



How Much of An Impact Do Launch Prices Really Have on the Cost of Satellite Services?

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As part of its efforts to determine the price elasticity of demand for launch vehicles, Futron had the opportunity to study the impact of launch prices on demand for satellite services. In simple terms, it is akin to asking, "Will people watch more satellite TV if launch prices fall?" or, "How many more VSAT networks would be deployed if launch prices were slashed?"

Intuitively, we in the satellite industry understand that consumer and/or business demand for services such as Direct-to-Home television and VSAT networks have little to do with the price of launching satellites. However, Futron set out to prove this analytically by examining the 'market price' (or 'selling price') a consumer ultimately pays for satellite services; and what proportion of that price is determined by the element of launch costs.

There were three parts to this analysis. First, Futron calculated the percentage of a satellite service providers' total operating costs are comprised of space segment costs. As an example, Futron found that for a typical, small VSAT network provider utilizing a single transponder, the space segment accounted for approximately 24% of the company's annual operating costs (see Figure 1).

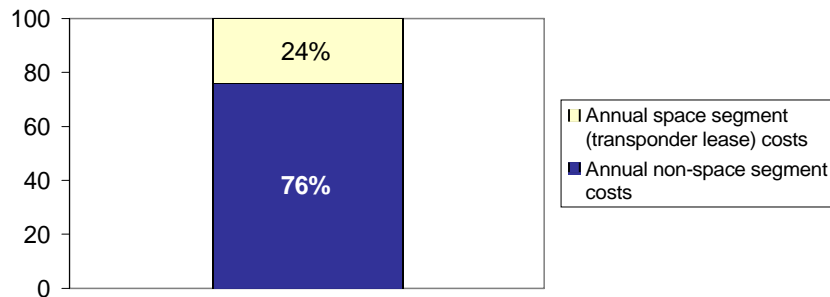


Figure 1: Percentage of VSAT Network Provider's costs attributed to space segment and non-space segment.

Second, Futron took a detailed look at the financial statements of three of the world's largest FSS providers and calculated what percentage of the wholesale price of a single transponder is attributed to launch costs. Futron found that 13% of a single transponder's annual wholesale price was comprised of launch costs (see Figure 2).

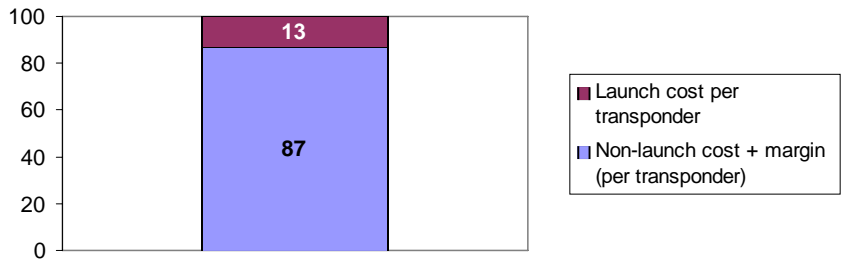


Figure 2: Launch cost per transponder as a percentage of overall transponder wholesale price..

The third and final step involved multiplying the share of space segment costs (24% in the VSAT network provider example above) by the share of space segment costs that are attributed to launch costs (13% as shown in Figure 2). By doing this, Futron determined that only three percent (13% x 24% = 3%) of a VSAT network provider's annual operating costs can be traced back to launch costs (see Figure 3). Futron refers to this percentage as the "Gearing Factor."

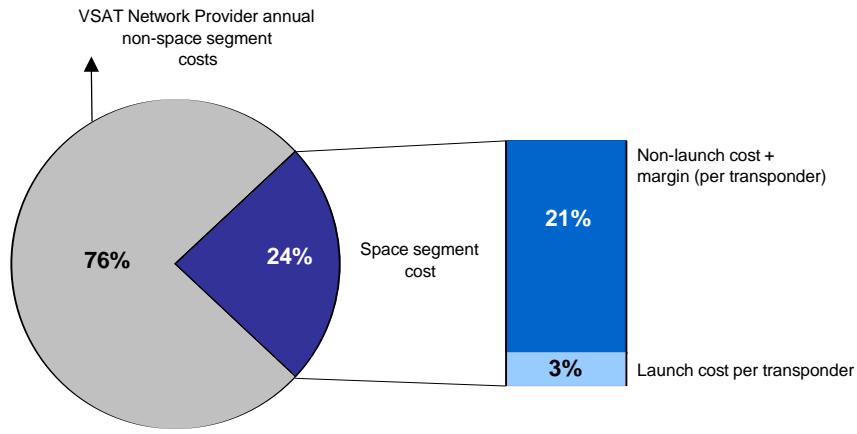


Figure 3: Imputed launch costs as a percentage of total VSAT network provider's annual operating costs are only 3%

This story repeated itself emphatically when looking at other satellite services such as DTH and trunked telephone services. DTH providers for example, pay only 0.7% of total subscriber revenues as launch costs. In the international telephone trunking market this percentage is even more pronounced — the proportion of launch costs in the retail price of an international phone call is an infinitesimally small 0.2%.

These small percentages confirmed our initial skepticism regarding the ability of launch prices to spur (or inhibit) demand for satellite services. Even the most massive and dramatic change in launch costs will only impact overall retail prices for satellite services by only a minute percentage. Launch services are an enabling technology but not a fundamental determinant of demand. A good analogy is to view launch services like electricity — a drop in prices per kilowatt-hour would not lead to an increased demand for light bulbs or television sets!