Corrections to be noted in Volume 64 of the JOURNAL OF RESEARCH of the National Bureau of Standards—D. Radio Propagation

Page	Column	Line	Now reads in part	Should read
29	2	1	$-\frac{1}{2}w,$	$-\frac{1}{2}\frac{1}{w}$
63	2	eq. (6.7)	$C_{\alpha,k,m}=(-1)\frac{\alpha k!(m+k-1)!2^{k-\alpha}}{\alpha!(k-\alpha)!(m+\alpha-1)!}$,	$C_{\alpha,k,m}=(-1)^{\alpha}\frac{k!(m+k-1)!2^{k-\alpha}}{\alpha!(k-\alpha)!(m+\alpha-1)!}$,
66		eq. (3)	$\exp[-\vec{ik}\cdot(r_1'-r_2')]$	$\exp[-\vec{ik}\cdot(\vec{r_1'}-\vec{r_2'})]$
84	1	2	implies negative	implies positive
114	1	eq. (16)	$\Delta f_m=$	$\Delta z_m=$
	2	3	$f=f_{m-1}$	$f_n=f_{m-1}$
117	1	17 & 18 from bottom	V_{lm}	$[\mathrm{V}_{lm}]$
119	2	10 from bottom	observed frequency range	unobserved frequency range
120	1	7	frequencies in the unobserved	frequencies in the observed
122	1	14	where ϕ_m, Φ_{m-1} are	where ϕ_m, ϕ_{m-1} are
123	2	eq. (70)	$\mathrm{M}_{nk}\mathrm{M}_{nl}\Delta z_k\Delta_l$	$\mathrm{M}_{nk}\mathrm{M}_{nl}\Delta z_k\Delta_{zl}$
142		5	$e_z=\frac{i\left(\frac{d}{c}\right)^2}{2\pi}\int_0$	$e_z=\frac{i\left(\frac{d}{c}\right)^2}{2\pi}\int_0^1$
155		eq. (2.5)	$e^{-ikS_n\rho}$	$\mathrm{e}^{-kS_n\rho}$
159		Fig. 3, legend	S plane. Branch point; x, poles	S plane; Branch point; x, poles
167		15	$c=cn=$	$c=c_n=$
170		Fig. 5, legend	The legend is incorrect and should read: Spherical coordinate system for horizontal electric dipole between interfaces.	
175		eq. (7.3)	$>>$	$<<$
183		Fig. 8, legend	The legend is incorrect and should read: Spherical coordinate system for vertical electric dipole between concentric spherical interfaces.	
271		5	$\omega_{\mathrm{L}}=\mu_0\mathrm{H}_m/m,$	$\omega_{\mathrm{L}}=\mu_0\mathrm{C}\mathrm{H}_m/m,$
289	2	eq. (2)	$\frac{\partial E_z(r)}{\partial r}+$	$\frac{\partial^2 E_z(r)}{\partial^2 r}+$
298	1	4	of ρ	of α.
325		eq. (30)	Footnote to accompany this equation as follows: The symbol $\delta\xi$ occurring in eq. (30) and succeeding equations is used to denote the distance, along the straight line ov, of the point of integration from the point of stationary phase. The coordinate ξ is measured along ov with the origin at 0.	
358	2	Fig. 3, List of symbols.	$\mathrm{A}^*=wh$ A=Effective area$\cong$A when $d<<w$ and h	$\mathrm{A}^*=Wh$ A=Effective area$\cong$A when $d<<\mathrm{W}$ and h
389		Eq. (6)	$\mathrm{P}_v(-\cos\theta)$	$\mathrm{P}v(-\cos\theta)$
411	1	Fig. 3	The GMT scale should be LMT+10 hours.	
436	1	4	$\eta=\mathrm{E}_v/\mathrm{E}_n=$	$\eta=\mathrm{E}_v/\mathrm{E}_h=$
459	1	20	$\underline{a}_{v'}$,	$\underline{i}_{v'}$
		13	$\underline{i}_{v'}=$	$i_p=$
460	2	22	$(\cos\psi)=\delta_m$	$(\cos\psi)=\dot{\delta}_m$
462	2	11	cycles pers second	cycles per second
468		13	Insert brace at the end of the formula before the comma.	
		14	Delete parenthesis in the formula.	
469		eq. (10)	$rf_l(r)\sim A_l\frac{\left\{\int_{t_l}^{r}ml(s)ds\right\}^{1/2}}{\{m_l(r)\}^{1/2}}$	$rf_l(r)\sim A_l\frac{\left\{\int_{t_l}^{r}m_l(s)ds\right\}^{1/2}}{\{m_l(r)\}^{1/2}}$

