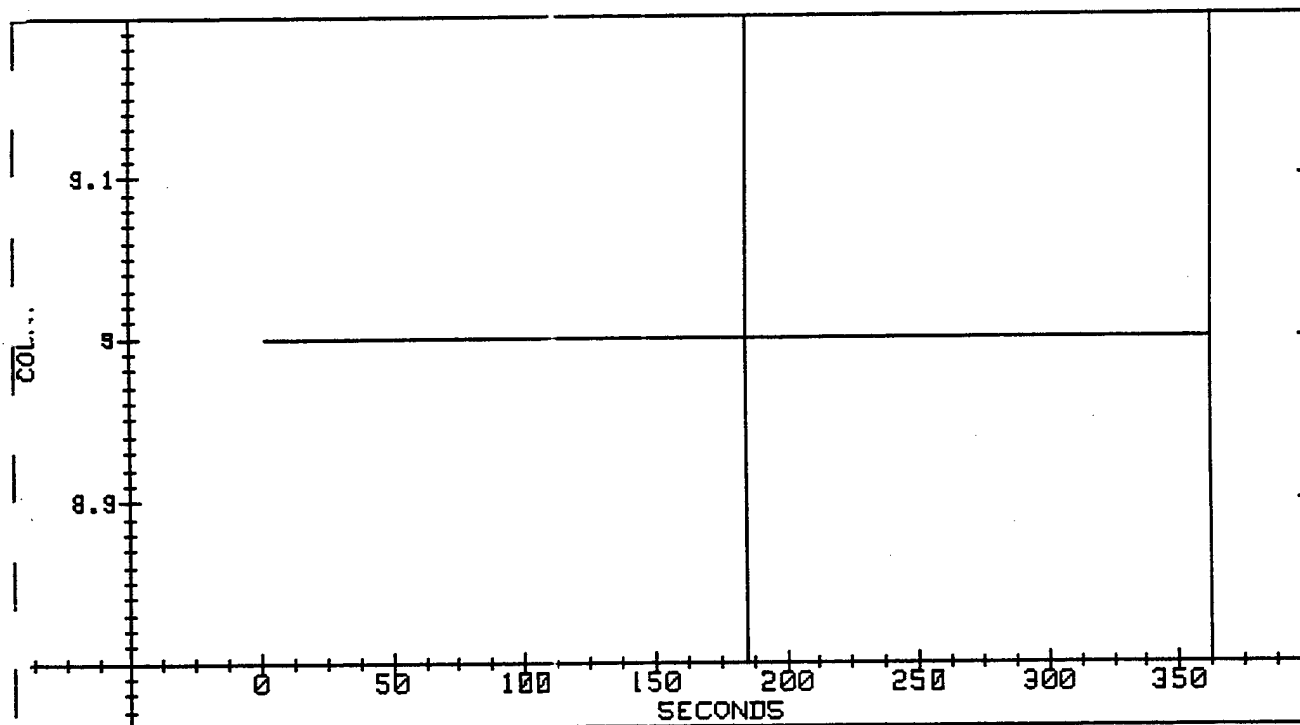
INS GROUND SPEED

DAY 180 TIME 0:7 PASS 9 m= 254.3, sd= 1.14667



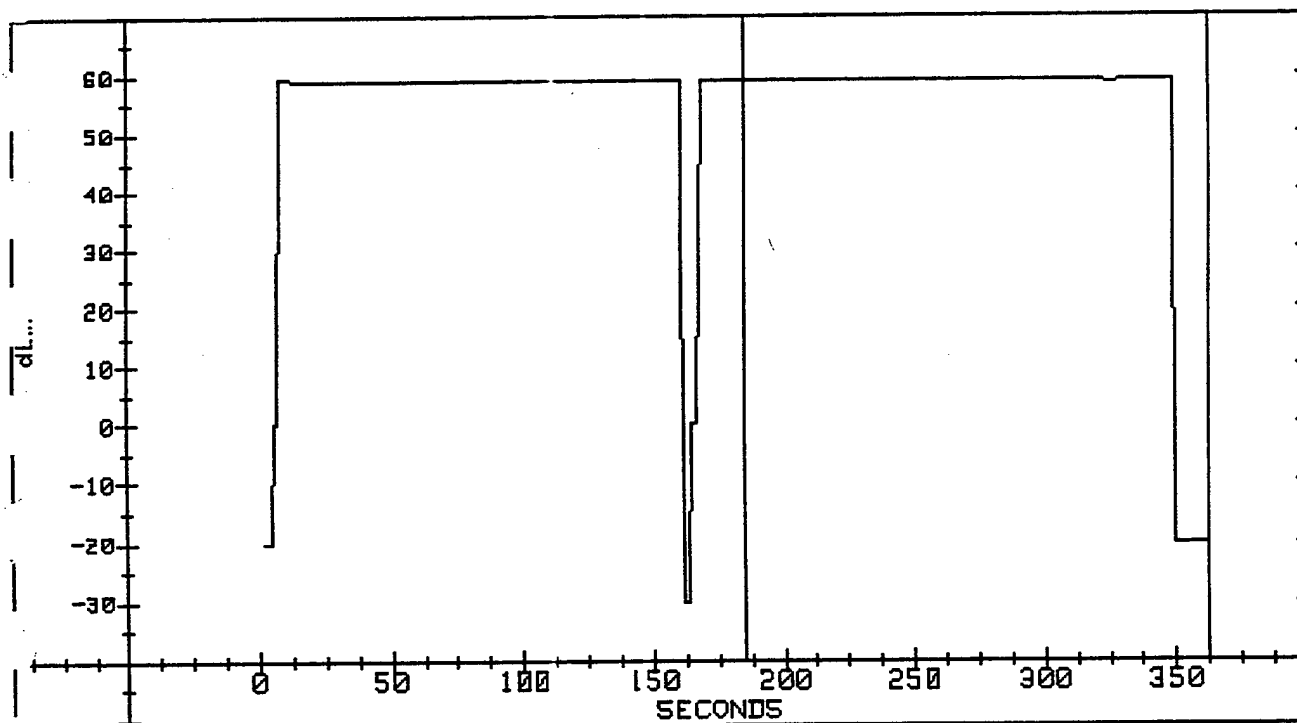
PASS NUMBER

DAY 100 TIME 0:7 PASS 9 m- 9, sd- 0



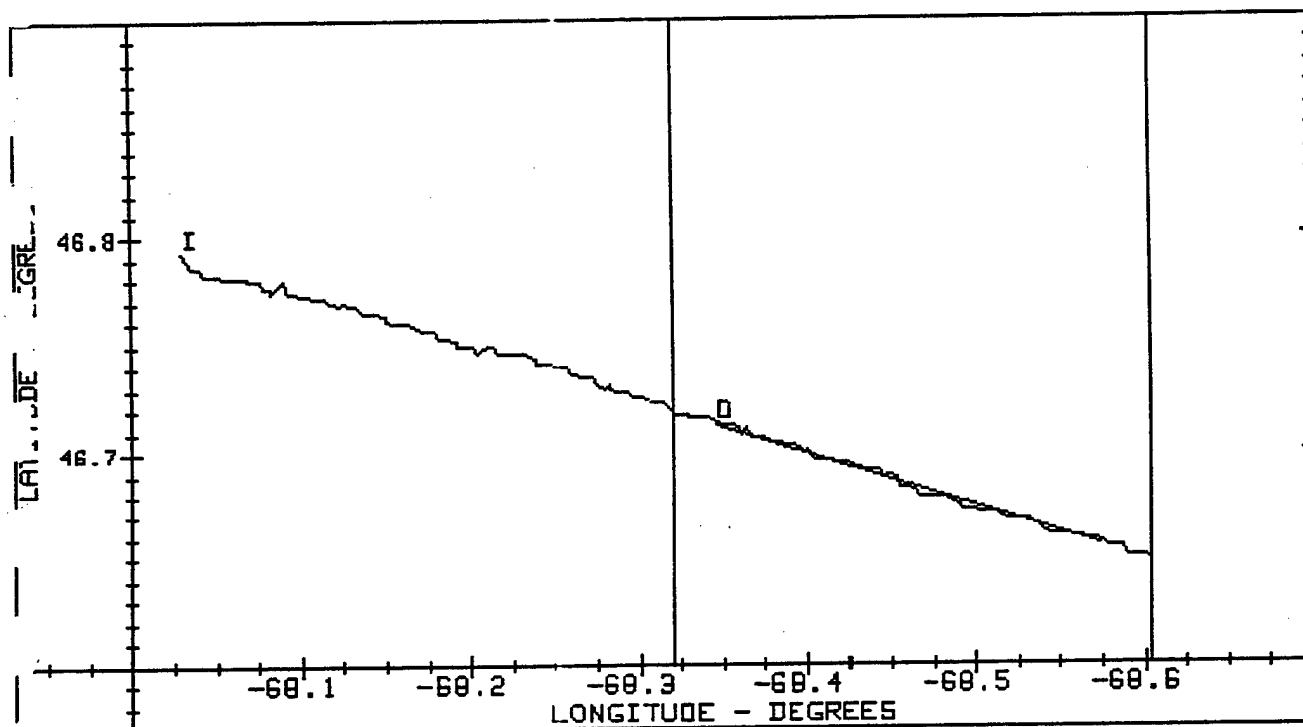
P Band Power

DAY 100 TIME 0:7 PASS 9 m= 52.49, sd= 21.556



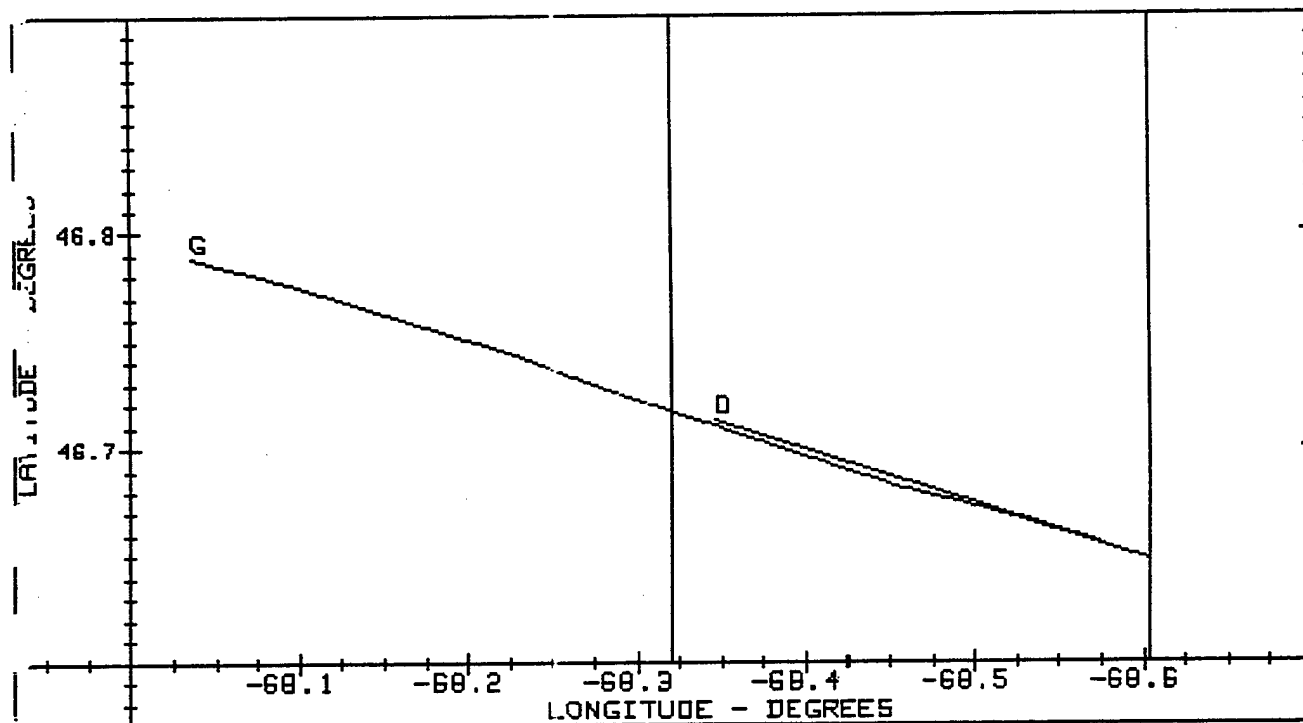
INS AIRCRAFT POSITION

DAY 180 TIME 0:7 PASS 9



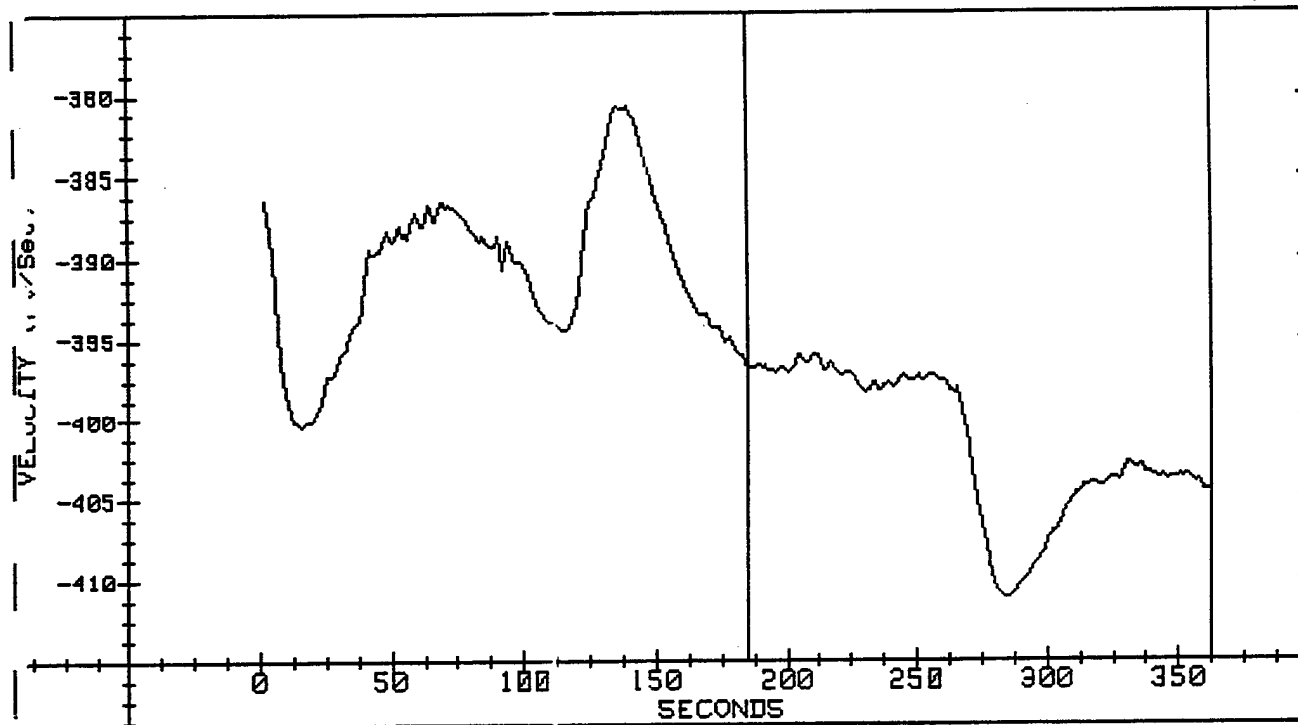
GPS AIRCRAFT POSITION

DAY 100 TIME 0:7 PASS 9



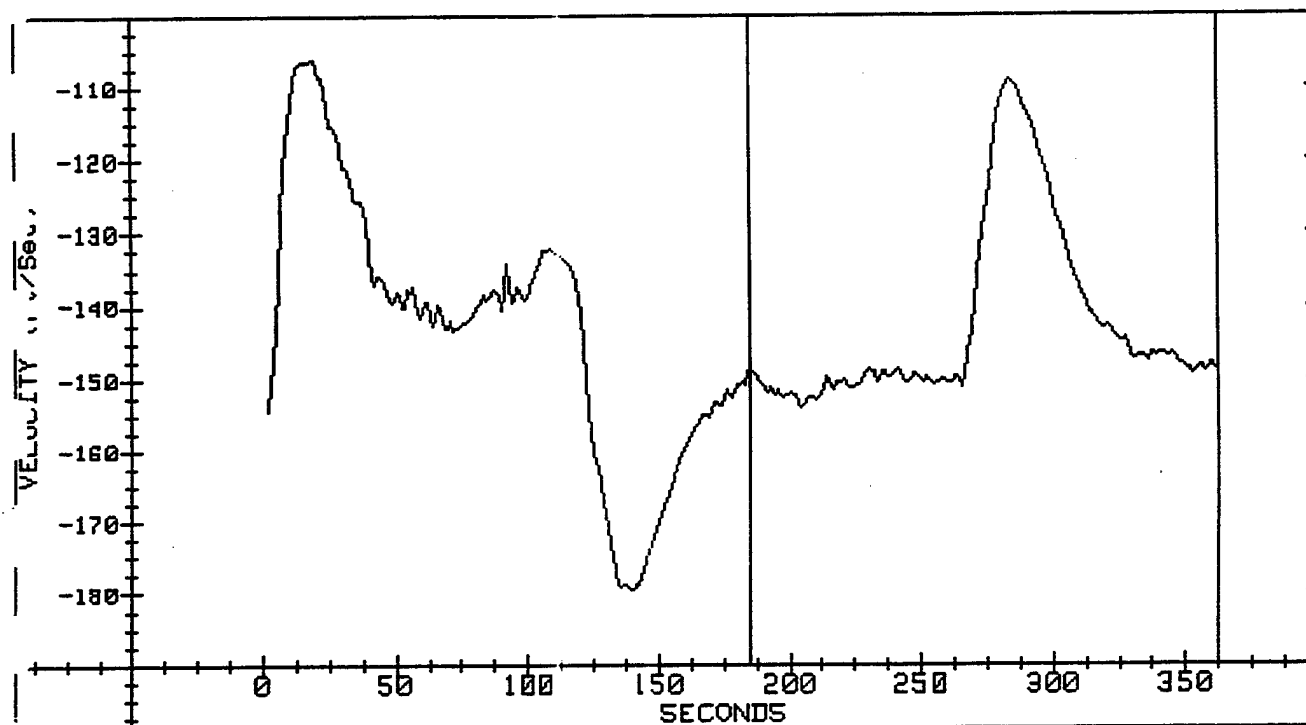
GPS V_e

DAY 180 TIME 0:7 PASS 9 m = -402.2, sd = 4.57016



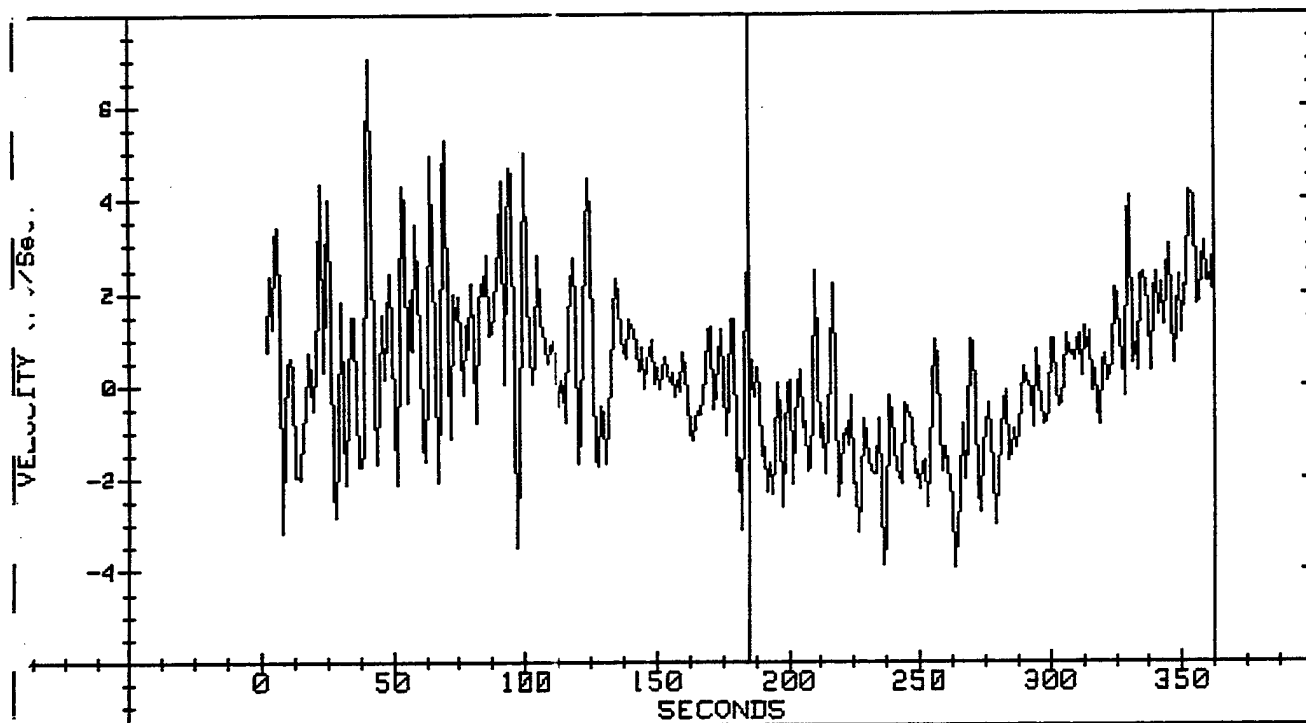
GPS Vn

DAY 180 TIME 0:7 PASS 9 m= -141.5, sd= 12.7394



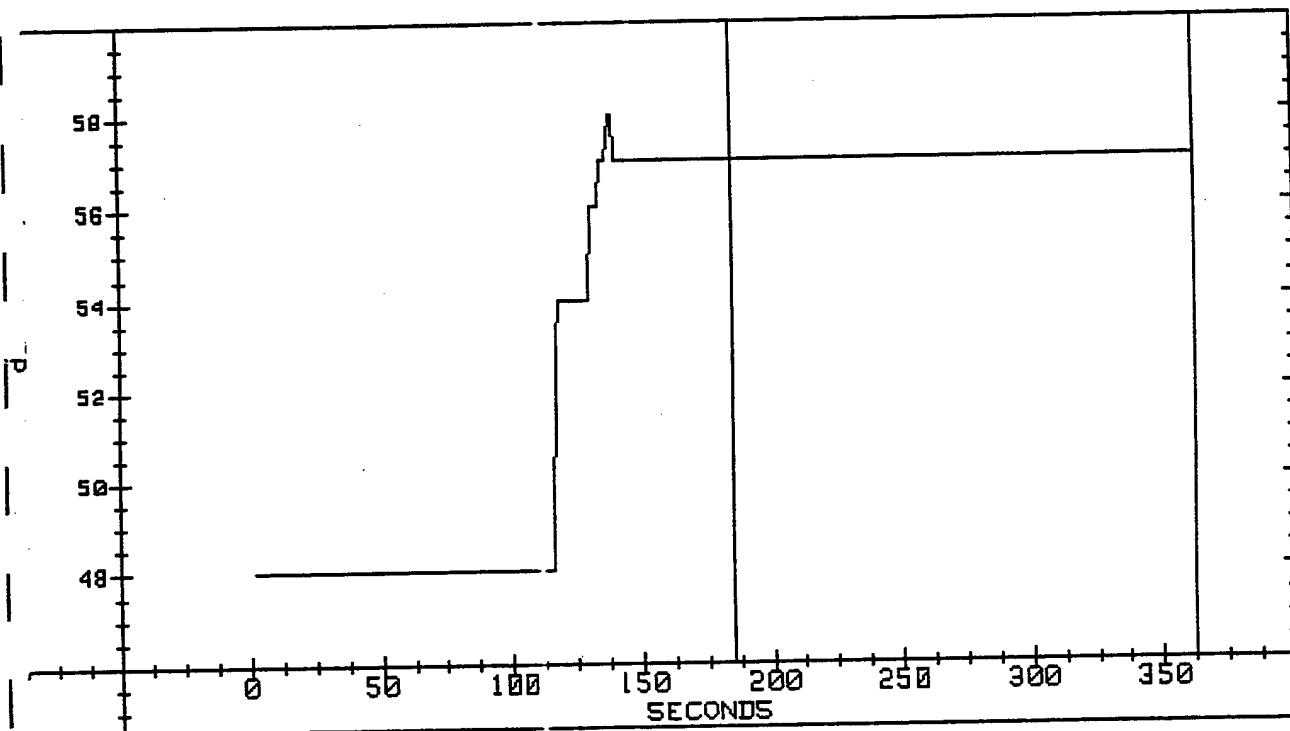
GPS Vv

DAY 100 TIME 0:7 PASS 9 m= -.1297, sd= 1.60529



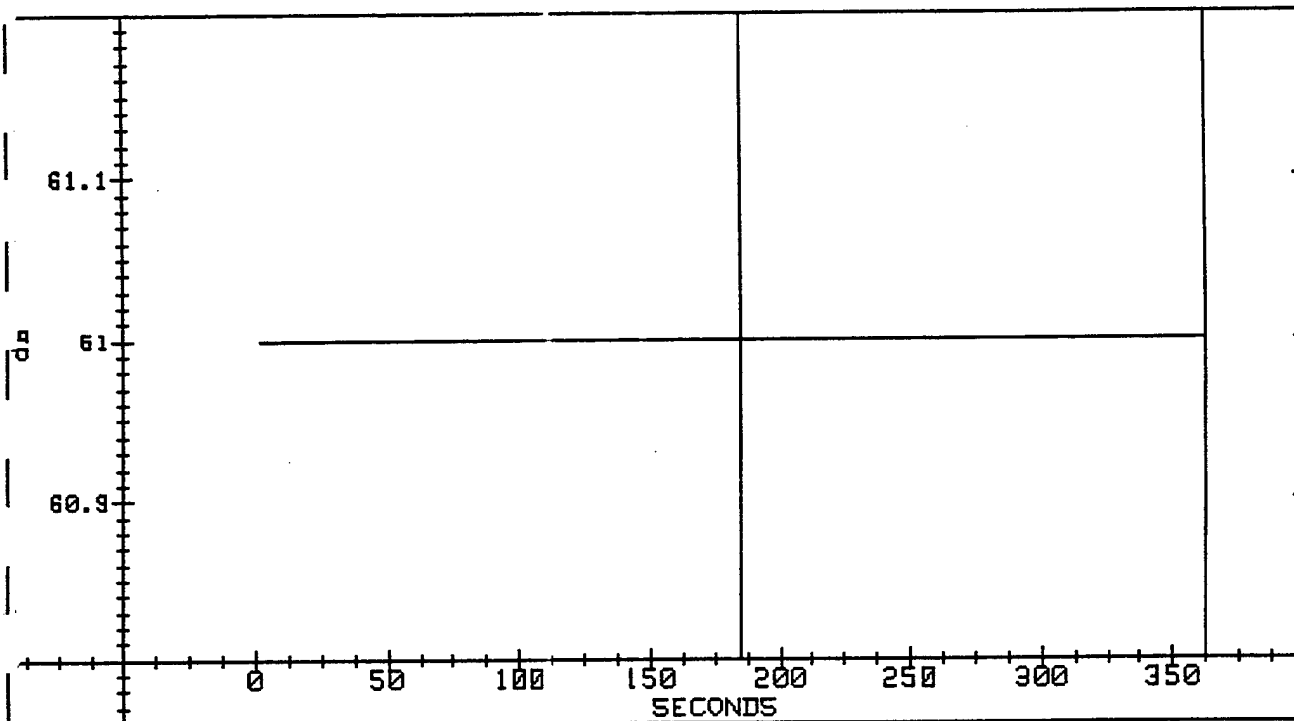
Ch1 RES Attenuation

DAY 100 TIME 0:7 PASS 9 m= 57, sd= 0



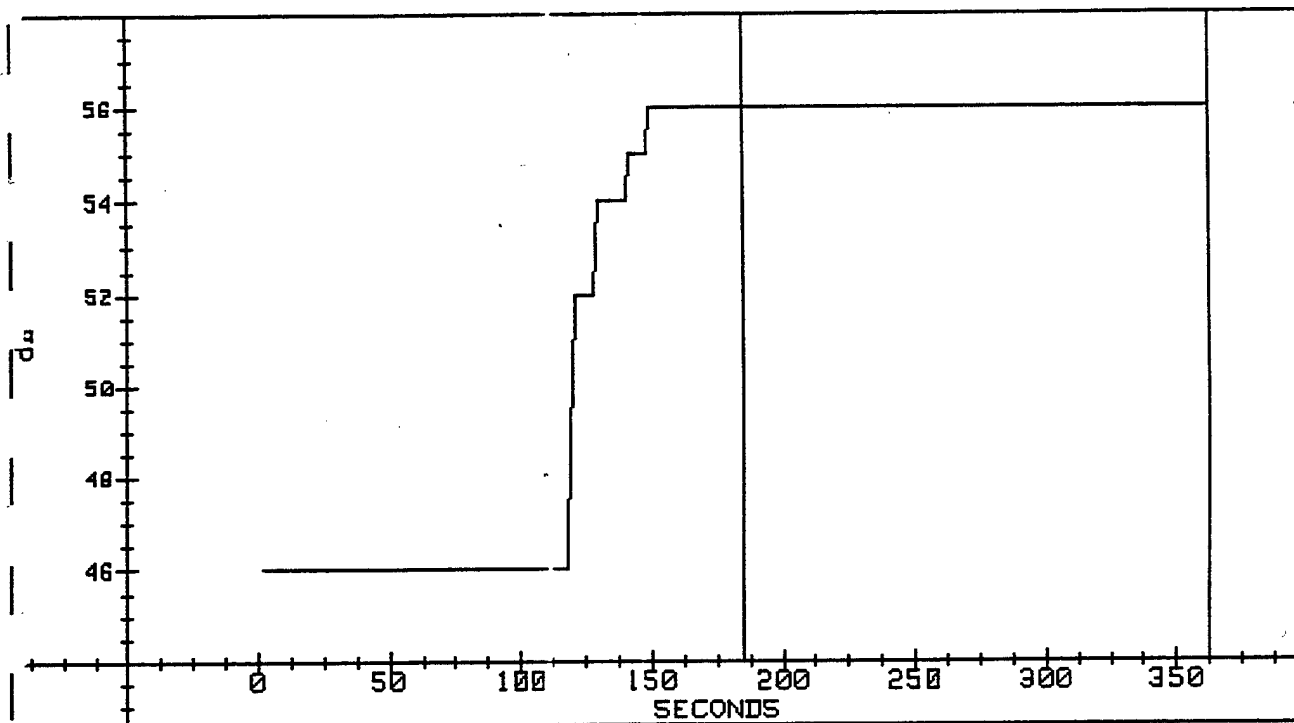
Ch2 RES Attenuation

DAY 180 TIME 0:7 PASS 9 m= 61. sd= 0



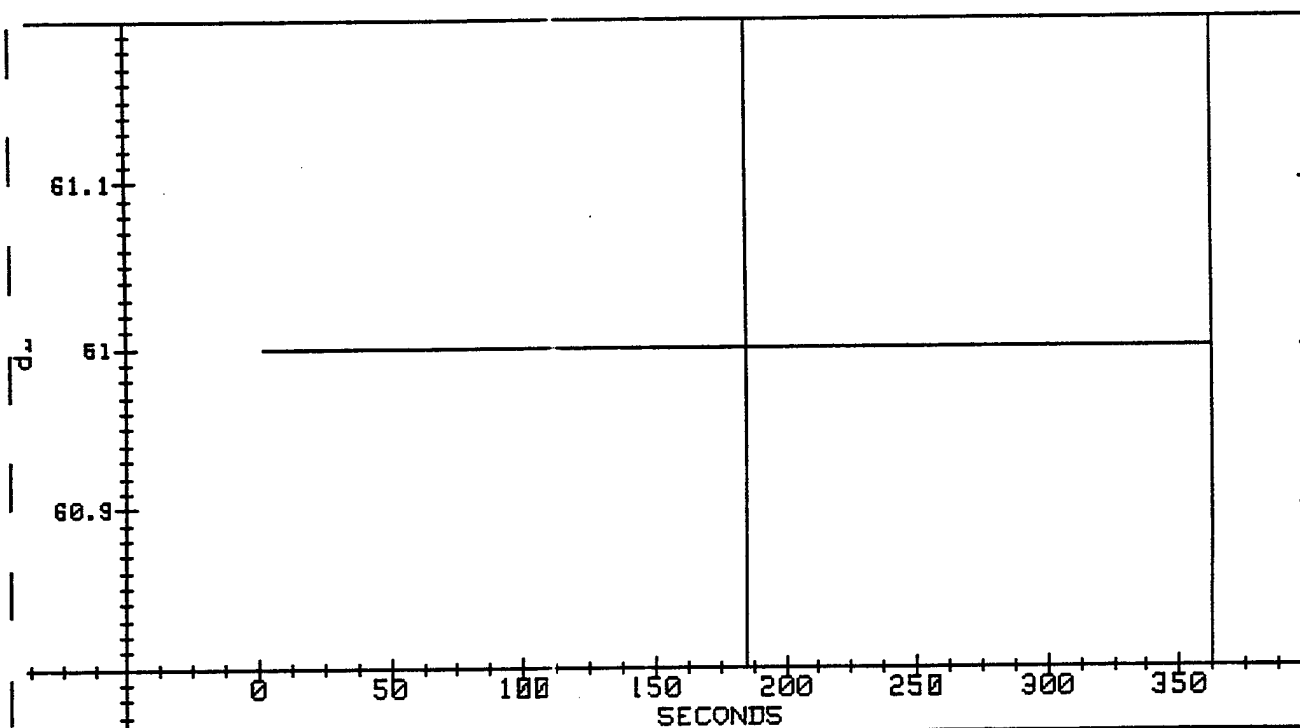
Ch3 RES Attenuation

DAY 100 TIME 0:7 PASS 9 m= 56, sd= 0



Ch4 RES Attenuation

DAY 100 TIME 0:7 PASS 9 m= 61. sd= 0

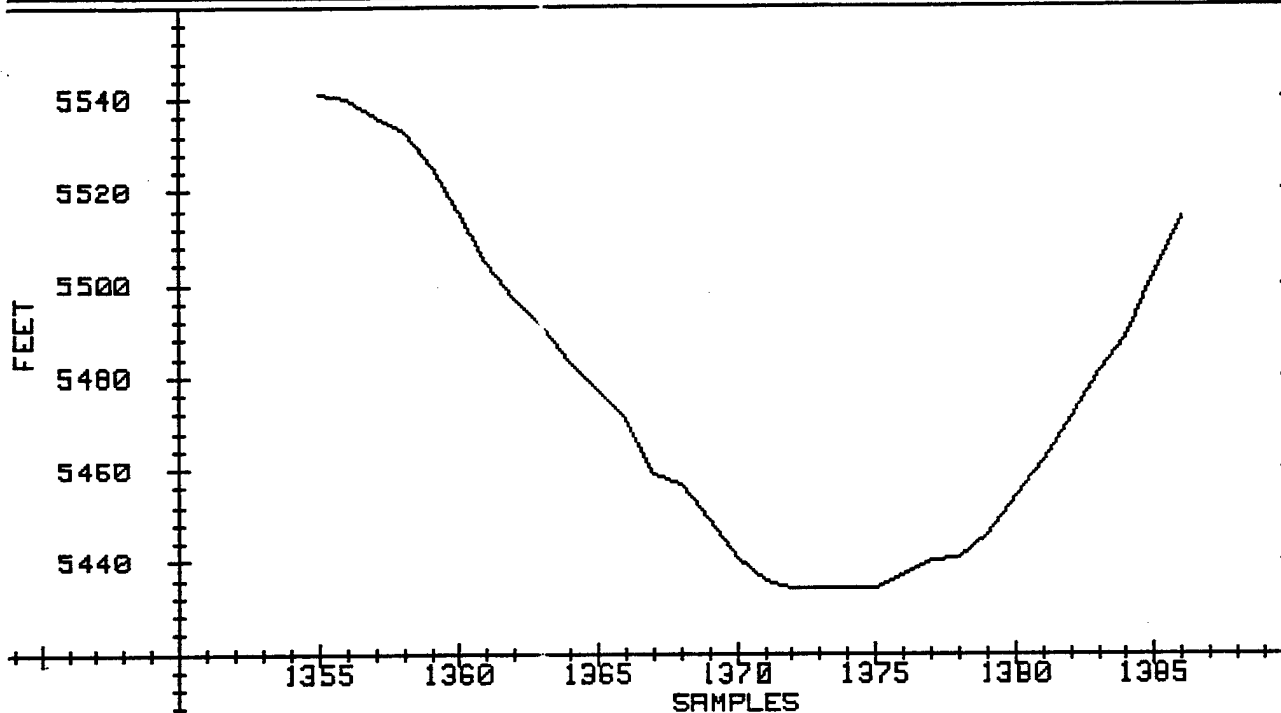


GPS ALTITUDE

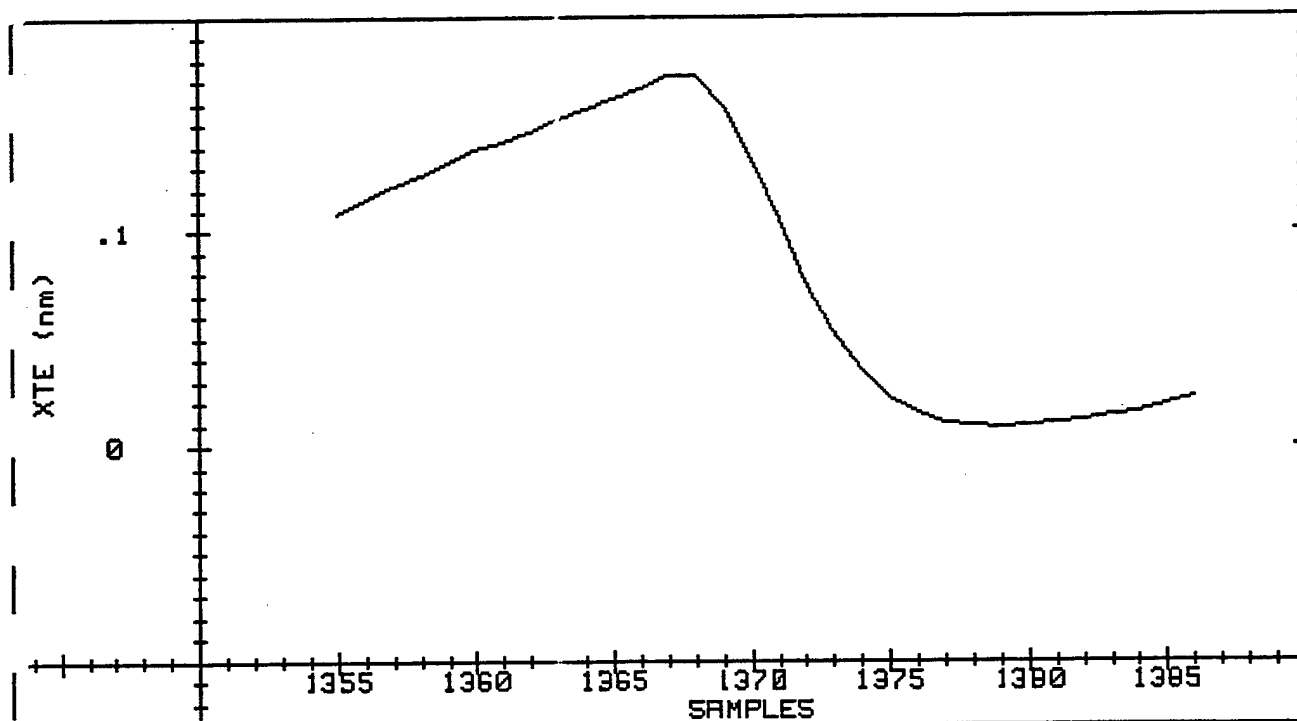
MEAN= 5475.91 STANDARD DEVIATION= 35.3327

DATE: June 28, 1995 PASS 9

OFF
ON
BRR



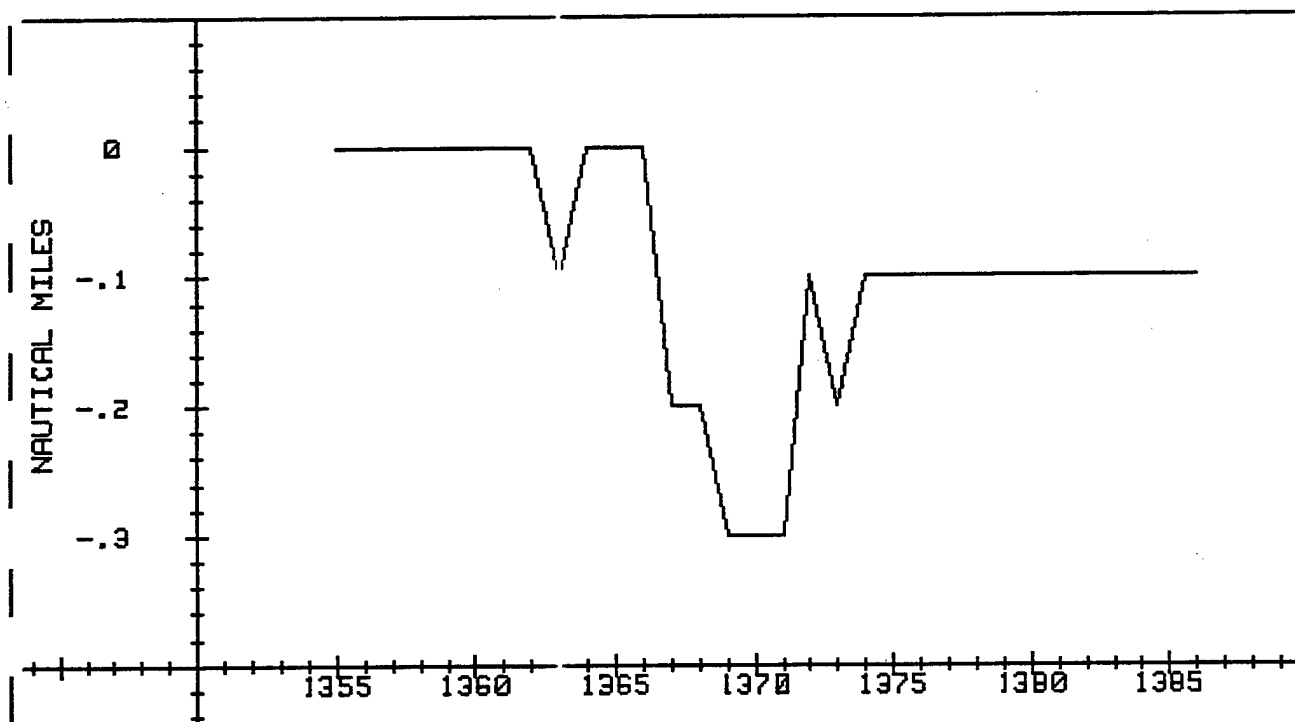
GPS Cross Track Error
MEAN= .0858437 STANDARD DEVIATION= .0630308
DATE: June 28, 1995 PASS 9



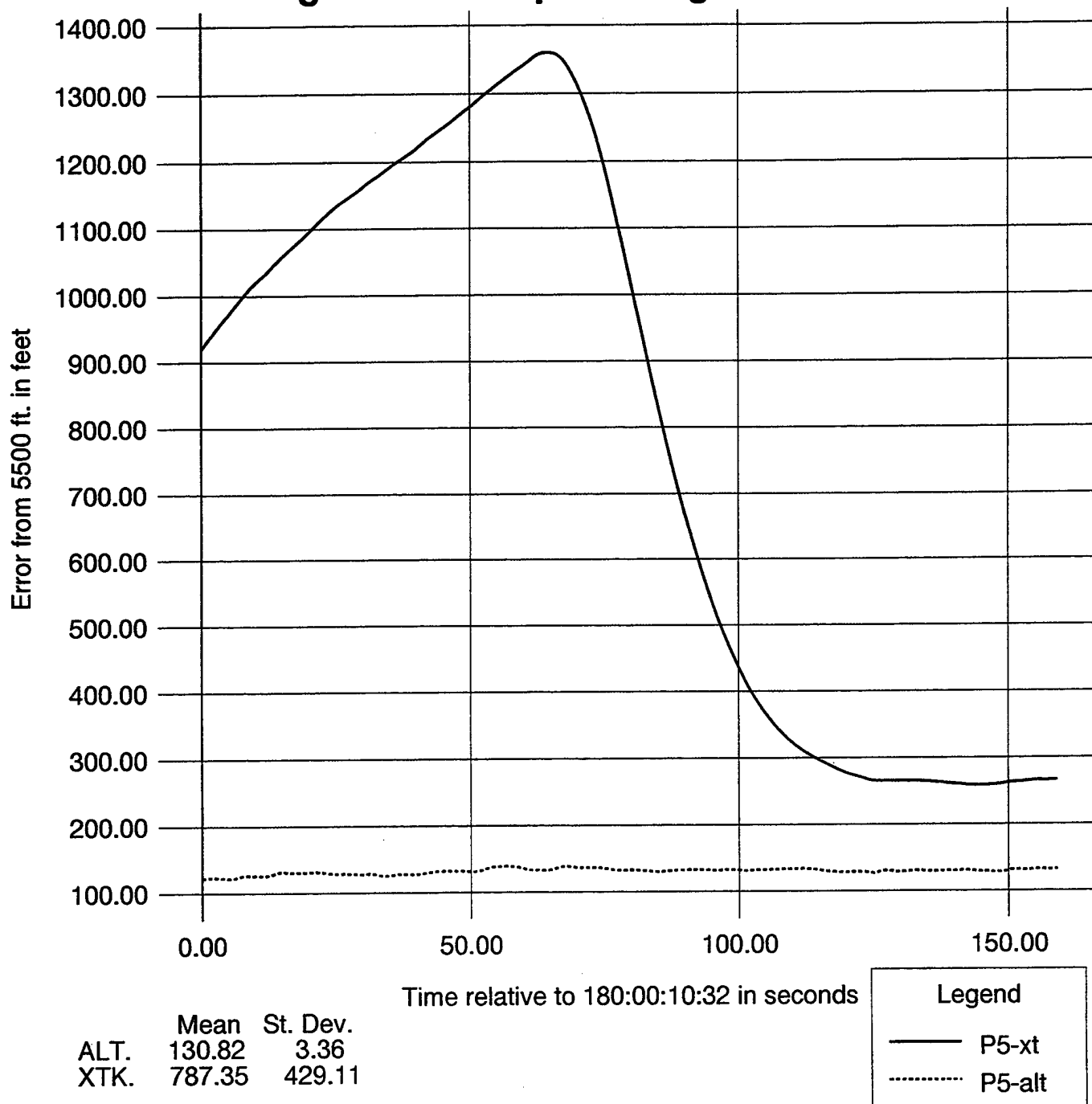
INS CROSS TRACK ERROR

MEAN- -.05375 STANDARD DEVIATION- .0899218

DATE: June 28, 1995 PASS 9



Portage, ME - June 28, 1995 - Pass 9 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 43
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:57:53
Pass 8
Req.# 19

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5431 ft s.d.=	5 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Sl't. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	70.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	48.0	61.0	46.0	61.0
End Sq:	90.0°	RMS Video (%FS)	28.9	16.1	21.7	17.0

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.68	W 68:53.66
Start:	N 46:44.82	W 68:37.30
End:	N 46:48.24	W 68:23.64
From:	N 39:07.21	W 88:46.54
To:	N 49:56.91	W 43:51.28

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLRU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 247.3 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 2.6 fps (s.d.= 8.0)
Ave Fil Vel -> 2.4 fps (s.d.= 7.6)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 40.3	

Tape Footage	Drive no.
Starting: 7994 ft	(1)
Ending: 9224 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

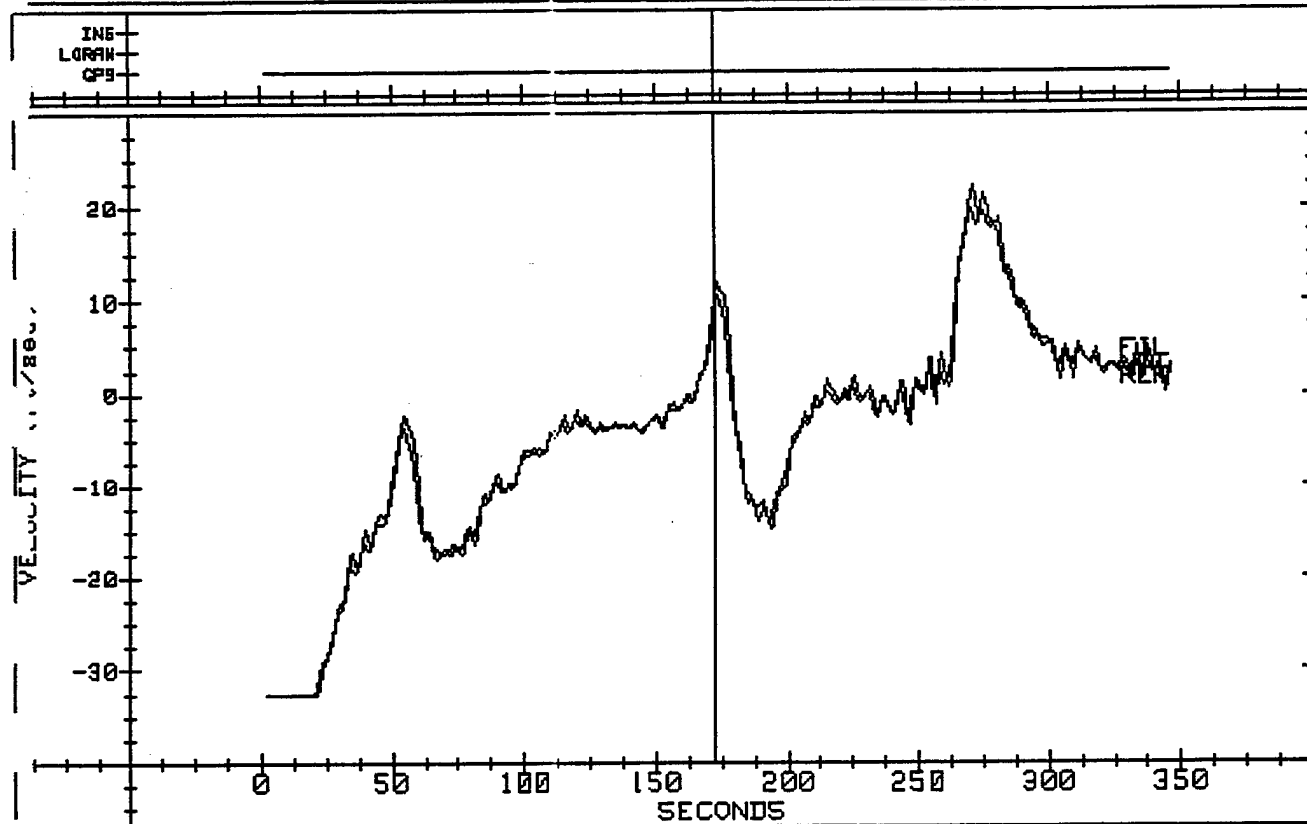
LINE Map Time (UCT)
Start: 23:57:53
End: 00:00:36

Mocomp Counters

Start: 374647 0005B777h
End: 401972 0006B234h

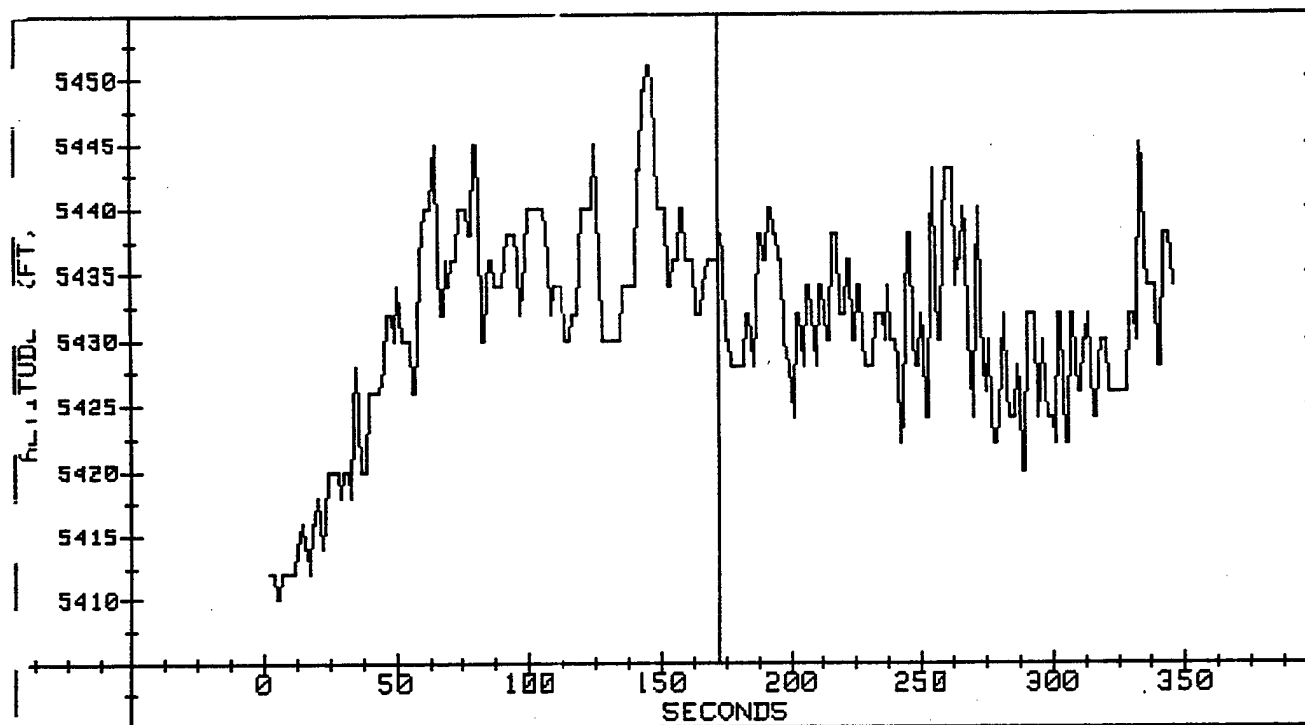
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 23:54 PASS 0



