Status: V6

Page	Location	Reads	Should Read
xiii	Line below B.2	B.2 Commutation of the Ellipsoidal Surface	B.2 Commutation on the Ellipsoidal Surface
xvii	Line 6 bottom	Rapaport	Rapoport
3	Line 4 bottom	deals with navigation solution	deals with the navigation solution
19	(2.3.14)	$\hat{\boldsymbol{v}} = \boldsymbol{P}^{-1} - \boldsymbol{B}^{\mathrm{T}}\hat{\boldsymbol{k}}$	$\hat{\boldsymbol{v}} = \boldsymbol{P}^{-1}\boldsymbol{B}^{\mathrm{T}}\hat{\boldsymbol{k}}$
25	(2.4.22)	$\boldsymbol{k}_2 = \boldsymbol{Q}_{21}\boldsymbol{A}_1^{\mathrm{T}}\boldsymbol{M}_1^{-1}\boldsymbol{w}_1 - \boldsymbol{Q}_{22}\boldsymbol{w}_2$	$\boldsymbol{k}_2 = \boldsymbol{Q}_{21}\boldsymbol{A}_1^{\mathrm{T}}\boldsymbol{M}_1^{-1}\boldsymbol{w}_1 + \boldsymbol{Q}_{22}\boldsymbol{w}_2$
33	Last row 2nd column	$\boldsymbol{Q}_{x^*} = +\boldsymbol{N}_1^{-1}$	$\boldsymbol{Q}_{x^*} = \boldsymbol{N}_1^{-1}$
36	First row 1st column	$\boldsymbol{f}_1(\ell_{1a}, \boldsymbol{x}_a) = \boldsymbol{0}$ $\boldsymbol{g}(\boldsymbol{x}_a) = \boldsymbol{0}, \boldsymbol{P}_1$	$\boldsymbol{f}_1(\ell_{1a}, \boldsymbol{x}_a) = \boldsymbol{0}, \quad \boldsymbol{P}_1$ $\boldsymbol{g}(\boldsymbol{x}_a) = \boldsymbol{0}$
38	Line 6 Top	linear-independent	linearly independent
43	Line 1 Last para	parameters are transformed	observations are transformed
	Lines 9 ***and*** 7 Bottom (2x)	$\overline{\boldsymbol{AA}}^{T}$	$\bar{\boldsymbol{A}}\bar{\boldsymbol{A}}^{T}$
53	Line above (2.7.71)	$\boldsymbol{Q}_1$	$\boldsymbol{Q}_i$
62	(2.8.1)	$\bar{\mathbf{v}} = \boldsymbol{Q}_v\boldsymbol{P}\ell$	$\hat{\mathbf{v}} = \boldsymbol{Q}_v\boldsymbol{P}\ell$

66	(2.8.26)	$P(\lvert w_\alpha \rvert \le t_{\alpha/2}) = \int_{-t_{\alpha/2}}^{t_{\alpha/2}} n(\delta_i, 1)\, dx \ge \beta_0$	$P(w_\alpha \le t_{\alpha/2}) = \int_{-\infty}^{t_{\alpha/2}} n(\delta_i, 1)\, dx \ge \beta_0$
	Line below (2.8.26)	If	if
78	Line 3 top	$1 \le i \le i-1$	$1 \le i-1$
92	Line 5 bottom in the Table	Cholesky decomposition of $\hat{\boldsymbol{D}}(t)$	Cholesky decomposition of $\hat{\boldsymbol{D}}(t+1)$
98	Eq.(3.3.9)	$+\left(x(0)-x_0\right)^T W^0 (t) \left(x(0)-x_0\right)$	$+\left(x(0)-x_0\right)^T W^0 \left(x(0)-x_0\right)$
113	(3.4.4), last term	$\lVert x(0)-x_0 \rVert_{C^{-1}}^2$	$+\lVert x(0)-x_0 \rVert_{C^{-1}}^2$
139	Line 4 bottom	for the National Geodetic	from the National Geodetic
152	Line below (4.3.2)	mass as being	mass being
173	Line 10/11, top	determined by objections	determined by
181	Line 4 top	by not using the geodetic	by using the geodetic
203	Middle 2nd paragraph	$d_i = (v_{x_i}^2 + v_{x_i}^2)^{1/2}$	$d_i = (v_{x_i}^2 + v_{y_i}^2)^{1/2}$
328	Line below (6.5.15)	b^*	$\boldsymbol{b}^*$
