STATE OF OREGON

CONTENTS

BASE LINE DESIGNATION	CONDITION	STATE	COUNTY	QUAD
ALBANY CBL	(1982, 2000 REMEASURED)	OREGON	LINN	N441231
ASTORIA CBL	(1987, 2001 REMEASURED)	OREGON	CLATSOP	N461242
AURORA CBL	(1976, 1990, 2000 REMEASURED)	OREGON	MARION	N451223
BANDON CBL	(1987, 2001 REMEASURED)	OREGON	COOS	N431242
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CENTRAL OREGON CBL	(1982, 2000 REMEASURED)	OREGON	DESCHUTES	N441212
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THE DALLES	(1987, 2000 REMEASURED)	WASHINGTON	KLICKITAT	N451211

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: ALBANY CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: ALBANY

QUAD: N441231
OREGON
LINN COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1982	66.336	430 1982	66.689	430.0114	430.0115	0.1
ZERO 1982	66.336	1090	67.117	1089.9962	1089.9965	0.1
ZERO 1982	66.336	1240 1982	67.056	1239.9899	1239.9901	0.2
430 1982	66.689	1090	67.117	659.9849	659.9850	0.1
430 1982	66.689	1240 1982	67.056	809.9785	809.9786	0.1
1090	67.117	1240 1982	67.056	149.9937	149.9937	0.1

DESCRIPTION OF: ALBANY BASE LINE
YEAR MEASURED: 1982
YEAR REMEASURED: 2000
LATITUDE: 44 38 36
LONGITUDE: 123 03 35
AZIMUTH: 162
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED AT THE ALBANY MUNICIPAL AIRPORT ON THE EAST SIDE OF ALBANY. THE AIRPORT IS LOCATED SLIGHTLY NE OF THE INTERSECTION OF INTERSTATE 5 AND UNITED STATES HIGHWAY 20 AND IS VISIBLE FROM THE HIGHWAYS. THE BASE LINE IS APPROXIMATELY PARALLEL WITH AND BETWEEN THE NORTH-SOUTH RUNWAY ON THE EAST AND THE NORTH-SOUTH TAXIWAY ON THE WEST.

THE BASE LINE IS A NORTH-SOUTH BASE LINE WITH THE 0 METER POINT ON THE NORTH END. IT IS MADE UP OF 0, 430, 1090, AND 1240 METER POINTS WITH POINTS FOR THE CALIBRATION OF 100, 200, AND 300 FOOT TAPES SET SOUTH OF THE 0 METER POINT. ALL OF THE MARKS ARE SET ON A LINE APPROXIMATELY PARALLEL TO THE

NORTH-SOUTH RUNWAY AND TAXIWAY AT THE AIRPORT. THE 0 AND 1240 METER POINTS HAVE PLASTIC WITNESS POSTS NEAR THEM.

TO REACH THE BASE LINE FROM THE INTERSECTION OF INTERSTATE HIGHWAY 5 AND UNITED STATES HIGHWAY 20, GO NORTH ON INTERSTATE HIGHWAY 5 FOR 1.0 KM (0.6 MI) TO EXIT 234 ON RIGHT. TAKE EXIT 234 (ALBANY AND KNOX BUTTE) AND GO NE FOR 0.6 KM (0.4 MI) TO STOP SIGN AND INTERSECTION. TURN RIGHT (TOWARDS KNOX BUTTE) AND GO APPROXIMATELY 100 FEET TO ROAD ON RIGHT. TURN RIGHT AND GO SW ON AIRPORT ROAD FOR 0.2 KM (0.1 MI) TO 0 METER POINT ON LEFT SIDE OF ROAD (ABOUT 3 FT LOWER THAN ROAD). CONTINUE SOUTH ON GRASSY AREA FOR 0.2 KM (0.1 MI) TO 150 METER POINT AND E-W TAXIWAY BETWEEN THE N-S RUNWAY ON LEFT AND THE N-S TAXIWAY ON RIGHT (ABOUT THE SAME ELEVATION AS TAXIWAY AND RUNWAY). BEAR RIGHT AND GO SOUTH ON TAXIWAY FOR 0.3 KM 0.2 MI) TO 430 METER POINT IN GRASSY AREA ON LEFT OF TAXIWAY (ABOUT 3 FT LOWER THAN TAXIWAY). CONTINUE SOUTH ON TAXIWAY FOR 0.8 KM (0.5 MI) TO 1240 METER POINT IN GRASSY AREA TO LEFT OF TAXIWAY (ABOUT 4 FT LOWER THAN TAXIWAY).

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "ZERO 1982", SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 31 CM (12 IN)IN DIAMETER FLUSH WITH THE SURFACE OF THE GROUND LOCATED 7.89 M (25.9 FT) SE FROM CENTER LINE OF AIRPORT ROAD AND 0.94 M 3.1 FT) SW FROM WITNESS POST (PLASTIC).

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "430 1982", SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 34 CM (13 IN) IN DIAMETER PROJECTING 3 CM (1 IN) ABOVE THE GROUND LOCATED 17.25 M (56.6 FT) E FROM CENTER LINE OF TAXIWAY AND 28.53 M (93.6 FT) W FROM CENTER LINE OF RUNWAY.

THE 1090 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1090", SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 40 CM (16 IN) IN DIAMETER FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 30.1 M (98.8 FT) SOUTH OF THE CONNECTING TAXIWAY AT THE SOUTH END OF THE RUNWAY AND 15.9 M (52.2 FT) EAST OF THE MAIN PARALLEL TAXIWAY.

THE 1240 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "1240 1982", SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 37 CM (14 IN) IN DIAMETER FLUSH WITH GROUND LOCATED 9.94 M (32.6 FT) N FROM NORTH EDGE OF DITCH RUNNING EAST-WEST, 19.529 M (64.07 FT) W FROM REFERENCE MARK 1 1982, 15.48 M (50.8 FT) E FROM CENTER LINE OF TAXIWAY, AND 0.838 M (2.75 FT) N FROM WITNESS POST (PLASTIC).

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE LINN COUNTY SURVEYORS OFFICE, COURTHOUSE, 300 4TH AVENUE, SW, ALBANY, OREGON 97321, TELEPHONE 541-967-3857 OR THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: ASTORIA CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: HAMMOND

QUAD: N461242
OREGON
CLATSOP COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	2.000	150 1986	2.029	150.0020	150.0020	0.1
ZERO 1986	2.000	430 1986	1.935	429.9929	429.9929	0.1
ZERO 1986	2.000	1080 1986	1.912	1079.9980	1079.9980	0.1
150 1986	2.029	430 1986	1.935	279.9909	279.9909	0.1
150 1986	2.029	1080 1986	1.912	929.9960	929.9960	0.1
430 1986	1.935	1080 1986	1.912	650.0051	650.0051	0.1

DESCRIPTION OF: ASTORIA BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2001
LATITUDE: 46 12 58
LONGITUDE: 124 00 01
AZIMUTH: 155
CHIEF OF PARTY: CLS

THIS BASE LINE IS LOCATED 12.0 KM (7.5 MI) WEST OF ASTORIA, 6.4 KM (4.0 MI) WEST OF HAMMOND, ON THE CLATSOP SPIT PENINSULA OF FORT STEVENS STATE PARK, ALONG THE EAST EDGE OF THE MAIN PARK ROAD TO THE SOUTH JETTY.

THIS BASE LINE IS A NORTHWEST-SOUTHEAST LINE WITH THE 0 METER POINT LOCATED AT THE NORTHWEST END. THE CBL CONSISTS OF THE 0, 150, 430, AND THE 1080 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO THE EAST EDGE OF THE MAIN ROAD IN FORT STEVENS STATE PARK.

TO REACH THE BASE LINE FROM THE POST OFFICE IN HAMMOND, GO WEST ON PACIFIC DRIVE FOR 0.4 KM (0.25 MI) TO AN INTERSECTION, LAKE DRIVE. TURN LEFT ON LAKE DRIVE AND GO SOUTH FOR 1.1 KM (0.7 MI) TO A PAVED ROAD RIGHT AND THE FORT STEVENS STATE PARK ENTRANCE. TURN RIGHT AND GO WEST THROUGH THE PARK ENTRANCE ON THE PAVED MAIN PARK ROAD FOR 1.6 KM (1.0 MI) TO A SIDE ROAD LEFT. CONTINUE STRAIGHT FOR 2.0 KM (1.25 MI) TO A BEND NORTH IN THE MAIN PARK ROAD AND ANOTHER SIDE ROAD LEFT. CONTINUE STRAIGHT AND GO NORTH FOR 1.4 KM (0.85 MI) ON THE MAIN PARK ROAD TO THE 0 METER POINT ON THE RIGHT AT JUNCTION OF PAVED ROAD LEFT (SW) TO PARKING AREA FOR AREA B TRAIL TO BEACH.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "0 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND. IT IS: 15.5 M (50.8 FT) SOUTHEAST OF THE EXTENDED CENTERLINE OF PAVED ROAD TO PARKING AREA B, 13.0 M (42.7 FT) SOUTHEAST OF THE SOUTHWEST LEG OF AREA B TRAIL TO BEACH SIGN, 7.2 M (23.6 FT) EAST OF THE MAIN PARK ROAD CENTER LINE AND 0.7 METERS (2.3 FT) WEST OF A WITNESS POST.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "150 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND. IT IS: 0.7 METERS (2.3 FT) WEST OF A WITNESS POST, AND 7.2 METERS (23.6 FT) EAST OF THE MAIN PARK ROAD CENTER LINE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "430 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND. IT IS: 0.6 METERS (2.0 FT) WEST OF A WITNESS POST, AND 7.0 METERS (23.0 FT) EAST OF THE CENTER LINE OF THE MAIN PARK ROAD.

THE 1080 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "1080 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND, 0.7 METERS (2.3 FT) WEST OF A WITNESS POST, AND 6.8 METERS (22.3 FT) EAST OF THE CENTER LINE OF THE MAIN PARK ROAD.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY. TRAFFIC SAFETY PRECAUTIONS SHOULD BE TAKEN WHILE USING THIS CBL DUE TO THE CLOSE PROXIMITY TO THE PARK ROAD AND TRAFFIC FLOW.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, PLEASE CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: AURORA CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: AURORA

QUAD: N451223
OREGON
MARION COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO	58.640	150	58.765	149.9774	149.9774	0.1
ZERO	58.640	800	58.923	799.8657	799.8657	0.1
ZERO	58.640	1530	58.361	1530.5701	1530.5701	0.2
150	58.765	800	58.923	649.8883	649.8883	0.1
150	58.765	1530	58.361	1380.5928	1380.5928	0.1
800	58.923	1530	58.361	730.7045	730.7047	0.1

DESCRIPTION OF: AURORA (PORTLAND) BASE LINE
YEAR MEASURED: 1976, 1990
YEAR REMEASURED: 2000
LATITUDE: 45 14 30
LONGITUDE: 122 46 20
AZIMUTH: 349
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 24 KM (15 MI) SOUTH OF PORTLAND, 5 KM (3 MI) SOUTH OF WILSONVILLE AND 2.4 KM (1.5 MI) NORTHWEST OF AURORA, ADJACENT TO THE WEST SIDE OF AURORA STATE AIRPORT.