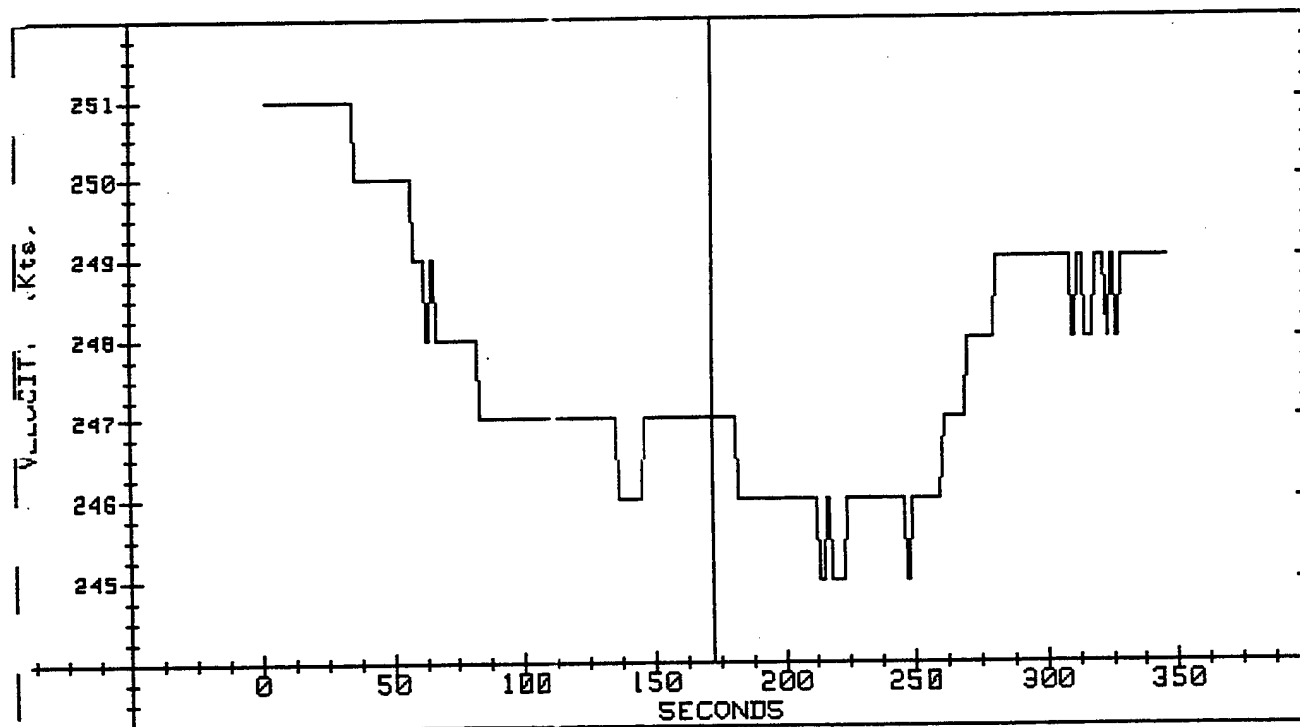
BARO ALTITUDE

DAY 179 TIME 23:54 PASS 8 m= 5431. sd= 5.22237



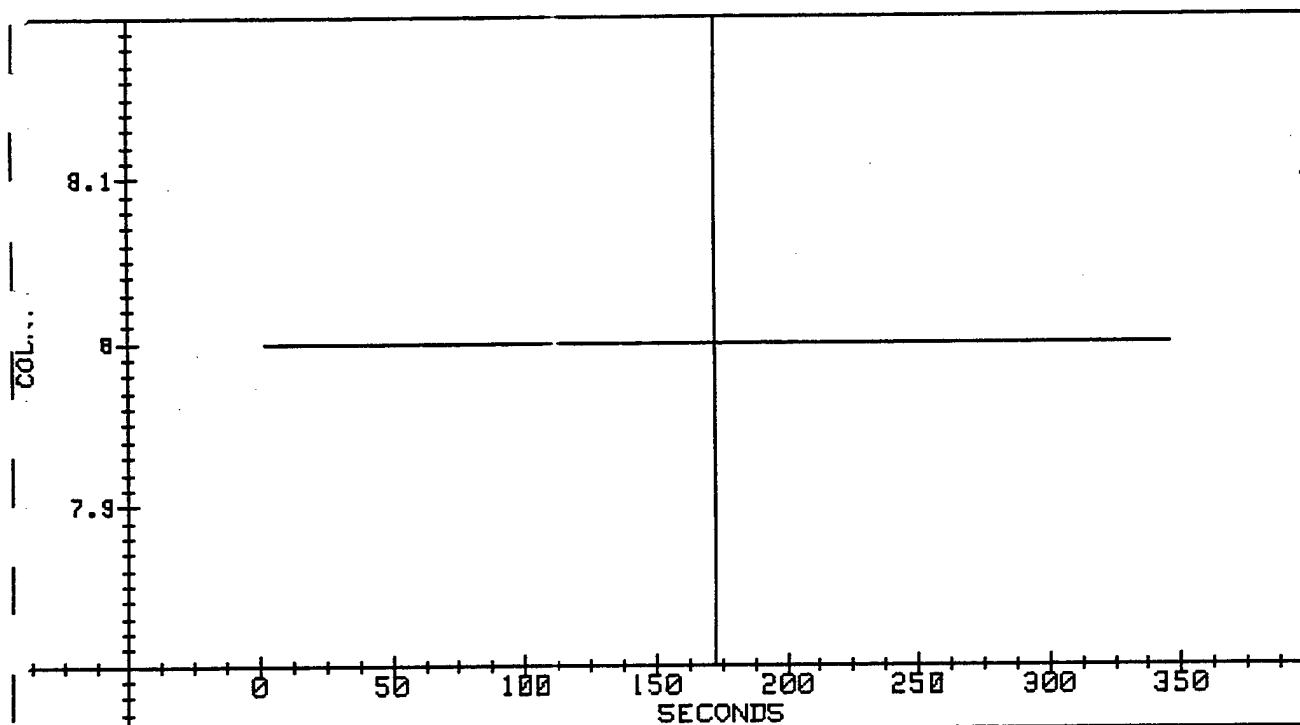
INS GROUND SPEED

DAY 179 TIME 23:54 PASS 8 m= 247.3, sd= 1.45387



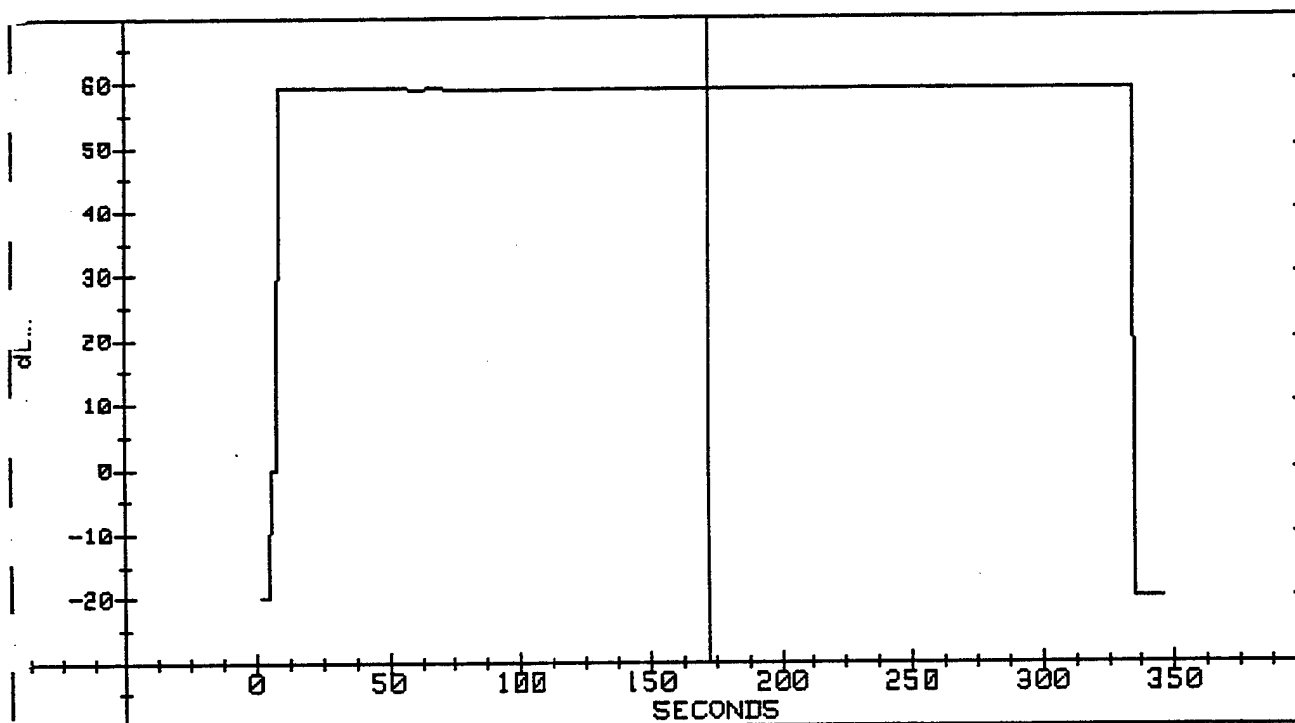
PASS NUMBER

DAY 179 TIME 23:54 PASS 0 m= 0, sd= 0



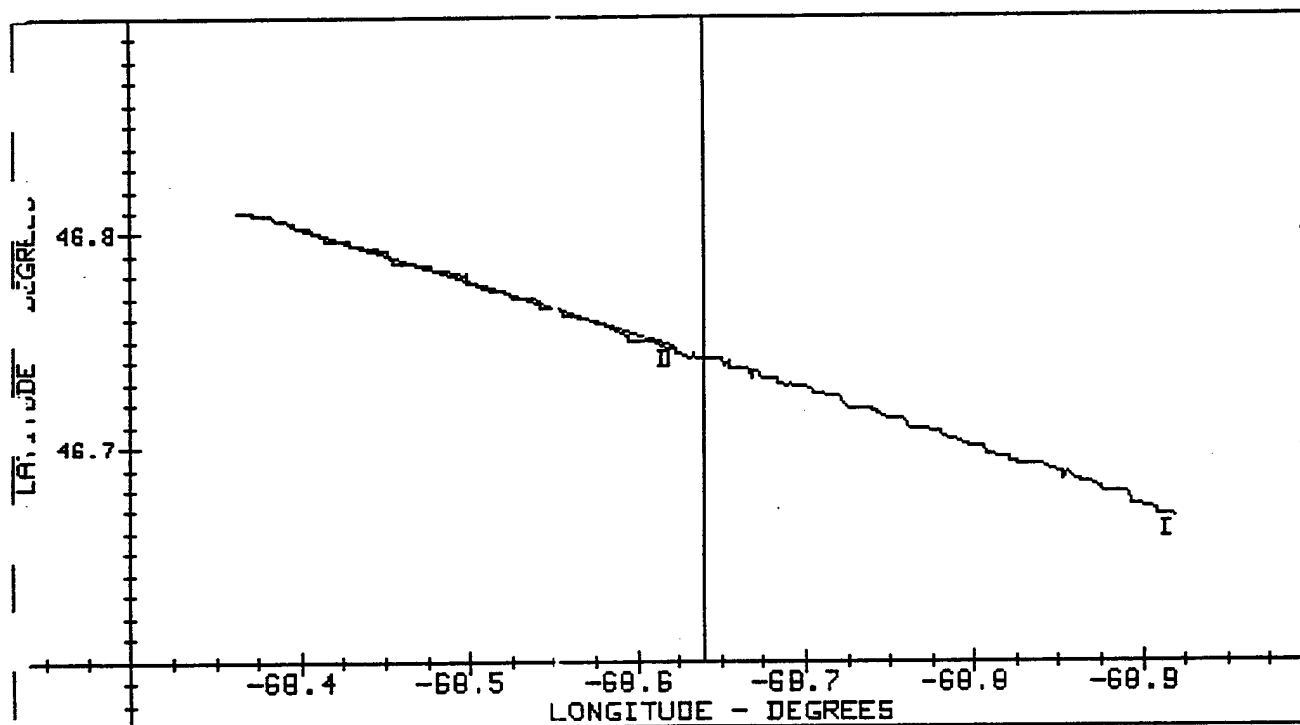
P Band Power

DAY 179 TIME 23:54 PASS 8 m= 53.08, sd= 20.5341



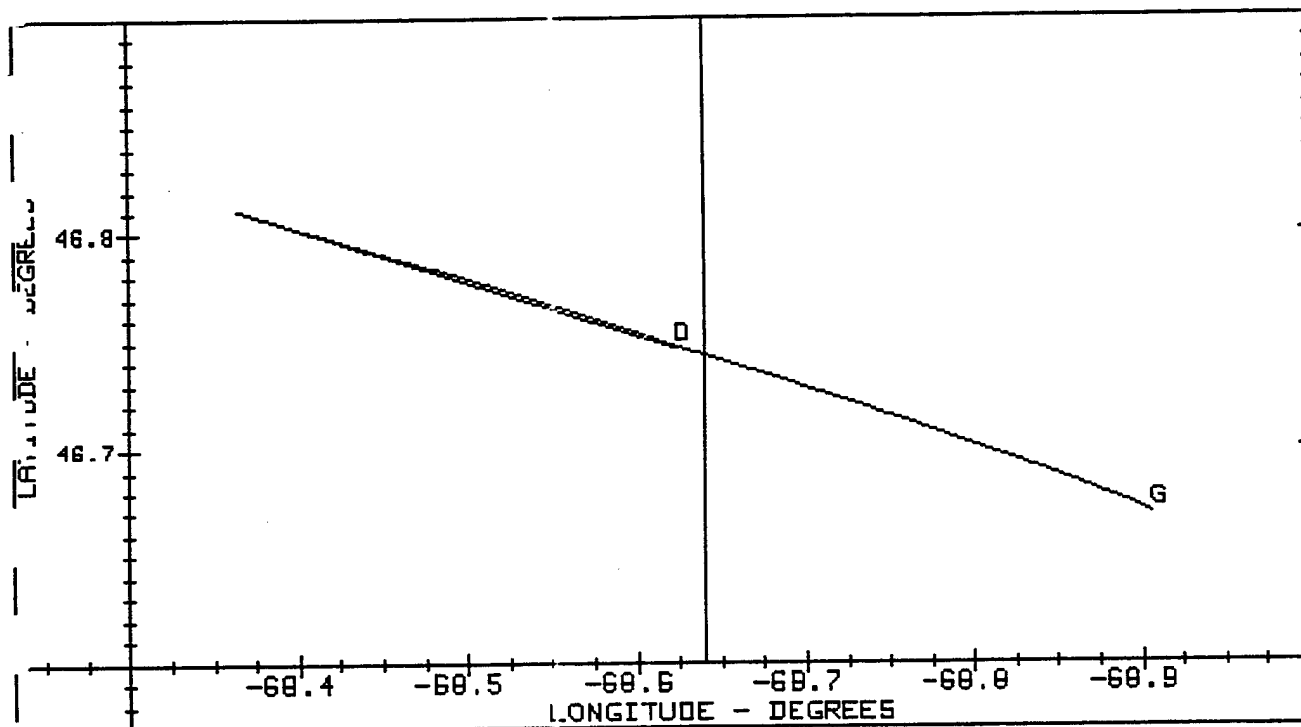
INS AIRCRAFT POSITION

DAY 179 TIME 23:54 PASS 8



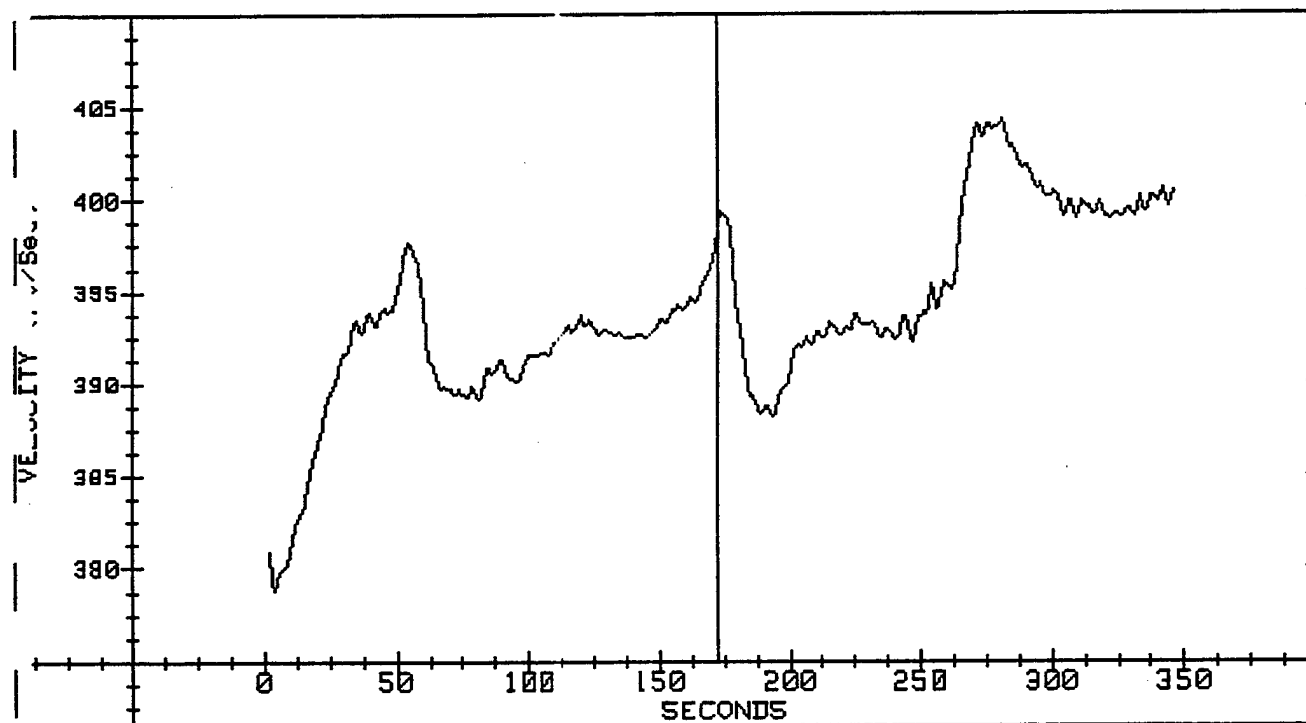
GPS AIRCRAFT POSITION

DAY 179 TIME 23:54 PASS 8



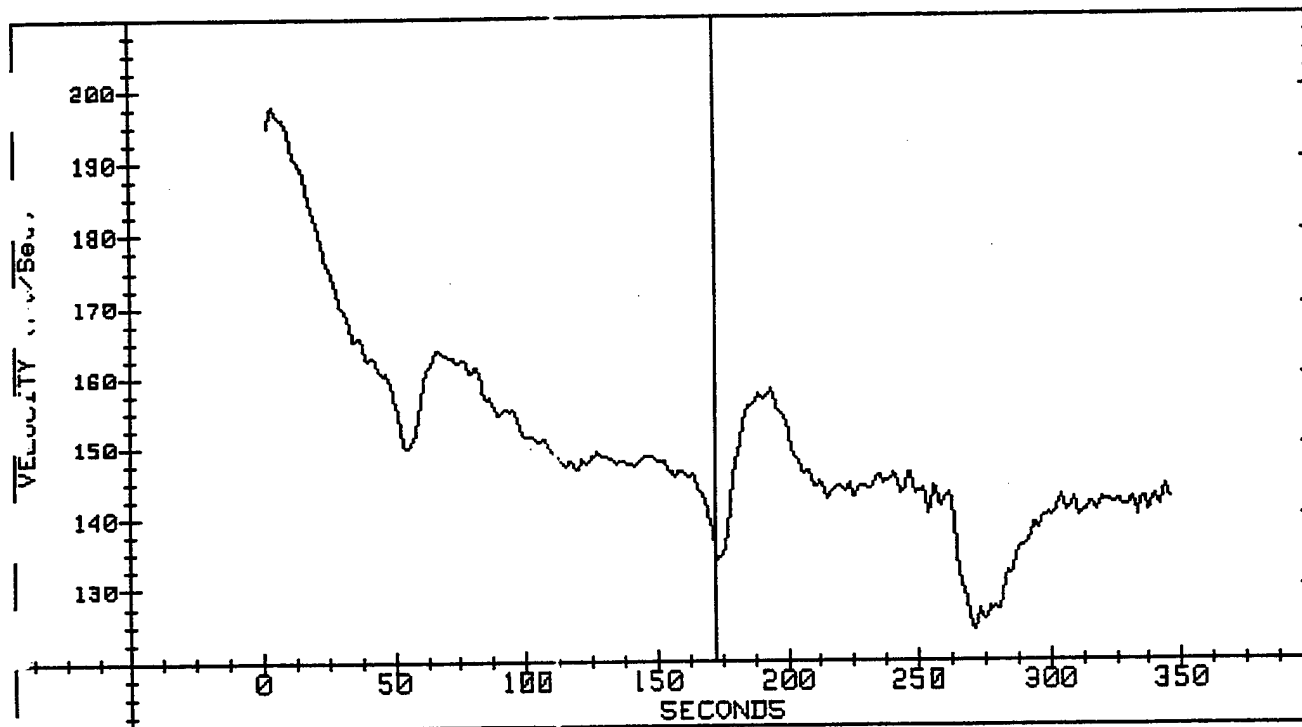
GPS V_e

DRY 179 TIME 23:54 PASS 8 m= 396.6, sd= 4.59990



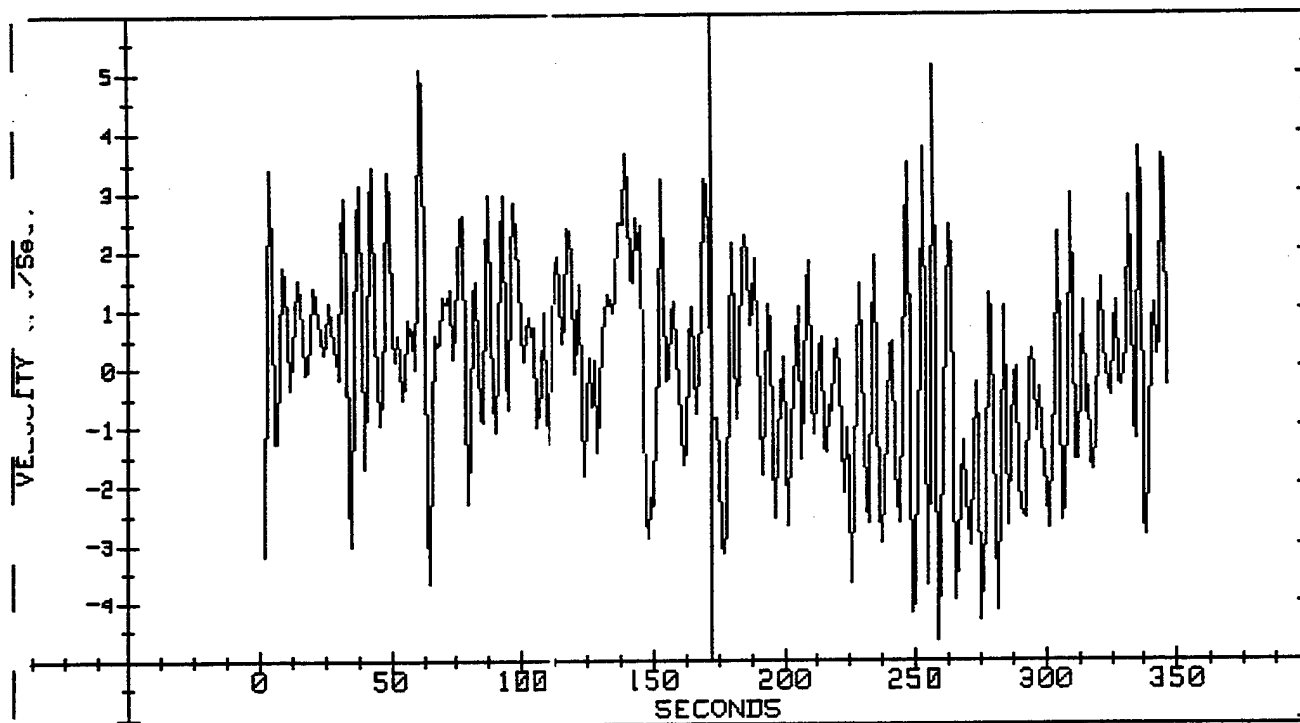
GPS Vn

DRY 179 TIME 23:54 PASS 8 m= 142.2, sd= 7.33691



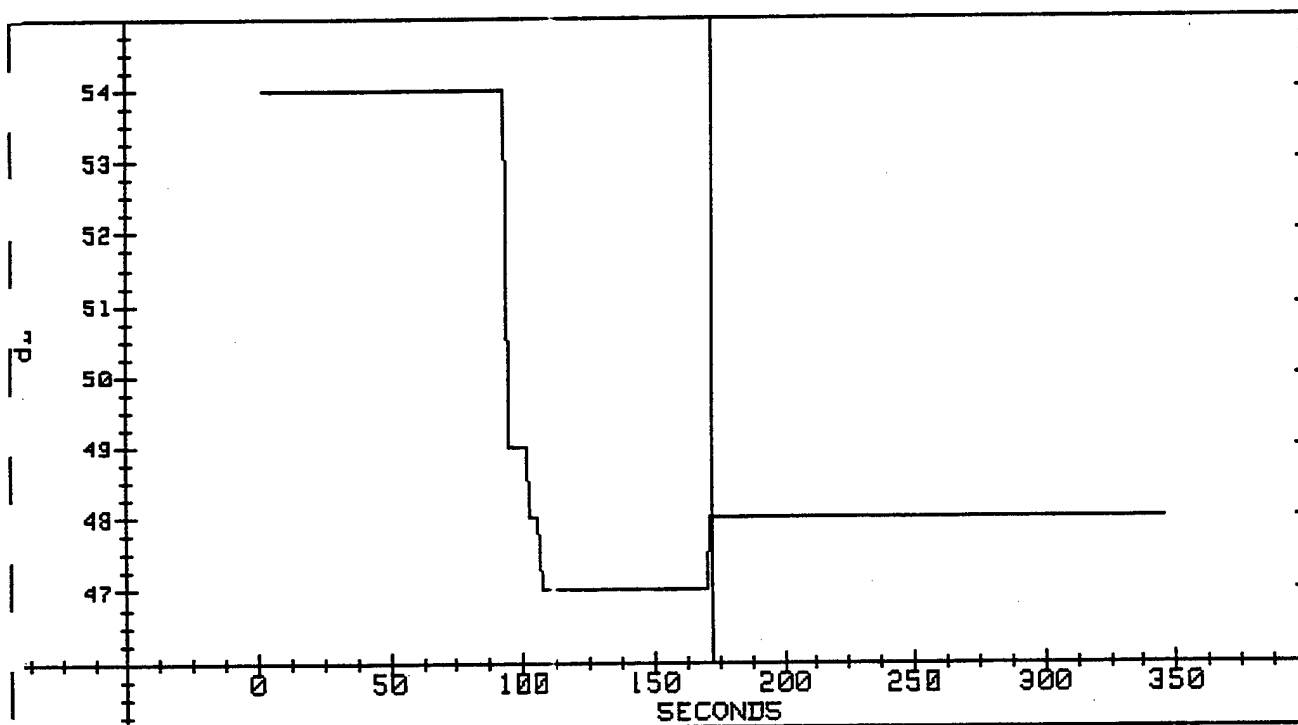
GPS Vv

DAY 179 TIME 23:54 PASS 0 m= -.5433, sd= 1.01522



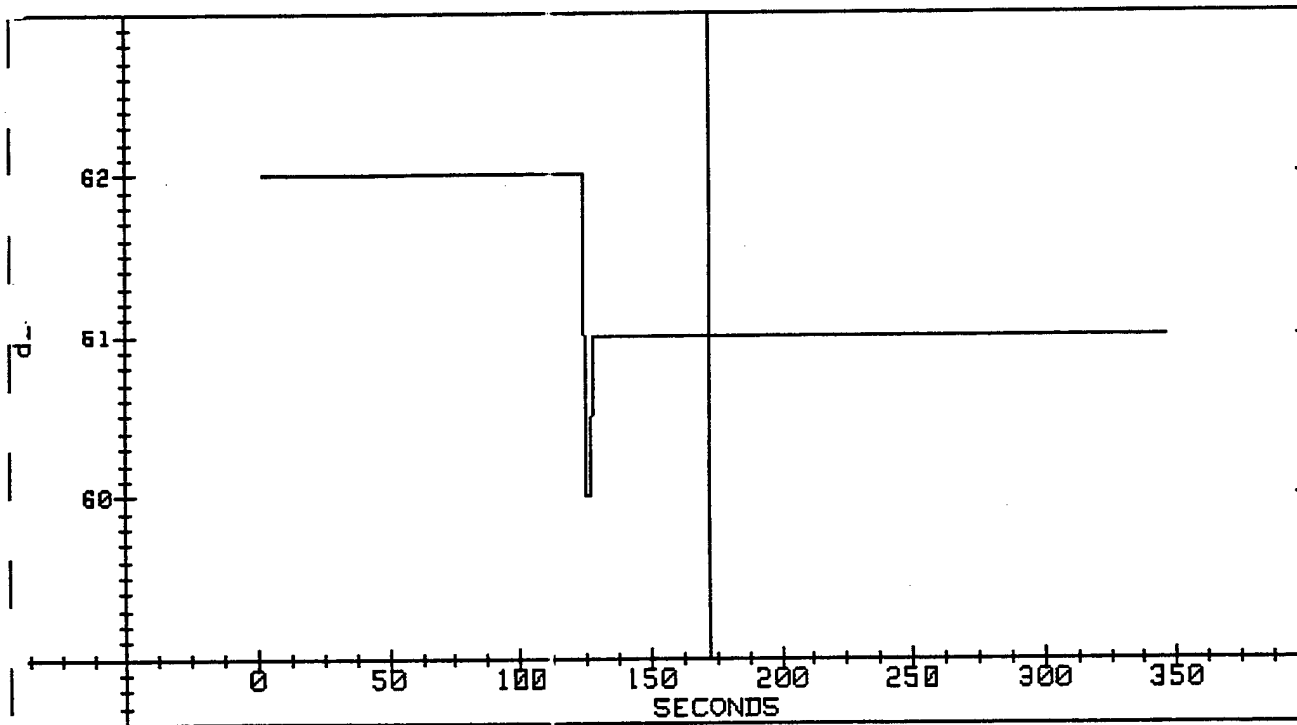
Ch1 RES Attenuation

DAY 179 TIME 23:54 PASS 0 m= 40, sd= 0



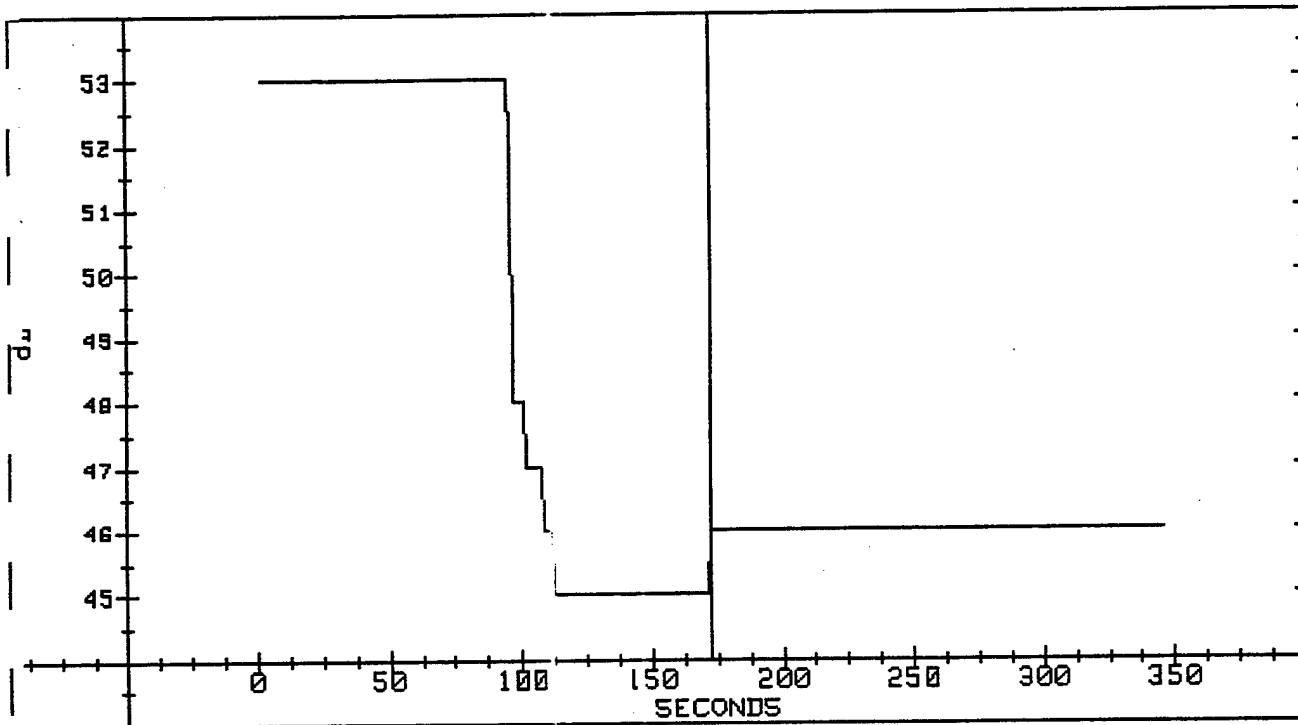
Ch2 RES Attenuation

DAY 179 TIME 23:54 PASS 0 m= 61, sd= 0



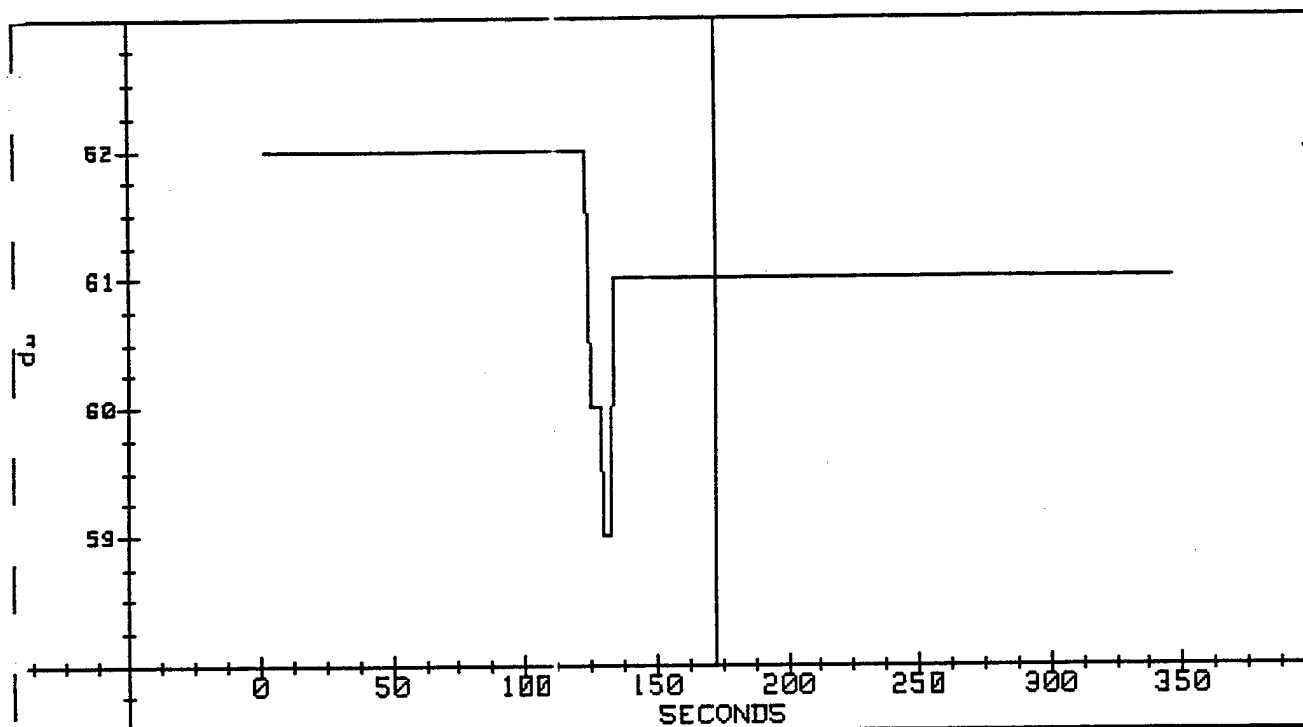
Ch3 RES Attenuation

DAY 179 TIME 23:54 PASS 0 m= 46, sd= 0



Ch4 RES Attenuation

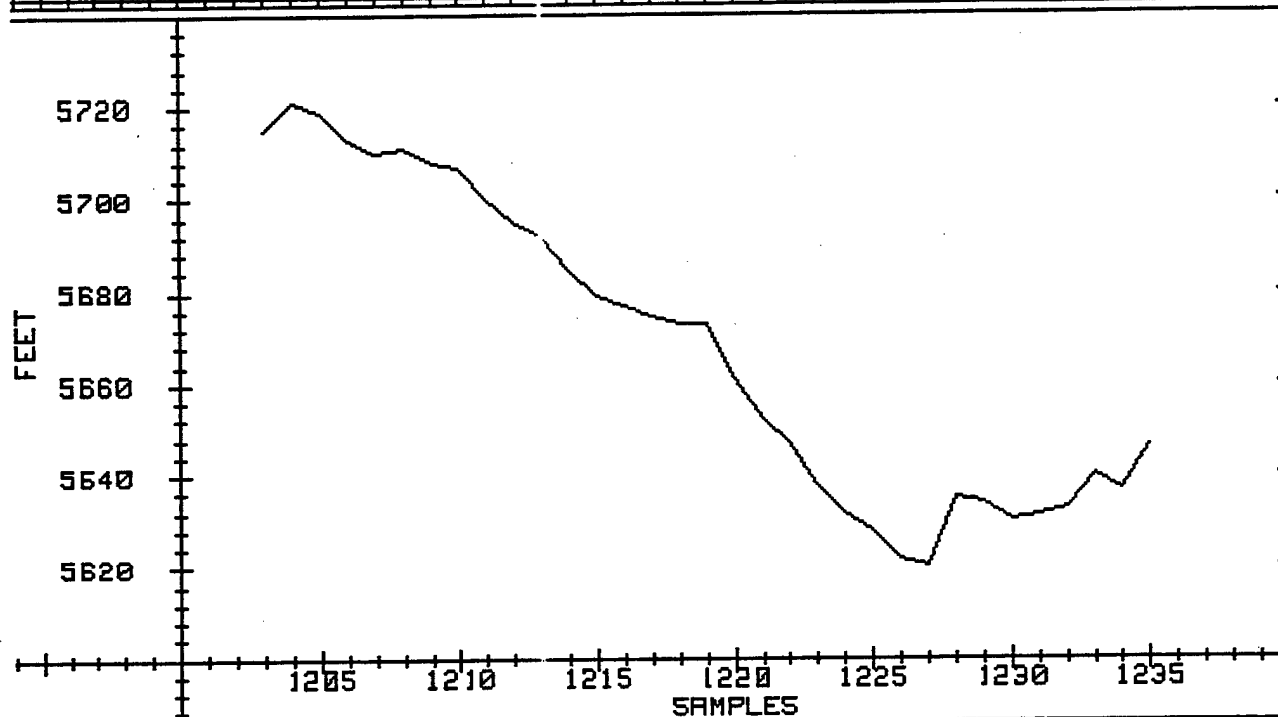
DAY 179 TIME 23:54 PASS 0 m= 61. sd= 0



GPS ALTITUDE

MEAN= 5657.85 STANDARD DEVIATION= 33.3804

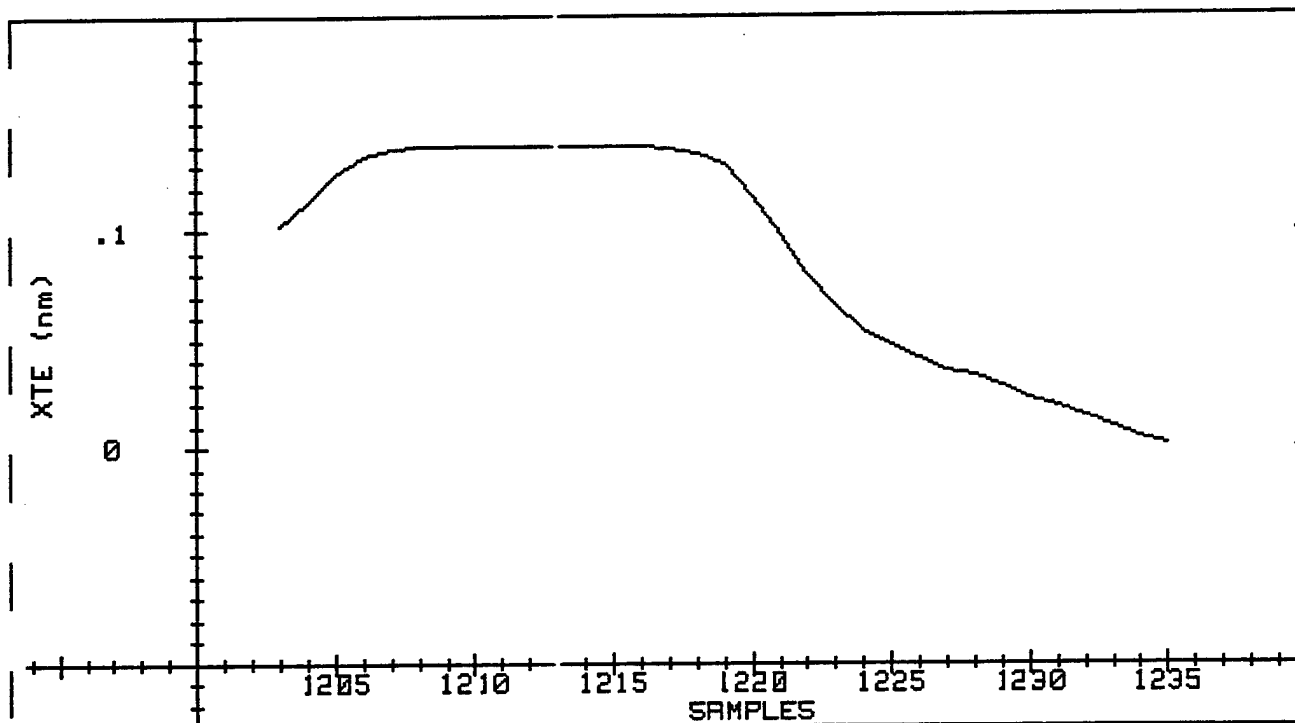
DATE: June 29, 1995 PASS 8

OFF
ON
BAR

GPS Cross Track Error

MEAN= .0894242 STANDARD DEVIATION= .0517559

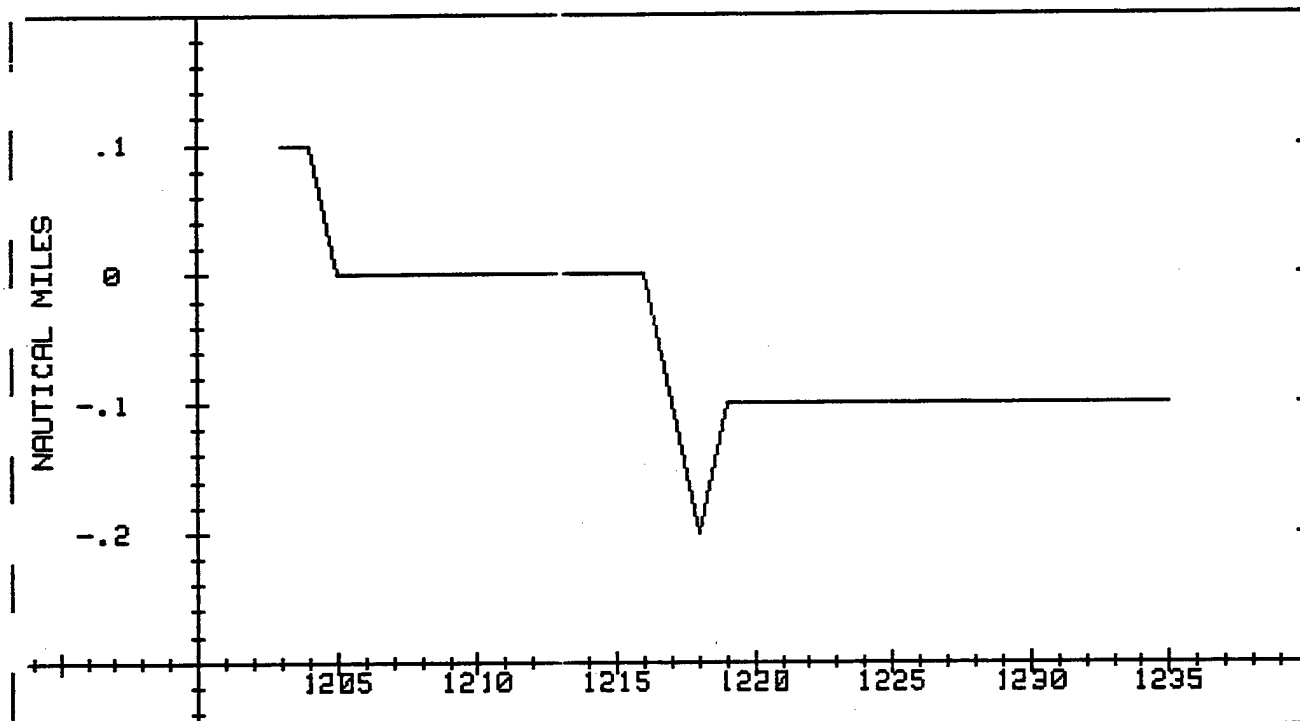
DATE: June 28, 1995 PASS 8



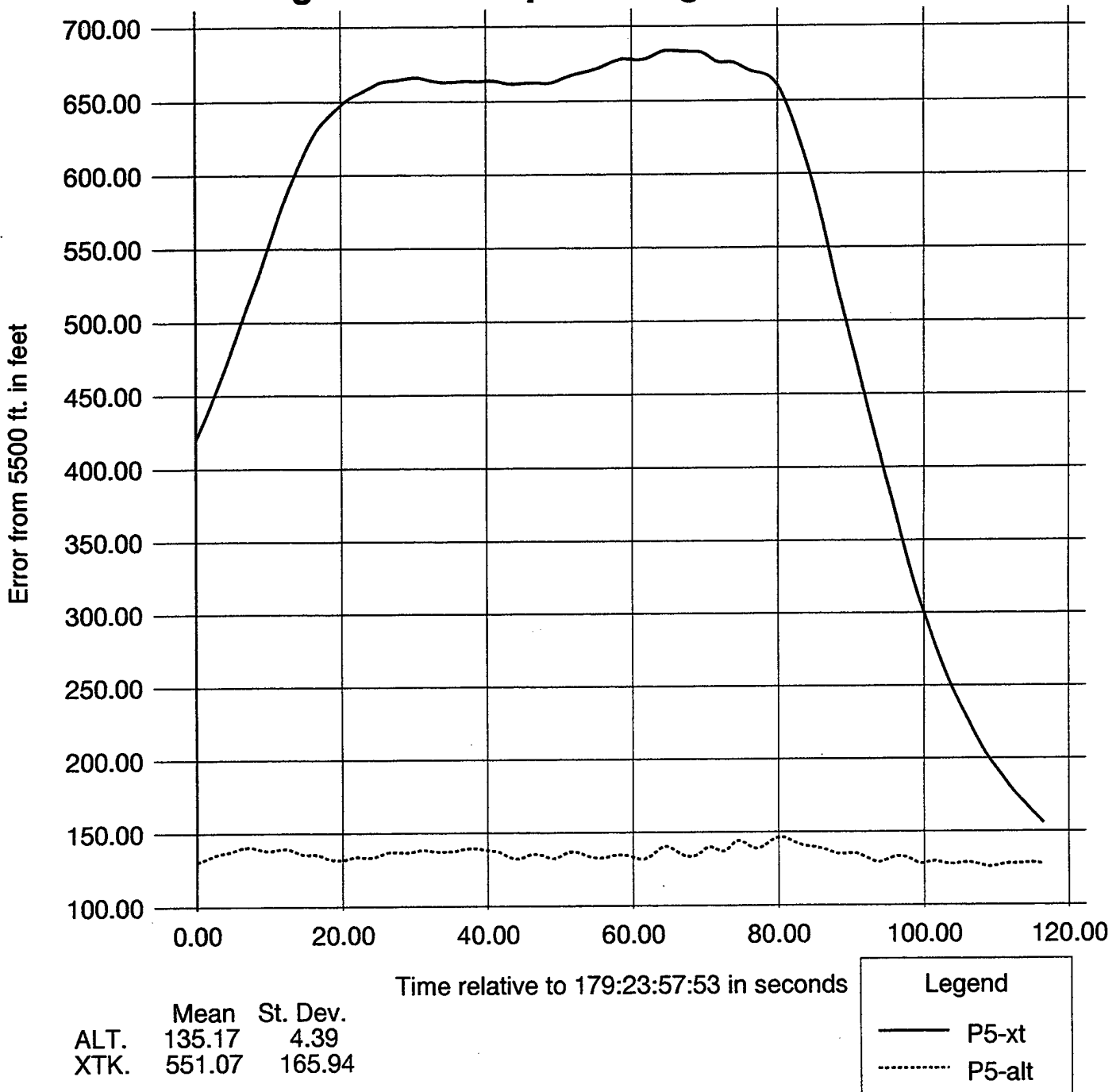
INS CROSS TRACK ERROR

MEAN- -.0545455 STANDARD DEVIATION- .0655555

DATE: June 28, 1995 PASS 8



Portage, ME - June 28, 1995 - Pass 8 - Xtk. and Alt. Errors
Higher alt. and port are greater than zero



28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 45
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:46:23
Pass 7
Req.# 20

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5422 ft s.d.=	5 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	220.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	54.0	62.0	53.0	62.0
End Sq:	90.0°	RMS Video (%FS)	12.8	7.7	9.6	9.5

WAYPOINTS

Line_up:	N 46:54.93	W 68:09.83	Main Target:	GW
Start:	N 46:45.76	W 68:21.10	Mocomp Point:	
End:	N 46:38.10	W 68:30.45	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 57:58.16	W 48:11.15	Tgt Trk:	0.0
To:	N 33:07.12	W 81:07.40	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 250.7 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL1U2A	RX Chirp Filename: CRL1N0A
Ave Ref Vel -> -1.7 fps (s.d.= 1.8)	
Ave Fil Vel -> -2.2 fps (s.d.= 1.8)	

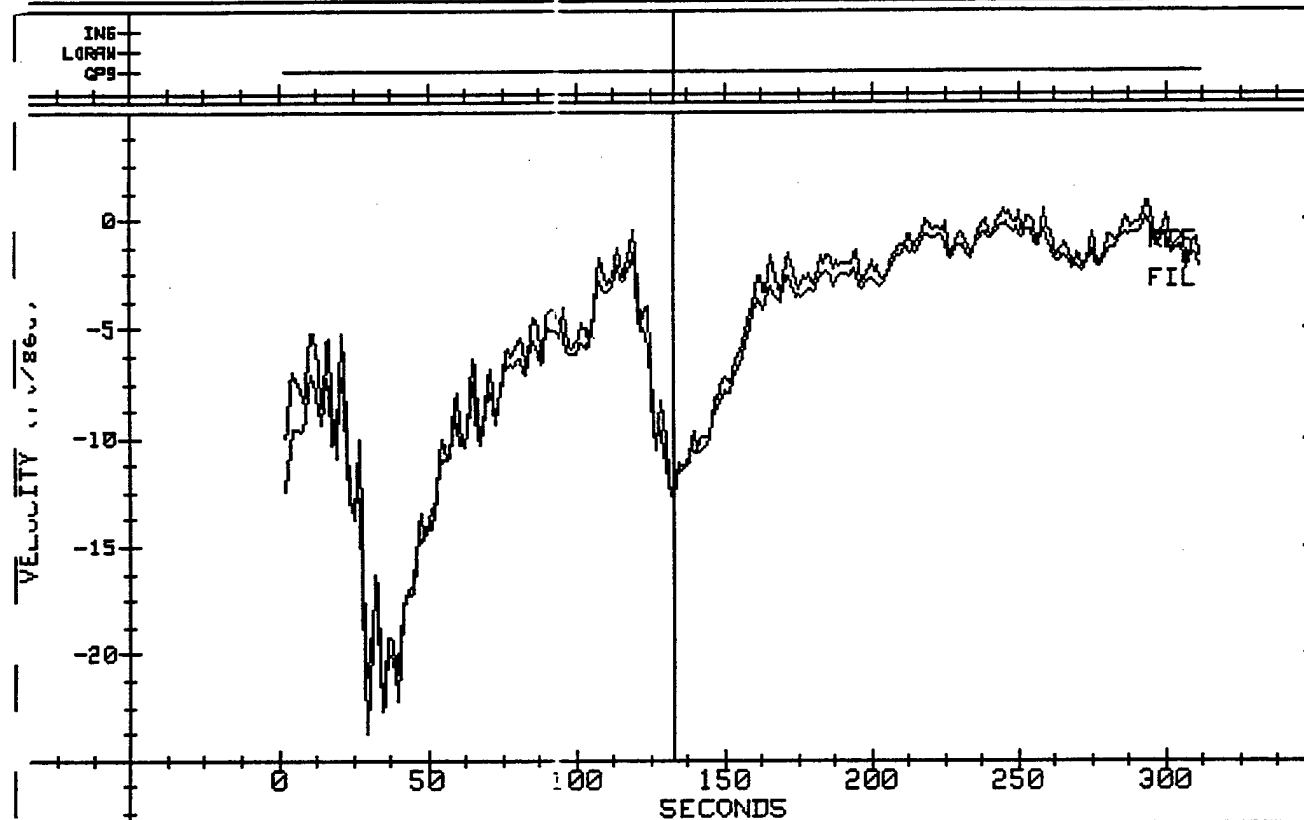
NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 6719 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 7978 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 39.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:46:23
Y: 1874.0	L: 63.8 dB	End: 23:49:08
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

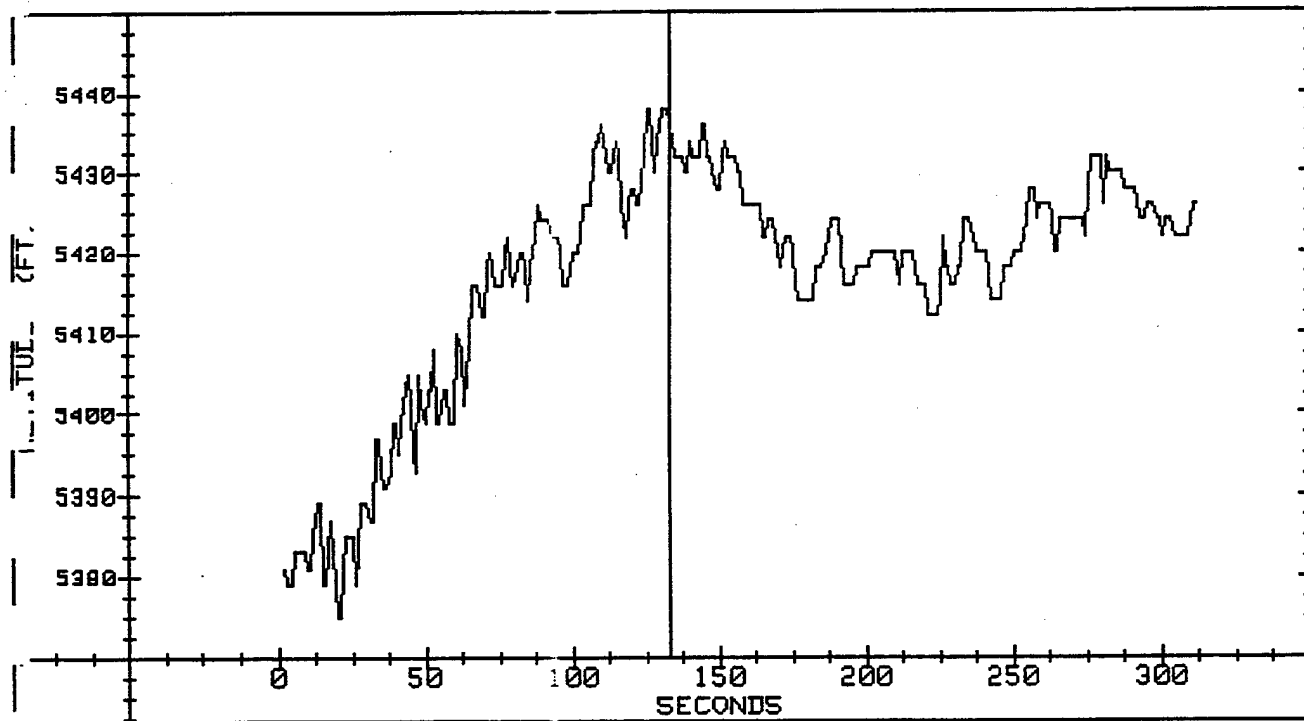
Start:	316292	0004D384h	CPA (UCT): 00:00:00
End:	343958	0005B F96h	Alt: 0 ft (GPS)
			Lat: N 0:00: 0
			Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 23:43 PASS 7



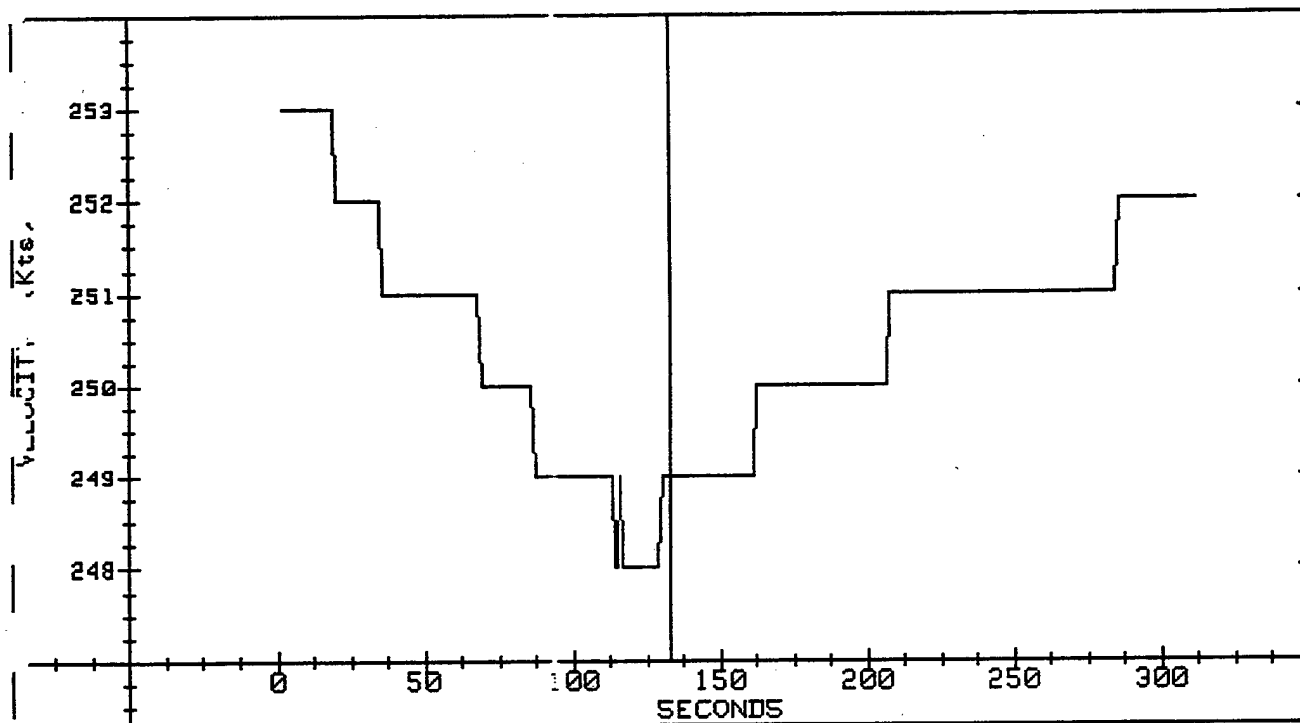
BARO ALTITUDE

DAY 179 TIME 23:43 PASS 7 m= 5422. sd= 5.22642



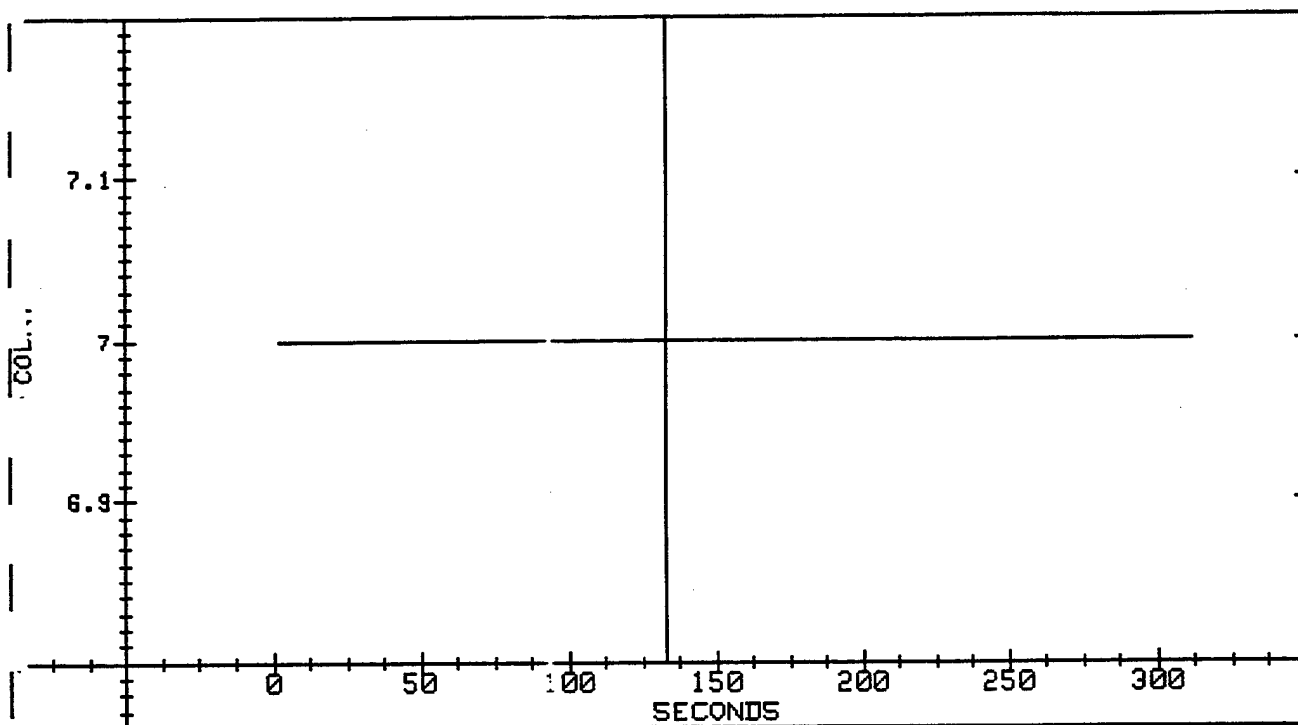
INS GROUND SPEED

DAY 179 TIME 23:43 PASS 7 m= 250.7, sd= .053553



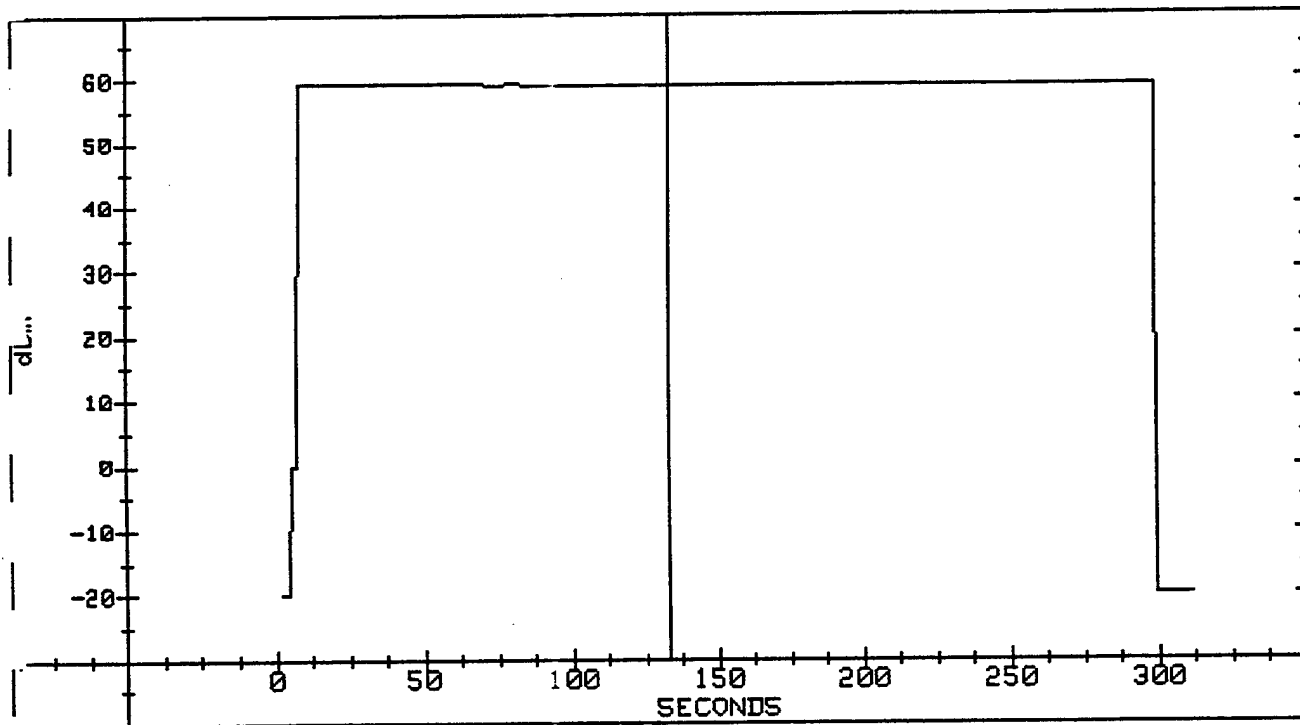
PASS NUMBER

DAY 179 TIME 23:43 PASS 7 m= 7, sd= 0



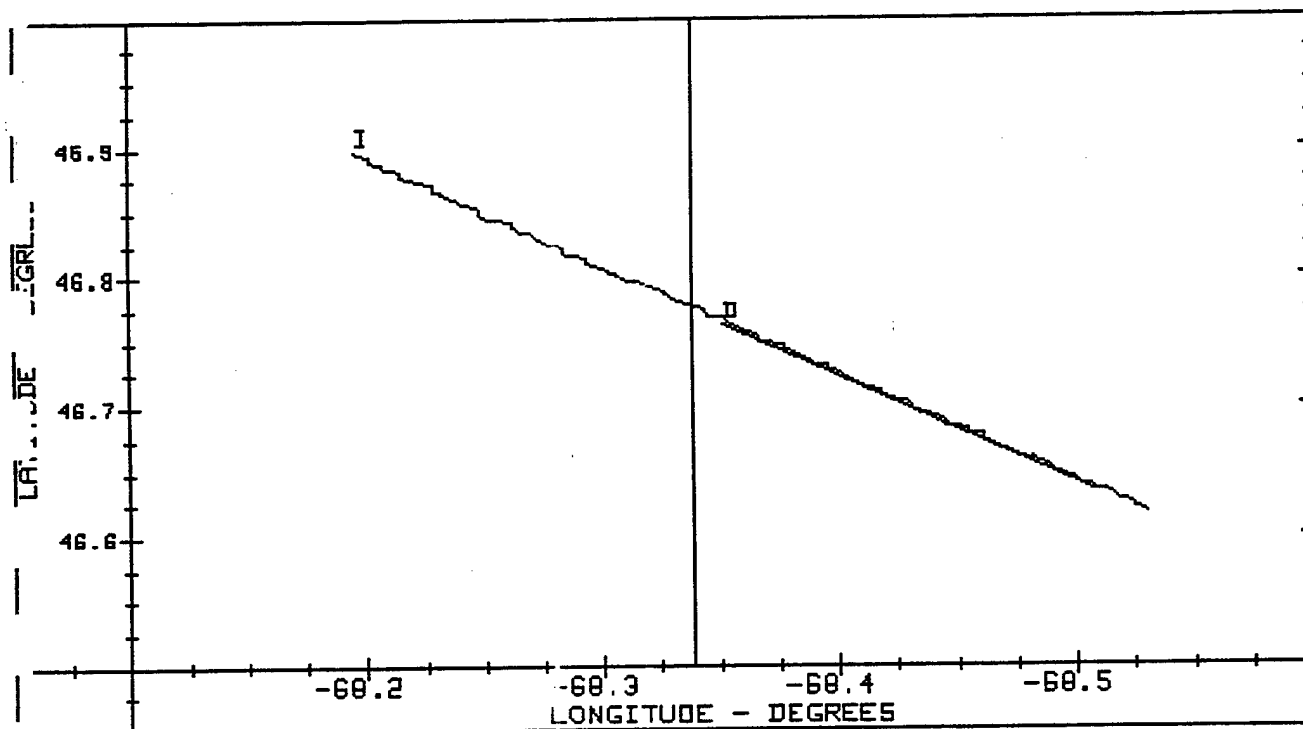
P Band Power

DRY 179 TIME 23:43 PASS 7 m= 52.73, sd= 21.2017



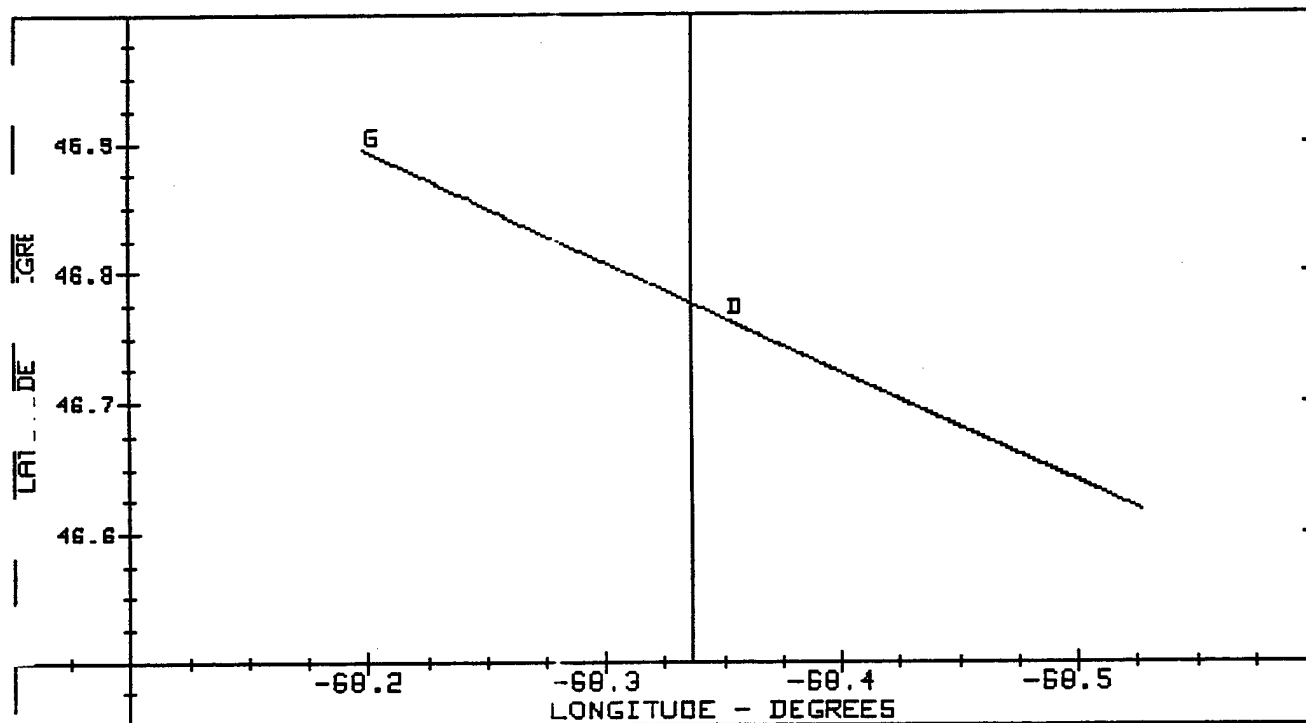
INS AIRCRAFT POSITION

DAY 179 TIME 23:43 PASS 7



GPS AIRCRAFT POSITION

DAY 179 TIME 23:43 PASS 7



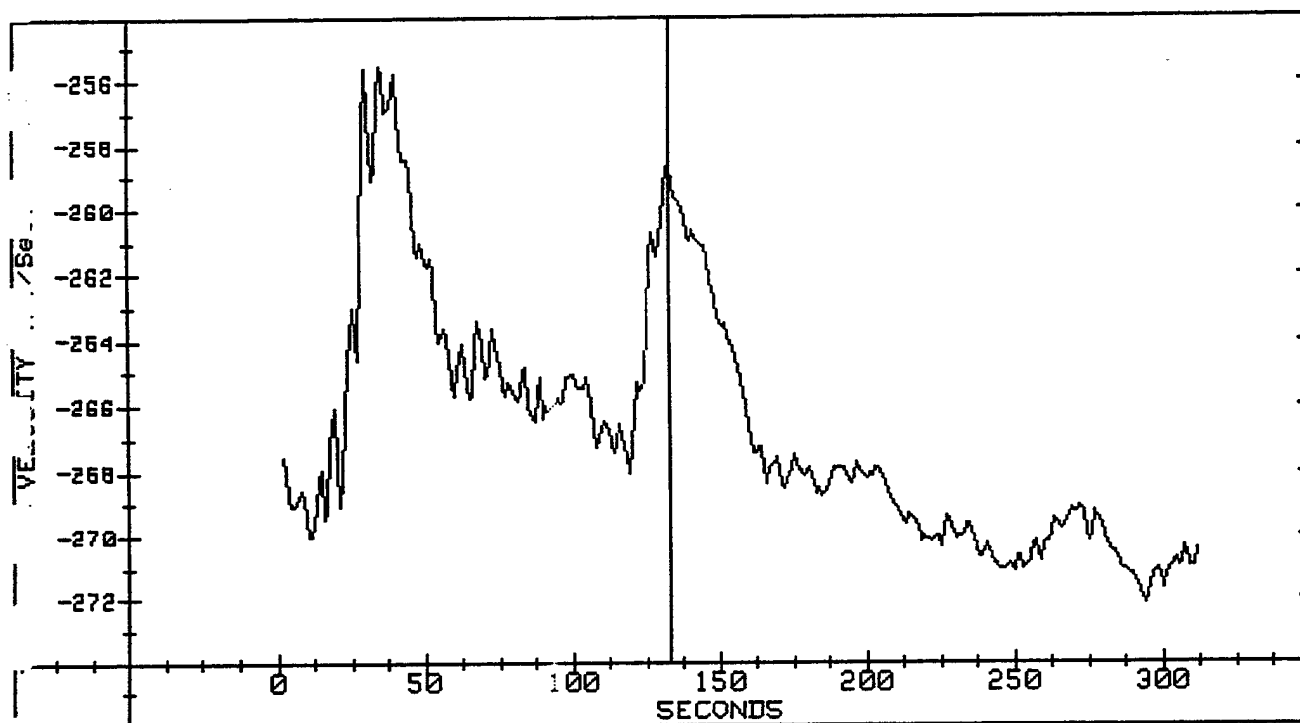
GPS V_e

DAY 179

TIME 23:43

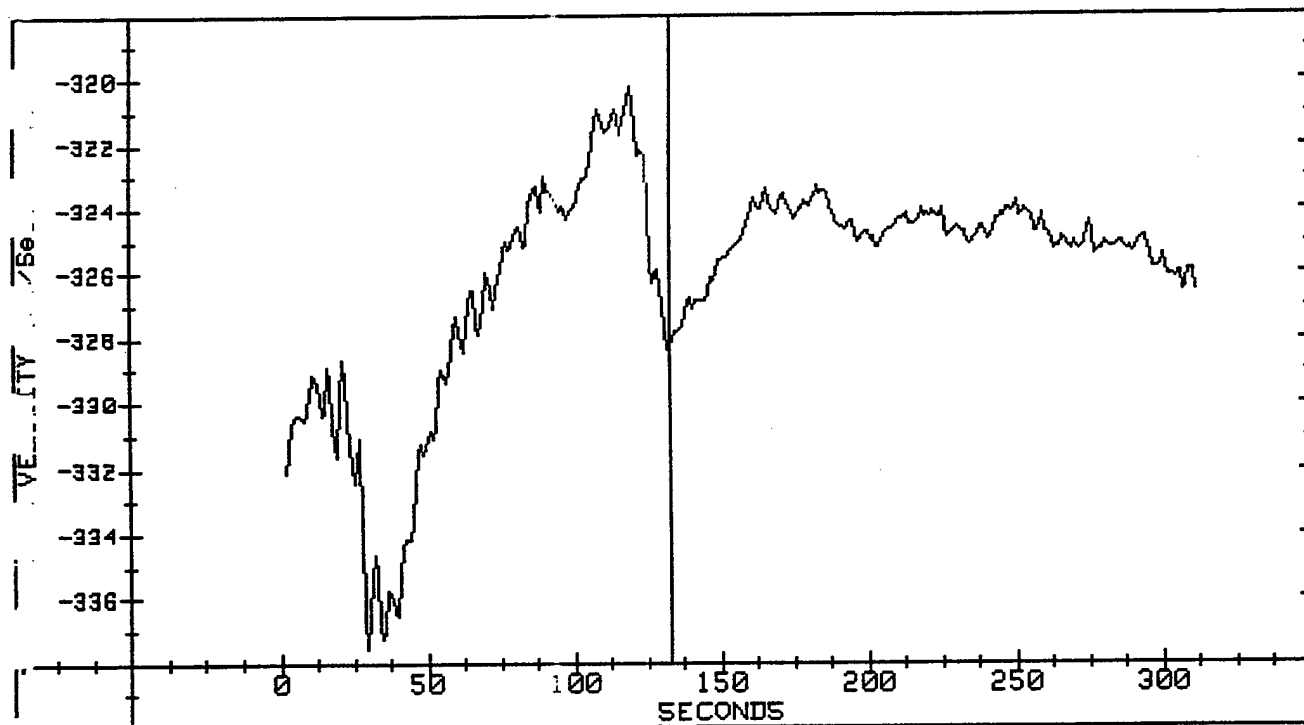
PASS 7

m= -269.1, sd= 2.02848



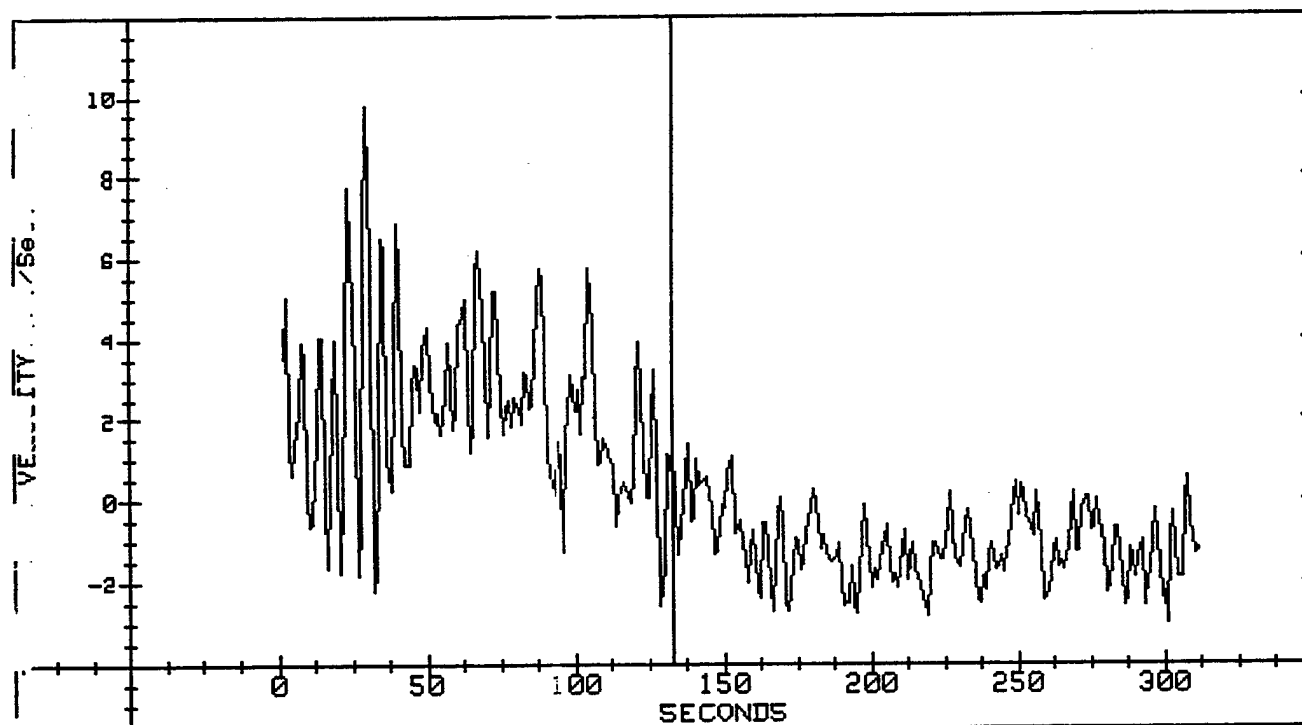
GPS Vn

DAY 179 TIME 23:43 PASS 7 m= -324.7, sd= .692914



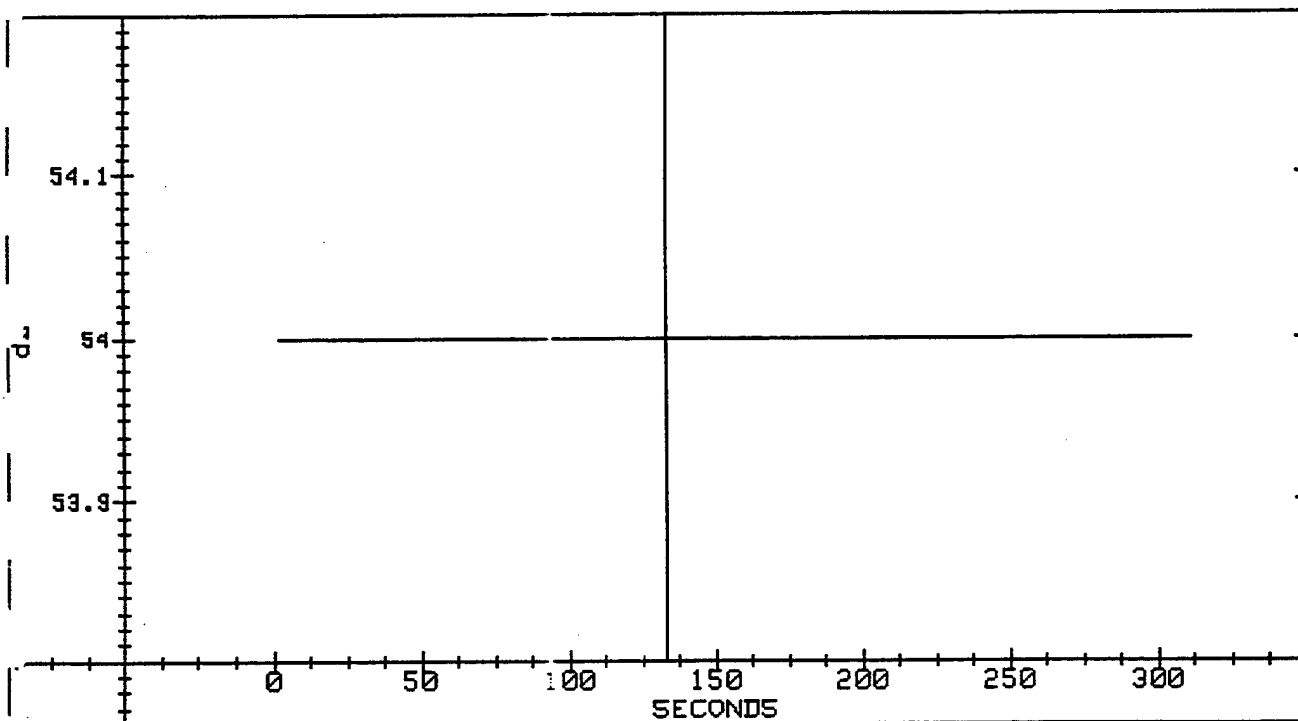
GPS Vv

DAY 179 TIME 23:43 PASS 7 $m = -1.214$, $sd = .854748$



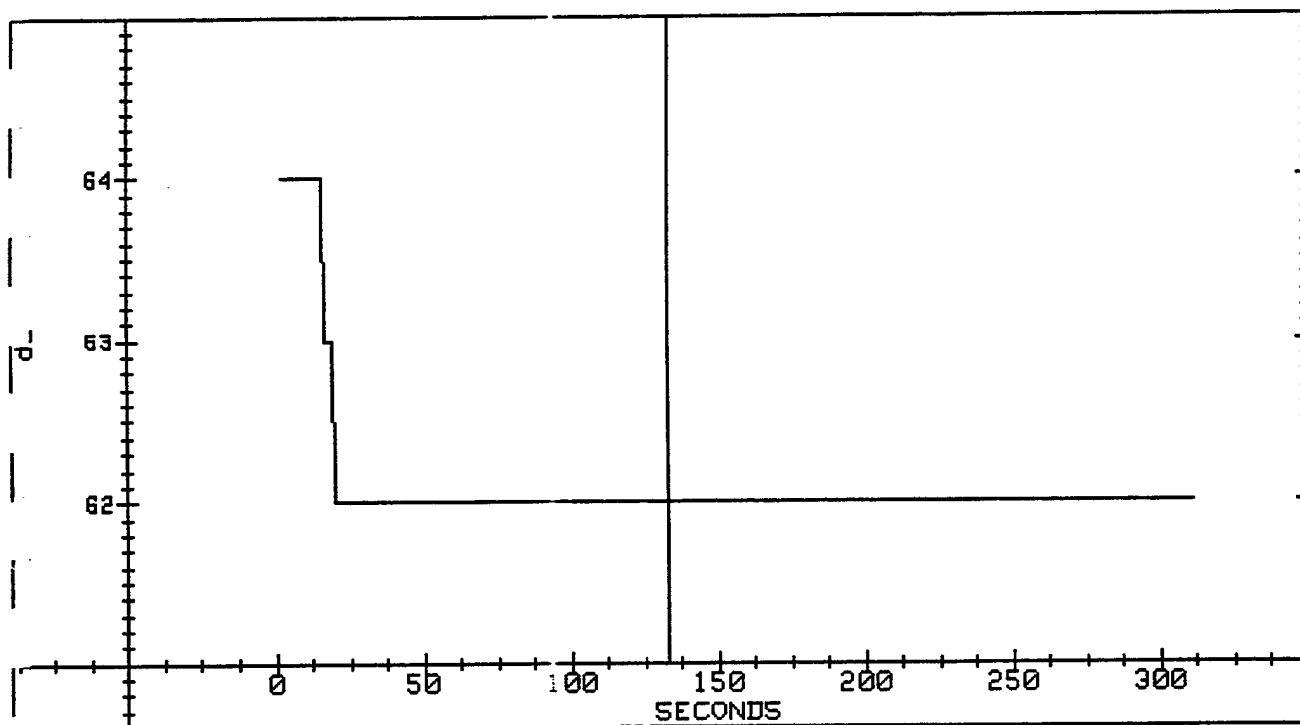
Ch1 RES Attenuation

DAY 179 TIME 23:43 PASS 7 m= 54, sd= 0



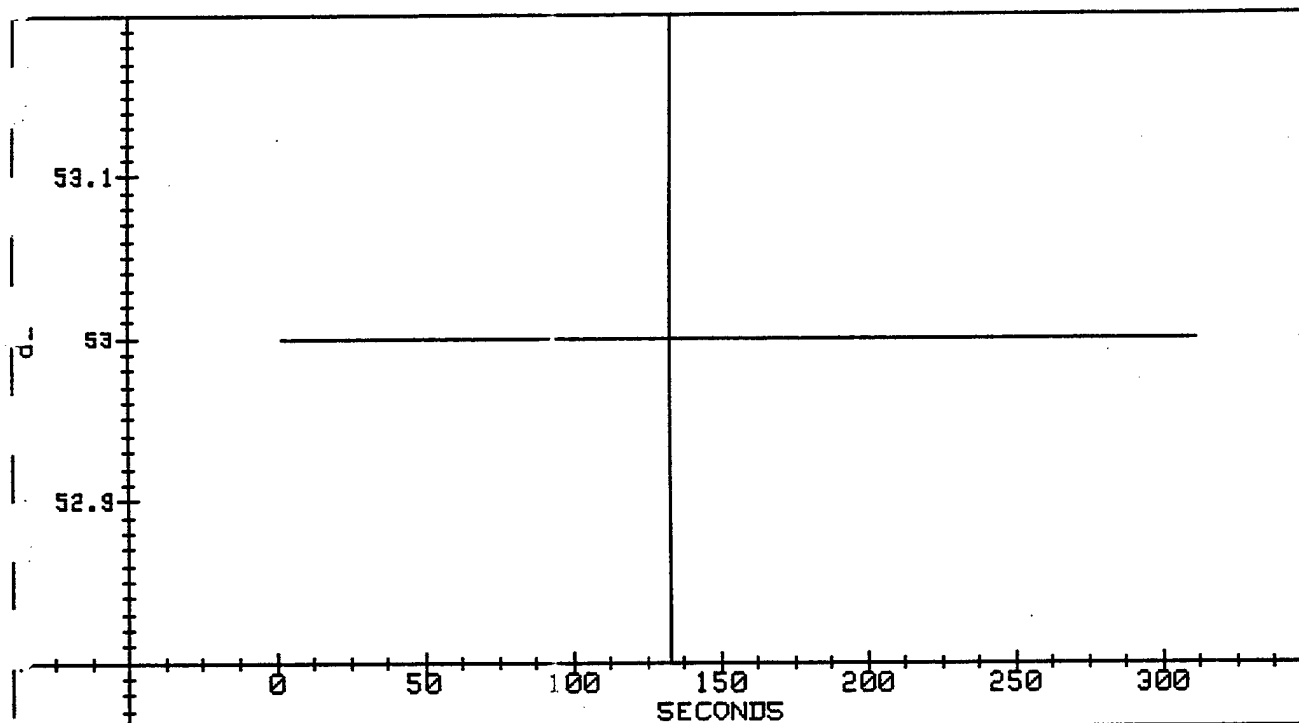
Ch2 RES Attenuation

DAY 179 TIME 23:43 PASS 7 m= 62, sd= 0



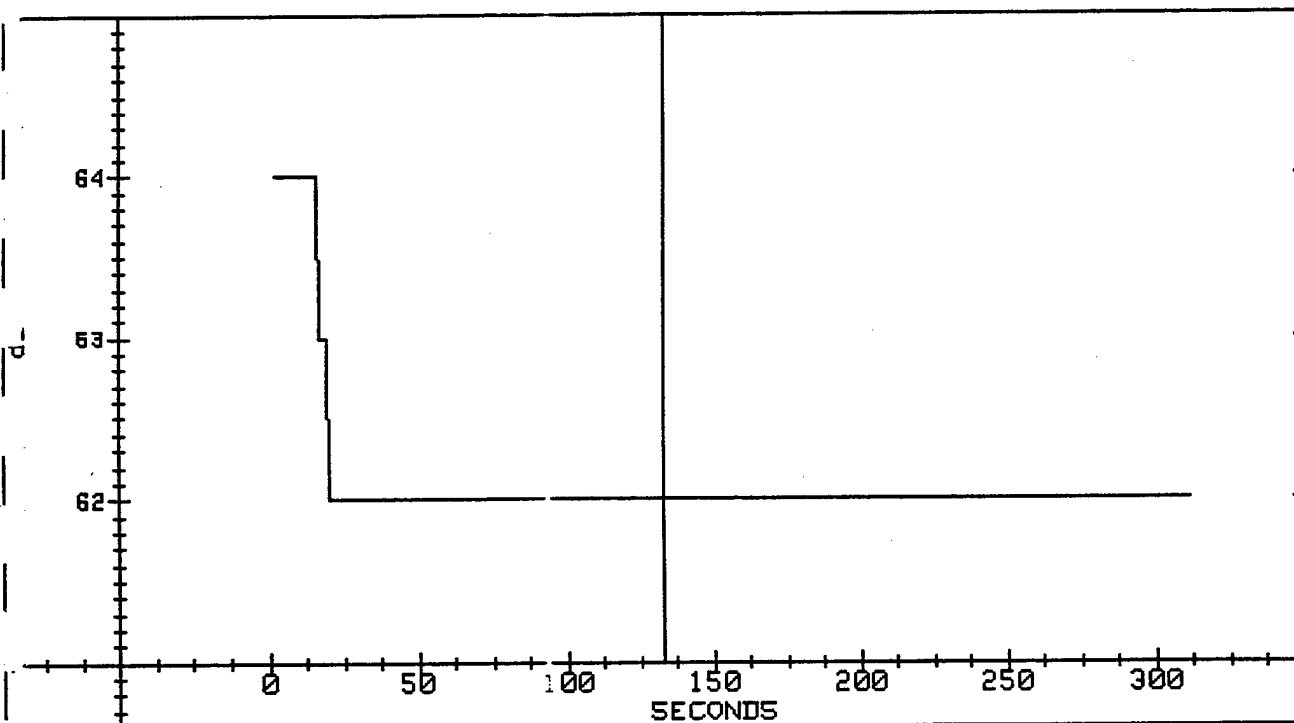
Ch3 RES Attenuation

DAY 179 TIME 23:43 PASS 7 m= 53, sd= 0



Ch4 RES Attenuation

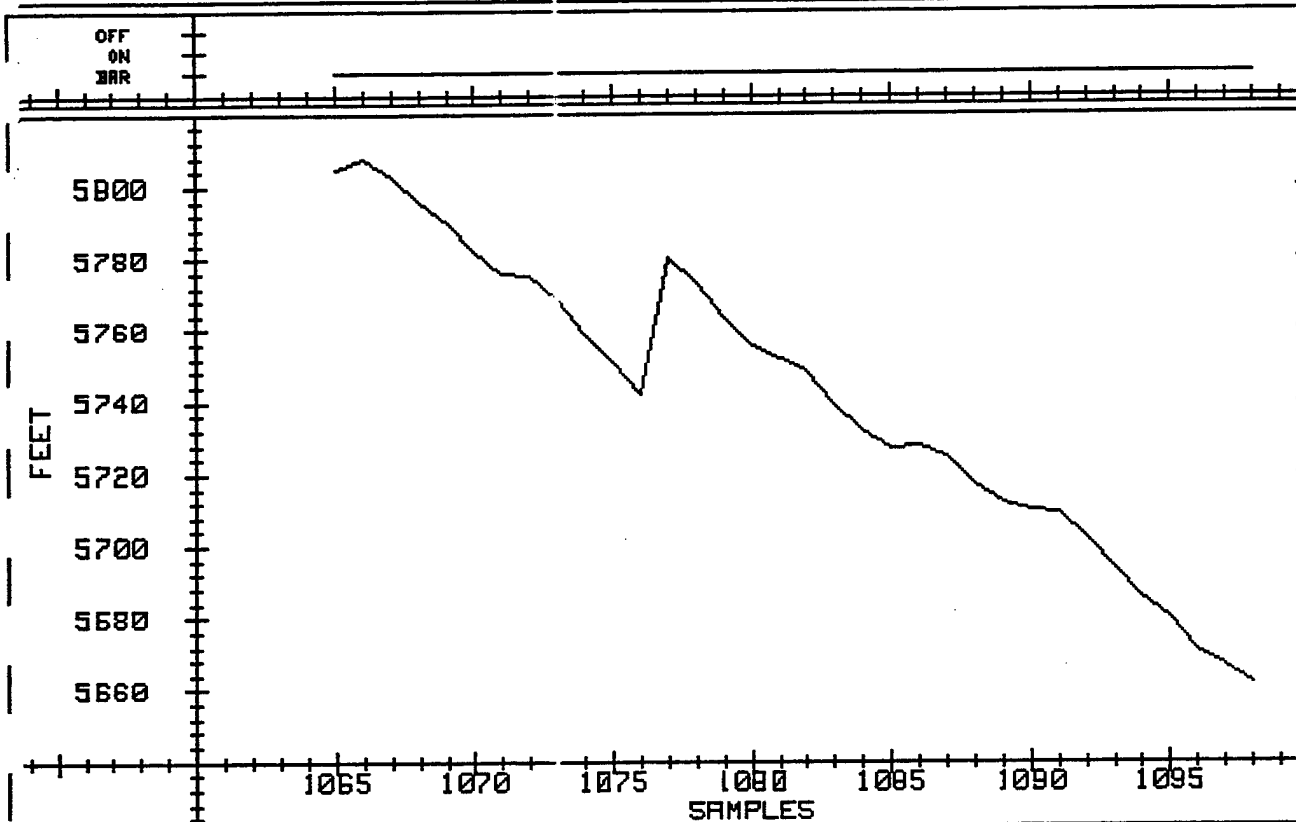
DAY 179 TIME 23:43 PASS 7 m= 62, sd= 0



GPS ALTITUDE

MEAN= 5740.82 STANDARD DEVIATION= 41.2028

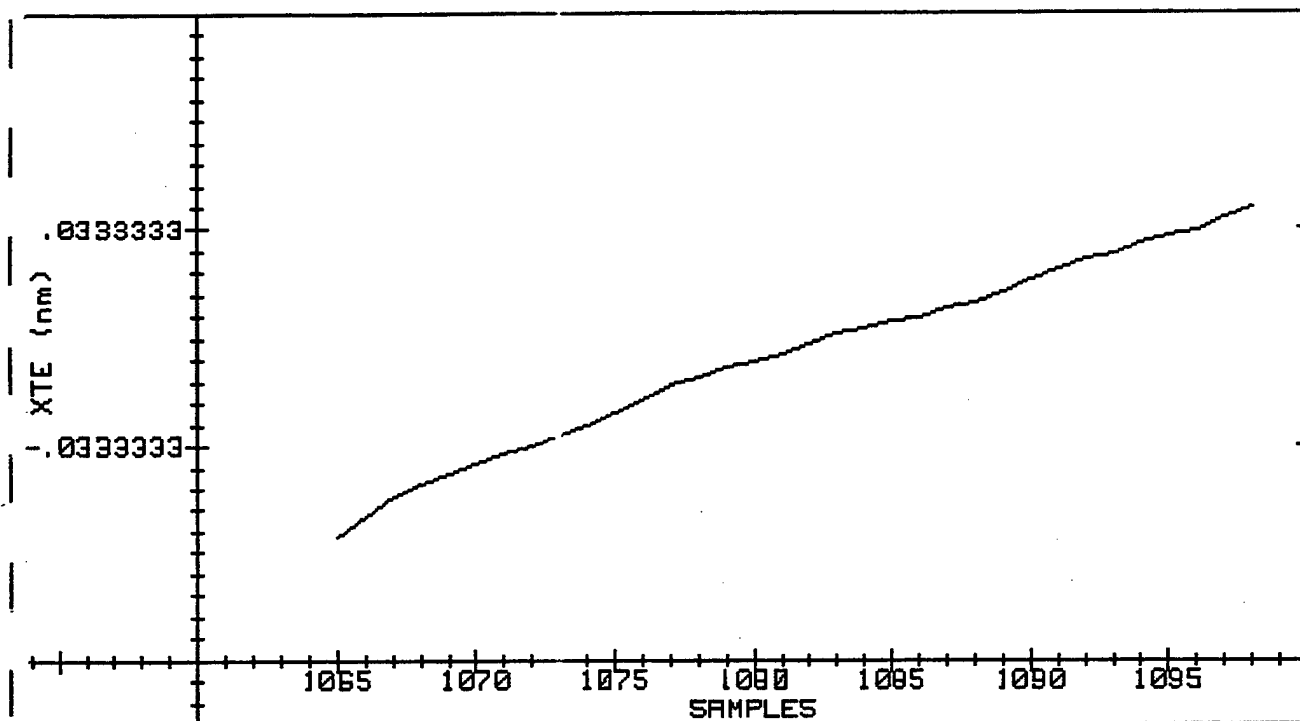
DATE: June 28, 1995 PASS 7



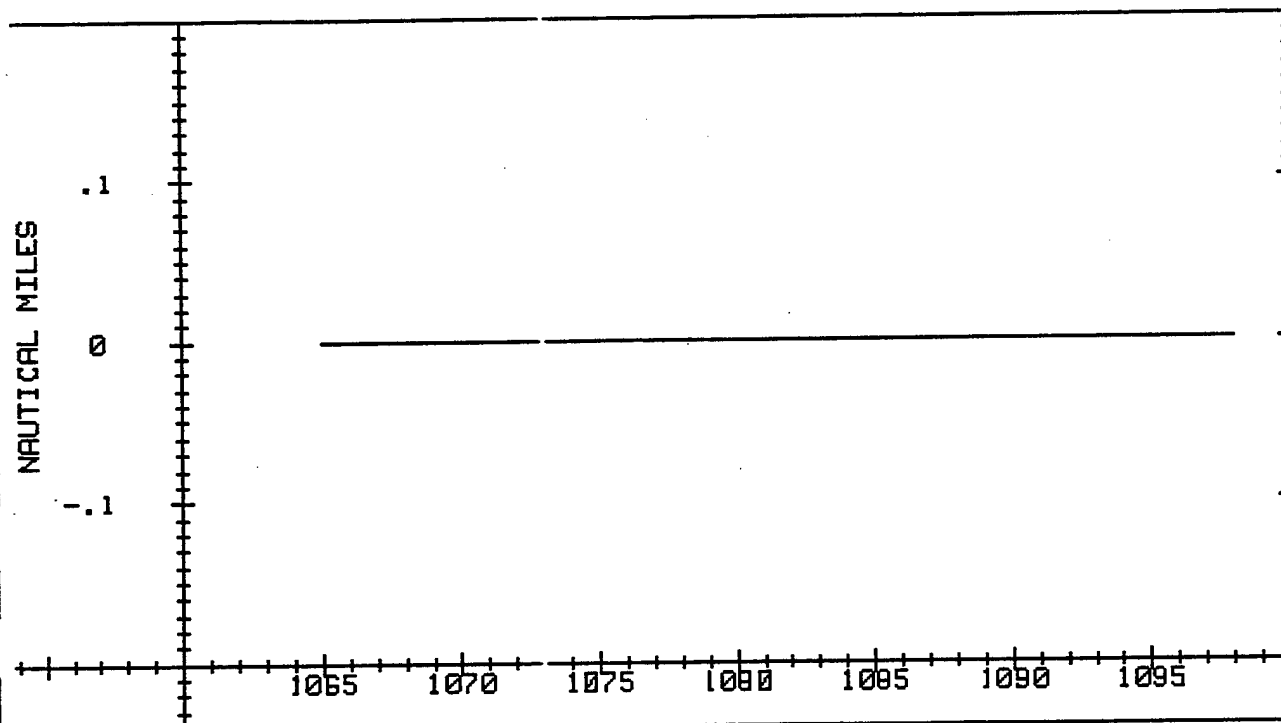
GPS Cross Track Error

MEAN- -.00591175 STANDARD DEVIATION- .0282534

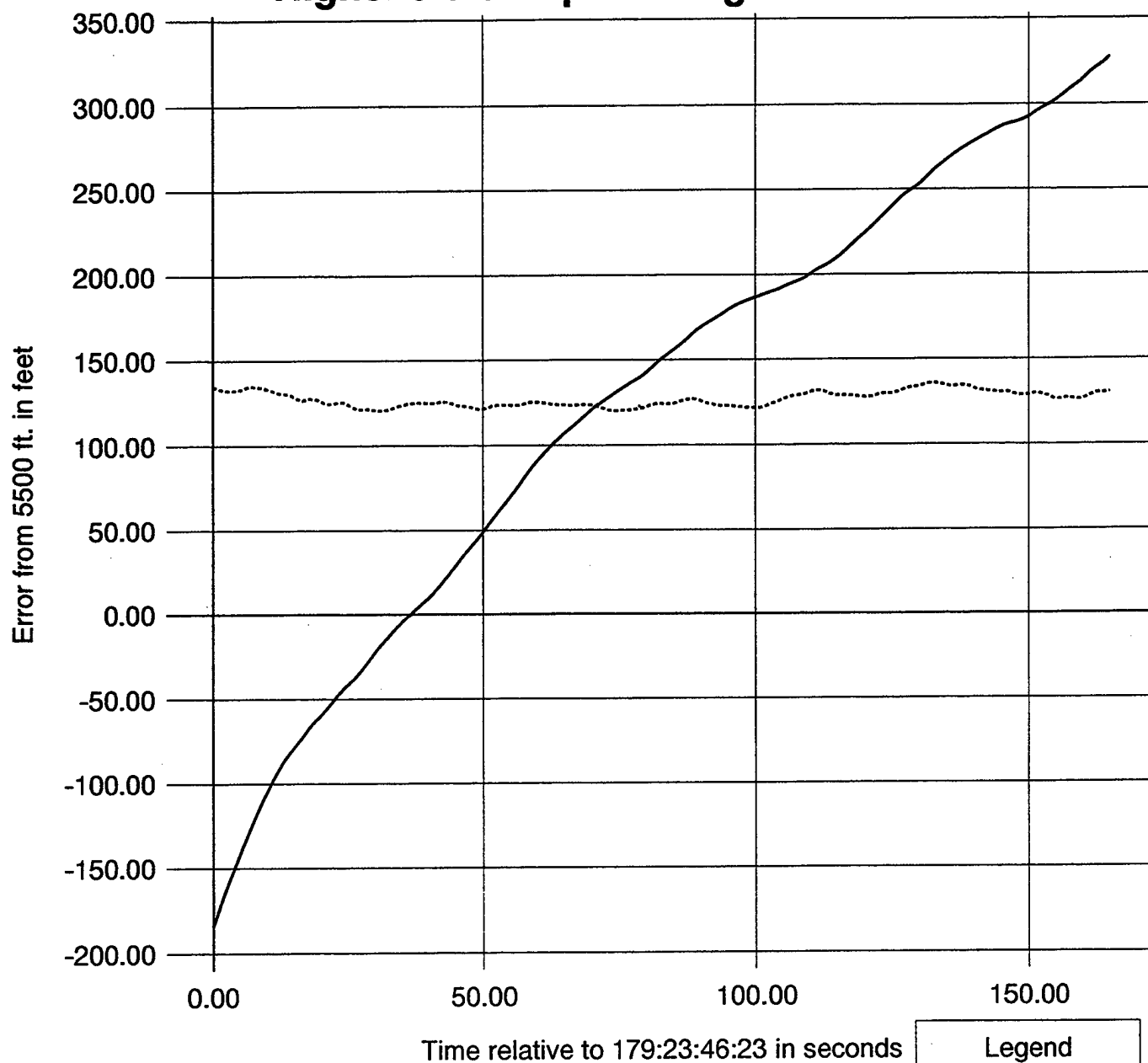
DATE: June 28, 1995 PASS 7



INS CROSS TRACK ERROR
MEAN= 0 STANDARD DEVIATION= 0
DATE: June 28, 1995 PASS 7



Portage, ME - June 28, 1995 - Pass 7 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	126.81	4.18
XTK.	125.07	135.18

Legend	
—	P5-xt
.....	P5-alt

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 47
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:36:20
Pass 6
Req.# 21

AIRCRAFT & CHANNEL DATA

Altitude		CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	p-VV	p-VH	p-HV	p-HH
Baro:	5427 ft s.d.=	4 Swath Ctr Ang:	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°
Des. trk:	40.0°	Far Rng Dep:	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	54.0	64.0	53.0
End Sq:	90.0°	RMS Video (%FS)	15.1	13.4	11.4
					64.0
					13.8

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:32.64	W 68:48.09
Start:	N 46:41.84	W 68:36.93
End:	N 46:49.50	W 68:27.59
From:	N 33:10.49	W 81:13.86
To:	N 58:02.12	W 48:16.16

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 249.5 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -4.3 fps (s.d.= 1.8)
Ave Fil Vel -> -4.5 fps (s.d.= 1.5)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 40.0	

Tape Footage	Drive no.
Starting: 5459 ft	(1)
Ending: 6705 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

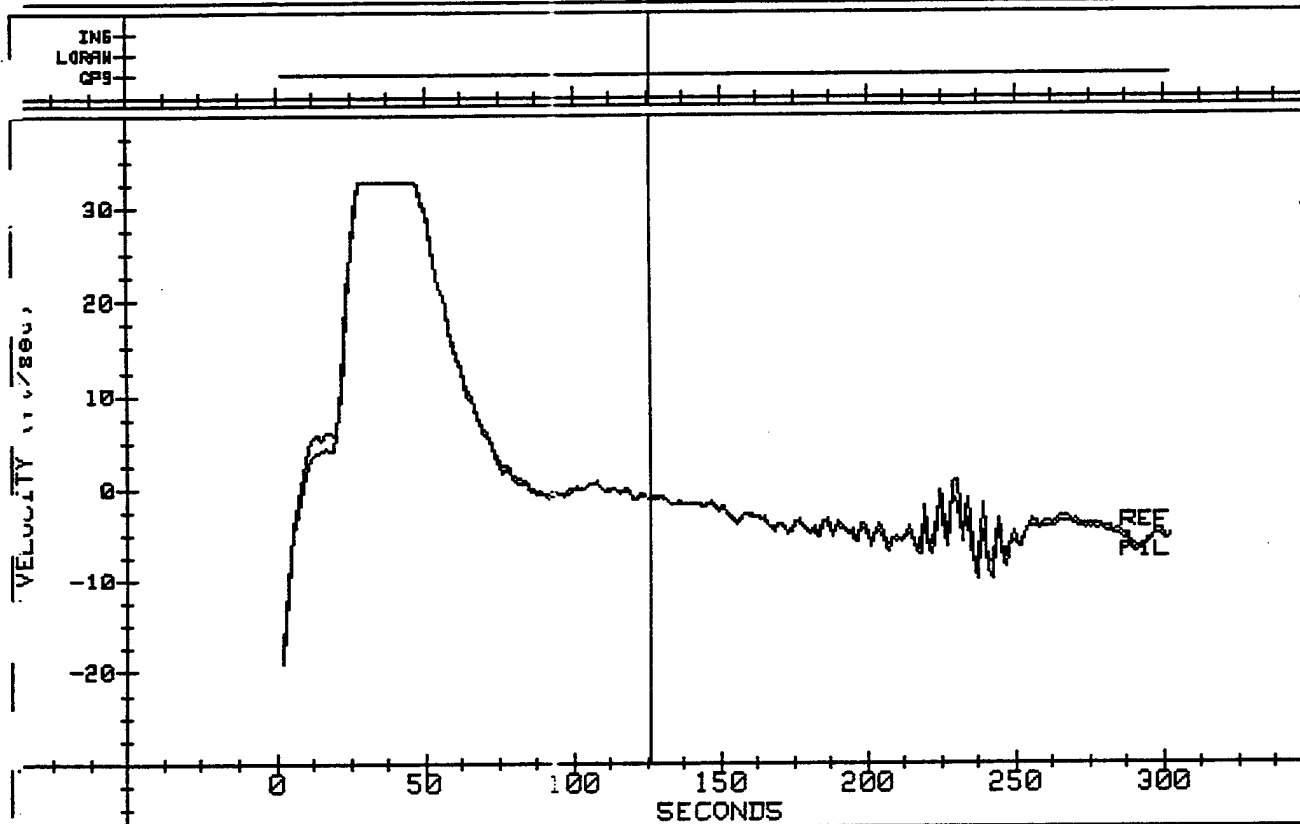
LINE Map Time (UCT)
Start: 23:36:20
End: 23:39:05

Mocomp Counters

Start: 264112 000407B0h
End: 291778 000473C2h

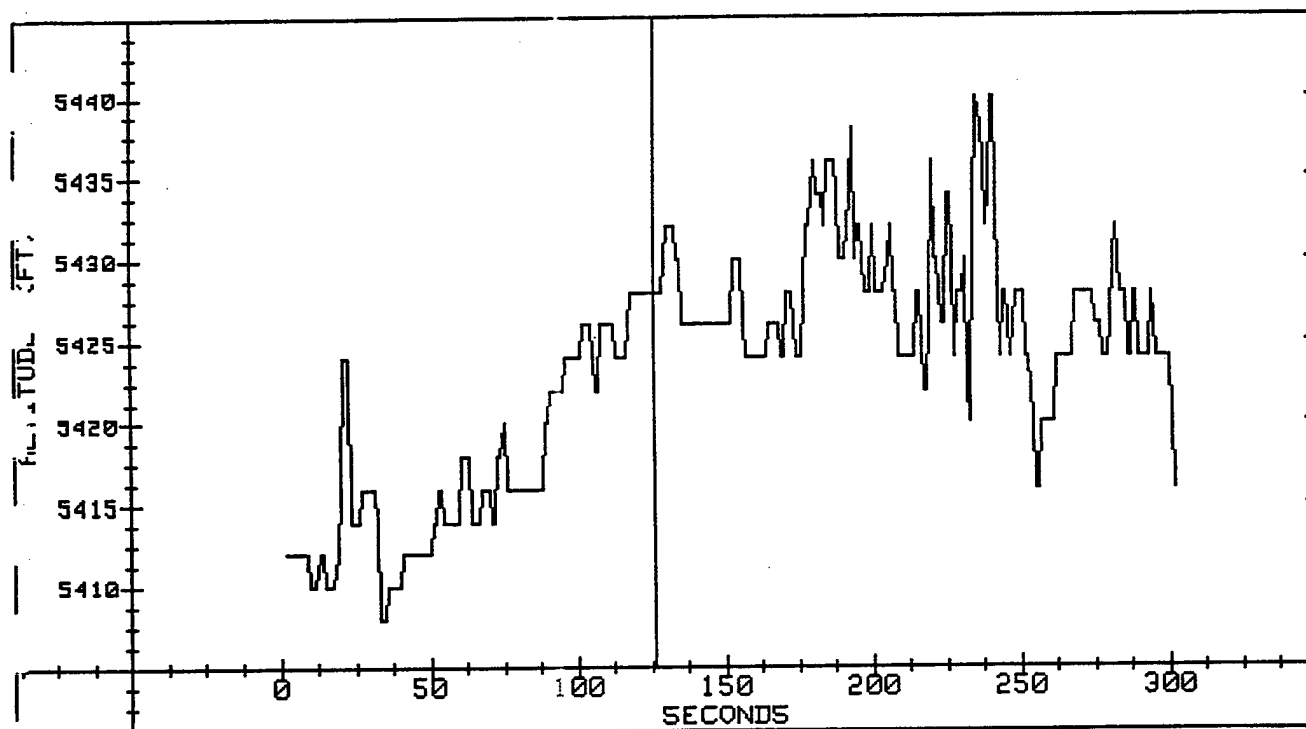
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 23:34 PASS 6