332	(6.5.45)	$\hat{\boldsymbol{w}}_i = \hat{\boldsymbol{z}}_i - \boldsymbol{z}_i + \hat{w}_{i\|I}$	$\hat{w}_i = \hat{z}_i - z_i + \hat{w}_{i\|I}$
347	Line below (6.5.80)	Excluding the slice, we have $\left[z_l^{(\alpha_*)}\right] < z_l < \left[z_l^{(\alpha_*)}\right]+1$, which means	Exclude the slice $\left[z_l^{(\alpha_*)}\right] < z_l < \left[z_l^{(\alpha_*)}\right]+1$ means
349	Eq.(6.5.82)	$q(\hat{\boldsymbol{z}}) = \sum_{i=1}^{n} l_{jj}^2 \left(\hat{z}_j - z_j + \sum_{i=j+1}^{n} q_{ij} \left(\hat{z}_i - z_i \right) \right)^2$	$q(\hat{\boldsymbol{z}}) = \sum_{j=1}^{n} l_{jj}^2 \left(\hat{z}_j - z_j + \sum_{i=j+1}^{n} q_{ij} \left(\hat{z}_i - z_i \right) \right)^2$
	Line above (6.5.83)	$C^{1/2} / l_{nm}$	$C^{1/2} / l_{nn}$

351	Line 2 bottom	and $\boldsymbol{b}_1^*,\cdots,\boldsymbol{b}_n^*$ (this text should be deleted)	
352	Eq.(6.5.98) Second line	$\mu_{kj} := \mu_{kj} - r\mu_{lj}$ for $j = 1, 2, \cdots, i-1,$	$\mu_{kj} := \mu_{kj} - r\mu_{lj}$ for $j = 1, 2, \cdots, l-1,$
354	Eq.(6.5.108)	$\boldsymbol{c} \in \Lambda\left(\boldsymbol{G}^*\right)$	$\boldsymbol{c} \in \Lambda\left(\boldsymbol{G}_{n-1}\right)$
	Line below (6.5.109)	$\boldsymbol{c} \in \Lambda\left(\boldsymbol{G}^*\right)$	$\boldsymbol{c} \in \Lambda\left(\boldsymbol{G}_{n-1}\right)$
355	2 lines above Eq. (6.5.111)	$\left\Vert \boldsymbol{G}\hat{\boldsymbol{z}} - \boldsymbol{x} \right\Vert$	$\left\Vert \boldsymbol{G}\boldsymbol{z}^* - \boldsymbol{x} \right\Vert$
359	(6.6.4) ξ are bold (3x)	$\begin{bmatrix} \widehat{\xi}_{PIF12} \\ \widehat{\boldsymbol{R}}_1 \\ \hdashline \widehat{\boldsymbol{R}}_2 \\ \widehat{\xi}_{2,PIF12} \\ \hdashline \widehat{\boldsymbol{R}}_3 \\ \widehat{\xi}_{3,PIF12} \end{bmatrix}$	$\begin{bmatrix} \widehat{\boldsymbol{\xi}}_{PIF12} \\ \widehat{\boldsymbol{R}}_1 \\ \hdashline \widehat{\boldsymbol{R}}_2 \\ \widehat{\boldsymbol{\xi}}_{2,PIF12} \\ \hdashline \widehat{\boldsymbol{R}}_3 \\ \widehat{\boldsymbol{\xi}}_{3,PIF12} \end{bmatrix}$
360	2 lines above (6.6.9)	(6.6.8)	(6.6.6)
361	(6.6.11) ξ is not bold	$\left[\begin{array}{cc:cc} \boldsymbol{I} & \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{0} \\ \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{0} & \boldsymbol{0} \\ \hdashline \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{b} & \boldsymbol{I} \\ \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{b} & \boldsymbol{0} \end{array}\right] \begin{bmatrix} \widehat{\xi}_{PIF12} \\ \widehat{\boldsymbol{R}}_1 \\ \hdashline \widehat{\boldsymbol{R}}_2 \\ \widehat{\xi}_{2,PIF12} \end{bmatrix}$	$\left[\begin{array}{cc:cc} \boldsymbol{I} & \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{0} \\ \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{0} & \boldsymbol{0} \\ \hdashline \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{I} & \boldsymbol{b} \\ \boldsymbol{I} & \boldsymbol{0} & \boldsymbol{0} & \boldsymbol{b} \end{array}\right] \begin{bmatrix} \widehat{\xi}_{PIF12} \\ \widehat{\boldsymbol{R}}_1 \\ \hdashline \widehat{\boldsymbol{R}}_2 \\ \widehat{\xi}_{2,PIF12} \end{bmatrix}$
	(6.6.13)	$\widehat{\boldsymbol{R}}_k^T = \begin{bmatrix} \widehat{R}_k^1 \\ \widehat{R}_k^2 \\ \widehat{R}_k^3 \end{bmatrix}$	$\widehat{\boldsymbol{R}}_k = \begin{bmatrix} \widehat{R}_k^1 \\ \widehat{R}_k^2 \\ \widehat{R}_k^3 \end{bmatrix}$

362	(6.6.17) Top ξ is bold	$\begin{bmatrix} \hat{\xi}_{PIF12} \\ \hat{\boldsymbol{R}}_1 \\ dT_1 \\ \hdashline \hat{\boldsymbol{R}}_2 \\ dT_2 \\ \hat{\xi}_{2,PIF12} \end{bmatrix}$	$\begin{bmatrix} \hat{\xi}_{PIF12} \\ \hat{\boldsymbol{R}}_1 \\ dT_1 \\ \hdashline \hat{\boldsymbol{R}}_2 \\ dT_2 \\ \hat{\xi}_{2,PIF12} \end{bmatrix}$
363	6 lines top	$DCB_{\text{P1Y-CIA}}$	$DCB_{P1Y-C/A}$
364	(6.6.24)	$= \Theta_k^p - \rho_k^p =$	$= \Theta_k^p - \rho_k^p - \mu_k =$
365	Section 6.6.2.2 RTK line 1	In real-time positioning	In real-time kinematic positioning
367	Line above (6.6.37)	(6.1.31) and (6.1.27) are	(6.1.32) and (6.1.28) are (frequency identifier omitted):
368	(6.6.39) ξ is not bold (2x)	$\begin{bmatrix} \hat{\xi}_{\Phi} \\ \hdashline \hat{\xi}_{2,\Phi} \\ \hat{\xi}_{3,\Phi} \\ \hdashline \hat{\boldsymbol{N}}_2 \\ \hat{\boldsymbol{N}}_3 \end{bmatrix}$	$\begin{bmatrix} \hat{\xi}_{\Phi} \\ \hdashline \hat{\xi}_{2,\Phi} \\ \hat{\xi}_{3,\Phi} \\ \hdashline \hat{\boldsymbol{N}}_2 \\ \hat{\boldsymbol{N}}_3 \end{bmatrix}$
370	line below (6.6.47)	The combined	The correctness of the above solution can be verified by substitution. The combined
371	2 lines above (6.6.54)	parameter	bias
372	2 lines above (6.6.57)	(6.6.51), (6.6.53) , and (6.6.56)	(6.6.51) to (6.6.56)
373	(6.6.58)	$M_{k,HMW12}^p + \varepsilon_{PIF12}$	$M_{k,PIF12}^p + \varepsilon_{PIF12}$
	2 lines below (6.6.58)	the satellite hardware	satellite hardware

	2 lines above (6.6.59)	(6.6.38)	(6.6.37)
374	(6.6.61)	$\begin{bmatrix} \hat{\xi}_{\Phi IF12} \\ \hat{\boldsymbol{D}}_{HMW12} \\ \hat{\xi}_{2,\Phi IF12} \\ \hat{d}^{p}_{HMW12} \\ \hat{\boldsymbol{N}} \end{bmatrix}$	$\begin{bmatrix} \hat{\xi}_{\Phi IF12} \\ \hat{\boldsymbol{D}}_{HMW12} \\ \hat{\xi}_{2,\Phi IF12} \\ \hat{d}_{2,HMW12} \\ \hat{\boldsymbol{N}}_2 \end{bmatrix}$
