

G-COST 1.0 Ground Systems Cost Model Demonstration GSAW99 - Breakout Session 2

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G-COST 1.0 - Inputs

- **G-COST 1.0 is a model of ground systems life-cycle costs which allows two configurations (Systems “A” and “B”) to be costed side-by-side. The generic ground system architecture underlying G-COST 1.0 consists of a Work Breakdown Structure (WBS) with nine equipment groups as illustrated in Figure 1.**
- **During the working session, G-COST 1.0 generates a series of sixteen screens (Figure 2), each of which prompts the user for the required performance characteristics of each equipment group. These characteristics represent our initial guess at the parameters likely to drive the costs of that equipment group based on discussions with in-house experts on ground systems. Notional Cost Estimating Relationships (CERs) have been included in the model in order to demonstrate functionality.**

G-COST 1.0 - Outputs

- **At the end of a working session, computed costs are displayed for each element in the WBS (Figure 3). Acquisition costs and life cycle costs can be compared for systems A and B (Figure 4). An output of cumulative costs (Figure 5) and a payback analysis can also be generated (Figure 6). By design, specific source data cannot be displayed in order to protect the integrity of proprietary information.**
- **The notional CERs currently implemented in G-COST 1.0 are based on experience and pricing data from vendors. The cost database is being populated on a continuing basis, based on G-COST 1.0 user feedback.**

G-COST On-Going Development

- **Requests for copies of the model should be addressed to: L. B. Sidor, Aerospace Corporation, (310) 336-1571, sidor@aero.org. To encourage continued improvements in our models, our policy has always been to provide model updates and enhancements to all organizations which contribute cost data. The G-COST 2.0 model in cooperative development with Mitre Corporation will include an expanded cost database of satellite ground stations, from which CERs will be generated using the General Error Regression Model (GERM). G-COST 2.0 will also include learning curve effects on recurring costs and cost-risk.**

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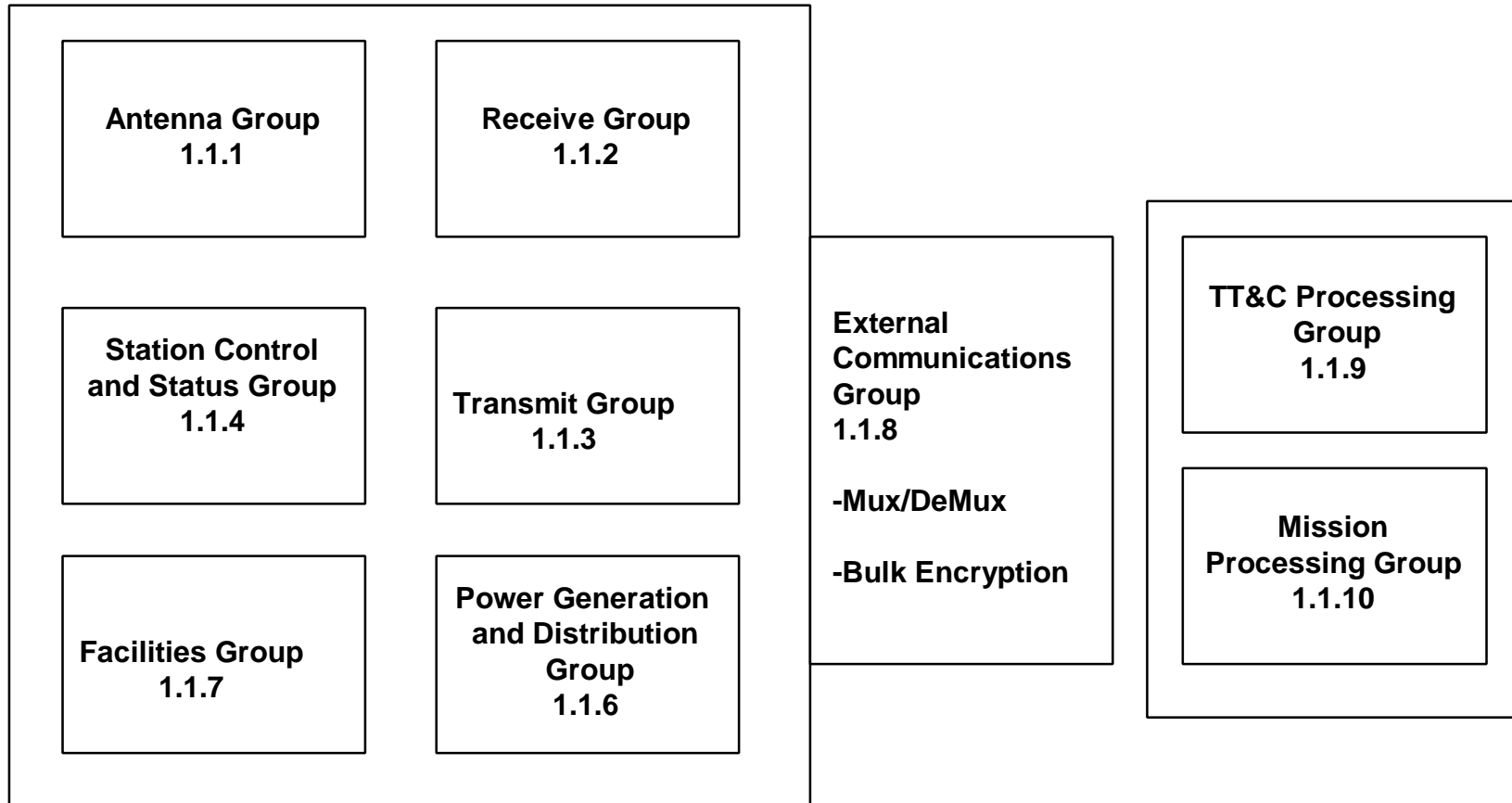