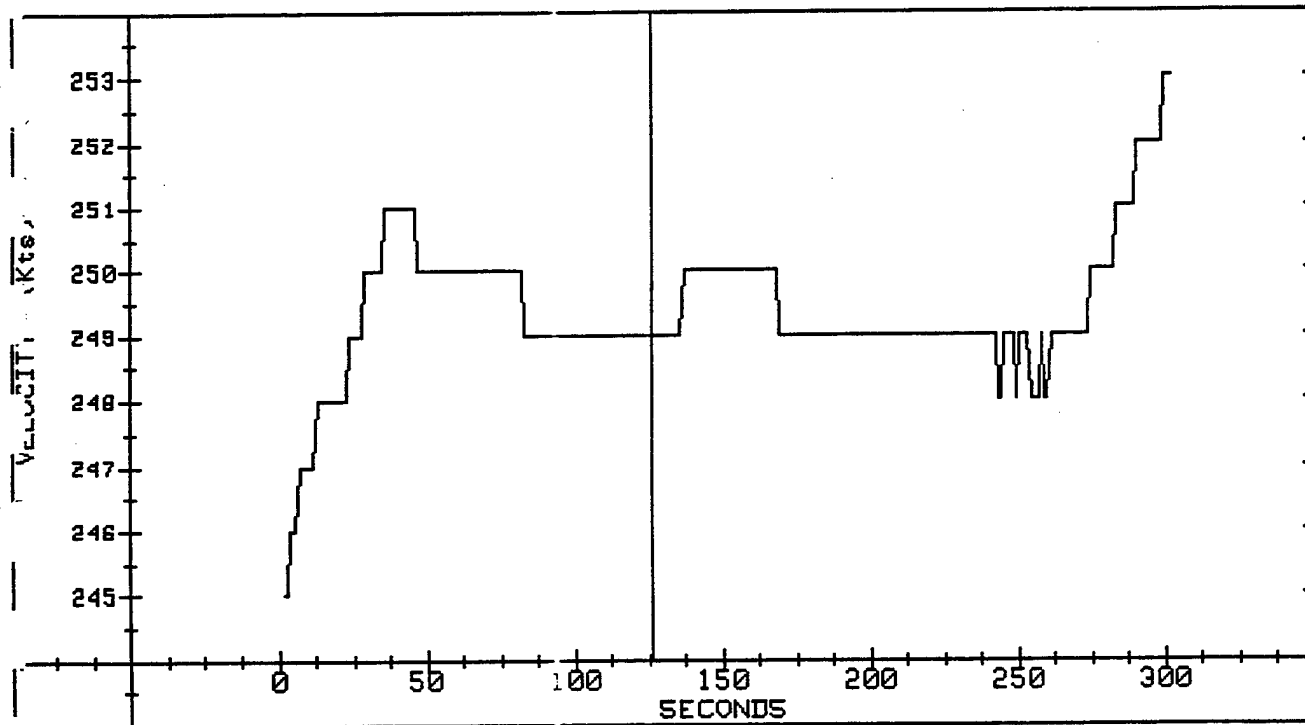
BARO ALTITUDE

DAY 179 TIME 23:34 PASS 6 m= 5427. sd= 4.4487



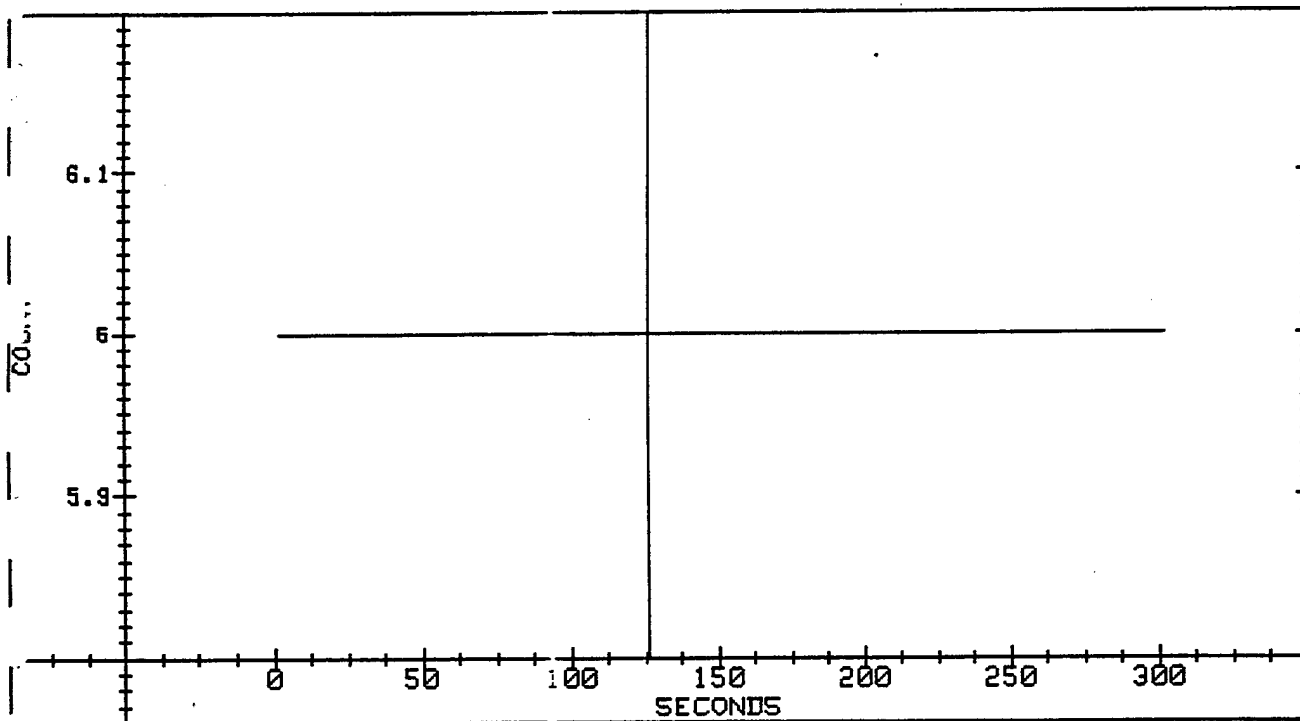
INS GROUND SPEED

DAY 179 TIME 23:34 PASS 6 m= 249.5, sd= 1.02750



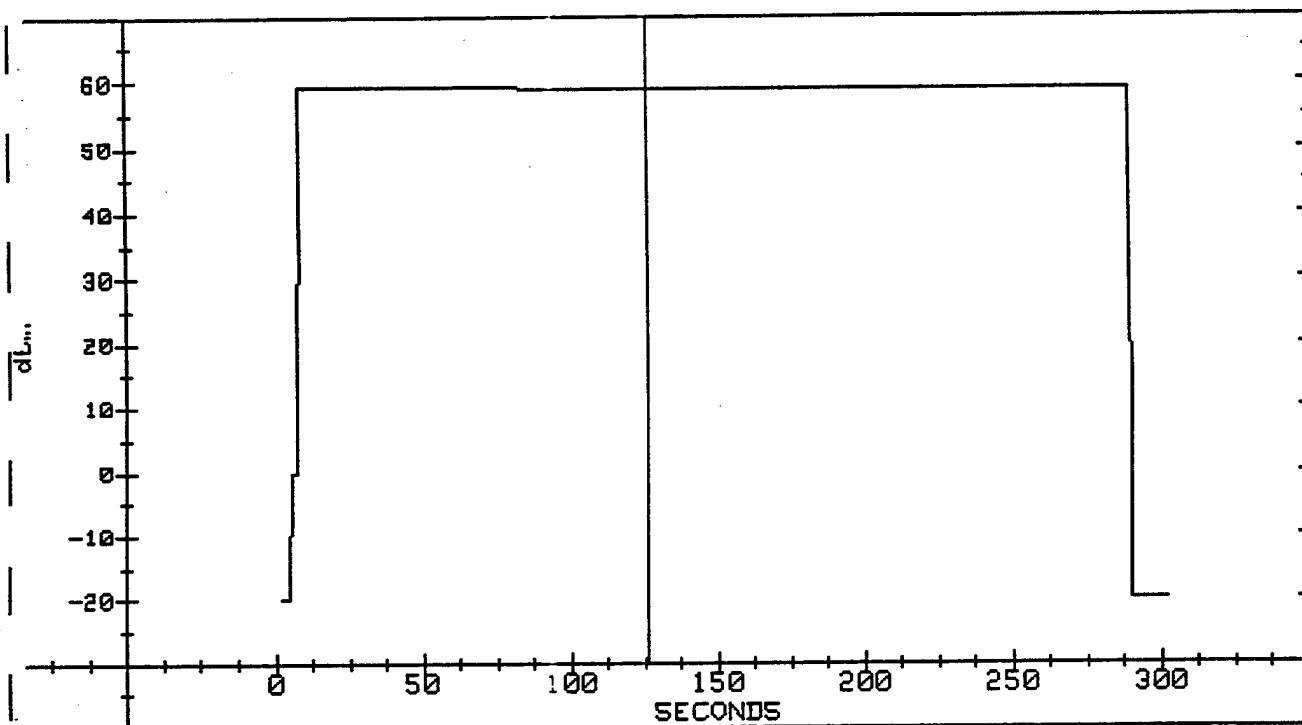
PASS NUMBER

DAY 179 TIME 23:34 PASS 6 m= 6, sd= 0



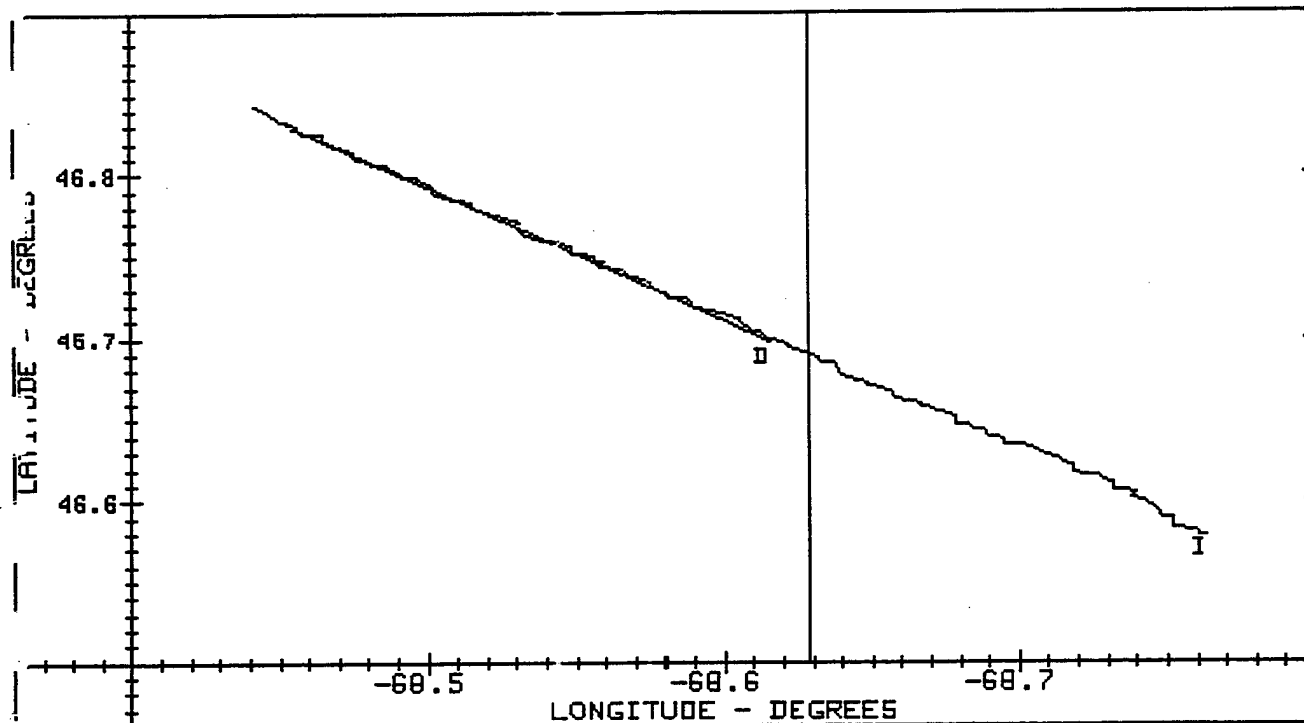
P Band Power

DAY 179 TIME 23:34 PASS 6 m= 52.70, sd= 21.2152



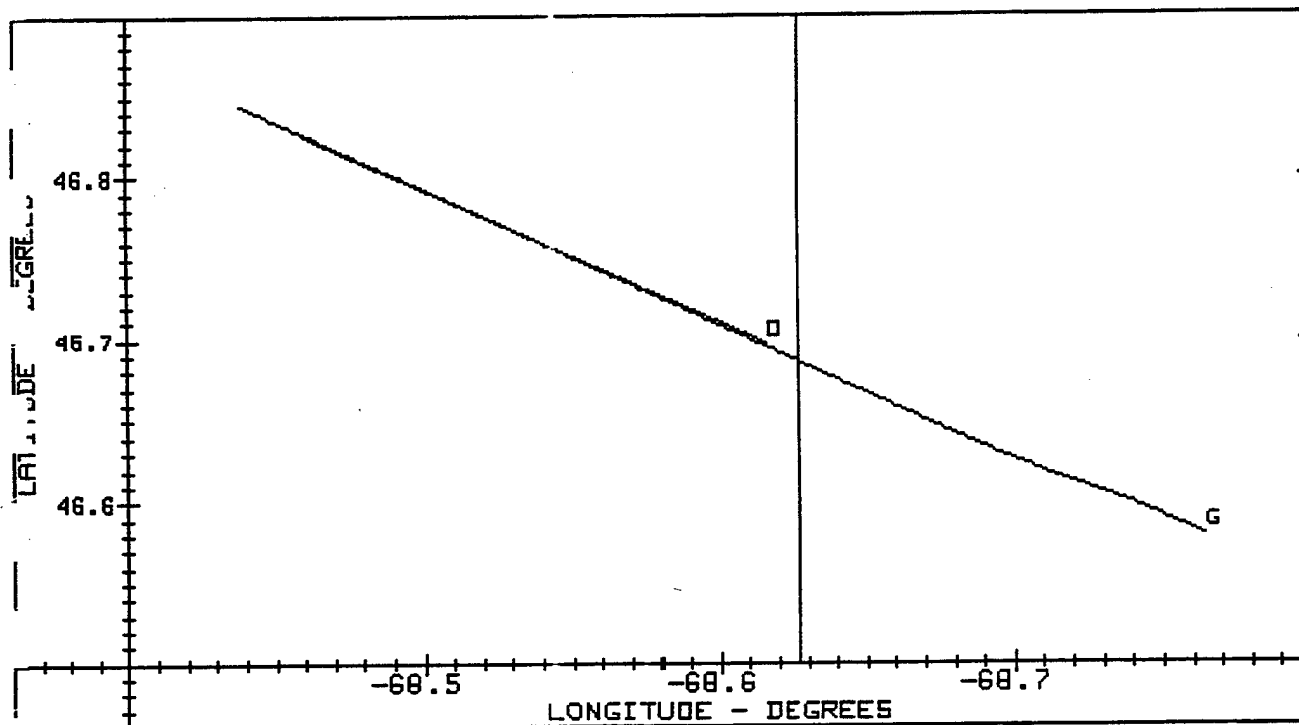
INS AIRCRAFT POSITION

DAY 179 TIME 23:34 PASS 6



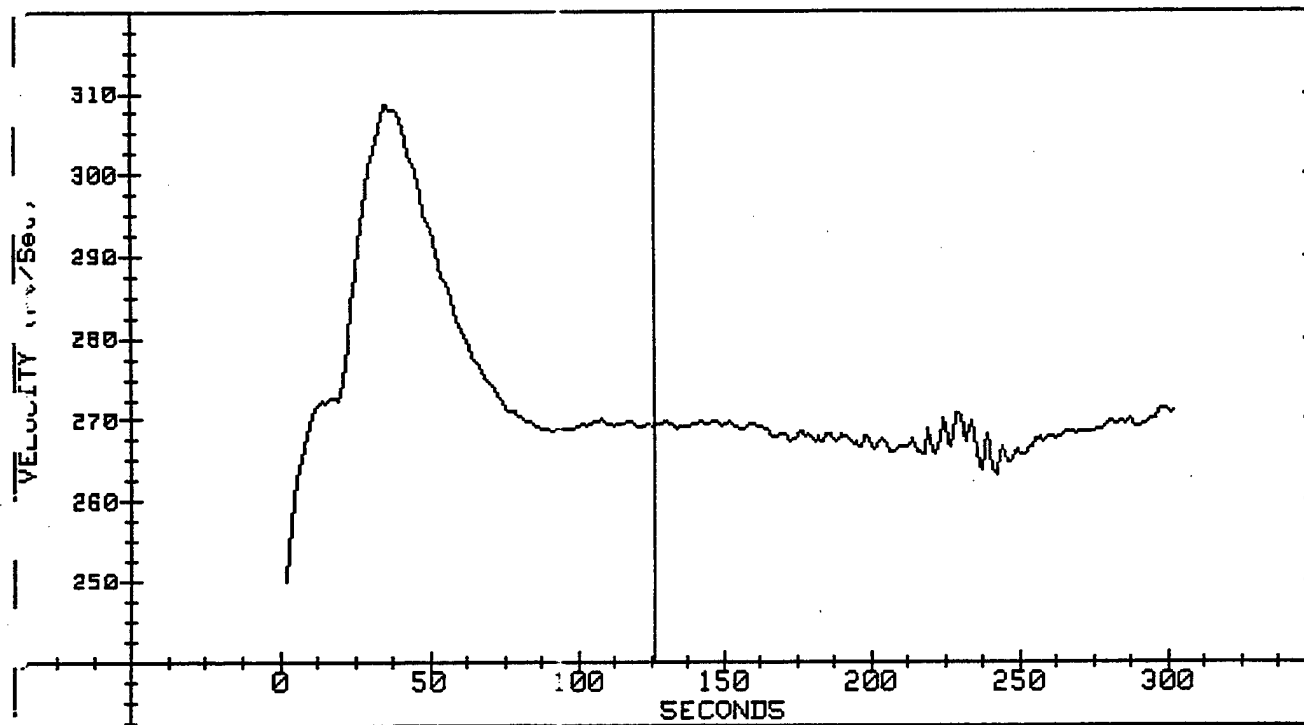
GPS AIRCRAFT POSITION

DAY 179 TIME 23:34 PASS 6



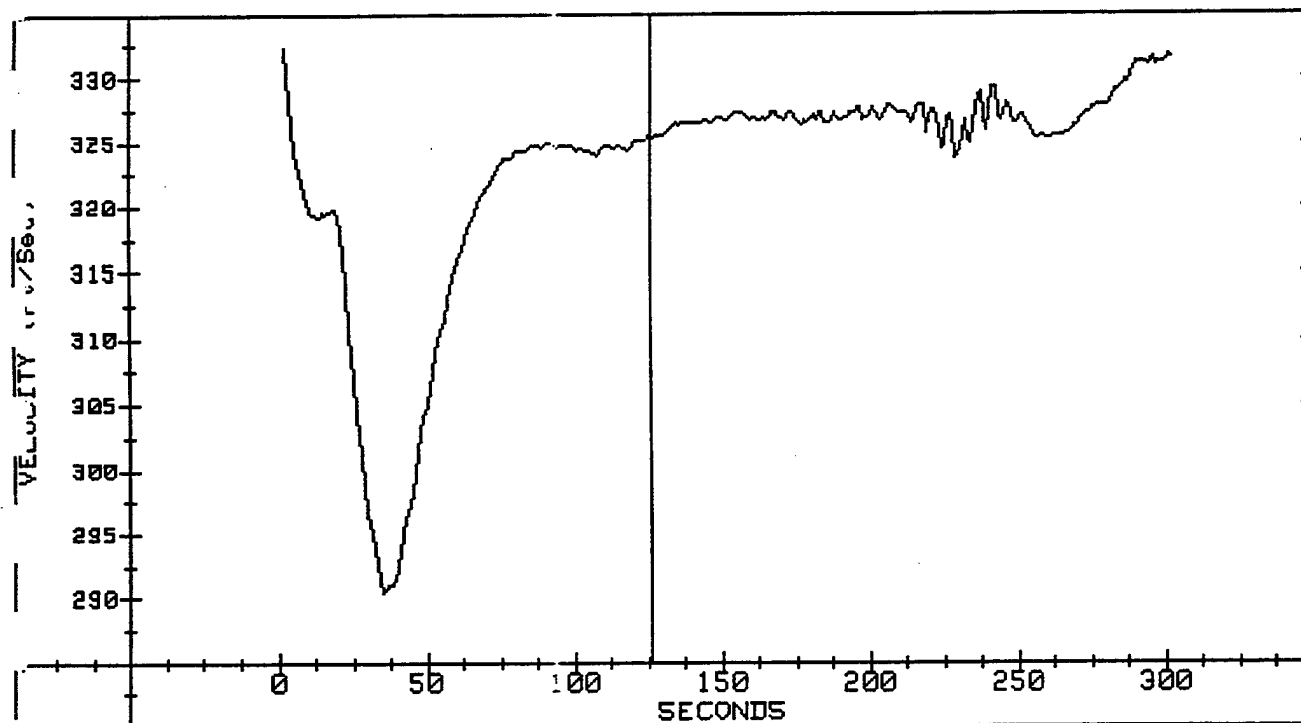
GPS V_e

DRY 179 TIME 23:34 PASS 6 m= 260.1, sd= 1.53606



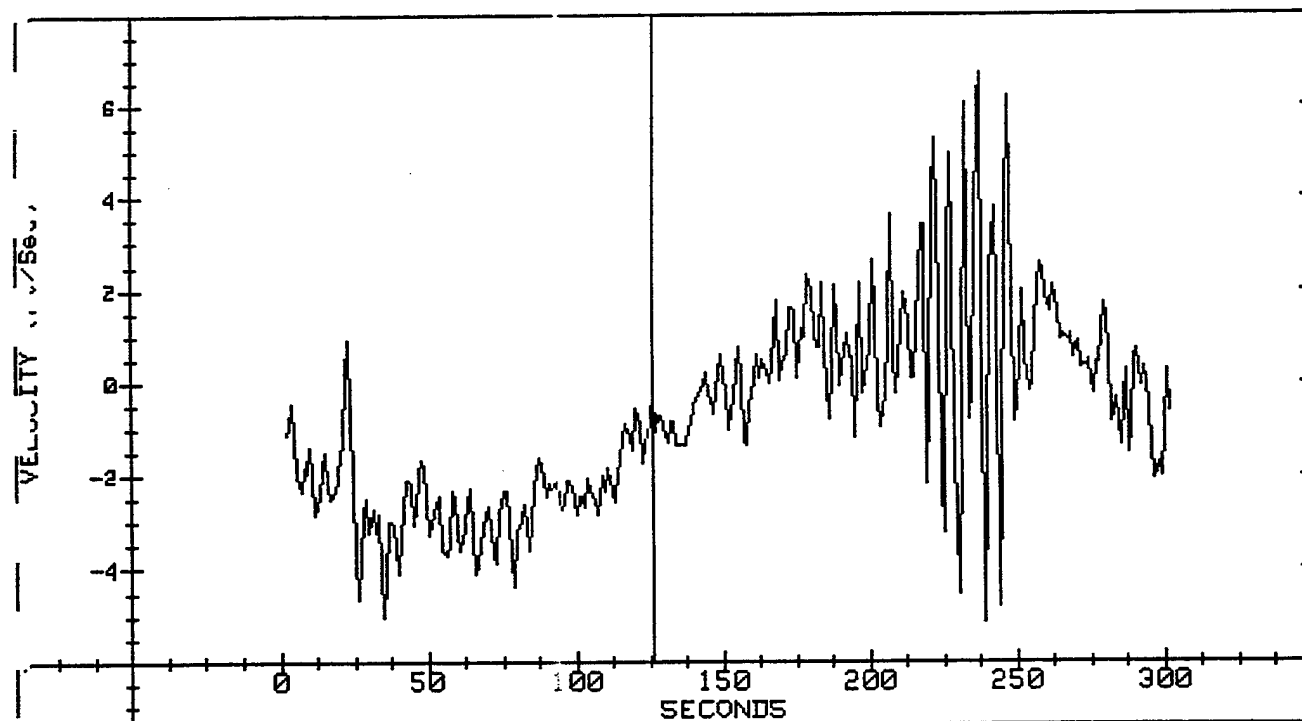
GPS Vn

DRY 179 TIME 23:34 PASS 6 m= 327.3, sd= 1.55106



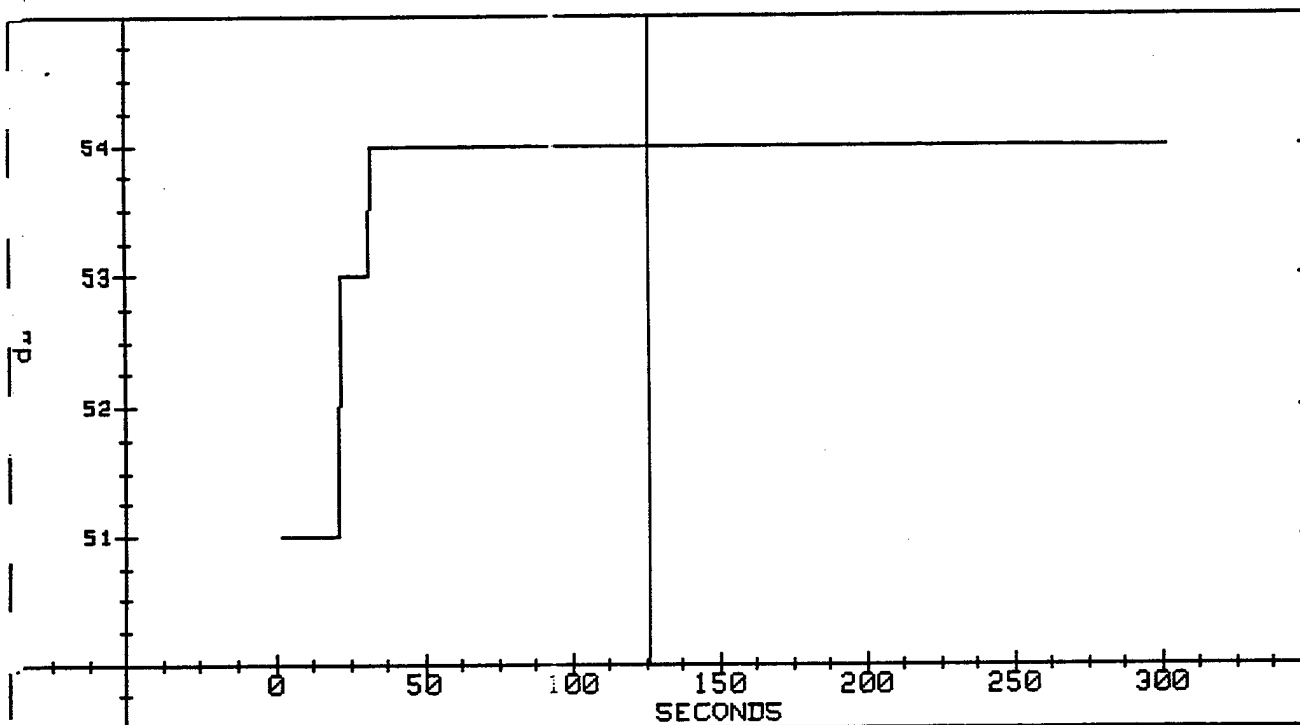
GPS Vv

DAY 179 TIME 23:34 PASS 6 m= .5463. sd= 1.79012



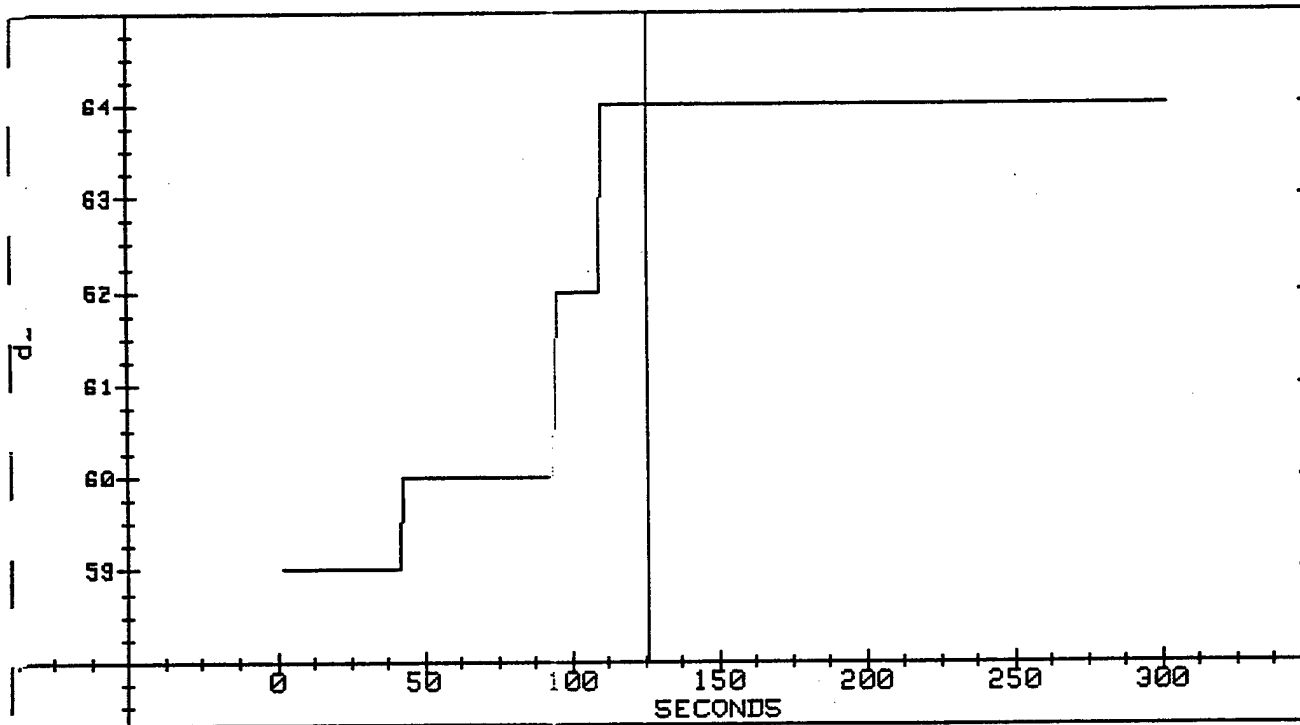
Ch1 RES Attenuation

DAY 179 TIME 23:34 PASS 6 m= 54, sd= 0



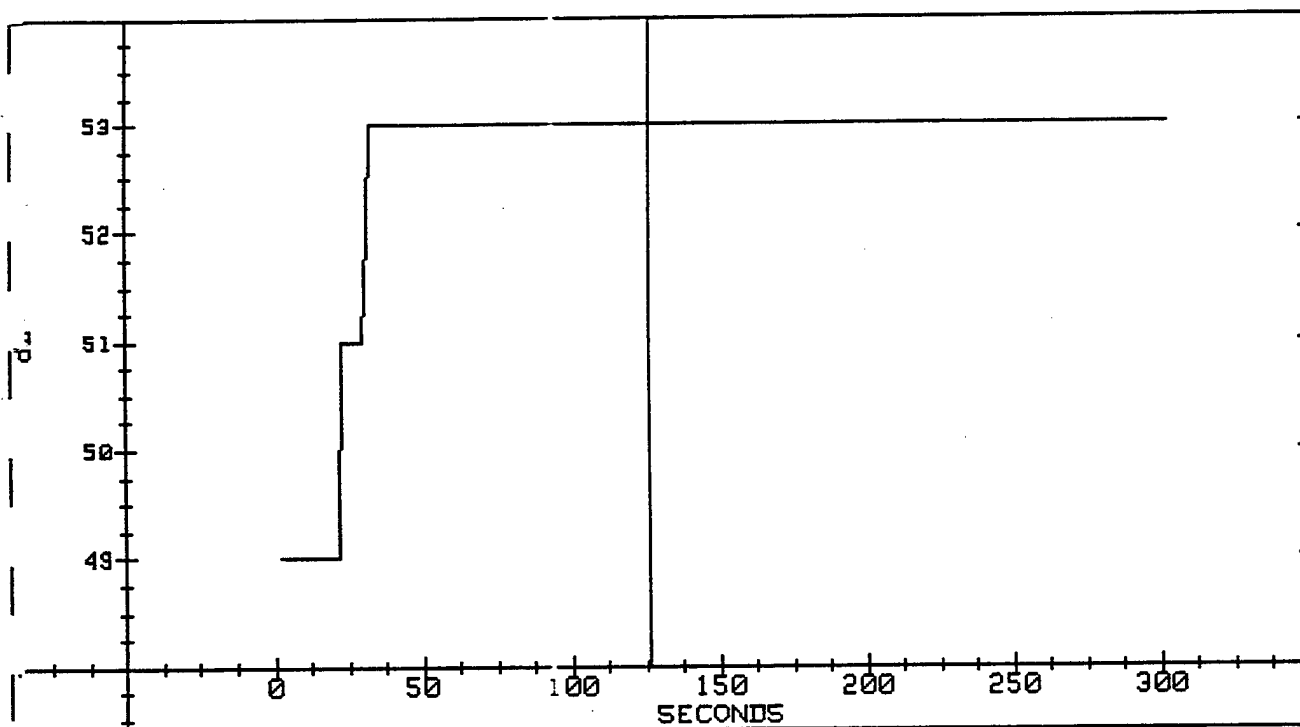
Ch2 RES Attenuation

DAY 179 TIME 23:34 PASS 6 m= 64, sd= 0



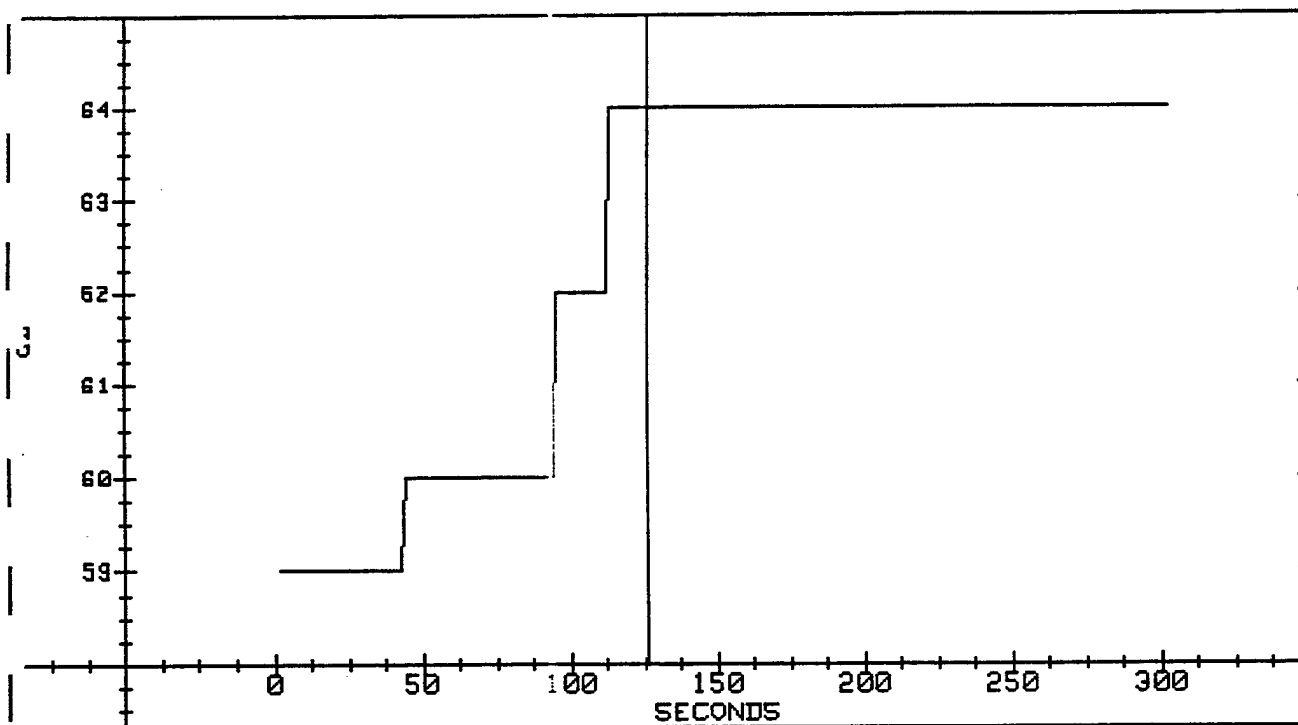
Ch3 RES Attenuation

DAY 179 TIME 23:34 PASS 6 m= 53, sd= 0



Ch4 RES Attenuation

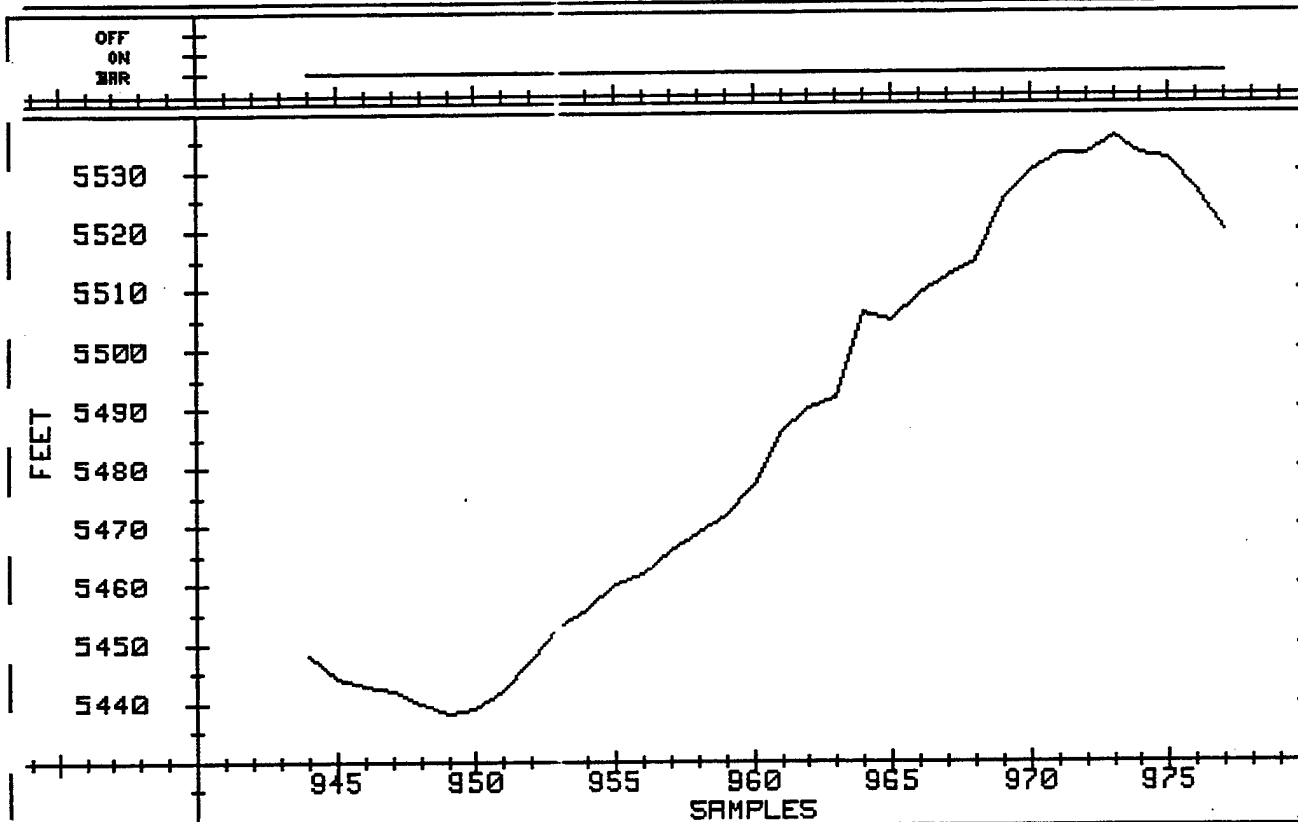
DAY 179 TIME 23:34 PASS 6 m= 64, sd= 0



GPS ALTITUDE

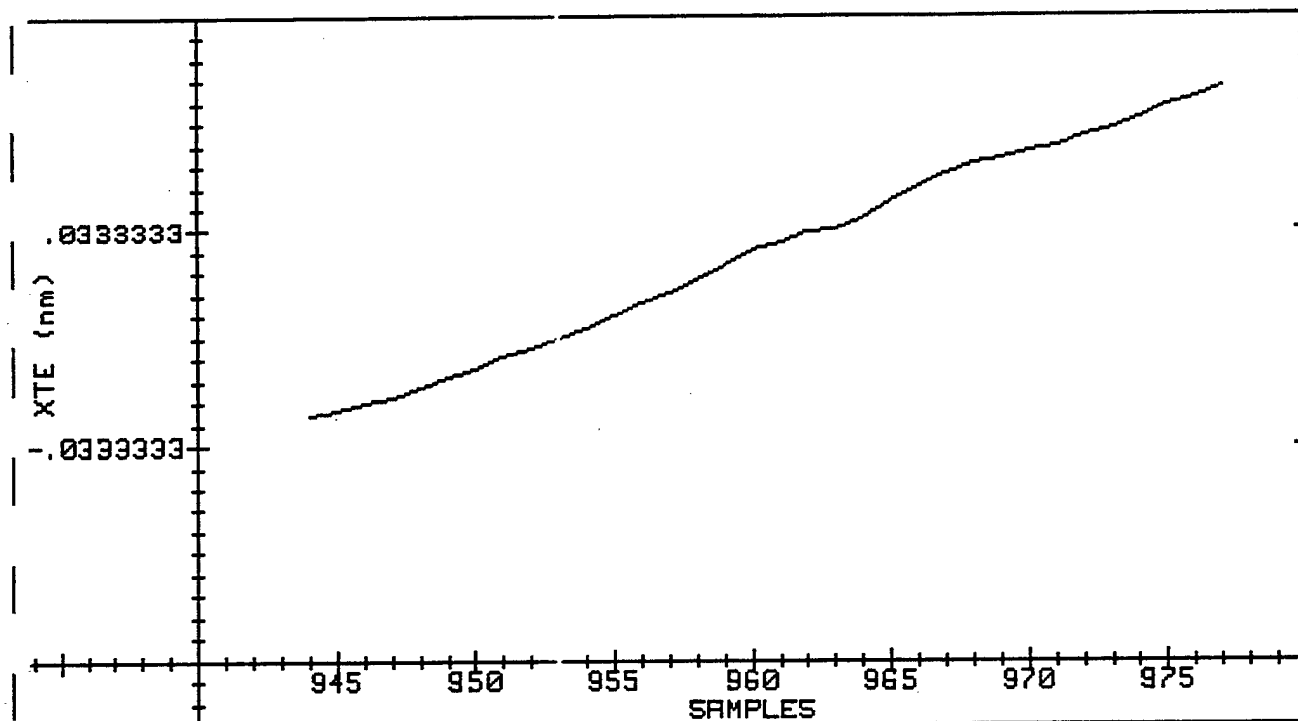
MEAN= 5484.75 STANDARD DEVIATION= 34.9916

DATE: June 28, 1995 PASS 6



GPS Cross Track Error

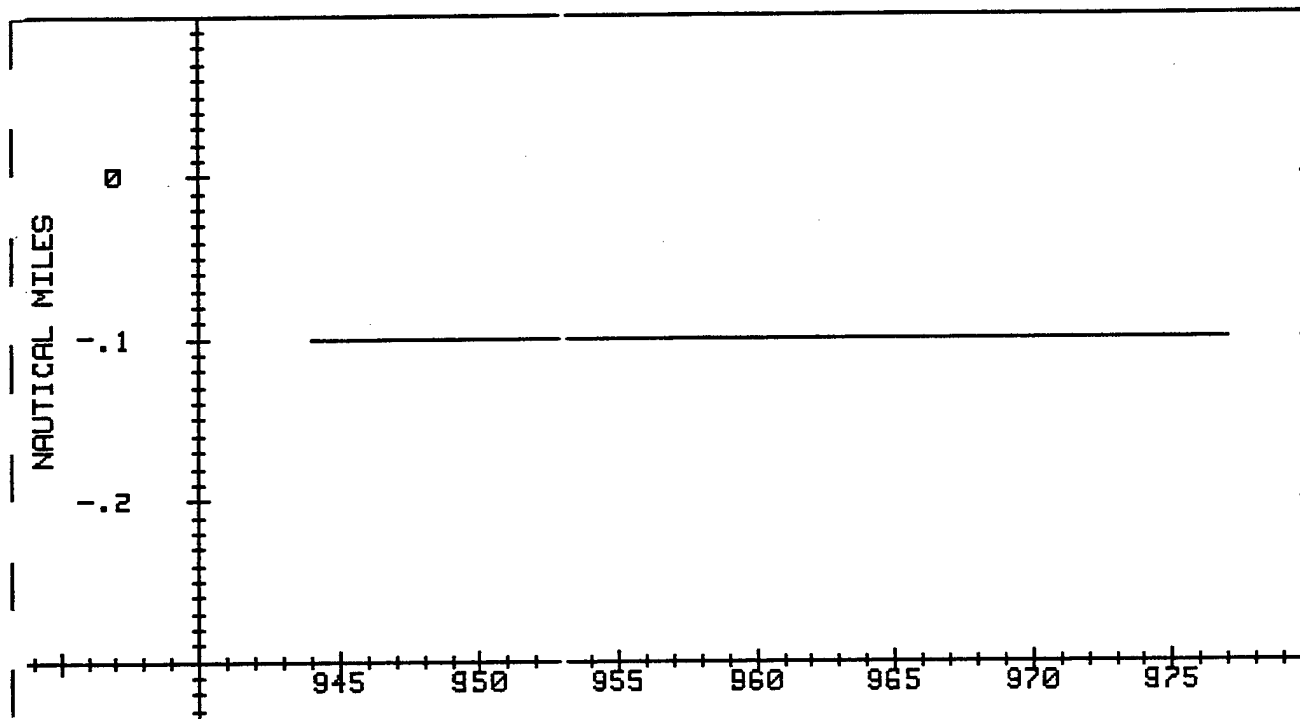
MEAN= .0263529 STANDARD DEVIATION= .0318349
DATE: June 28, 1995 PASS 6



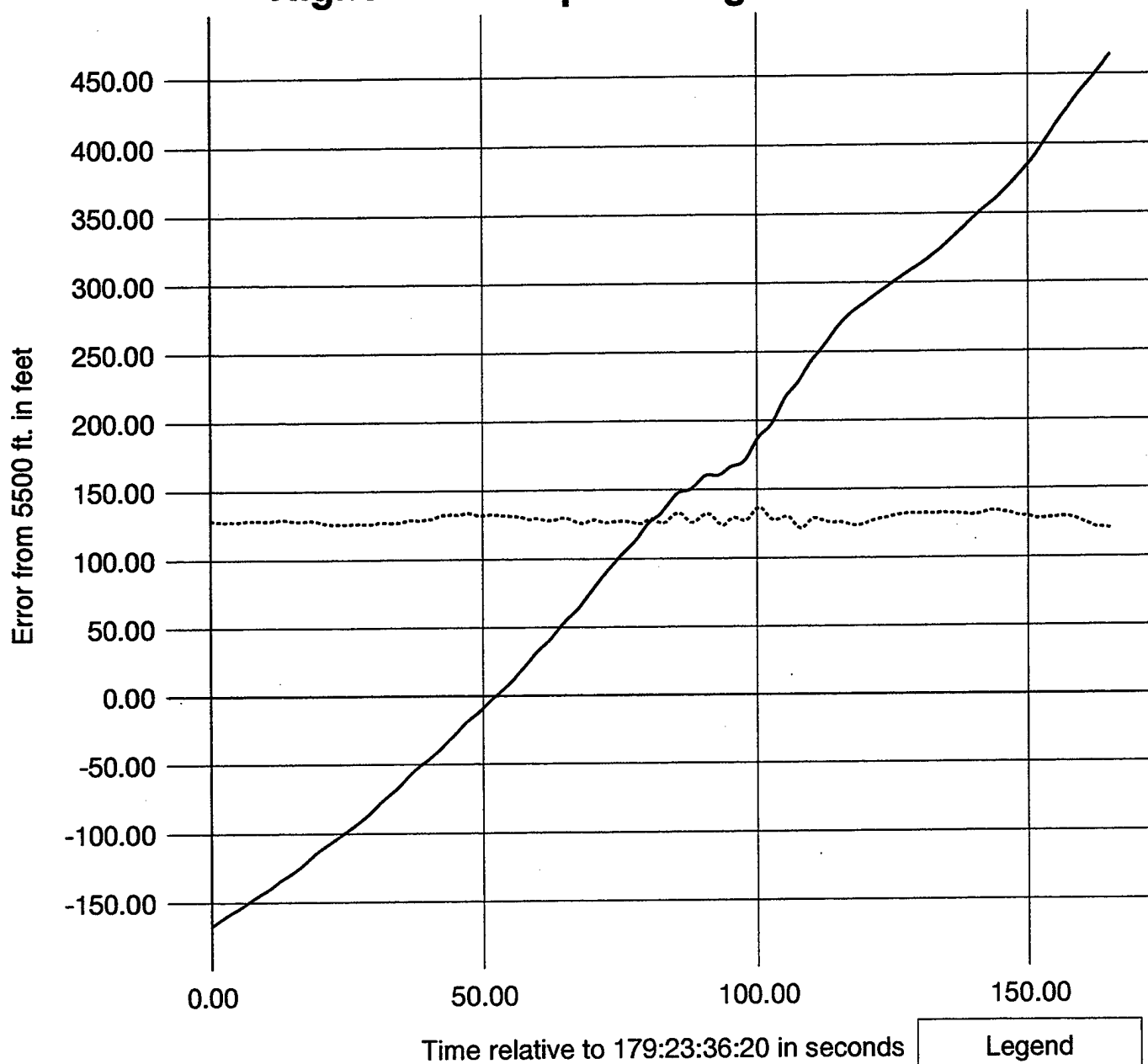
INS CROSS TRACK ERROR

MEAN= -.1 STANDARD DEVIATION= 1.31709E-9

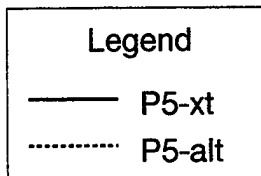
DATE: June 28, 1995 PASS 6



Portage, ME - June 28, 1995 - Pass 6 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	128.79	2.86
XTK.	128.39	186.31



28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 49
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:24:49
Pass 5
Req.# 22

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5414 ft s.d.=	6 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	190.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	51.0	59.0	49.0	59.0
End Sq:	90.0°	RMS Video (%FS)	17.3	10.5	14.0	12.6

WAYPOINTS

	Latitude	Longitude
Line_up:	N 47:00.03	W 68:20.55
Start:	N 46:48.22	W 68:23.60
End:	N 46:38.38	W 68:26.12
From:	N 62:58.39	W 62:09.31
To:	N 30:13.70	W 71:42.81

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLAU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 251.5 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 1.1 fps (s.d.= 1.9)
Ave Fil Vel -> .7 fps (s.d.= 1.7)

NML XMIT PWR	ANE BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.7	

Tape Footage	Drive no.
Starting: 4187 ft	(1)
Ending: 5443 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

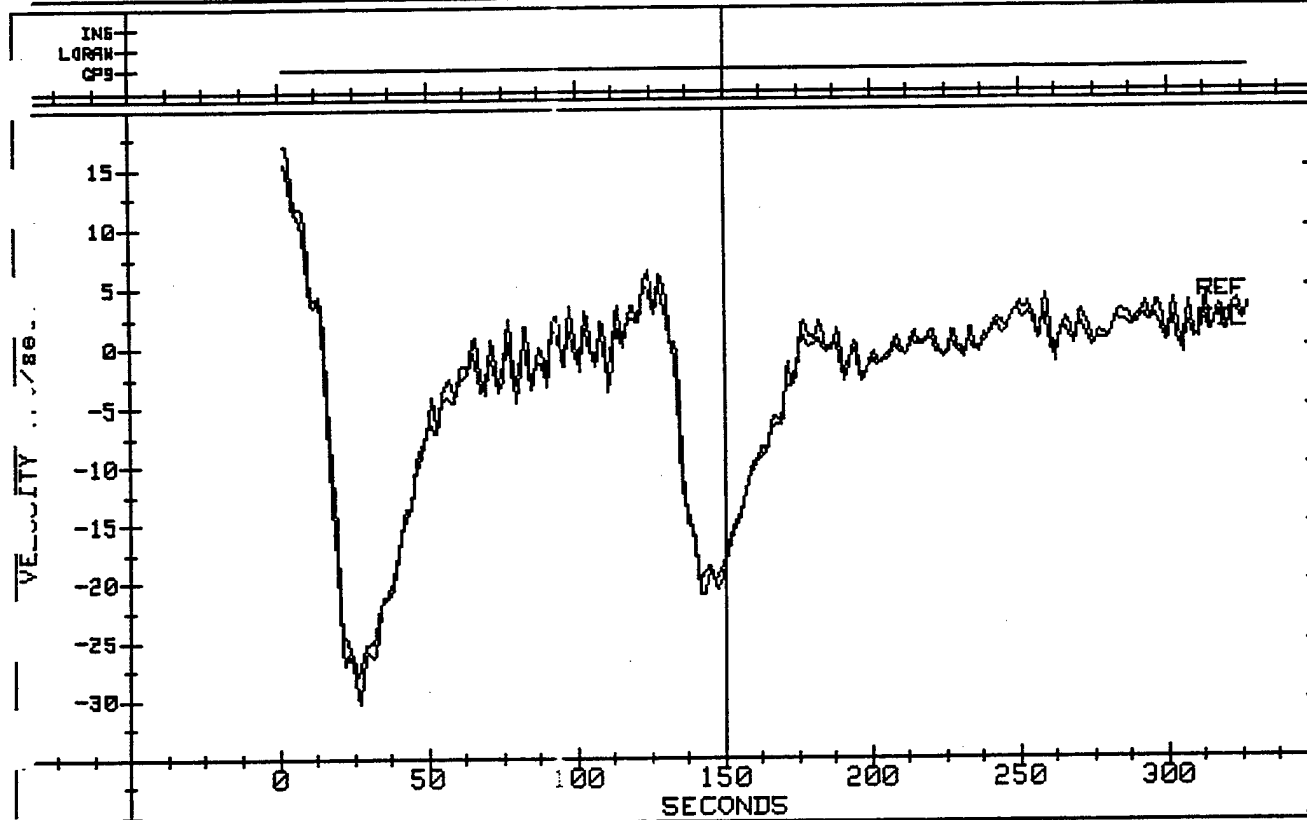
LINE Map Time (UCT)
Start: 23:24:49
End: 23:27:28

Mocomp Counters

Start: 214429 0003459Dh
End: 241099 0003ADCBh

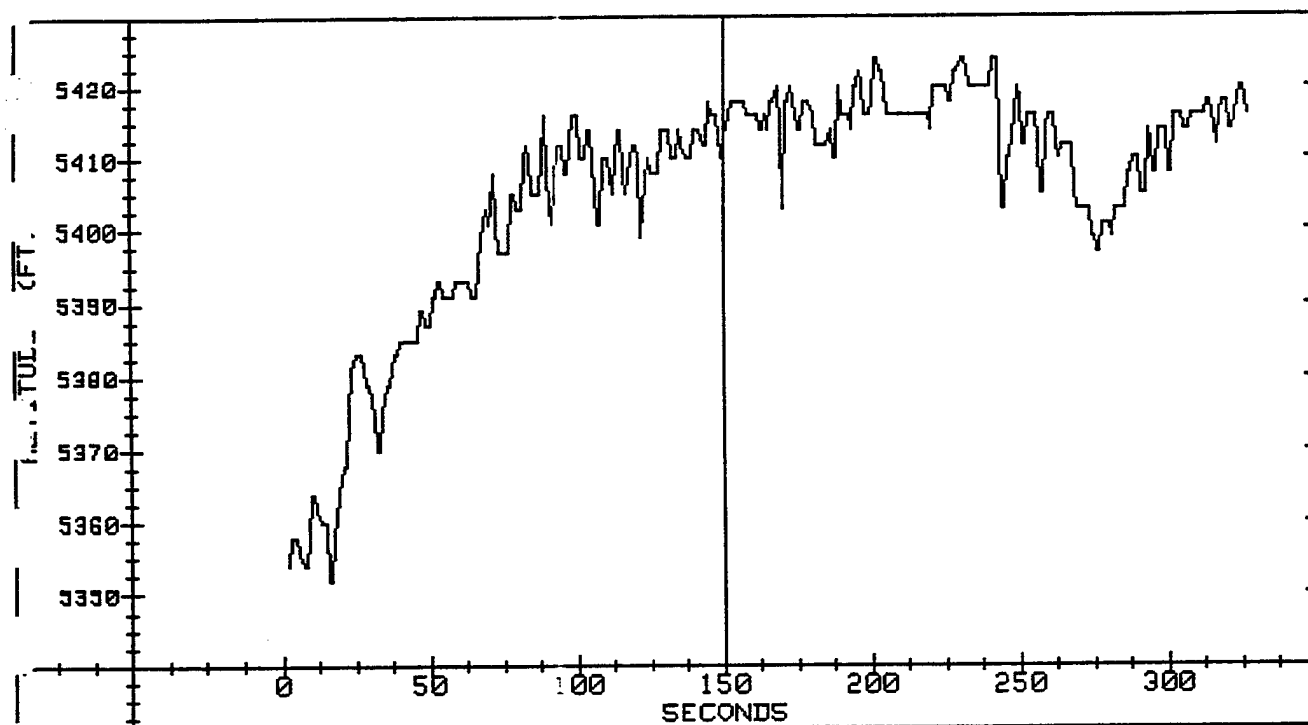
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 23:22 PASS 5



