

Sector Failures (as Poisson Arrivals), Over Periods of Years, by Sector Half-Life
How many documents, or sectors, are lost in the first N years?

Conditions:

- 1MB sector size
- 50 MB document size
- disk half-full of documents
- 1TB disk size (not a factor in percentage failure rates)

Percent of documents lost, by sector half-life (across) and period length (down)

		Sector Half-Life (megahours)											
		2	3	5	10	20	30	50	100	200	300	500	1000
Length of Period (years)	1	16	11	7	3	2	1	1	0	0	0	0	0
	2	29	21	13	7	3	2	1	1	0	0	0	0
	3	41	29	19	10	5	3	2	1	1	0	0	0
	5	58	44	29	16	8	6	3	2	1	1	0	0
	10	82	69	50	29	16	11	7	3	2	1	1	0
	20	97	90	75	50	29	21	13	7	3	2	1	1
	30	99	97	88	65	41	29	19	10	5	3	2	1

Percent of sectors lost, by sector half-life (across) and period length (down)

		Sector Half-Life (megahours)											
		2	3	5	10	20	30	50	100	200	300	500	1000
Length of Period (years)	1	0.3460	0.2308	0.1385	0.0693	0.0347	0.0231	0.0139	0.0069	0.0035	0.0023	0.0014	0.0007
	2	0.6908	0.4610	0.2769	0.1385	0.0693	0.0462	0.0277	0.0139	0.0069	0.0046	0.0028	0.0014
	3	1.0343	0.6908	0.4150	0.2077	0.1039	0.0693	0.0416	0.0208	0.0104	0.0069	0.0042	0.0021
	5	1.7179	1.1486	0.6908	0.3460	0.1731	0.1155	0.0693	0.0347	0.0173	0.0116	0.0069	0.0035
	10	3.4064	2.2840	1.3767	0.6908	0.3460	0.2308	0.1385	0.0693	0.0347	0.0231	0.0139	0.0069
	20	6.6967	4.5158	2.7345	1.3767	0.6908	0.4610	0.2769	0.1385	0.0693	0.0462	0.0277	0.0139
	30	9.8750	6.6967	4.0736	2.0580	1.0343	0.6908	0.4150	0.2077	0.1039	0.0693	0.0416	0.0208