Figure 1. G-COST 1.0 Ground System WBS

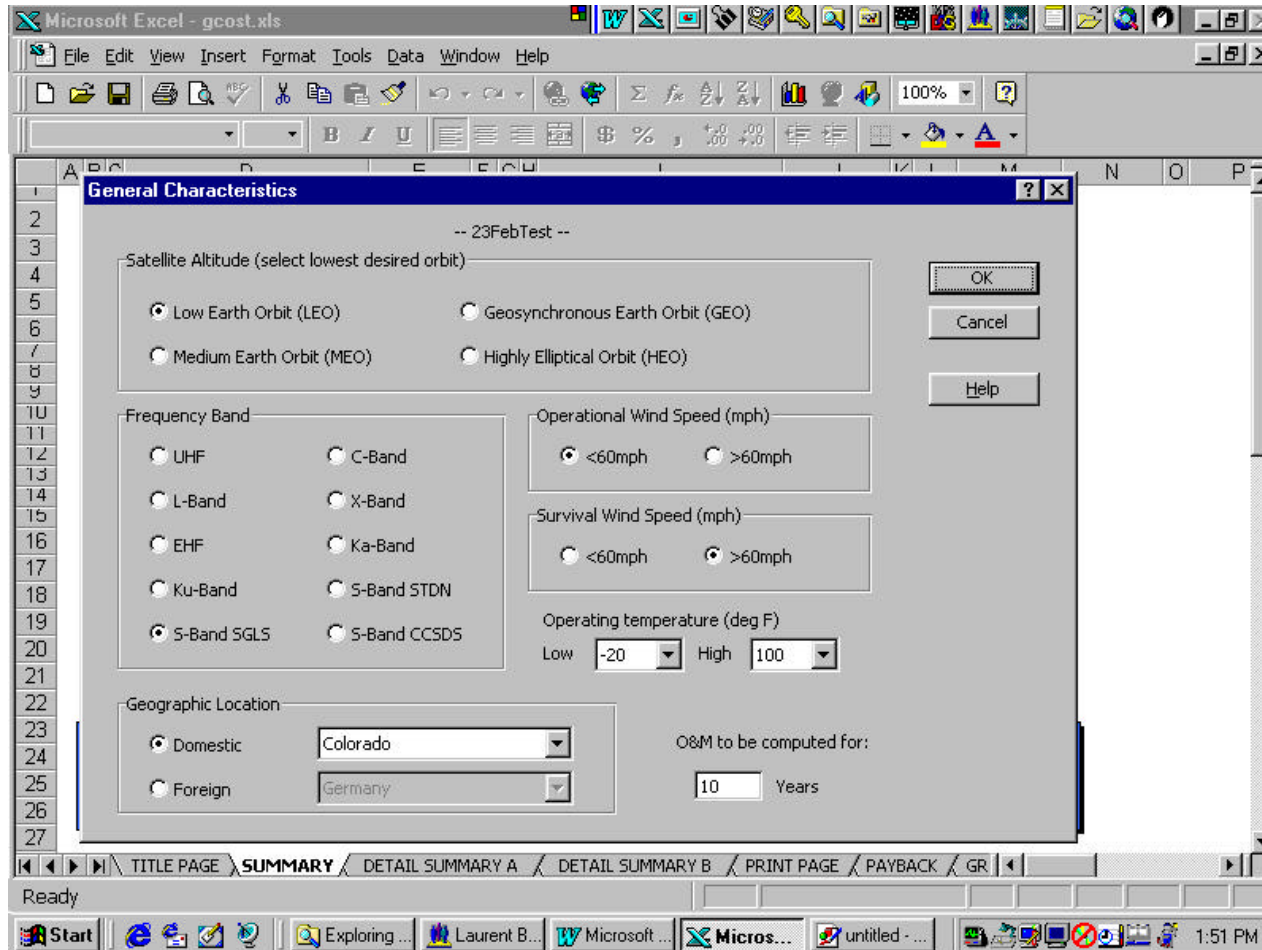


Figure 2. Sample G-COST 1.0 Input Screen

