79(2): Tornado Equations

The full set of Tornado equations are:

$$\underline{\nabla} \cdot \underline{T}_s^{\,a} = \tilde{j}^{\,a0} / c \qquad -(1)$$

$$\underline{\nabla} \times \underline{T}_L^{\,a} + \frac{1}{c} \frac{\partial \underline{T}_s^{\,a}}{\partial t} = \underline{\tilde{j}}^{\,a} \qquad -(2)$$

$$\underline{\nabla} \cdot \underline{T}_L^{\,a} = \tilde{J}^{\,a0} \qquad -(3)$$

$$\underline{\nabla} \times \underline{T}_s^{\,a} - \frac{1}{c^2} \frac{\partial \underline{T}_L^{\,a}}{\partial t} = \underline{\tilde{J}}^{\,a} \qquad -(4)$$

where:

$$\tilde{j}^{\,a\mu} = \left(\frac{1}{c} \tilde{j}^{\,a0}, \underline{j}^{\,a} \right) \qquad -(5)$$

$$\tilde{J}^{\,a\mu} = \left(\frac{1}{c} \tilde{J}^{\,a0}, \underline{\tilde{J}}^{\,a} \right) \qquad -(6)$$

and

$$\underline{\nabla} \cdot \underline{B}^{\,a} = \mu_0 \tilde{j}_{em}^{\,a0} \qquad -(7)$$

$$\underline{\nabla} \times \underline{E}^{\,a} + \frac{\partial \underline{B}^{\,a}}{\partial t} = \mu_0 \underline{\tilde{j}}_{em}^{\,a} \qquad -(8)$$

$$\underline{\nabla} \cdot \underline{E}^{\,a} = \mu_0 c \tilde{J}_{em}^{\,a0} \qquad -(9)$$

$$\underline{\nabla} \times \underline{B}^{\,a} - \frac{1}{c^2} \frac{\partial \underline{E}^{\,a}}{\partial t} = \frac{\mu_0}{c} \underline{\tilde{J}}_{em}^{\,a} \qquad -(10)$$

Here:

$$\tilde{j}_{em}^{\,a} = A^{(0)} \tilde{j}^{\,a} \qquad -(11)$$

$$\tilde{J}_{em}^{\,a} = A^{(0)} \tilde{J}^{\,a}. \qquad -(12)$$

In the dielectric formulation eq. (8) is

2)

$$\underline{\nabla} \times \underline{D}^a + \frac{1}{c^2} \frac{\partial \underset{\sim}{H}^a}{\partial t} = \underline{0} \quad -(13)$$

and eq. (10) is:

$$\underline{\nabla} \times \underline{H}_1^a - \frac{\partial \underline{D}_1^a}{\partial t} = \underline{0} \,. \quad -(14)$$

Simplest Scheme

The electric field of the experiment is described by eq. (9). Through eqs. (12) and (3) it produces a torsion $\underline{T}_L^a$. If

$$\underline{\tilde{j}}^a = \underline{0} \quad -(15)$$

then $\underset{\sim}{T}_L^a$ produces $\underline{T}_s^a$ ~~through~~:

$$\underline{\nabla} \times \underset{\sim}{T}_L^a + \frac{1}{c} \frac{\partial \underset{\sim}{T}_s^a}{\partial t} = \underline{0} \,. \quad -(16)$$

At spin connection resonance the small initial charge ~~current~~ density $\tilde{J}_{em}^{a0}$ produces a very big $\underline{E}^a$ and a very big $\underline{T}_L^a$ and $\underline{T}_s^a$. This sets up the tornado as observed. If:

$$\underline{\nabla} \times \underline{T}_L^a \neq \underline{0} \quad -(17)$$

then $\underline{T}_s^a$ is produced. Otherwise, T_s^a is produced by eq. (4).