THE BASE LINE IS A NORTH-SOUTH LINE WITH THE 0-METER POINT ON THE SOUTH END. IT CONSISTS OF THE 0, 150, 800, AND 1530 METER POINTS WITH A 100-FOOT TAPE CALIBRATION STATION LOCATED IN LINE WITH AND NORTH OF THE 0-METER POINT.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF MILEY ROAD AND U.S. INTERSTATE 5 (EXIT 282 FOR NORTHBOUND LANES AND EXIT 282B FOR SOUTHBOUND LANES), GO EAST ON MILEY ROAD FOR 0.4 KM (0.25 MI)

TO THE INTERSECTION OF AIRPORT ROAD ON THE RIGHT. TURN RIGHT ONTO AIRPORT ROAD AND GO SOUTH FOR 2.6 KM (1.6 MI) TO THE INTERSECTION OF ARNDT ROAD. TURN RIGHT ONTO ARNDT ROAD AND GO WEST FOR 0.4 KM (.25 MI) TO THE INTERSECTION OF OREGON STATE HIGHWAY 51 (WILSONVILLE-HUBBARD HIGHWAY OR HUBBARD CUTOFF). NOTE - THERE ARE NO STREET SIGNS IDENTIFYING STATE HIGHWAY 51. TURN LEFT ONTO STATE HIGHWAY 51 AND GO SOUTH FOR 2.0 KM (1.25 MI) TO THE INTERSECTION OF A GRAVEL ROAD. TURN LEFT ONTO THE GRAVEL ROAD AND GO EAST FOR 25 M (82 FT) TO THE 0-METER POINT ON THE LEFT.

THE 0-METER POINT IS A 3 INCH PLAIN BRASS DISK STAMPED "P.L.S.O. STA. NO. 1 0+00 TEST BASE 1973" SET IN THE TOP OF A 30 CM (12 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 25.9 M (85.0 FT) EAST OF THE CENTERLINE OF HIGHWAY 51, 5.2 M (17.1 FT) WEST OF A FENCE ROW, 0.8 M (2.6 FT) EAST OF A WITNESS POST, AND 0.7 M (2.3 FT) WEST OF A WITNESS POST.

THE 150-METER POINT IS A STANDARD NGS HORIZONTAL CONTROL DISK STAMPED "4 A 1976" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST PROJECTING 8 CM (3 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 26.0 M (85.3 FT) EAST OF THE CENTERLINE OF HIGHWAY 51, 4.8 M (15.7 FT) WEST OF A FENCE ROW, 0.5 M (1.6 FT) WEST OF A WITNESS POST, AND 0.3 M (1.0 FT) EAST OF A WITNESS POST.

THE 800-METER POINT IS A STANDARD NGS HORIZONTAL CONTROL DISK STAMPED "5 A 1976" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 25.9 M (85.0 FT) EAST OF THE CENTERLINE OF HIGHWAY 51, 4.8 M (15.7 FT) WEST OF A FENCE ROW, 0.8 M (2.6 FT) EAST OF A WITNESS POST, AND 0.6 M (2.0 FT) WEST OF A WITNESS POST.

THE 1530-METER POINT IS A 3 INCH PLAIN BRASS DISK STAMPED "P.L.S.O. STA. NO. 7 TEST BASE 1973" SET IN THE TOP OF A 30 CM (12 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 25.6 M (84.0 FT) EAST OF THE CENTERLINE OF HIGHWAY 51, 4.8 M (15.7 FT) WEST OF A FENCE ROW, 0.7 M (2.3 FT) EAST OF A METAL POST, 0.6 M (2.0 FT) WEST OF A METAL POST, AND 0.6 M (2.0 FT) WEST OF A WITNESS POST.

THE 100-FOOT TAPE CALIBRATION STATION IS A 3 INCH BRASS DISK STAMPED "P.L.S.O. STA. 2 1+00 TEST BASE 1973" SET IN THE TOP OF A 30 CM (12 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 30.48 M (99.99 FT) NORTH OF THE 0-METER POINT, 25.9 M (85.0 FT) EAST OF THE CENTERLINE OF HIGHWAY 51, 5.5 M (18.0 FT) WEST OF A FENCE ROW, 0.6 M (2.0 FT) WEST OF A METAL POST, AND 0.6 M (2.0 FT) WEST OF A WITNESS POST. THE MARK TO MARK DISTANCE TO THE 0-METER POINT IS 99.99 FT.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: BANDON CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: BANDON

QUAD: N431242
OREGON
COOS COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	3.000	280 1986	1.730	280.0000	280.0029	0.1
ZERO 1986	3.000	430 1986	1.698	429.9939	429.9959	0.1
ZERO 1986	3.000	1080 1986	3.307	1079.9841	1079.9841	0.2
280 1986	1.730	430 1986	1.698	149.9939	149.9939	0.1
280 1986	1.730	1080 1986	3.307	799.9839	799.9855	0.1
430 1986	1.698	1080 1986	3.307	649.9900	649.9920	0.1

DESCRIPTION OF: BANDON BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2001
LATITUDE: 43 08 03
LONGITUDE: 124 25 12
AZIMUTH: 15
CHIEF OF PARTY: CLS

THIS BASE LINE IS LOCATED 3.6 KM (2.25 MI) NORTH OF BANDON, 3.2 KM (2.0 MI) WEST OF THE BULLARDS BEACH STATE PARK ENTRANCE, AND ALONG THE WEST EDGE OF THE PAVED PARK ROAD LEADING TO THE LIGHTHOUSE ON THE PENINSULA AT THE SOUTHWEST END OF THE PARK.

THE BASE LINE IS SOUTH-NORTH LINE WITH THE 0 METER POINT LOCATED AT THE SOUTH END. THE CBL CONSISTS OF THE 0, 280, 430, AND 1080 METER POINT. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO AND WEST OF THE PAVED ROAD LEADING TO THE LIGHTHOUSE.

TO REACH THE BASE LINE FROM THE JUNCTION OF U.S. ROUTE 101 AND STATE ROUTE 42S AT THE EAST END OF BANDON, GO NORTH ON U.S. ROUTE 101 FOR 3.0 KM (1.9 MI) TO THE EAST EDGE OF THE COQUILLE RIVER BRIDGE. CONTINUE STRAIGHT ACROSS THE BRIDGE AND GO NORTH FOR 0.64 KM (0.4 MI) TO A SIDE ROAD LEFT AND THE ENTRANCE TO BULLARDS BEACH STATE PARK. TURN LEFT A GO WEST INTO THE PARK FOLLOWING THE PAVED MAIN PARK ROAD PAST THE CAMPING AREA ENTRANCE, PICNIC AREAS AND TOWARDS THE LIGHTHOUSE/BEACH AREAS FOR 2.1 KM (1.3 MI) TO A "T" JUNCTION AND REST ROOM AREA. TURN LEFT AND GO SOUTH TOWARDS THE LIGHTHOUSE FOR 1.36 KM (0.85 MI) TO THE 0 METER POINT ON THE RIGHT AT THE BASE OF THE EAST SLOPE OF A LONG BEACH FRONT DUNE.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "0 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST PROJECTING 10 CM (4 IN) ABOVE THE GROUND. IT IS: 1.0 METERS (3.3 FT) EAST OF A WITNESS POST, 12.7 METERS (41.7 FT) NORTH-NORTHWEST OF THE NORTHWEST CORNER OF PAVED PARKING PAD, AND 13.1 METERS (43.0 FT) WEST OF THE PAVED ROAD CENTER LINE.

THE 280 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "280 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST PROJECTING 10 M (4 IN) ABOVE THE GROUND. IT IS: 1.2 METERS (3.9 FT) EAST OF A WITNESS POST, AND 19.2 METERS (63.0 FT) WEST OF THE PAVED ROAD CENTER LINE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "430 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST PROJECTING 10 CM (4 IN) ABOVE THE GROUND. IT IS: 1.2 METERS (3.9 FT) EAST OF A WITNESS POST, AND 21.7 METERS (71.2 FT) WEST OF THE PAVED ROAD CENTER LINE.

THE 1080 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "1080 1986", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST. IT IS: 1.1 METERS (3.6 FT) EAST OF A WITNESS POST, 27.5 METERS (90.2 FT) WEST OF THE PAVED ROAD CENTER LINE, ABOUT 150 METERS (492 FT) SOUTH OF A REST AREA PARKING LOT, AND ON TOP OF A SMALL GRASSY HILL.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS FOR ALL POINTS ARE FOR BASE LINE USE ONLY. TRAFFIC SAFETY PRECAUTIONS SHOULD BE TAKEN DUE TO CLOSE PROXIMITY TO PARK ROAD.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION. FOR MORE INFORMATION, PLEASE CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: BLUE MOUNTAIN CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: LA GRANDE

QUAD: N451182
OREGON
UNION COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO PLSO BASELINE GPS	839.726	150 PLSO BASELINE	839.168	150.0067	150.0077	0.1
ZERO PLSO BASELINE GPS	839.726	430 PLSO BASELINE	838.251	429.9846	429.9872	0.1
ZERO PLSO BASELINE GPS	839.726	1150 PLSO BASELINE	835.698	1149.9536	1149.9606	0.2
150 PLSO BASELINE	839.168	430 PLSO BASELINE	838.251	279.9779	279.9794	0.1
150 PLSO BASELINE	839.168	1150 PLSO BASELINE	835.698	999.9469	999.9529	0.1
430 PLSO BASELINE	838.251	1150 PLSO BASELINE	835.698	719.9690	719.9735	0.1

DESCRIPTION OF: BLUE MOUNTAIN BASE LINE
YEAR MEASURED: 1984
YEAR REMEASURED: 2000
LATITUDE: 45 18 40
LONGITUDE: 118 03 52
AZIMUTH: 115 DEGREES TRUE NORTH
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ON THE SOUTHEAST SIDE OF LA GRANDE AND ALONG THE SOUTHWEST SIDE OF UNITED STATES HIGHWAY 30 BETWEEN GEKELER LANE AND A POINT JUST EAST OF BLUE MOUNTAIN TIRE COMPANY.

THE BASE LINE IS A EAST-WEST LINE WITH THE 0 METER POINT ON THE WEST END. THE BASE LINE CONSISTS OF THE 0, 150, 430, AND 1150 METER POINTS. THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE. ALL OF THE MARKS ARE SET ON A LINE PARALLEL TO AND ABOUT 39.32 M (129 FT) SOUTHWEST OF THE CENTER LINE OF HIGHWAY 30.

TO REACH THE 0-METER POINT FROM THE INTERSTATE HIGHWAY 84 EXIT 265 JUNCTION OF OREGON STATE HIGHWAY 203 SOUTH, U.S. HIGHWAY 30 WEST, AND INTERSTATE 84 EAST, GO WEST ON HIGHWAY 30 TOWARD LA GRANDE FOR 1.53 K (0.95 MI) TO THE 1149 METER POINT ON THE LEFT, CONTINUE WEST ON HIGHWAY 30 FOR 0.72 K (0.45 MI) TO THE 430 METER POINT ON THE LEFT, CONTINUE WEST FOR 0.24 K (0.15 MI) TO THE 150 METER POINT ON THE LEFT AND TO REACH THE 0 METER POINT, CONTINUE WEST ON HIGHWAY 30 FOR 0.16 K (0.1 MI) TO A FIELD ROAD ENTRANCE ON THE LEFT IN THE SOUTHWEST ANGLE OF THE JUNCTION OF HIGHWAY 30 AND GEKELER LANE, TURN LEFT ONTO THE FIELD ROAD ENTRANCE AND THE 0 METER POINT AS DESCRIBED.