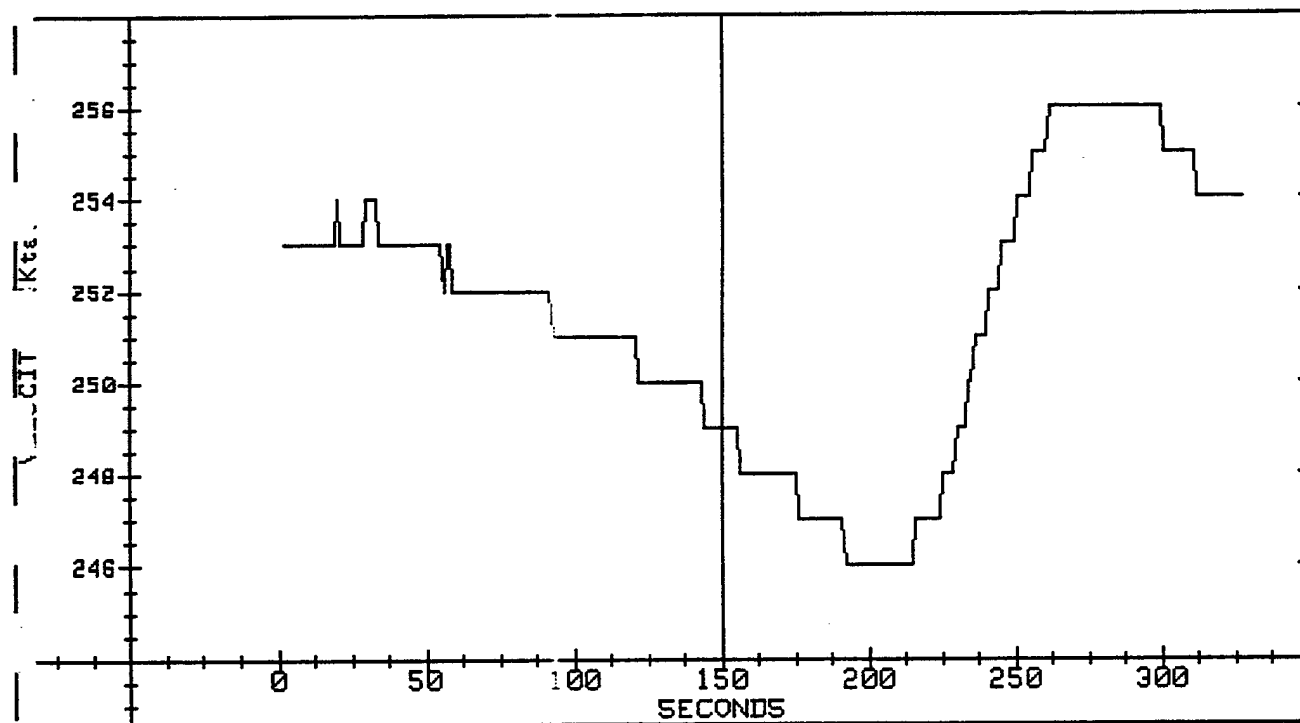
BARO ALTITUDE

DAY 179 TIME 23:22 PASS 5 m= 5414. sd= 6.23094



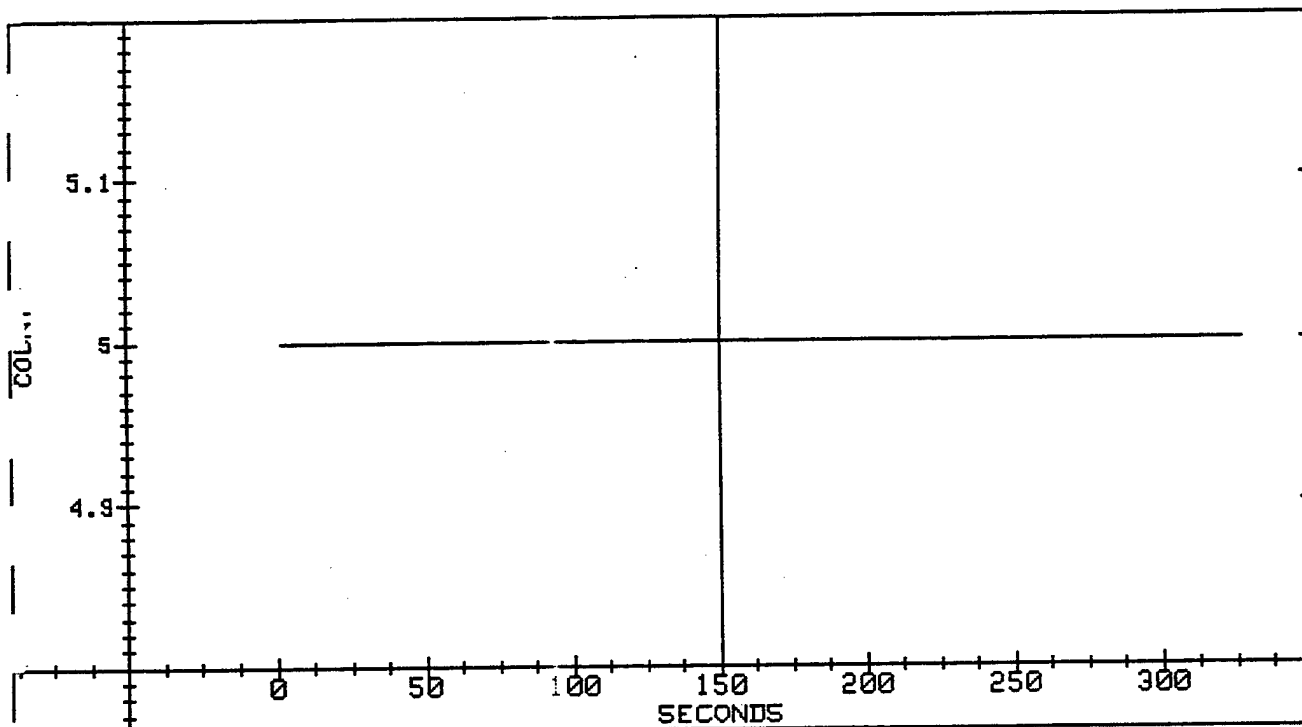
INS GROUND SPEED

DAY 179 TIME 23:22 PASS 5 m= 251.5, sd= 4.00763



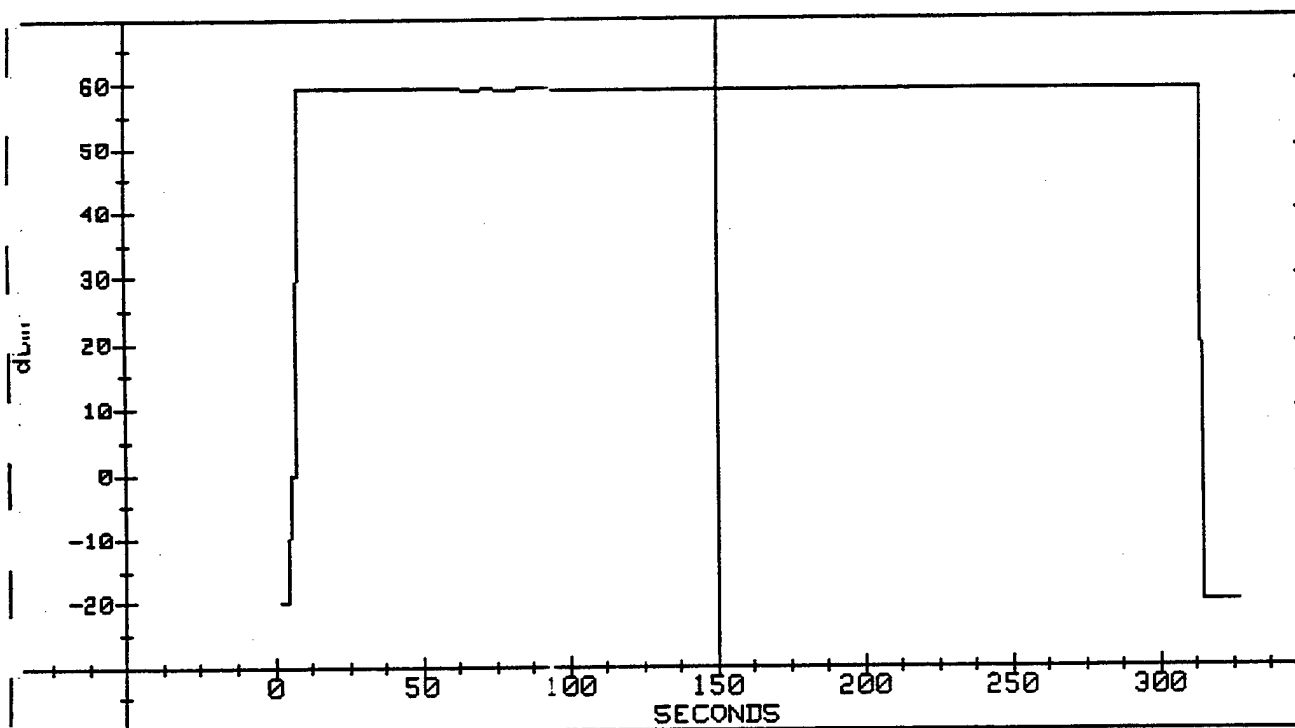
PASS NUMBER

DAY 179 TIME 23:22 PASS 5 m= 5, sd= 0



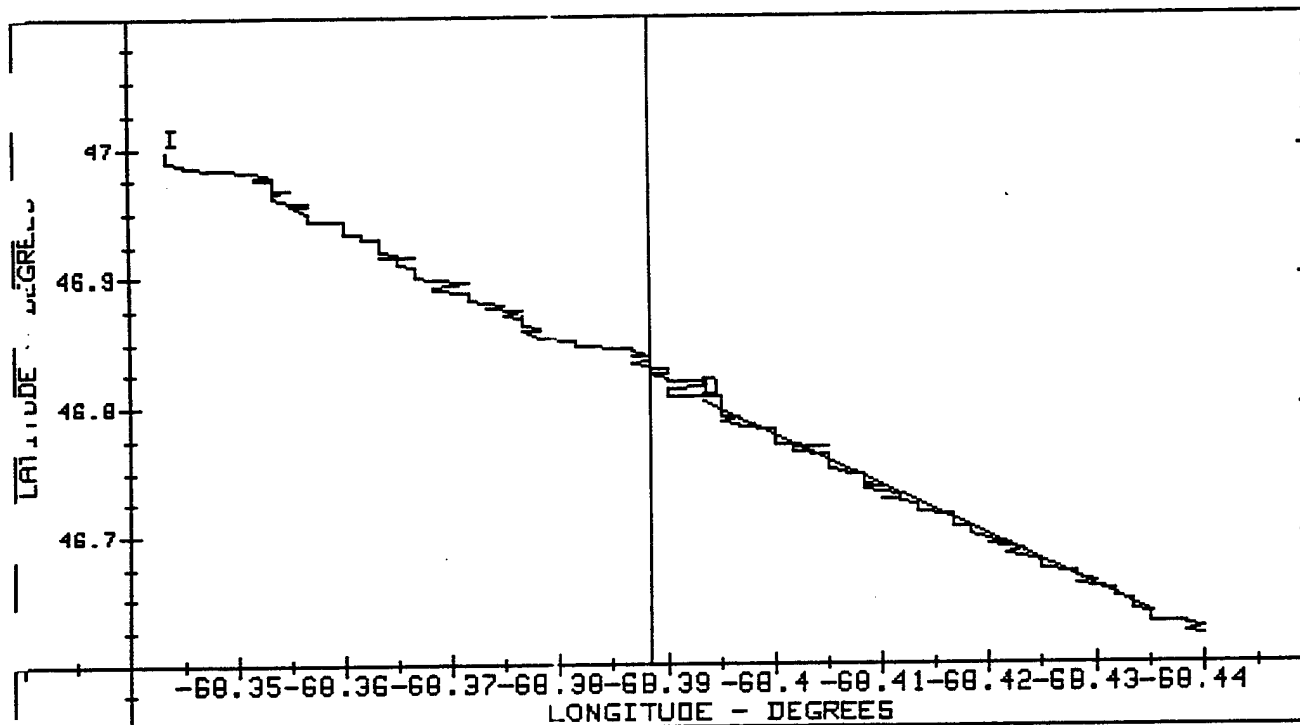
P Band Power

DAY 179 TIME 23:22 PASS 5 m= 52.5, sd= 21.5614



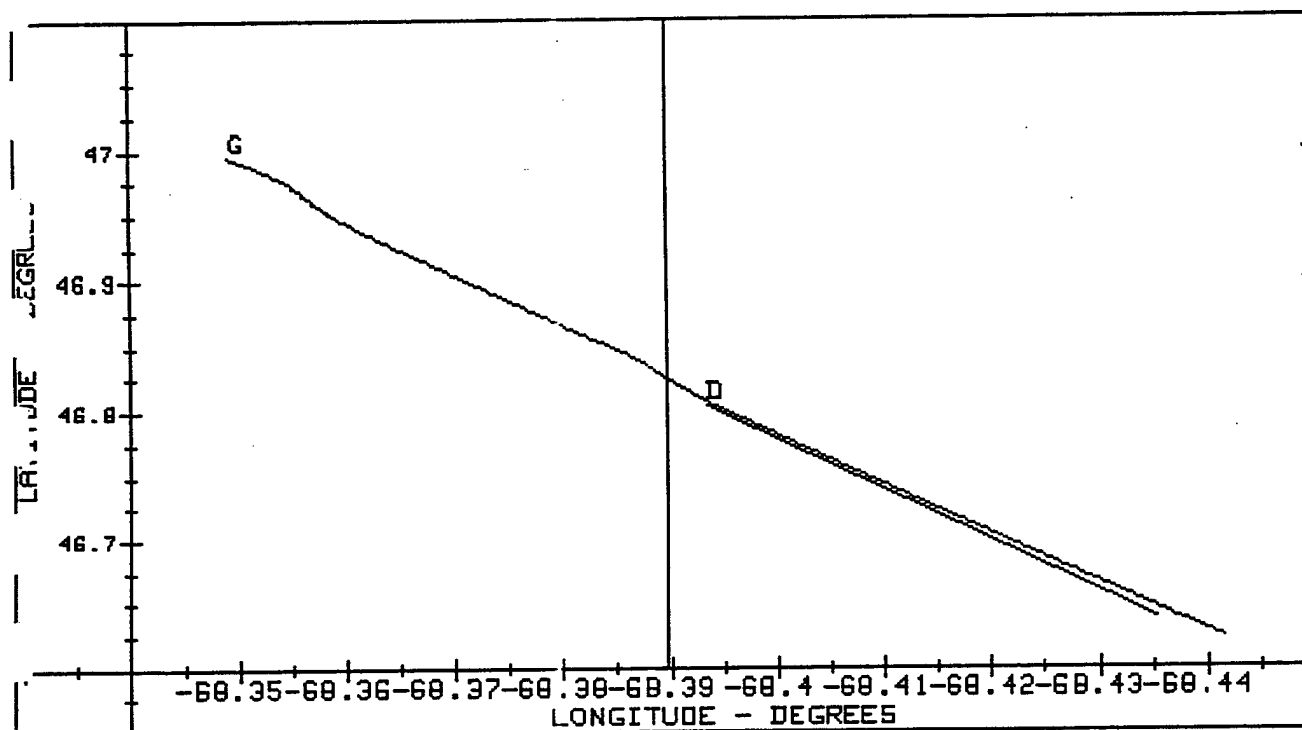
INS AIRCRAFT POSITION

DAY 179 TIME 23:22 PASS 5



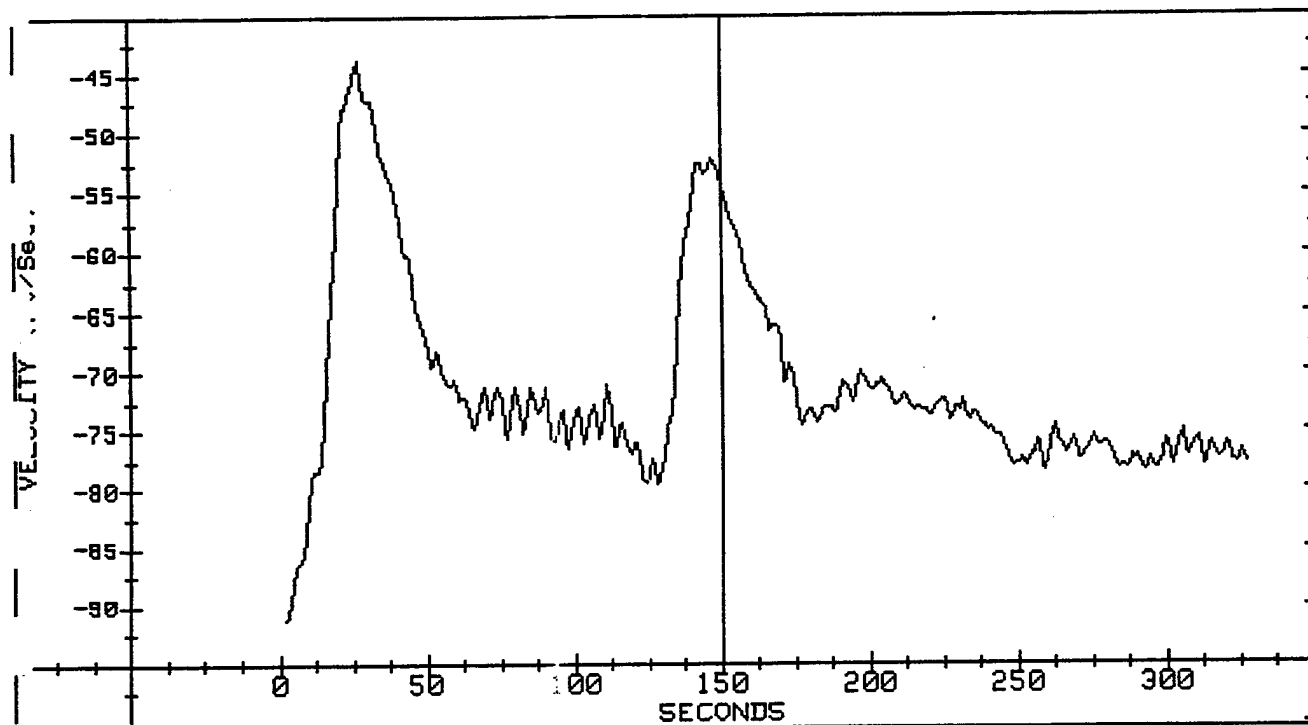
GPS AIRCRAFT POSITION

DAY 179 TIME 23:22 PASS 5



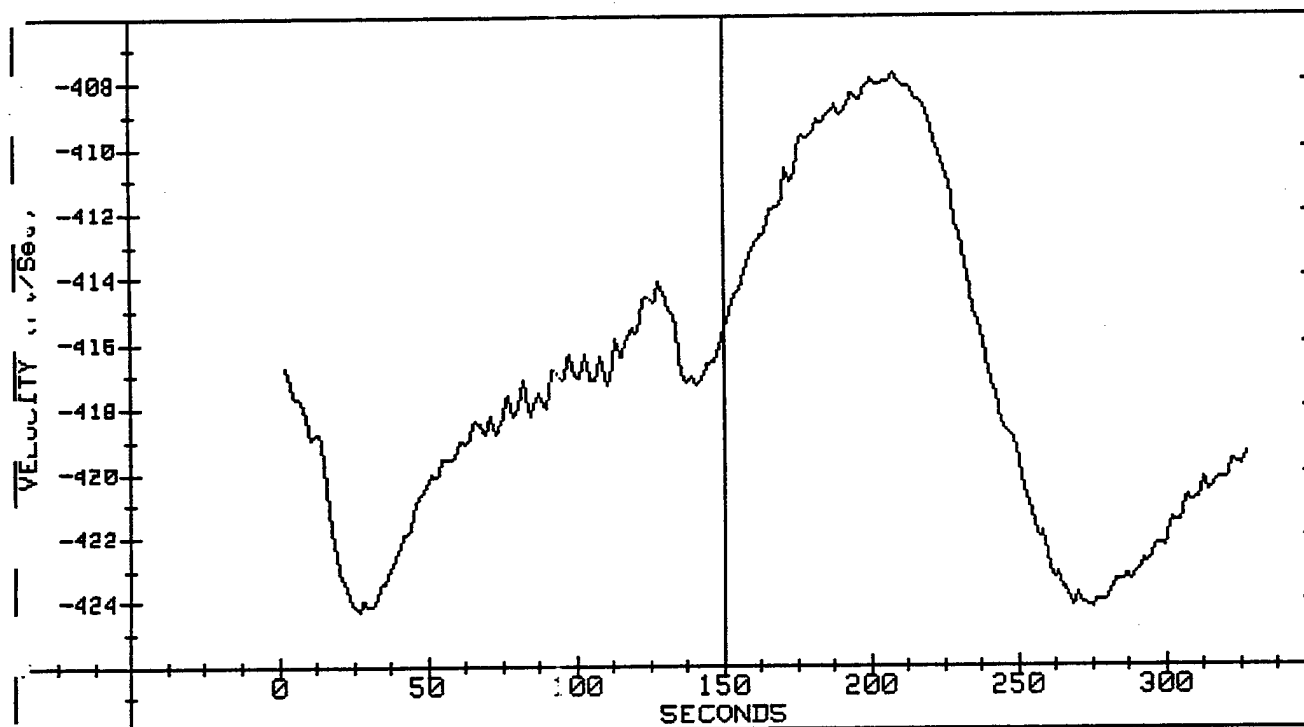
GPS Vc

DAY 179 TIME 23:22 PASS 5 m= -74.75, sd= 2.60596



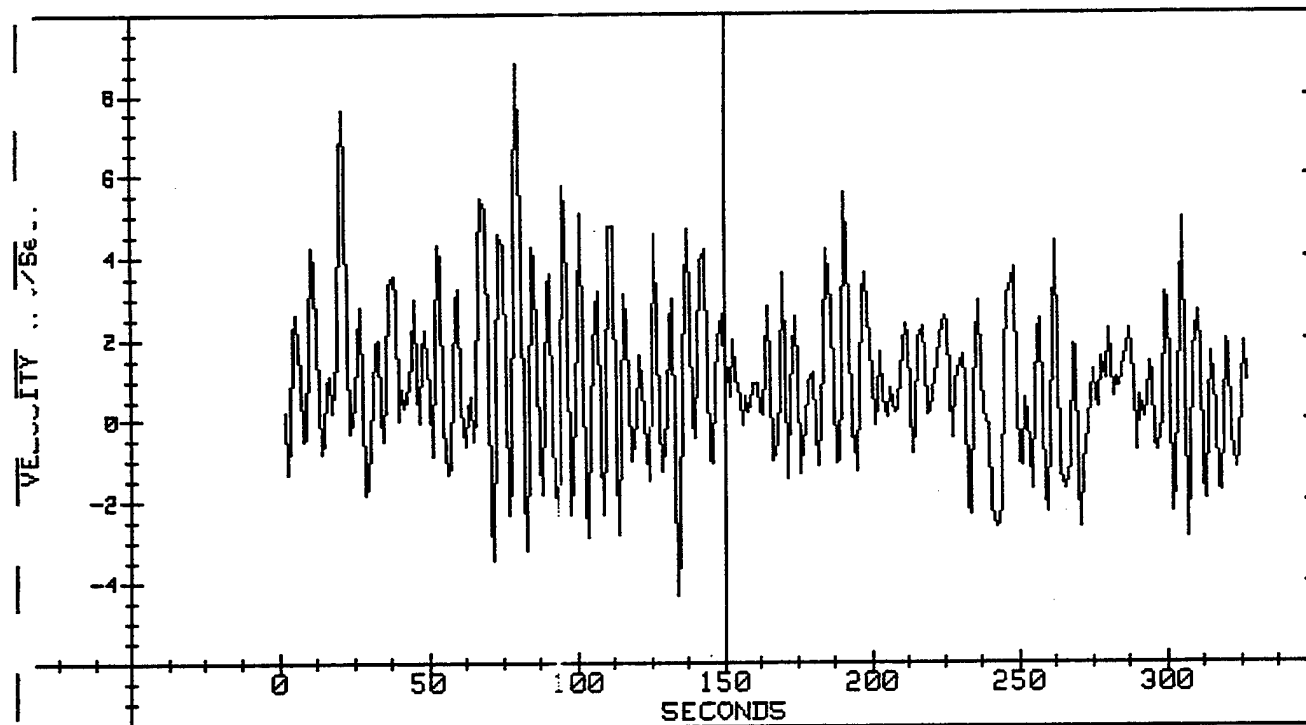
GPS Vn

DAY 179 TIME 23:22 PASS 5 m= -416.4, sd= 6.14382



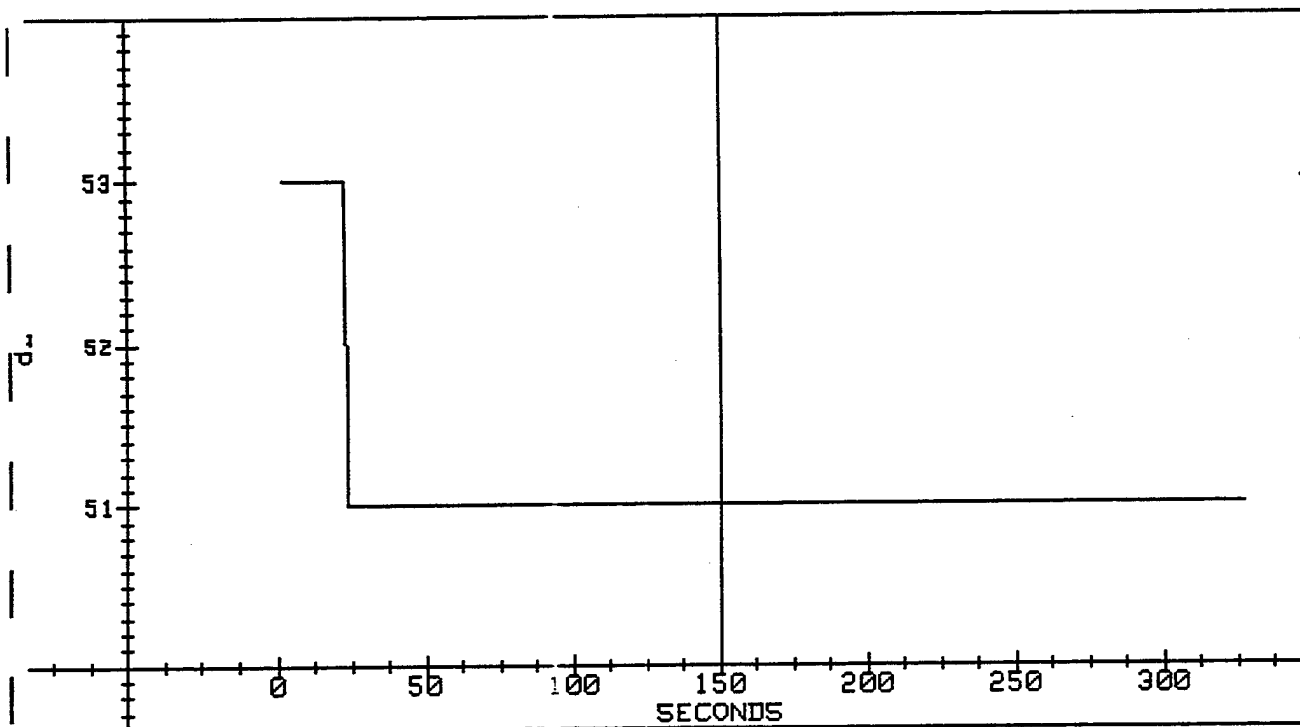
GPS Vv

DAY 179 TIME 23:22 PASS 5 m= .6391, sd= 1.62429



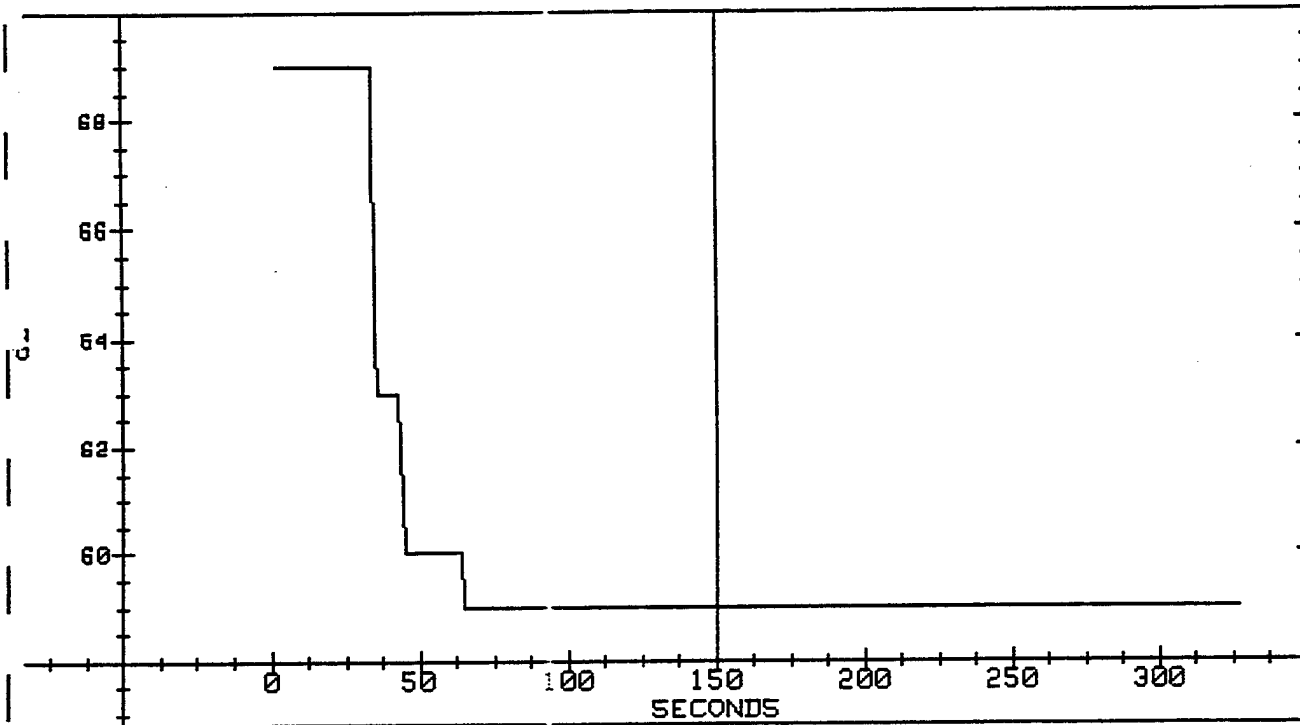
Ch1 RES Attenuation

DAY 179 TIME 23:22 PASS 5 m= 51. sd= 0



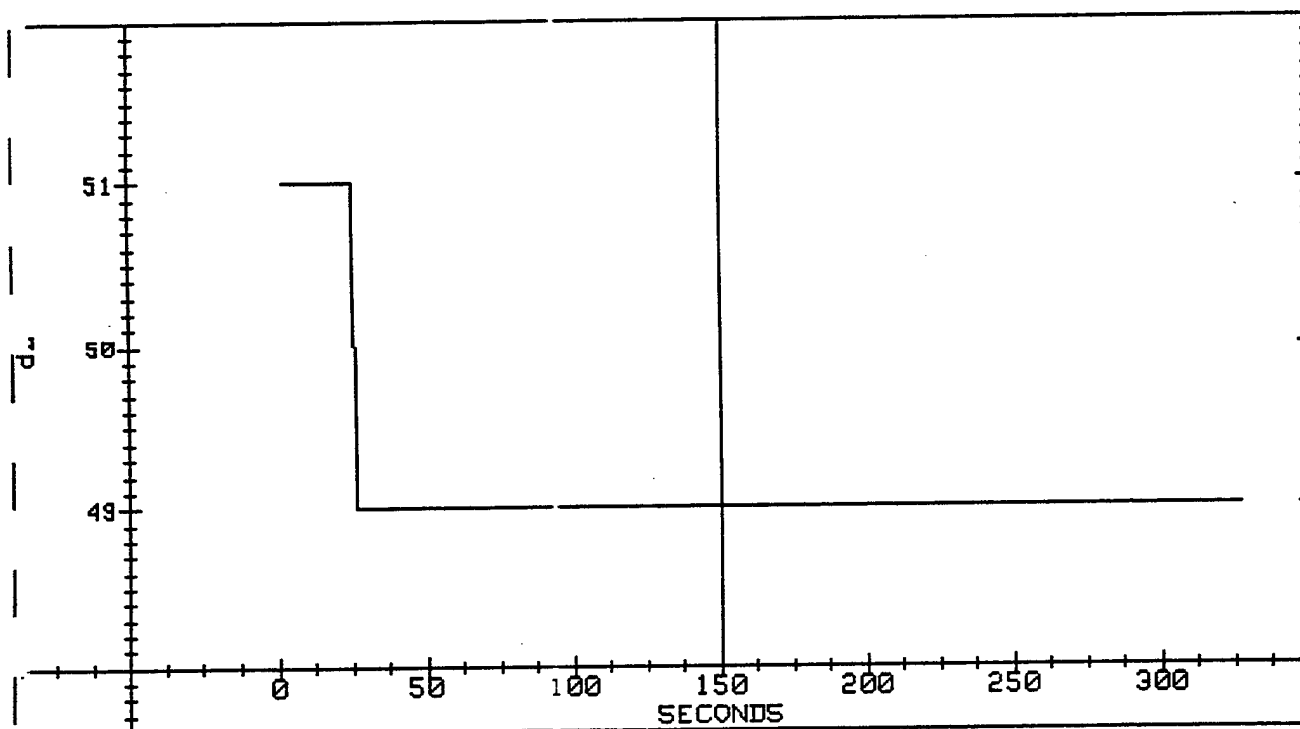
Ch2 RES Attenuation

DAY 179 TIME 23:22 PASS 5 m= 59, sd= 0



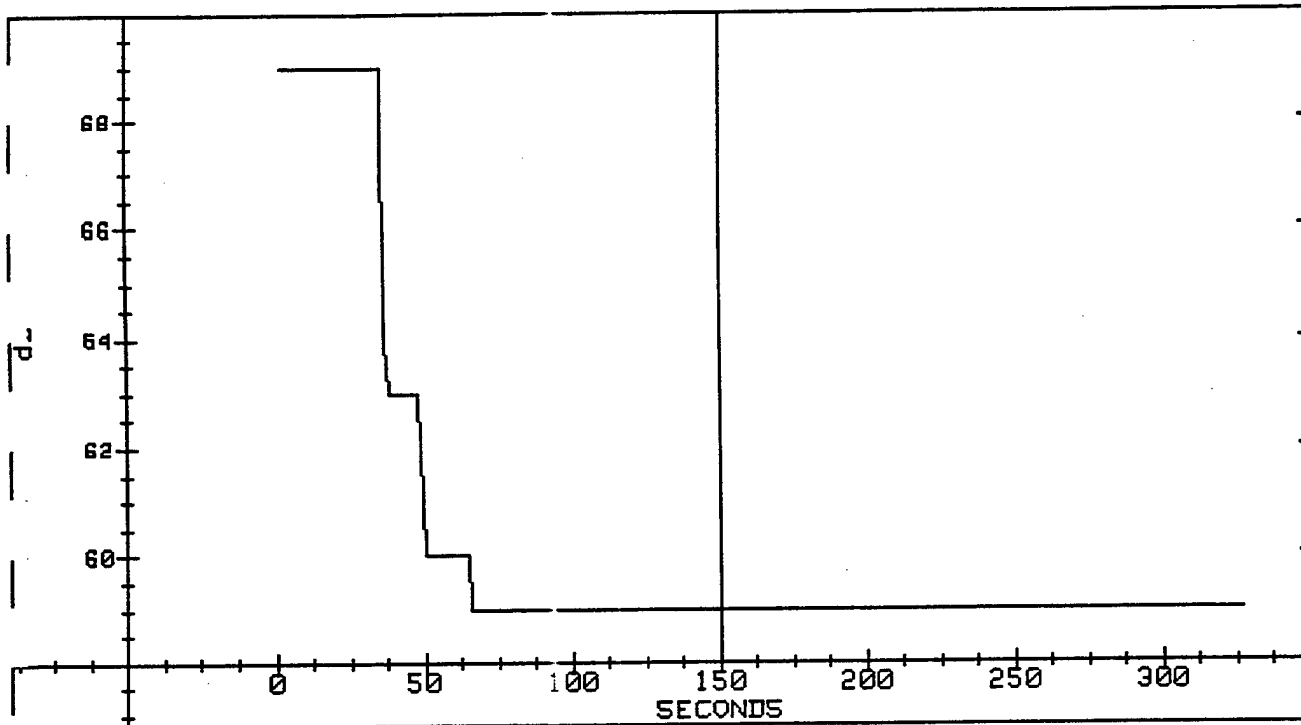
Ch3 RES Attenuation

DAY 179 TIME 23:22 PASS 5 m= 49, sd= 0



Ch4 RES Attenuation

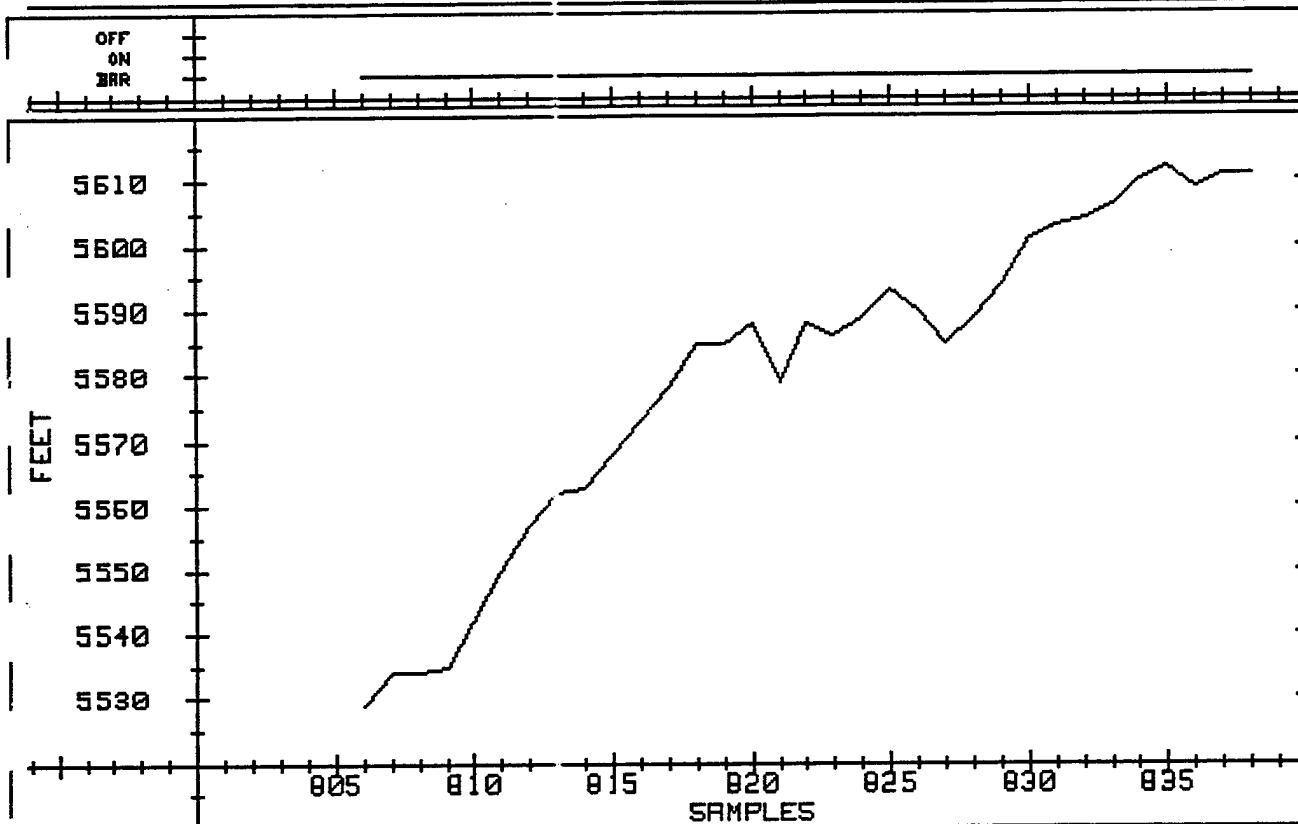
DAY 179 TIME 23:22 PASS 5 m= 59, sd= 0



GPS ALTITUDE

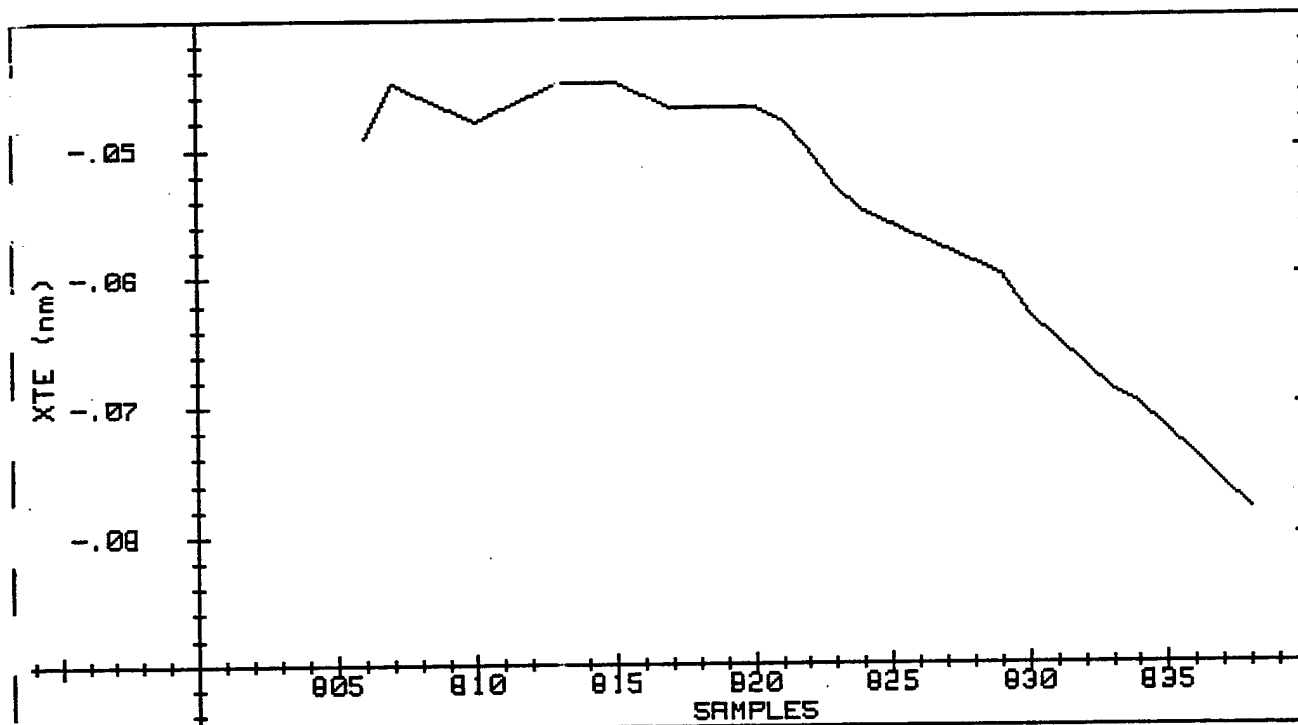
MEAN= 5580.09 STANDARD DEVIATION= 24.8125

DATE: June 20, 1995 PASS 5

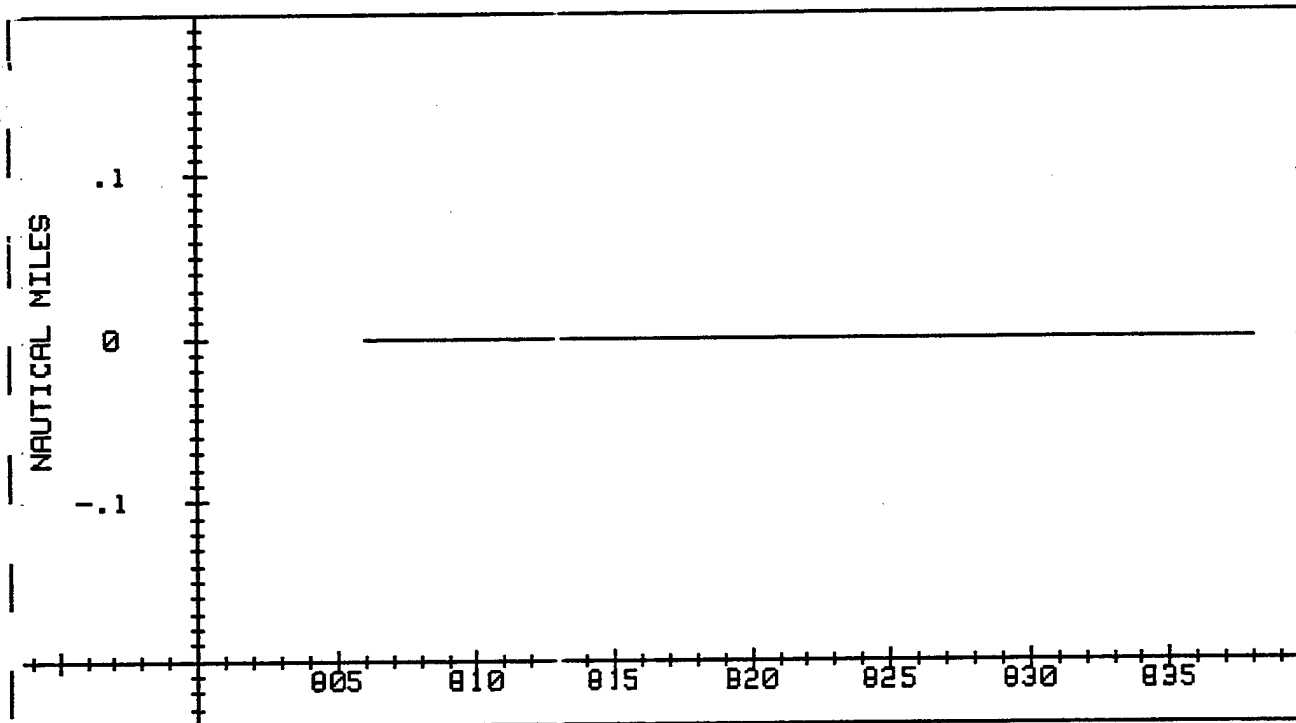


GPS Cross Track Error

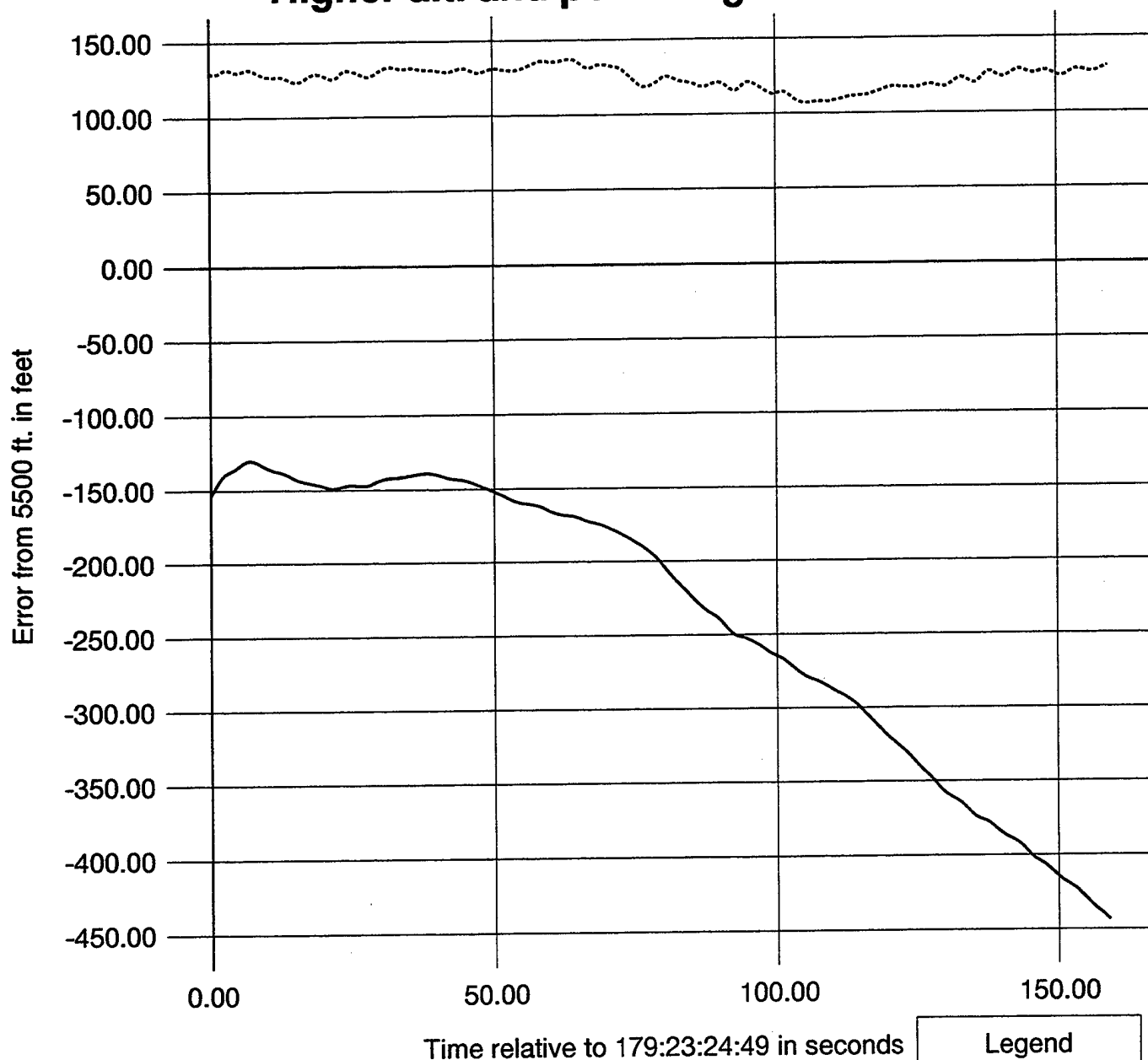
MEAN- -.0553636 STANDARD DEVIATION- .0104296
DATE: June 28, 1995 PASS 5



INS CROSS TRACK ERROR
MEAN= 0 STANDARD DEVIATION= 0
DATE: June 28, 1995 PASS 5



Portage, ME - June 28, 1995 - Pass 5 - Xtk. and Alt. Errors Higher alt. and port are greater than zero



	Mean	St. Dev.
ALT.	124.56	7.42
XTK.	-237.92	98.27

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 51
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:14:08
Pass 4
Req.# 23

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5421 ft s.d.=	7 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	10.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	53.0	69.0	51.0	69.0
End Sq:	90.0°	RMS Video (%FS)	16.0	5.9	12.5	6.2

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:27.57	W 68:37.46
Start:	N 46:39.39	W 68:34.45
End:	N 46:49.23	W 68:31.92
From:	N 30:14.71	W 71:51.11
To:	N 62:59.40	W 62:17.53

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 248.5 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 2.8 fps (s.d.= 9.4)
Ave Fil Vel -> 2.6 fps (s.d.= 8.9)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.8	

Tape Footage	Drive no.
Starting: 2914 ft	(1)
Ending: 4175 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

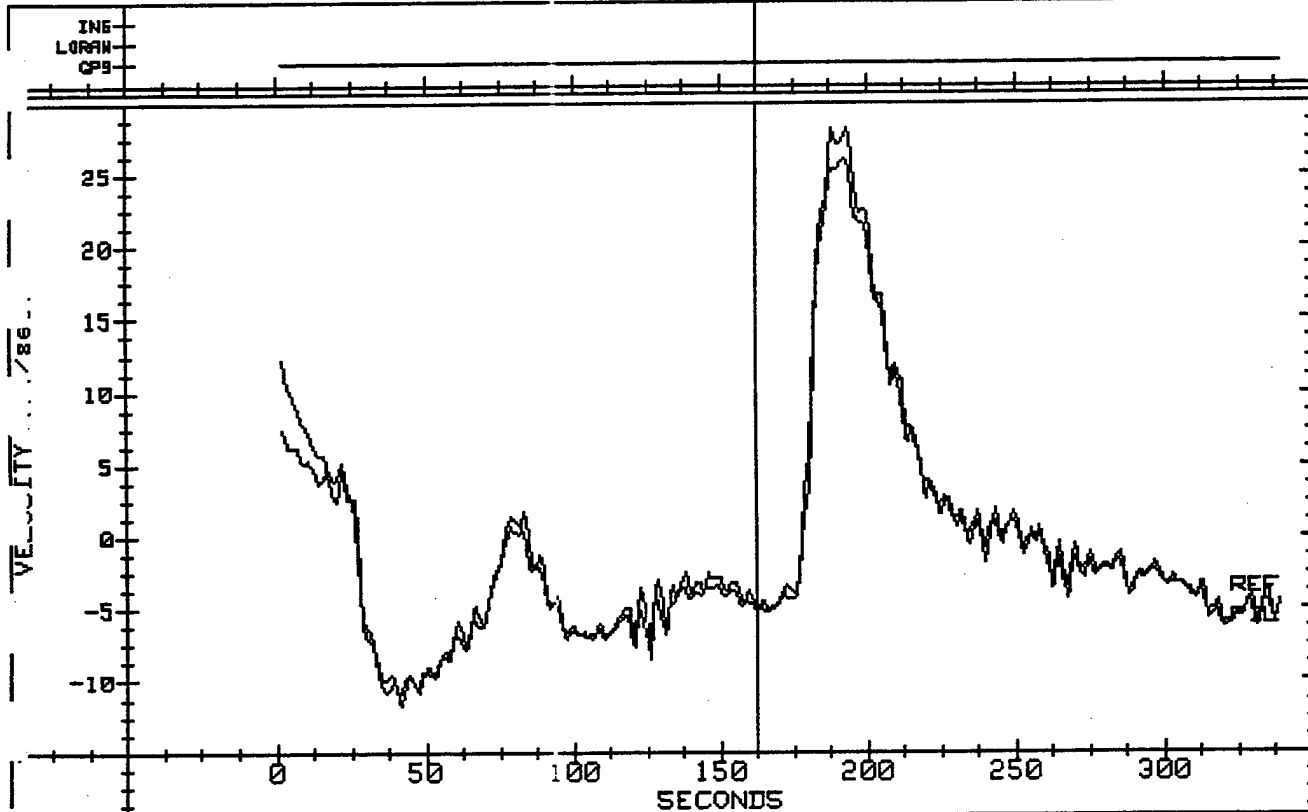
LINE Map Time (UCT)
Start: 23:14:08
End: 23:16:48

Mocomp Counters

Start: 159434 00026ECAh
End: 186251 0002D78Bh

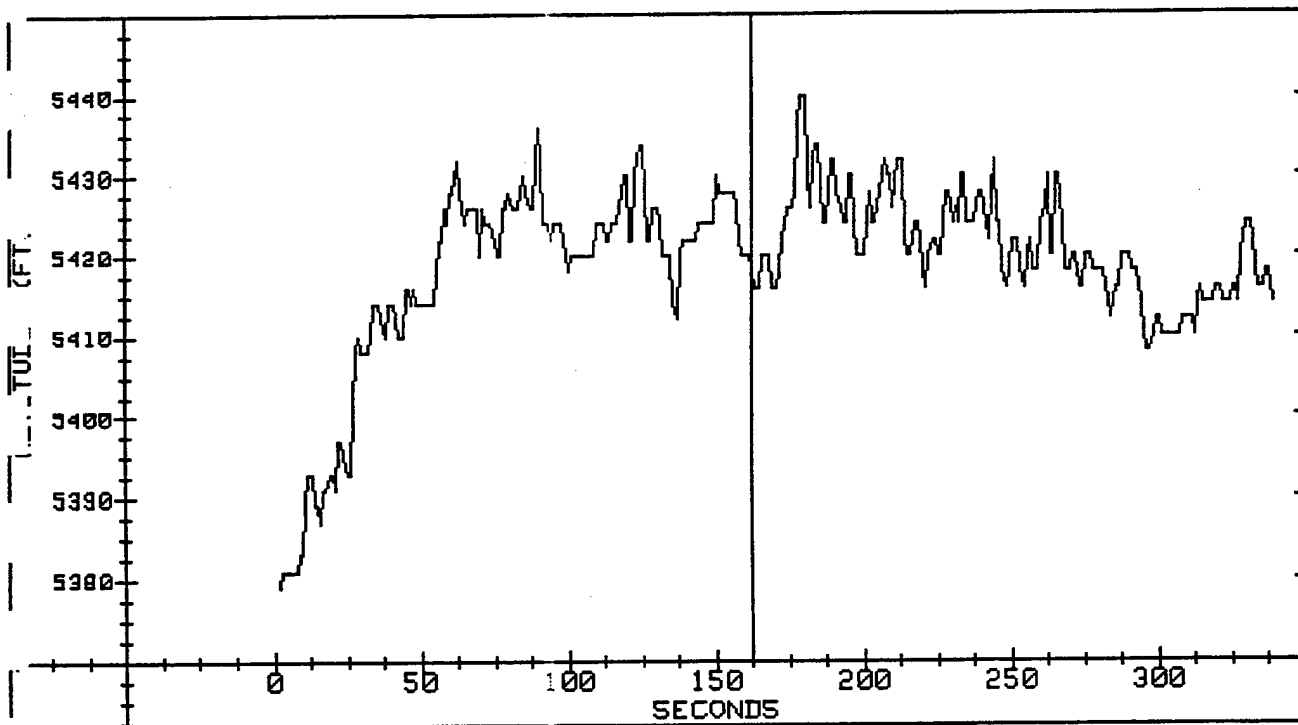
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 23:11 PASS 4



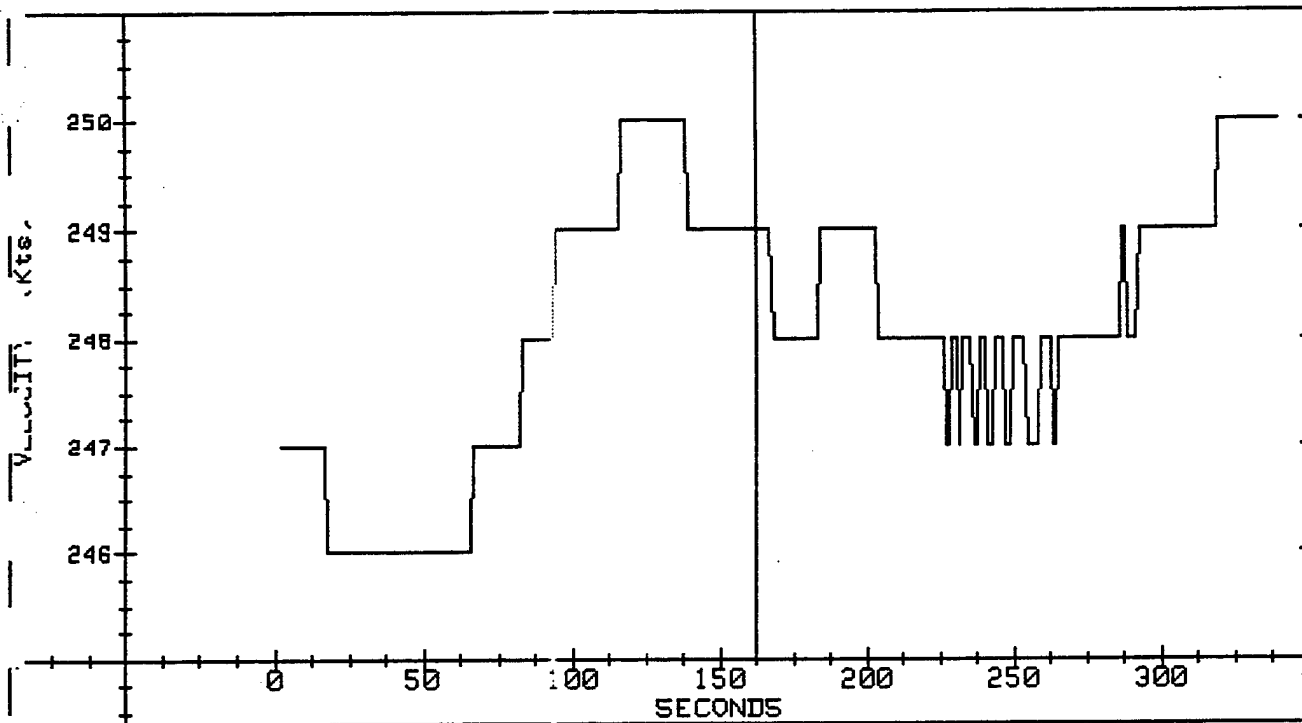
BARO ALTITUDE

DAY 179 TIME 23:11 PASS 4 m= 5421, sd= 6.6378



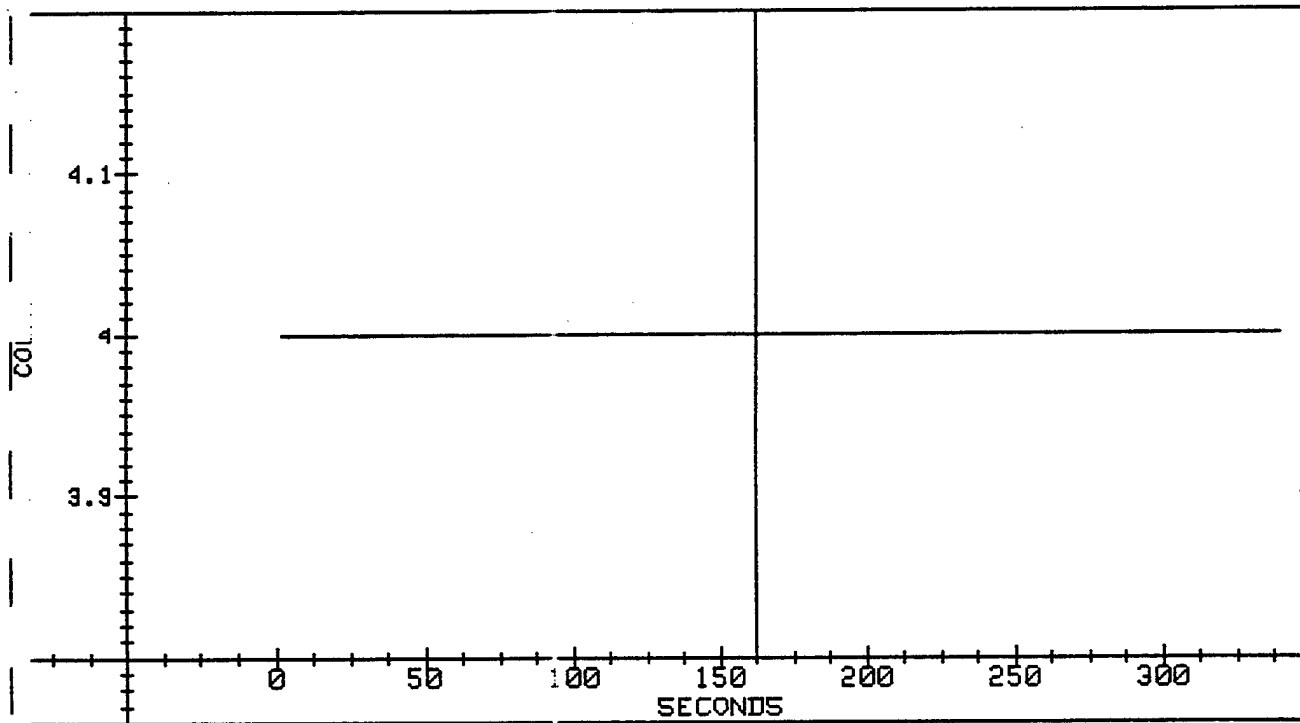
INS GROUND SPEED

DAY 179 TIME 23:11 PASS 4 m= 248.5, sd= .041701



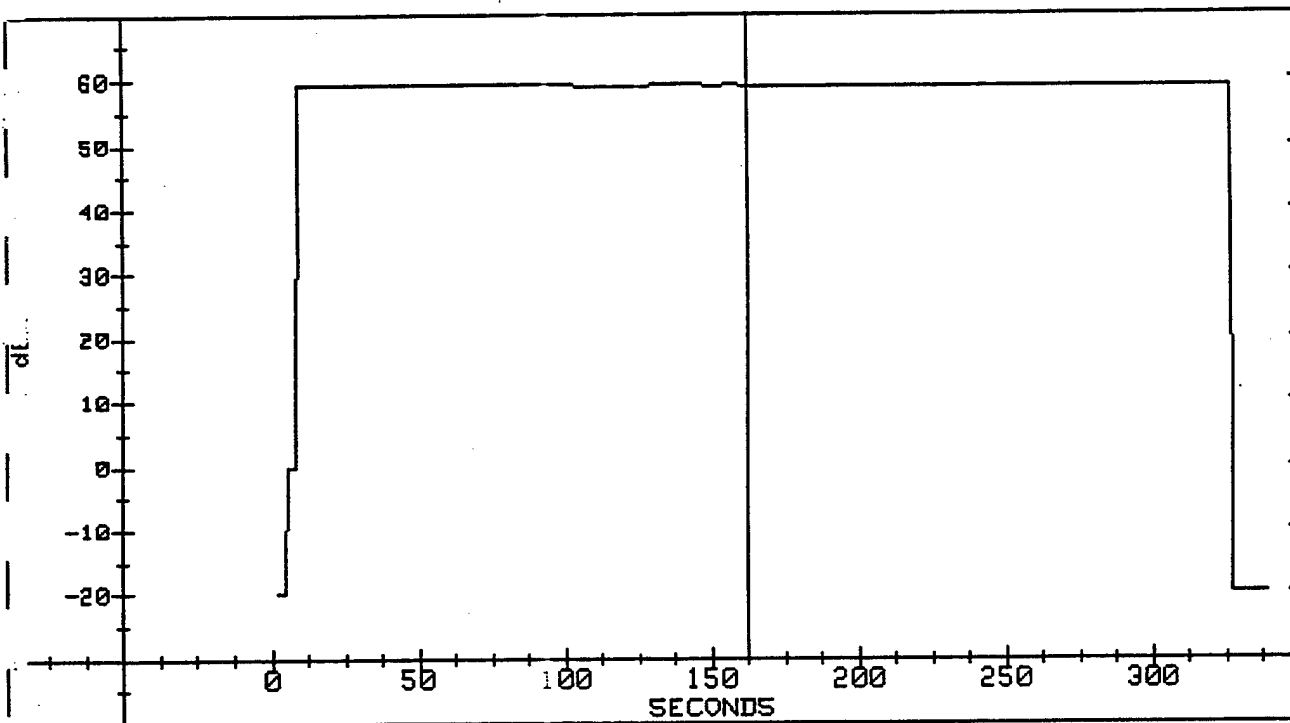
PASS NUMBER

DAY 179 TIME 23:11 PASS 4 m= 4, sd= 0



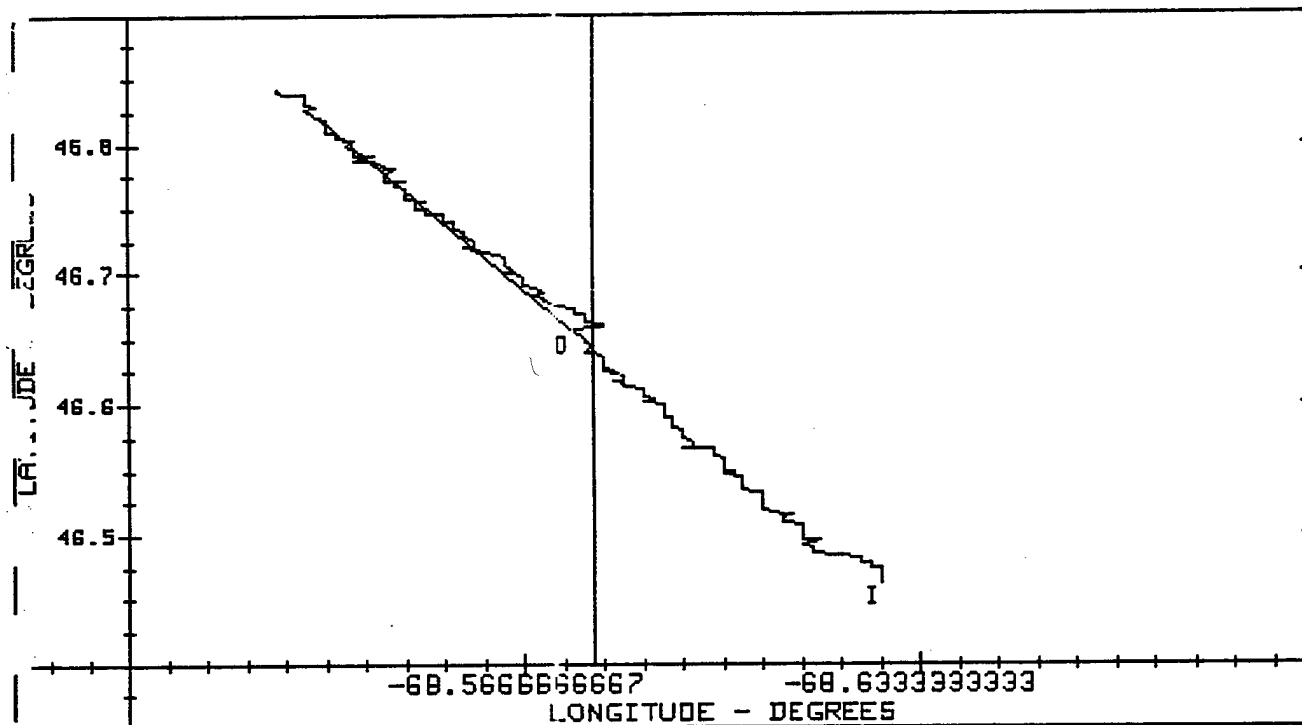
P Band Power

DRY 179 TIME 23:11 PASS 4 m= 52.58, sd= 21.5117



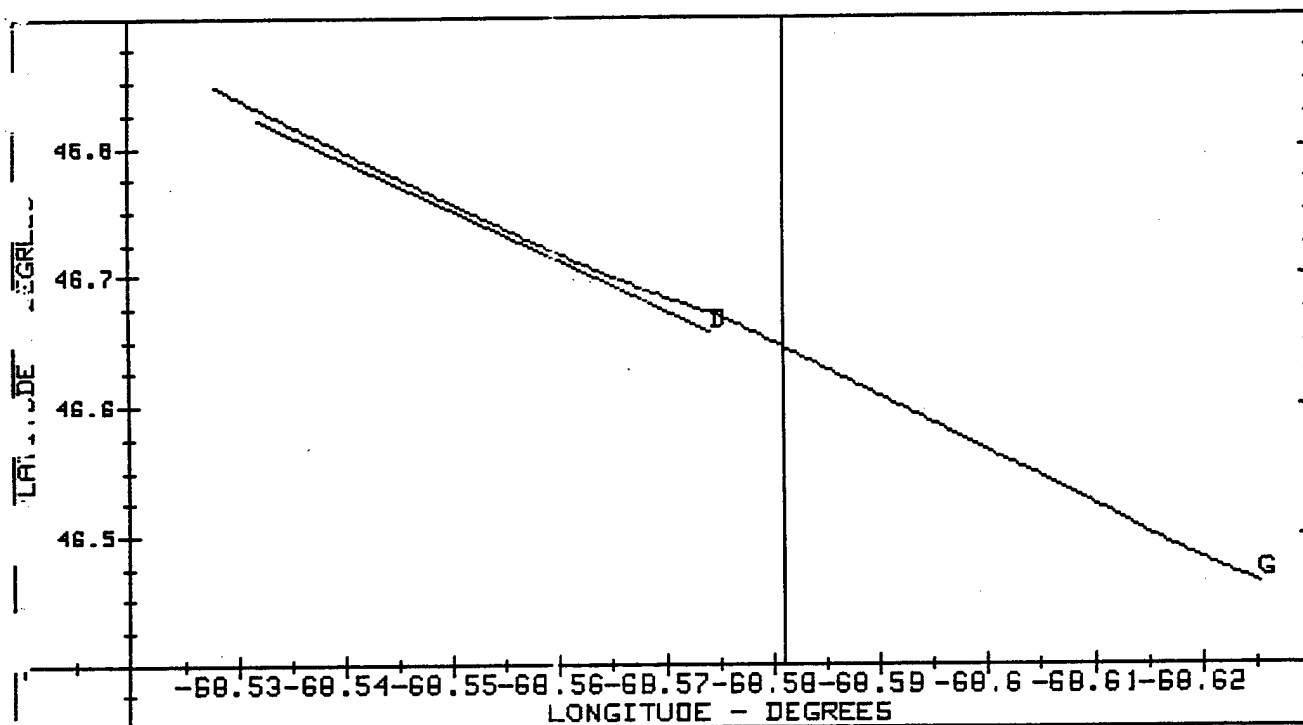
INS AIRCRAFT POSITION

DAY 179 TIME 23:11 PASS 4



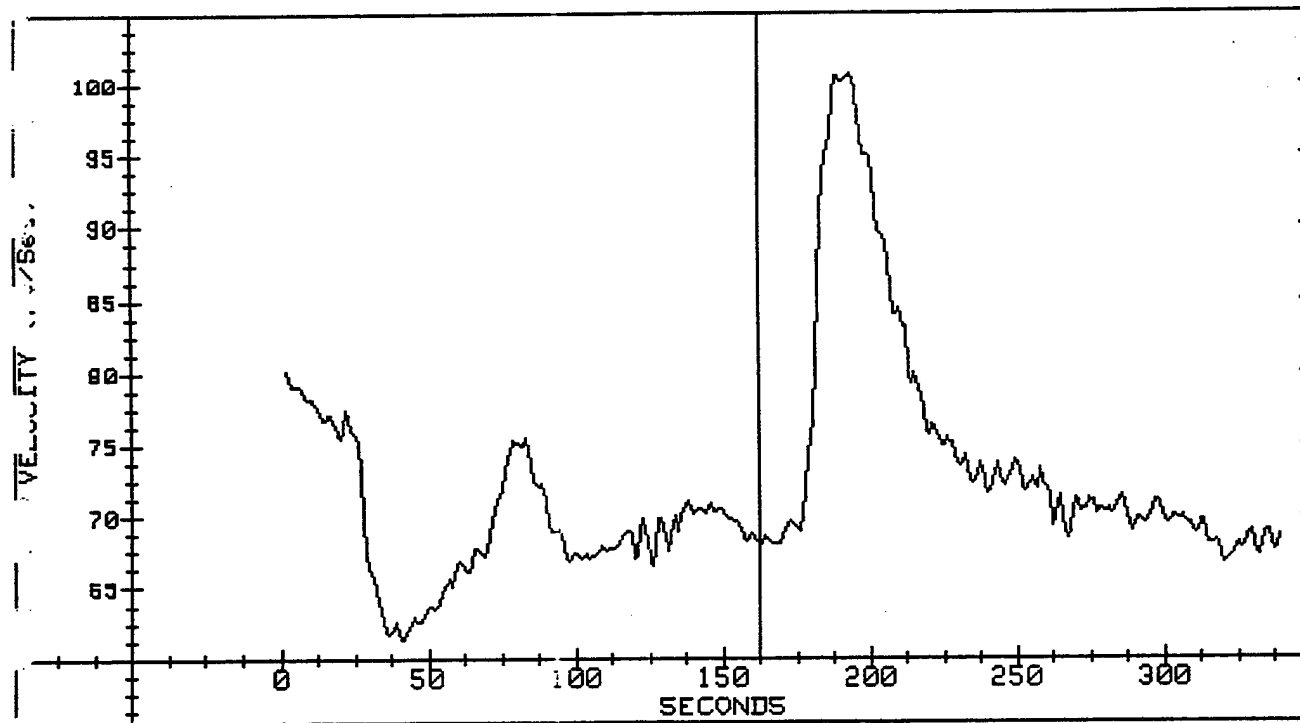
GPS AIRCRAFT POSITION

DAY 179 TIME 23:11 PASS 4



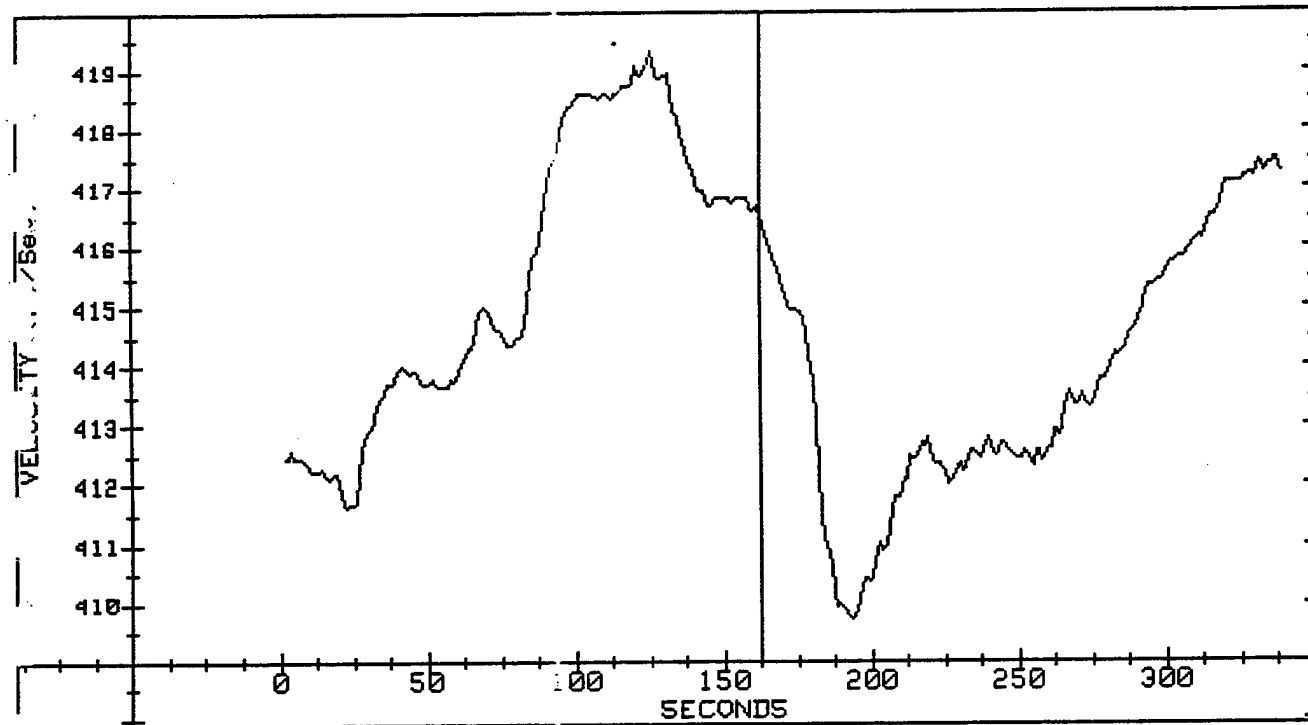
GPS V_e

DAY 179 TIME 23:11 PASS 4 m= 75.59, sd= 9.36144



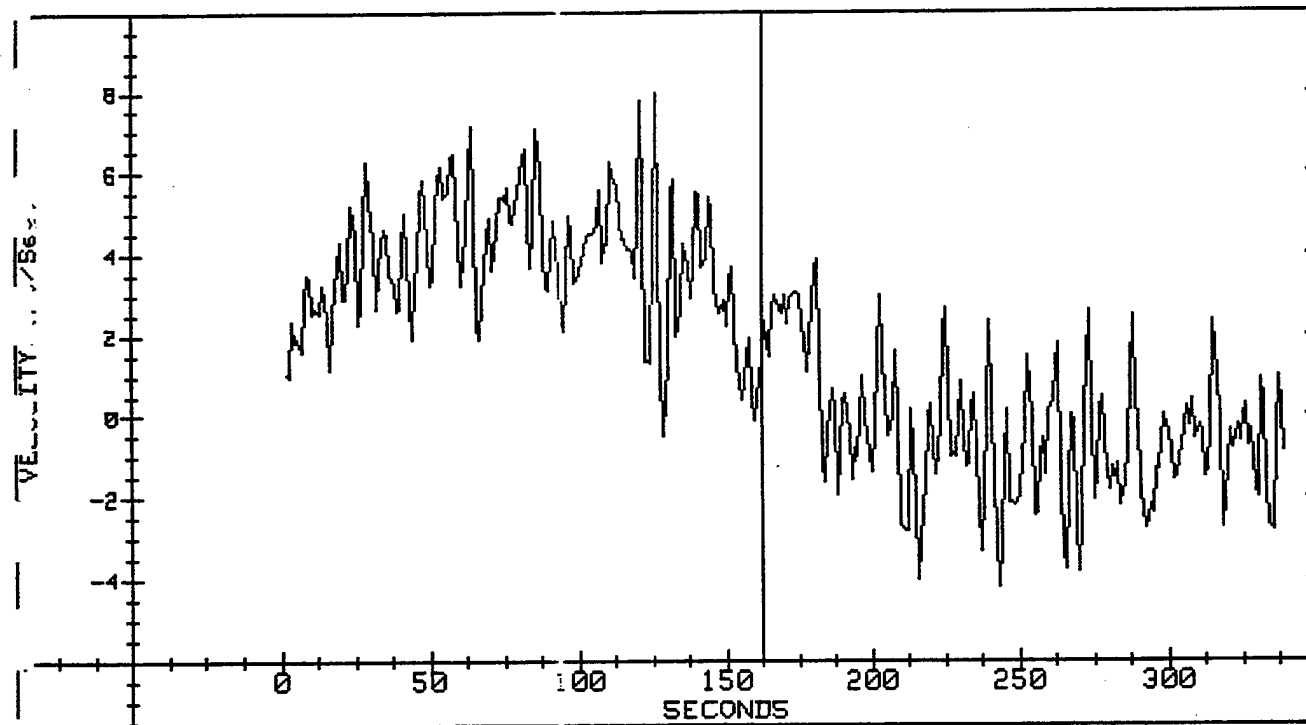
GPS Vn

DAY 179 TIME 23:11 PASS 4 m= 413.6, sd= 2.17651



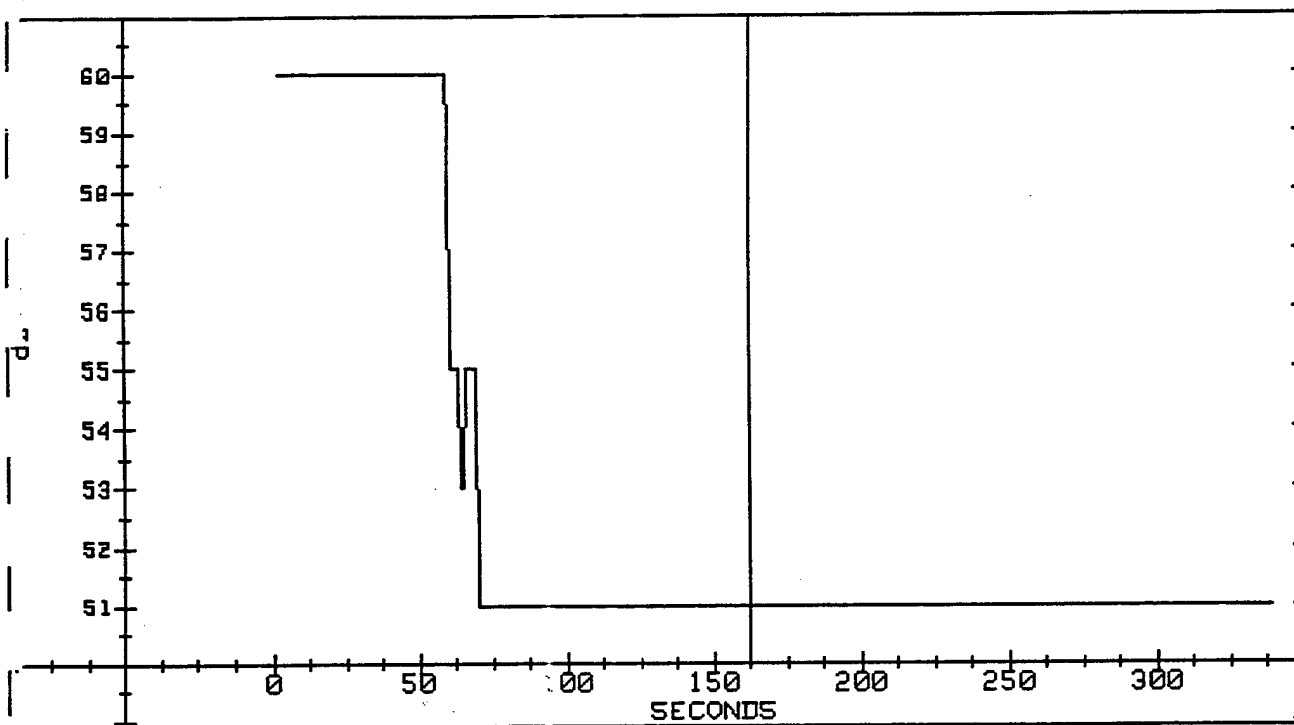
GPS Vv

DAY 179 TIME 23:11 PASS 4 m= -.6561, sd= 1.49511



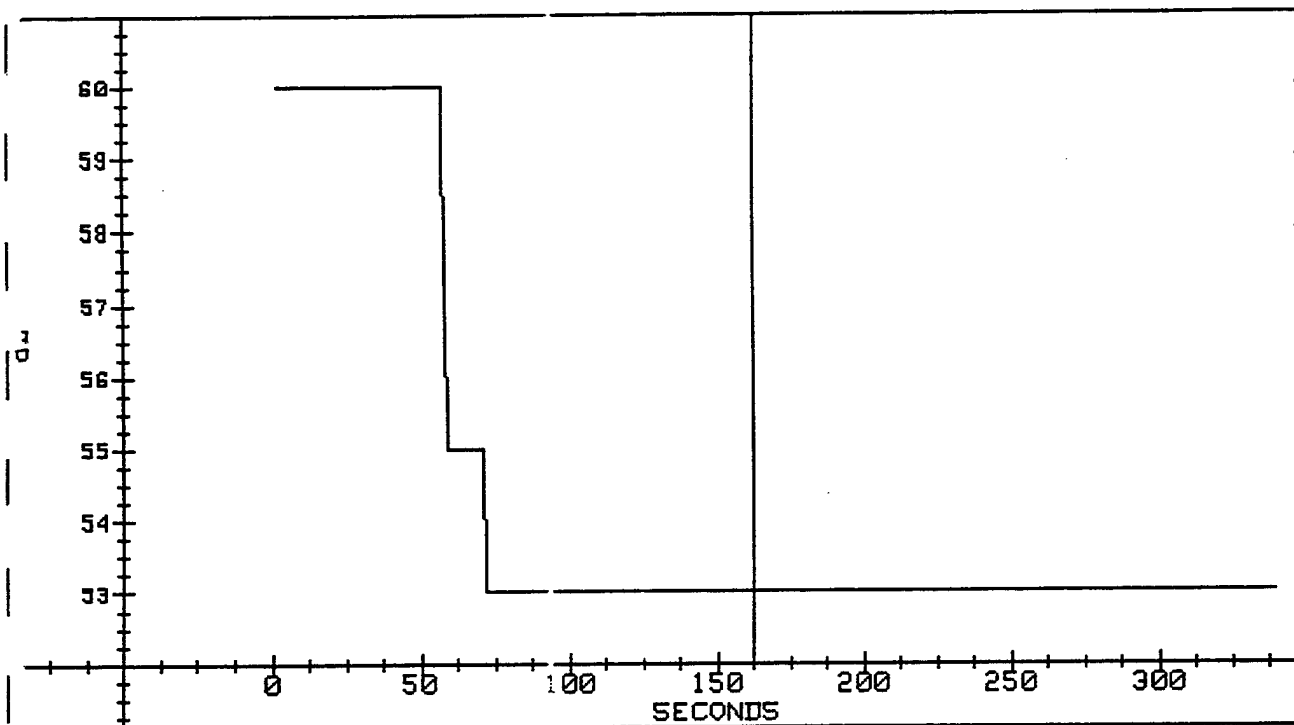
Ch3 RES Attenuation

DAY 179 TIME 23:11 PASS 4 m= 51, sd= 0



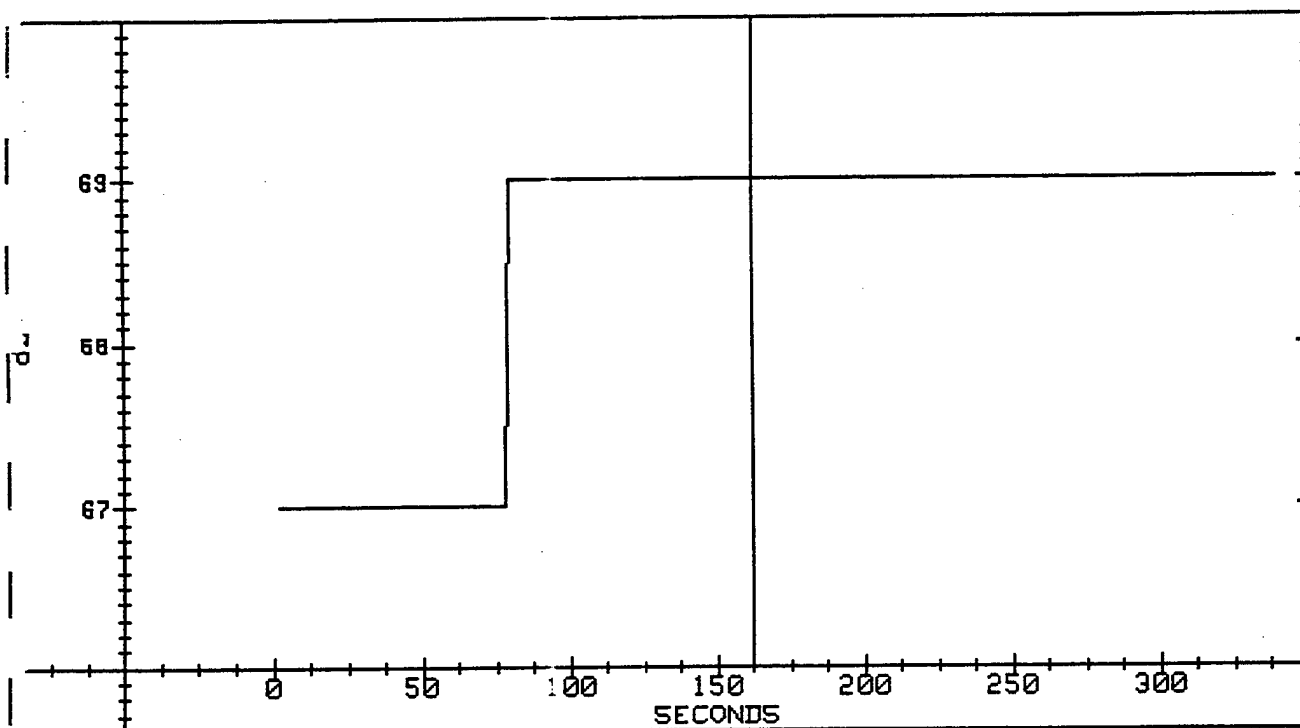
Ch1 RES Attenuation

DAY 179 TIME 23:11 PASS 4 m= 53, sd= 0



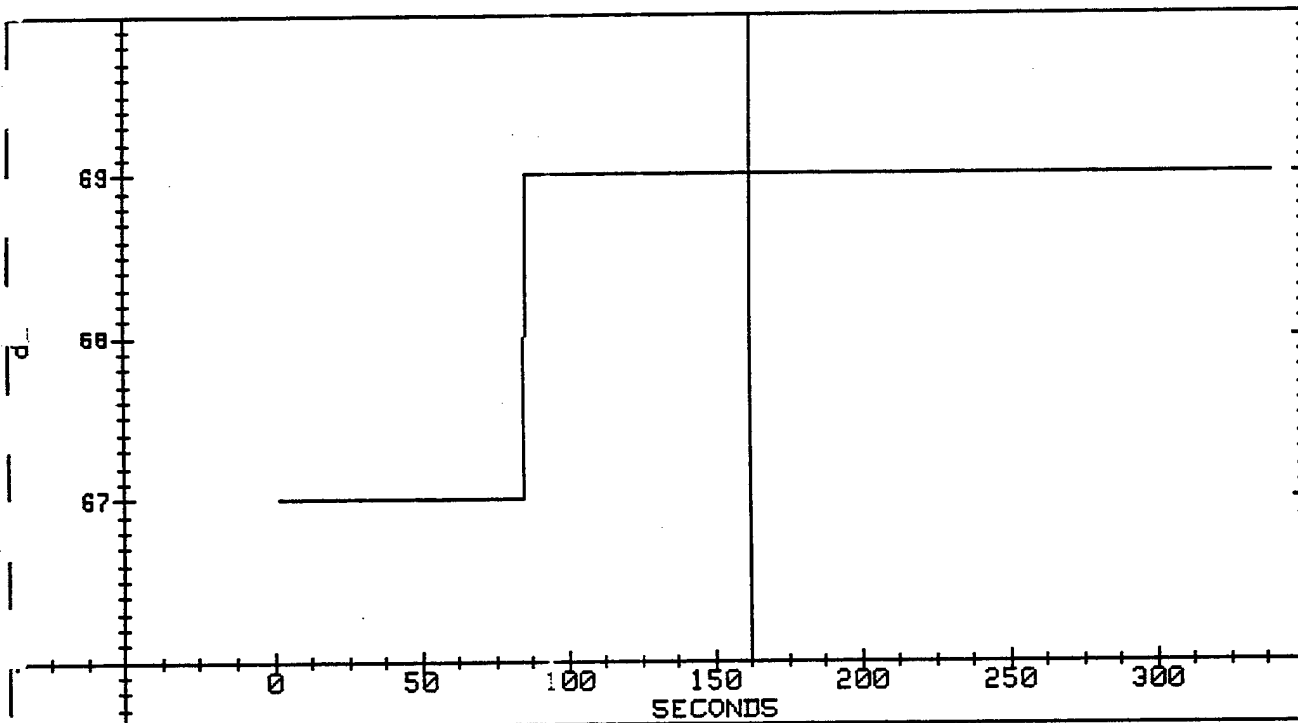
Ch2 RES Attenuation

DAY 179 TIME 23:11 PASS 4 m= 69, sd= 0



Ch4 RES Attenuation

DAY 179 TIME 23:11 PASS 4 m- 69, sd- 0

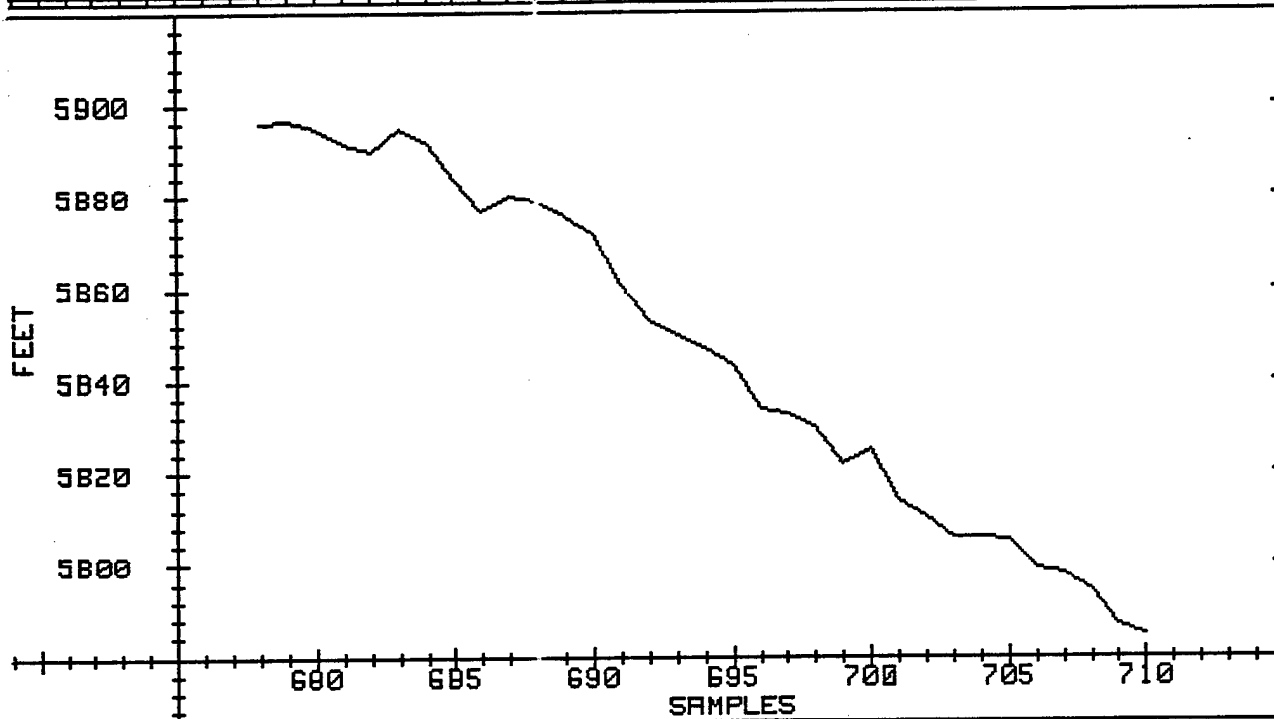


GPS ALTITUDE

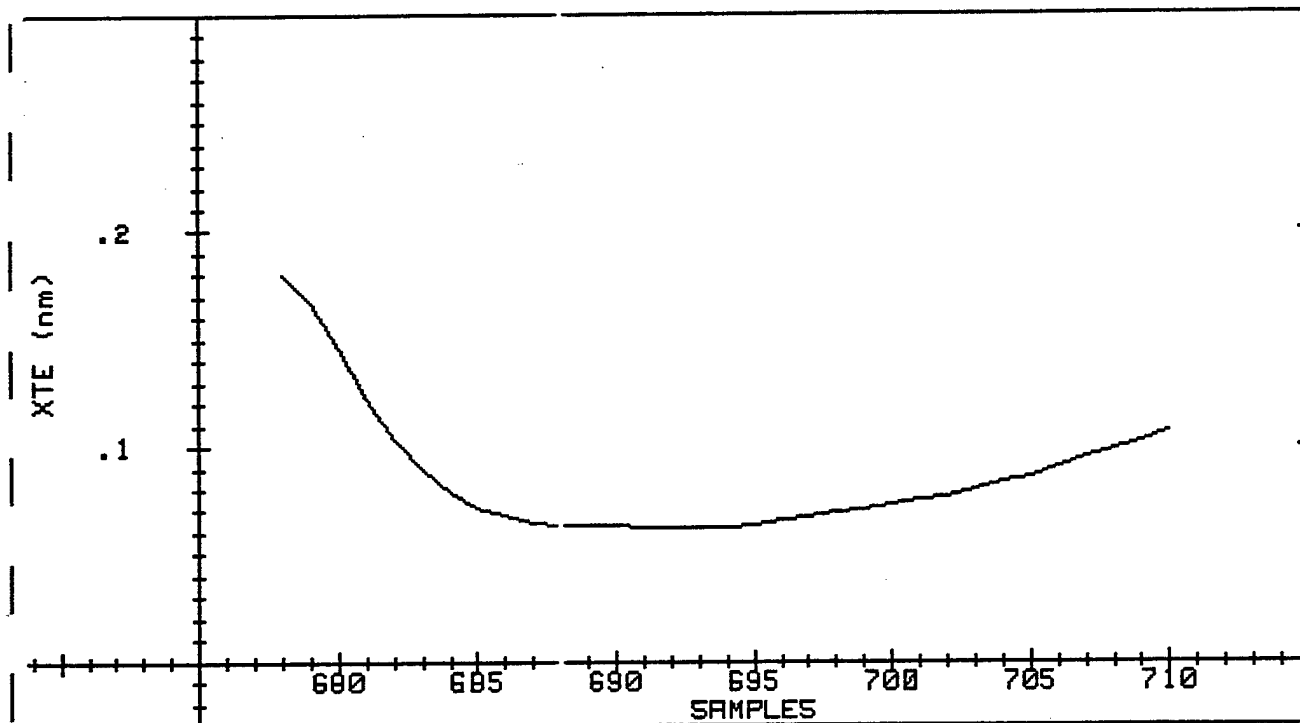
MEAN= 5846.27 STANDARD DEVIATION= 37.2545

DATE: June 28, 1995 PASS 4

OFF
ON
BAR



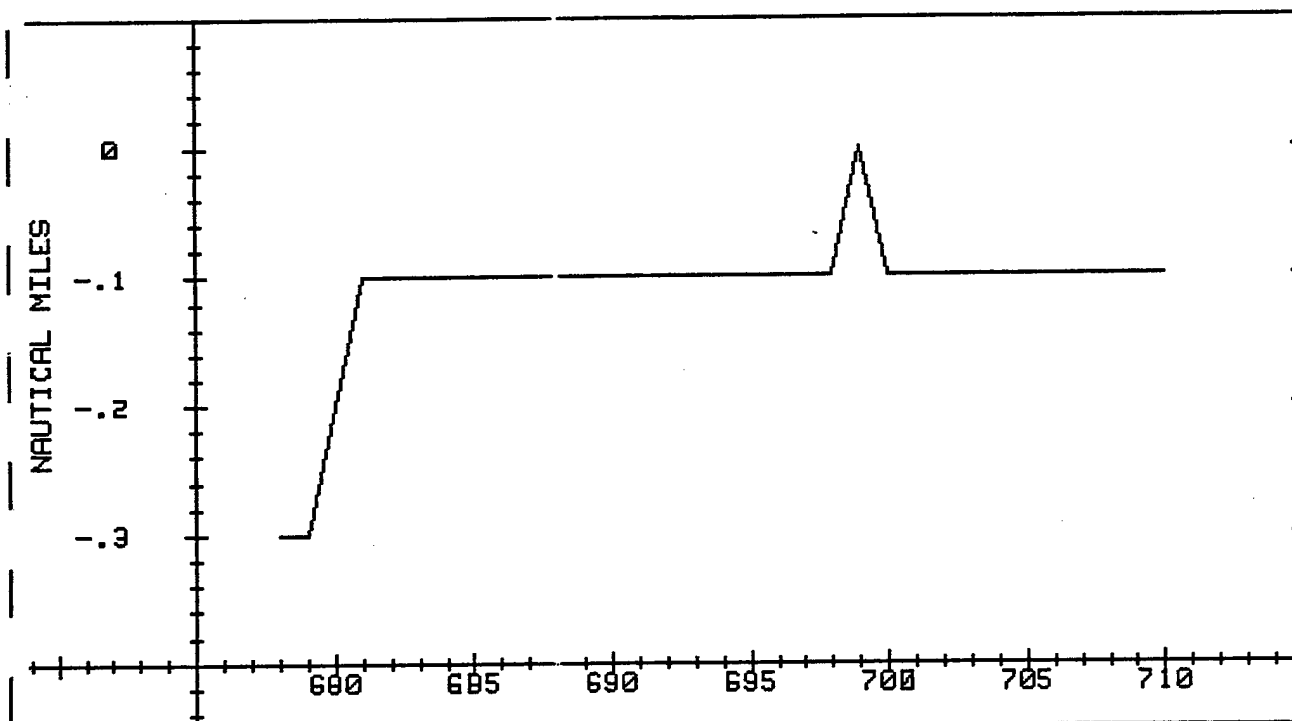
GPS Cross Track Error
MEAN= .0859697 STANDARD DEVIATION= .0297275
DATE: June 28, 1995 PASS 4



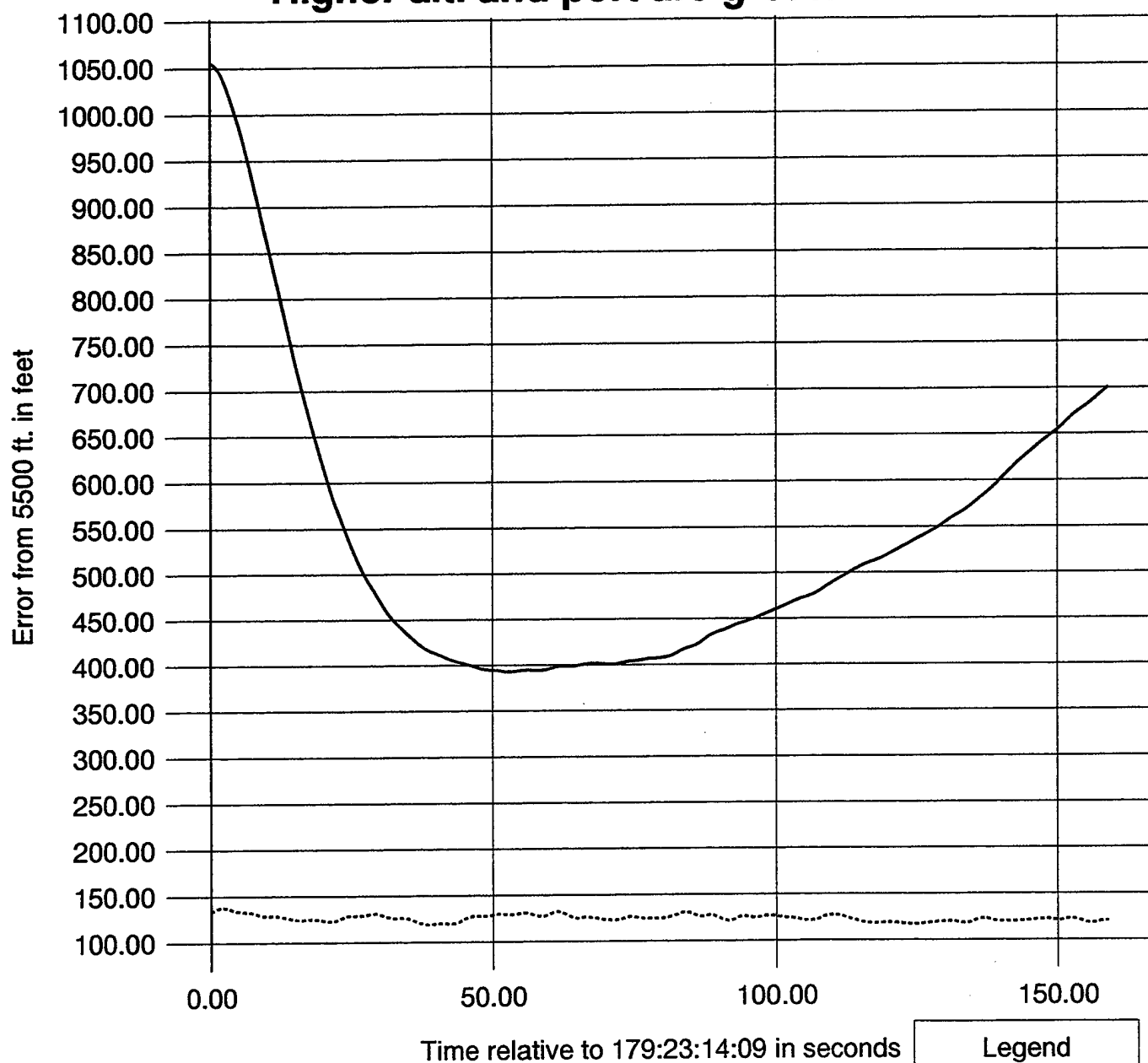
INS CROSS TRACK ERROR

MEAN= -.112121 STANDARD DEVIATION= .0536971

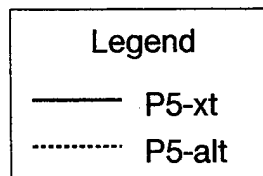
DATE: June 28, 1995 PASS 4



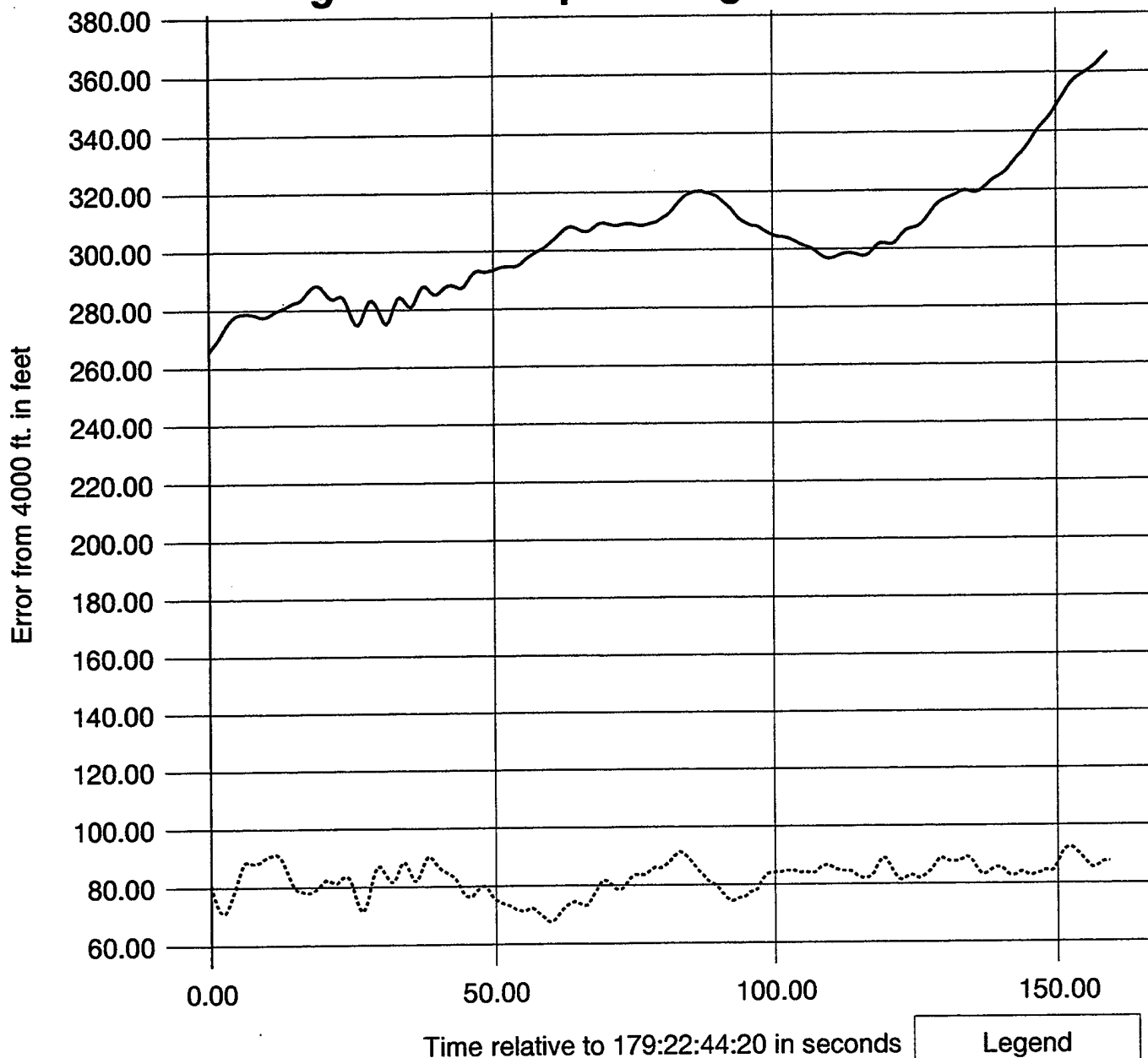
Portage, ME - June 28, 1995 - Pass 4 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	124.62	4.36
XTK.	534.91	157.46



Portage, ME - June 28, 1995 - Pass 2 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	82.38	5.53
XTK.	304.48	21.13

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 55
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:00:51
Pass 3
Req.# 25

AIRCRAFT & CHANNEL DATA

Altitude		CH 1	CH 2	CH 3	CH 4
Desired:	3500 ft	p-VV	p-VH	p-HV	p-HH
Baro:	3337 ft s.d.=	4 Swath Ctr Ang:	8.0°	8.0°	8.0°
Slt. rng:	20406 ft	Tgt Dep Ang:	8.0°	8.0°	8.0°
Look:	Right	St rng (ft):	18872	18872	18872
Depr Ang:	25.0°	Near Rng Dep:	10.2°	10.2°	10.2°
Des. trk:	276.0°	Far Rng Dep:	5.5°	5.5°	5.5°
Start Sq:	90.0°	Atten (dB):	60.0	67.0	60.0
End Sq:	90.0°	RMS Video (%FS)	5.3	3.3	3.5

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:39.84	W 68:06.25
Start:	N 46:41.13	W 68:23.57
End:	N 46:42.18	W 68:38.04
From:	N 42:35.56	W 45:47.53
To:	N 45:52.81	W 92:36.67

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 242.7 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.3 fps (s.d.= 1.3)
Ave Fil Vel -> -1.0 fps (s.d.= 1.2)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 40.1	

Tape Footage	Drive no.
Starting: 1605 ft	(1)
Ending: 2899 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

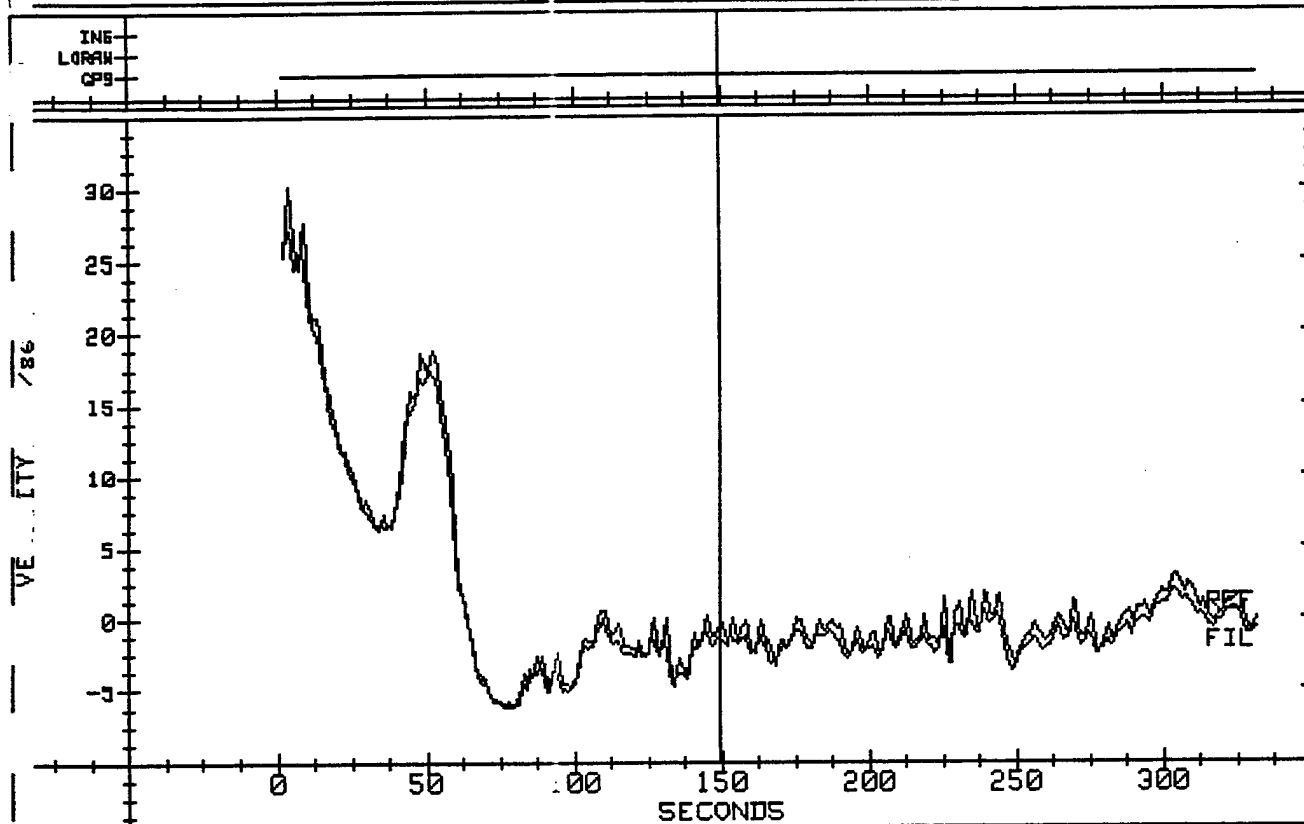
LINE Map Time (UCT)
Start: 23:00:51
End: 23:03:36

