Addendum to

Delay Curves for Calls Served at Random

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I owe the following remarks, which help to complete the record, to Emile Vaulot:

1. The Erlang formula for delay with order of arrival service, for the proof of which reference has been made to a paper by E. C. Molina, was proved earlier by E. Vaulot (Application du Calcul des Probabilités a l'exploitation telephonique. Revue Générale de l'Electricité, *16*, pp. 411–418, 1924). Indeed his seems to be the first proof.

Also, the associated Erlang C function C (c,a), for which I said there was no extensive tabulation, is tabulated for n = 1 (1) 139 and an extensive but irregular set of a's by Arne Jensen (Moe's Principle, Table III, Copenhagen Telephone Co. Copenhagen, 1950). Also the recurrence relation for this function given in a footnote has previously been given by Conny Palm (Väntetider Vid Slumpvis Avverkad Kö, Tekniska Meddelanden Fran. Kungl, Telegrafstyrelsen, Specialnummer för Teletrafikteknik, pp. 109. Stockholm, 1946, see p. 43).

2. The extensive treatment of delay by Conny Palm, just mentioned, includes a section on random service (section 4); it may be noticed that this is dated May 15, 1946, which is only a few months after Vaulot's article on the same subject (Jan. 28, 1946), and of course is an independent development.

I owe the following to my colleague S. O. Rice. Pollaczek, in the Comptes Rendus paper mentioned, has given an integral effectively for what I have called F(u). Rice has put this in a slightly different form adapted to numerical computation and has obtained the following results for F(u)

$v = u(1-\alpha)$

α	1	2	4	6	8	10	12	14
0.8					0.0079	0.0039	0.0020	0.0011
0.9	0.2866	0.1388	0.0471	0.0198	0.0094	0.0049	0.0026	0.0015

Comparison with the tables of the papers shows a satisfying agreement and substantiates the conjecture that approximation by a relatively small number of exponentials is sufficient.

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