THE 0 METER POINT IS A 2.5 IN BRASS SURVEY DISK, STAMPED "PLSO BASELINE GPS", SET IN THE TOP OF A 26 CM (10 IN) ROUND CONCRETE POST RECESSED 5 CM (2 IN) BELOW THE SURFACE OF THE GROUND. IT IS: 39.3 M (128.9 FT) SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY, 37.9 M (124.3 FT) SOUTH OF THE CENTERLINE OF GEKELER LANE AT JUNCTION OF HIGHWAY SOUTHWEST EDGE, 18.5 M (60.7 FT) WEST NORTHWEST OF A POWER POLE WITH TRANSFORMER #044165898 K384 65KS, 6.6 M (21.7 FT) NORTHEAST OF THE EAST END OR A WIRE GATE POST IN RIGHT OF WAY FENCE, AND 1.0 M (3.3 FT) SOUTHWEST OF A METAL POST.

THE 150 METER POINT IS A 2.5 IN BRASS SURVEY DISK, STAMPED "PLSO BASELINE", SET IN THE TOP OF A 26 CM (10 IN) ROUND CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 39.5 M (129.7 FT) SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY, 47.9 M (157.2 FT) NORTHWEST OF THE CENTERLINE OF A PAVED DRIVE LEADING TO THE BLUE MOUNTAIN HUMANE ASSOCIATION ANIMAL SHELTER, 6.2 M (20.3 FT) NORTHEAST OF A RIGHT OF WAY FENCE, AND 1.0 M (3.3 FT) SOUTHWEST OF A METAL POST.

THE 430 METER POINT IS A 2.5 IN BRASS SURVEY DISK, STAMPED "PLSO BASELINE", SET IN THE TOP OF A 26 CM (10 IN) ROUND CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 39.6 M (129.9 FT) SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY, 22.1 M (72.5 FT) EAST OF A WOODEN CORNER FENCE POST IN RIGHT OF WAY FENCE T-JUNCTION, 7.5 M (24.6 FT) WEST SOUTHWEST OF A 65 CM (26 IN) DIAMETER WATER MAIN COVER MANHOLE, AND 0.9 M (3.0 FT) SOUTHWEST OF A METAL POST.

THE 1150 METER POINT IS A 2.5 IN BRASS SURVEY DISK, STAMPED "PLSO BASELINE", SET IN THE TOP OF A 26 CM (10 IN) ROUND CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 39.5 M (129.6 FT) SOUTHWEST OF THE CENTERLINE OF THE HIGHWAY, 10.9 M (35.8 FT) EAST OF POWER POLE #KS 20 044151149, 8.9 M (29.2 FT) NORTH NORTHWEST OF A CHAIN LINK FENCE CORNER POST, 5.6 M (18.4 FT) NORTHEAST OF A CHAINLINK FENCE CORNER POST, AND 0.9 M (3.0 FT) SOUTHWEST OF A METAL POST.

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THE BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH OREGON DEPARTMENT OF TRANSPORTATION. FOR MORE INFORMATION PLEASE CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: CENTRAL OREGON CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: REDMOND

QUAD: N441212
OREGON
DESCHUTES COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1982	1000.000	150 1982	1000.544	149.9942	149.9952	0.1
ZERO 1982	1000.000	430 1982	1001.589	429.9741	429.9770	0.2
ZERO 1982	1000.000	1260 2000	1007.245	1259.9632	1259.9841	0.2
150 1982	1000.544	430 1982	1001.589	279.9799	279.9818	0.1
150 1982	1000.544	1260 2000	1007.245	1109.9690	1109.9892	0.2
430 1982	1001.589	1260 2000	1007.245	829.9890	830.0083	0.1

DESCRIPTION OF: CENTRAL OREGON BASE LINE
YEAR MEASURED: 1982
YEAR REMEASURED: 2000
LATITUDE: 44 09 28
LONGITUDE: 121 10 41
AZIMUTH: 205 DEGREES TRUE NORTH
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 13.7 KM (8.5 MI) NORTHEAST OF BEND, 12.9 KM (8.0 MI) SOUTH OF REDMOND AND 6.4 KM (4.0 MI) EAST OF DESCHUTES JUNCTION ALONG THE WEST SIDE OF THE NORTH UNIT MAIN CANAL.

THE BASE LINE IS A NORTH-SOUTH LINE WITH THE 0 METER POINT ON THE NORTH END. THE BASE LINE CONSISTS OF THE 0, 150, 430, AND 1260 METER POINTS WITH POINTS FOR THE CALIBRATION OF 100 AND 200 FOOT TAPES SET NORTH AND SOUTH OF THE 0 METER POINT RESPECTIVELY. ALL OF THE MARKS ARE SET IN A

LINE ON THE WEST SIDE OF THE LEVEE AND CANAL ROAD. ALL OF THE MARKS HAVE PLASTIC WITNESS POSTS NEAR THEM.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF U.S. HIGHWAY 97 AND DESCHUTES MARKET ROAD LOCATED 14.0 KM (22.5 MI) SOUTHWEST OF REDMOND AT DESCHUTES JUNCTION, GO SOUTHEAST ON DESCHUTES MARKET ROAD FOR 0.5 KM (0.3 MI) TO A HARD RIGHT TURN AND A PAVED ROAD ON THE LEFT JUST PAST THE RAILROAD TRACKS CROSSING. CONTINUE RIGHT ON DESCHUTES MARKET ROAD FOR 1.1 KM (0.7 MI) TO DALE ROAD ON THE LEFT. TURN LEFT AND GO EAST ON DALE ROAD FOR 1.3 KM (0.8 MI) TO A T-JUNCTION WITH MCGRATH ROAD. TURN RIGHT AND GO SOUTHEAST ON MCGRATH ROAD FOR 1.85 KM (1.15 MI) TO THE END OF THE PAVEMENT. CONTINUE AHEAD, SOUTHEAST, ON CINDER GRADED MCGRATH ROAD FOR 2.17 KM (1.35 MI) TO A T-JUNCTION WITH GRADED CANAL ROAD. TURN LEFT AND GO NORTHEAST ON GRADED ROAD ALONG THE NORTHWEST SIDE OF THE NORTH UNIT MAIN CANAL FOR 3.2 KM (2.0 MI) TO CANAL MILE MARKER 9 AND THE 1260-METER STATION ON THE LEFT. CONTINUE AHEAD, NORTHEAST, ON GRADED ROAD ALONG CANAL FOR 0.8 KM (0.5 MI) TO THE 430-METER POINT ON THE LEFT. CONTINUE AHEAD, NORTHEAST, ON GRADED ROAD ALONG CANAL FOR 0.28 KM (0.17 MI) TO THE 150-METER POINT ON THE LEFT. CONTINUE AHEAD, NORTHEAST, ON GRADED ROAD ALONG CANAL FOR 0.15 KM (0.09 MI) TO THE 0-METER POINT ON THE LEFT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "0 1982", SET IN A DRILL HOLE IN A ROCK OUTCROP OF 1.8 M (6.0 FT) LARGEST DIMENSION. IT IS: 10.973 M (36.0 FT) SOUTHWEST FROM A CROOKED 46 CM (18 IN) JUNIPER TREE, 28.499 M (93.5 FT) WEST FROM REFERENCE MARK NUMBER 1, AND 54.712 M (179.5 FT) WEST FROM CENTER LINE OF CANAL ROAD.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "150 1982", SET INTO A SQUARE CONCRETE MONUMENT 30 CM (12 IN) IN DIAMETER ON SIDE PROJECTING 10 CM (4 IN) ABOVE THE GROUND. IT IS: 3.658 M (12.0 FT) WEST FROM CENTER LINE OF TRACK ROAD, 17.678 (58.0 FT) WEST FROM CENTER LINE OF CANAL ROAD, AND 43.129 M (141.5 FT) NORTHEAST FROM A 76 CM (30 IN) DIAMETER JUNIPER TREE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "430 1982" SET INTO THE TOP OF A SQUARE CONCRETE MONUMENT 30 CM (12 IN) IN DIAMETER ON SIDE PROJECTING 20 CM (8 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 3.658 M (12.0 FT) EAST FROM CENTER LINE OF A DIM TRACK ROAD, 17.526 M (57.5 FT) SOUTHEAST FROM A 61 CM (24 IN) DIAMETER JUNIPER TREE, AND 18.745 M (61.5 FT) WEST FROM CENTER LINE OF CANAL ROAD.

THE 1260 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1260 2000" SET IN A DRILL HOLE INTO A ROCK OUTCROP 1.8 M (6.0 FT) LARGEST DIMENSION. IT IS: 4.877 M (16.0 FT) EAST FROM THE EAST EDGE OF A LARGE ROCK PILE, 7.315 M (24.0 FT) WEST FROM CENTER LINE OF CANAL ROAD, AND 9.144 M (30.0 FT) NORTHWEST FROM A 7.5 CM (3 IN) DIAMETER JUNIPER TREE.

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THE BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH OREGON DEPARTMENT OF TRANSPORTATION. FOR MORE INFORMATION PLEASE CONTACT THE NORTH UNIT IRRIGATION DISTRICT, 2024 NW BEECH STREET, MADRAS, OREGON 97741, PHONE 541-475-3625 OR CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: EUGENE CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: EUGENE

QUAD: N441232
OREGON
LANE COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1993	120.578	150 1993	119.778	149.9923	149.9944	0.0
ZERO 1993	120.578	430 1993	119.466	429.9945	429.9960	0.1
ZERO 1993	120.578	1200 1993	118.553	1199.9714	1199.9731	0.1
150 1993	119.778	430 1993	119.466	280.0022	280.0024	0.0
150 1993	119.778	1200 1993	118.553	1049.9791	1049.9798	0.1
430 1993	119.466	1200 1993	118.553	769.9769	769.9774	0.0

DESCRIPTION OF: EUGENE BASE LINE
YEAR MEASURED: 1994
YEAR REMEASURED: 2001
LATITUDE: 44 05 06
LONGITUDE: 123 08 58
AZIMUTH: 339
CHIEF OF PARTY: CLS

A TAPE CALIBRATION MONUMENT IS SET 100 FEET NORTH FROM THE 0 METER POINT. THE REDUCED MARK TO MARK DISTANCE IS 100.00 FEET.

THE BASE LINE IS LOCATED ABOUT 7.2 KM (4.5 MI) NORTHWEST OF EUGENE AND 2.1 KM (1.3 MI) SOUTHWEST OF SANTA CLARA. THE BASE LINE RUNS ALONG AND IS APPROXIMATELY PARALLEL WITH THE WESTERN EDGE OF THE NORTHWEST EXPRESSWAY, BETWEEN THE EXPRESSWAY AND A RAILROAD SWITCHING YARD.