Mocomp Counters

Start: 101759 00018D7Fh
End: 129388 0001F96Ch

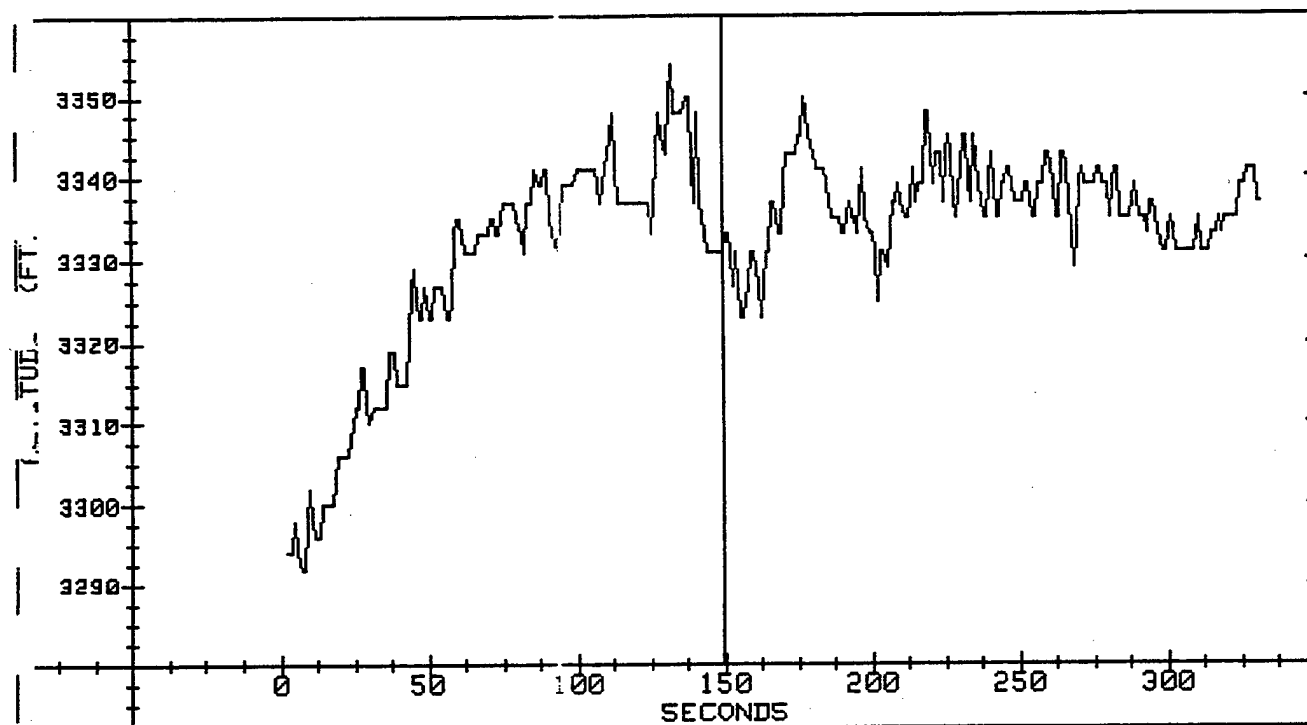
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 179 TIME 22:58 PASS 3



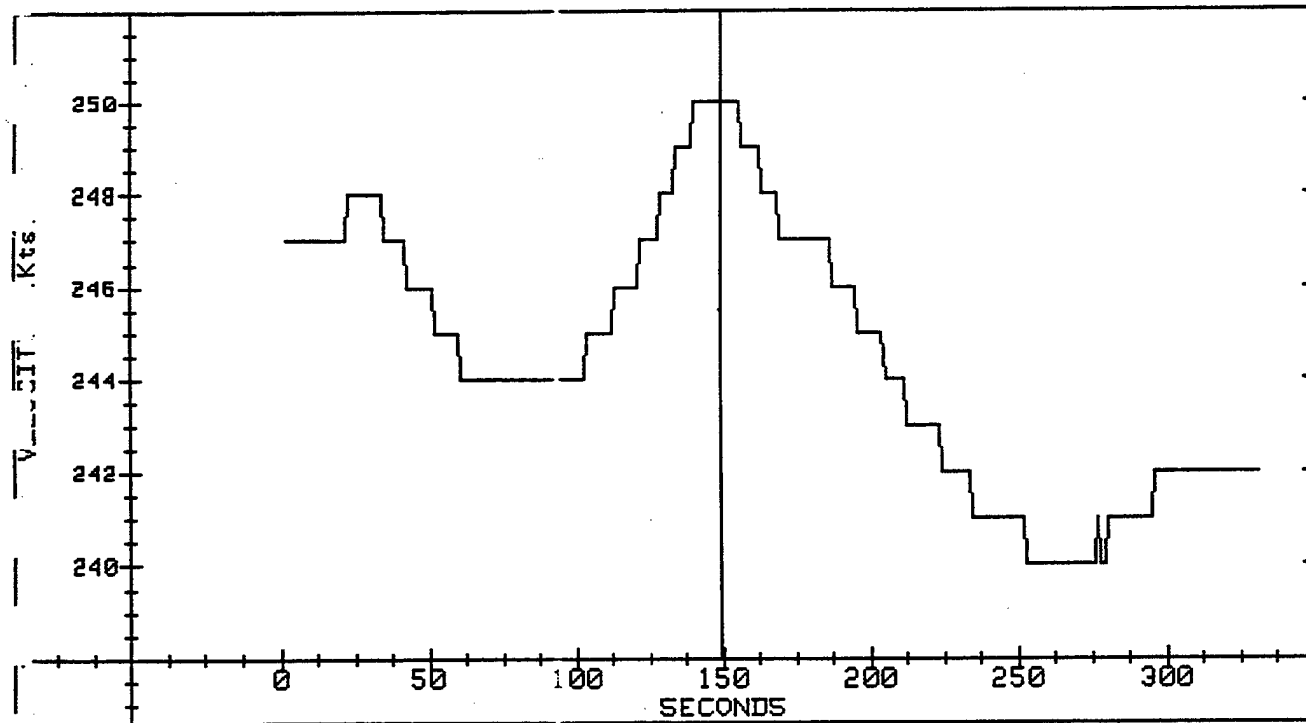
BARO ALTITUDE

DAY 179 TIME 22:58 PASS 3 m= 3337, sd= 4.36086



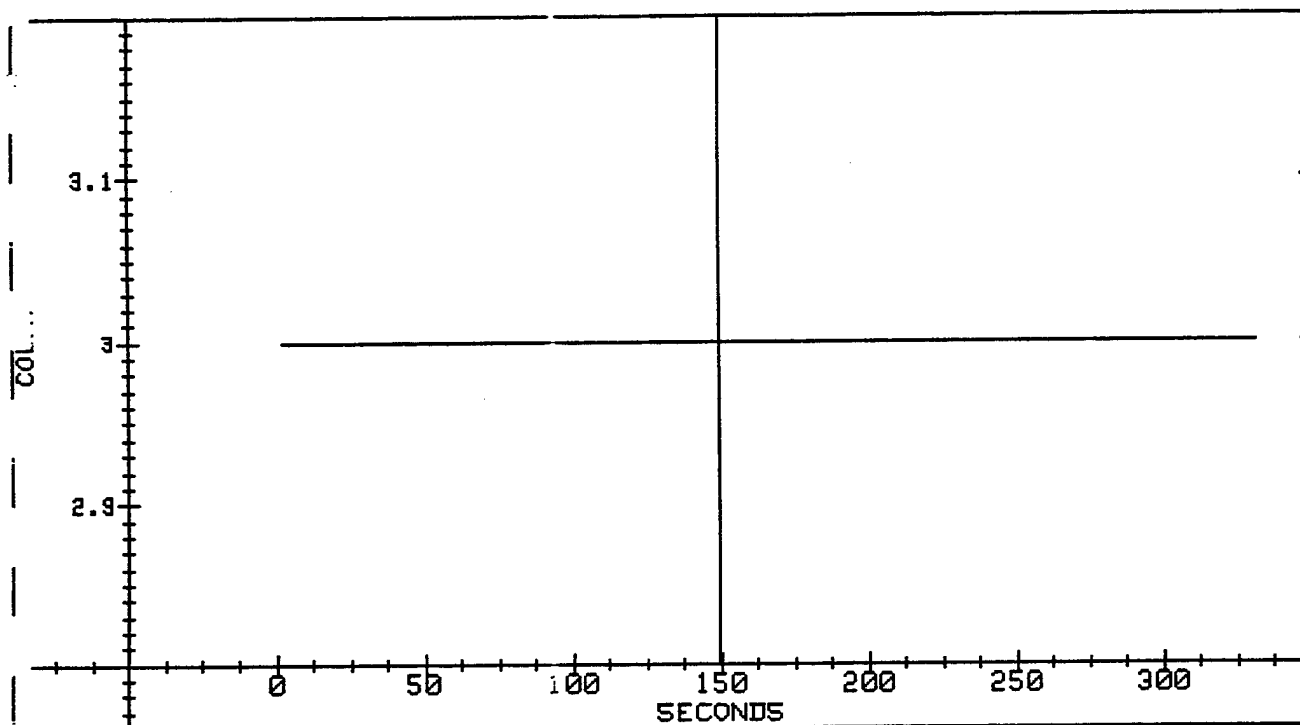
INS GROUND SPEED

DAY 179 TIME 22:58 PASS 3 m= 242.7, sd= 2.31432



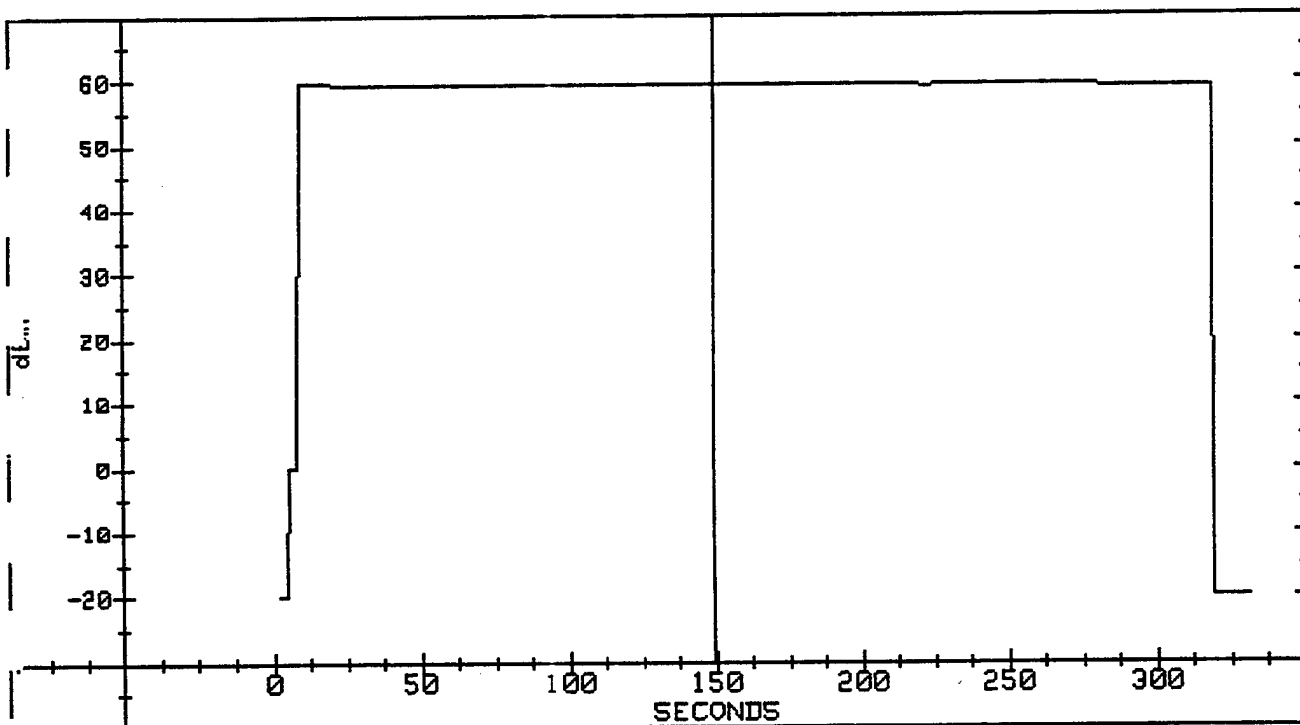
PASS NUMBER

DAY 179 TIME 22:50 PASS 3 m= 3, sd= 0



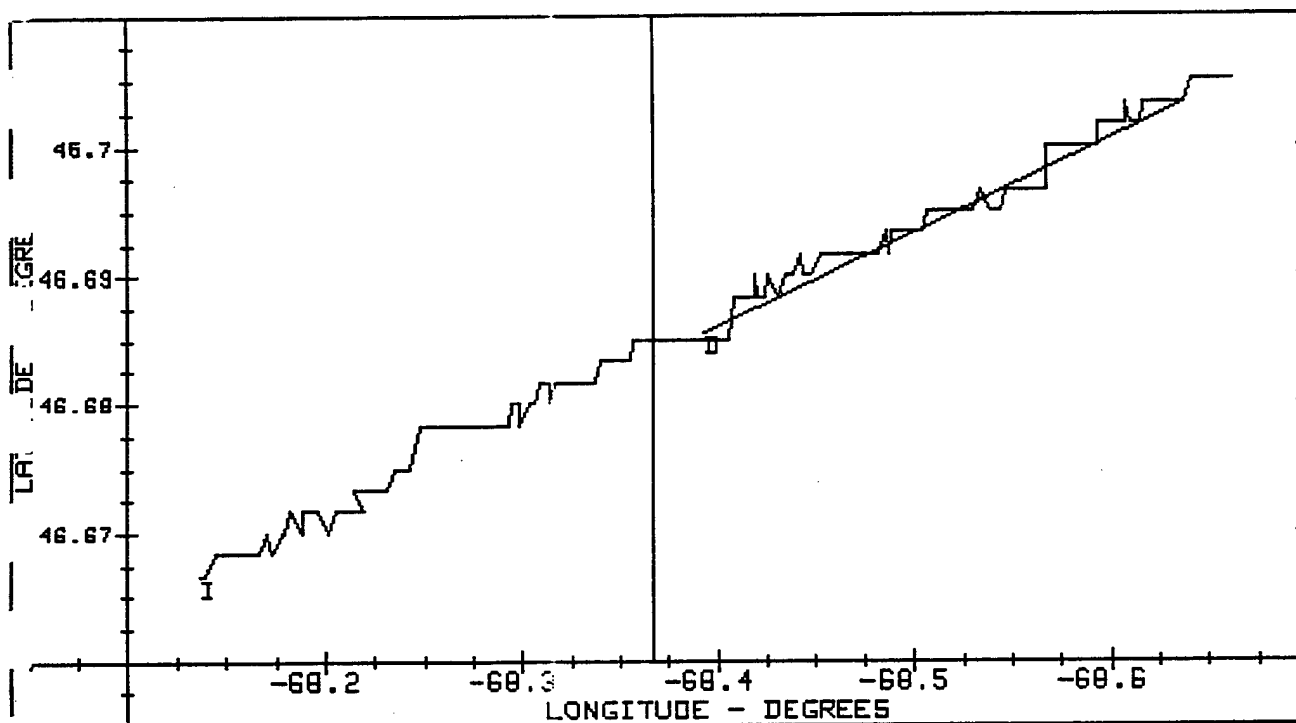
P Band Power

DAY 179 TIME 22:58 PASS 3 m= 52.88, sd= 21.2451



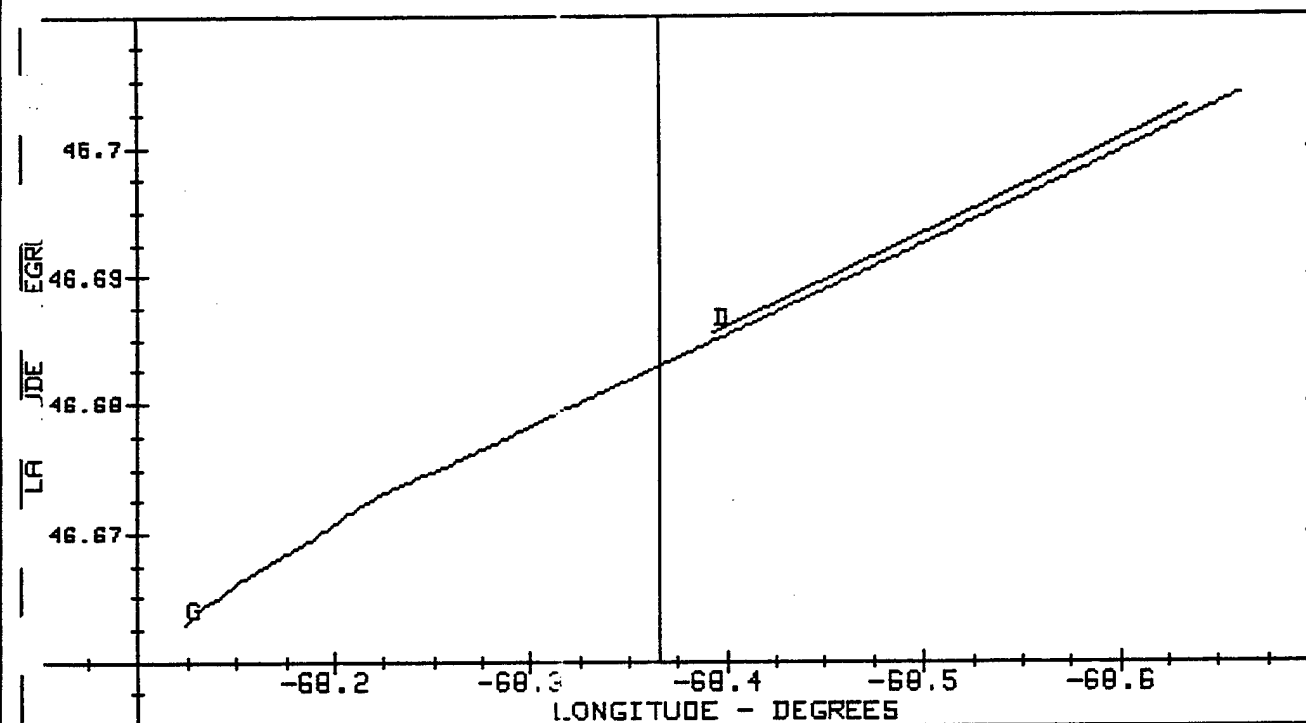
INS AIRCRAFT POSITION

DAY 179 TIME 22:58 PASS 3



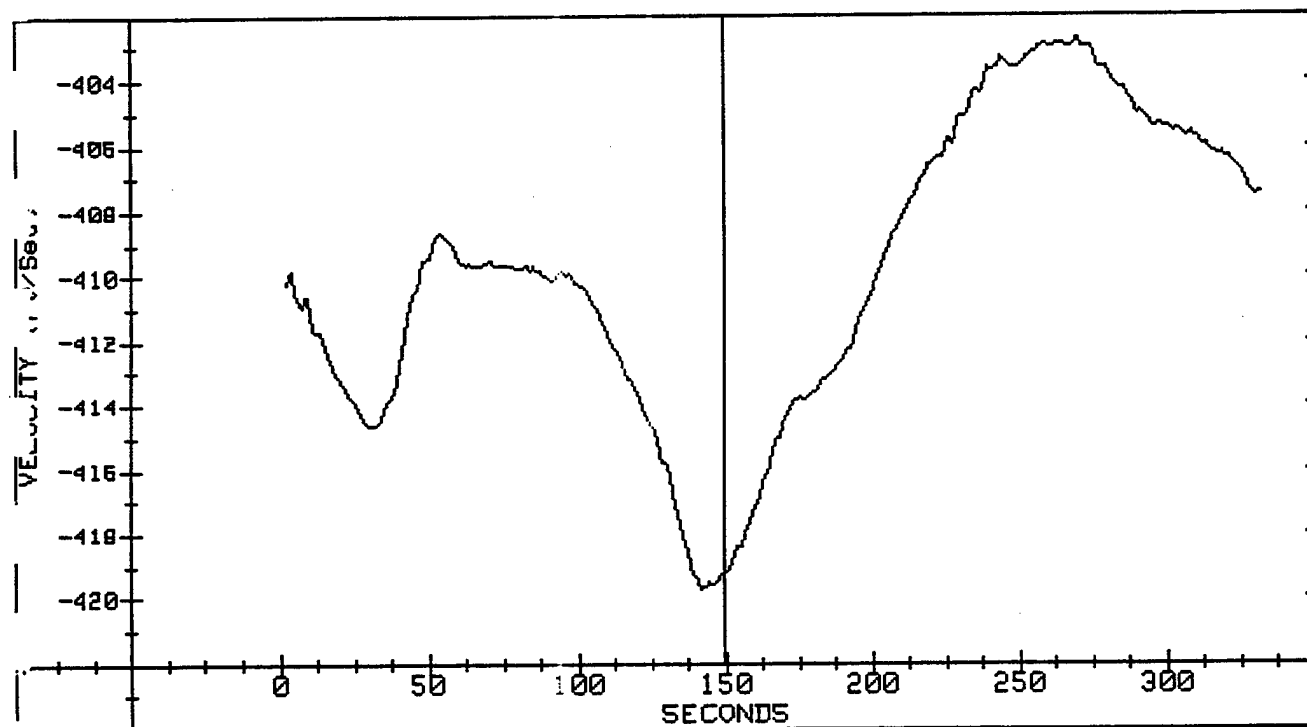
GPS AIRCRAFT POSITION

DAY 179 TIME 22:58 PASS 3



GPS V_e

DAY 179 TIME 22:58 PASS 3 m = -406.9, sd = 3.62162



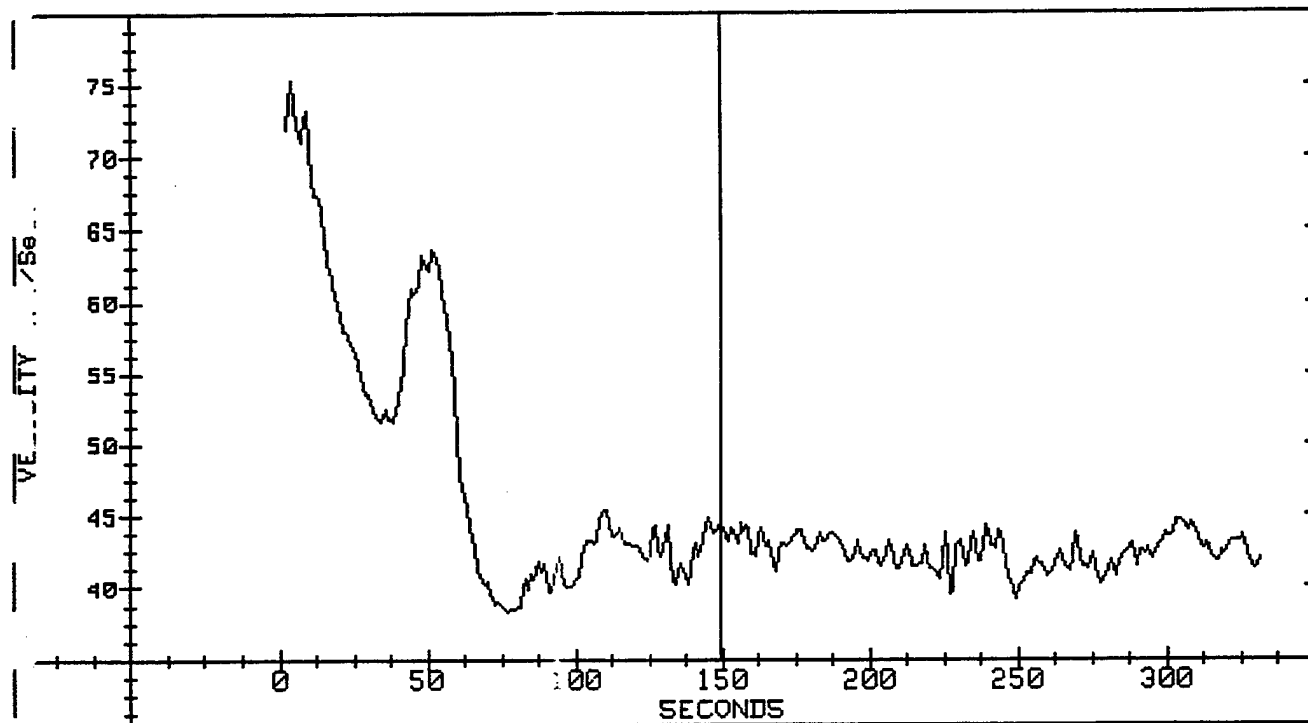
GPS Vn

DAY 179

TIME 22:50

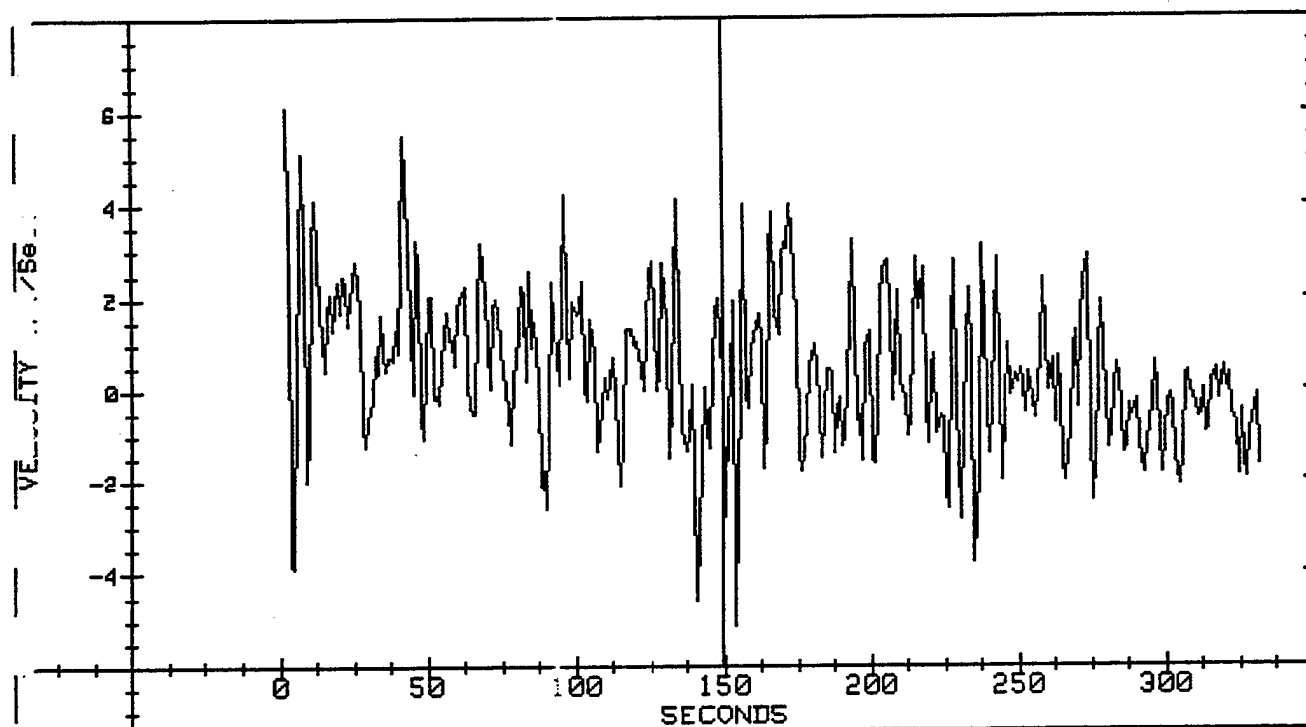
PASS 3

m= 42.42, sd= 1.08379



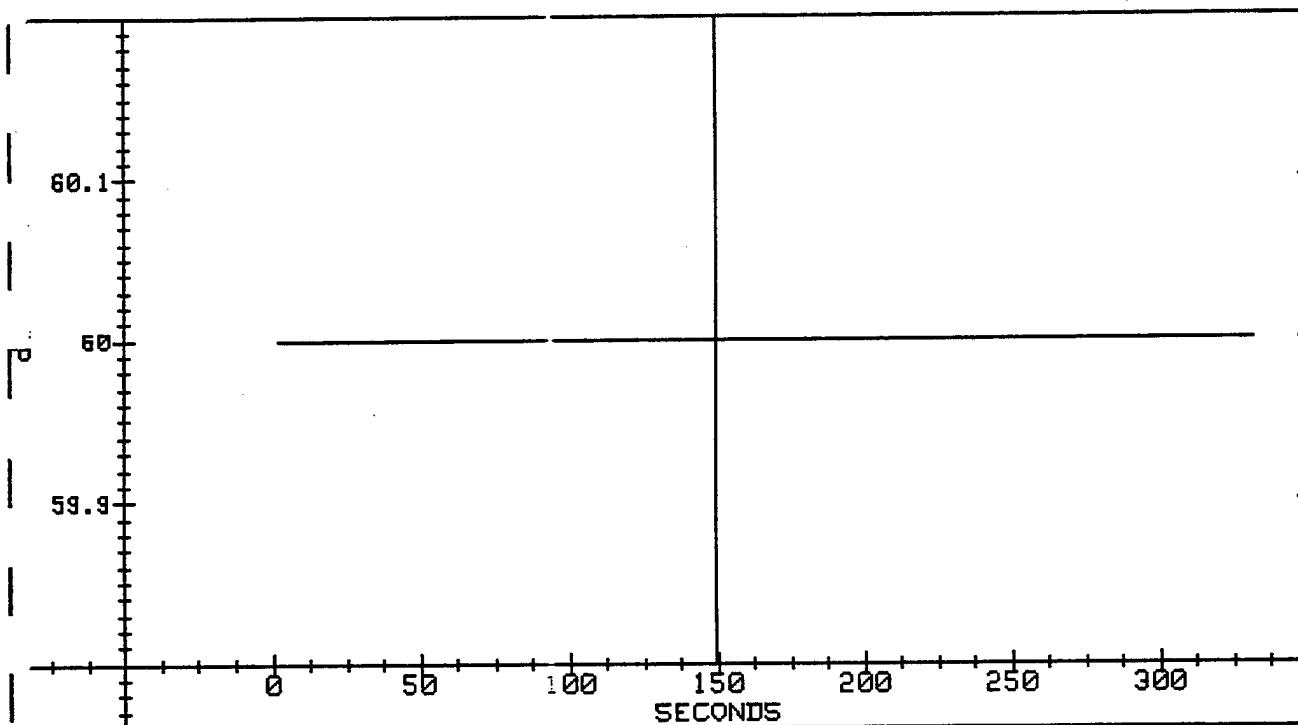
GPS Vv

DAY 179 TIME 22:58 PASS 3 m= .04895, sd= 1.44544



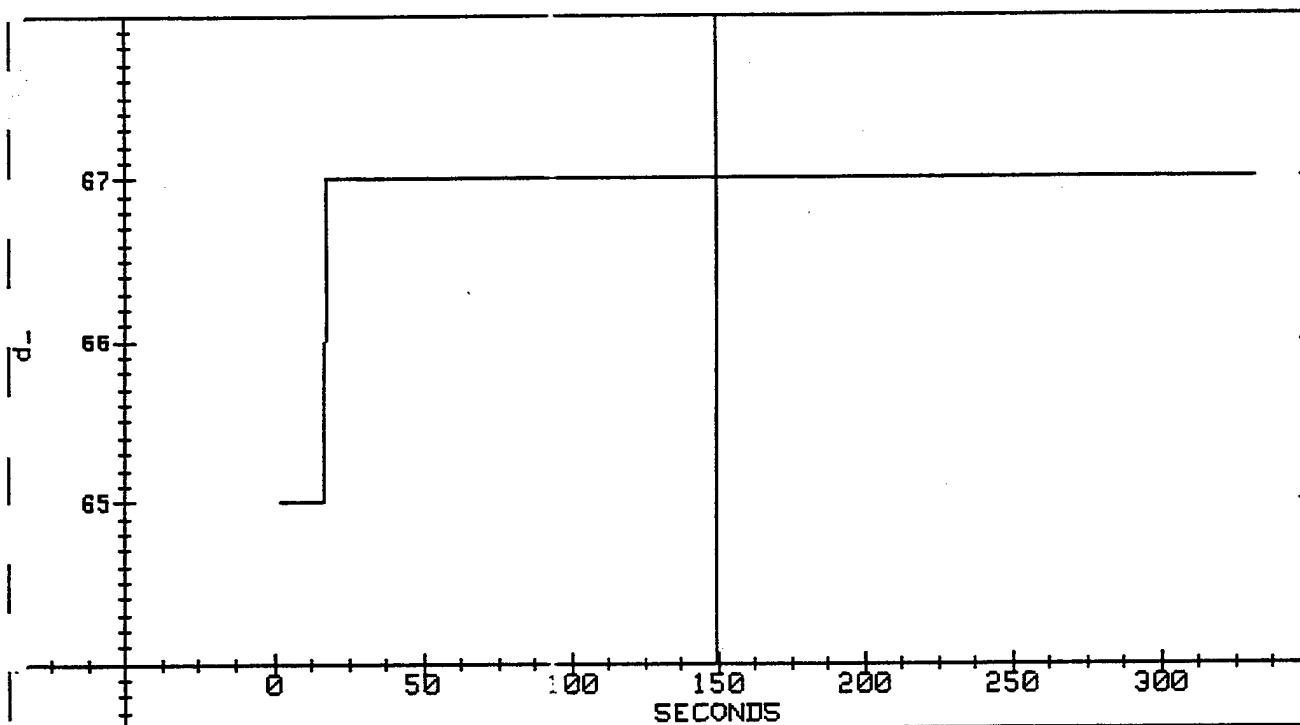
Ch1 RES Attenuation

DAY 179 TIME 22:58 PASS 3 m= 60, sd= 0



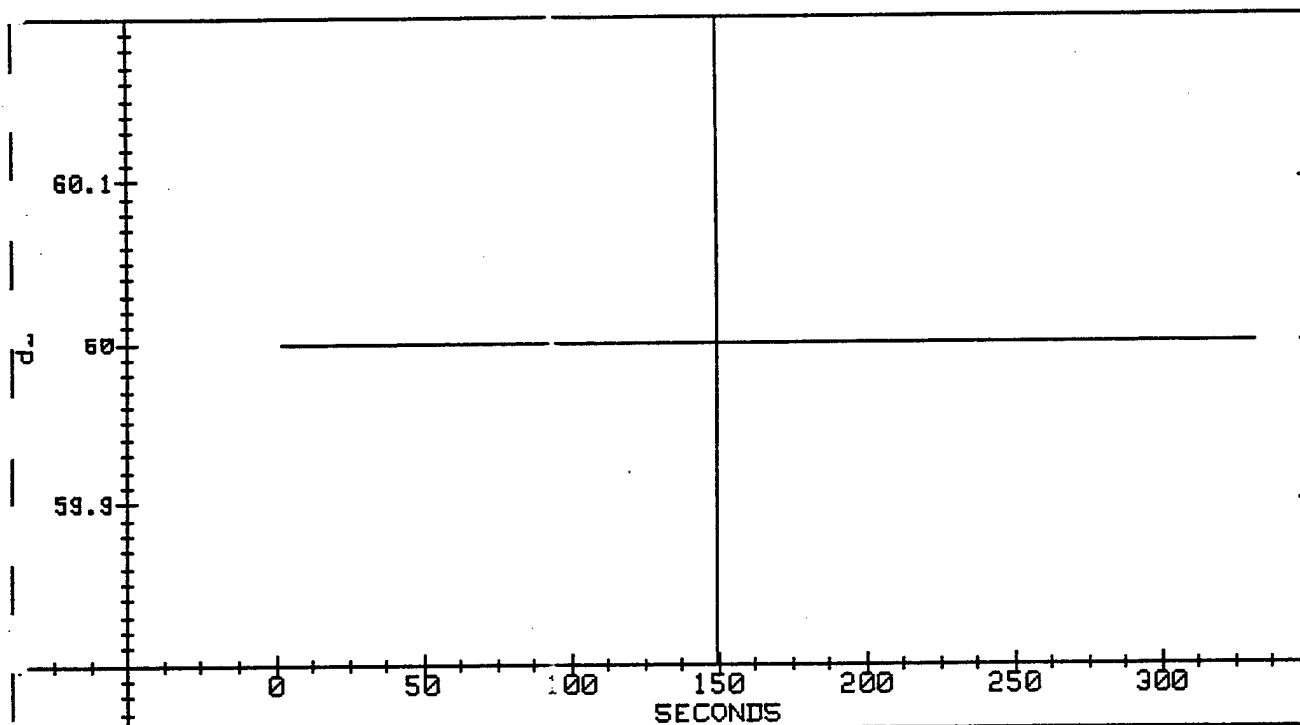
Ch2 RES Attenuation

DAY 179 TIME 22:50 PASS 3 m= 67, sd= 0



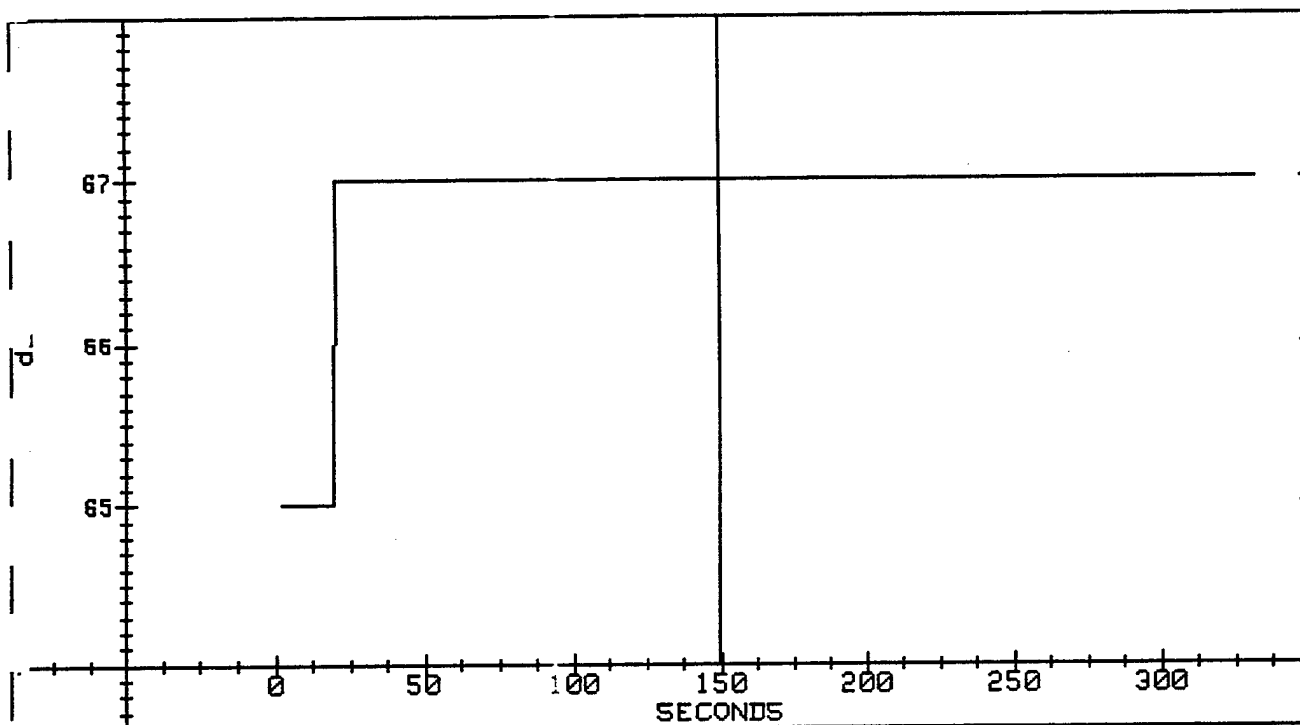
Ch3 RES Attenuation

DAY 179 TIME 22:58 PASS 3 m= 60, sd= 0



Ch4 RES Attenuation

DAY 179 TIME 22:50 PASS 3 m= 67, sd= 0

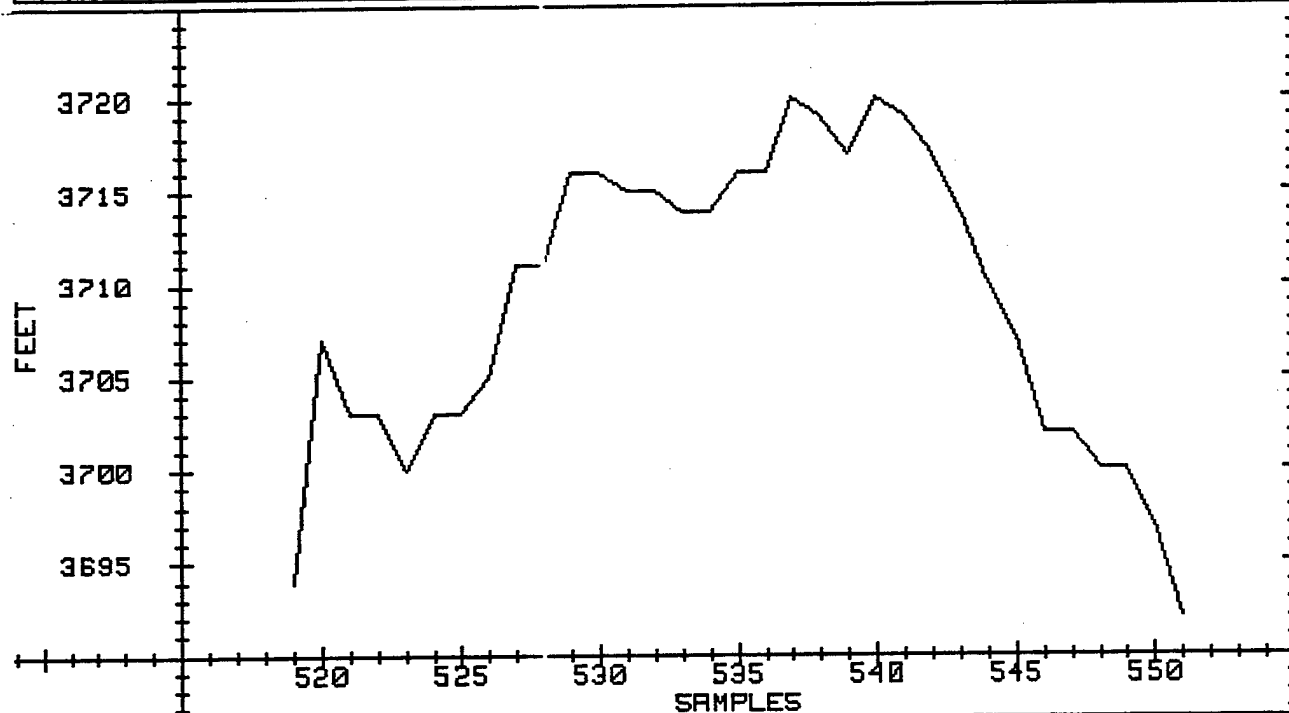


GPS ALTITUDE

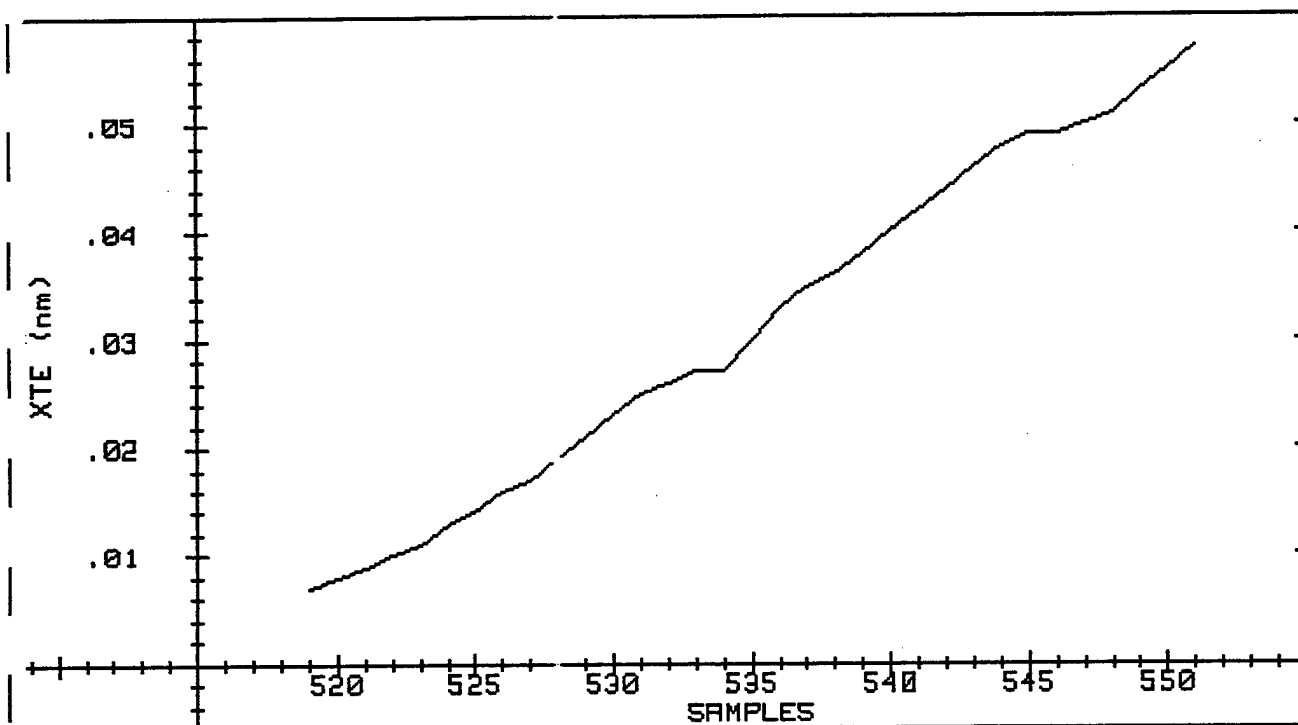
MEAN= 3708.03 STANDARD DEVIATION= 7.95626

DATE: June 20, 1995 PASS 3

OFF
ON
BAR



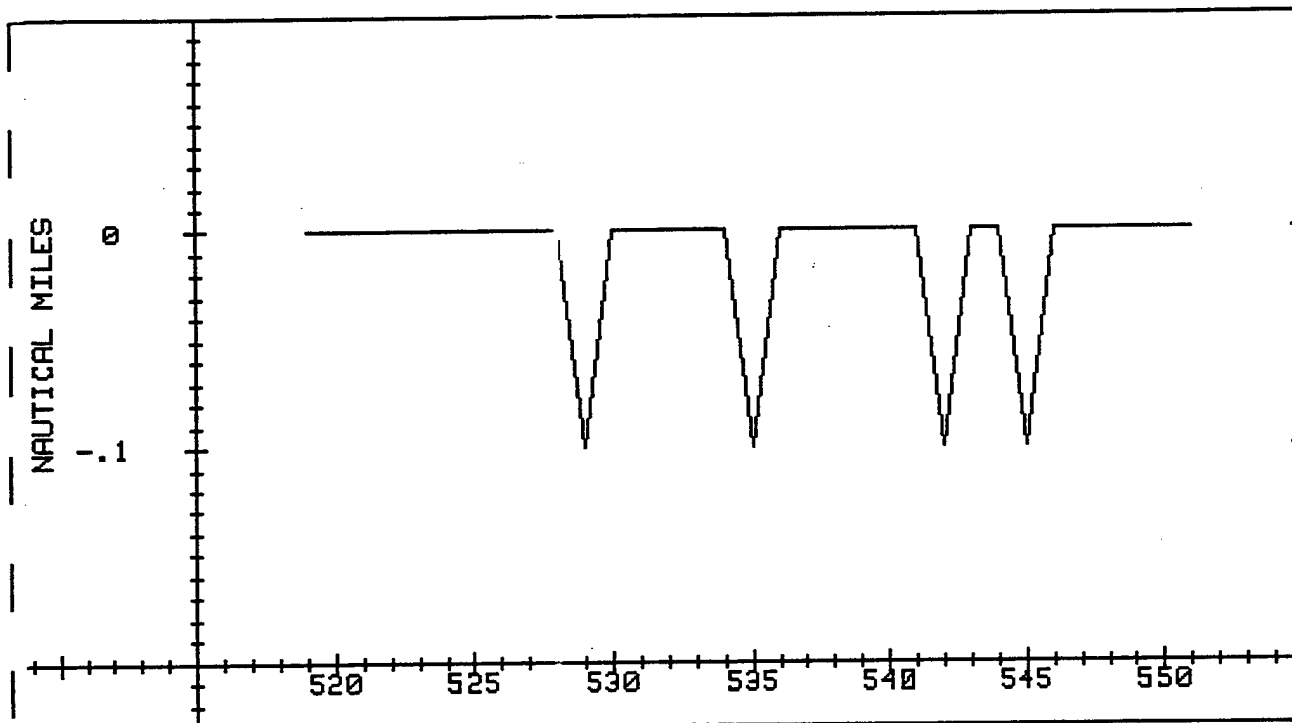
GPS Cross Track Error
MEAN- .0311818 STANDARD DEVIATION- .0155592
DATE: June 28, 1995 PASS 3



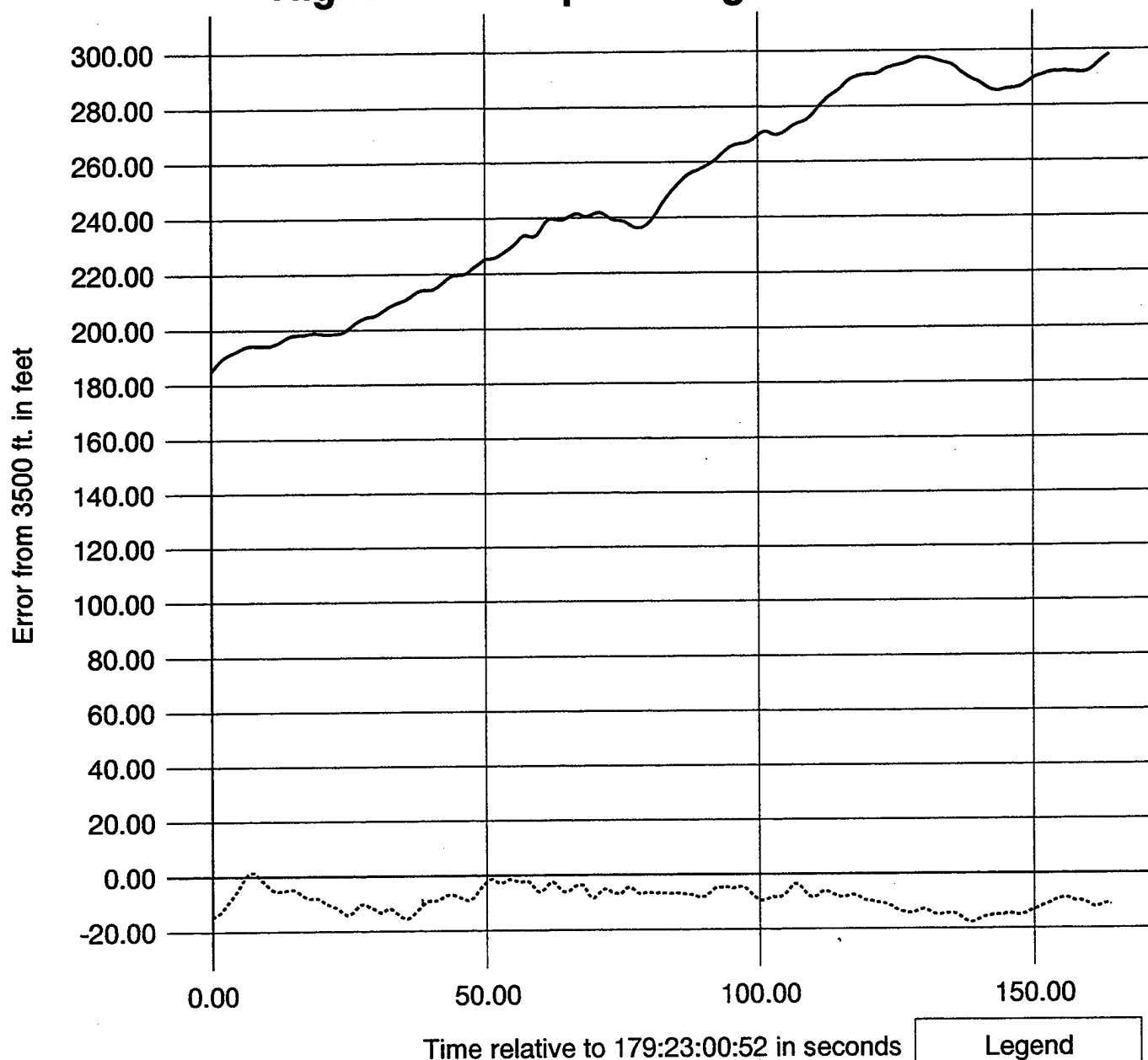
INS CROSS TRACK ERROR

MEAN- -.0121212 STANDARD DEVIATION- .0326374

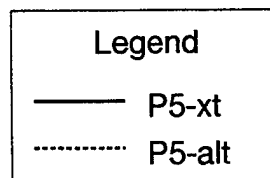
DATE: June 28, 1995 PAGE 3



Portage, ME - June 28, 1995 - Pass 3 - Xtk. and Alt. Errors Higher alt. and port are greater than zero



	Mean	St. Dev.
ALT.	-8.66	4.13
XTK.	249.17	36.47



29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 37
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:34:43
Pass 11
Req.# 16

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5430 ft s.d. =	3 Swath Ctr Ang:	12.0°	12.0°	12.0°	12.0°
Slt. rng:	23279 ft	Tgt Dep Ang:	12.0°	12.0°	12.0°	12.0°
Look:	Right	St rng (ft):	21740	21740	21740	21740
Depr Ang:	25.0°	Near Rng Dep:	14.5°	14.5°	14.5°	14.5°
Des. trk:	276.0°	Far Rng Dep:	8.2°	8.2°	8.2°	8.2°
Start Sq:	90.0°	Atten (dB):	59.0	66.0	58.0	66.0
End Sq:	90.0°	RMS Video (%FS)	6.4	5.6	5.8	6.0

WAYPOINTS

	Latitude	Longitude
Line up:	N 46:39.42	W 68:06.32
Start:	N 46:40.72	W 68:23.64
End:	N 46:41.76	W 68:38.10
From:	N 42:35.19	W 45:47.74
To:	N 45:52.41	W 92:36.55

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 248.3 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> .9 fps (s.d.= 1.1)
Ave Fil Vel -> .3 fps (s.d.= 1.1)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 2751 ft	(2)
L: -70.0	Azimuth: 0.0°	Ending: 4001 ft	(2)
C: -70.0	Pitch: 0.0°		
P: 39.9			

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

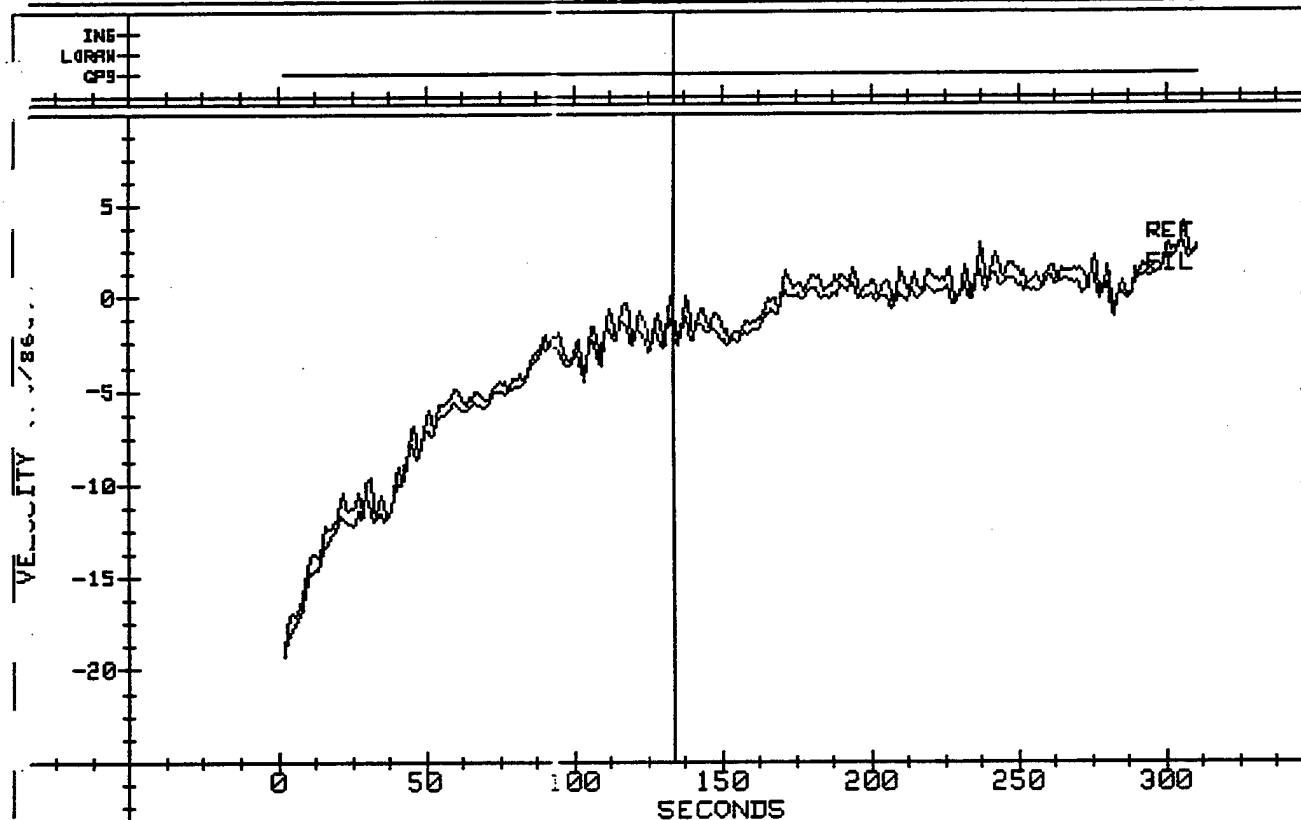
LINE Map Time (UCT)
Start: 00:34:43
End: 00:37:24

Mocomp Counters

Start: 551847 00086BA7h
End: 578847 0008D51Fh

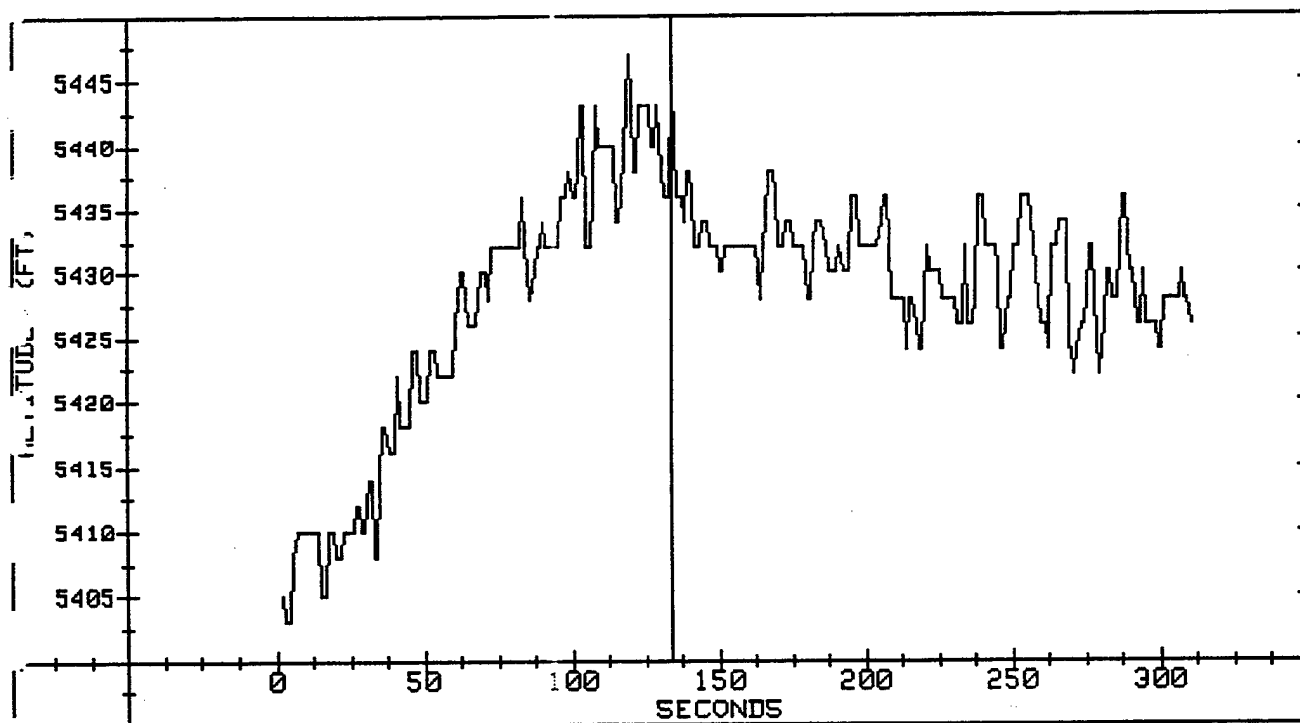
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 100 TIME 0:32 PASS 11



