Kinematic analysis of imaging seekers with roll-over-nod gimbal and a folded electro-optical layout (Erratum)

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A revised version of this manuscript was published on 20 February 2020. Details of the revision are provided in the text that accompanies this Erratum. The original paper has been updated.

Revisions to Equations (28) and (29)

Original

$$D_s(\vec{r}_{t/s})+\vec{\omega}_{s/o}\times\vec{r}_{t/s}=\vec{V}_t-\vec{V}_m-\vec{\omega}_{m/o}\times\vec{r}_{s/m} \quad (28)$$

$$D_s(\vec{r}_{t/s})+\vec{\omega}_{s/o}\times\vec{r}_{t/s}=\vec{V}_t-\vec{V}_m-\vec{\omega}_{m/o}\times\vec{r}_{s/m} \quad (29)$$

New

$$(\vec{\omega}_{s/m}+\vec{\omega}_{m/o})\times\vec{r}_{t/s}=\vec{V}_t-\vec{V}_m-\vec{\omega}_{m/o}\times\vec{du}_1^{(m)}-D_s(\vec{r}_{t/s}) \quad (28)$$

$$\vec{\omega}_{s/m}\times\vec{r}_{t/s}=\vec{V}_t-\vec{V}_m-D_s(\vec{r}_{t/s})-\vec{\omega}_{m/o}\times\vec{du}_1^{(m)}-\vec{\omega}_{m/o}\times\vec{r}_{t/s} \quad (29)$$

Revisions to Equation (37)

Original

$$F\frac{d}{dt}\left(\bar{r}_{t/s}^{(0)}\right)=\begin{bmatrix}-c(\psi)\,s(\theta)\,\dot{\psi}-c(\psi)\,s(\theta)\dot{\theta}\\ c(\psi)\,c(\theta)\dot{\psi}-s(\psi)\,s(\theta)\dot{\theta}\\ -c(\theta)\dot{\theta}\end{bmatrix}=\begin{bmatrix}t_1\\t_2\\t_3\end{bmatrix}=\begin{bmatrix}-s(\eta)\,\dot{\eta}\\ c(\eta)\,s(\rho)\,\dot{\eta}+c(\rho)\,s(\eta)\dot{\rho}\\ -c(\eta)c(\rho)\dot{\eta}+s(\eta)s(\rho)\dot{\rho}\end{bmatrix} \quad (37)$$

New

$$F\frac{d}{dt}\left(\bar{r}_{t/s}^{(0)}\right)=\begin{bmatrix}-s(\psi)\,c(\theta)\,\dot{\psi}-c(\psi)\,s(\theta)\dot{\theta}\\ c(\psi)\,c(\theta)\dot{\psi}-s(\psi)\,s(\theta)\dot{\theta}\\ -c(\theta)\dot{\theta}\end{bmatrix}=\begin{bmatrix}t_1\\t_2\\t_3\end{bmatrix}=\begin{bmatrix}-s(\eta)\,\dot{\eta}\\ c(\eta)\,s(\rho)\,\dot{\eta}+c(\rho)\,s(\eta)\dot{\rho}\\ -c(\eta)c(\rho)\dot{\eta}+s(\eta)s(\rho)\dot{\rho}\end{bmatrix} \quad (37)$$

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