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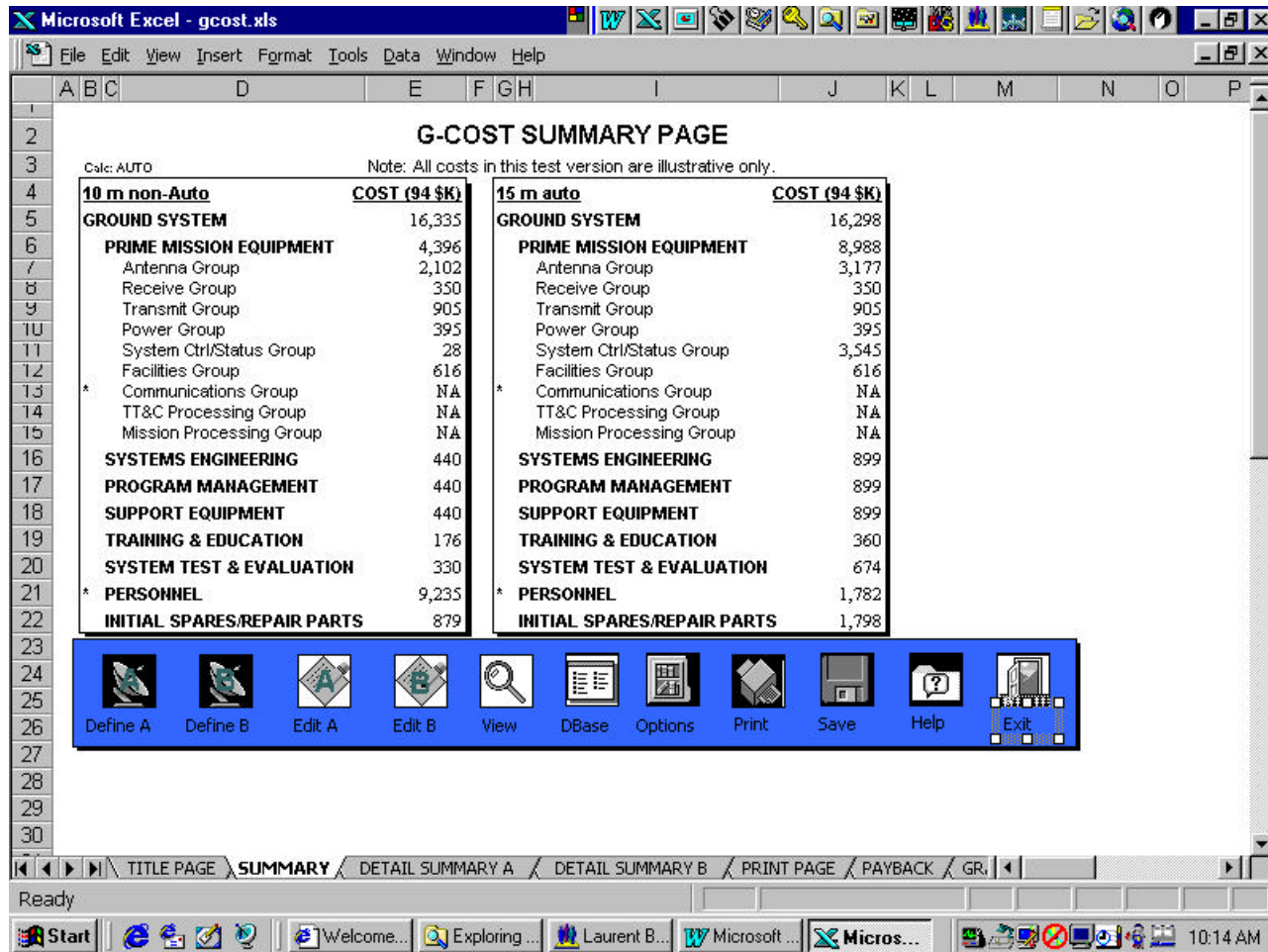