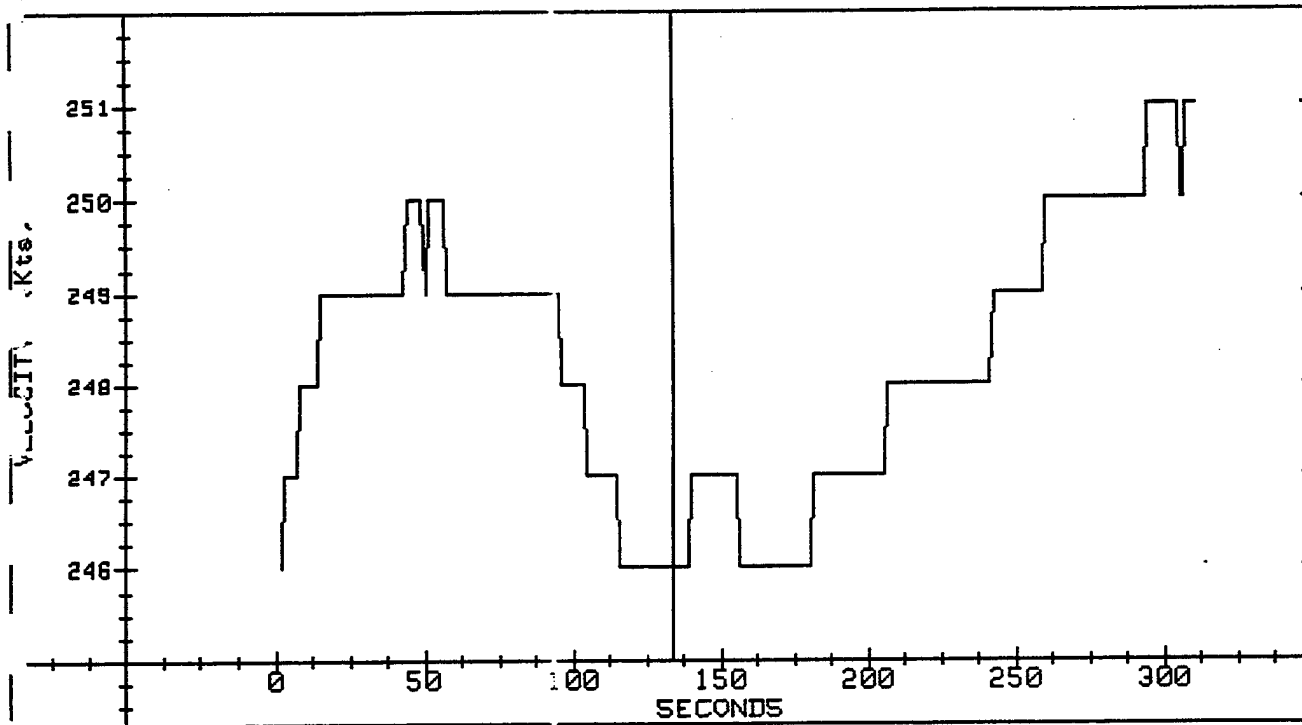
BARO ALTITUDE

DAY 180 TIME 0:32 PASS 11 m= 5490, sd= 3.49426



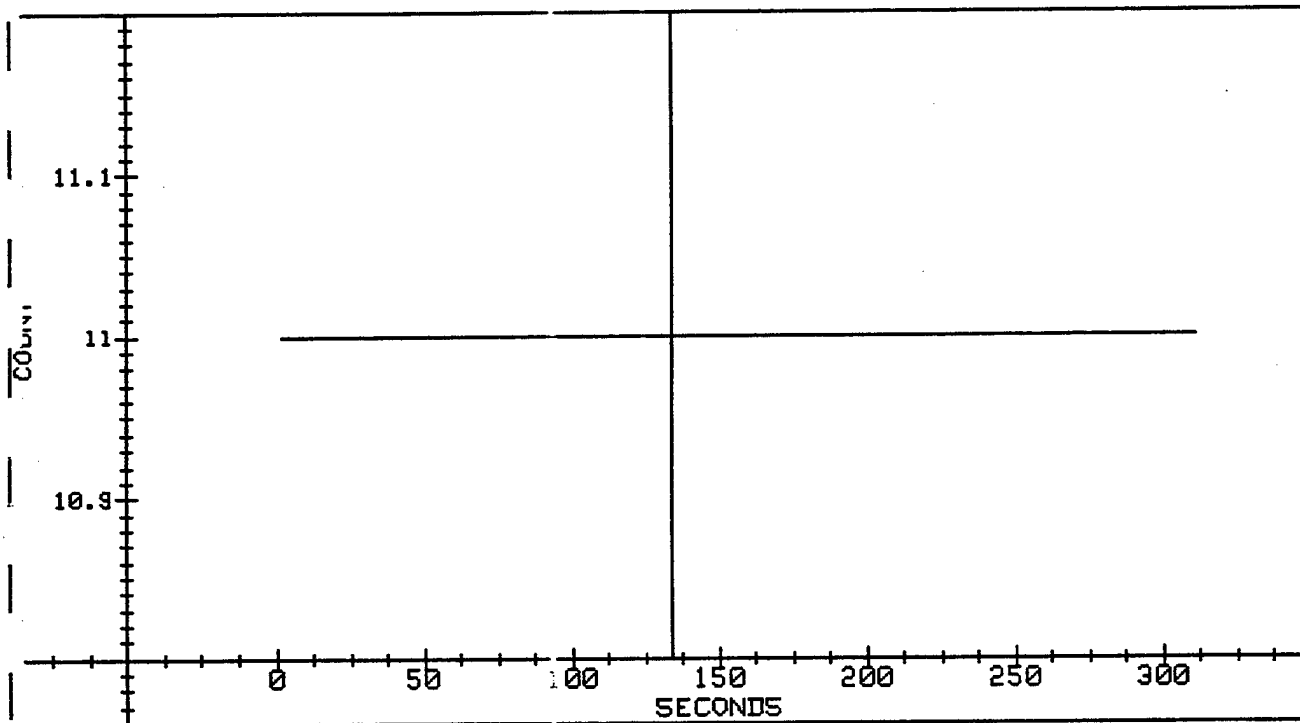
INS GROUND SPEED

DRY 100 TIME 0:32 PASS 11 m= 248.3, sd= 1.59409



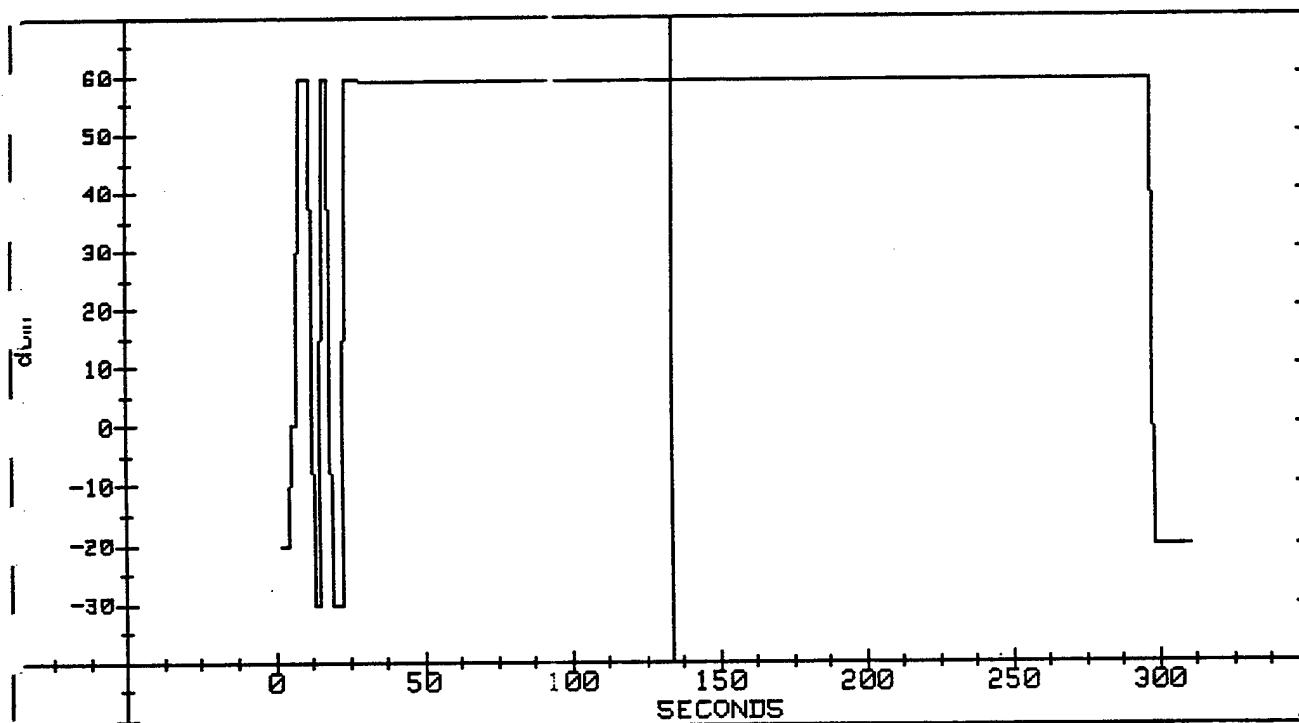
PASS NUMBER

DAY 100 TIME 0:32 PASS 11 m= 11, sd= 0



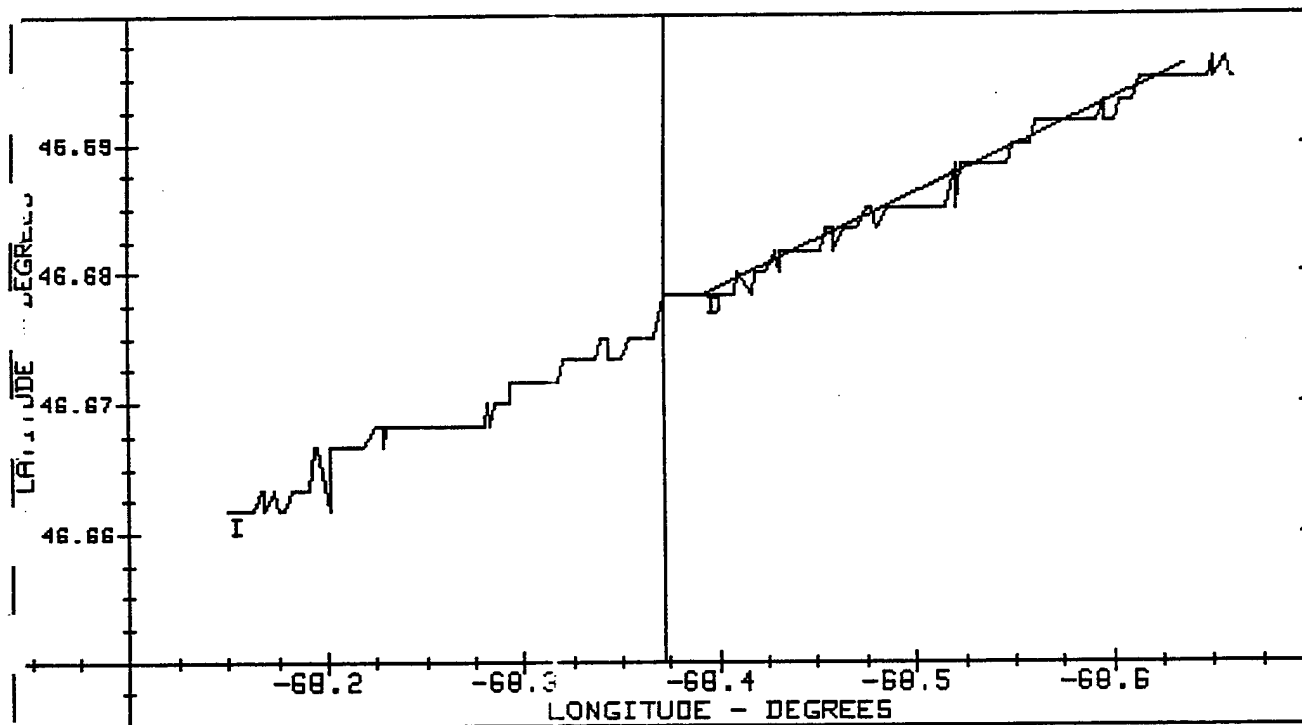
P Band Power

DAY 100 TIME 0:32 PRSS 11 m= 52.65, sd= 21.4636



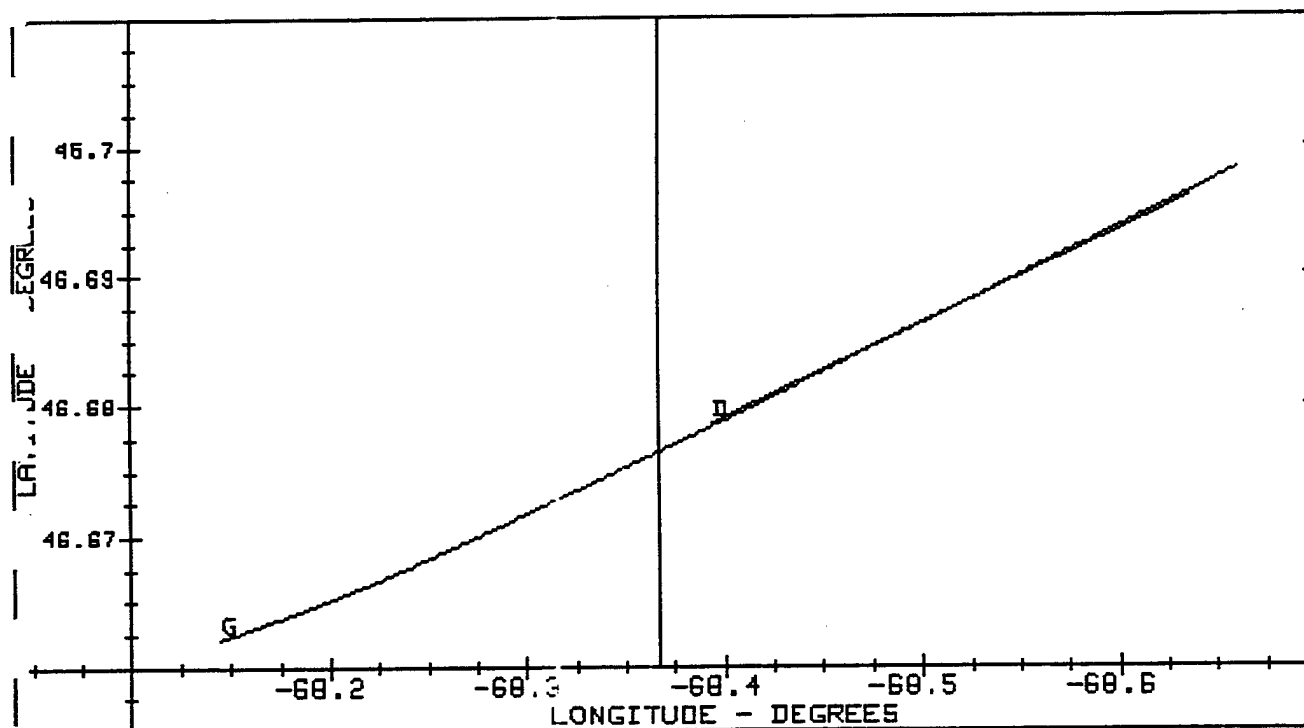
INS AIRCRAFT POSITION

DAY 100 TIME 0:32 PASS 11



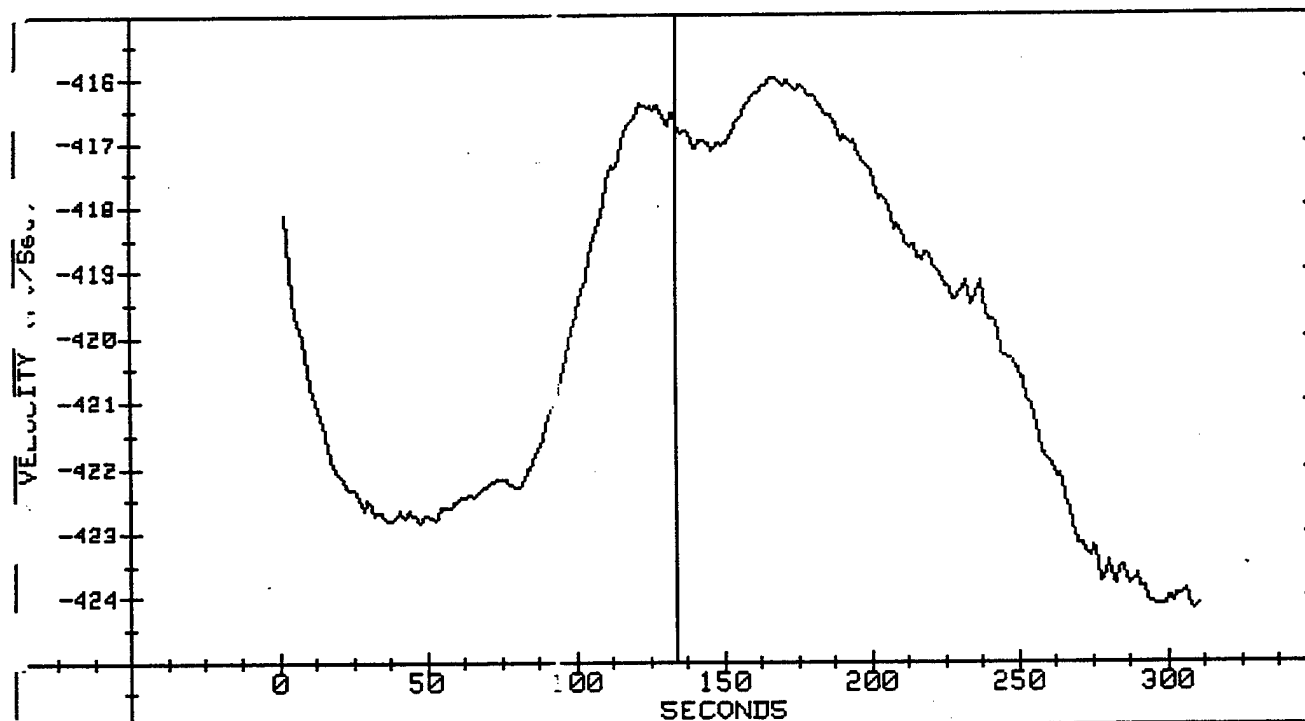
GPS AIRCRAFT POSITION

DAY 100 TIME 0:32 PASS 11



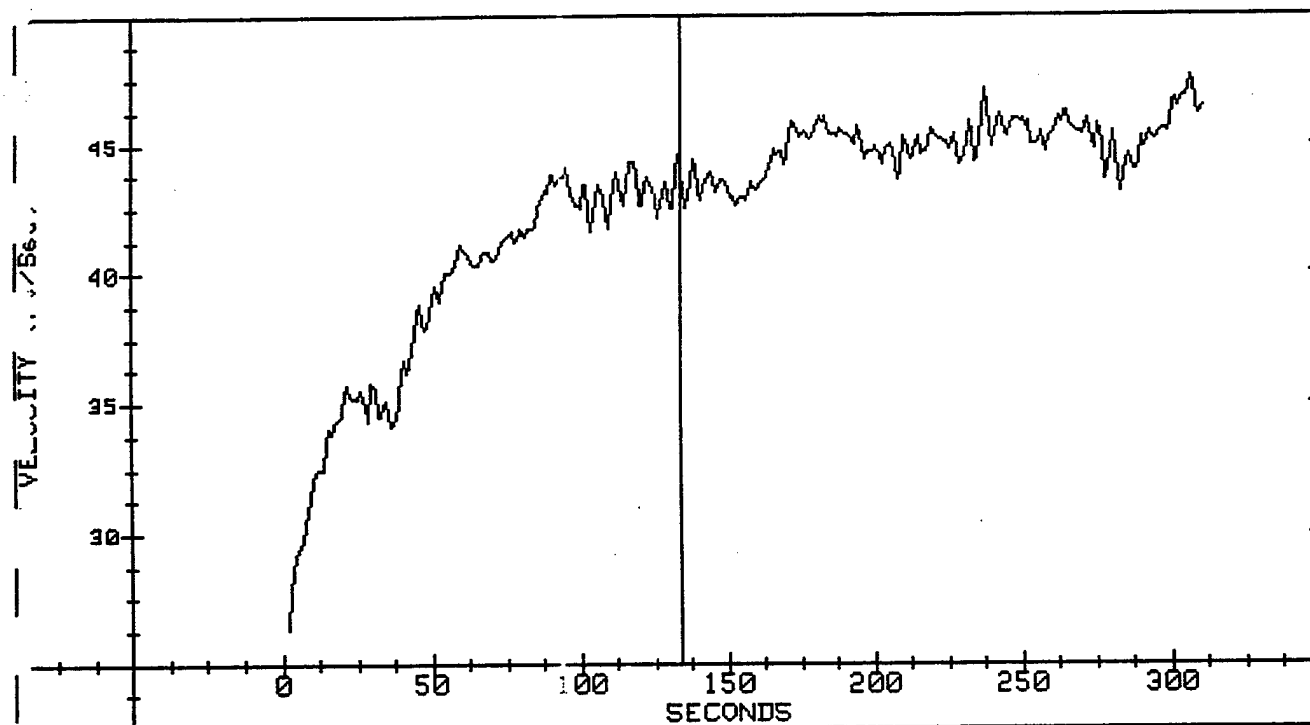
GPS V_e

DAY 100 TIME 0:32 PASS 11 m= -419.0, sd= 2.00191



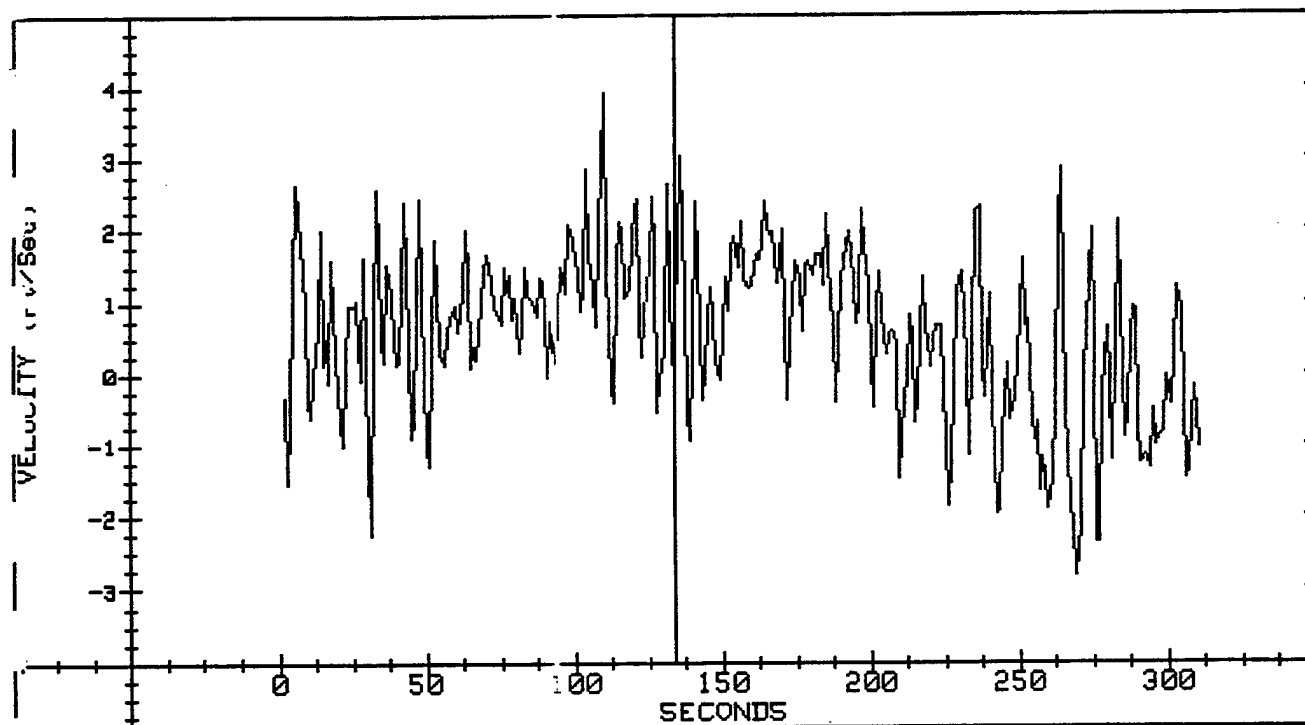
GPS Vn

DAY 100 TIME 0:32 PASS 11 m= 45.06, sd= .95536



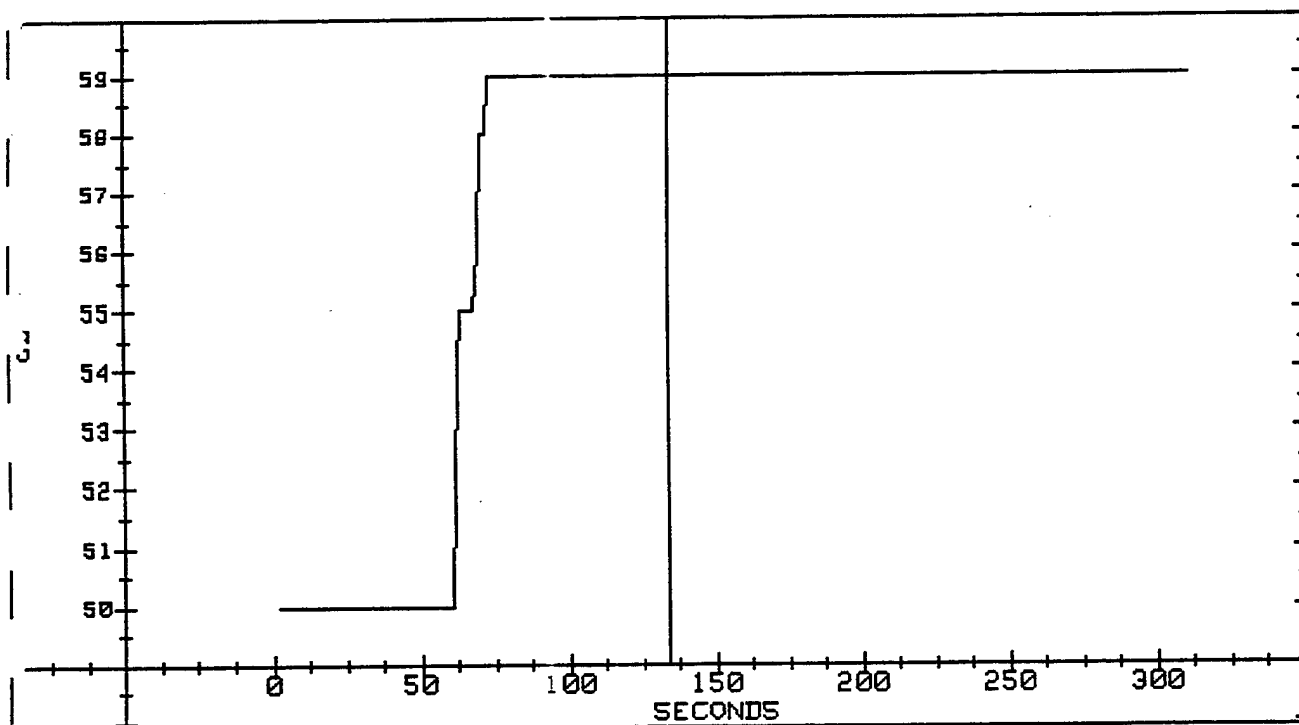
GPS Vv

DAY 180 TIME 0:32 PASS 11 m= .321, sd= 1.2233



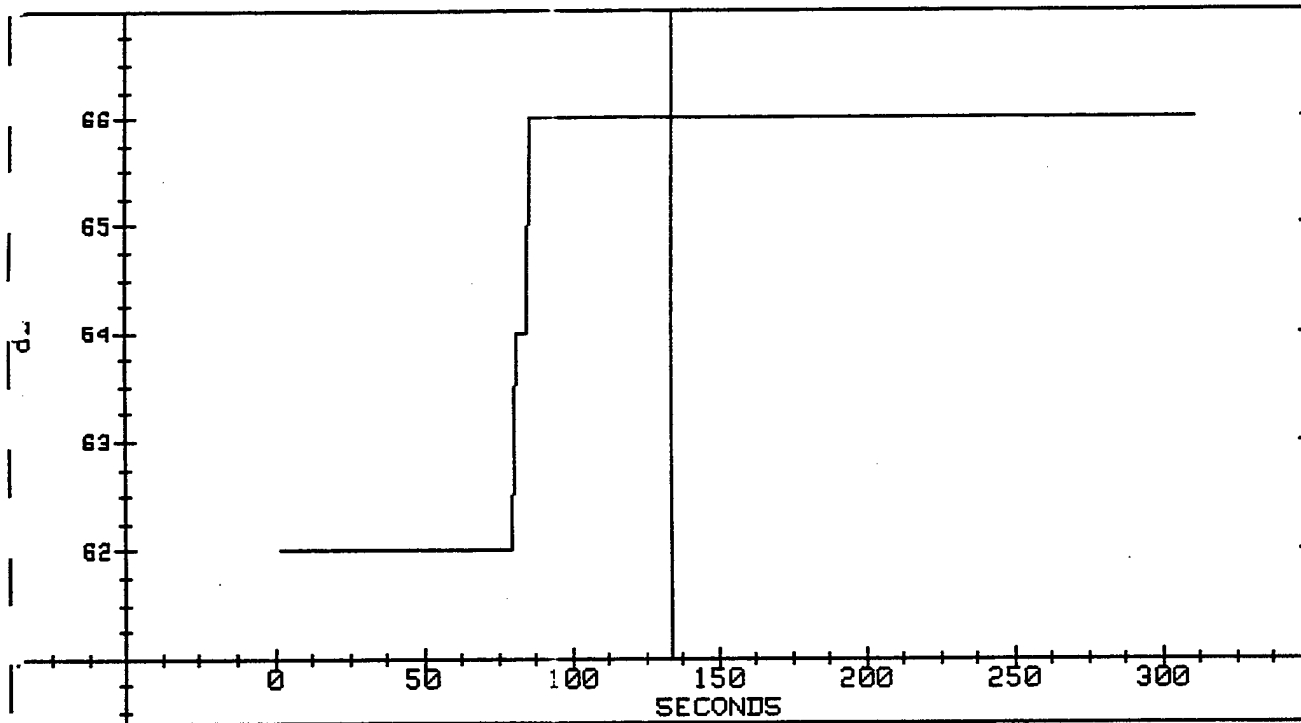
Ch1 RES Attenuation

DAY 180 TIME 0:32 PASS 11 m= 59, sd= 0



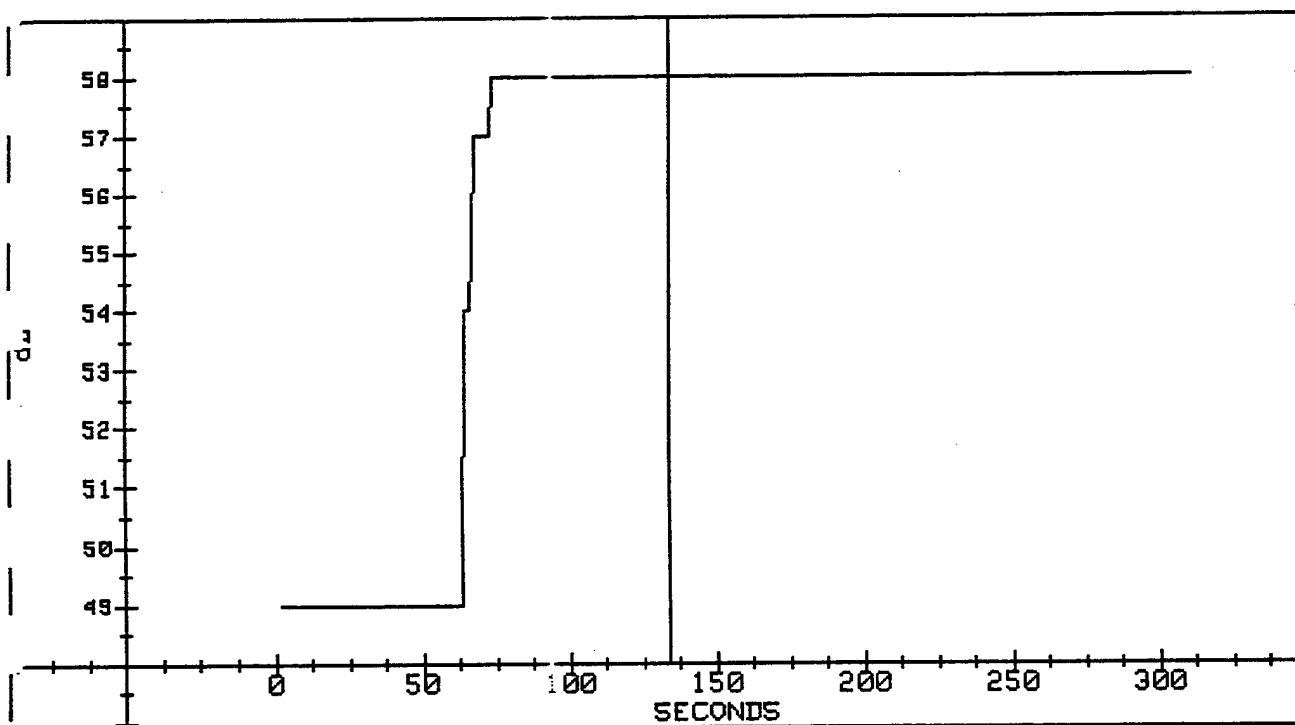
Ch2 RES Attenuation

DAY 100 TIME 0:32 PASS 11 m= 66, sd= 0



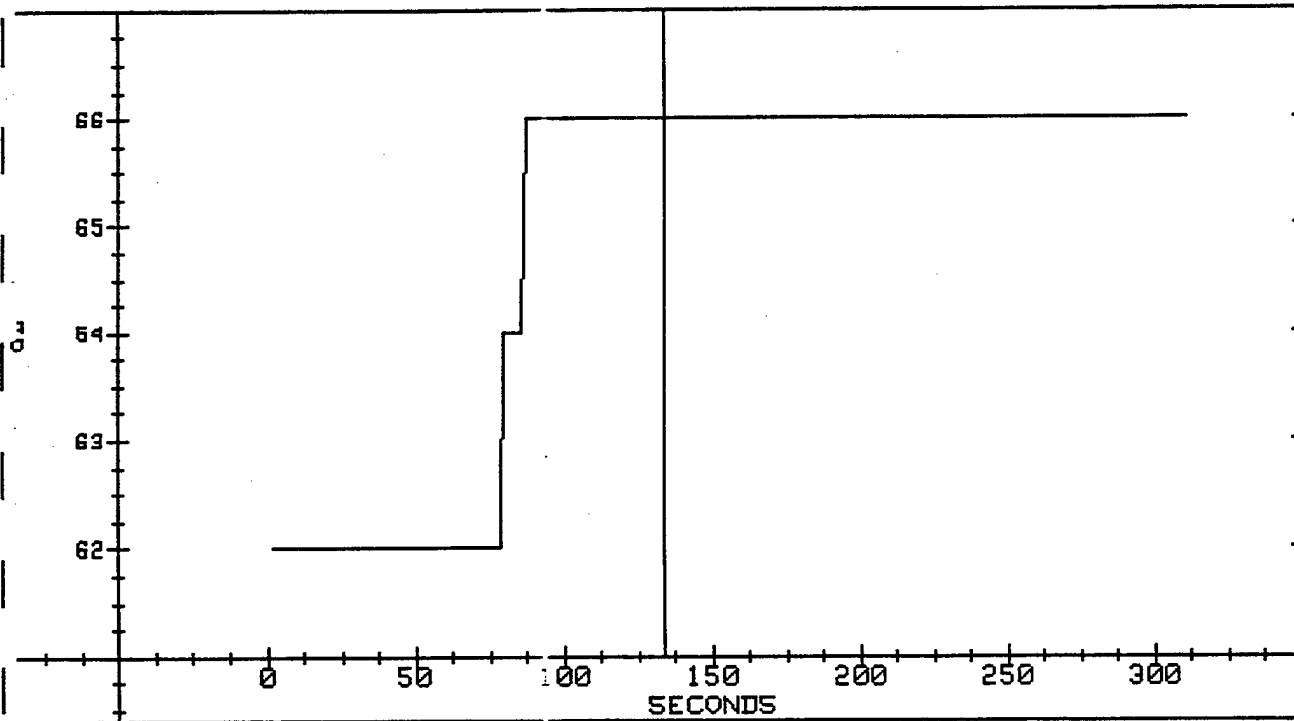
Ch3 RES Attenuation

DAY 180 TIME 0:32 PASS 11 m= 58, sd= 0



Ch4 RES Attenuation

DAY 100 TIME 0:32 PASS 11 m= 66, sd= 0

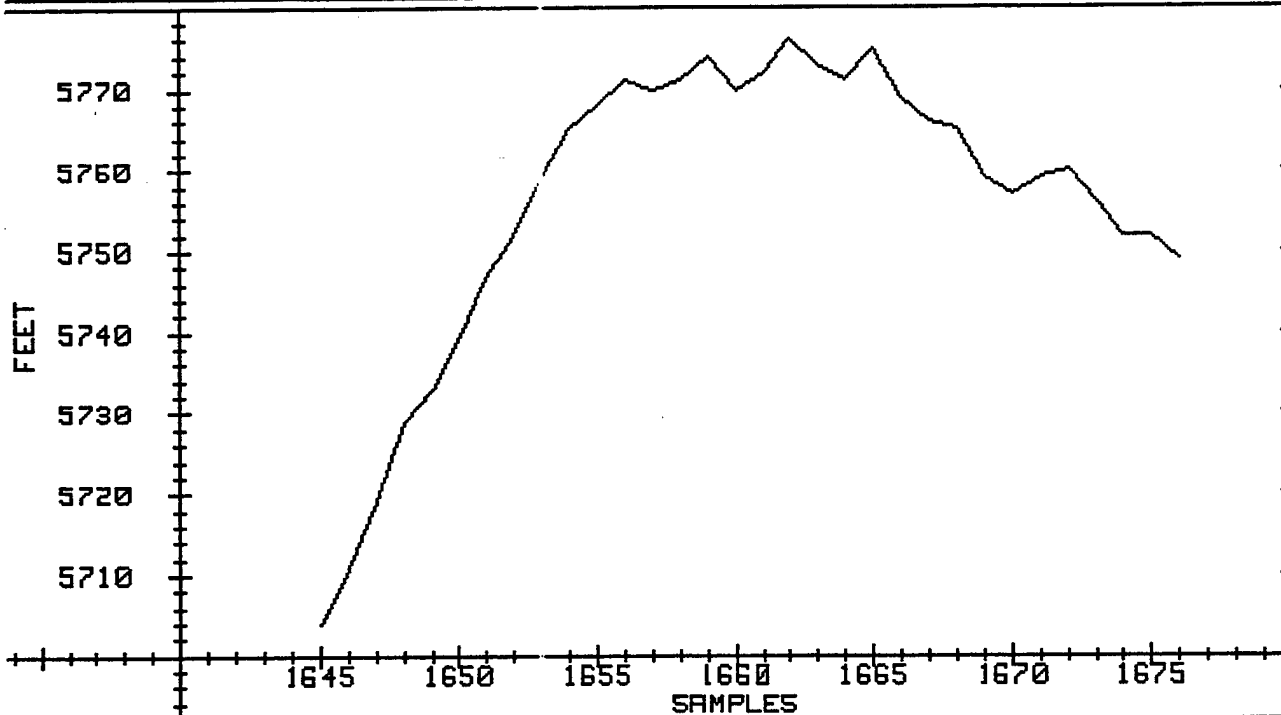


GPS ALTITUDE

MEAN= 5756.03 STANDARD DEVIATION= 18.6572

DATE: June 28, 1995 PASS 11

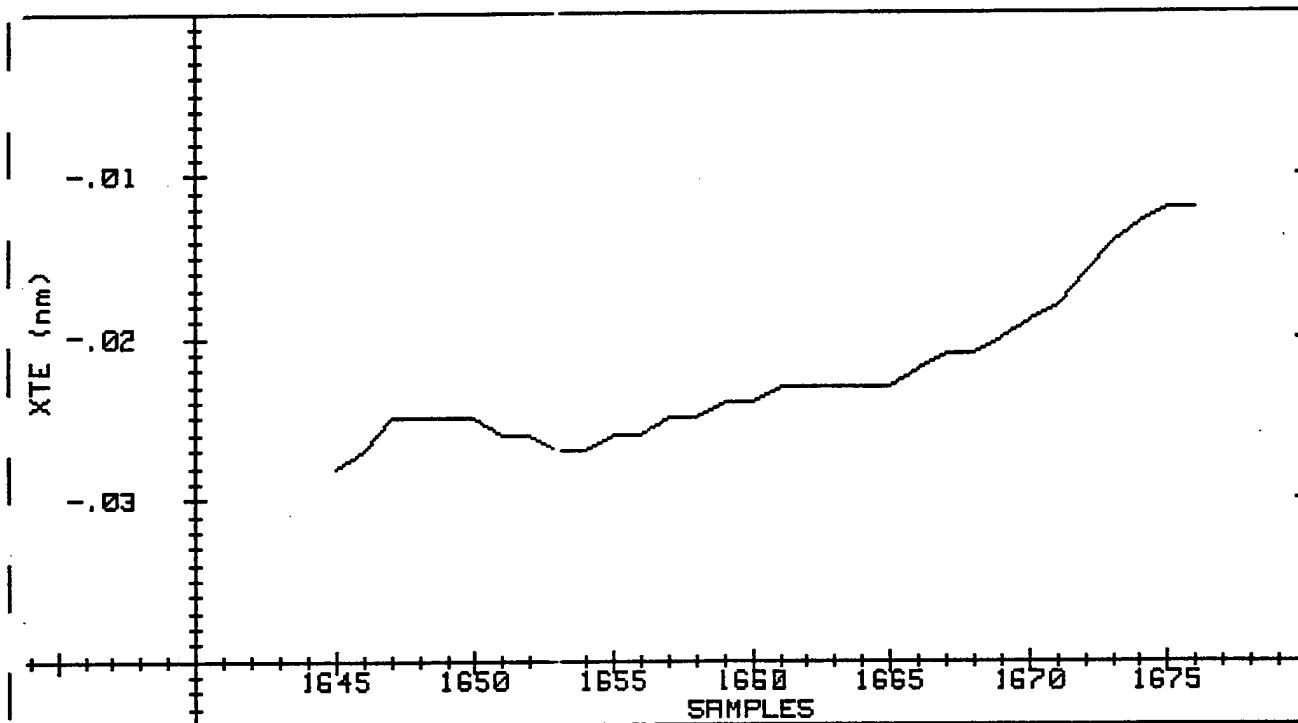
OFF
ON
ARR



GPS Cross Track Error

MEAN= -.0223125 STANDARD DEVIATION= .00450997

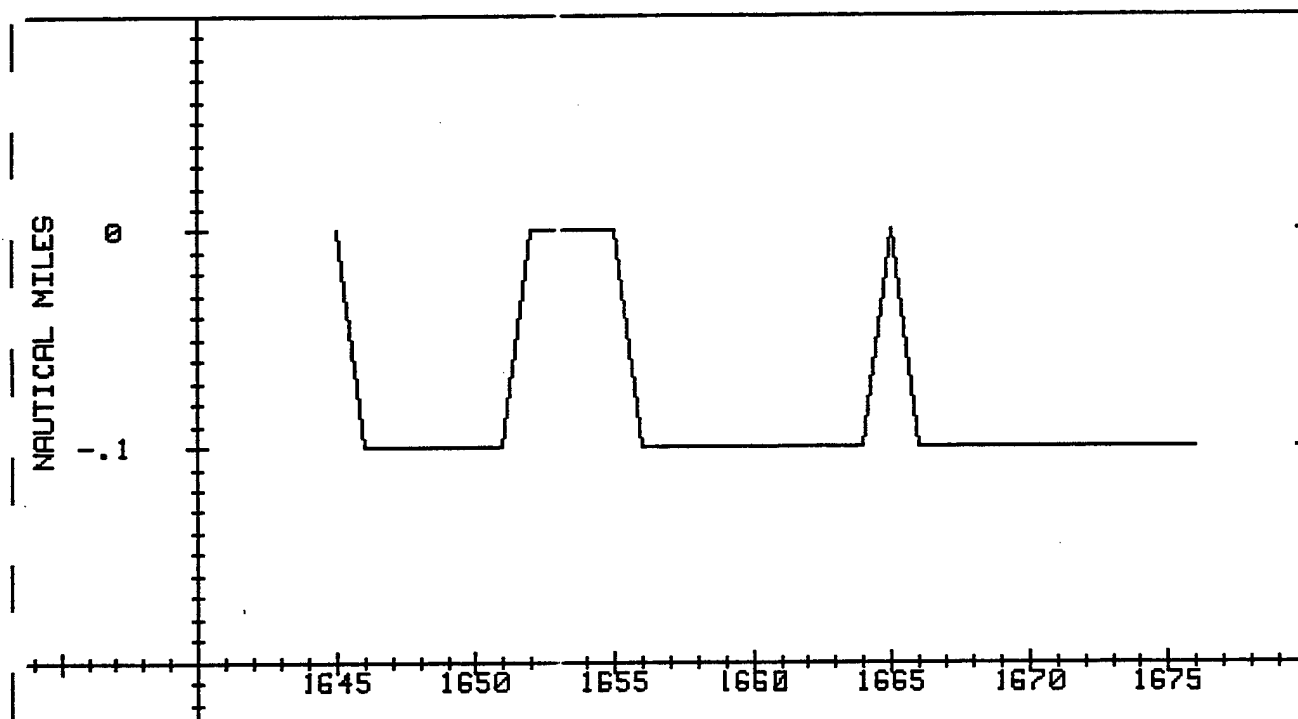
DATE: June 28, 1995 PASS 11



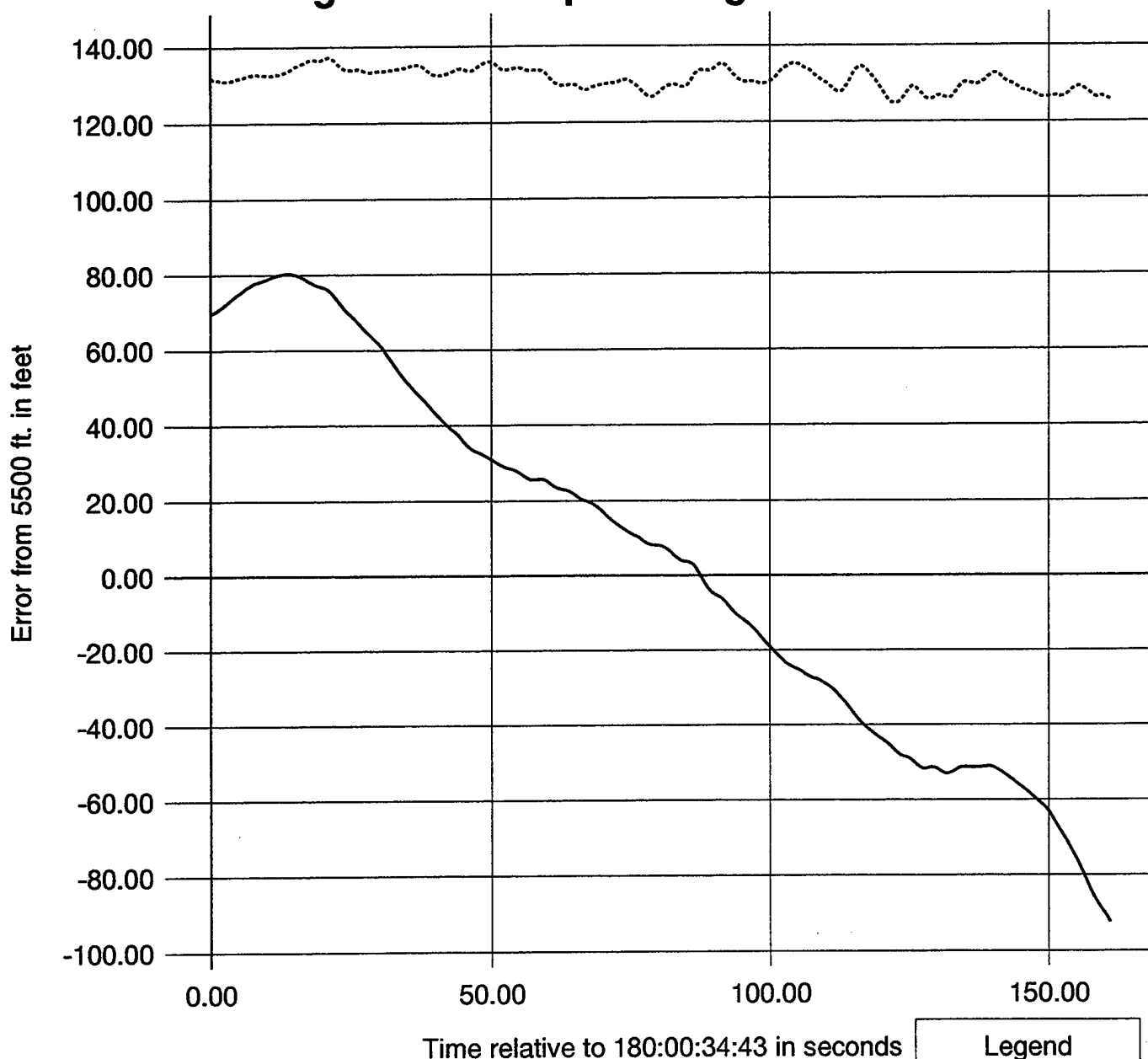
INS CROSS TRACK ERROR

MEAN= -.08125 STANDARD DEVIATION= .0350312

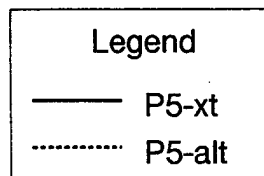
DATE: June 29, 1995 PASS 11



Portage, ME - June 28, 1995 - Pass 11 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	131.28	2.98
XTK.	3.62	49.41



29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 39
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:24:01
Pass 10
Req.# 17

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5424 ft s.d.=	4 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	100.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	50.0	62.0	49.0	62.0
End Sq:	90.0°	RMS Video (%FS)	23.3	18.8	17.6	19.6

WAYPOINTS

	Latitude	Longitude
Line up:	N 46:49.57	W 68:52.67
Start:	N 46:47.52	W 68:35.45
End:	N 46:45.79	W 68:21.14
From:	N 47:05.43	W 92:53.14
To:	N 41:36.92	W 46:20.70

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL-U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 248.8 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.9 fps (s.d.= 1.3)
Ave Fil Vel -> -.8 fps (s.d.= 1.1)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.4	

Tape Footage	Drive no.
Starting: 1468 ft	(2)
Ending: 2737 ft	(2)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

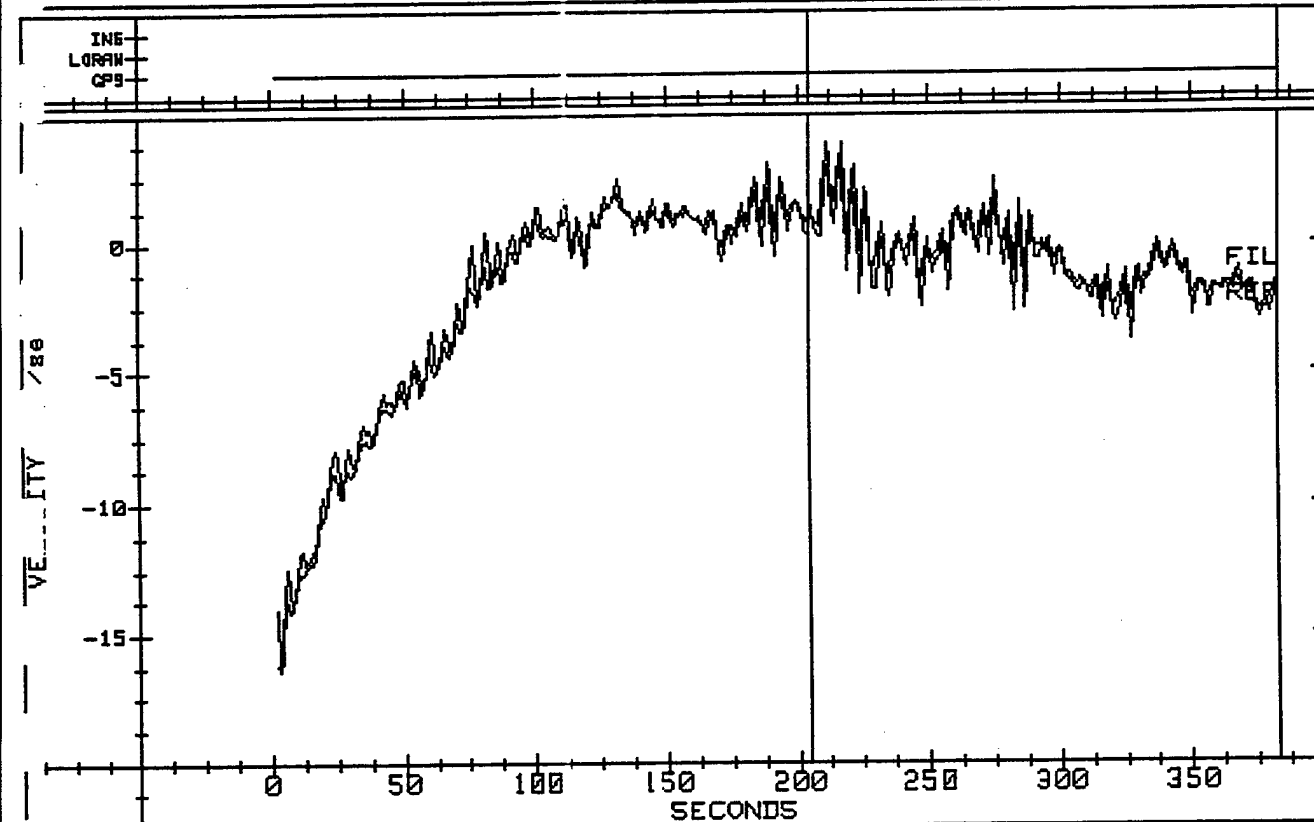
LINE Map Time (UCT)
Start: 00:24:01
End: 00:26:44

Mocomp Counters

Start: 499497 00079F29h
End: 526833 000809F1h

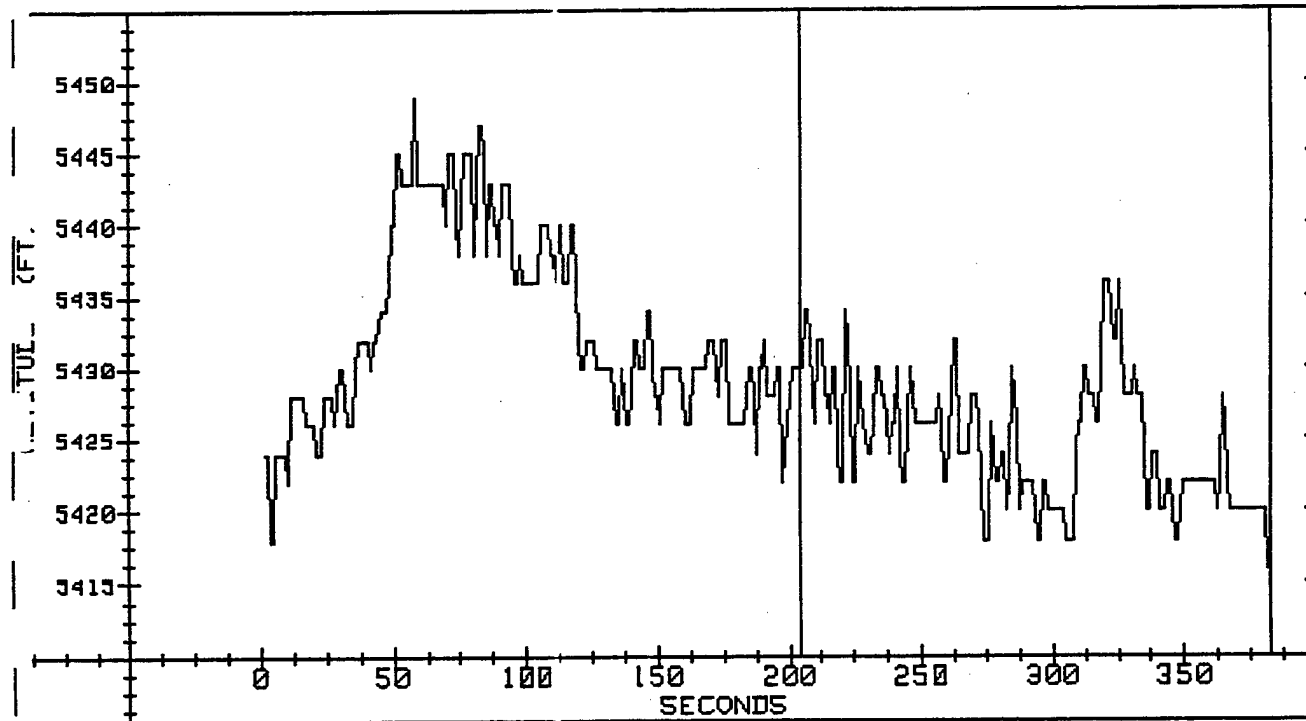
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 180 TIME 0:20 PASS 10



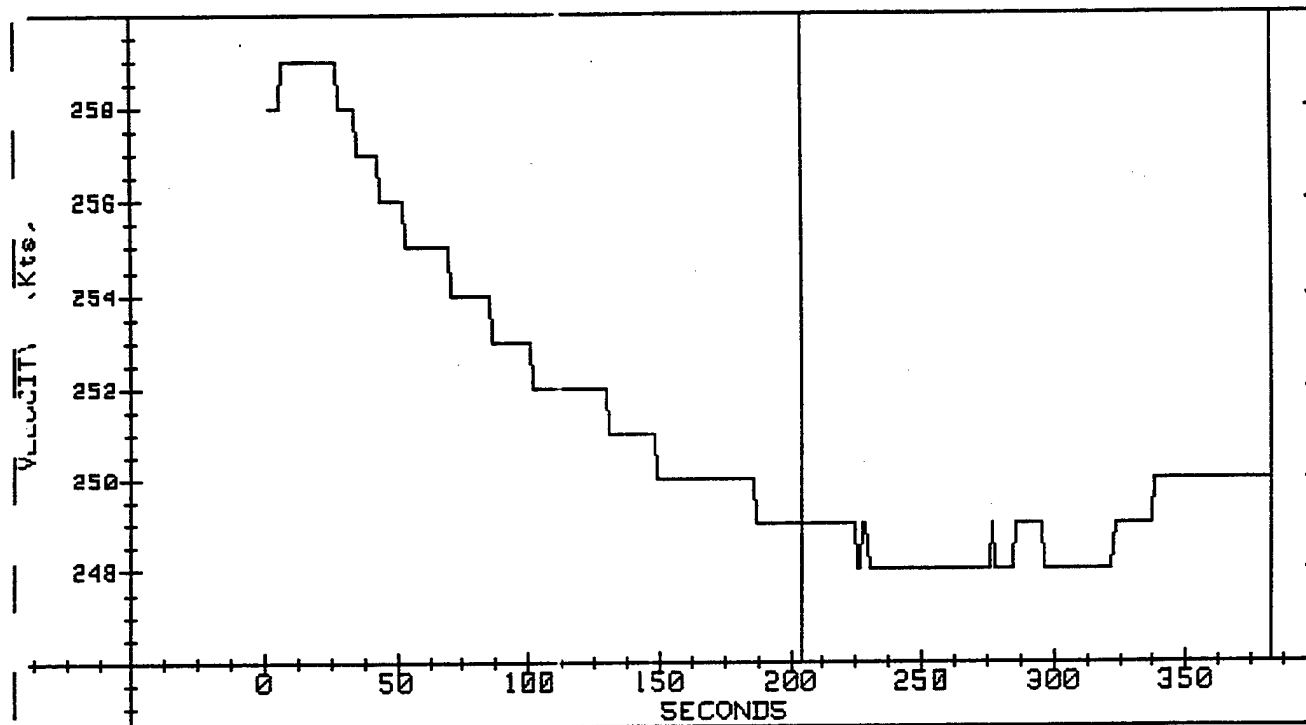
BARO ALTITUDE

DAY 100 TIME 0:20 PASS 10 m= 5424, sd= 4.31501



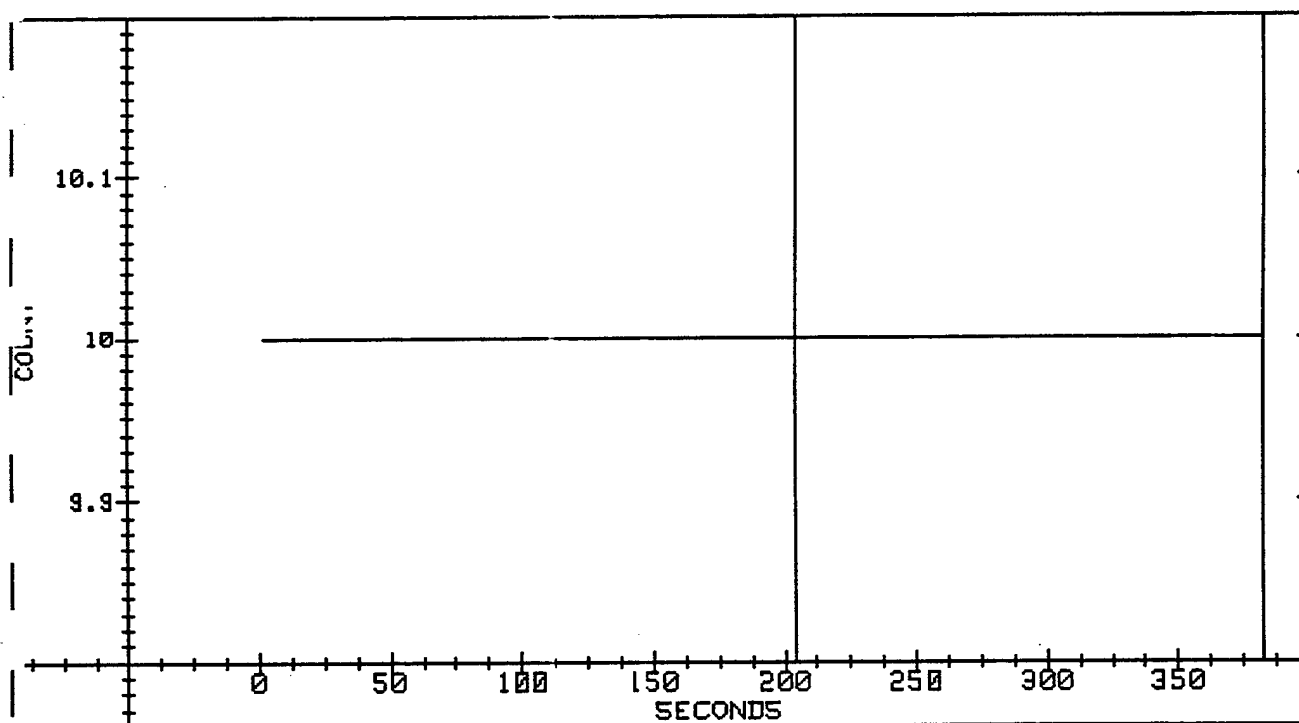
INS GROUND SPEED

DRY 100 TIME 0:20 PASS 10 m= 248.0, sd= .059640



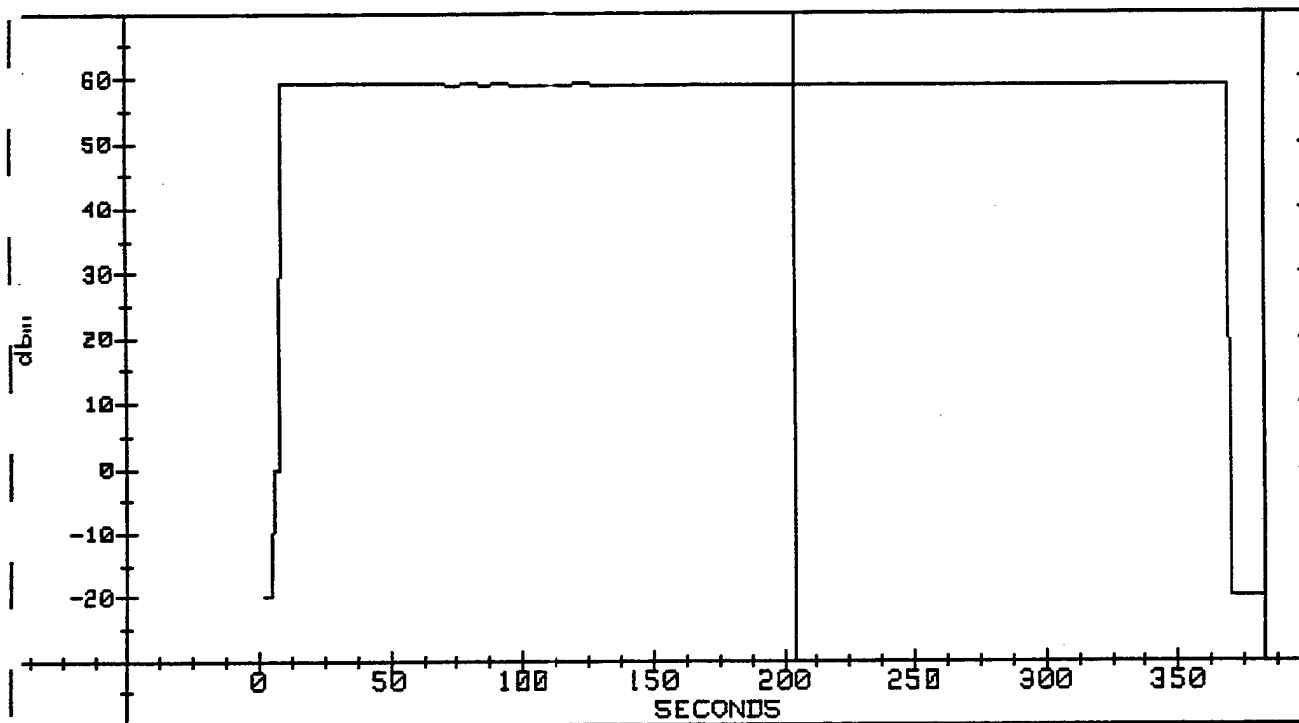
PASS NUMBER

DAY 100 TIME 0:20 PASS 10 m= 10. sd= 0



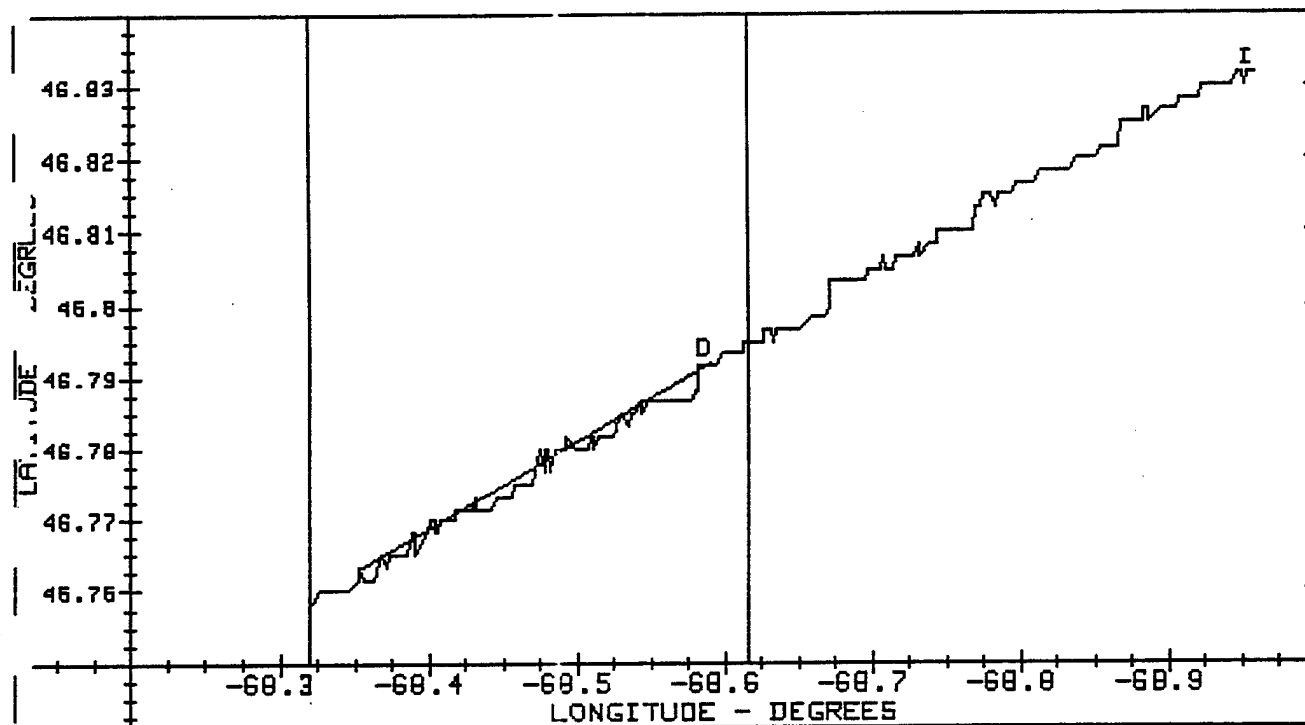
P Band Power

DAY 180 TIME 0:20 PASS 10 m= 52.2, sd= 22.0575



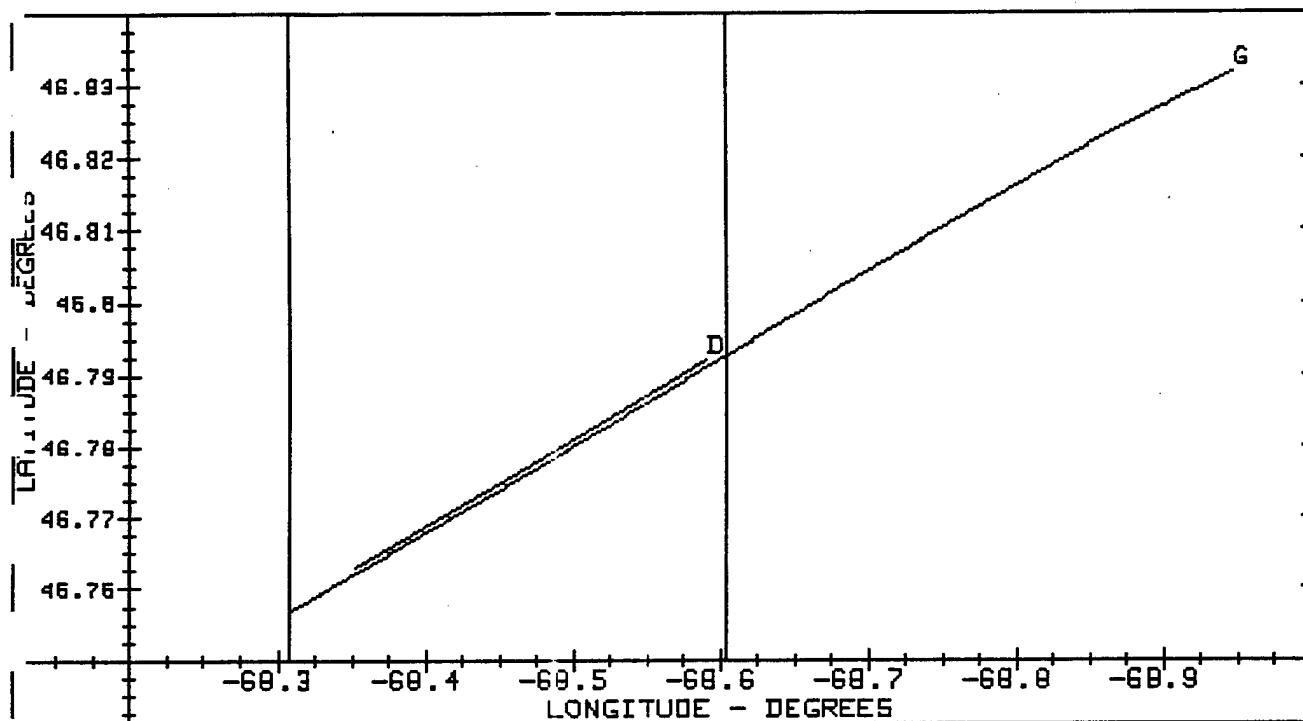
INS AIRCRAFT POSITION

DAY 100 TIME 0:20 PASS 10



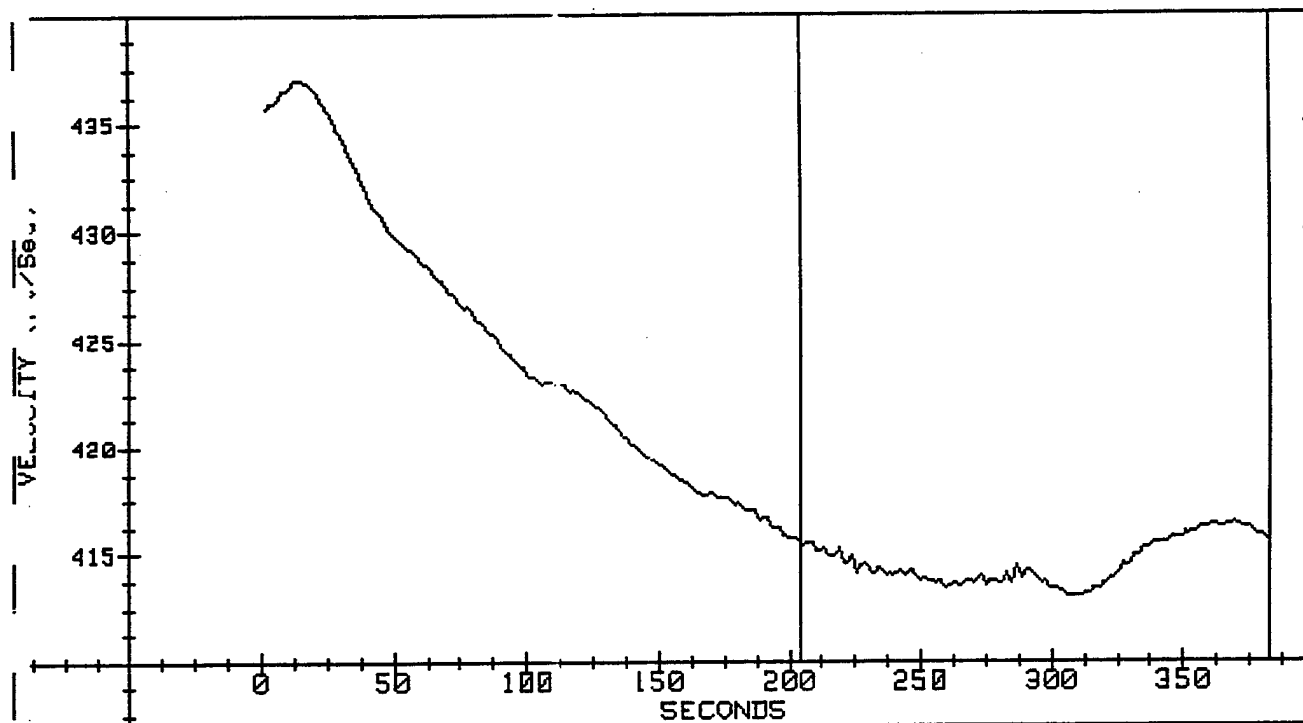
GPS AIRCRAFT POSITION

DAY 100 TIME 0:20 PASS 10



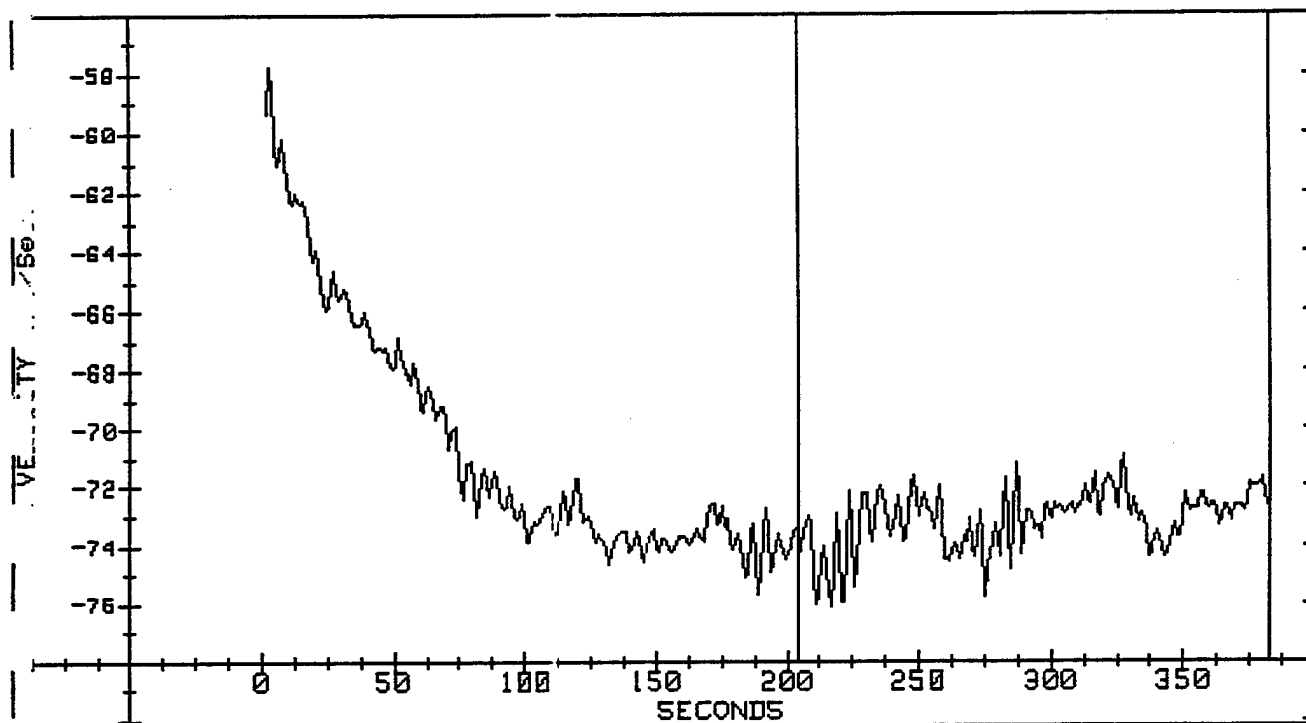
GPS V_e

DRY 100 TIME 0:20 PASS 10 m= 414.5, sd= 1.04239



GPS Vn

DAY 100 TIME 0:20 PASS 10 m= -73.04, sd= .099799

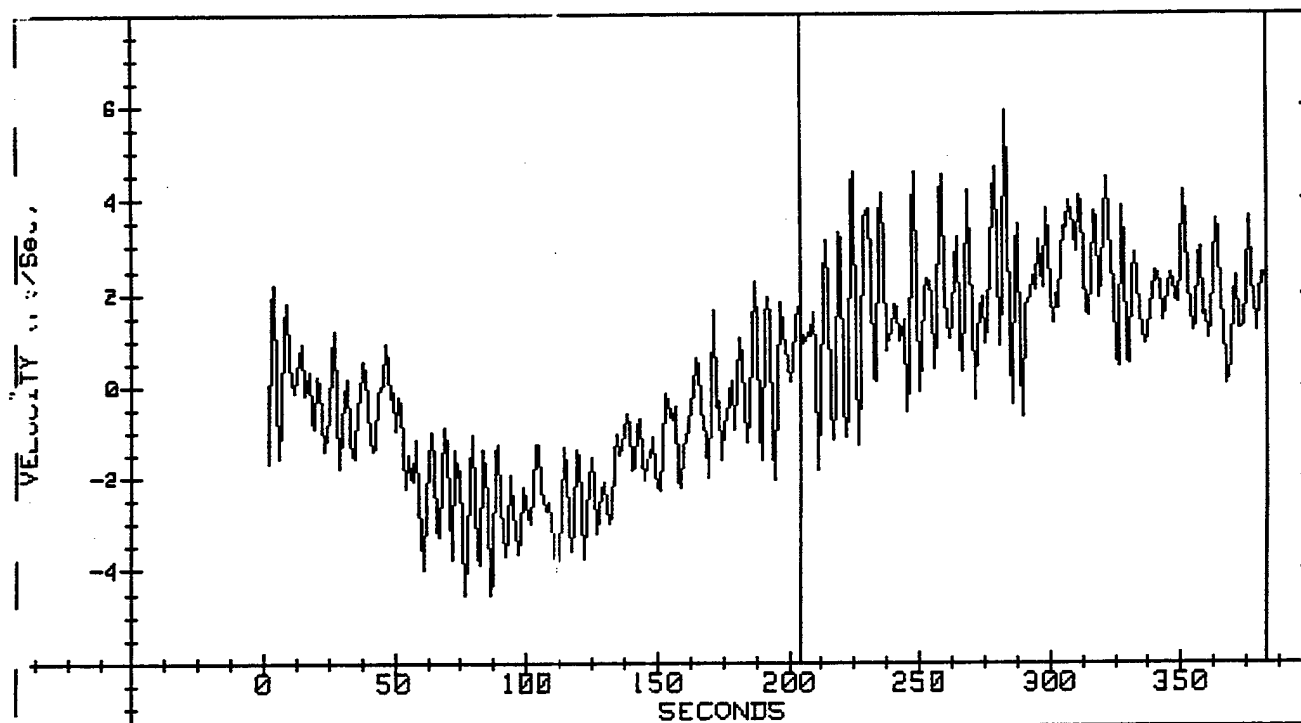


GPS Vv

DAY 100 TIME 0:20

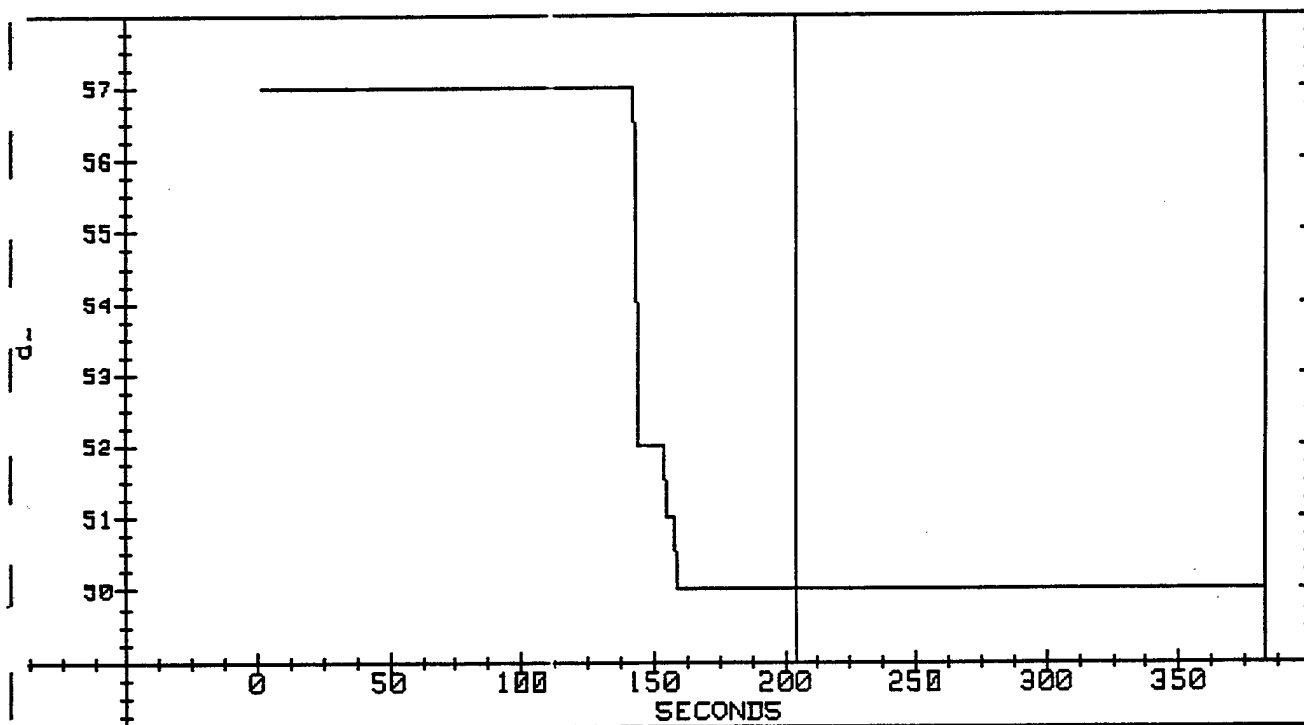
PASS 10

m= 2.072, sd= 1.3107



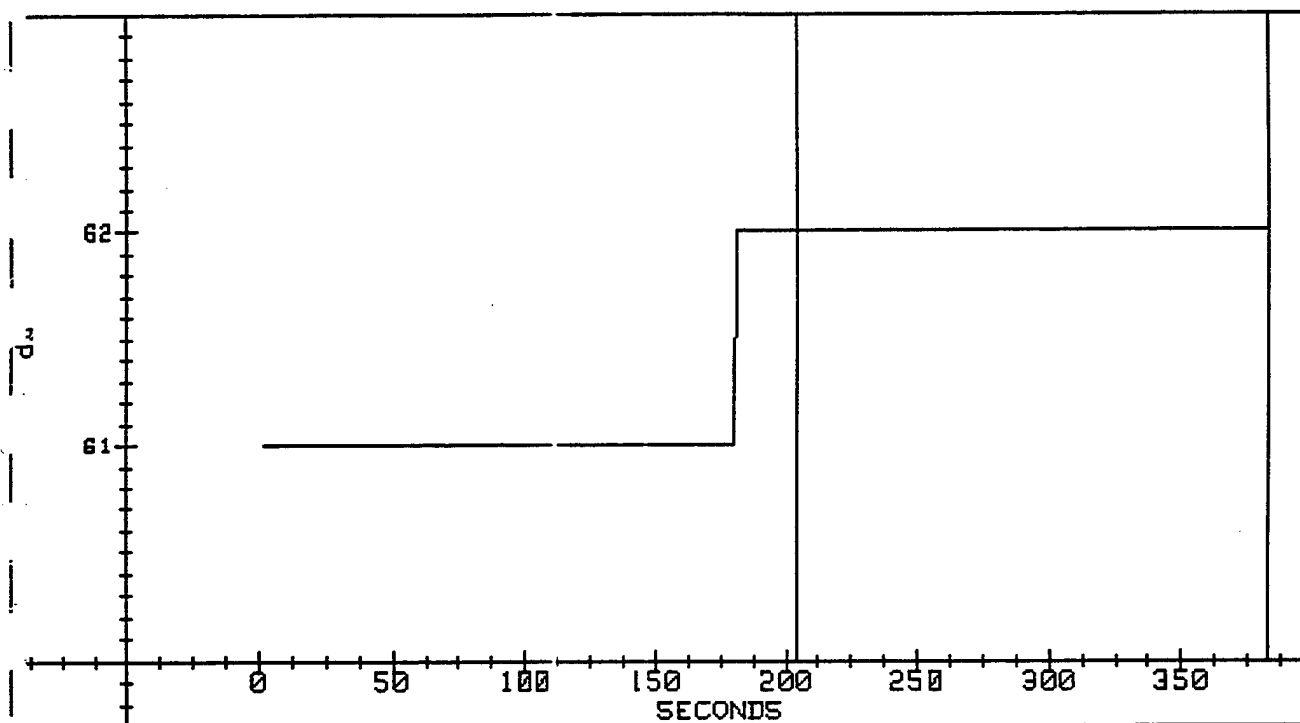
Ch1 RES Attenuation

DAY 180 TIME 0:20 PASS 10 m= 50, sd= 0



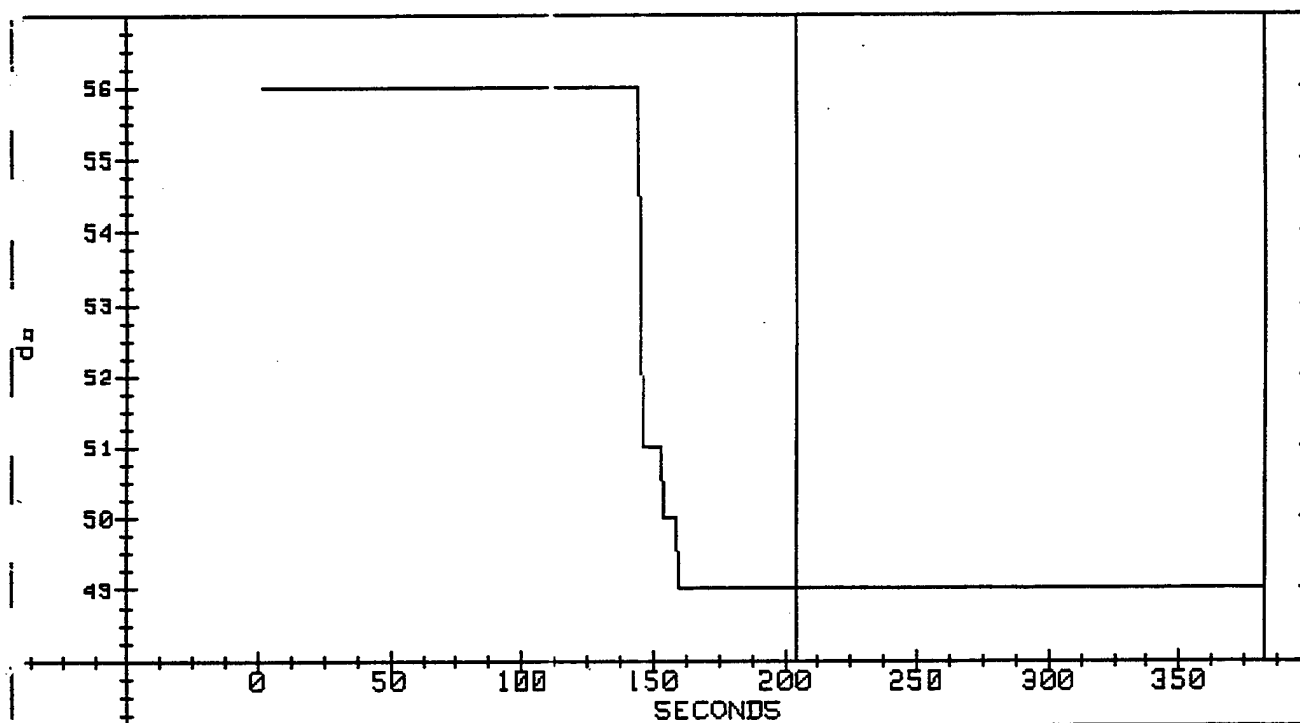
Ch2 RES Attenuation

DAY 100 TIME 0:20 PASS 10 m= 62, sd= 0



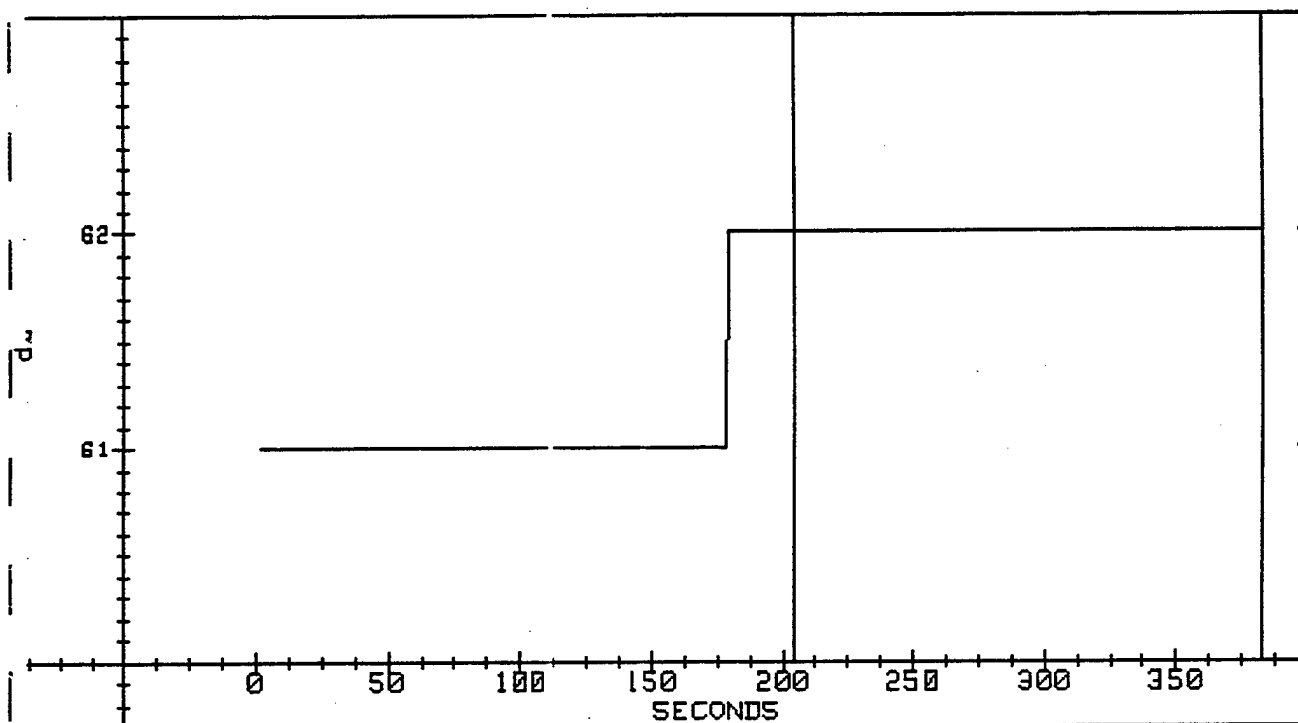
Ch3 RES Attenuation

DAY 100 TIME 0:20 PASS 10 m= 49, sd= 0



Ch4 RES Attenuation

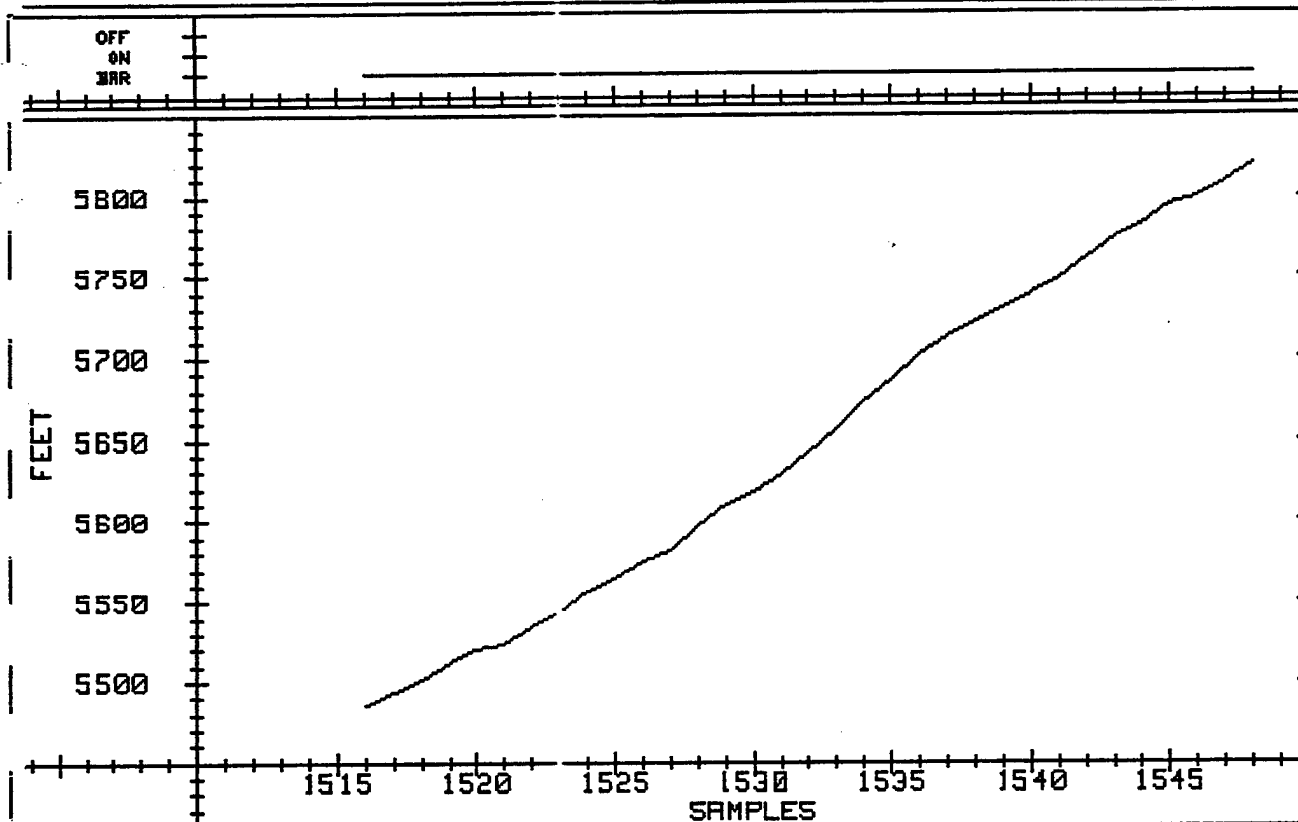
DAY 100 TIME 0:20 PASS 10 m= 62, sd= 0



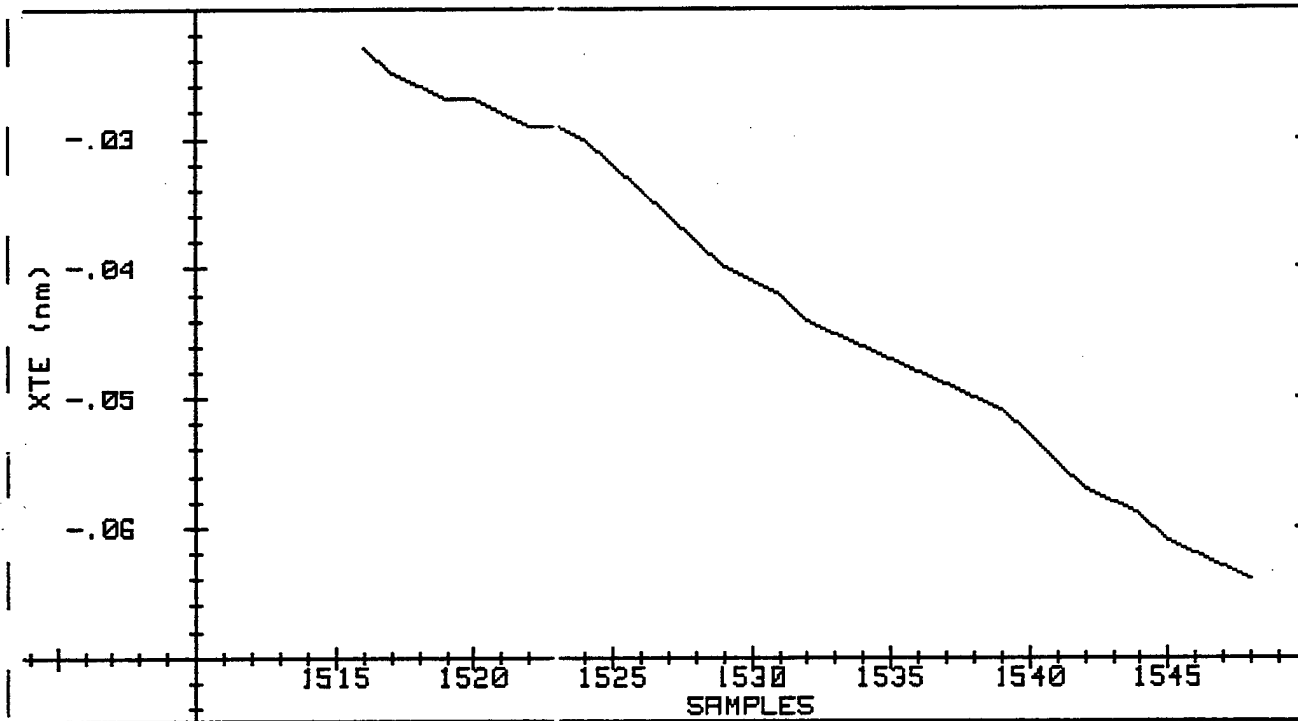
GPS ALTITUDE

MEAN= 5648.61 STANDARD DEVIATION= 104.731

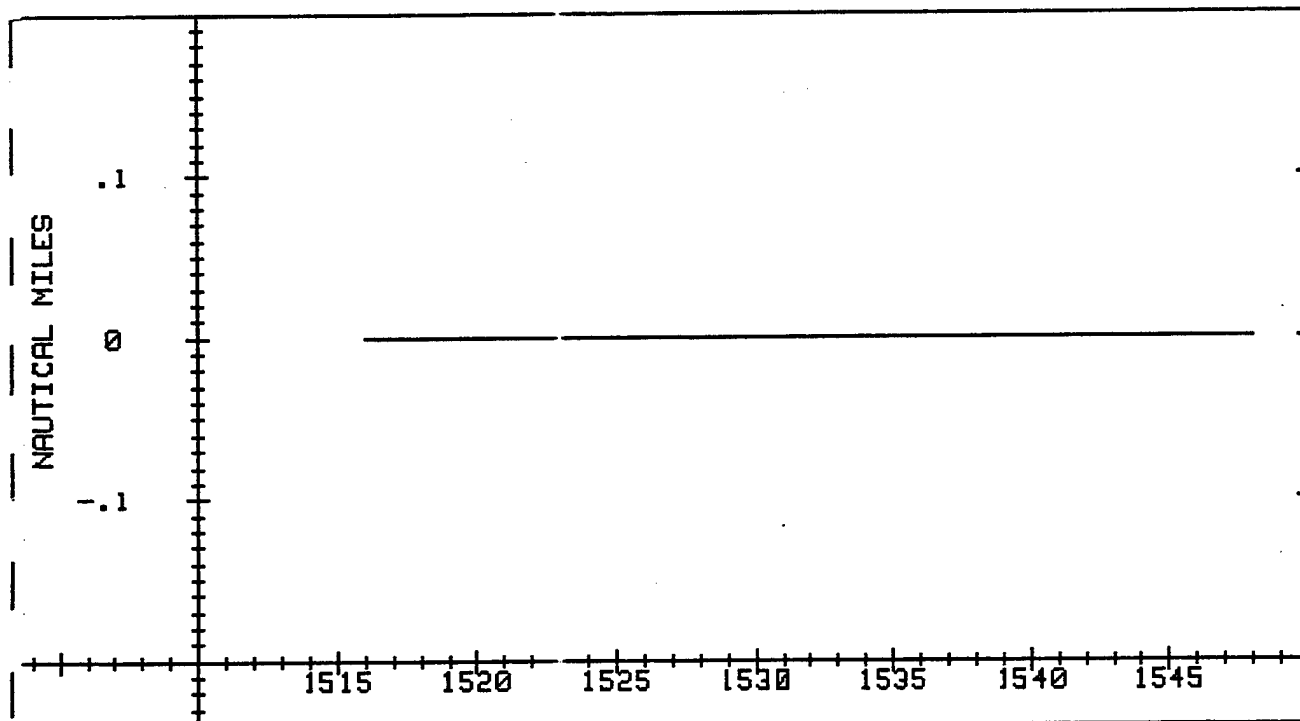
DATE: June 28, 1995 PASS 10



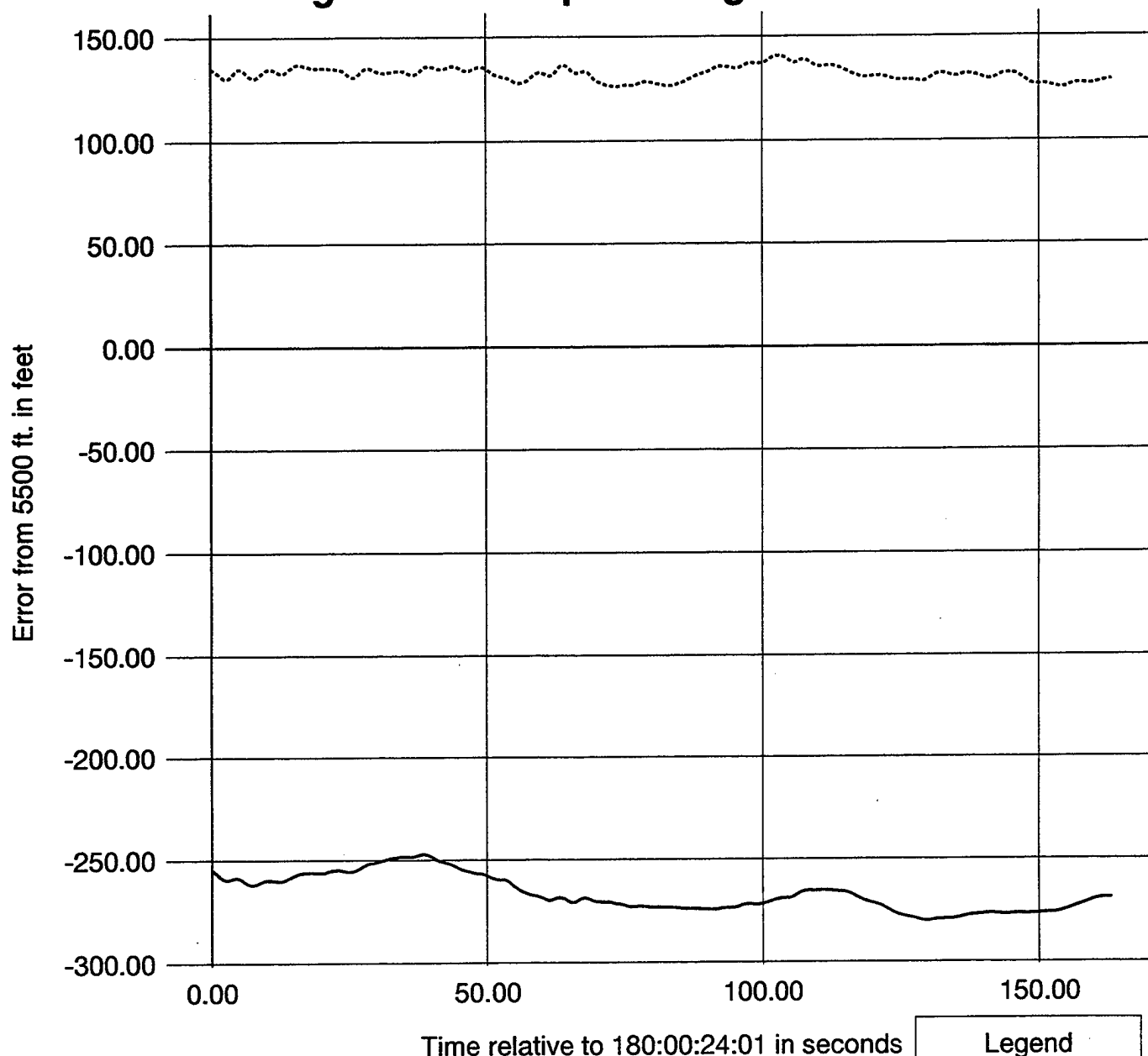
GPS Cross Track Error
MEAN= -.043 STANDARD DEVIATION= .0126155
DATE: June 28, 1995 PASS 10



INS CROSS TRACK ERROR
MEAN= 0 STANDARD DEVIATION= 0
DATE: June 28, 1995 PASS 10



Portage, ME - June 28, 1995 - Pass 10 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	132.10	3.51
XTK.	-266.78	9.16

Legend	
—	P5-xt
.....	P5-alt

29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 35
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:46:01
Pass 12
Req.# 15

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5422 ft s.d.=	4 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	130.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	51.0	54.0	47.0	50.0
End Sq:	90.0°	RMS Video (%FS)	20.0	17.0	20.4	26.5

WAYPOINTS

	Latitude	Longitude
Line up:	N 46:56.92	W 68:45.32
Start:	N 46:49.23	W 68:31.90
End:	N 46:42.81	W 68:20.76
From:	N 55:31.17	W 91:09.37
To:	N 34:51.60	W 52:56.88

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 249.6 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -2.1 fps (s.d.= 1.8)
Ave Fil Vel -> -2.1 fps (s.d.= 1.6)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.9	

Tape Footage	Drive no.
Starting: 4016 ft	(2)
Ending: 5254 ft	(2)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