THE BASE LINE IS A NORTH-SOUTH LINE WITH THE 0-METER POINT ON THE SOUTH END. IT CONSISTS OF THE 0, 150, 430 AND 1200 METER POINTS, WITH A 100-FOOT TAPE CALIBRATION STATION ON LINE AND NORTH OF THE

0-METER POINT. EACH STATION IS SURROUNDED BY THREE 14 CM (5.5 IN) SQUARE WOODEN POSTS, PAINTED WHITE, PROJECTING APPROXIMATELY 1.0 M (3.3 FT) ABOVE THE GROUND.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF BELTLINE ROAD AND INTERSTATE HIGHWAY 5 (EXIT 195B), LOCATED ON THE NORTH SIDE OF EUGENE, GO WEST ON BELTLINE ROAD FOR 9.2 KM (5.7 MI) TO THE NORTHWEST EXPRESSWAY EXIT RAMP. PROCEED ONTO THE EXIT RAMP TO THE T-INTERSECTION WITH THE NORTHWEST EXPRESSWAY. TURN LEFT AND GO SOUTH ON THE NORTHWEST EXPRESSWAY FOR 0.3 KM (0.2 MI) TO THE 1200-METER POINT ON THE RIGHT. CONTINUE SOUTH ON THE NORTHWEST EXPRESSWAY FOR 1.2 KM (0.7 MI) TO THE 0-METER POINT ON THE RIGHT.

THE 0-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "0 1993" SET IN THE TOP OF A 36 CM (14 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 17.2 M (56.5 FT) EAST OF THE CENTERLINE OF THE EASTERNMOST RAILROAD TRACK AND 16.0 M (52.5 FT) WEST OF THE CENTERLINE OF THE NORTHWEST EXPRESSWAY.

THE 150-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "150 1993" SET IN THE TOP OF A 43 CM (17 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 23.5 M (77.0 FT) SOUTHEAST OF THE SOUTHEAST CORNER OF THE BASE OF RAILROAD SIGNAL TOWER NO. 6508, 17.4 M (57.0 FT) EAST OF THE CENTERLINE OF THE EASTERNMOST RAILROAD TRACK AND 16.2 M (53.0 FT) WEST OF THE CENTERLINE OF THE NORTHWEST EXPRESSWAY.

THE 430-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "430 1993" SET IN THE TOP OF A 41 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 17.1 M (56.0 FT) EAST OF THE CENTERLINE OF THE EASTERNMOST RAILROAD TRACK AND 16.2 M (53.0 FT) WEST OF THE CENTERLINE OF THE NORTHWEST EXPRESSWAY.

THE 1200-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "1200 1993" SET IN THE TOP OF A 33 CM (13 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 17.4 M (57.0 FT) EAST OF THE CENTERLINE OF THE EASTERNMOST RAILROAD TRACK AND 16.0 M (52.5 FT) WEST OF THE CENTERLINE OF THE NORTHWEST EXPRESSWAY.

THE 100-FOOT TAPE CALIBRATION STATION IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "100 FT" SET IN THE TOP OF A 36 CM (14 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 17.1 M (56.0 FT) EAST OF THE CENTERLINE OF THE EASTERNMOST RAILROAD TRACK AND 16.5 M (54.0 FT) WEST OF THE CENTERLINE OF THE NORTHWEST EXPRESSWAY. THE MARK-TO-MARK DISTANCE FROM THE 0- METER POINT IS 30.480 M (100.00 FT).

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION AND THE LANE COUNTY DEPARTMENT OF WORKS. FOR MORE INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
ROCKVILLE MD 20852

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: HERMISTON CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: HERMISTON

QUAD: N451191
OREGON
MORROW COUNTY

LIST OF ADJUSTED DISTANCES (SEPTEMBER 4, 1987)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO (0 point	165.000	150	163.989	149.9935	149.9969	0.1
ZERO disturbed)	165.000	430	162.896	429.9823	429.9875	0.5
ZERO	165.000	1190	164.447	1189.9821	1189.9822	0.7
150	163.989	430	162.896	279.9888	279.9909	0.5
150	163.989	1190	164.447	1039.9885	1039.9886	0.7
430	162.896	1190	164.447	759.9996	760.0012	0.5

DESCRIPTION OF: HERMISTON BASE LINE
YEAR MEASURED: 1987
CHIEF OF PARTY: MTL

THE BASE LINE IS LOCATED 17.6 KM (11.0 MI) WEST OF HERMISTON, 6.2 KM (3.9 MI) WEST OF UMATILLA ARMY DEPOT, ALONG THE SOUTH SIDE FRONTAGE ROAD OF INTERSTATE 84.

THIS BASE LINE IS A WEST-EAST BASE LINE WITH 0 METER POINT LOCATED AT THE WEST END. THE CBL CONSISTS OF THE 0, 150, 430, AND 1190 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO THE SOUTH EDGE OF THE FRONTAGE ROAD WHICH IS SOUTH OF INTERSTATE 84.

TO REACH THE BASE LINE FROM THE JUNCTION OF INTERSTATE 84 AND THE UMATILLA ARMY DEPOT ROAD EXIT 177, TAKE THE UMATILLA ARMY DEPOT ROAD SOUTH AND GO 0.16 KM (0.1 MI) TO THE JUNTION OF A FRONTAGE ROAD. TURN RIGHT ON THE FRONTAGE ROAD AND GO WEST 6.1 KM (3.8 MI) TO THE 0 METER POINT ON THE LEFT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISC STAMPED "0 1986", SET IN THE TOP OF A 38 CM (15 IN) DIAMETER CONCRETE POST SET FLUSH WITH THE GROUND, 1.0 METERS (3.3. FT) NORTH OF A WITNESS POST, 9.2 METERS (30.2 FT) SOUTH OF THE FRONTAGE ROAD CENTER LINE, AND 19.0 METERS (62.7 FT) EAST OF A DIRT SIDE ROAD CENTER LINE.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISC STAMPED "150 1986", SET IN THE TOP OF A 46 CM (18.1 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND, 1.0 METERS (3.3 FT) NORTH OF A WITNESS POST, AND 8.8 METERS (28.9 FT) SOUTH OF THE FRONTAGE ROAD CENTER LINE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE STAMPED "430 1986", SET IN THE TOP OF A 32 CM (12.6 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND, 1.0 METERS (3.3 FT) NORTH OF A WITNESS POST, AND 9.0 METERS (29.5 FT) SOUTH OF THE FRONTAGE ROAD CENTER LINE.

THE 1190 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISC STAMPED "1190 1986", SET IN THE TOP OF A 38 CM (15 IN) DIAMETER CONCRETE POST FLUSH WITH THE GROUND, 1.0 METERS (3.3 FT) NORTH OF A WITNESS POST, AND 9.0 METERS (29.5 FT) SOUTH OF THE FRONTAGE ROAD CENTER LINE.

USER NOTES: TRAFFIC SAFETY PRECAUTIONS SHOULD BE TAKEN WHILE USING THIS CBL DUE TO THE HIGH SPEED TRAFFIC ON FRONTAGE ROAD.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION. FOR MORE INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: HILLSBORO CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: HILLSBORO

QUAD: N451224
OREGON
WASHINGTON COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1987	60.960	150 1987	60.231	149.9971	149.9989	0.2
ZERO 1987	60.960	940 1987	51.911	939.9968	940.0404	0.3
ZERO 1987	60.960	1370 1987	52.391	1369.9949	1370.0217	0.4
150 1987	60.231	940 1987	51.911	789.9997	790.0436	0.2
150 1987	60.231	1370 1987	52.391	1219.9978	1220.0230	0.3
940 1987	51.911	1370 1987	52.391	429.9977	429.9980	0.2

DESCRIPTION OF: HILLSBORO BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2000
LATITUDE: 45 34 08
LONGITUDE: 122 56 19
AZIMUTH:280
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED 19.2 KM (12.0) WEST OF THE JUNCTIONS OF INTER-STATE 405 AND U.S. ROUTE 26, 4.8 KM (3.0 MI) EAST OF HILLSBORO, AND ALONG THE NORTH SIDE RIGHT OF WAY OF WESTBOUND U.S. ROUTE 26.

THE BASE LINE IS EAST-WEST LINE WITH THE 0 METER POINT ON THE EAST END. THE CBL CONSISTS OF THE 0, 150, 940, AND 1370 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO U.S. ROUTE 26, AND LIES BETWEEN U.S. ROUTE 26 AND GROVELAND DRIVE. THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE.

TO REACH THE BASE LINE FROM THE JUNCTION OF U.S. ROUTE 26 AND HELVETIA ROAD (EXIT 61), GO NORTH ON HELVETIA ROAD FOR 0.16 KM (0.1 MI) TO AN INTERSECTION, GROVELAND DRIVE. TURN LEFT, WEST, ON GROVELAND DRIVE AND GO WEST FOR 1.12 KM (0.7 MI) TO THE 0 METER POINT ON THE LEFT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "0 1987", SET IN TOP OF 30 CM (12 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3 FT) NORTH OF A WITNESS POST, 14.8 M (48.6 FT) SOUTH OF THE CENTER LINE OF GROVELAND DRIVE, 12.8 M (42.0 FT) NORTH OF THE CENTER LINE OF THE WESTBOUND LANE OF U.S. ROUTE 26, AND 32.2 M (105.8 FT) SOUTHEAST OF USC&GS TRIANGULATION STATION "ROVE 1968".

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "150 1987", SET IN THE TOP OF A 30 CM (12 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3 FT) NORTH OF A WITNESS POST, 14.5 M (47.6 FT) SOUTH OF THE CENTER LINE OF GROVELAND DRIVE, AND 13.1 M (43.0 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND LANE OF U.S. ROUTE 26.

THE 940 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "940 1987", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3. FT) NORTH OF A WITNESS POST, 13.7 M (45.0 FT) SOUTH OF THE CENTERLINE OF GROVELAND DRIVE, 13.7 M (45.0 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND LANE OF U.S. ROUTE 26, AND 16.4 M (53.8 FT) NORTHWEST OF AN ORHD BENCHMARK "D 672 1976" SET IN THE CENTER OF A CONCRETE HEAD WALL.

THE 1370 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1370 1987", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3 FT) NORTH OF A WITNESS POST, 14.2 M (46.6 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND LANE OF U.S. ROUTE 26, 190 M (623.4 FT) WEST OF THE END OF THE GROVELAND DRIVE PAVEMENT, AND 3.5 M (11.5 FT) SOUTH OF THE CENTERLINE OF A DIRT ROAD.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: KLAMATH FALLS CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: KLAMATH FALLS

QUAD: N421213
OREGON
KLAMATH COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	125.000	150 1986	124.992	149.9976	149.9976	0.1
ZERO 1986	125.000	430 1986	124.996	429.9886	429.9886	0.2
ZERO 1986	125.000	1270 1986	124.998	1269.9998	1269.9998	0.3
150 1986	124.992	430 1986	124.996	279.9910	279.9910	0.1
150 1986	124.992	1270 1986	124.998	1120.0022	1120.0022	0.2
430 1986	124.996	1270 1986	124.998	840.0112	840.0112	0.1

DESCRIPTION OF: KLAMATH FALLS BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2001
LATITUDE: 42 08 26
LONGITUDE: 121 43 02
AZIMUTH:090
CHIEF OF PARTY: CLS

THIS BASE LINE IS LOCATED 4.8 KM (3.0 MI) SOUTHEAST OF KLAMATH FALLS, JUST EAST OF THE SOUTHEAST CORNER OF THE KLAMATH FALLS AIRPORT, AND ALONG THE SOUTH EDGE OF THE LOSE RIVER DIVERSION CHANNEL CANAL ACCESS ROAD.