Figure 3. Output Costs by WBS

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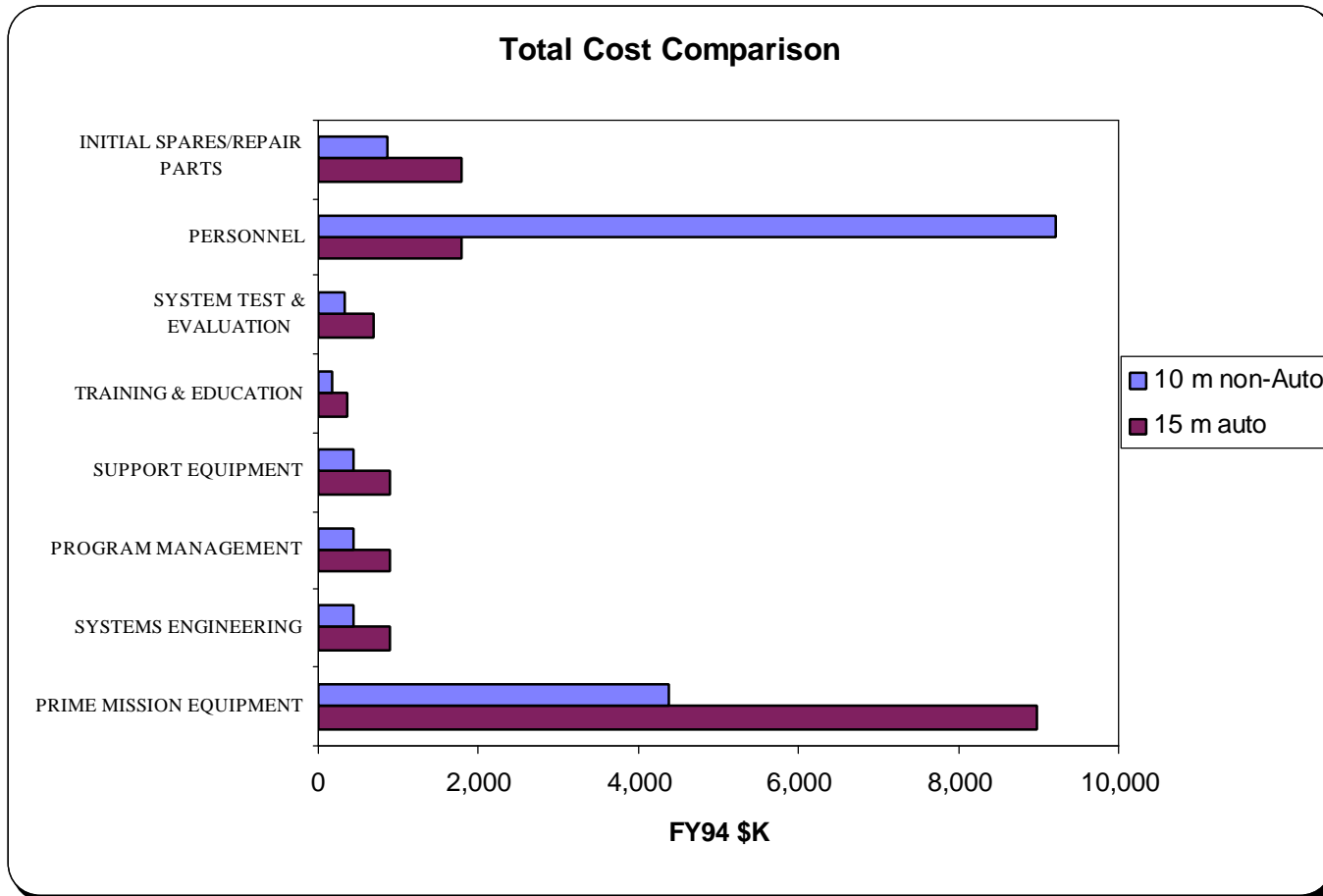