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Page	Column	Line	Now reads in part	Should read
473		3 from bottom	side of (6) for $r=a$,	side of (26) for $r=a$,
474		eq. (37)	$\left\{e^{-i\pi/3}\frac{H^{(1)}_{2/3}(u)}{H^{(1)}_{1/3}(u)}\right\}^2\Bigg]$	$\left\{e^{-i\pi/3}\frac{H^{(1)}_{2/3}(u)}{H^{(1)}_{1/3}(u)}\right\}^2\Bigg]$.
476		15	$\tau=\mathrm{r}'d\theta/dr'$	$\tau=r'd\theta'/dr'$
479		eq. 62	$3u_1(a\}$	$3u_1(\mathrm{a})\}$
539		18	Delete boldface overscore over italic d.	
548		eq. 72	$\left\|\frac{Z_E}{Z_0}\right.$	$\left\|\frac{Z_E}{Z_0}\right\|$
552		7	$0.58<d\lambda_0$	$0.58<d/\lambda_0$
565		eq. (13)	$h^{(t)}_\rho$	$h_\rho(t)$
		eq. (14)	$h^{(t)}_z$	$h_z(t)$
567		16	$e\phi$	e_ϕ
592	2	5	from the value at the beginning of this interval.	Delete
		9	apparatus	measuring method.
594	1	35	hormonic	harmonic
595	2	2 from bottom	junction	function
598			Additional comments have been prepared to accompany this paper and appear in the Journal of Research, Section D. Radio Propagation, January–February 1961 issue.	
603	1	4	At least 3 m were	At least 3 meters were
616		Fig. 3	Lettering left of figure should read: Median Basic Transmission Loss L_{bm}, db.	
643	2	30	consepts	concepts
646	2		New heading to be inserted as F. Publications. An example of path combinations in whistler echoes reported at the XIIth Assembly, has been published (Morgan et al., 1959), and an example of direct correspondence of whistlers and lightning flashes by aural and visual observation, also reported at the XIIth Assembly, has been published (Morgan, 1958b). A correlation of whistler dispersion with sunspot number was discovered by G. McK. Allcock of New Zealand in data taken simultaneously with him and this result has been published (Allcock and Morgan, 1958). In addition to these papers dealing with restrictive topics, four comprehensive papers have been published (Morgan, 1958a; Helliwell and Morgan, 1959; Morgan, 1959; Johnson, 1960).	
647	1	4	3 yr	3 years
651	1	2	may be above	may be
		3	just about	just above
652	2	1	statistica	statistical
		5 & 6	Approved for publication as an NBS Monograph (1960B)	NBS Monograph 23 (1960b).
			Insert the following reference between lines 19 and 20 from bottom: Helliwell, R. A., M. G. Morgan, Atmospheric whistlers, Proc. IRE *47*, 200–208 (1959).	
662	1	9 from bottom	four sources, Omega, Neb.,	four sources, Orion, Neb., Omega, Neb.,
673	1	1	of television	or television

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Page	Column	Line	Now reads in part	Should read
687	1	14	theory; (2)	theory: (1)
		15	formulations, (3)	formulations, (2)
		16	techniques, (4)	techniques, (3)
		17	matrices, (5)	matrices, (4)
		18	and (6)	and (5)
688	2	5 from bottom	for examples,	for example,
690	1	31	are $\underline{a}$,	are a,
			with $\underline{a}$,	with a,
		last	[1957]	[1959].
691	2	6	Weinberg [1958]	Weinberg [1958b]
		11 & 12 from bottom	(See letter)	(Complete letter in files of author not quoted but will be included in a subsequent paper.)
692	2	4 & 5 from bottom	which attempted to make...	made
695	1	15	$T_d=\sum_{m=0}^{n-1}$	$T_d=\sum_{m=0}^{n-1}$
707	Abstract	1	fieldr of	fields of
709	1	11 from bottom	(caustics), nd has	(caustics), and has
713	2	24	S7 (1959)	S7 (1959b).
		44	S231 (1959)	S231 (1959a).
		9 from bottom	theory, IRE Trans. AP–7, S28 (1959).	theory, Rept. 2591–3–T, AFCRC–TN–58–350, AD 160790, The University of Michigan Radiation Laboratory (1958).
731	Abstract	19	annual	annular
735	2	16 from bottom	loves below	lobes below
739	1	37	sloe arrays	slot arrays
740	1	32	effects an	affects an
745	1	9 from bottom	Robert,	Roberts,
746	1	4	Wait [1957; 1958]	Wait [1957]
		9	[Kay and Zucker, 1959]	[see Cottony and others, 1959]
747	2	8 & 9 from bottom	Marcuvitz [IRE Trans., 1959] and Barone [IRE Trans., 1959]	Marcuvitz and Barone [see Cottony and others, 1959]
748	1	18	millimeter waveline	millimeter-wave line
	2	1	cut-and-dry	cut-and-try
750	1	3	AP–7 (1959)	AP–7, S244 (1959).
753	1	11	invention seems	devices seem
754	1	4	Heffner, H., Stanford Univ.	Delete
	2	32	GF P–N junction	germanium p–n junction
755	1	8 from bottom	kMc/s	KW