	(6.6.64) No top arc	$\begin{bmatrix} -\hat{\xi}^1_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^1_{1,\Phi IF12} \\ -\hat{\xi}^2_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^2_{1,\Phi IF12} \\ -\hat{\xi}^3_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^3_{1,\Phi IF12} \end{bmatrix}$	$\begin{bmatrix} -\xi^1_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^1_{1,\Phi IF12} \\ -\xi^2_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^2_{1,\Phi IF12} \\ -\xi^3_{\Phi IF12} + \xi_{1,\Phi IF12} + \lambda_{\Phi IF12} N^3_{1,\Phi IF12} \end{bmatrix}$
	(6.6.66)	$\hat{\boldsymbol{N}} =$	$\hat{\boldsymbol{N}}_2 =$
375	(6.6.68)	$\begin{bmatrix} PIF12^1_k - \rho^1_k \\ PIF12^1_k - \rho^1_k \\ PIF12^1_k - \rho^1_k \end{bmatrix}$	$\begin{bmatrix} PIF12^1_k - \rho^1_k \\ PIF12^2_k - \rho^2_k \\ PIF12^3_k - \rho^3_k \end{bmatrix}$
	3 lines above (6.6.70)	biases are applied to the observations	biases
	(6.6.70)	$\lambda_{\Phi IF12} + N^1_{u1,\Phi IF12}$	$\lambda_{\Phi IF12} N^1_{u1,\Phi IF12}$
376	(6.6.75) Line 2	$\Phi IF12^q_u - \hat{\xi}^q_{\Phi IF12} - T^1_{u,0}$	$\Phi IF12^q_u - \hat{\xi}^q_{\Phi IF12} - T^q_{u,0}$
	Last line	$PIF12^p_u - \hat{\xi}^p_{PIF12} - T^1_{u,0}$	$PIF12^p_u - \hat{\xi}^p_{PIF12} - T^p_{u,0}$
377	(6.6.78)	$60\lambda_{\Phi IF12} \hat{\boldsymbol{N}}_{2,HMW12}$	$60\lambda_{\Phi IF12} \boldsymbol{c}_2$
	(6.6.79) Note 0 is not bold	$\hat{\boldsymbol{N}}_{2,1} = \begin{bmatrix} \hat{N}^2_{2,1} \\ \hat{N}^3_{2,1} \end{bmatrix} = \begin{bmatrix} N^{21}_{21,1} \\ N^{31}_{21,1} \end{bmatrix}$	$\boldsymbol{c}_2 = \begin{bmatrix} 0 \\ \hat{\boldsymbol{N}}_{2,HMW12} \end{bmatrix}$ $\hat{\boldsymbol{N}}_{2,1} = \begin{bmatrix} \hat{N}^2_{2,1} \\ \hat{N}^3_{2,1} \end{bmatrix} = \begin{bmatrix} N^{21}_{21,1} \\ N^{31}_{21,1} \end{bmatrix}$
	2 lines below (6.6.83)	represents, the	represents the

378	Line below (6.6.87)	10.7	10.7 cm
379	(6.6.95)	$= \xi_{u,\Phi IF12} +$	$= \hat{\xi}_{u,\Phi IF12} +$
	(6.6.96) 4th eq.	$\rho_u^q + \xi_{u,\Phi IF12}$	$\rho_u^q + \hat{\xi}_{u,\Phi IF12}$
380	Line 1 top	across-differencing	across-satellite differencing
382	End of first paragraph *Continue with edited 2nd paragraph*	needed at all. However, instead of computing $\xi_{\Phi IF12}^{1q}$ via (6.6.107), one can compute it more accurately using the function $\Phi IF12$. One could apply the procedure expressed in (6.6.80) to (6.6.87) to across-satellite differences. A possible drawback is that now the network station coordinates must be known. Conversely, one can apply the $AIF12$ and (6.6.107) approach to any of the dual-frequency techniques discussed above.	needed at all. Instead of computing $\xi_{\Phi IF12}^{1q}$ via (6.6.107), one can compute it using the function $\Phi IF12$. One could apply the procedure expressed in (6.6.80) to (6.6.87) to the across-satellite differences.