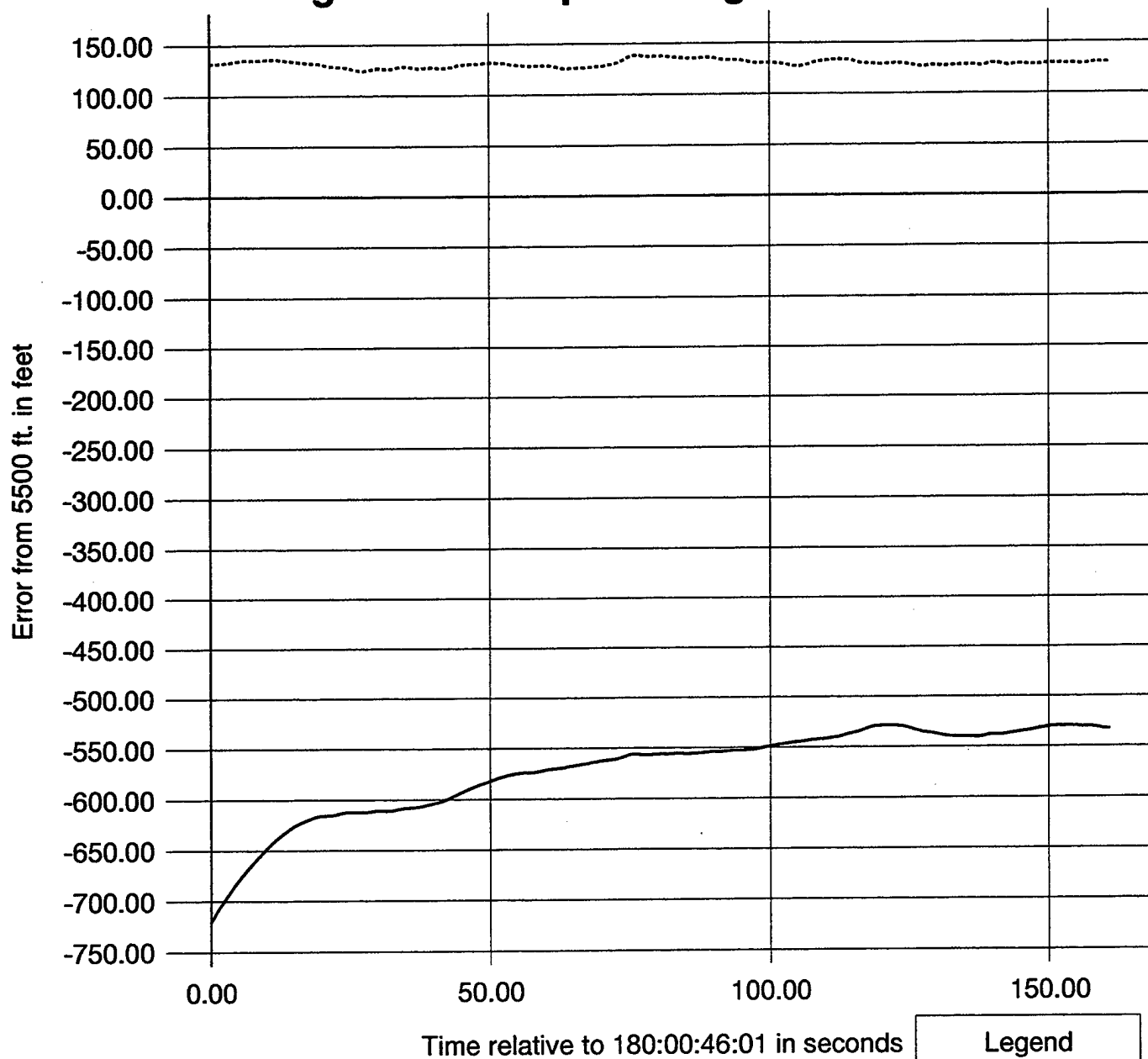
LINE Map Time (UCT)
Start: 00:46:01
End: 00:48:42

Mocomp Counters

Start: 603360 000934E0h
End: 630370 00099E62h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

Portage, ME - June 28, 1995 - Pass 12 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**

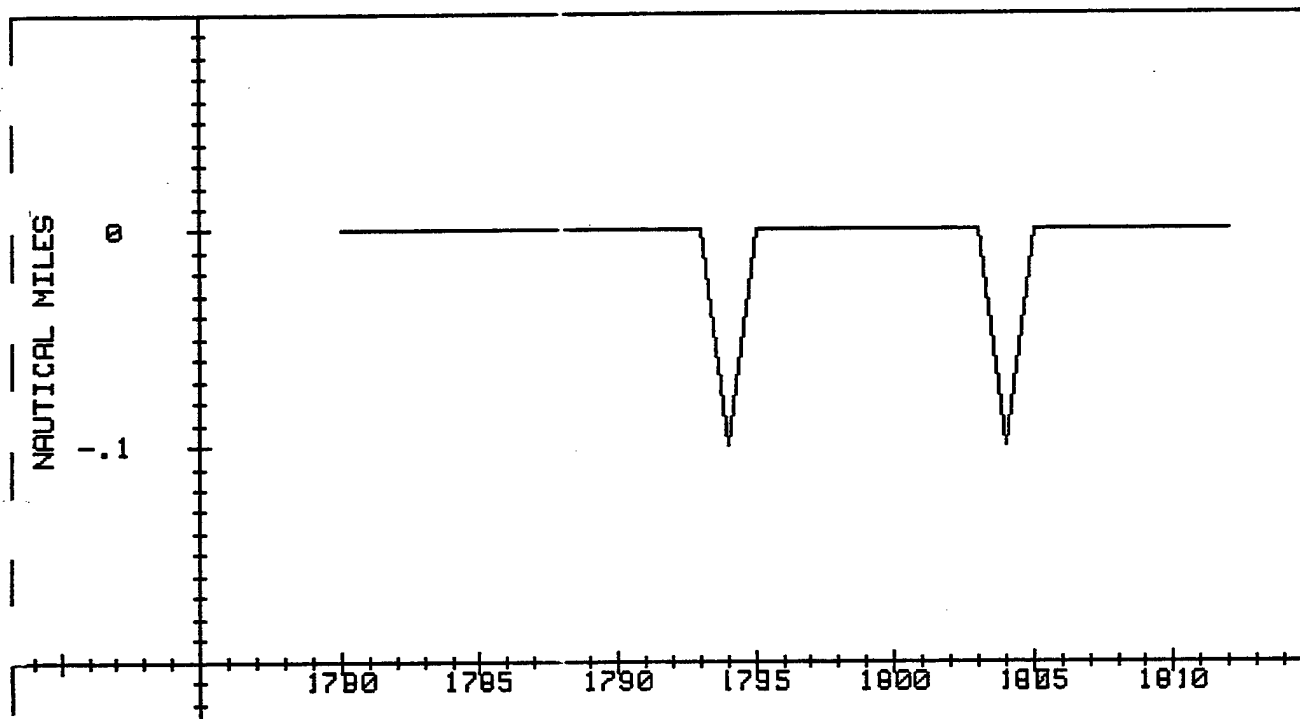


	Mean	St. Dev.
ALT.	130.45	3.27
XTK.	-571.59	42.10

Legend	
—	P5-xt
.....	P5-alt

INS CROSS TRACK ERROR

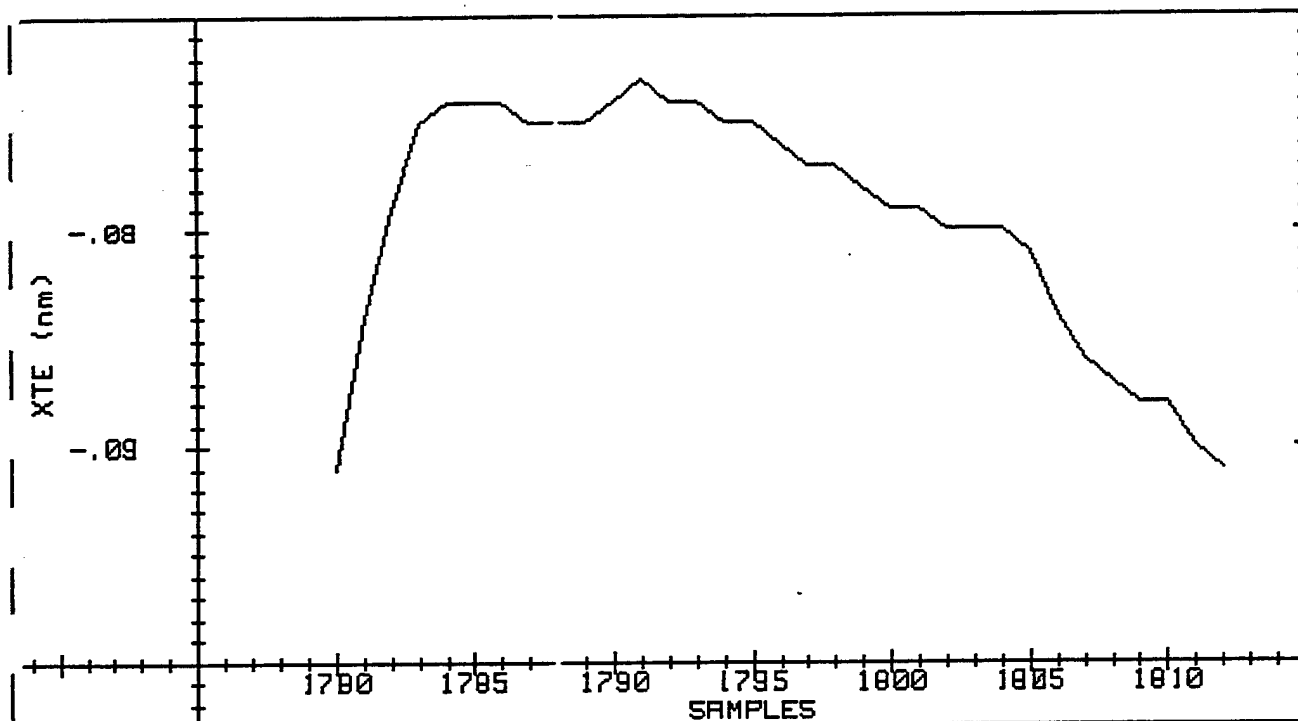
MEAN- -.00505051 STANDARD DEVIATION- .0238505
DATE: June 28, 1995 PASS 12



GPS Cross Track Error

MEAN= -.0794545 STANDARD DEVIATION= .00559811

DATE: June 29, 1995 PASS 12

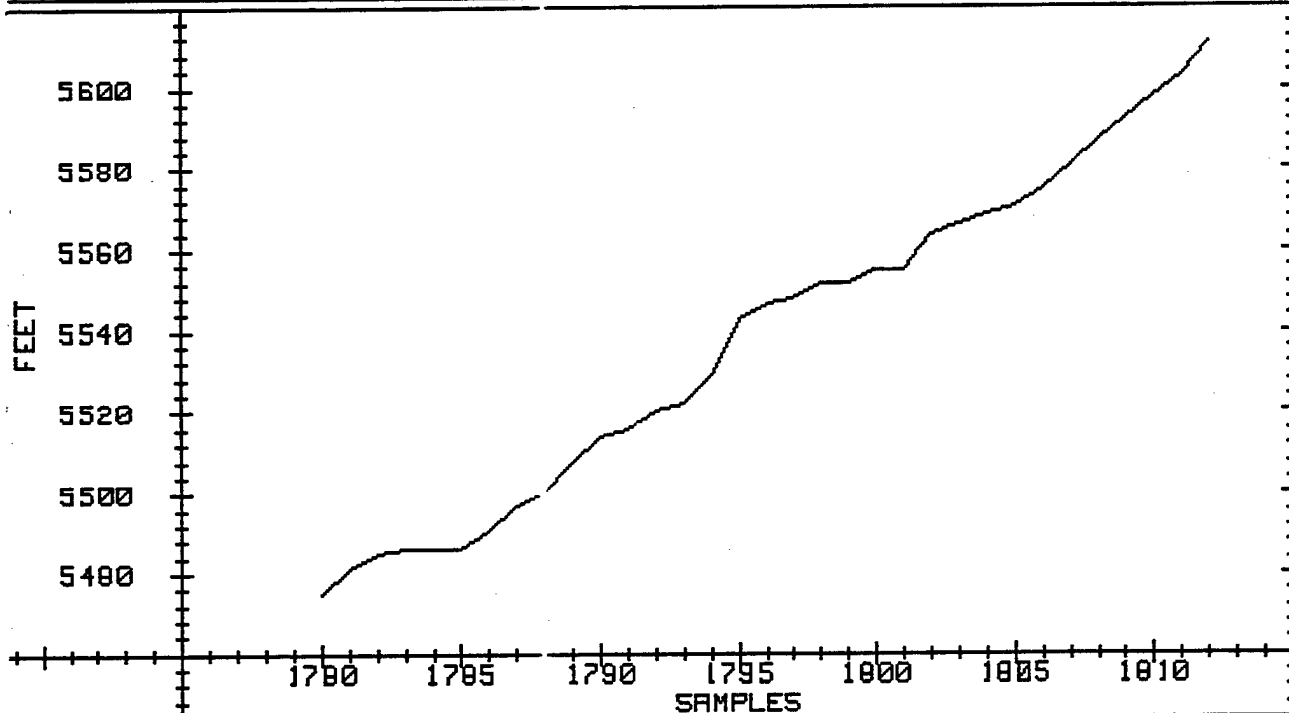


GPS ALTITUDE

MEAN= 5538.33 STANDARD DEVIATION= 39.873

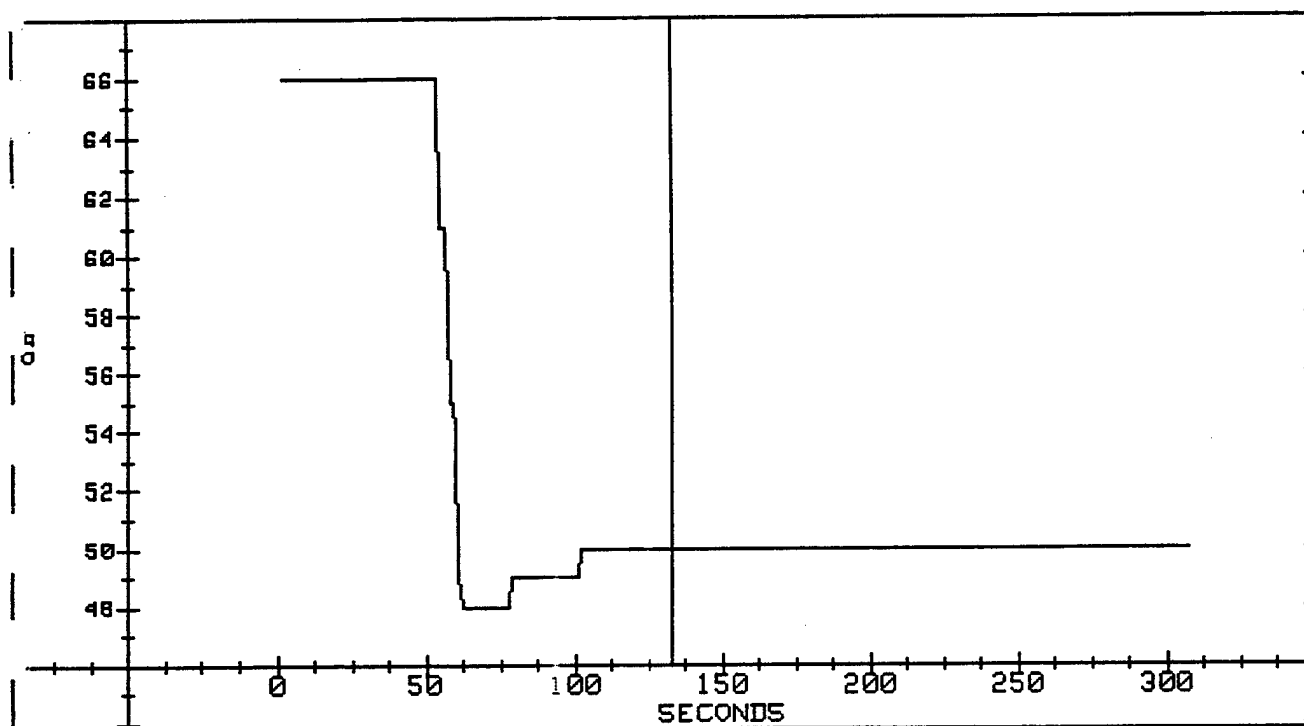
DATE: June 28, 1995 PASS 12

OFF
ON
BAR



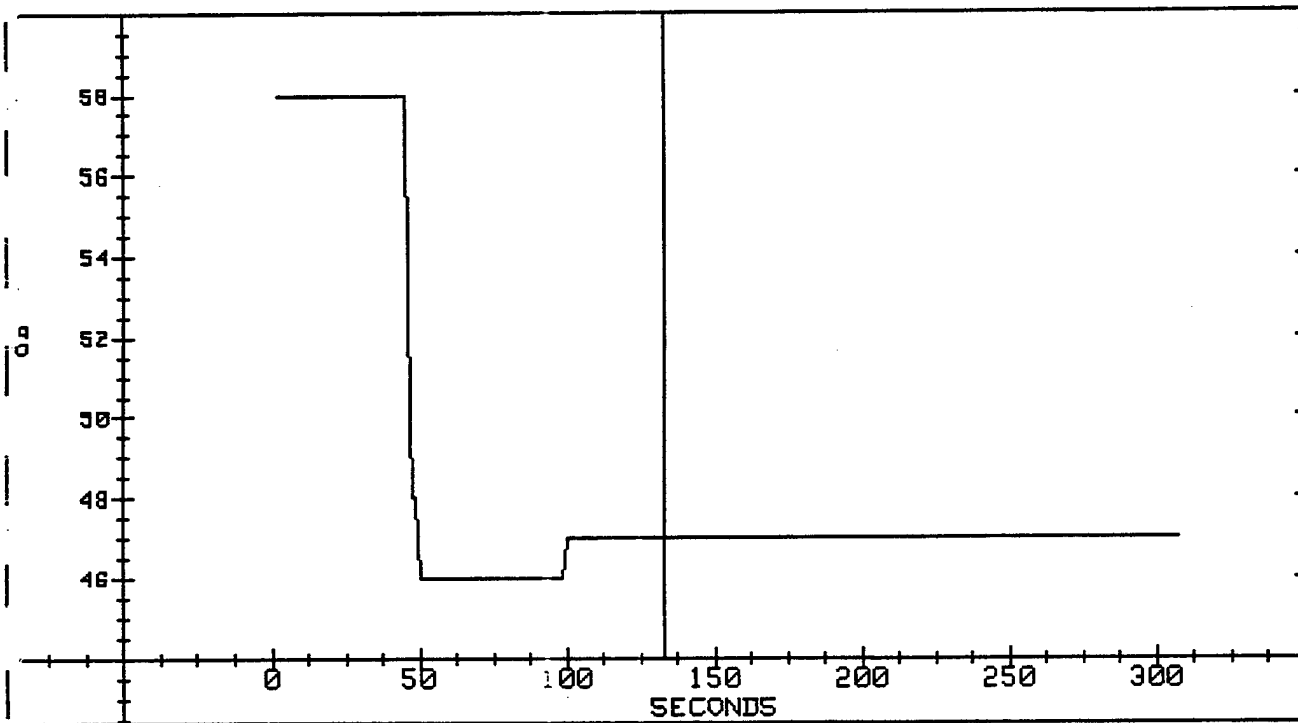
Ch4 RES Attenuation

DAY 100 TIME 0:43 PASS 12 m= 50, sd= 0



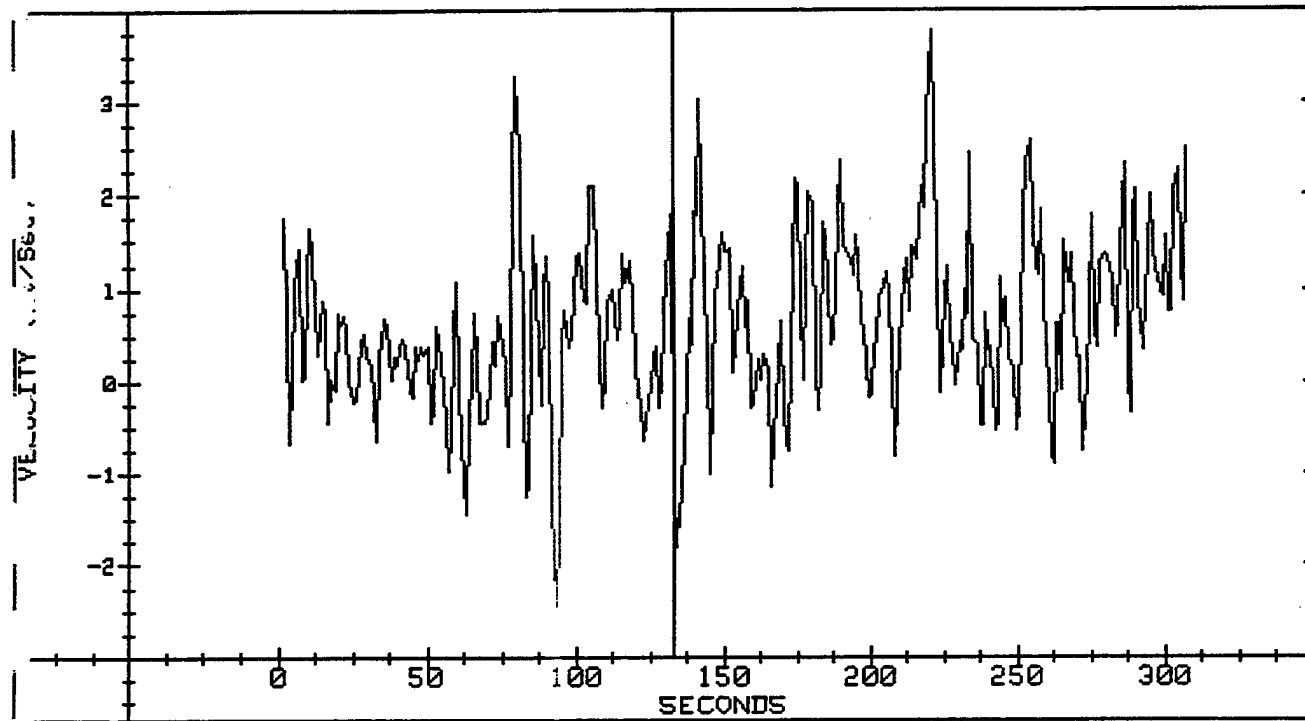
Ch3 RES Attenuation

DAY 100 TIME 0:43 PASS 12 m= 47, sd= 0



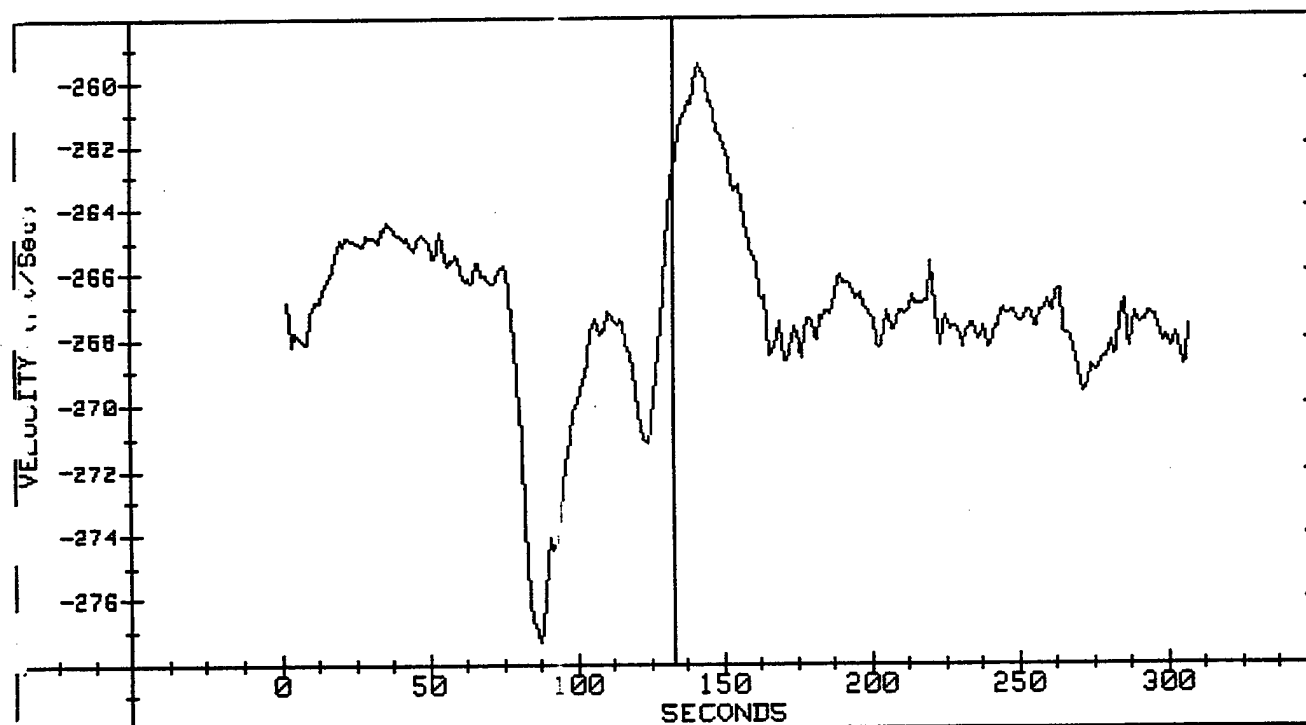
GPS Vv

DAY 180 TIME 0:43 PASS 12 m= .0519, sd= .00134



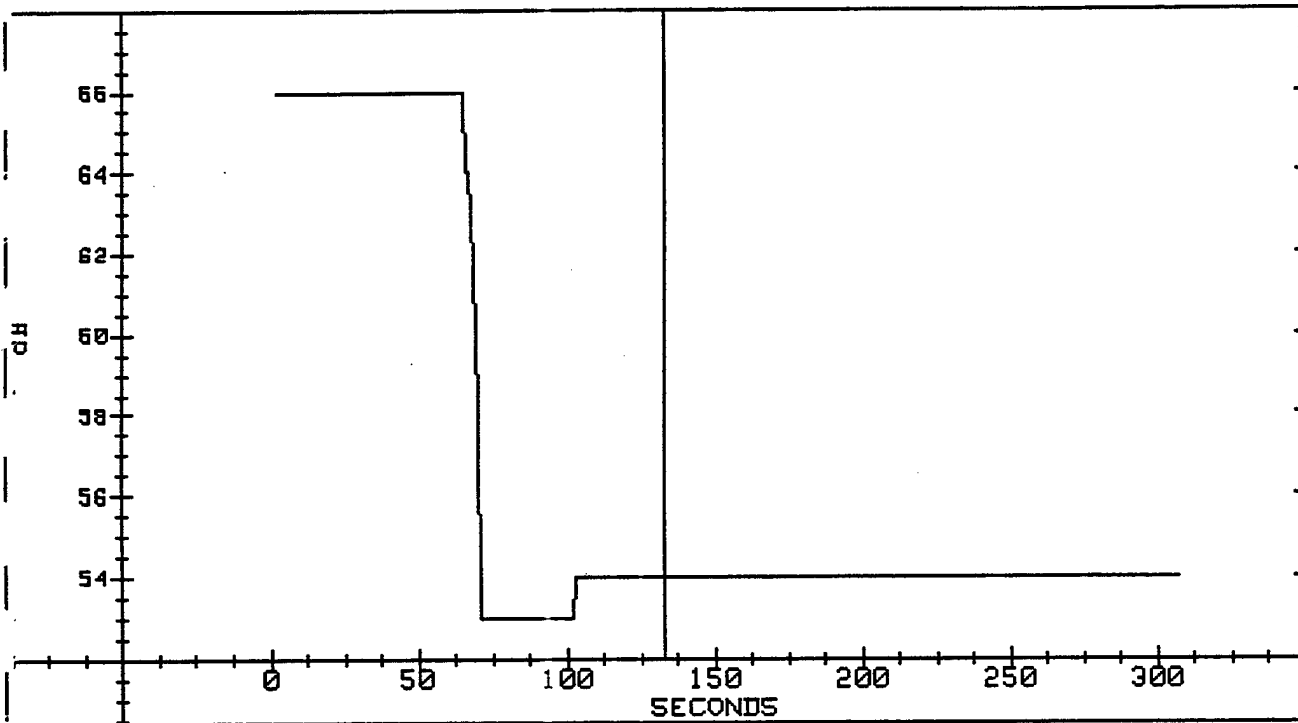
GPS Vn

DAY 100 TIME 0:43 PASS 12 m= -267.2, sd= 1.55594



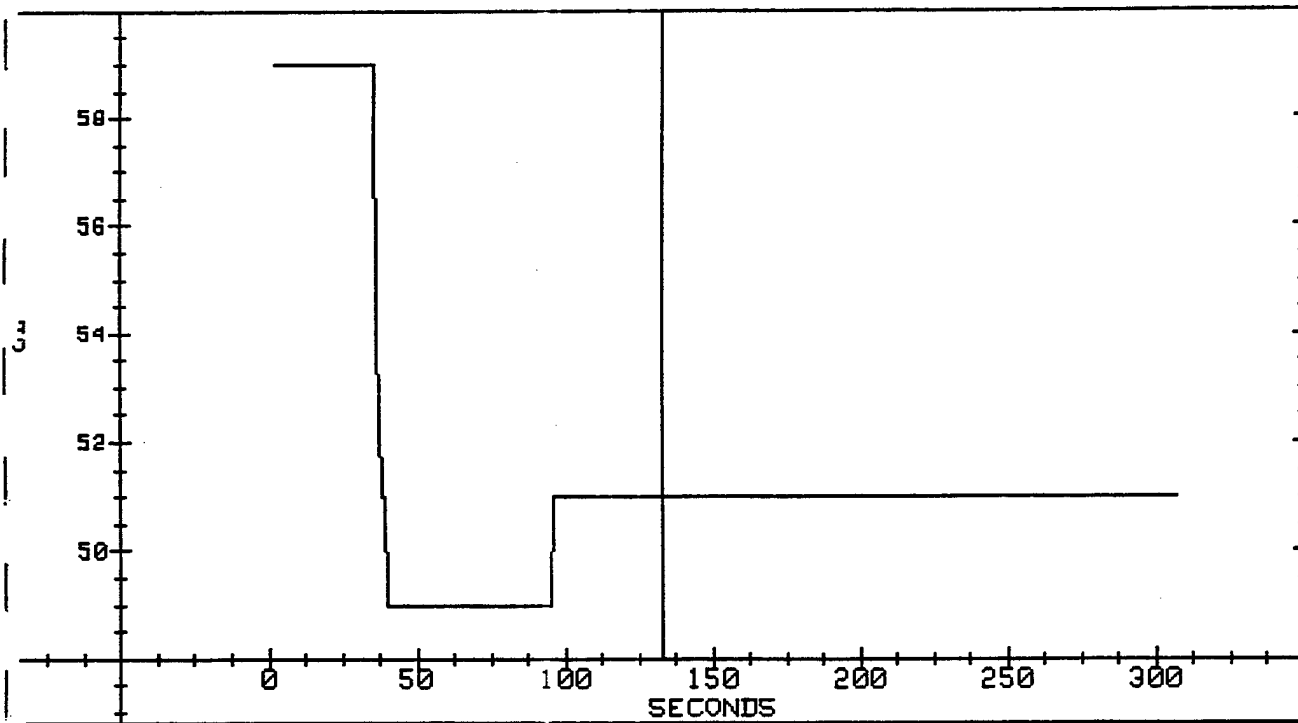
Ch2 RES Attenuation

DAY 100 TIME 0:43 PASS 12 m= 54, sd= 0

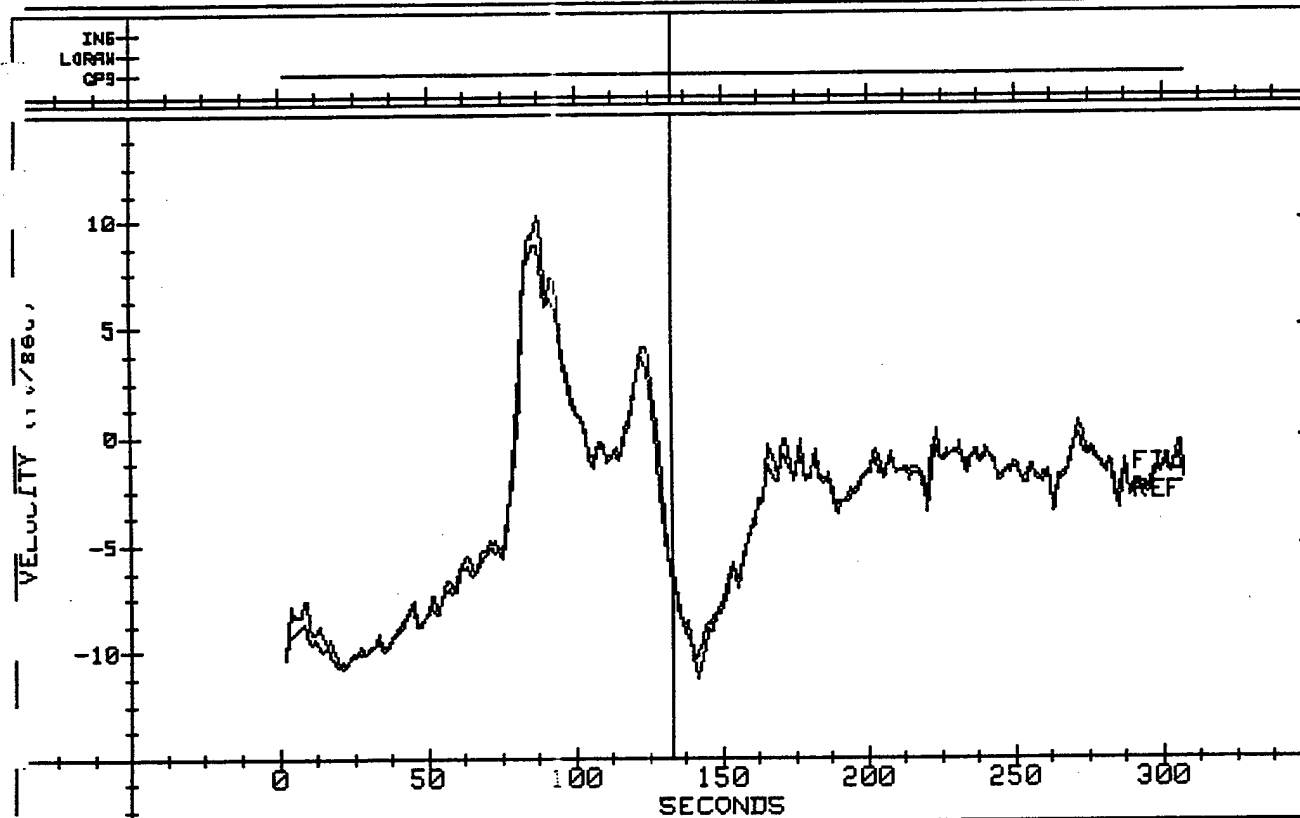


Ch1 RES Attenuation

DAY 180 TIME 0:43 PASS 12 m= 51. sd= 0

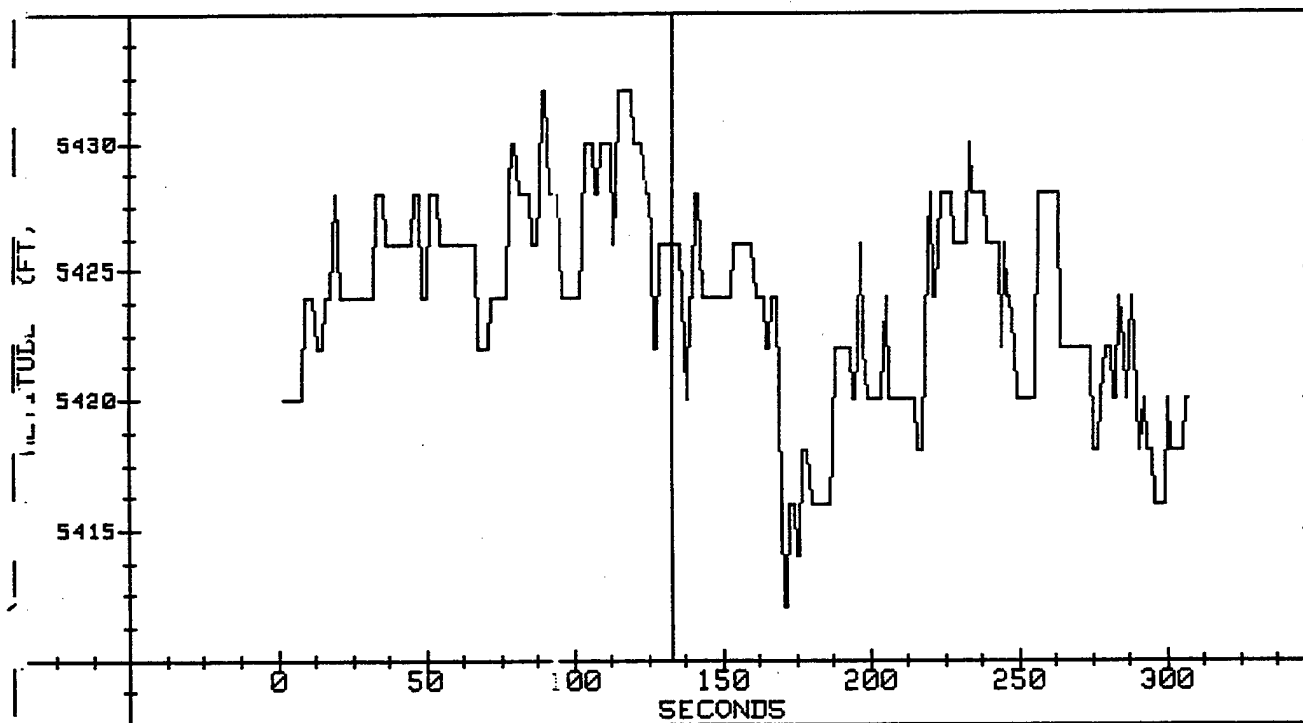


FILTERED vs. REF. VELOCITY
DAY 100 TIME 0:43 PASS 12



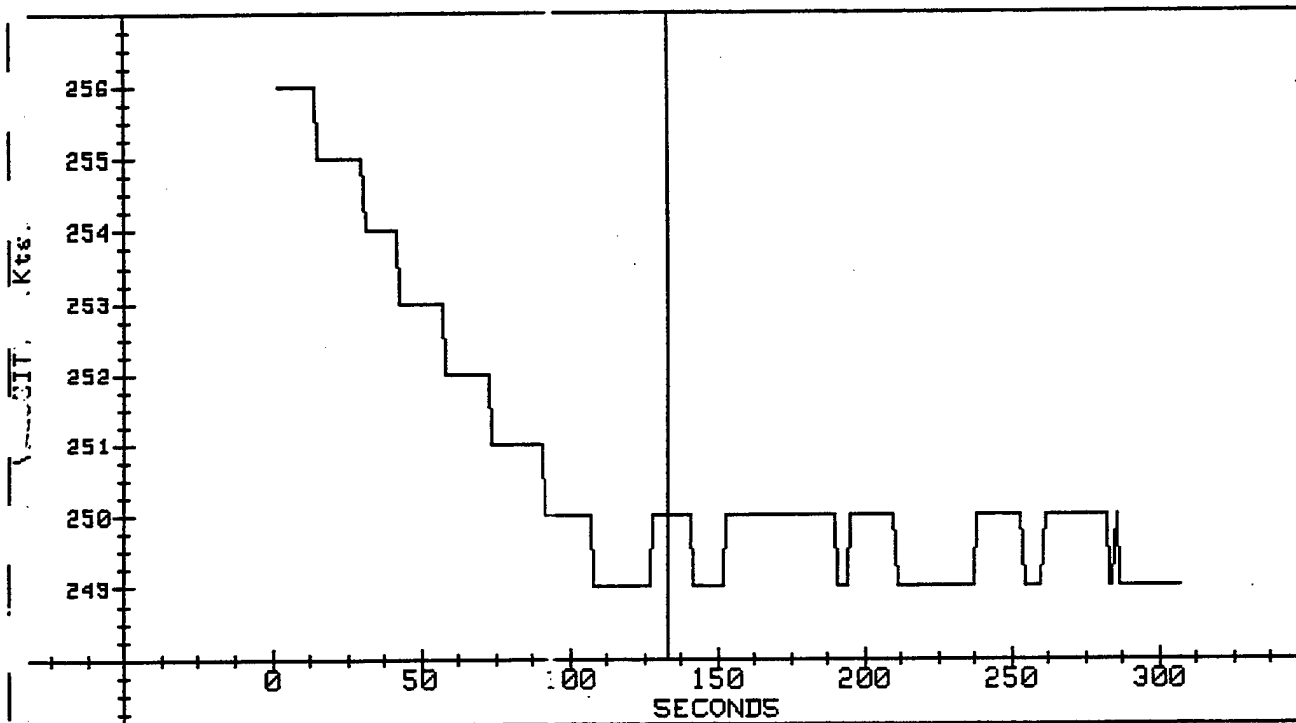
BARO ALTITUDE

DAY 100 TIME 0:43 PASS 12 m= 5422. sd= 3.85701



INS GROUND SPEED

DRY 100 TIME 0:43 PASS 12 m= 249.6, sd= .494483



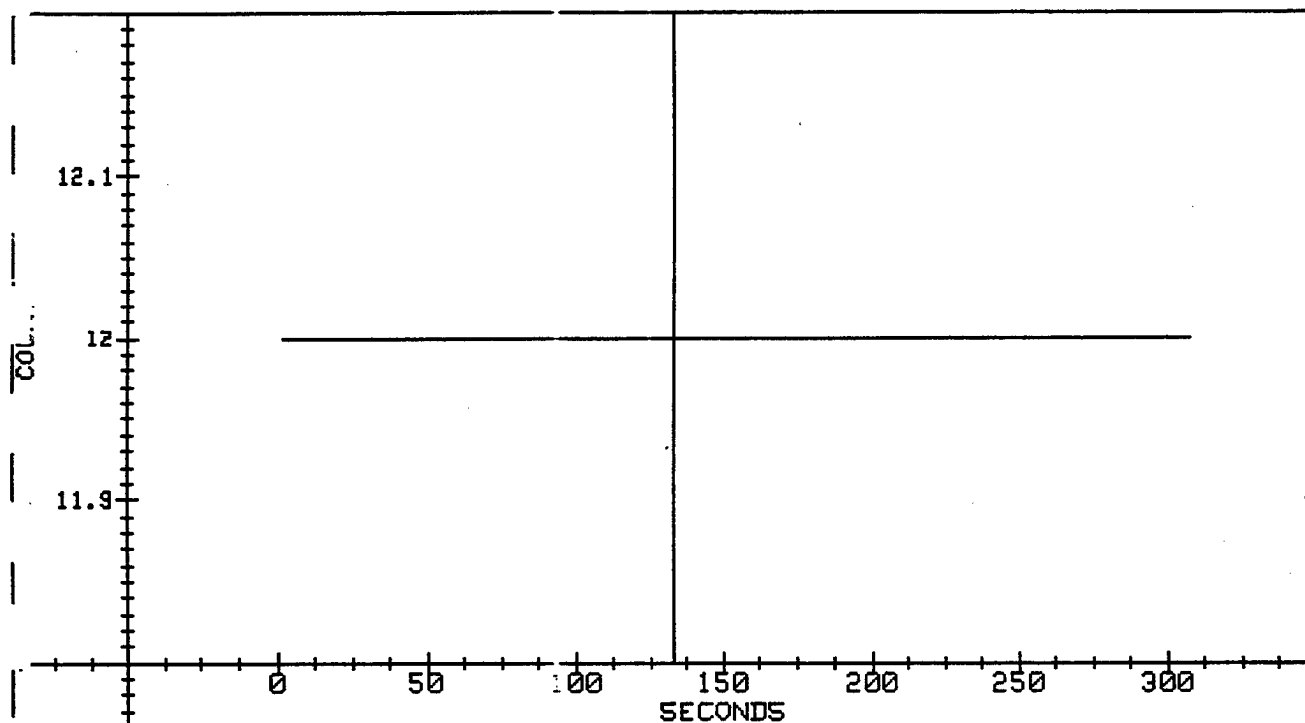
PASS NUMBER

DAY 100

TIME 0:43

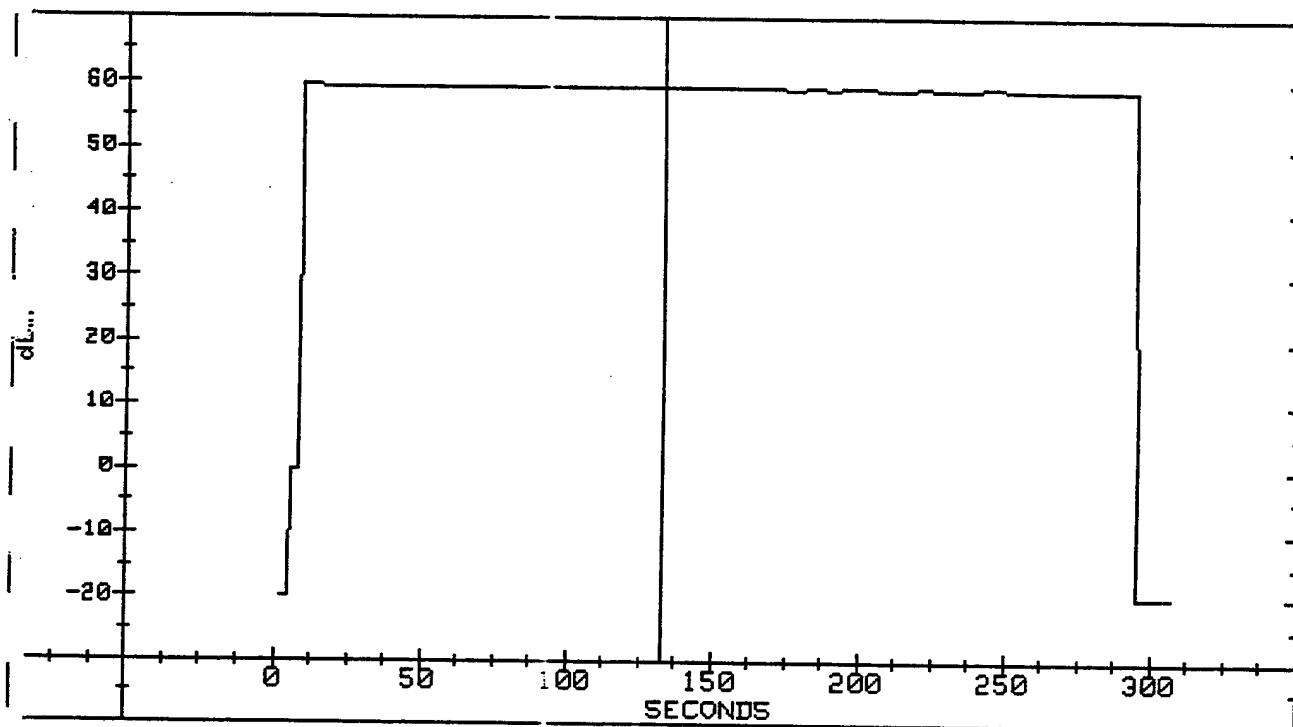
PASS 12

m= 12, sd= 0



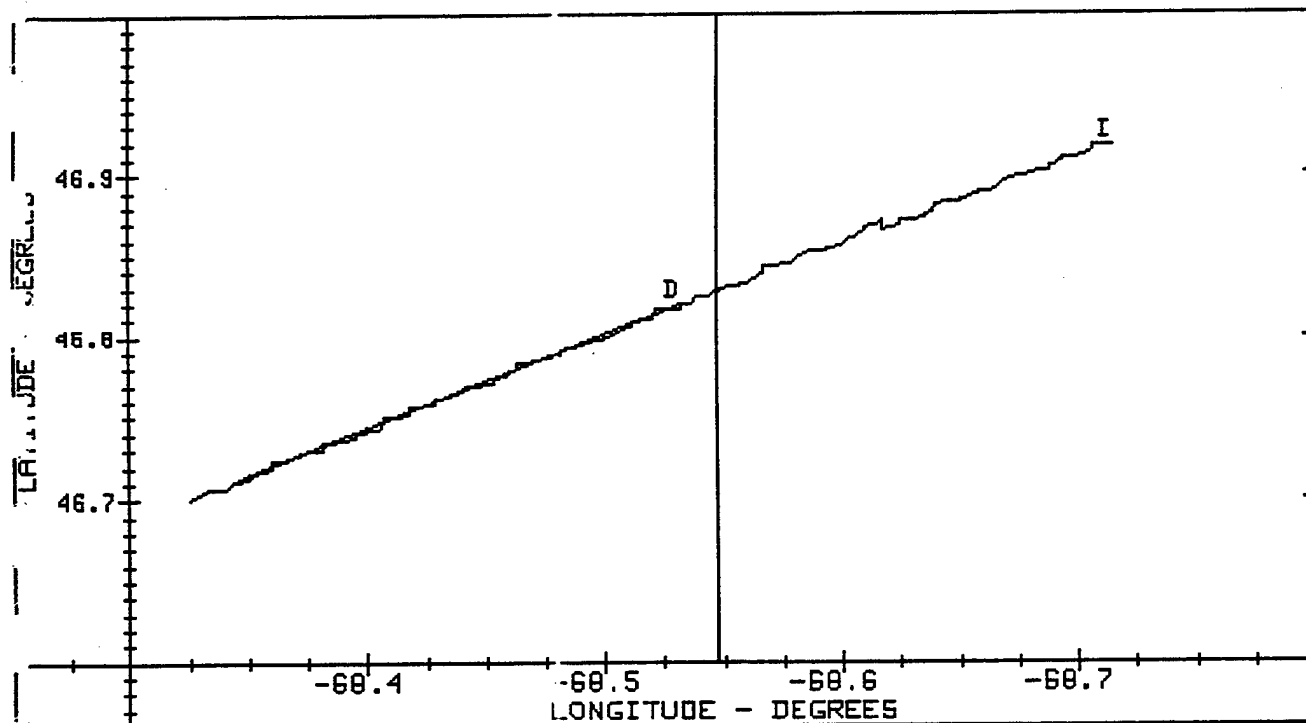
P Band Power

DAY 100 TIME 0:43 PASS 12 $m = 52.7$, $sd = 21.4731$



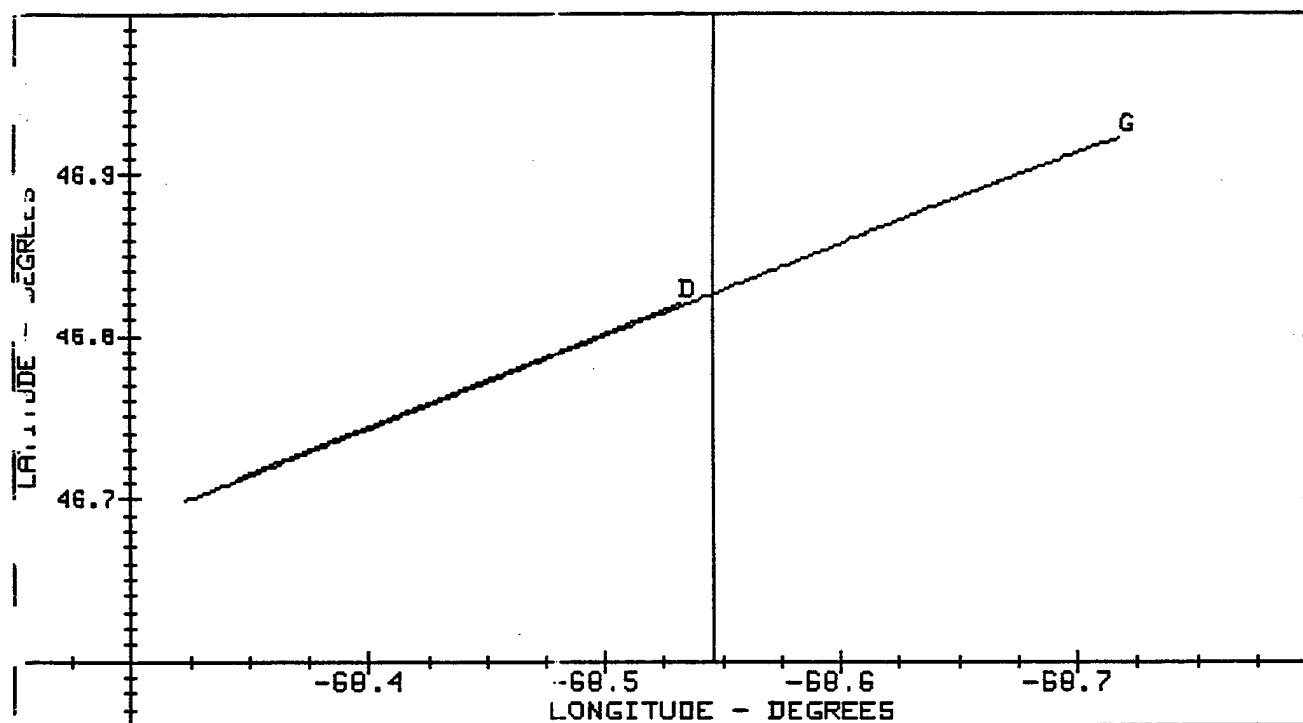
INS AIRCRAFT POSITION

DAY 100 TIME 0:43 PASS 12



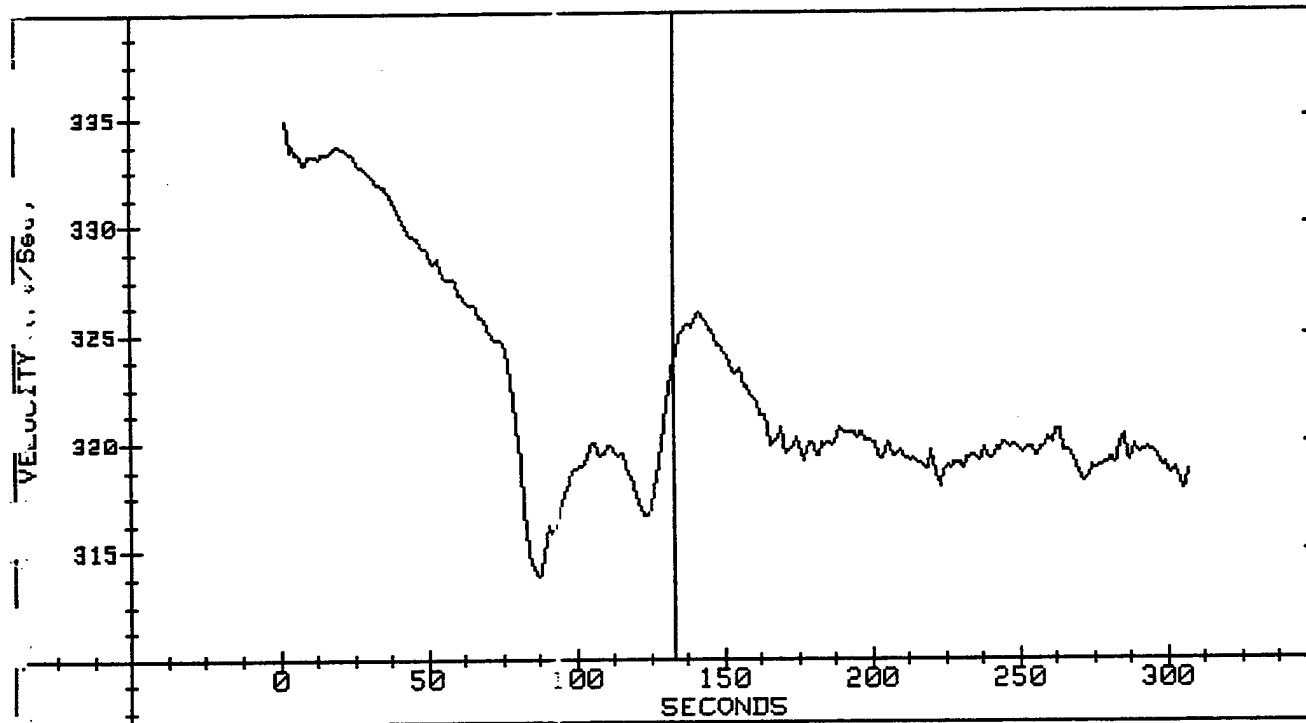
GPS AIRCRAFT POSITION

DAY 100 TIME 0:43 PASS 12



GPS V_e

DAY 100 TIME 0:43 PRSS 12 $m = 319.9$, $sd = 1.35274$



29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 33
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:57:38
Pass 13
Req.# 14

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5436 ft s.d.=	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18159 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16624	16624	16624	16624
Depr Ang:	25.0°	Near Rng Dep:	19.1°	19.1°	19.1°	19.1°
Des. trk:	276.0°	Far Rng Dep:	9.6°	9.6°	9.6°	9.6°
Start Sq:	90.0°	Atten (dB):	59.0	67.0	59.0	60.0
End Sq:	90.0°	RMS Video (%FS)	8.7	7.5	6.8	11.3

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:39.60	W 68:04.86
Start:	N 46:40.89	W 68:22.19
End:	N 46:41.94	W 68:36.65
From:	N 42:35.32	W 45:46.24
To:	N 45:52.60	W 92:35.18

Main Target: CALCS
Mocomp Point:
Lat: N 46:44.29
Long: W 68:28.98
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 800.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 251.5 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 4.1 fps (s.d.= .7)
Ave Fil Vel -> 3.6 fps (s.d.= .6)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 39.8	

Tape Footage	Drive no.
Starting: 5267 ft	(2)
Ending: 4009 ft	(2)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

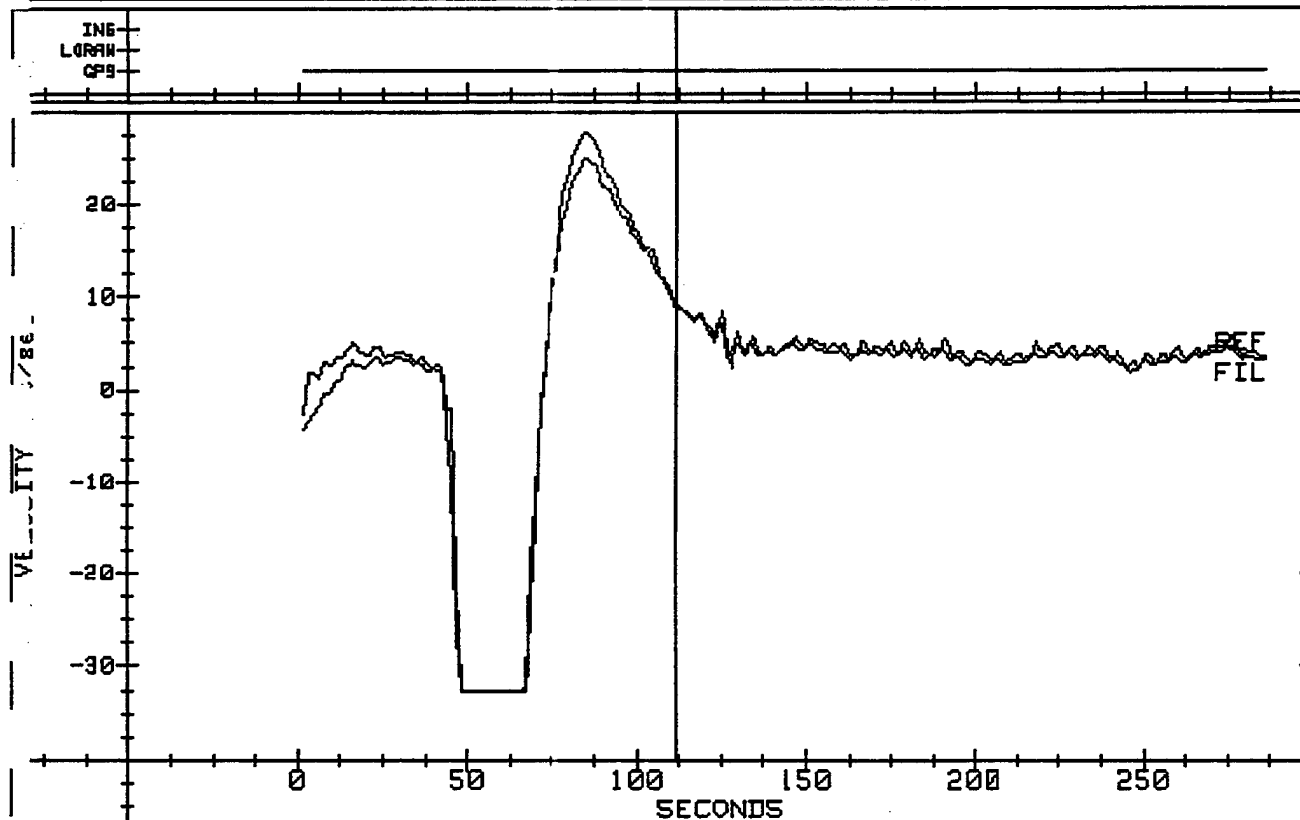
LINE Map Time (UCT)
Start: 00:57:38
End: 01:00:17

Mocomp Counters

Start: 651741 0009F1DDh
End: 678382 000A59EEh

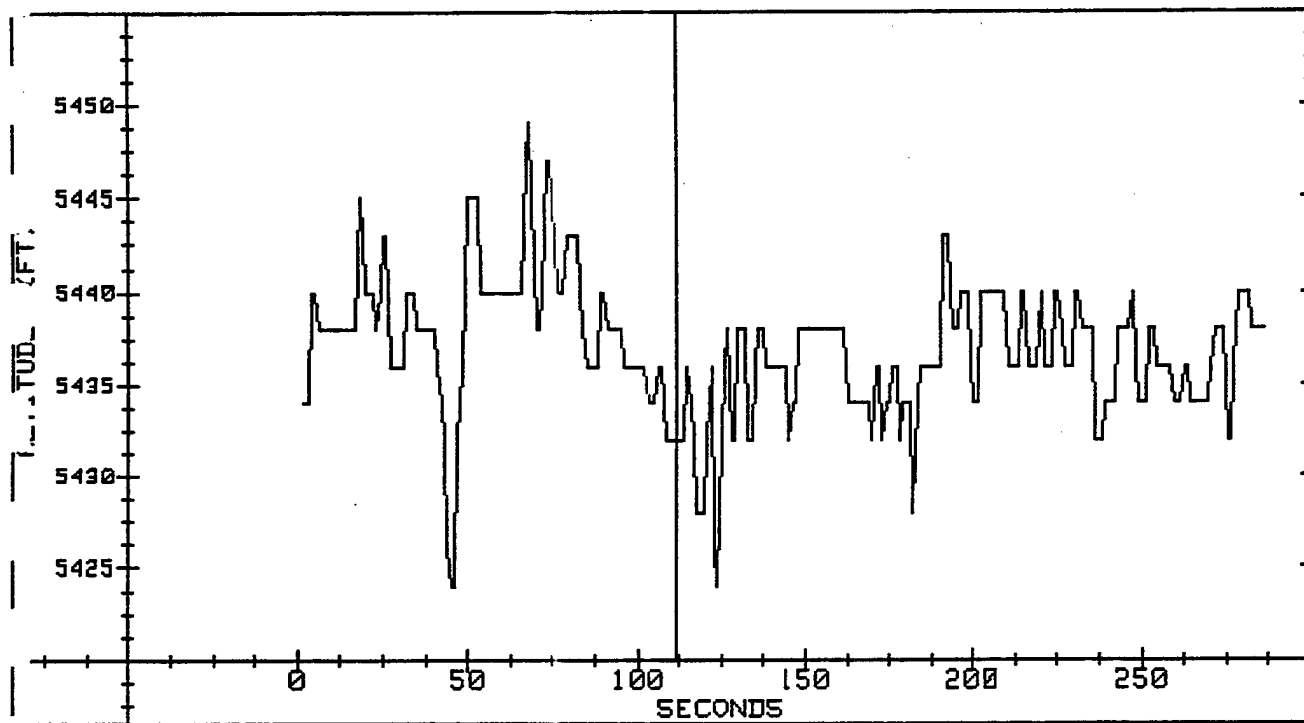
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00:0
Lon: E 0:00:0