Figure 4. Cost Comparison by WBS Graphic

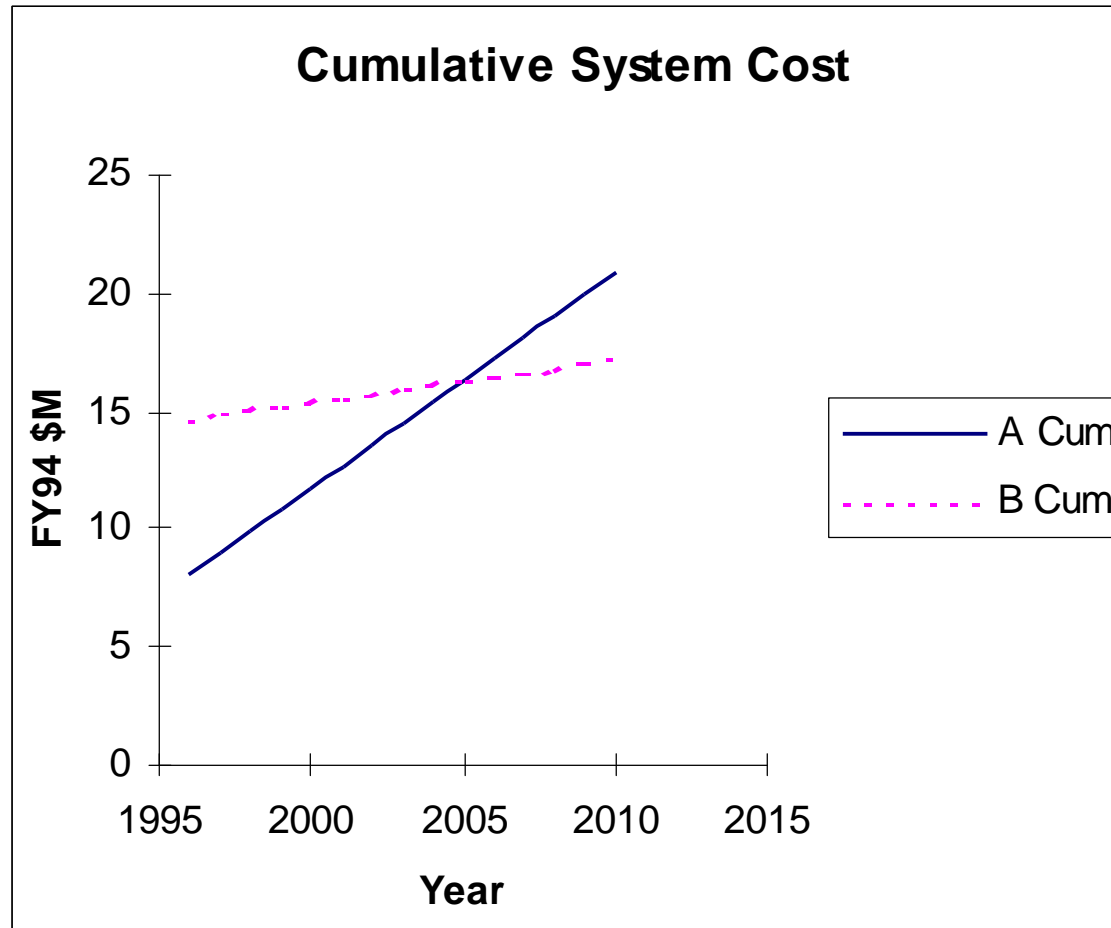