	12 lines above Section 6.7	$\hat{\xi}_{\Phi IF12}^{p}, \hat{\xi}_{k,\Phi IF12}^{p}, \hat{\xi}_{PIF12}^{p}$	$\hat{\xi}_{\Phi IF12}^{p}, \hat{\xi}_{k,\Phi IF12}, \hat{\xi}_{PIF12}^{p}$
	10 lines above Section 6.7	$\hat{D}_{HMW12}^{2}$ and $\hat{d}_{2,HMW12}$	$\hat{D}_{HMW12}^{p}$ and $\hat{d}_{k,HMW12}$
	6 lines above Section 6.7	slips occur. In that case the…depending on number of slips. If the time between	slips occur. If the time between
385	8 lines above (6.7.2)	longer baselines. However, their variance	longer baselines. In some cases the variance
386	Line below	$a = 2.3269, b = -0.3596$	$a = -0.3596, b = 2.3269$

	(6.7.6)		
388	Line above (6.7.13)	Delete the line $(\sigma_{\rho+\Delta}, \sigma_I, \sigma_{1,N}, \sigma_{2,N}) = (0.99\text{ m}, 0.77\text{ m}, 9.22\text{ cycL}_1, 9.22\text{ cycL}_2)$	
	Line above (6.7.14)	Delete line $(\sigma_{\rho+\Delta}, \sigma_I, \sigma_w, \sigma_{1,N}) = (0.99\text{ m}, 0.77\text{ m}, 0.28\text{ cycL}_w, 9.22\text{ cycL}_1)$	
393	(6.7.34)	$-\frac{M+\varepsilon}{\lambda_3}$	$+\frac{M+\varepsilon}{\lambda_3}$
394	Line below (6.7.39)	$\sigma_I = 78\sigma_\Phi$ and $M_I \le 126 M_\Phi$	$\sigma_I = 78\sigma_\Phi$ and $M_I \le 126 M_\Phi$
	Line below (6.7.41)	identical	similar
399	2nd to last paragraph	$\{\xi^1_{\Phi IF12}, D^p_{HMW12}, \xi^p_{PIF12}\}$ of (6.6.75)	$\{\xi^p_{\Phi IF12}, D^p_{HMW12}, \xi^p_{PIF12}\}$ of (6.6.75)
431	Lines18, 17 bottom	present section) i and kinematic (Example 7.5.2) cases in comparison	present section) in comparison
480	(8.2.4)	$p_{wv[\text{mbar}]} = 0.01$	$p_{wv[\text{mbar}]} = 0.01$
502	(8.4.18)	$IF_2 \equiv \Phi IF12 - \Phi IF13$	$\Phi IF12 - \Phi IF13$
	Line below (8.4.19)	above, TEC	above, for a TEC
507	6 lines below (8.4.32)	multipath term	multipath terms
527	4 lines below (9.1.63)	1.5-GHz	1.5 GHz
557	6 lines below (9.2.21)	12.7-dB	12.7 dB
565	3 lines above (9.2.43)	1-mW	1 mW
567	Line above	with Figure 9.3.1	of Figure 9.3.1

	(9.3.1)		
595	4 lines below (9.4.41)	down- up	down-up
597	Line 2, 1st paragraph	1-mm	1 mm
609	2 lines, top	10-dB	10 dB
647	Line above (9.7.44)	Van Trees	van Trees
648	End 2nd paragraph	Van Trees	van Trees
649	Paragraph above (9.7.48)	Van Trees	van Trees
661	Line 3 top	$\boldsymbol{A}\,\boldsymbol{G} = \boldsymbol{0}$	$\boldsymbol{A}\,\boldsymbol{G} = \boldsymbol{0}$
696	Line 5 top	***variances***	variances
