4.2. Mine lifespan charts

The lifespan charts consider three key periods in the life of a mine contamination problem:
- Laying period—the time from when the first mine of the type is laid in a country or region, until the last mine of that type is laid;
- The lifespan of components that neutralize on failure;
- The lifespan of components that disarm on failure.

The first mines laid are expected to fail over time along a normal probability distribution. The last mines laid are expected to fail following the same failure probability curve. In each case different components will fail along their own probability curves, some resulting in neutralization, some in disarmament.

In Error! Reference source not found. 9, the neutralization element of the bar covers the period until all components which neutralize on failure can be expected to have failed. The disarmament element correspondingly reflects the duration until all components which disarm on failure can be expected to have failed. For convenience the different elements of the bar can be overlaid, as shown in Error! Reference source not found. 10. In general it is expected that neutralizing components (springs, pins, etc.) will tend to fail before disarming (explosive) components. It is possible that in some mine types explosive elements will deteriorate and fail before neutralizing items.

![Illustrative mine lifespan chart](image)

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63 This means that the model does not take into account any degradation which might occur during the period between manufacture and placement into the ground. In some instances, poor storage conditions may be a significant factor in aging processes.

64 A possible example of this situation could be found with PFM-1 mines where a casing breach would result in runoff or evaporation of the liquid explosive, while the metallic components of the firing train might remain in good condition.