Figure 4B. K1SIX derived equivalent SINGLE HOP probability

EQUIVALENT Minimum 1x HOP Es Probability derived from Fig 4A

	MAY (Ave. 41.4%)		JUNE (Ave. 75.7%)		JULY (Ave. 74.9%)		AUGUST (Ave. 48.7%)
1	NOT EVALUATED	1	65.1%	1	76.5%	1	67.7%
2	NOT EVALUATED	2	67.7%	2	82.0%	2	67.7%
3	29.0%	3	67.7%	3	82.0%	3	67.7%
4	29.0%	4	74.5%	4	83.7%	4	62.3%
5	NOT EVALUATED	5	67.7%	5	83.7%	5	55.7%
6	NOT EVALUATED	6	70.1%	6	80.3%	6	67.7%
7	NOT EVALUATED	7	70.1%	7	88.4%	7	65.1%
8	36.5%	8	72.4%	8	82.0%	8	62.3%
9	29.0%	9	76.5%	9	83.7%	9	59.1%
10	29.0%	10	78.4%	10	80.3%	10	62.3%
11	32.5%	11	74.5%	11	74.5%	11	59.1%
12	46.9%	12	78.4%	12	78.4%	12	62.3%
13	32.5%	13	76.5%	13	78.4%	13	70.1%
14	41.0%	14	70.1%	14	72.4%	14	67.7%
15	62.3%	15	70.1%	15	76.5%	15	59.1%
16	41.0%	16	74.5%	16	70.1%	16	46.9%
17	36.5%	17	74.5%	17	70.1%	17	46.9%
18	46.9%	18	74.5%	18	76.5%	18	32.5%
19	55.7%	19	82.0%	19	70.1%	19	46.9%
20	65.1%	20	80.3%	20	70.1%	20	32.5%
21	46.9%	21	76.5%	21	67.7%	21	46.9%
22	51.7%	22	76.5%	22	78.4%	22	41.0%
23	55.7%	23	80.3%	23	72.4%	23	32.5%
24	55.7%	24	74.5%	24	72.4%	24	55.7%
25	67.7%	25	86.9%	25	65.1%	25	NO DATA
26	62.3%	26	91.2%	26	72.4%	26	32.5%
27	62.3%	27	86.9%	27	67.7%	27	41.0%
28	65.1%	28	80.3%	28	72.4%	28	32.5%
29	70.1%	29	76.5%	29	70.1%	29	NOT EVALUATED
30	72.4%	30	74.5%	30	67.7%	30	36.5%
31	59.1%			31	55.7%	31	29.0%

Based upon the assumption that the values shown in the Table in Fig 4A represent mostly triple hop events, which may or may not be true based upon an estimated 5,731 km. average path length, it is possible to derive single hop probability by simply taking the cube root of these values and that result is shown above.

Once estimated single hop values are known, the probability of any number of Es hops can be derived by the simple formula Y^x or multiplying the decimal single hop probability by itself by the number of hops desired. An example for 91.2% (.912) single hop probability would yield the following probabilities *for properly aligned multiple Es "clouds"*:
.912 x .912 = .8317 (83.2%) *ESTIMATED* probability for double hop (.912)
.912 x .912 x .912 = .7585 (75.9%) *DEMONSTRATED* probability for triple hop (.912)
.912 x .912 x .912 x .912 = .6917 (69.2%) *ESTIMATED* probability for four hops (.912), etc.

This compilation represents: 30,189 6M QSOs and heard data points for a total of: 1,104 days of actual observed 50 MHz transatlantic Es over the entire period of: 41 years and was last updated on 31 August 2023.

Click on the hot link for Table 4A to view the source data