**Table T7**

**TRANSFORMATION PARAMETERS FROM ITRF92 TO INDIVIDUAL FRAMES AT EPOCH 1988.0 (To be used with the formula below)**

| SOLUTION | T1 cm | T2 cm | T3 cm | D (10**-8) | R1 .001" | R2 .001" | R3 .001" |
|---|---|---|---|---|---|---|---|
| VERY LONG BASELINE INTERFEROMETRY | | | | | | | |
| SSC(GIUB) 93 R 01 | 3.0 | 3.2 | 1.8 | 0.00 | -0.68 | -0.08 | -1.75 |
| | 0.8 | 0.7 | 0.8 | 0.09 | 0.29 | 0.33 | 0.25 |
| SSC(GSFC) 93 R 04 | 1.2 | 1.9 | -0.4 | 0.02 | 1.38 | -0.45 | -3.52 |
| | 0.5 | 0.5 | 0.5 | 0.07 | 0.21 | 0.20 | 0.15 |
| SSC(JPL) 93 R 01 | 0.1 | 1.5 | -1.3 | 0.15 | -0.18 | 0.56 | 0.24 |
| | 1.2 | 1.0 | 1.3 | 0.17 | 0.48 | 0.57 | 0.51 |
| SSC(NOAA) 93 R 02 | 0.3 | 2.3 | -1.0 | 0.32 | 0.18 | -0.07 | 1.06 |
| | 0.5 | 0.5 | 0.5 | 0.07 | 0.21 | 0.20 | 0.15 |
| SSC(USNO) 93 R 09 | 7.6 | 2.5 | -2.2 | 0.06 | -0.17 | -0.34 | -2.12 |
| | 0.6 | 0.6 | 0.6 | 0.08 | 0.25 | 0.23 | 0.18 |
| LUNAR LASER RANGING | | | | | | | |
| SSC(JPL) 93 M 01 | -4.6 | 0.5 | -2.6 | -1.66 | -0.16 | 0.57 | -41.34 |
| | 2.9 | 3.3 | 3.1 | 0.38 | 1.53 | 1.12 | 0.83 |
| SSC(SHA) 93 M 01 | -15.4 | 2.0 | 3.8 | -2.49 | 3.08 | 2.82 | 2.01 |
| | 3.5 | 4.0 | 3.6 | 0.45 | 1.94 | 1.32 | 0.99 |
| SSC(UTXMO) 93 M 01 | -2.6 | 0.8 | 11.8 | -3.06 | -4.55 | 1.53 | 55.23 |
| | 3.4 | 3.8 | 3.6 | 0.44 | 1.78 | 1.30 | 0.96 |
| GLOBAL POSITIONING SYSTEM | | | | | | | |
| SSC(CODE) 92 P 01 | -3.7 | 6.2 | 2.6 | 0.19 | 0.65 | 1.72 | -1.96 |
| | 1.4 | 2.5 | 1.4 | 0.20 | 0.73 | 0.51 | 0.60 |
| SSC(CSR) 92 P 03 | 0.7 | 2.4 | -1.5 | 0.53 | 0.23 | 0.08 | 0.48 |
| | 0.6 | 0.8 | 0.6 | 0.09 | 0.32 | 0.24 | 0.21 |
| SSC(EMR) 93 P 01 | 1.5 | 0.8 | 0.9 | -0.04 | 0.18 | 0.35 | 0.16 |
| | 0.5 | 0.6 | 0.5 | 0.08 | 0.23 | 0.21 | 0.18 |
| SSC(ESOC) 93 P 01 | 5.4 | 0.4 | -6.5 | 0.48 | -1.10 | -2.00 | -0.69 |
| | 1.2 | 1.2 | 1.0 | 0.15 | 0.47 | 0.43 | 0.36 |
| SSC(JPL) 93 P 01 | 2.1 | 1.0 | -0.9 | -0.10 | -0.21 | -0.01 | 0.13 |
| | 0.5 | 0.5 | 0.5 | 0.07 | 0.22 | 0.20 | 0.18 |
| SSC(SIO) 93 P 01 | 0.0 | 3.8 | 0.1 | 0.29 | 0.78 | 0.33 | 0.41 |
| | 0.7 | 0.7 | 0.6 | 0.09 | 0.28 | 0.26 | 0.21 |

SATELLITE LASER RANGING

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SSC(CLG) | 93 L 01 | 11.5 | 8.9 | 1.0 | 0.17 | 4.06 | -4.79 | -0.96 |
| | | 1.6 | 1.4 | 1.5 | 0.20 | 0.66 | 0.66 | 0.48 |
| SSC(CSR) | 93 L 01 | 0.0 | 0.0 | 0.0 | 0.00 | -0.47 | 0.74 | -1.41 |
| SSC(DUT) | 93 L 02 | 2.4 | 1.7 | 0.4 | 0.03 | 0.24 | 0.35 | -0.32 |
| | | 0.5 | 0.5 | 0.5 | 0.07 | 0.20 | 0.20 | 0.15 |
| SSC(GAOUA) | 93 L 01 | -0.9 | 0.4 | 9.7 | 1.10 | 2.54 | 1.88 | 0.23 |
| | | 0.7 | 0.7 | 0.7 | 0.09 | 0.29 | 0.29 | 0.22 |
| SSC(GFZ) | 93 L 01 | 1.8 | 0.9 | 2.7 | 0.17 | 0.19 | -0.05 | -0.38 |
| | | 0.5 | 0.5 | 0.5 | 0.07 | 0.20 | 0.20 | 0.16 |
| SSC(GSFC) | 93 L 01 | 2.4 | -2.1 | -0.5 | -0.43 | -0.78 | 2.75 | -2.81 |
| | | 0.6 | 0.6 | 0.6 | 0.08 | 0.23 | 0.22 | 0.20 |

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$$
\begin{pmatrix} XS \\ YS \\ ZS \end{pmatrix} = \begin{pmatrix} X \\ Y \\ Z \end{pmatrix} + \begin{pmatrix} T1 \\ T2 \\ T3 \end{pmatrix} + \begin{pmatrix} D & -R3 & R2 \\ R3 & D & -R1 \\ -R2 & R1 & D \end{pmatrix} \begin{pmatrix} X \\ Y \\ Z \end{pmatrix}
$$

WHERE X,Y,Z ARE THE COORDINATES IN THE GLOBAL SYSTEM, AND XS,YS,ZS ARE THE COORDINATES IN THE INDIVIDUAL SYSTEM.