THIS BASE LINE IS A WEST-EAST LINE WITH THE 0 METER POINT AT THE WEST END. THE CBL CONSISTS OF THE 0, 150, 430, AND 1270 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL AND ALONG THE SOUTH EDGE OF THE LOSE RIVER DIVERSION CHANNEL CANAL.

TO REACH THE BASE LINE FROM THE JUNCTION OF U.S. ROUTE 97 AND STATE ROUTE 140, GO EAST ON STATE ROUTE 140 (SOUTH SIDE EXPRESSWAY) FOR 4.5 KM (2.8 MI) TO AN INTERSECTION, WASHBURN ROAD. CONTINUE STRAIGHT AND GO EAST FOR 3.4 KM (2.1 MI) TO AN INTERSECTION, HOMEMADE ROAD. TURN RIGHT AND GO SOUTH FOR 1.2 KM (0.75 MI) TO A RAILROAD CROSSING. CONTINUE SOUTH FOR 1.3 KM (0.8 MI) TO A BEND LEFT. FOLLOW THE BEND (HENLEY ROAD) AND GO EAST FOR 0.4 KM (0.25 MI) TO A SIDE ROAD RIGHT, THE CONTINUATION OF HOMEMADE ROAD. TURN RIGHT AND GO SOUTH FOR 1.2 KM (0.75 MI) TO A CANAL BRIDGE AND THE ENTRANCE TO A DIRT ROAD ALONG THE SOUTH SIDE OF THE CANAL ON THE LEFT. TURN LEFT AND GO EAST FOR 68.3 METERS (224 FT) TO THE 0 METER POINT ON THE RIGHT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "0 1986", SET IN THE TOP OF A 45 CM (18 IN) DIAMETER CONCRETE POST 20 CM (8 IN) BELOW THE SURFACE OF THE GROUND AND COVERED BY A WOOD BOX. IT IS: 1.0 M (3.3 FT) NORTH OF A WITNESS POST, 2.3 M (7.5 FT) SOUTH OF THE DIRT ROAD CENTERLINE, AND 45.0 M (147.6 FT) EAST OF A METAL GATE.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "150 1986", SET IN THE TOP OF A 45 CM (18 IN) DIAMETER CONCRETE POST 30 CM (12 IN) BELOW THE SURFACE OF THE GROUND AND COVERED BY A WOOD BOX. IT IS: 1.0 M (3.3 FT) NORTH OF A WITNESS POST, AND 2.7 M (8.9 FT) NORTH OF THE DIRT ROAD CENTERLINE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "430 1986", SET IN THE TOP OF A 38 CM (15 IN) DIAMETER CONCRETE POST 30 CM (12 IN) BELOW THE SURFACE OF THE GROUND AND COVERED BY A WOOD BOX. IT IS: 1.2 M (3.9 FT) NORTH OF A WITNESS POST, 2.2 M (7.2 FT) SOUTH OF THE DIRT ROAD CENTERLINE, AND 90.4 M (297 FT) EAST-SOUTHEAST OF A METER POWER POLE.

THE 1270 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "1270 1986", SET IN THE TOP OF A 38 CM (15 IN) DIAMETER CONCRETE POST. IT IS: 1.1 M (3.6 FT) NORTH OF A WITNESS POST, 2.2 M (7.2 FT) SOUTH OF A DIRT ROAD CENTERLINE, AND 33.0 M (108 FT) WEST OF THE DIRT ROAD TURN SOUTH. THE PLUMB POINT IS A DRILL HOLE IN THE CENTER OF STAMPED CROSS.

USER NOTES: CARE SHOULD BE TAKEN TO PLUMB OVER THE PUNCH MARKS WITHIN THE CENTER CROSS OF EACH POINT. POINT ELEVATIONS ARE BASE LINE USE ONLY. NOTE: PUNCH MARKS IN DISKS ARE THERE, BUT HARD TO SEE.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON STATE HIGHWAY DIVISION, OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE LINN COUNTY SURVEYORS OFFICE, COURTHOUSE, 300 4TH AVENUE, SW, ALBANY, OREGON 97321, TELEPHONE 541-967-3857 OR THE OREGON DEPARTMENT OF

TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: MCMINNVILLE CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: MCMINNVILLE

QUAD: N451232
OREGON
YAMHILL COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO	48.375	150	48.147	149.9937	149.9939	0.1
ZERO	48.375	430	47.698	429.9915	429.9920	0.2
ZERO	48.375	1130	47.223	1129.9614	1129.9620	0.2
150	48.147	430	47.698	279.9977	279.9981	0.1
150	48.147	1130	47.223	979.9677	979.9681	0.1
430	47.698	1130	47.223	699.9700	699.9701	0.1

DESCRIPTION OF: MCMINNVILLE BASE LINE
YEAR MEASURED: 1986
YEAR REMEASURED: 2001
LATITUDE: 45 11 11
LONGITUDE: 123 07 57
AZIMUTH:006
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 4.8 KM (3.0 MI) SE OF MCMINNVILLE, AT THE MCMINNVILLE MUNICIPAL AIRPORT. PERMISSION AND KEY MAY BE OBTAINED FROM THE CITY ENGINEERS OFFICE BEFORE ENTERING THE AIRPORT OPERATIONS AREA.

THE BASE LINE IS A NORTHEAST-SOUTHWEST LINE WITH THE 0 METER POINT ON THE SOUTHWEST END. IT CONSISTS OF THE 0, 150, 430, AND 1130 METER POINTS WITH A 100-FOOT TAPE CALIBRATION MARK NORTHEAST OF THE 0 METER POINT. ALL MARKS ARE ON LINE AND PARALLEL WITH RUNWAY 34.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF STATE HIGHWAY 18 AND SALMON RIVER HIGHWAY 39, WHICH IS ABOUT 0.3 KM (0.2 MI) EAST OF THE MAIN ENTRANCE TO THE AIRPORT, GO SOUTH ON HIGHWAY 39 (CRUICKSHANK ROAD) FOR 0.3 KM TO A SIDE ROAD RIGHT (AIRPORT ROAD). TURN RIGHT, AND GO SOUTHERLY FOR 1.8 KM (1.1 MI) TO A DRIVEWAY AND ACCESS GATE ON RIGHT. PASS THROUGH GATE AND GO WESTERLY FOR 0.2 KM (0.1 MI) TO THE END OF DRIVEWAY AND RUNWAY 34. TURN LEFT AND GO SOUTH FOR 27.4 M (90.0 FT) TO THE 0-METER POINT ON EAST SIDE OF RUNWAY.

ALL DISKS ARE STANDARD NGS BASE LINE DISKS SET INTO THE TOP OF 30 CM (12 IN) SQUARE CONCRETE MONUMENTS RECESSED 5 CM (3 IN) BELOW GROUND SURFACE.

THE 0 METER POINT IS STAMPED, "000", AND IS LOCATED 26.8 M (88.0 FT) EAST OF THE CENTERLINE OF RUNWAY 34.

THE 150 METER POINT IS STAMPED, "150", AND IS LOCATED 26.8 M (88.0 FT) EAST FROM CENTERLINE OF RUNWAY 34.

THE 430 METER POINT IS STAMPED, "430", AND IS LOCATED 26.8 M (88.0 FT) EAST FROM CENTERLINE OF RUNWAY 34.

THE 1130 METER POINT IS STAMPED, "1130", AND IS LOCATED 26.8 M (88.0 FT) EAST FROM CENTERLINE OF RUNWAY 34.

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE CITY OF MCMINNVILLE AND THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION CONTACT THE CITY ENGINEERS OFFICE, 230 EAST 2ND STREET, CITY OF MCMINNVILLE, MCMINNVILLE, OREGON 97128. TELEPHONE 503-472-9371 x350 OR THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: MCNARY CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: UMATILLA

QUAD: N451191
OREGON
UMATILLA COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO M 2001	147.798	147 M 2001	148.386	146.5365	146.5377	0.1
ZERO M 2001	147.798	476 M 2001	148.663	475.7550	475.7558	0.2
ZERO M 2001	147.798	1254 M 2001	151.048	1254.2111	1254.2153	0.2
147 M 2001	148.386	476 M 2001	148.663	329.2186	329.2187	0.1
147 M 2001	148.386	1254 M 2001	151.048	1107.6746	1107.6778	0.2
476 M 2001	148.663	1254 M 2001	151.048	778.4560	778.4597	0.1

DESCRIPTION OF: MCNARY BASE LINE
YEAR MEASURED: 2001
LATITUDE: 45 54 24
LONGITUDE: 119 13 36
AZIMUTH:282
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 6.4 KM (4.0 MI) EAST OF UMATILLA, 8.0 KM (5.0 MI) NORTHEAST OF HERMISTON, 2.7 KM (1.7 MI) EAST OF THE COMMUNITY OF MCNARY, AND 6.0 KM (3.7 MI) SOUTHEAST OF THE MCNARY DAM ON THE COLUMBIA RIVER.

THE BASE LINE IS A EAST-WEST BASE LINE WITH THE 0 METER POINT ON THE EAST END. IT CONSISTS OF THE 0, 147, 476, AND 1254 METER POINTS.

TO REACH THE 0-METER POINT FROM THE JUNCTION OF I-82, US HIGHWAY 395N, AND US HIGHWAY 370 LOCATED ON THE EAST SIDE OF UMATILLA, GO EAST ON US HIGHWAY 370 FOR 1.2 KM (0.75 MI) TO THE JUNCTION OF US HIGHWAY 395 SOUTH TO HERMISTON. CONTINUE EAST ON HIGHWAY 370 FOR 3.1 KM (1.95 MI)

TO A PAVED BEACH ACCESS ROAD LEADING NORTH TO THE TWO RIVERS CORRECTIONAL INSTITUTE. CONTINUE EAST ON US HIGHWAY 370 FOR 1.8 KM (1.1 MI) TO HIGHWAY MILEPOST 188 ON THE RIGHT AND 1254- METER POINT ON THE LEFT. CONTINUE EAST ON US HIGHWAY 370 FOR 1.3 KM (0.8 MI) TO THE 0-METER POINT ON THE LEFT WHICH IS 0.25 KM (0.15 MI) MI) WEST OF THE JUNCTION OF CRAIG ROAD LEADING SOUTH.

