V. ITRF96 Results

The ITRF96 adjusted coordinates at epoch 1997.0 and velocities were split into 4 tables corresponding to the 4 techniques: VLBI, SLR, GPS and DORIS. These Tables are availabe in the Appendix (Tables: T4, T5, T6 and T7). The ITRF96 SINEX file as well as SINEX per technique are all available, (see section 4 hereafter).

Table T8 of the Appendix contains the adjusted transformation parameters at the epoch of each individual solution as well as the corresponding rates. The transformation parameters are from each individual solution to the ITRF96 and should be used with the equation (V.1) .The rates have to be considered as annual variations to the transformation parameters and should be used with equation (V.2) . On the other hand, for a given transformation parameter T provided at an epoch t_k, its value at an epoch t in years could be obtained by equation (V.3).

$$\begin{pmatrix} X_s \\ Y_s \\ Z_s \end{pmatrix} = \begin{pmatrix} X \\ Y \\ Z \end{pmatrix} + \begin{pmatrix} T1 \\ T2 \\ T3 \end{pmatrix} + \begin{pmatrix} D & -R3 & R2 \\ R3 & D & -R1 \\ -R2 & R1 & D \end{pmatrix} \begin{pmatrix} X \\ Y \\ Z \end{pmatrix} \qquad \text{(V.1)}$$

$$\begin{pmatrix} \dot{X}_s \\ \dot{Y}_s \\ \dot{Z}_s \end{pmatrix} = \begin{pmatrix} \dot{X} \\ \dot{Y} \\ \dot{Z} \end{pmatrix} + \begin{pmatrix} \dot{T}1 \\ \dot{T}2 \\ \dot{T}3 \end{pmatrix} + \begin{pmatrix} \dot{D} & -\dot{R}3 & \dot{R}2 \\ \dot{R}3 & \dot{D} & -\dot{R}1 \\ -\dot{R}2 & \dot{R}1 & \dot{D} \end{pmatrix} \begin{pmatrix} X \\ Y \\ Z \end{pmatrix} \qquad \text{(V.2)}$$

With, X, Y, Z are the coordinates in the ITRF96, and X_s, Y_s, Z_s are the coordinates in the individual system.

$$T(t) = T(t_k) + \dot{T} \times (t - t_k) \qquad \text{(V.3)}$$