Figure 5. Total Cumulative Costs Output

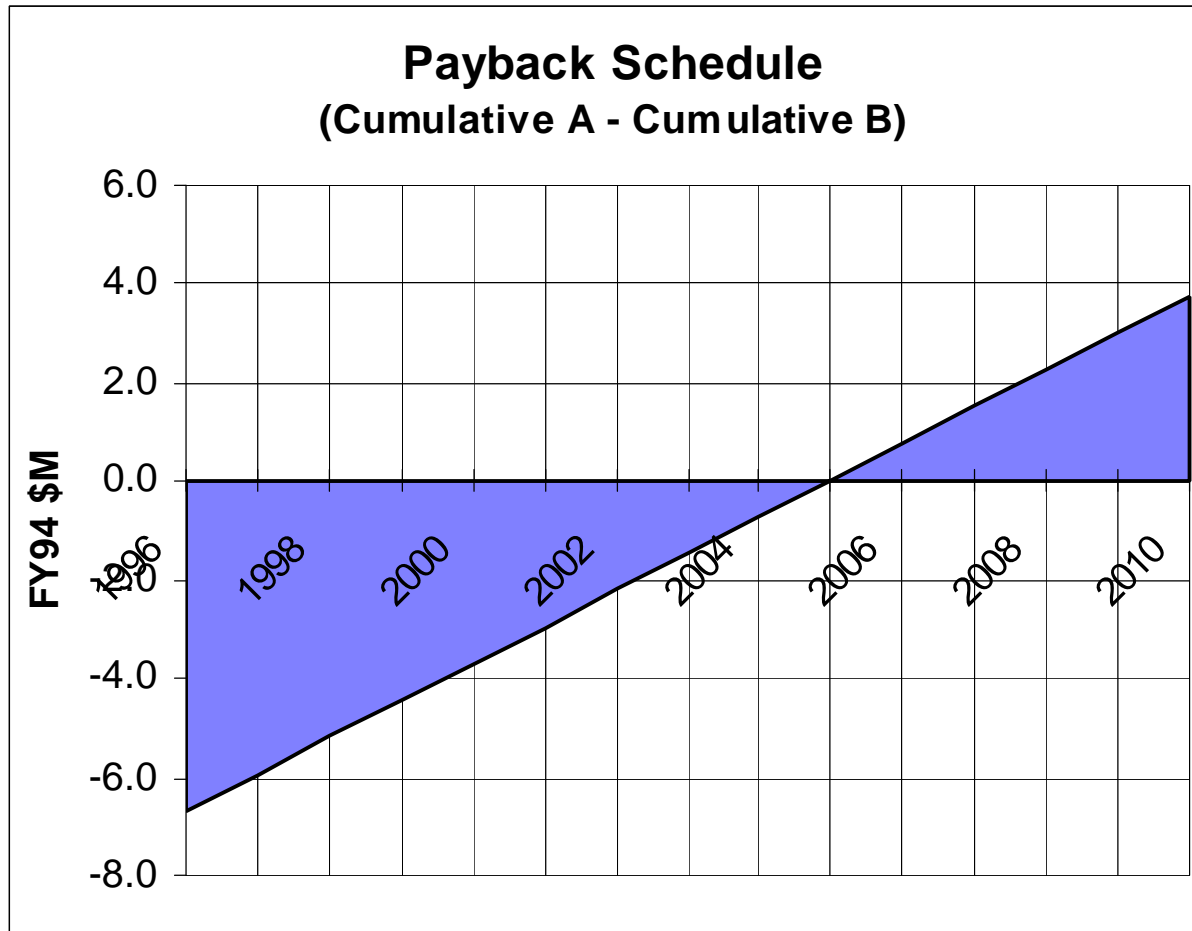


Figure 6. Payback Analysis