THE 0-METER POINT IS A SMALL DRILL HOLE IN THE CENTER OF A STAMPED CROSS ON A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "0 M 2001" SET IN THE TOP OF A 1.2 M (4.0 FT) BY 1.2 M (4.0 FT) EXPOSURE OF LAVA OUTCROP PROJECTING 5 CM (2.0 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 54.4 M (178.5 FT) EAST- NORTHEAST OF THE NORTH END OF A 30 CM (12 IN) CONCRETE CULVERT PIPE UNDER THE HIGHWAY, 14.9 M (48.9 FT) SOUTH OF THE RIGHT-OF-WAY FENCE, 14.0 M (45.9 FT) NORTH OF THE CENTERLINE OF THE HIGHWAY, AND 1.0 M (3.3 FT) ABOVE THE HIGHWAY.

THE 147-METER POINT IS A SMALL DRILL HOLE IN THE CENTER OF A STAMPED CROSS ON A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "147 M 2001" SET IN THE TOP OF A 5.5 M (18.0 FT) BY 3.0 M (10 FT) LAVA OUTCROP RIDGE PROJECTING 20 CM (8.0 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 14.3 M (46.9 FT) SOUTH OF THE RIGHT-OF-WAY FENCE, 14.0 M (45.9 FT) NORTH OF THE CENTERLINE OF THE HIGHWAY AND ABOUT LEVEL WITH HIGHWAY.

THE 476-METER POINT IS A SMALL DRILL HOLE IN THE CENTER OF A STAMPED CROSS ON A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "476 M 2001" SET IN THE TOP OF A 1.2 M (4.0 FT) BY 0.8 M (2.6 FT) EXPOSURE OF LAVA OUTCROP ON TOP OF A LOW LAVA RIDGE PROJECTING 10 CM (4.0 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 13.9 M (45.6 FT) NORTH OF THE CENTERLINE OF THE HIGHWAY, 12.5 M (41.0 FT) SOUTH OF THE RIGHT-OF-WAY FENCE, AND ABOUT 0.6 M (2.0 FT) ABOVE THE HIGHWAY.

THE 1254-METER POINT IS A SMALL DRILL HOLE IN THE CENTER OF A STAMPED CROSS ON A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "1254 M 2001" SET IN THE TOP OF A 1.0 M (3.3 FT) BY 0.6 M (2.0 FT) EXPOSURE OF LAVA OUTCROP THAT IS FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 32.9 M (107.9 FT) NORTHEAST OF AND A ACROSS THE HIGHWAY FROM MILEPOST 188, 30.0 M (98.4 FT) EAST OF THE CENTER OF A PAVED ACCESS ENTRANCE LEADING NORTH AND SOUTH TO GATED WILDLIFE AREAS, 13.4 M (44.0 FT) NORTH OF THE CENTERLINE OF THE HIGHWAY, 13.2 M (43.3 FT) SOUTH OF THE RIGHT-OF-WAY FENCE. IT IS ABOUT 1.0 M (3.3 FT) ABOVE THE HIGHWAY AND 1.2 M (3.9 FT) SOUTHWEST FROM AND 30 CM (12 IN) BELOW THE HIGHEST POINT OF LAVA OUTCROP.

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE BASED ON A THIRD ORDER TIE TO BM D525 PID# RB0644 AND BM K640 PID# RB0643.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION, UMATILLA COUNTY SURVEYOR, MORRO COUNTY SURVEYOR, AND LOCAL PRIVATE PARTICIPATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: MEDFORD CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: MEDFORD

QUAD: N421223
OREGON
JACKSON COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	730.000	150 1986	728.454	149.9544	149.9624	0.1
ZERO 1986	730.000	430 1986	724.752	430.0605	430.0925	0.1
ZERO 1986	730.000	1200 1986	717.096	1199.9553	1200.0247	0.2
150 1986	728.454	430 1986	724.752	280.1061	280.1306	0.1
150 1986	728.454	1200 1986	717.096	1050.0009	1050.0624	0.1
430 1986	724.752	1200 1986	717.096	769.8948	769.9328	0.1

DESCRIPTION OF: MEDFORD BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2000
LATITUDE: 42 25 48
LONGITUDE: 122 36 12
AZIMUTH:262
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 32.0 KM (20 MI) EAST-NORTHEAST OF MEDFORD, 11.2 KM (7 MI) EAST OF BROWSBORO, 3.2 KM (2.0 MI) NORTH OF LAKECREEK, AND ALONG THE SOUTH SIDE RIGHT OF WAY OF STATE ROUTE 140.

THE BASE LINE IS A EAST-WEST LINE WITH THE 0 METER POINT AT THE EAST END. THE BASE LINE IS A FOUR POINT BASE CONSISTING OF THE 0, 150, 430, AND 1200 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO STATE ROUTE 140 ALONG THE SOUTH RIGHT OF WAY. THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE.

TO REACH THE BASE LINE FROM THE JUNCTION OF INTERSTATE HIGHWAY 5 AND STATE ROUTE 62, GO NORTHEAST ON STATE ROUTE 62 FOR 9.6 KM (6.0 MI) TO THE JUNCTION OF STATE ROUTE 140. TURN RIGHT AND GO EAST ON STATE ROUTE 140 FOR 20.3 KM (12.7 MI) TO THE LAKECREEK ROAD EXIT RIGHT AND AN UPHILL PASSING LANE. CONTINUE EAST ON STATE ROUTE 140 FOR 3.2 KM (2.0 MI) PAST THE WEIGHT AND LOG SCALING STATION TO THE 0 METER POINT ON THE RIGHT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "0 1986", SET IN THE TOP OF A 60 CM (24 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.2 M (3.9 FT) NORTH OF A WITNESS POST, 11.5 M (37.8 FT) NORTH OF A WIRE FENCE, AND 18.6 M (61.0 FT) SOUTH OF THE STATE ROUTE 140 CENTERLINE.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "150 1986", SET IN THE TOP OF 60 CM (24 IN) BY 95 CM (37 IN) IRREGULAR CONCRETE MASS FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.2 M (3.9 FT) NORTH OF A WITNESS POST, 4.8 METERS EAST OF A PAVED SIDE ROAD CENTERLINE, 11.3 M (37.1 FT) NORTH OF A WIRE FENCE/GATE, AND 19.0 METERS (62.3 FT) SOUTH OF STATE ROUTE 140 CENTERLINE.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "430 1986", SET IN THE TOP OF A 80 CM (31.5) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.2 M (3.9 FT) NORTH OF A WITNESS POST, 10.7 M (35.1 FT) NORTH OF A WIRE FENCE, AND 19.7 M (64.6 FT) SOUTH OF THE STATE ROUTE 140 CENTERLINE.

THE 1200 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1200 1986", SET IN THE TOP OF A 80 CM (35.5 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.2 M (3.9 FT) NORTH OF A WITNESS POST, 8.8 M (28.9 FT) NORTH OF A WIRE FENCE, 21.3 M (69.9 FT) SOUTH OF THE STATE ROUTE 140 CENTERLINE, AND DIRECTLY ACROSS STATE ROUTE 140 FROM A LOG SCALING STATION.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – NOVEMBER 5, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: NEWPORT CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: NEWPORT

QUAD: N441241
OREGON
LINCOLN COUNTY

LIST OF ADJUSTED DISTANCES (OCTOBER 25, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1987	47.200	150 1987	48.818	149.9938	150.0025	0.1
ZERO 1987	47.200	430 1987	51.573	429.9912	430.0134	0.2
ZERO 1987	47.200	1140 1987	58.912	1139.9924	1140.0526	0.3
150 1987	48.818	430 1987	51.573	279.9973	280.0109	0.1
150 1987	48.818	1140 1987	58.912	989.9986	990.0501	0.2
430 1987	51.573	1140 1987	58.912	710.0012	710.0392	0.1

DESCRIPTION OF: NEWPORT BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2001
LATITUDE: 44 34 47
LONGITUDE: 124 03 27
AZIMUTH:37
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED ABOUT 6.6 KM (4.1 MI) SOUTH OF NEWPORT, AT THE NEWPORT MUNICIPAL AIRPORT, PARALLEL TO THE EAST SIDE OF SOUTHWEST-NORTHEAST RUNWAY.

THE BASE LINE IS A SOUTHWEST-NORTHEAST LINE WITH 0-METER POINT AT THE SOUTHWEST END. THIS BASE LINE IS A FOUR POINT BASE CONSISTING OF THE 0, 150, 430, AND THE 1140 METER POINTS. ALL POINTS ARE SET ON A LINE ALONG AND PARALLEL TO THE EAST EDGE OF THE SOUTHWEST-NORTHEAST RUNWAY.

TO REACH 0-METER POINT FROM THE JUNCTION OF U.S. ROUTE 20 AND U.S. ROUTE 101 IN NEWPORT, GO SOUTH ON U.S. ROUTE 101 FOR 1.6 KM (1.0 MI) TO THE NORTH SIDE OF THE YAQUINA BAY BRIDGE. CONTINUE

STRAIGHT ACROSS THE BRIDGE ON U.S. ROUTE 101 FOR 4.9 KM (3.1 MI) TO A PAVED SIDE ROAD LEFT JUST BEFORE THE TOP OF HILL. TURN LEFT ON THE PAVED SIDE ROAD AND GO EAST THROUGH A GATE (SEE BELOW FOR GATE KEY) FOR 0.16 KM (0.1 MI) TO A GRAVEL ROAD LEFT. TURN LEFT AND GO NORTH FOR 0.16 KM (0.1 MI) TO A GRAVEL SIDE ROAD RIGHT AT NORTH END OF THE RUNWAY. TURN RIGHT AND GO EAST FOR O.16 KM (0.1 MI) TO A "T" JUNCTION AND GRAVEL ROAD. TURN RIGHT AND GO SOUTH FOR 0.32 KM (0.2 MI) TO A BEND LEFT. FOLLOW THE BEND AND CONTINUE ON THE GRAVEL ROAD FOR 0.8 KM (0.5 MI) PAST THE NORTHEAST END OF THE SECOND RUNWAY TO A DIRT SIDE ROAD RIGHT. TURN RIGHT ON THE DIRT SIDE ROAD AND GO SOUTHWEST FOR 0.9 KM (0.56 MI) TO THE 0-METER POINT ON THE RIGHT.

TO REACH THE 1140 METER POINT FROM THE 0 METER POINT, GO NORTHEAST 0.9 KM (0.56 MI) ON THE DIRT ROAD TO A "T" JUNCTION AND A GRAVEL ROAD. TURN RIGHT AND GO EAST 30 METERS (100 FT) TO A GRAVEL SIDE ROAD LEFT. TURN LEFT AND GO NORTH FOR 0.24 KM (0.15 MI) TO A "Y", STAY LEFT AND FOLLOW THE DEEPLY RUTTED DIRT ROAD FOR 0.16 KM (0.1 MI) TO THE 1140 METER POINT ON THE RIGHT. IT MAY BE NECESSARY TO WALK THIS BRUSHY, SWAMPY -TYPICALLY NOT DRIVABLE- SECTION.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "0 1987", SET IN THE TOP OF A 45 CM (18 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 3.8 M (12.5 FT) WEST OF THE CENTERLINE OF THE DIRT ROAD, 5.7 M (18.7 FT) WEST OF A WITNESS POST, AND 51.5 M (170 FT) EAST OF THE EAST EDGE OF THE RUNWAY.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "150 1987", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 5.6 M (18.4 FT) WEST OF THE CENTERLINE OF THE DIRT ROAD, 7.7 M (25.3 FT) WEST OF A WITNESS POST, AND 48.3 M (158 FT) EAST OF THE EAST EDGE OF THE RUNWAY.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "430 1987", SET IN THE TOP OF A 40 CM (16 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 35.1 M (115 FT) WEST OF THE CENTERLINE OF THE DIRT ROAD, 37.3 M (122 FT) WEST OF A WITNESS POST, AND 41.9 METERS (137 FT) EAST OF THE EAST EDGE OF THE RUNWAY.