	(A.5.71)	$\boldsymbol{x}_i \sim n\left(\mu_i, \Sigma_i^2\right)$	$\boldsymbol{x}_i \sim n\left(\mu_i, \sigma_i^2\right)$
	(A.5.72)	$\begin{bmatrix} \boldsymbol{x}_1 \\ \boldsymbol{x}_1 \end{bmatrix} \sim N\left(\begin{bmatrix} \boldsymbol{\mu}_1 \\ \boldsymbol{\mu}_2 \end{bmatrix}, \begin{bmatrix} \boldsymbol{\Sigma}_{11} & 0 \\ 0 & \boldsymbol{\Sigma}_{22} \end{bmatrix}\right)$	$\begin{bmatrix} \boldsymbol{x}_1 \\ \boldsymbol{x}_1 \end{bmatrix} \sim N\left(\begin{bmatrix} \boldsymbol{\mu}_1 \\ \boldsymbol{\mu}_2 \end{bmatrix}, \begin{bmatrix} \boldsymbol{\Sigma}_{11} & \boldsymbol{0} \\ \boldsymbol{0} & \boldsymbol{\Sigma}_{22} \end{bmatrix}\right)$
703	B.2 Heading	COMPUTATION OF THE ELLIPSOIDAL	COMPUTATION ON THE ELLIPSOIDAL
704	Line 2 below ((B.2.6)	$p(\varphi, \lambda)$	$P(\varphi, \lambda)$
705	(B.2.15)	$\{D\,d\varphi^2 + 2D'\,d\varphi\,d\lambda + D''d\lambda^2$	$\{D\,d\varphi^2 + 2D'\,d\varphi\,d\lambda + D''d\lambda^2\}$
707	(B.2.25)	$= \dfrac{dr_1 \cdot dr_2}{\lVert dr_1 \rVert \lVert dr_2 \rVert}$	$= \dfrac{d\boldsymbol{r}_1 \cdot d\boldsymbol{r}_2}{\lVert d\boldsymbol{r}_1 \rVert \lVert d\boldsymbol{r}_2 \rVert}$
710	Line 4 above (B.2.32)	Figure B.2.7	Figure B.2.4
713	Last line	$k = 1$	$K = 1$

	Sect B.2.8		
	(B.2.48)	Align last column better (align minus sign)	
	(B.2.49)	Symbols *M* and *N* in row 2 should have the same size as in row 1.	
	(B.2.50)	Symbols *M* and *N* in row 2 should have the same size as in row 1.	
714	(B.2.50)	Delete blank space in the middle of each line Reads: $\boldsymbol{w} = \begin{bmatrix} -M_i \cos\hat{\alpha}_{ic}(\varphi_{o,i}-\varphi_{n,i}) & -N_i \cos\varphi_i \sin\hat{\alpha}_{ic}(\lambda_{o,i}-\lambda_{n,i}) \\ \dfrac{M_i}{\hat{s}_{ci}}\sin\hat{\alpha}_{ic}(\varphi_{o,i}-\varphi_{n,i}) & -\dfrac{N_i}{\hat{s}_{ci}}\cos\varphi_i \cos\hat{\alpha}_{ic}(\lambda_{o,i}-\lambda_{n,i}) \end{bmatrix}$ **Should** read: $\boldsymbol{w} = \begin{bmatrix} -M_i \cos\hat{\alpha}_{ic}(\varphi_{o,i}-\varphi_{n,i}) - N_i \cos\varphi_i \sin\hat{\alpha}_{ic}(\lambda_{o,i}-\lambda_{n,i}) \\ \dfrac{M_i}{\hat{s}_{ci}}\sin\hat{\alpha}_{ic}(\varphi_{o,i}-\varphi_{n,i}) - \dfrac{N_i}{\hat{s}_{ci}}\cos\varphi_i \cos\hat{\alpha}_{ic}(\lambda_{o,i}-\lambda_{n,i}) \end{bmatrix}$	
730	Table C 4.6 Line 6	Delete line: 1:M Scale reduction at central meridian	
425	Figure 7.4.2 Delete Russian figure title. Figure on the right has been corrected.