



DATUM TRANSFORMATION
U.S. STANDARD DATUM (USSD)
To
NORTH AMERICAN DATUM OF 1983 (1996)

CITY OF BOSTON

From data provided by the Engineering Department, County of Norfolk
 (1902 – Atlas of the Boundaries of the City of Boston, Harbor and Land Commission)

12 Stations were found to be common between the City of Boston atlas and points listed
 in the National Spatial Reference System.

TO TRANSFORM FROM USSD TO NAD 83 (1996)

LATITUDE = - 0.212'' +/- 0.006'' or 0.18 m (0.6 ft)

LONGITUDE = - 1.780'' +/- 0.009'' or 0.20 m (0.7 ft)

<u>STATION</u>	<u>USSD</u>	<u>NAD 83(1996)</u>	<u>DIFF</u>
BOSTON STATE HOUSE CUPOLA (MY3299)	42° 21' 29.596'' 71° 03' 51.040''	29.384'' 49.259''	- 0.212'' - 1.781''
WALNUT HILL (MY3312)	42° 18' 17.777'' 71° 09' 22.969''	17.575'' 21.199''	- 0.202'' - 1.770''
BREEDS ISLAND (MY2897)	42° 23' 28.04'' 71° 00' 30.28''	27.829'' 28.499''	- 0.211'' - 1.781''
GROVERNORS ISLAND 3 (MY3170)	42° 21' 08.84'' 71° 00' 41.12''	08.628'' 39.340''	- 0.212'' - 1.780''
EAST BOSTON RESERVOIR 2 (MY2920)	42° 22' 52.56'' 71° 02' 09.91''	52.344'' 08.111''	- 0.216'' - 1.800''
NAVAL HOSPITAL (MY2831)	42° 23' 22.58'' 71° 02' 55.94''	22.375'' 54.158''	- 0.205'' - 1.782''
MOUNT AUBURN TOWER RESET (MY3387)	42° 22' 10.954'' 71° 08' 40.380''	10.741'' 38.603''	- 0.213'' - 1.770''



BLIND ASYLUM (MY3226)	42° 20' 07.037" 71° 02' 32.861"	06.826" - 0.211" 31.080" - 1.781"
ROXBURY SPIPE DORCHESTER TWR (MY2974) [ROXBURY WATER TOWER]	42° 19' 31.37" 71° 05' 42.30"	31.147" - 0.223" 40.523" - 1.770"
DORCHESTER CODMAN CONG CH (MY3248) [DORCHESTER SECOND CONG CH]	42° 17' 26.844" 71° 04' 18.00"	26.638" - 0.206" 16.207" - 1.793"
CAPTAIN JOHNS HILL (MY3348)	42° 16' 15.690" 71° 07' 09.467"	15.465" - 0.225" 45.241" - 1.771"
CAMBRIDGE CONG CH OLD (MY2918)	42° 23' 12.130" 71° 07' 09.467"	11.923" - 0.207" 07.685" - 1.782"

NOTE: Station OAK HILL LOOKOUT appears to be very near a later station PEABODY (MY3357). However, since the description for PEABODY indicates that it wasn't established until 1935, these data were not used in this evaluation.

	<u>Latitude Shifts</u>	<u>Longitude Shifts</u>
	- 0.212	- 1.781
	- 0.202	- 1.770
	- 0.211	- 1.781
	- 0.212	- 1.780
	- 0.216	- 1.800
	- 0.205	- 1.782
	- 0.213	- 1.770
	- 0.211	- 1.781
	- 0.223	- 1.770
	- 0.206	- 1.793
	- 0.225	- 1.771
	<u>- 0.207</u>	<u>- 1.782</u>
Average	- 0.212"	- 1.780"
Standard	0.006"	0.009"
Deviation σ_s	0.18 m (0.6 Ft)	0.21 m (0.7 ft)

Review Prepared By:
David R. Doyle
Senior Geodesist
Spatial Reference System Division
National Geodetic Survey
October 7, 1999
(301) 713-3178
daved@ngs.noaa.gov