6th January, 1959.

Dear Teddy,

Thanks for sending the tables back with the copies. In case the same slip has occurred on your own copy, I ought to say that the number 145 occurring in the 11-point formula of the first series, and in the 13-point formula of the second, should in each case be 143. Factors other than odd primes do not get much chance.

I was interested in what you said in your last paragraph, to the effect that a sharp cut-off would produce oscillation in the function with the cut-off frequency. The reconstruction I had been thinking of, starting with a series a_r, with r running from 1 to 119, was

$$Z_r = \frac{2}{119} \sum_1^{15} A_s \cos 2\pi sr + \sum_1^{15} B_s \sin 2\pi sr$$

made up only of components of wavelengths 119/s for s running from 1 to 15.

Sincerely yours,

Sir Edward C. Bullard, F.R.S.

				Capacity for random [illegible]		
5-point	−3 12 17 . .	/35	18/35	51.4285 %	$1-\frac{9}{35}\delta^4$
7 point	−2 3 6 7 . .	/21	2/3	66.6667 %	$1-\frac{5}{7}\delta^4-\frac{2}{21}\delta^6$
9 "	−21 14 39 54 59 . .	/231	172/231	74.4589	$1-\frac{4}{7}\delta^4-\frac{2}{3}\delta^6-\frac{1}{11}\delta^8$
11 "	−36 9 44 69 84 89 . .	/429	340/429	79.2541	$1-3\delta^4-\frac{5}{3}\delta^6-\frac{9}{11}\delta^8-\frac{12}{143}\delta^{10}$

				Capacity for random variance %	
7 "	5 −30 75 131 . . .	/ 231	100/231	43.2900	$1+\frac{5}{231}\delta^4$
9 "	15 −55 30 135 179 . . .	/429	250/429	58.2751	$1+\frac{5}{33}\delta^6+\frac{5}{143}\delta^8$
11 "	18 −45 −10 60 120 143 . .	/429	2/3	66.6667	$1+\frac{20}{33}\delta^6+\frac{45}{143}\delta^8+\frac{6}{143}\delta^{10}$
13 "	110 −198 −135 +110 +390 ~~+600~~ +677	/2431	$\frac{1754}{2431}$ (~~1644~~)	72.1514	$1+\frac{20}{11}\delta^6+\frac{225}{143}\delta^8+\frac{6}{11}\delta^{10}+\frac{10}{221}\delta^{12}$
15 "	2145 (−2860) −2937 (−165) 3755 (7500) 10125 11063	/46189	$\frac{2702}{3553}$	76.0484	$1+\frac{50}{11}+\frac{75}{13}+\frac{36}{15}+\frac{10}{17}+\frac{15}{323}$
17	195 (−195) −260 (−117) 135 (415) 660 (825) 883.	/4199		78.9712	$1+\frac{10}{11}+\frac{225}{13}+12+\frac{70}{17}+\frac{225}{323}+\frac{15}{323}$

3	−.08260	99
4	+ .02929 (~~.41745~~)	100 (~~83~~)
6	−.00366	100
8	.41745	83
10	.86875	28
12	.93868	11.9

T large $\frac{100}{11}\delta^6$