Re: ballistic package delivery

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- *From*: "Williamknowsbest" <William.Mook@xxxxxxxxx>
- *Date*: 6 Jan 2007 11:59:35 −0800

kT wrote:

> Williamknowsbest wrote:
>
> > A decade ago I proposed that sub−orbital rockets be used to deliver
>
> Coffee! Damn you're out of coffee, and you're way out here in the middle
> of the Atlantic ocean, who you gonna call? Mook's Delivery Service!
>
> So you get out your satphone, and dial 1−800−WILMOOK, and punch in your
> GPS coordinates,

You Iridium satellite phone broadcasts GPS coordinates. The application running in the handset has to have GPS tracking switched to ON.

> and within an hour

Within 15 minutes if you're in the middle of the Atlantic.

> you spot the now easily recognizable
> bright orange MOOK delivery parachute drifting slowly into your life.

Nope. The package comes at you at about 310 m/sec after re−entry. It is guided toward the coordinates received minutes earlier. About 5 km away a microengine array on the propulsive skin segment of the package springs to life bringing the package in for a soft landing.

http://clifton.mech.northwestern.edu/~me381/project/02fall/Microrockets.pdf
http://www.nsti.org/Nanotech2006/showabstract.html?absno=225
http://clifton.mech.northwestern.edu/~me381/project/02fall/Microrockets.ppt#274,1,Solid

Propellant Micro−rockets: Application, Design and Fabrication

The same technology that delivers controlled amounts of color inks to a paper sheet to form color photos can be adapted to deliver controlled amounts of propellant to a 'thrust sheet' to create highly controllable thrust vectors.

With the possibility of a 1000:1 thrust to weight ratio, millions of engines might be one day fabricated into a surface and controlled as easily as HDTV plasma screens.

Disposable propellant bags that carry cryogens

http://welchfluorocarbon.com/TeflonPFAFEPModifiedPTFELayFlatBags.htm

And disposable MEMS based guidance systems

http://www.stormingmedia.us/24/2456/A245683.html

Have the potential to produce a disposable ballistic delivery package with a 2% or 3% structural fraction. This allows a 12% payload fraction. So, delivering a pound of coffee requires the dispatching of a package consisting of 1/4 pound of propulsive packaging and 7 pounds of hydrogen/oxygen propellant, prepared from 7 pounds of water using 133 kWh of energy. At $0.08 per kWh, the cost of the propellant costs $10.69 − at $20 per pound for the packaging material that's another $5 − so, a considerable profit could be made at these prices charging $25 per pound for ballistic delivery. Which is less than what FedEx charges for 24 hour delivery. This would be 24 minute delivery. The cost of coffee in the field is around 5% of what you pay − since only 10% of the profits go to those who grow coffee.

http://www.oxfamamerica.org/whatwedo/campaigns/coffee/starbucks

So, even at these prices, substantial shifts can occur in the way business is done in high margin goods.

With substantial reductions in energy − say to $0.02 per kWh − and reductions in the cost of propulsive packaging to $2 per pound −the cost of propellant drops to $2.67 per pound delivered and the cost of packaging to $0.50 − a little over $3 per pound − and there is a radical transformation in the way business is done with trucks trains airplanes warehouses and all the rest going the way of the buggy whip!

Mook Industries solves another extreme wilderness emergency.

Assuming zero cost for the rocket technology and energy cost equal to

that of coal costs ten to deliver a pound of coffee from South American or African coffee fields directly to consumers anywhere (whether in the middle of the Atlantic or not) actually uses less energy than collecting the beans, dragging them out of the field, loading them into a warehouse, loading them into a truck, dragging them down the road, loading them into another warehouse, loading them into a plane, flying them to market, loading them into another warehouse, loading them into a train, dragging them across the country, loading them into another warehouse, loading them onto a truck, dragging them down the road, loading them into another warehouse, dragging them onto the shelf, then you dragging your ass down to pick them up and dragging them home.

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The Tsiolkovsky Group : http://www.lifeform.org

My Planetary BLOB : http://cosmic.lifeform.org

Get A Free Orbiter Space Flight Simulator :

http://orbit.medphys.ucl.ac.uk/orbit.html

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