



Electronic Systems Obsolescence Management

SF-2.0

A New Approach to Managing Long-term Supply of
COTS Electronics for Aerospace, Military, and
Industrial System Manufacturers

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Preface

The roots of the obsolescence problem date back over forty years to a time when the size of the military and aerospace electronics markets began to shrink relative to the commercial electronics marketplace. As Commercial Off The Shelf (COTS) components penetrated the high reliability markets, military sales began to shrink (as a percentage of total electronic sales) from over 35% in the early 1970s to less than 1% today. This dramatic change did not result from decreased usage by the military and aerospace industries (electronics continue to proliferate in these systems), but rather came about due to the explosion of consumer, automotive, and other commercial electronic products.

In 1970, when military use of electronic components represented by far the largest segment of the component market, these firms enjoyed significant control over electronic suppliers. The reality of the market today is that these firms comprise nothing more than a niche within an almost half trillion dollar market. The impact of this economic shift is that military and aerospace customers must abide by, and adapt to, the constraints created by electronic component manufacturers as they pursue large commercial markets. The loss of control over the electronic component supply chain and the ever-shortening life cycle of COTS technology have created a set of new challenges for the high reliability system manufacturer.

The main financial and logistical problem created by this market shift is the widespread obsolescence of core electronic components at a rate that is overwhelming system manufacturers. Successful program

managers have found the methods laid out in this book provide a new approach to obsolescence management.

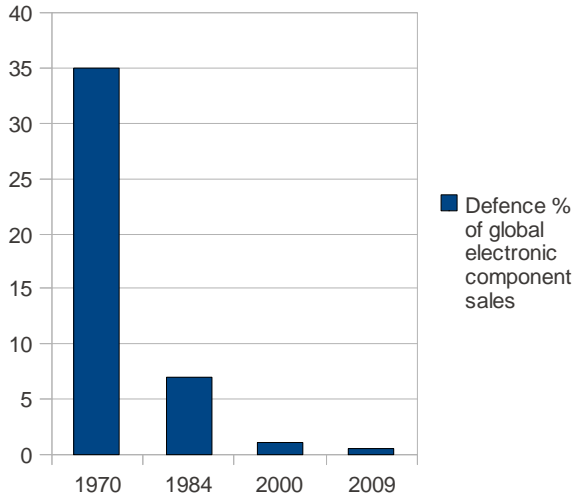


Figure 1: Volume of sales shows the decline in the importance of the defense sector in global electronic component sales