THE 1140 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK, STAMPED "1140 1987", SET IN THE TOP OF A 84 CM (33 IN) IRREGULAR MASS OF CONCRETE PROJECTING 10 CM (4 IN) ABOVE THE GROUND. IT IS: 0.6 METERS (2 FT) SOUTH OF A WITNESS POST, 3.8 METERS (12.5 FT) NORTH OF THE CENTERLINE OF A DIRT ROAD (SEE TO REACH ABOVE).

USER NOTES: CBL USERS SHOULD CONTACT THOMAS HAMILTON, POINT OF CONTACT, FOR GATE ACCESS KEY. RUNWAYS SHOULD NOT BE CROSSED AT ANYTIME. CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR BASE LINE USE ONLY.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION, LINCOLN COUNTY, AND CITY OF NEWPORT. FOR MORE INFORMATION, PLEASE CONTACT MR. THOMAS R. HAMILTON, P.L.S., LINCOLN COUNTY SURVEYOR, 880 N.E. 7TH STREET, NEWPORT, OREGON, 97365, TELEPHONE 503-265-6611 x247 OR THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: ONTARIO CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: VALE

QUAD: N431171
OREGON
MALHEUR COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	865.600	150 1986	864.543	150.0006	150.0043	0.1
ZERO 1986	865.600	430 1986	861.948	430.0086	430.0241	0.2
ZERO 1986	865.600	1000 1986	862.296	1000.0002	1000.0057	0.2
150 1986	864.543	430 1986	861.948	280.0080	280.0201	0.1
150 1986	864.543	1000 1986	862.296	849.9996	850.0026	0.2
430 1986	861.948	1000 1986	862.296	569.9915	569.9916	0.1

DESCRIPTION OF: ONTARIO (VALE) BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2000
LATITUDE: 42 53 29
LONGITUDE: 117 26 55
AZIMUTH:146
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED 21 KM (13.1 MI) WEST OF VALE, 40 KM (25 MI) WEST OF ONTARIO, AND SOUTH OF U.S. ROUTE 20 ALONG THE EAST SIDE OF A GRAVEL ROAD ON BUREAU OF LAND MANAGEMENT, DEPARTMENT OF INTERIOR LAND.

THE BASE LINE IS A NORTH-SOUTH LINE WITH THE 0 METER POINT ON THE NORTH END. IT CONSISTS OF THE 0, 150, 430, AND 1000 METER POINT. ALL POINTS ARE SET ON A LINE THAT RUNS PARALLEL TO THE EAST EDGE OF A GRAVEL ROAD WITH THE EXCEPTION OF THE 1000 METER POINT WHICH IS SET SOUTH OF A DIRT TRACK

ROAD AT THE EAST BASE OF A HILL. THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE.

TO REACH THE BASE LINE FROM THE JUNCTION OF U.S. ROUTE 20 AND U.S. ROUTE 26 IN VALE, GO WEST ON U.S. ROUTE 20 FOR 11.0 KM (6.9 MI) TO THE MALHEUR RIVER BRIDGE. CONTINUE STRAIGHT ON U.S. ROUTE 20 FOR 7.4 KM (4.6 MI) TO MILEPOST 233. CONTINUE STRAIGHT FOR 1.2 KM (0.75 MI) TO A GRAVEL SIDE ROAD LEFT. TURN LEFT ON THE GRAVEL SIDE ROAD AND GO SOUTH FOR 0.16 KM (0.1 MI) TO THE 0 METER POINT ON THE LEFT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "0 1986", SET IN THE TOP OF A 42 CM (16.5 IN) SQUARE CONCRETE POST PROJECTING 10 CM (4 IN) ABOVE THE SURFACE OF THE GROUND. IT IS: 20.1 M (65.9 FT) EAST OF THE GRAVEL ROAD CENTERLINE.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "150 1986", SET IN THE TOP OF A 40 CM (16 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 28.1 M (92.2 FT) EAST OF THE GRAVEL ROAD CENTERLINE, AND 1.0 M (3.3 FT) WEST OF A WITNESS POST.

THE 430 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "430 1986", SET IN THE TOP OF A 33 CM (13 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 44.8 M (147.0 FT) EAST OF THE GRAVEL ROAD CENTERLINE, AND 1.0 M (3.3 FT) WEST OF A WITNESS POST.

THE 1000 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1000 1986", SET IN THE TOP OF A 32 CM (12.6 IN) SQUARE CONCRETE POST PROJECTING 5 CM (2 IN) ABOVE THE SURFACE OF THE GROUND. TO REACH THE 1000 METER POINT FROM THE 0 METER POINT, GO SOUTH ON THE GRAVEL ROAD 0.28 KM (0.45 MI) TO A DIRT TRACK SIDE ROAD LEFT. TURN LEFT ON THE DIRT TRACK ROAD AND GO SOUTHEAST FOR 0.24 KM (0.15 MI) TO THE 1000 METER POINT ON THE RIGHT. IT IS: 76.2 M (250 FT) SOUTH OF THE DIRT TRACK ROAD.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: ROSEBURG CBL
PROJECT ACCESSION NUMBER: 15167
NEAREST TOWN: ROSEBURG

QUAD: N431232
OREGON
DOUGLAS COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1989	1000.000	150 1989	1001.291	149.9840	149.9896	0.1
ZERO 1989	1000.000	430 1989	1003.419	429.9716	429.9852	0.2
ZERO 1989	1000.000	1440 1989	1012.117	1439.9735	1440.0245	0.2
150 1989	1001.291	430 1989	1003.419	279.9876	279.9957	0.1
150 1989	1001.291	1440 1989	1012.117	1289.9895	1290.0349	0.2
430 1989	1003.419	1440 1989	1012.117	1010.0019	1010.0393	0.1

DESCRIPTION OF: ROSEBURG BASE LINE
YEAR MEASURED: 1990
YEAR MEASURED: 2000
LATITUDE: 43 13 58
LONGITUDE: 123 21 19
AZIMUTH:343
CHIEF OF PARTY: CLS

A TAPE CALIBRATION MONUMENT WAS SET AT THE 100 FOOT POINT OF THE BASE LINE. THE REDUCED MARK TO MARK DISTANCE IS 100.00 FT.

THE BASE LINE IS LOCATED AT THE ROSEBURG MUNICIPAL AIRPORT, ON THE NORTH SIDE OF ROSEBURG. THE BASE LINE RUNS PARALLEL WITH AND TO THE EAST OF THE AIRPORT RUNWAY.

THE BASE LINE IS A NORTH-SOUTH LINE WITH THE 0-METER POINT ON THE SOUTH END. IT CONSISTS OF THE 0, 150, 430, AND 1440 METER POINTS WITH A 100-FOOT TAPE CALIBRATION STATION LOCATED BETWEEN AND IN LINE WITH THE 0 AND 150-METER POINTS.

TO REACH THE 0-METER POINT FROM THE INTERSECTION OF U.S. INTERSTATE 5 (EXIT 125) AND GARDEN VALLEY BOULEVARD, GO EAST ON GARDEN VALLEY BOULEVARD 0.6 KM (0.4 MI) TO THE INTESECTION OF AIRPORT ROAD. TURN LEFT ONTO AIRPORT ROAD AND GO NORTH 0.4 KM (0.25 MI) TO THE INTERSECTION OF STEWART PARKWAY-ALAMEDA AVENUE. TURN LEFT ONTO STEWART PARKWAY-ALAMEDA AVENUE AND GO WEST, OVER A SET OF RAILROAD TRACKS, 35 M (115 FT) TO A LOCKED GATE ON THE RIGHT. TURN RIGHT AND PROCEED NORTH THROUGH THE LOCKED GATE 0.2 KM (0.1 MI) ON A DIRT ROAD TO THE 0-METER POINT 25 M (82 FT) OFF ON THE LEFT.

THE 0-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "0 1989" SET IN THE TOP OF A 31 CM (12 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 41.3 M (135.5 FT) WEST OF A CHAIN LINK FENCE, 30.8 M (101.0 FT) NORTHEAST OF THE EASTERNMOST ONE OF FOUR RED RUNWAY LIGHTS AT THE SOUTHEAST CORNER OF THE RUNWAY, 28.0 M (91.9 FT) EAST OF THE EAST EDGE OF THE RUNWAY, 20.9 M (68.6 FT) NORTHEAST OF USC&GS BENCH MARK STAMPED "AP1963 STA A", 13.3 M (43.6 FT) NORTHEAST OF A STEEL DRAIN COVER, AND 1.2 M (3.9 FT) EAST OF A WITNESS POST.

THE 150-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "150 1989" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 35.7 M (117.1 FT) WEST OF A CHAIN LINK FENCE, 28.5 M (93.5 FT) EAST OF THE EAST EDGE OF THE RUNWAY, AND 1.0 M (3.3 FT) EAST OF A WITNESS POST.

THE 430-METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "430 1989" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 47.1 M (154.5 FT) WEST OF A CHAIN LINK FENCE, 29.3 M (96.1 FT) EAST OF THE EAST EDGE OF THE RUNWAY, 25.6 M (84.0 FT) SOUTHWEST OF A WIND SOCK, 20.4 M (66.9 FT) SOUTHWEST OF THE SOUTHWEST CORNER OF A WIND DIRECTION INDICATOR'S BASE, AND 0.9 M (3.0 FT) EAST OF A WITNESS POST.

THE 1440-METER POINT IS A NGS OREGON PRIMARY GPS STATION DISK STAMPED "1440 1989" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 61.6 M (202.1 FT) NORTHEAST OF THE EASTERNMOST ONE OF FOUR RED RUNWAY LIGHTS AT THE NORTHEAST CORNER OF THE RUNWAY, 57.0 M (187.0 FT) NORTHEAST OF USC&GS BENCH MARK STAMPED "P354 1954", 8.0 M (26.2 FT) SOUTH OF A CHAIN LINK FENCE, AND 0.7 M (2.3 FT) WEST OF A WITNESS POST.

THE 100-FOOT TAPE CALIBRATION STATION IS A STANDARD NGS CALIBRATION BASE LINE TAPING DISK STAMPED "100 FT" SET IN THE TOP OF A 28 CM (11 IN) SQUARE CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS 40.0 M (131.2 FT) WEST OF A CHAIN LINK FENCE, 30.5 M (100.0 FT) NORTH OF THE 0-METER POINT, 28.0 M (91.9 FT) EAST OF THE EAST EDGE OF THE RUNWAY, AND 1.0 M (3.3 FT) EAST OF A WITNESS POST.

USER NOTES: CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY. PERMISSION IS REQUIRED TO ACCESS THIS BASE LINE - SEE BELOW.