FILTERED vs. REF. VELOCITY
DAY 180 TIME 0:55 PASS 13



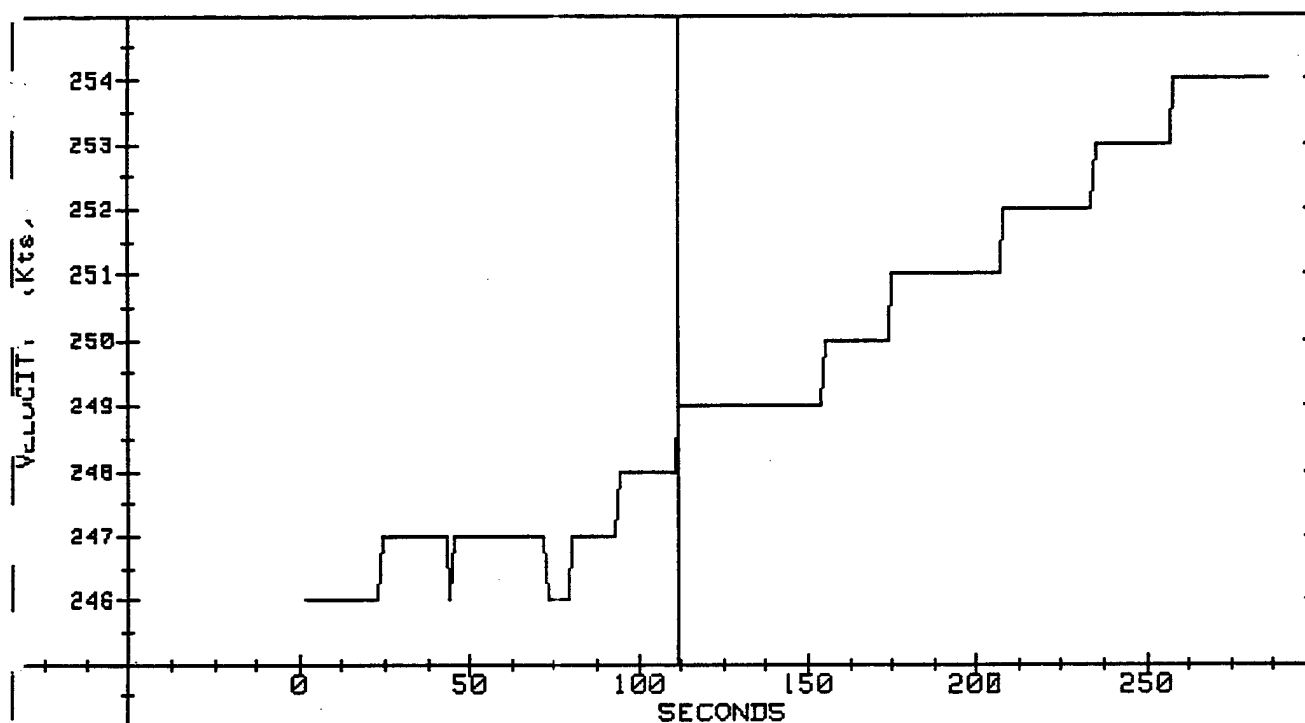
BARO ALTITUDE

DAY 100 TIME 0:55 PASS 13 m= 5436, sd= 2.53118



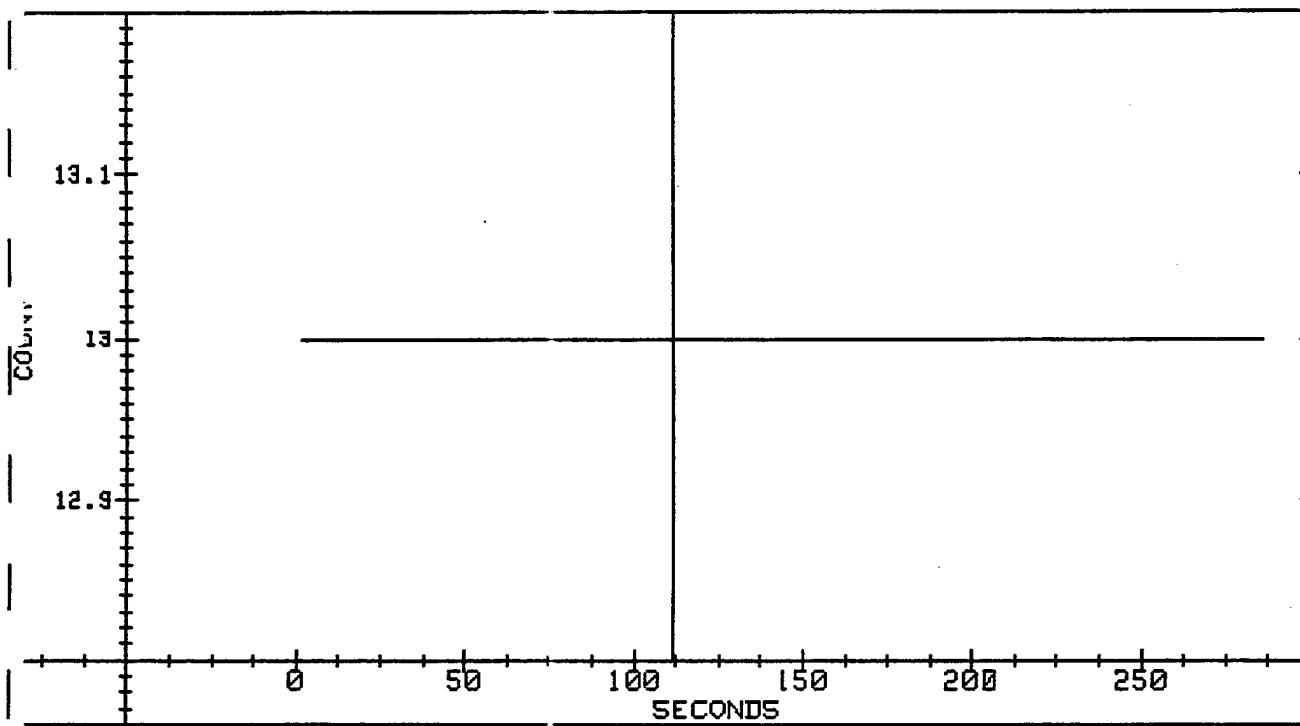
INS GROUND SPEED

DRY 100 TIME 0:55 PASS 13 m= 251.5, sd= 1.71000



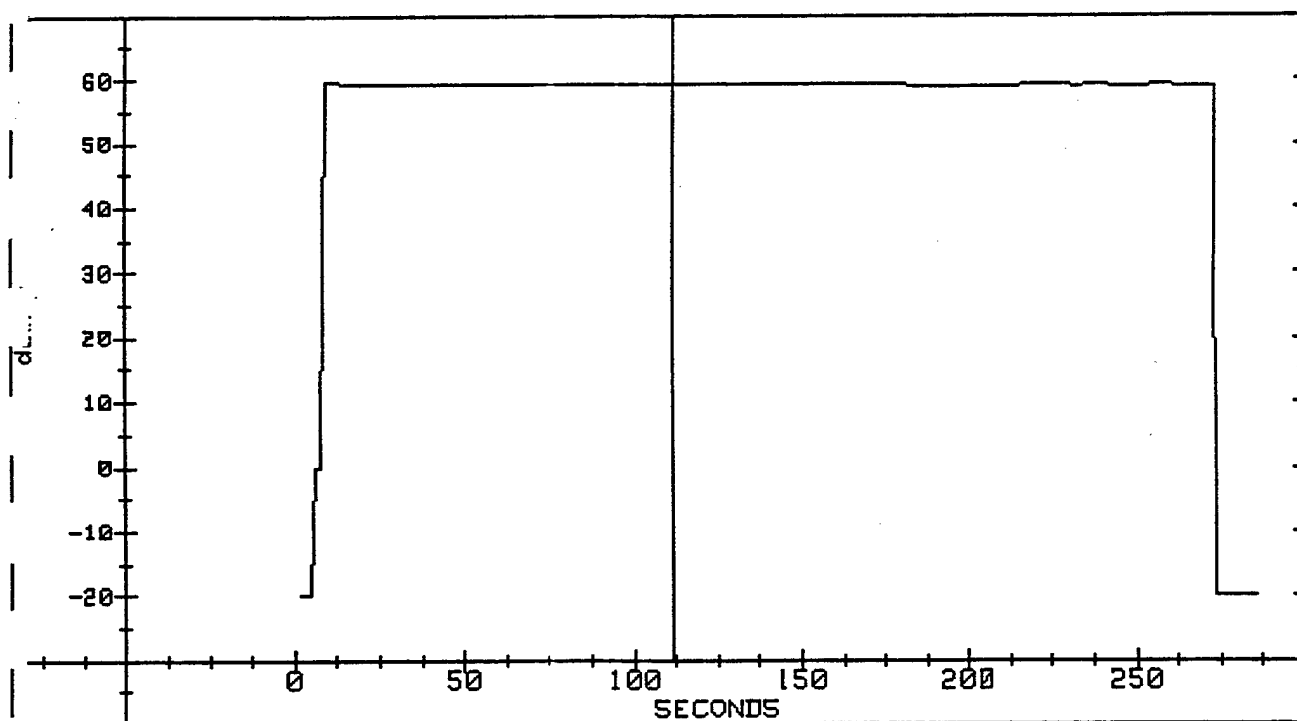
PASS NUMBER

DAY 180 TIME 0:55 PASS 13 m- 13, sd- 0



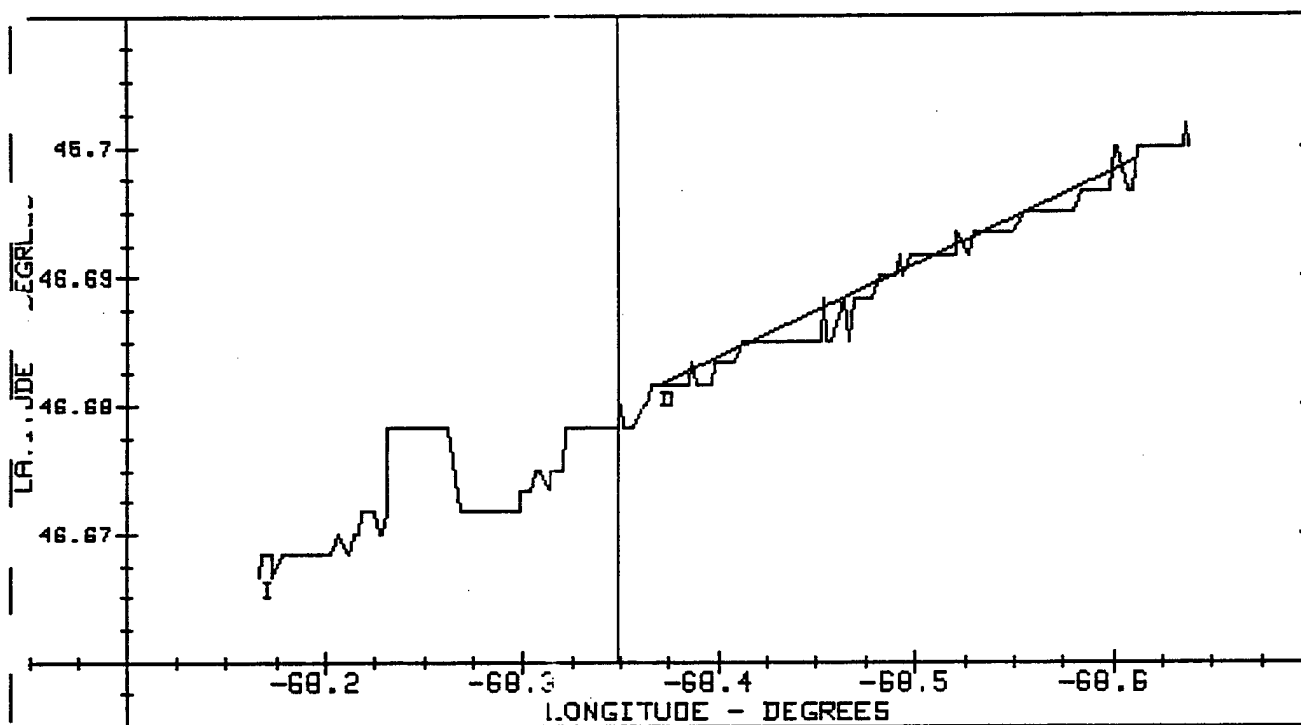
P Band Power

DAY 100 TIME 0:55 PASS 13 m= 52.63, sd= 21.5999



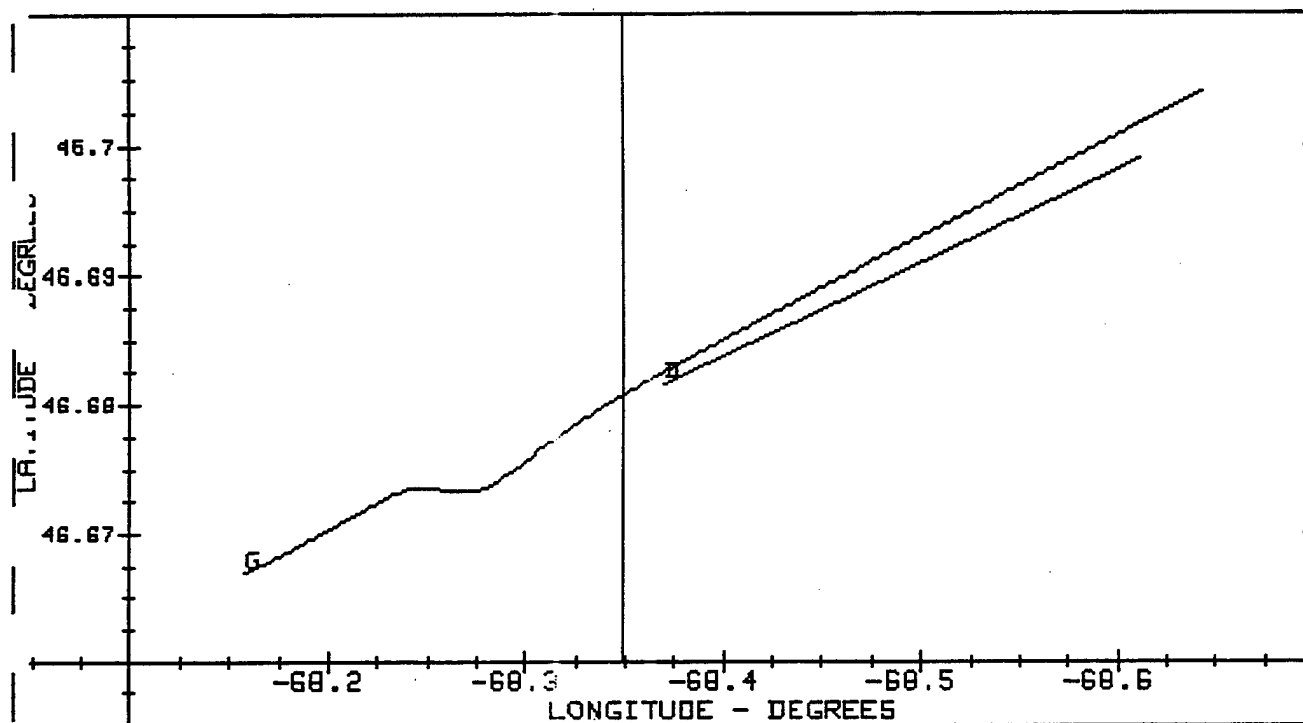
INS AIRCRAFT POSITION

DAY 180 TIME 0:55 PASS 13



GPS AIRCRAFT POSITION

DAY 100 TIME 0:55 PASS 13



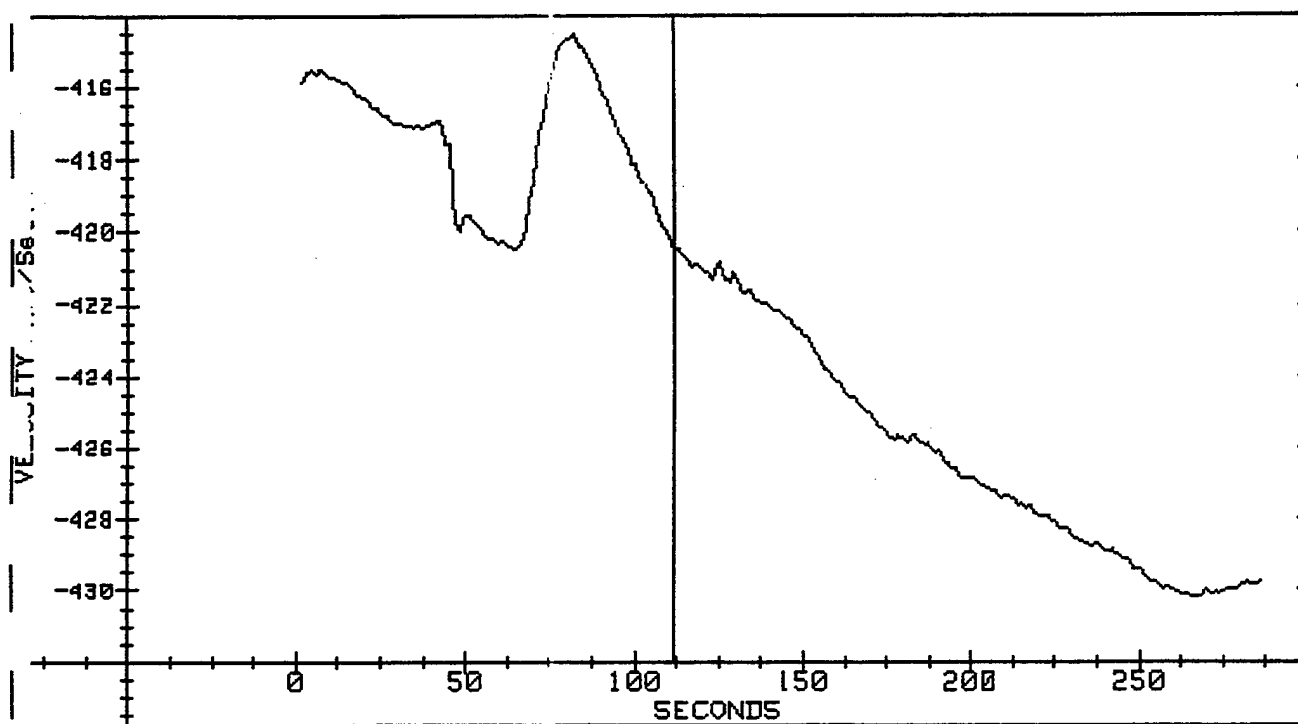
GPS V_e

DRY 100

TIME 0:55

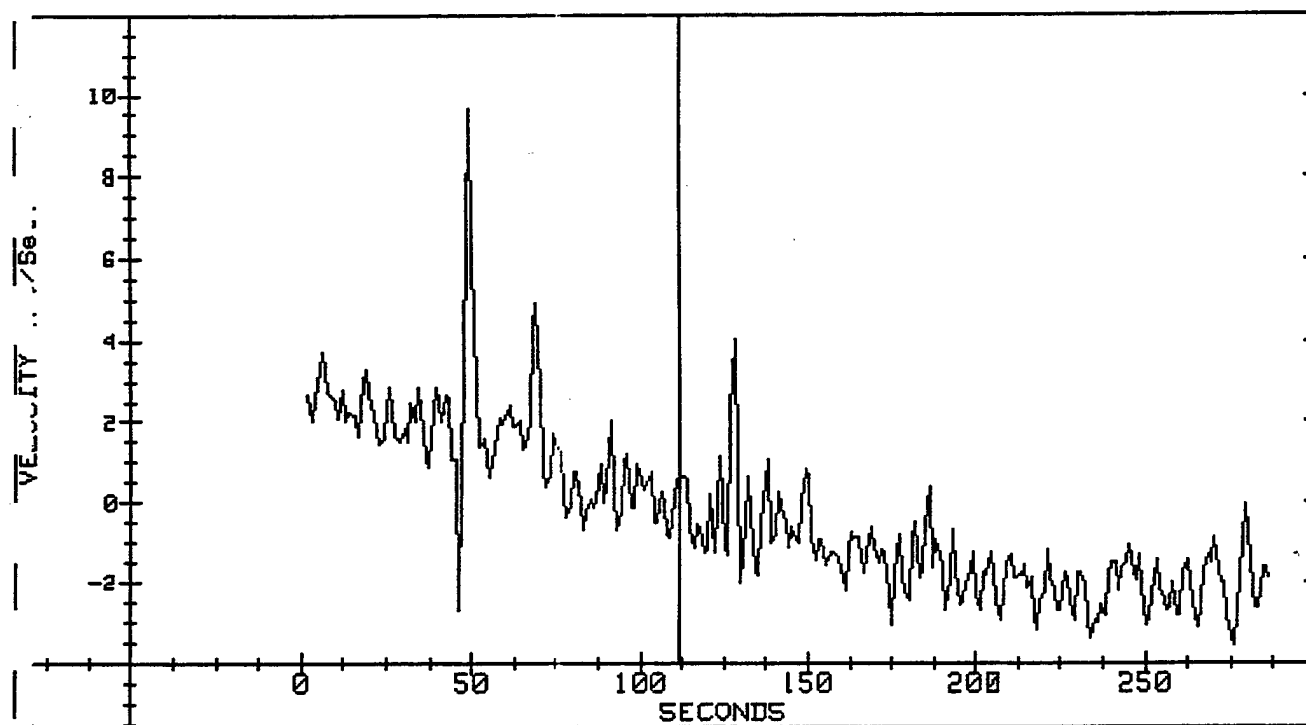
PASS 13

m= -426.7, sd= 2.7521



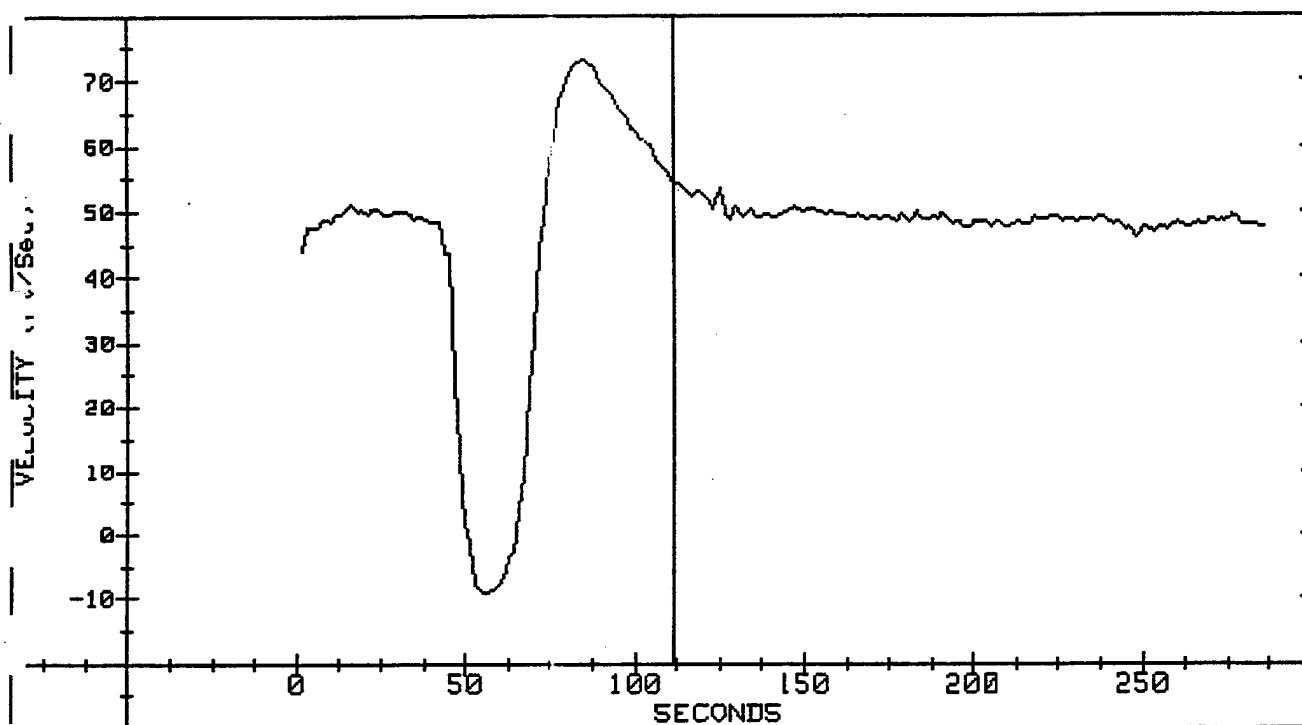
GPS Vv

DAY 100 TIME 0:55 PASS 13 m- -1.594, sd- 1.06659



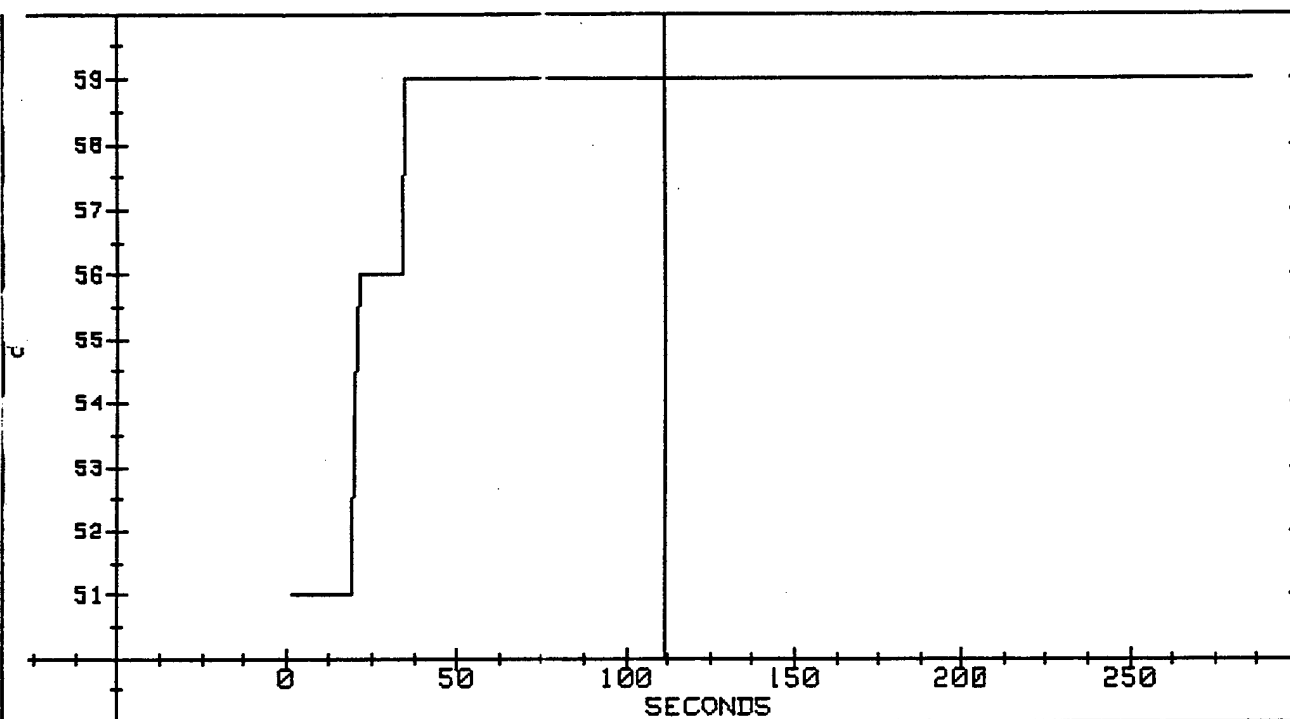
GPS Vn

DRY 100 TIME 0:55 PASS 13 m= 40.72, sd= .000421



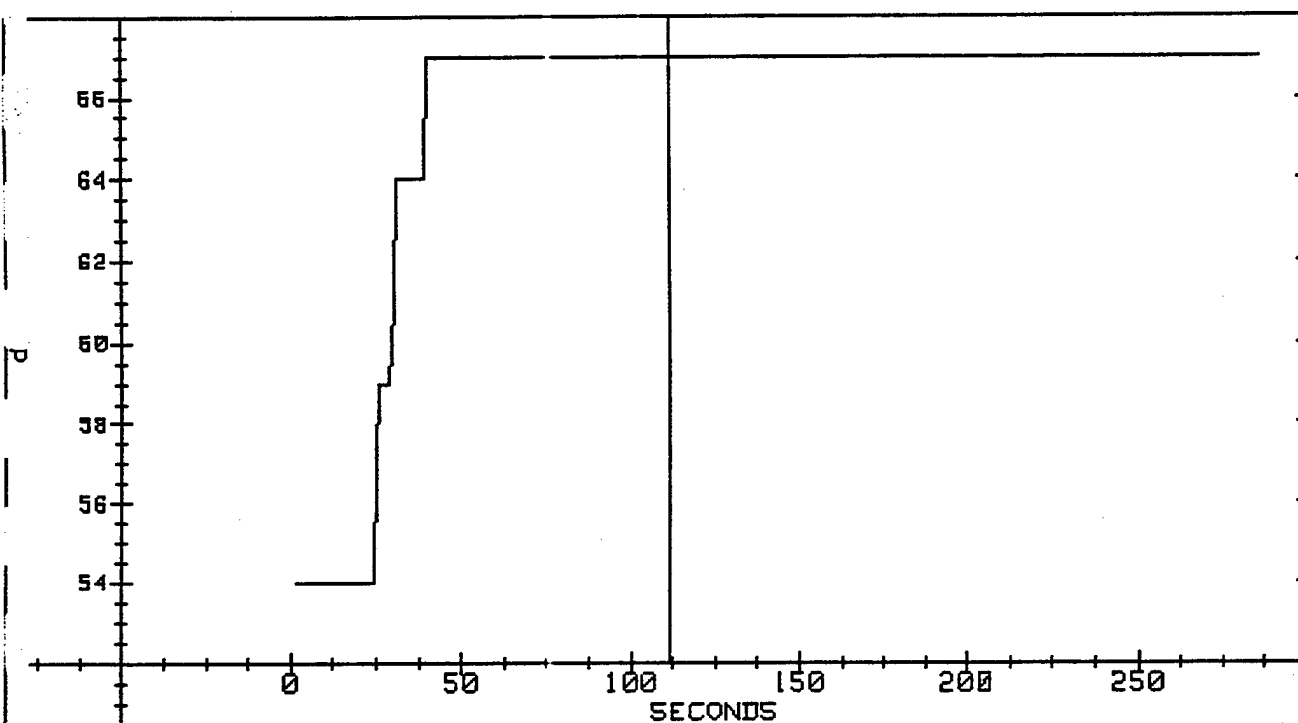
Ch1 RES Attenuation

DAY 100 TIME 0:55 PASS 13 m= 59, sd= 0



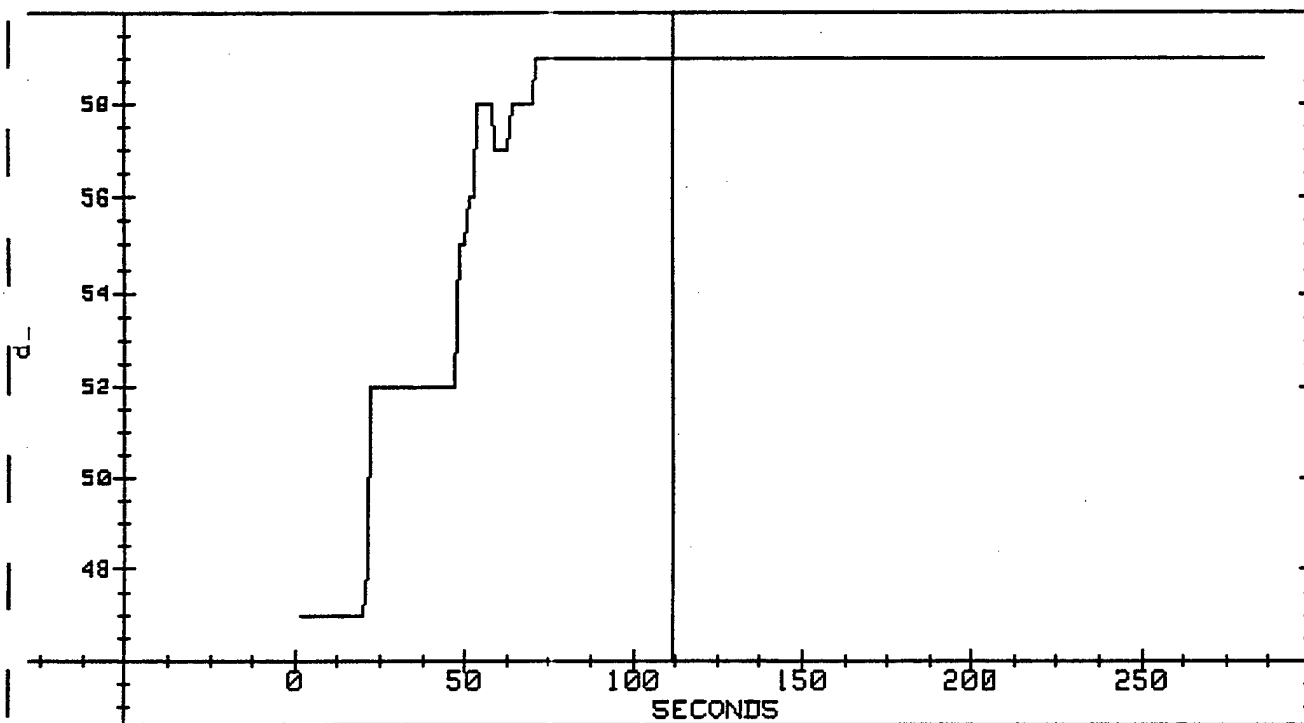
Ch2 RES Attenuation

DAY 100 TIME 0:55 PASS 13 m= 67, sd= 0



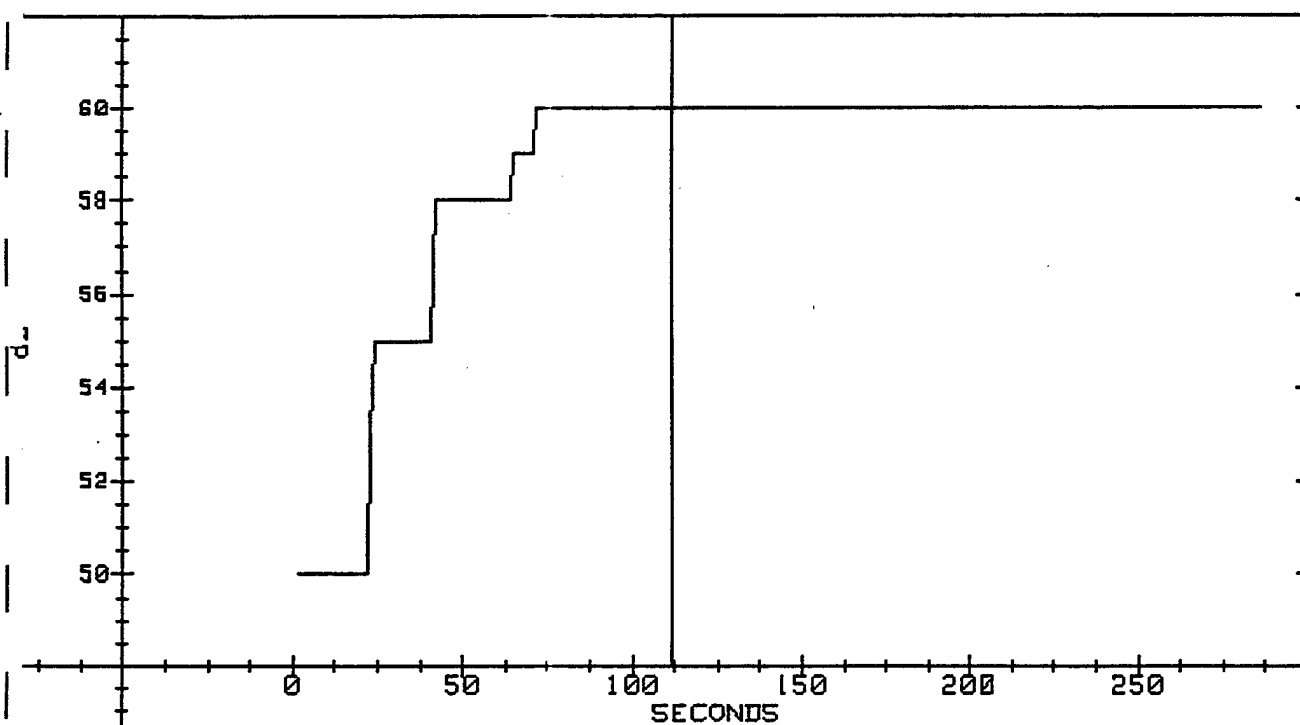
Ch3 RES Attenuation

DAY 180 TIME 0:55 PASS 13 m= 59, sd= 0



Ch4 RES Attenuation

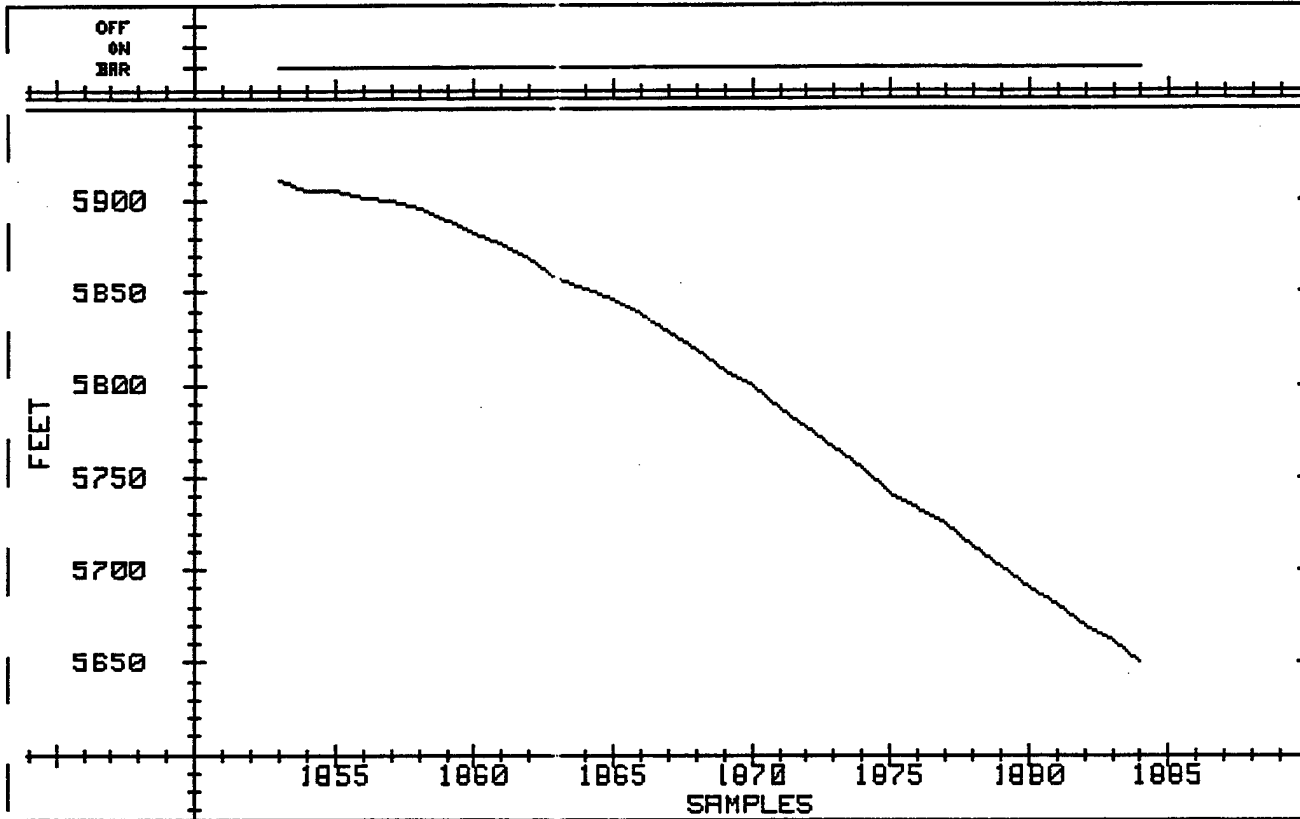
DAY 100 TIME 0:55 PASS 13 m- 60, sd- 0



GPS ALTITUDE

MEAN= 5881.19 STANDARD DEVIATION= 82.8426

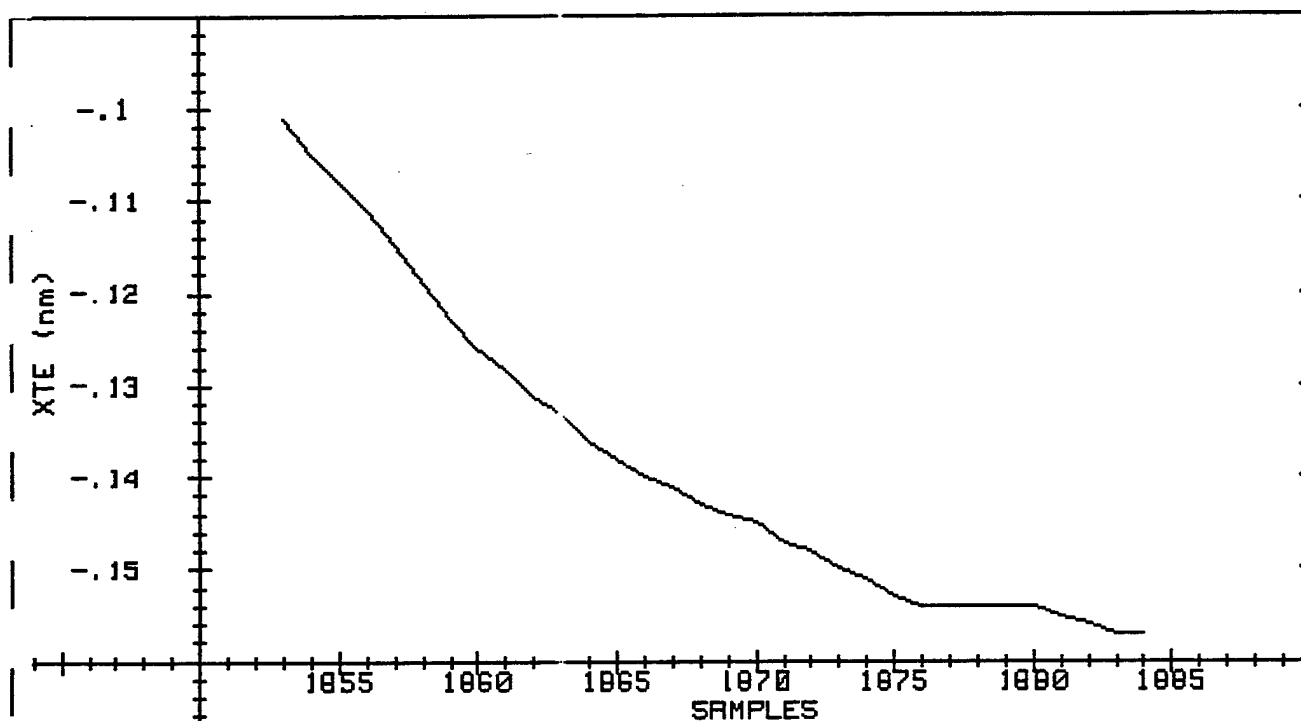
DATE: June 28, 1995 PASS 13



GPS Cross Track Error

MEAN- -.138469 STANDARD DEVIATION- .0167462

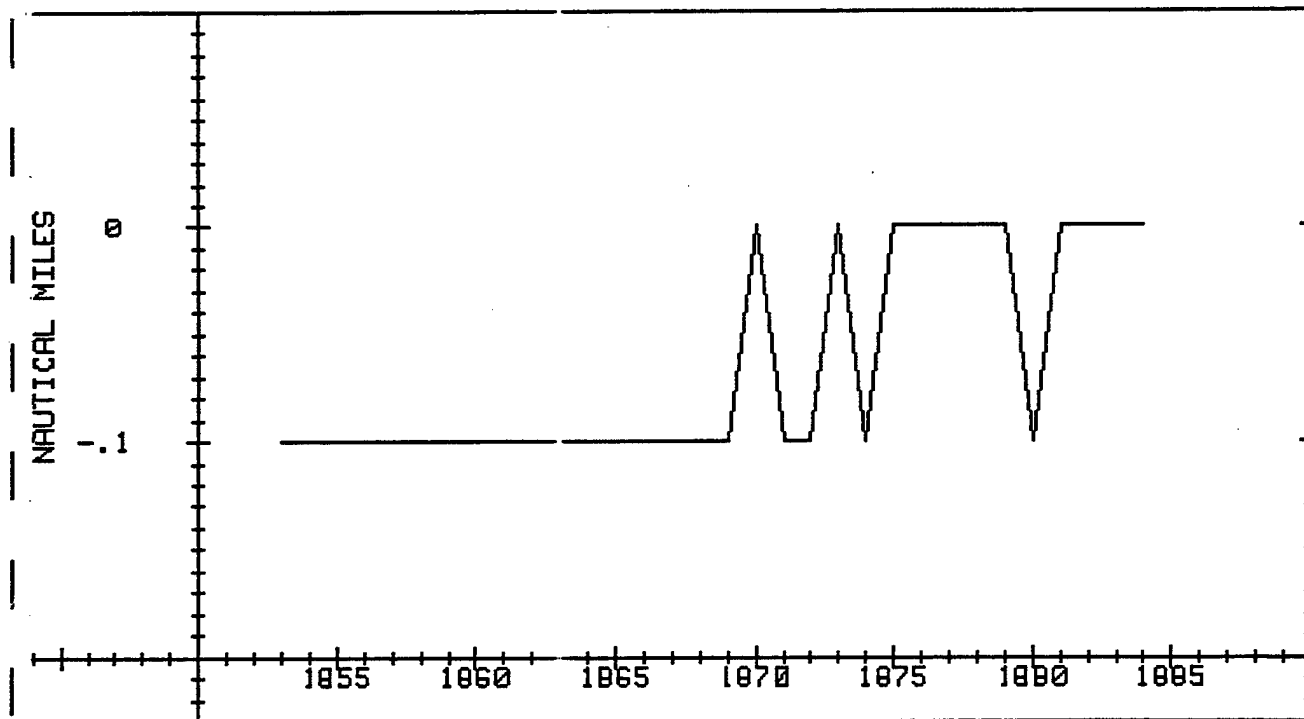
DATE: June 28, 1995 PASS 13



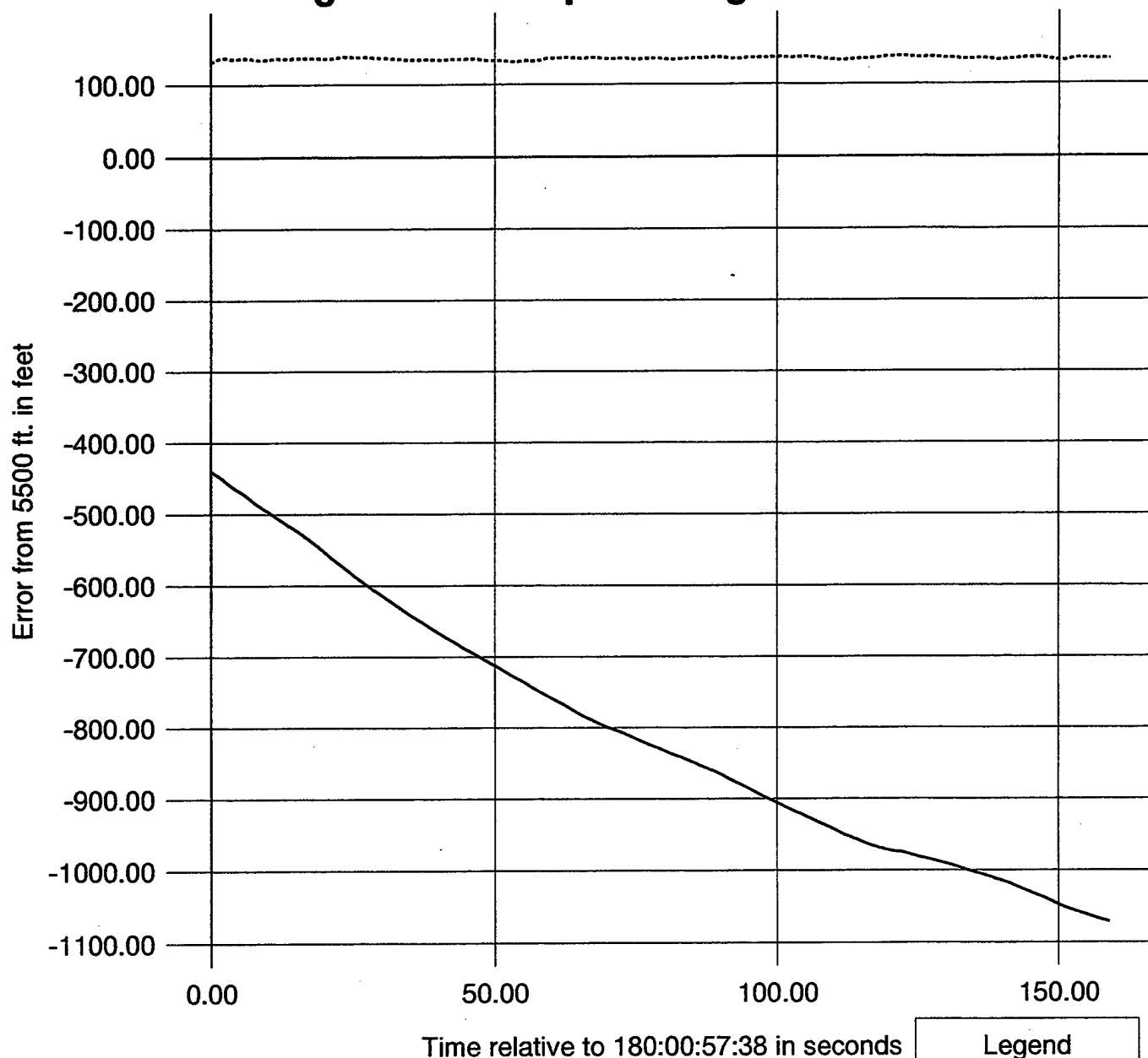
INS CROSS TRACK ERROR

MEAN= -.065625 STANDARD DEVIATION= .0474959

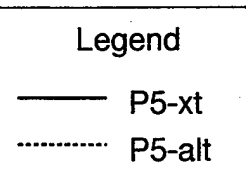
DATE: June 28, 1995 PASS 13



Portage, ME - June 28, 1995 - Pass 13 - Xtk. and Alt. Errors **Higher alt. and port are greater than zero**



	Mean	St. Dev.
ALT.	134.67	1.53
XTK.	-806.23	180.96



29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 31
Mission: DAY 4 PORTAGE MAINE

Time: 180:01:12:57
Pass 15
Req.# 122

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5442 ft s.d.=	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18700 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	17165	17165	17165	17165
Depr Ang:	25.0°	Near Rng Dep:	18.5°	18.5°	18.5°	18.5°
Des. trk:	276.0°	Far Rng Dep:	9.4°	9.4°	9.4°	9.4°
Start Sq:	90.0°	Atten (dB):	58.0	65.0	59.0	65.0
End Sq:	90.0°	RMS Video (%FS)	10.6	8.8	7.9	9.2

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.19	W 68:06.19
Start:	N 46:41.49	W 68:23.52
End:	N 46:42.53	W 68:37.98
From:	N 42:35.87	W 45:47.36
To:	N 45:53.14	W 92:36.76

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 256.3 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -9.8 fps (s.d.= 5.3)
Ave Fil Vel -> -10.3 fps (s.d.= 5.0)

NML XMIT PWR	ANT BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 46.2	

Tape Footage	Drive no.
Starting: 1541 ft	(1)
Ending: 0 ft	(1)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

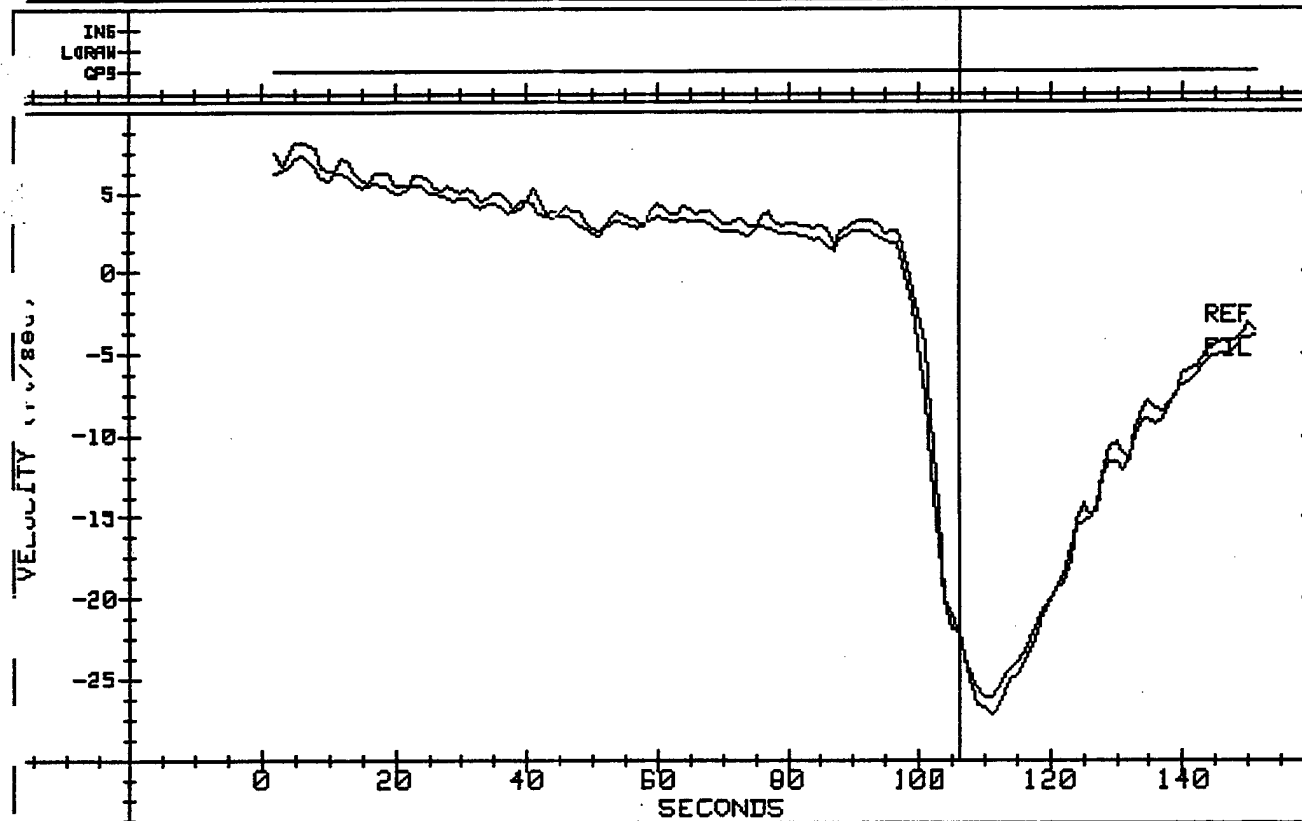
LINE Map Time (UCT)
Start: 01:12:57
End: 01:13:29

Mocomp Counters

Start: 723775 000B0B3Fh
End: 703729 000ABCF1h

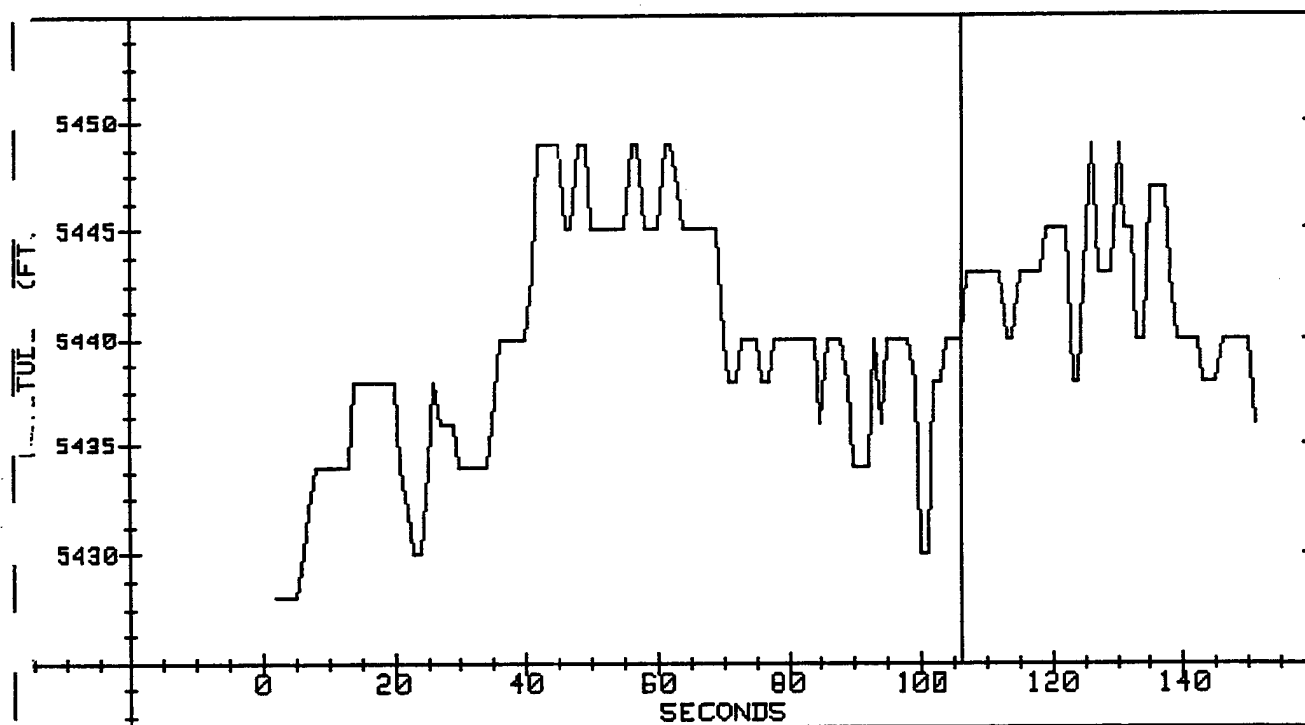
CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

FILTERED vs. REF. VELOCITY
DAY 100 TIME 1:11 PASS 15



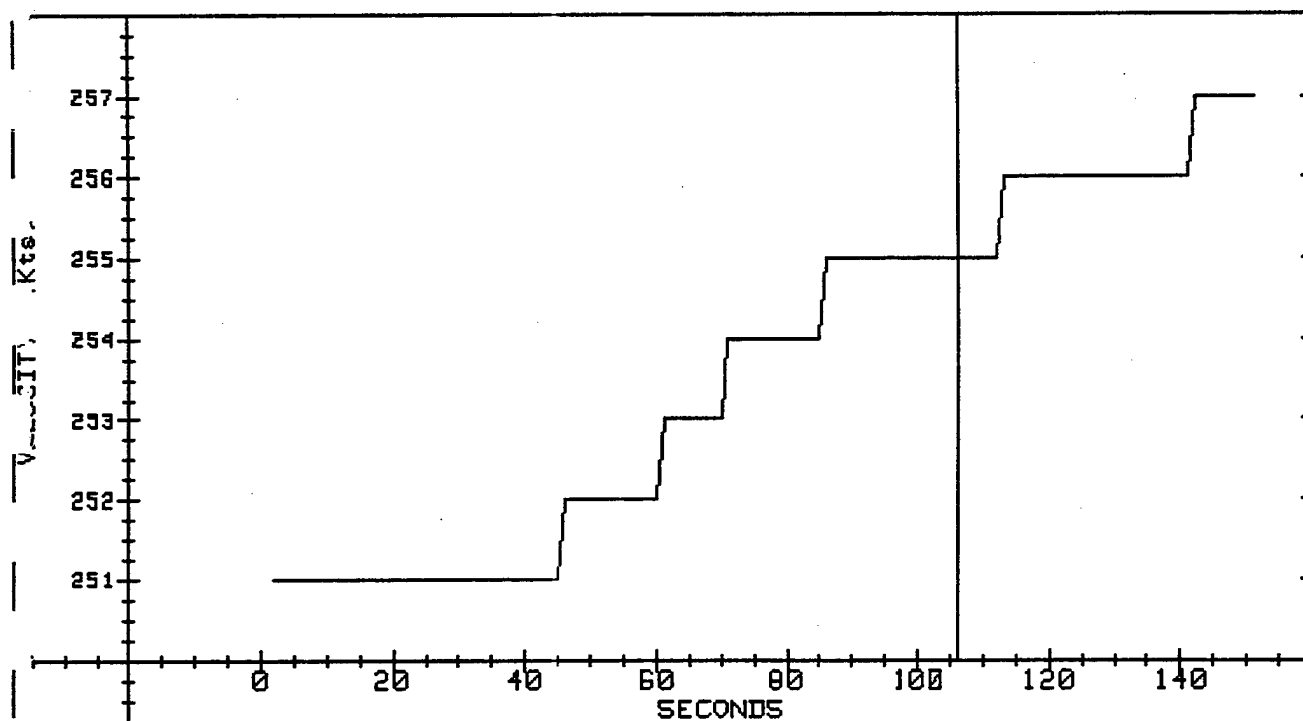
BARO ALTITUDE

DAY 100 TIME 1:11 PASS 15 m= 5442, sd= 3.4768



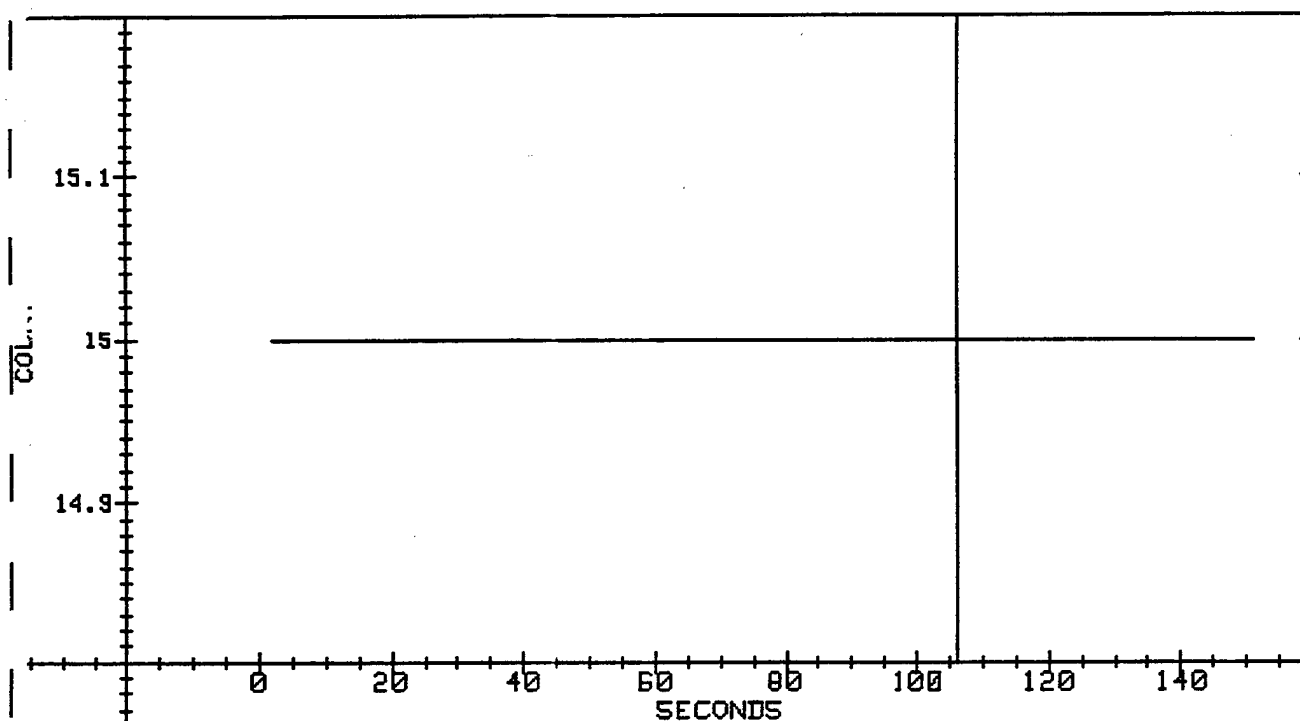
INS GROUND SPEED

DAY 100 TIME 1:11 PASS 15 m= 256.3, sd= .459568



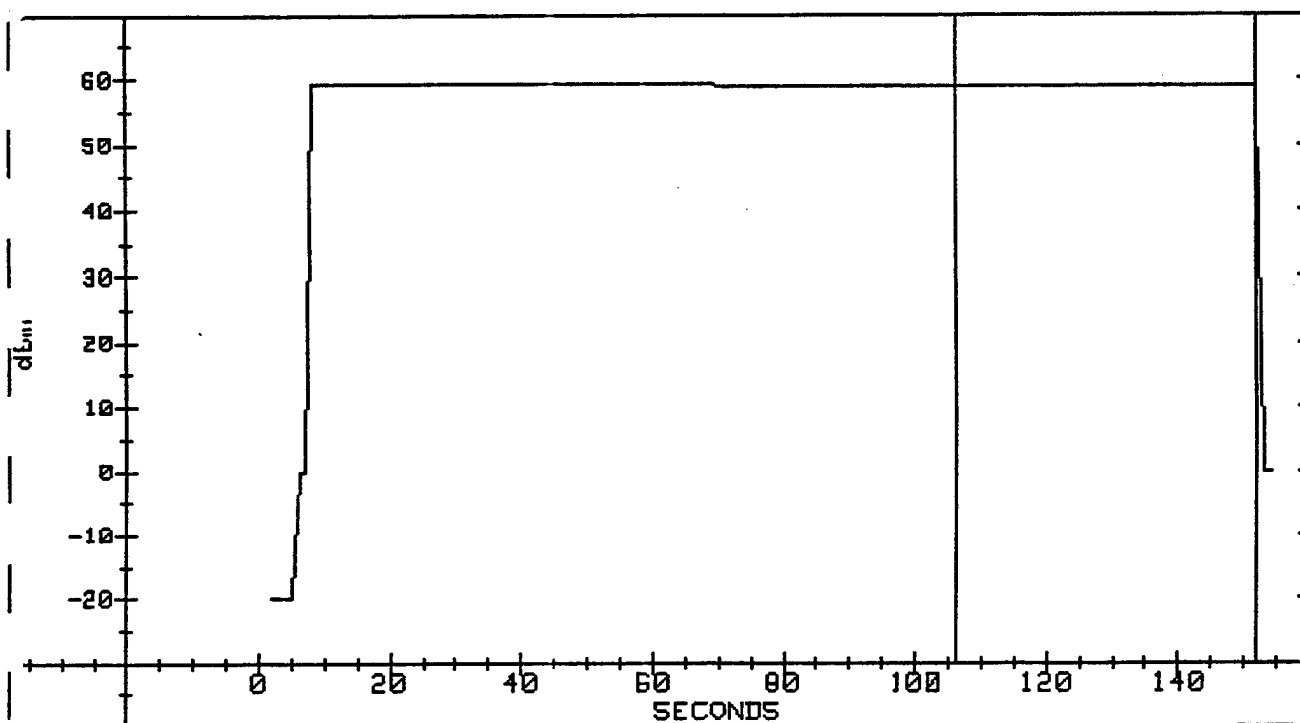
PASS NUMBER

DAY 100 TIME 1:11 PASS 15 m- 15, sd- 0

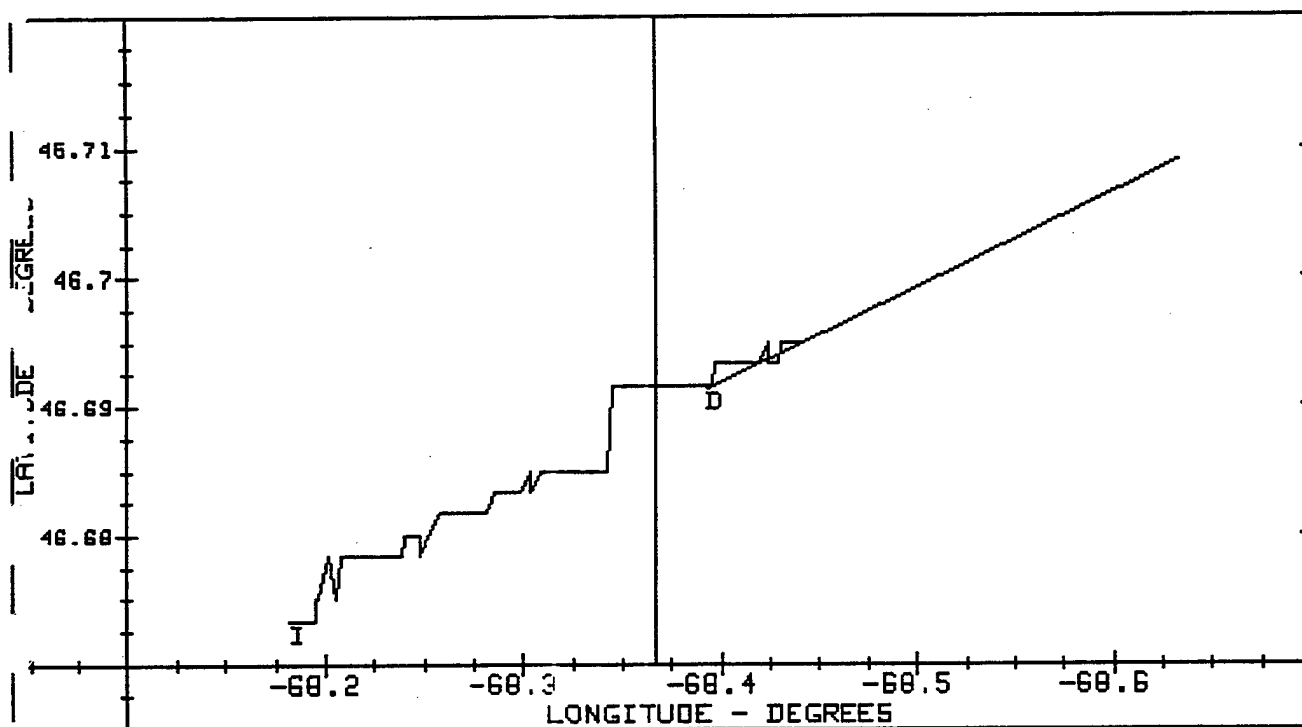


P Band Power

DAY 100 TIME 1:11 PASS 15 m= 58.96, sd= .0485962

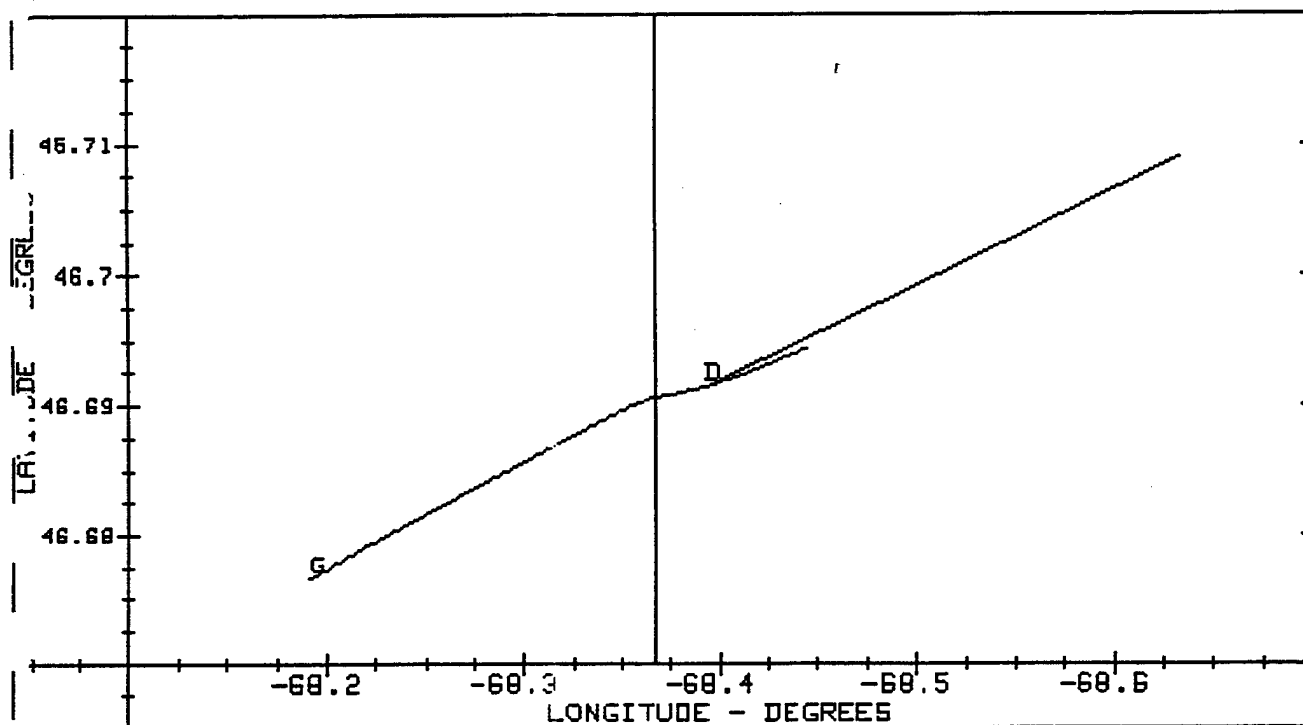


INS AIRCRAFT POSITION
DAY 100 TIME 1:11 PASS 15



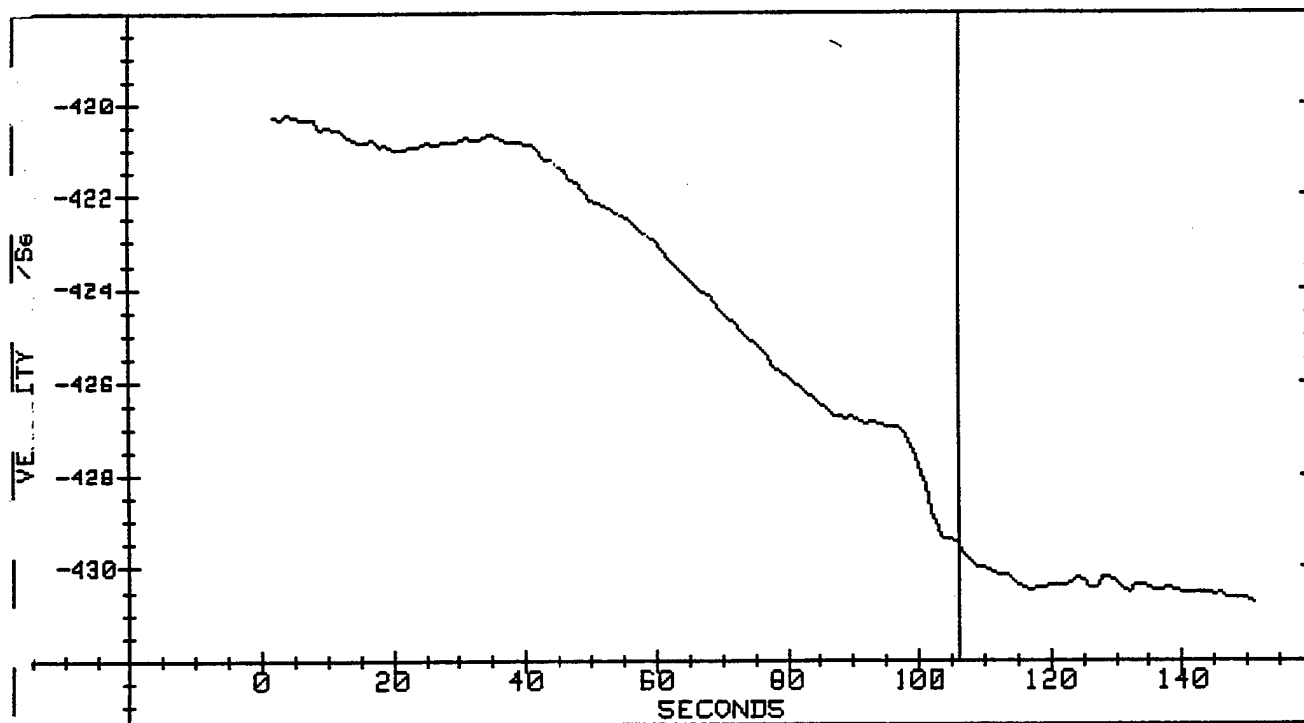
GPS AIRCRAFT POSITION

DAY 100 TIME 1:11 PASS 15



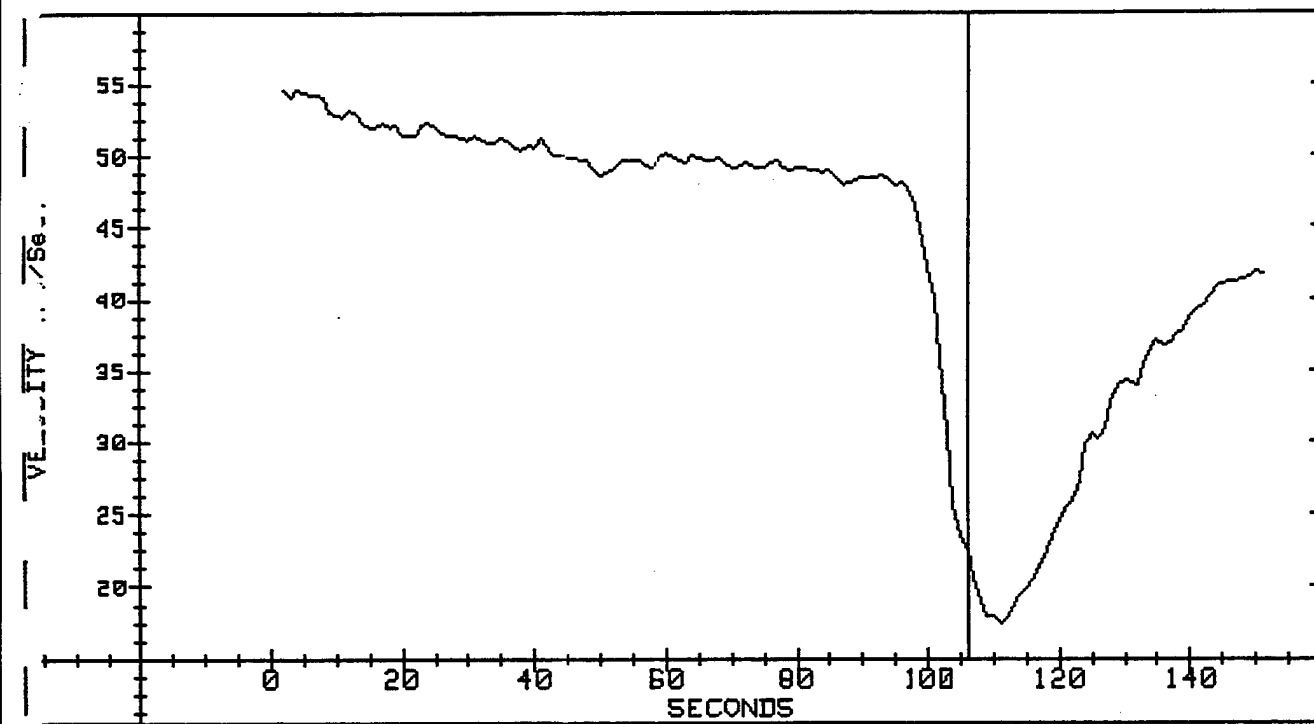
GPS V_e

DAY 100 TIME 1:11 PASS 15 m = -430.4, sd = .134563



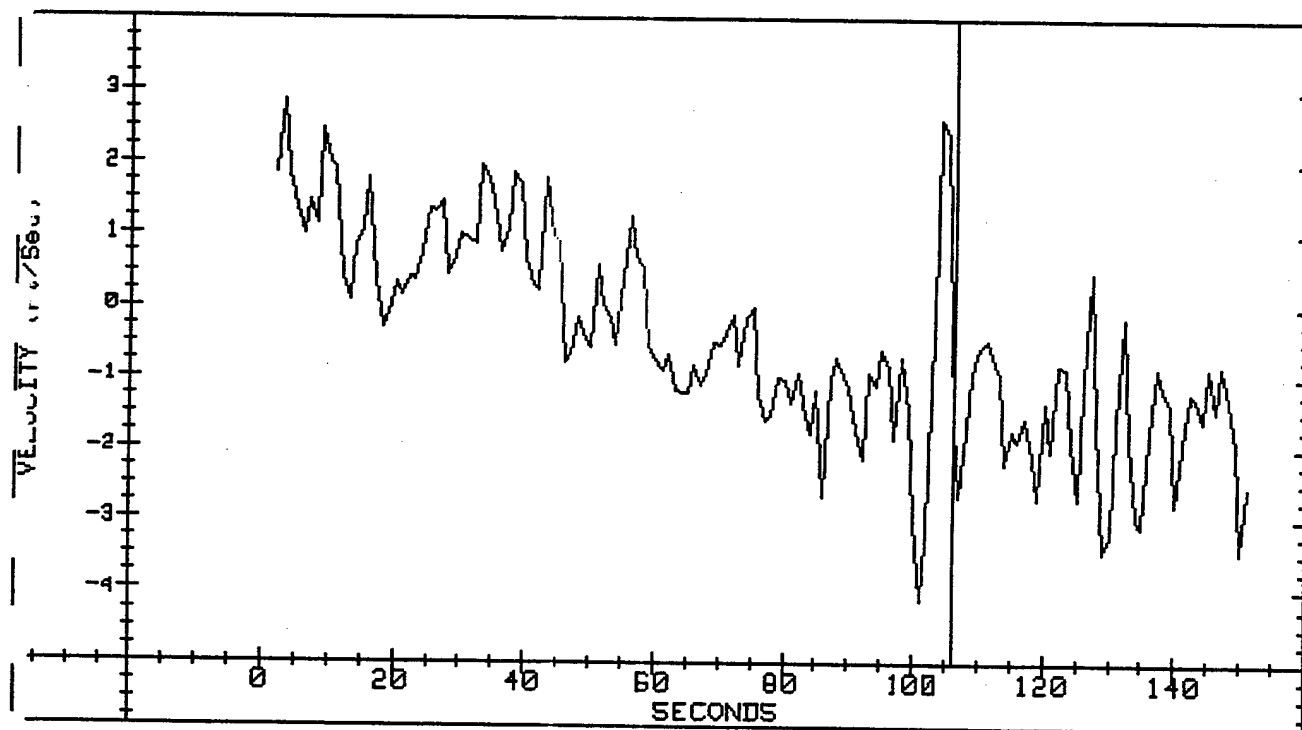
GPS Vn

DAY 100 TIME 1:11 PASS 15 m= 35.26, sd= 5.48159



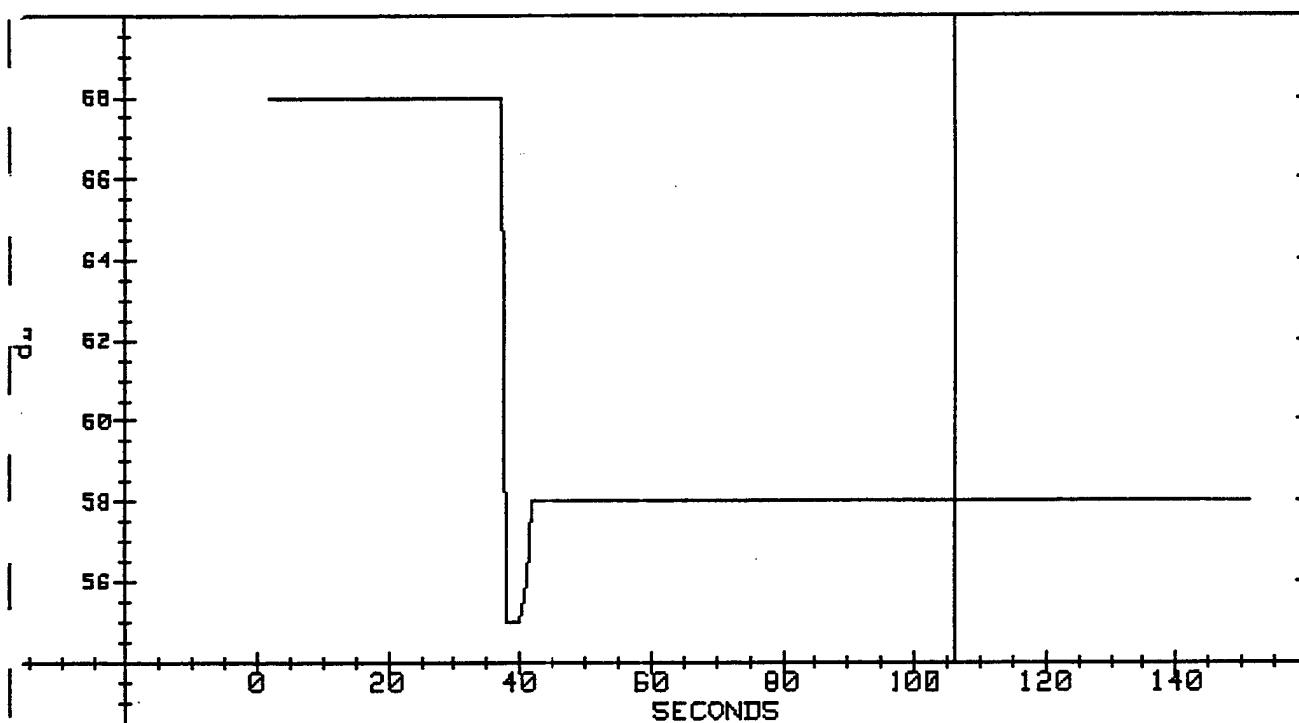
GPS Vv

DAY 180 TIME 1:11 PASS 15 $m = -1.741$, $sd = .924828$



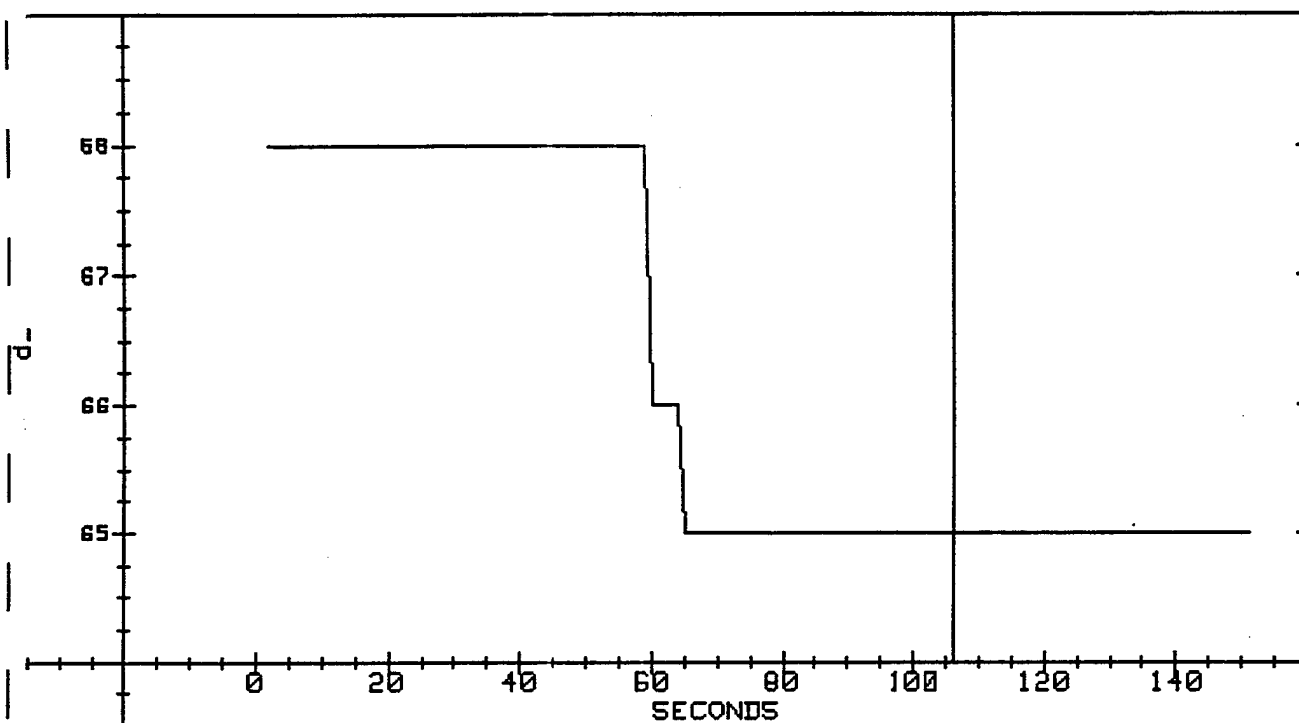
Ch1 RES Attenuation

DAY 100 TIME 1:11 PASS 15 m= 58. sd= 0



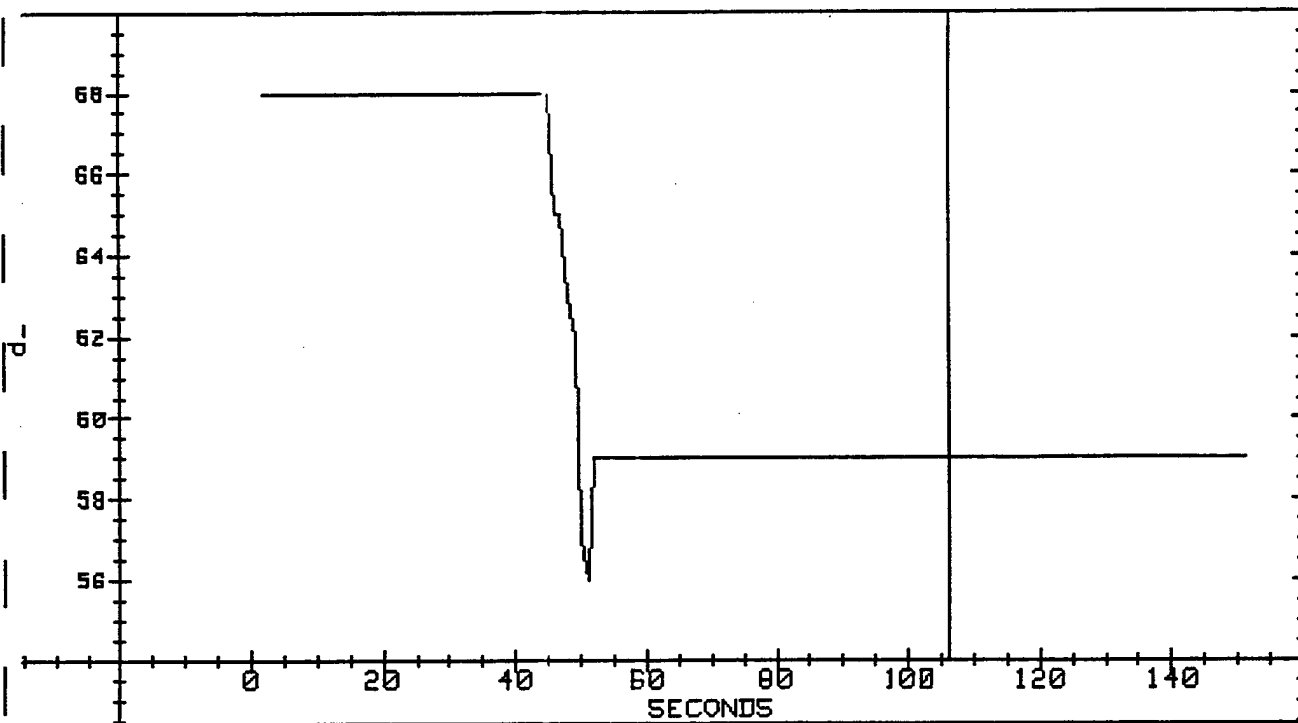
Ch2 RES Attenuation

DAY 100 TIME 1:11 PASS 15 m= 65. sd= 0



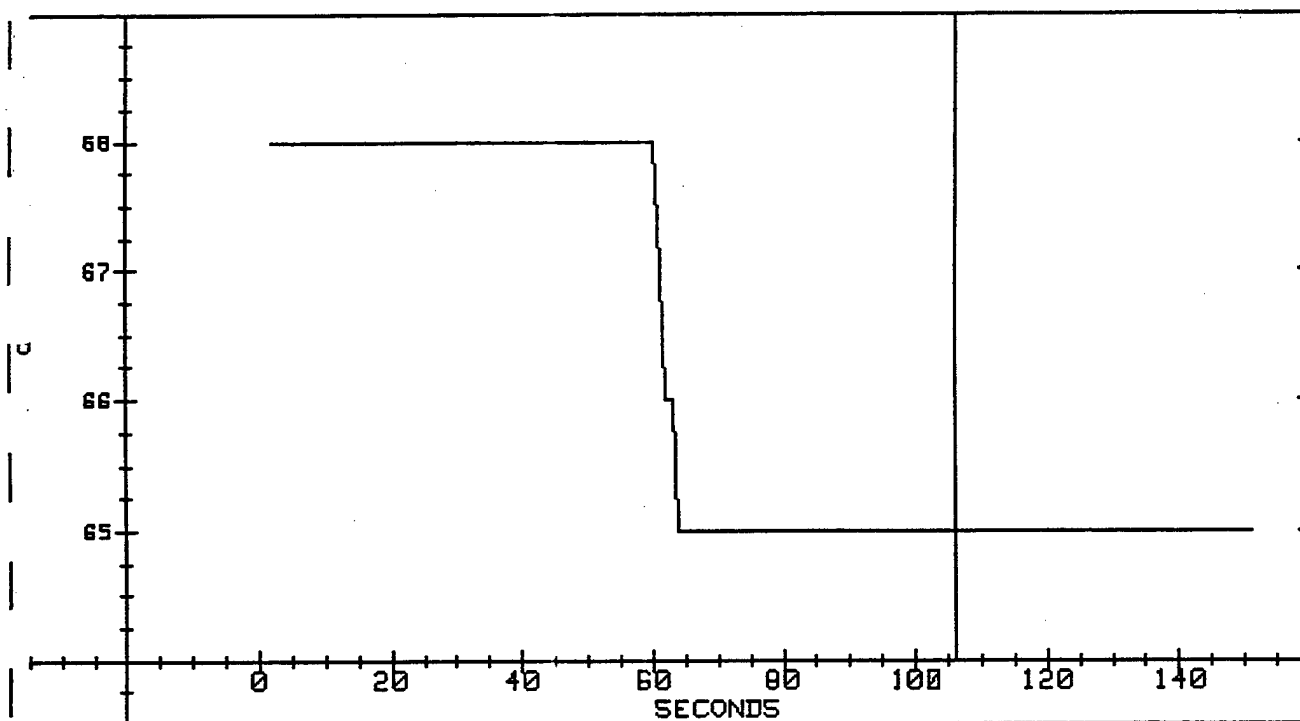
Ch3 RES Attenuation

DAY 100 TIME 1:11 PASS 15 m= 59. sd= 0



Ch4 RES Attenuation

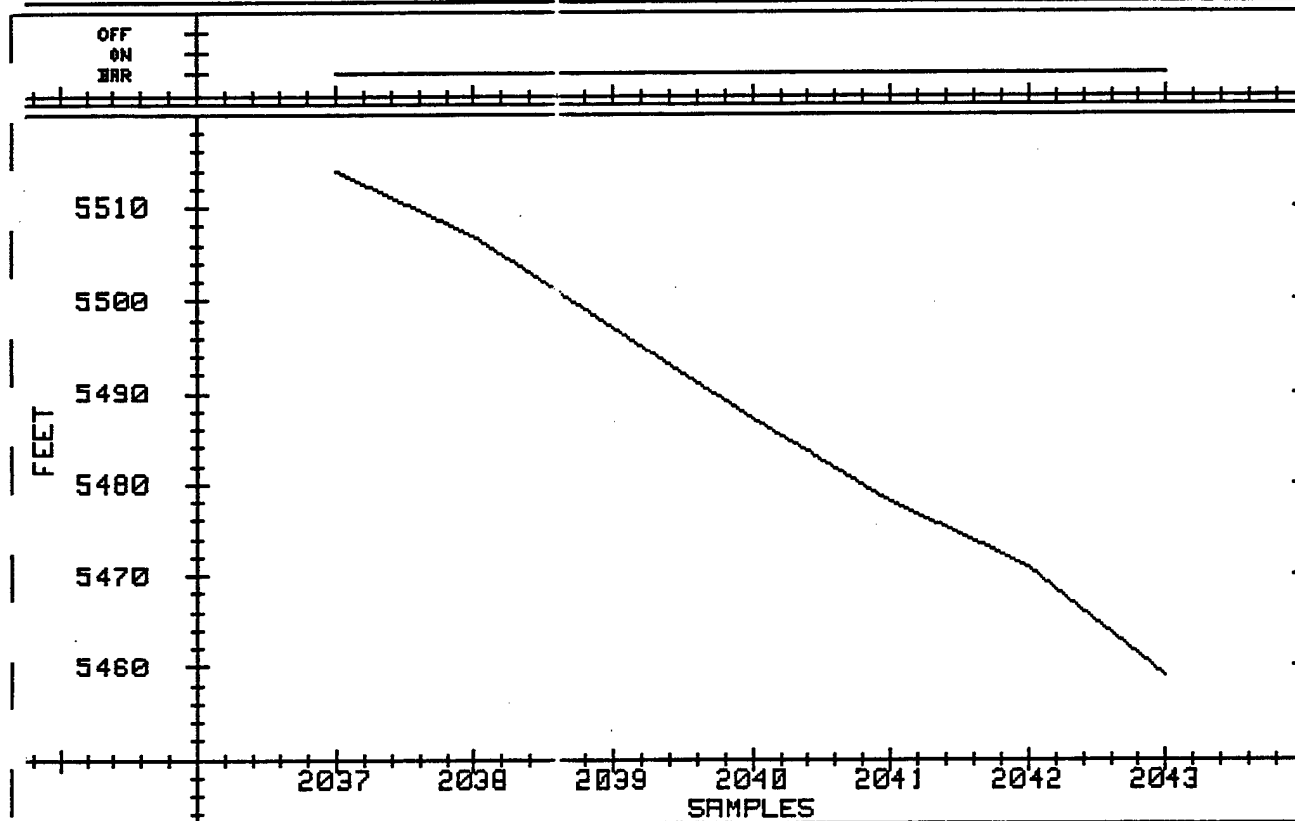
DAY 100 TIME 1:11 PASS 15 m= 65, sd= 0



GPS ALTITUDE

MEAN= 5487.57 STANDARD DEVIATION= 18.3136

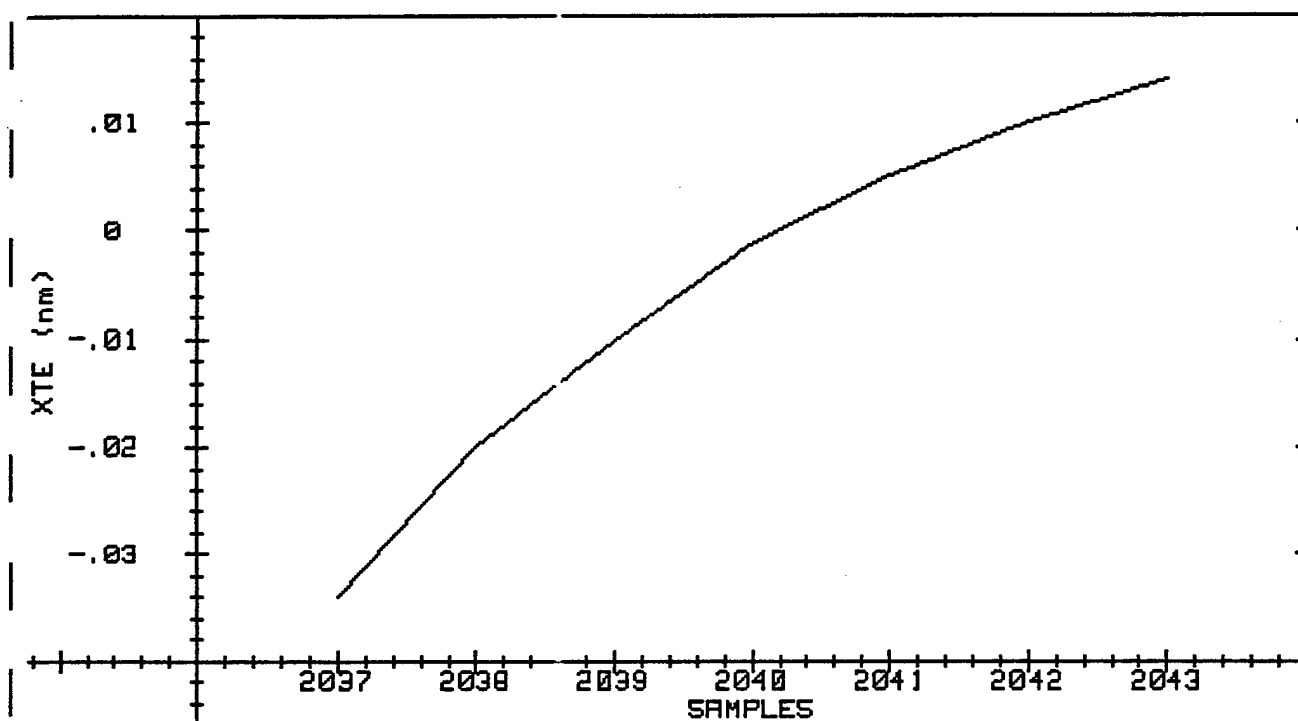
DATE: June 28, 1995 PASS 15



GPS Cross Track Error

MEAN- -.00514285 STANDARD DEVIATION- .0160038

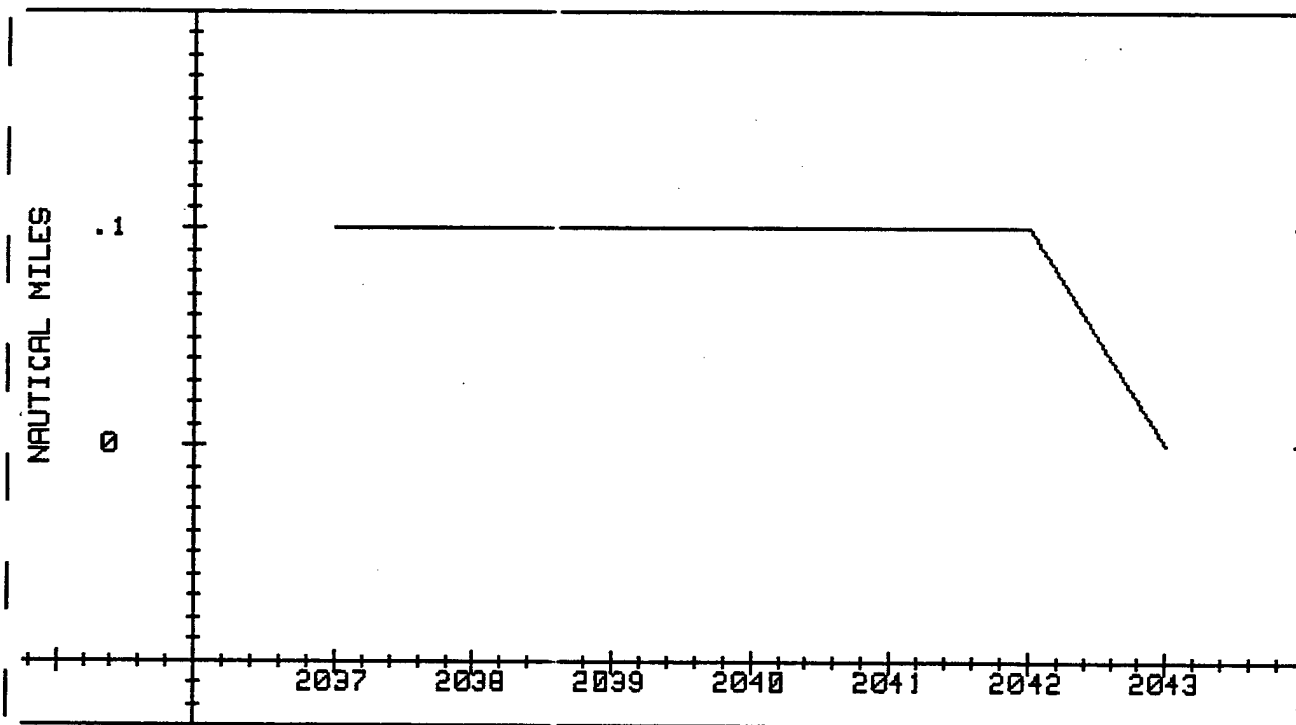
DATE: June 28, 1995 PASS 15



INS CROSS TRACK ERROR

MEAN- .0857143 STANDARD DEVIATION- .0349927

DATE: June 28, 1995 PASS 15



29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 31
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 180:01:22:41
Pass 16
Req.# 122

AIRCRAFT & CHANNEL DATA

Altitude		Wave/Pol.:	CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft		p-VV	p-VH	p-HV	p-HH
Baro:	5500 ft	Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18700 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	17165	17165	17165	17165
Depr Ang:	25.0°	Near Rng Dep:	18.7°	18.7°	18.7°	18.7°
Des. trk:	276.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	68.0	68.0	68.0	68.0
End Sq:	90.0°					

WAYPOINTS

	Latitude	Longitude
Line up:	N 46:40.19	W 68:06.19
Start:	N 46:41.49	W 68:23.52
End:	N 46:42.53	W 68:37.98
From:	N 42:35.87	W 45:47.36
To:	N 45:53.14	W 92:36.76

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is SLOW (350.0 kts)
Groundspeed: Real -> 350.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
INS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

CAL POWER

X: 0.0
L: 0.0
C: 0.0
P: 46.2

ANT BIAS

Elevation: 0.0°
Azimuth: 0.0°
Pitch: 0.0°

Tape Footage

Starting: 2395 ft
Ending: 2627 ft

Drive no.

(1)
(1)

Vel Bias

X: 2112.0
Y: 1874.0
Z: 5343.0

CAL Atten

X: 63.8 dB
L: 63.8 dB
C: 63.8 dB

LINE Map Time (UCT)

Start: 01:22:41
End: 01:22:42

Mocomp Counters

CPA (UCT): 00:00:00

Alt: 0 ft (GPS)

	Start	End
Ch 1:	736172 000B3BACH	739013 000B46C5h
Ch 2:	736172 000B3BACH	739013 000B46C5h
Ch 3:	736172 000B3BACH	739013 000B46C5h
Ch 4:	736172 000B3BACH	739013 000B46C5h

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 53
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 180:01:25:26
Pass 17
Req.# 0

AIRCRAFT & CHANNEL DATA

<u>Altitude</u>			<u>CH 1</u>	<u>CH 2</u>	<u>CH 3</u>	<u>CH 4</u>
Desired:	4000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	4001 ft	Swath Ctr Ang:	10.0°	10.0°	10.0°	10.0°
Slt. rng:	19234 ft	Tgt Dep Ang:	10.0°	10.0°	10.0°	10.0°
Look:	Right	St rng (ft):	17700	17700	17700	17700
Depr Ang:	25.0°	Near Rng Dep:	13.1°	13.1°	13.1°	13.1°
Des. trk:	276.0°	Far Rng Dep:	6.8°	6.8°	6.8°	6.8°
Start Sq:	90.0°	Atten (dB):	58.0	58.0	58.0	58.0
End Sq:	90.0°					

WAYPOINTS

	<u>Latitude</u>	<u>Longitude</u>
Line up:	N 46:40.05	W 68:06.22
Start:	N 46:41.34	W 68:23.54
End:	N 46:42.39	W 68:38.00
From:	N 42:35.75	W 45:47.43
To:	N 45:53.01	W 92:36.72

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Groundspeed: Real -> 262.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
INS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

<u>CAL POWER</u>	<u>ANT BIAS</u>
X: 0.0	Elevation: 0.0°
L: 0.0	Azimuth: 0.0°
C: 0.0	Pitch: 0.0°
P: -12.8	

<u>Tape Footage</u>	<u>Drive no.</u>
Starting: 2643 ft	(1)
Ending: 2807 ft	(1)

<u>Vel Bias</u>	<u>CAL Atten</u>
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 01:25:26
End: 01:25:27

Mocomp Counters

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)

	<u>Start</u>	<u>End</u>
Ch 1:	746864 000B6570h	748367 000B6B4Fh
Ch 2:	746864 000B6570h	748367 000B6B4Fh
Ch 3:	746864 000B6570h	748367 000B6B4Fh
Ch 4:	746864 000B6570h	748367 000B6B4Fh