



$$\left. \frac{d(b \times \dot{\beta} \cdot \vec{y}_2 + b \times \dot{\alpha} \times \sin(\beta) \cdot \vec{z}_1 + a \times \dot{\alpha} \cdot \vec{z}_1)}{dt} \right|_{R_0}$$

$$(b \times \ddot{\beta} \cdot \vec{y}_2 + b \times \dot{\beta} \cdot (\dot{\beta} \cdot \vec{z}_2 + \dot{\alpha} \cdot \vec{x}_1) \wedge \vec{y}_2 + (b \times \sin(\beta) \times \ddot{\alpha} + b \times \dot{\alpha} \times \dot{\beta} \times \cos(\beta)) \cdot \vec{z}_1 + b \times \dot{\alpha} \times \sin(\beta) \cdot \dot{\alpha} \cdot \vec{x}_1 \wedge \vec{z}_1 + a \times \ddot{\alpha} \cdot \vec{z}_1 + a \times \dot{\alpha} \cdot \dot{\alpha} \cdot \vec{x}_1 \wedge \vec{z}_1)$$

$$(b \times \dot{\beta} \cdot \vec{y}_2 + b \times \dot{\beta} \cdot (-\dot{\beta} \cdot \vec{x}_2 + \dot{\alpha} \times \cos(\beta) \cdot \vec{z}_1) + (b \times \sin(\beta) \times \ddot{\alpha} + b \times \dot{\alpha} \times \dot{\beta} \times \cos(\beta)) \cdot \vec{z}_1 - b \times \dot{\alpha} \times \sin(\beta) \times \dot{\alpha} \cdot \vec{y}_1 + a \times \ddot{\alpha} \cdot \vec{z}_1 - a \times \dot{\alpha} \times \dot{\alpha} \cdot \vec{y}_1)$$