THIS BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

PERMISSION AND ACCESS TO THE AIRPORT PROPERTY MAY BE ACQUIRED FROM CITY OF ROSEBURG, AVIATION DEPARTMENT, TELEPHONE 541-672-4931.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
ROCKVILLE MD 20852

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: SALEM (DESTROYED)
PROJECT ACCESSION NUMBER: G15167
NEAREST TOWN: SHAW

QUAD: N441224
OREGON
MARION COUNTY

LIST OF ADJUSTED DISTANCES (NOVEMBER 9, 1987)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO	400.000	150	399.525	149.9997	150.0005	0.1
ZERO	400.000	580	398.765	580.0068	580.0081	0.4
ZERO	400.000	1120	397.610	1119.9556	1119.9581	0.6
150	399.525	580	398.765	430.0071	430.0077	0.4
150	399.525	1120	397.610	969.9558	969.9577	0.5
580	398.765	1120	397.610	539.9488	539.9500	0.4

DESCRIPTION OF: SALEM BASE LINE (CBL DESTROYED BY ROAD CONSTRUCTION 1998)
YEAR MEASURED: 1987
CHIEF OF PARTY: MTL

THIS BASE LINE IS LOCATED 14.4 KM (9.0 MI) SOUTHEAST OF SALEM, 8.0 KM (5.0 MI) NORTHWEST OF STAYTON AND 2.4 KM (1.5 MI) SOUTH- SOUTHEAST OF SHAW, ALONG STATE HIGHWAY 22.

TO REACH THIS BASE LINE FROM THE JUNCTION OF INTERSTATE HIGHWAY 5 AND STATE HIGHWAY 22, GO EAST ON STATE HIGHWAY 22 FOR 11.7 KM (7.3 MI) TO A YELLOW, FLASHING, CAUTION LIGHT AT THE INTERSECTION OF STATE HIGHWAY 22 AND SHAW ROAD. CONTINUE STRAIGHT AHEAD AND GO EAST FOR 1.8 KM (1.15 MI) ON STATE HIGHWAY 22 TO A BRIDGE OVERPASS, CONTINUE STRAIGHT AHEAD AND GO EAST FOR 0.1 KM (0.05 MI) ON STATE HIGHWAY 22 TO THE 1120 METER POINT ON THE RIGHT.

THE BASE LINE IS A SOUTHEAST-NORTHWEST LINE WITH THE 0 METER POINT ON THE SOUTHEAST END. THIS BASE LINE IS A FOUR POINT BASE CONSISTING OF 0, 150, 580 AND 1120 METER POINTS. ALL POINTS ARE SET ON LINE AND RUNNING PARALLEL TO STATE HIGHWAY 22.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "0 1987", SET INTO THE TOP OF A CONCRETE POST MEASURING 40 CM (16.0 IN.) IN DIAMETER THAT IS FLUSH WITH THE GROUND AND IS LOCATED 9.5 M (31.2 FT) SOUTHWEST OF THE CENTERLINE OF STATE HIGHWAY 22, 6.3 M (20.7 FT) NORTHEAST OF A WIRE FENCE LINE AND 1.0 M (3.3 FT) NORTHEAST OF A WITNESS POST.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED "150 1987", SET INTO THE TOP OF A CONCRETE POST MEASURING 45 CM (17.7 IN) IN DIAMETER, THAT IS FLUSH WITH THE GROUND AND IS LOCATED 9.9 M (32.5 FT) SOUTHWEST OF THE CENTERLINE OF STATE HIGHWAY 22, 6.1 M (20.0 FT) NORTHEAST OF A WIRE FENCE LINE AND 1.0 M (3.3 FT) NORTHEAST OF A WITNESS POST.

THE 580 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK SET INTO THE TOP OF A CONCRETE POST MEASURING 40 CM (16.0 IN) IN DIAMETER THAT IS FLUSH WITH THE GROUND AND IS LOCATED 10.6 M (34.8 FT) SOUTHWEST OF THE CENTERLINE OF STATE HIGHWAY 22, 5.4 M (17.7 FT) NORTHEAST OF A WIRE FENCELINE AND 1.0 M (3.3 FT) NORTHEAST OF A WITNESS POST.

THE 1120 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK SET INTO THE TOP OF A CONCRETE POST MEASURING 40 CM (16.0 IN) IN DIAMETER THAT IS FLUSH WITH THE GROUND AND IS LOCATED 55.0 M (180.4 FT) SOUTHEAST OF THE CONCRETE BRIDGE OVERPASS, 11.4 M (37.4 FT) SOUTHWEST OF THE CENTERLINE OF STATE HIGHWAY 22, 7.5 M (24.6 FT) NORTHEAST OF A WIRE FENCE LINE AND 1.0 M (3.3 FT) NORTHEAST OF A WITNESS POST.

USER NOTES: TRAFFIC SAFTEY PRECAUTIONS SHOULD BE TAKEN DUE TO HEAVY TRAFFIC FLOW. ELEVATION AT 0 METER POINT ASSUMED. ALL POINT ELEVATIONS ARE FOR BASE LINE USE ONLY.

THIS BASE LINE WAS ESTABLISHED IN CONJUNCTION WITH THE OREGON DEPARTMENT OF TRANSPORTATION.

FOR FURTHER INFORMATION, CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, TELEPHONE 503-986-3103.

US DEPARTMENT OF COMMERCE – NOAA
NOS – NATIONAL GEODETIC SURVEY
SILVER SPRING MD 20910 – FEBRUARY 7, 2001

CALIBRATION BASE LINE DATA
BASE LINE DESIGNATION: THE DALLES CBL
PROJECT ACCESSION NUMBER: 15480
NEAREST TOWN: THE DALLES

QUAD: N451211
WASHINGTON
KLICKITAT COUNTY

LIST OF ADJUSTED DISTANCES (JANUARY 22, 2001)

FROM STATION	ELEV.(M)	TO STATION	ELEV.(M)	ADJ. DIST.(M) HORIZONTAL	ADJ. DIST.(M) MARK - MARK	STD. ERROR (MM)
ZERO 1986	80.000	150 1986	80.894	149.9980	150.0006	0.1
ZERO 1986	80.000	440 1986	89.487	439.9958	440.0981	0.1
ZERO 1986	80.000	1170 1986	114.821	1169.9611	1170.4791	0.2
150 1986	80.894	440 1986	89.487	289.9978	290.1251	0.1
150 1986	80.894	1170 1986	114.821	1019.9628	1020.5269	0.1
440 1986	89.487	1170 1986	114.821	729.9649	730.4044	0.1

DESCRIPTION OF: THE DALLES BASE LINE
YEAR MEASURED: 1987
YEAR REMEASURED: 2000
LATITUDE: 45 38 14
LONGITUDE: 121 09 14
AZIMUTH: 334 DEGREES TRUE NORTH
CHIEF OF PARTY: CLS

THE BASE LINE IS LOCATED 6.0 KM (3.75 MI) NORTH OF THE DALLES, OREGON, 4.3 KM (2.7 MI) NORTH OF INTERSTATE 84, 3.2 KM (2.0 MI) NORTH OF THE OREGON-WASHINGTON STATE BORDER, AND ALONG THE WEST EDGE RIGHT OF WAY OF U.S. ROUTE 197.

THE BASE LINE IS A SOUTH-NORTH LINE WITH THE 0 METER POINT LOCATED ON SOUTH END. THE CBL CONSISTS OF THE 0, 150, 440, AND THE 1170 METER POINTS. ALL POINTS ARE SET ON A LINE WHICH RUNS PARALLEL TO THE WEST EDGE OF U.S. ROUTE 197. THERE IS NO 100-FOOT TAPE CALIBRATION STATION LOCATED AT THIS BASE LINE.

TO REACH THE BASE LINE FROM THE JUNCTION OF INTERSTATE 84 AND U.S. ROUTE 197 EXIT 87, GO NORTH ON U.S. ROUTE 197 1.1 KM (0.7 MI) ONTO THE DALLES BRIDGE OVER THE COLUMBIA RIVER TO THE OREGON-WASHINGTON STATE BORDER. CONTINUE STRAIGHT FOR 3.2 KM (2.0 MI) JUST PAST A SIDE ROAD LEFT TO THE 0 METER POINT ON THE LEFT.

THE 0 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "0 1986", SET IN THE TOP OF A ROUND 45 CM (18 IN) DIAMETER CONCRETE POST PROJECTING 5 CM (2 IN) ABOVE THE GROUND. IT IS: 1.0 M (3.3 FT) EAST OF A WITNESS POST, 6.5 M (21.5 FT) EAST OF A RIGHT OF WAY FENCE, 16.1 M (52.8 FT) WEST OF THE CENTERLINE OF U.S. ROUTE 197, AND 111.3 M (365 FT) NORTH OF THE CENTERLINE OF A PAVED SIDE ROAD.

THE 150 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "150 1986", SET IN THE TOP OF A ROUND 30 CM (12 IN) DIAMETER CONCRETE POST PROJECTING 5 CM (2 IN) ABOVE THE GROUND. IT IS: 1.0 M (3.3 FT) EAST OF A WITNESS POST, 6.3 M (20.7 FT) EAST OF A RIGHT OF WAY FENCE, AND 16.4 M (53.8 FT) WEST OF THE CENTERLINE OF U.S. ROUTE 197.

THE 440 METER POINT IS A STANDARD NGS CALIBRATION BASELINE DISK STAMPED, "440 1986", SET IN THE TOP OF A ROUND 60 CM (24 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3 FT) EAST OF A WITNESS POST, 6.1 M (20.0 FT) EAST OF A RIGHT OF WAY FENCE, 16.7 M (54.8 FT) WEST OF THE CENTERLINE OF U.S. ROUTE 197 AND 24.0 M (78.7 FT) NORTHWEST OF THE WEST END OF A 60 CM (24.0 IN) CONCRETE CULVERT PIPE UNDER THE HIGHWAY.

THE 1170 METER POINT IS A STANDARD NGS CALIBRATION BASE LINE DISK STAMPED, "1170 1986", SET IN THE TOP OF A ROUND 45 CM (18 IN) DIAMETER CONCRETE POST FLUSH WITH THE SURFACE OF THE GROUND. IT IS: 1.0 M (3.3 FT) EAST OF A WITNESS POST, 5.8 M (19.0 FT) EAST OF A RIGHT OF WAY FENCE, 17.1 M (56.1 FT) WEST OF THE CENTERLINE OF U.S. ROUTE 197, AND 160 M (525 FT) SOUTH OF THE JUNCTION OF U.S. ROUTE 197 AND WASHINGTON STATE ROUTE 14.

USER NOTES - CBL USERS SHOULD TAKE CARE IN PLUMBING OVER ALL POINTS. ELEVATIONS ARE FOR CBL USE ONLY.

THE BASE LINE WAS RE-ESTABLISHED IN CONJUNCTION WITH OREGON DEPARTMENT OF TRANSPORTATION. FOR MORE INFORMATION PLEASE CONTACT THE OREGON DEPARTMENT OF TRANSPORTATION, CHIEF OF SURVEYS, 200 HAWTHORNE AVENUE, SE, SUITE B-250, SALEM, OREGON 97301, PHONE 503-986-3103.