Balloons as Litter: What goes up, will come down!

A Unique Form of Litter!

“Balloons are the only item people actually buy to create litter.”
“Balloons don’t really go to Heaven”
In 1986, Cleveland’s attempt to set a world record resulted in 1.5 million balloons that:

- shut down the nearby airport
- blanketed Lake Erie
- spooked horses
- interrupted a Coast Guard search and rescue of two missing boaters.
In 1994 Disney broke the World Record for the largest balloon release

1,592,744
# Balloons as Litter: The Numbers

93,913

Balloons collected on world beaches in one day - 2011 ICC

<table>
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<th>Country</th>
<th>Count</th>
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<tr>
<td>United States</td>
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<td>Virginia</td>
<td>808</td>
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</tbody>
</table>

* States with current balloon legislation
## Balloons as Litter: The Numbers

### Balloons Per Mile

Based on 2011 ICC Results

Worldwide = 4.52 balloons per mile

<table>
<thead>
<tr>
<th>Country</th>
<th>Balloons Per Mile</th>
<th>Notes</th>
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<tr>
<td>United States</td>
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<td>Brazil</td>
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<tr>
<td>Puerto Rico</td>
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<td>California</td>
<td>3.8 *</td>
<td>States with current balloon legislation</td>
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<tr>
<td>Florida</td>
<td>5.6 *</td>
<td></td>
</tr>
<tr>
<td>New York</td>
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</tr>
<tr>
<td>Texas</td>
<td>14.5</td>
<td></td>
</tr>
<tr>
<td>New Jersey</td>
<td>17.4</td>
<td></td>
</tr>
<tr>
<td>Virginia+</td>
<td>2.4 *</td>
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</tr>
</tbody>
</table>

* States with current balloon legislation

+ Reported miles of Virginia cleaned = 337
Balloons as Litter: Sources

Mass Releases
- Celebrations
- Weddings
- Political Rallies
- Memorial Services
- Sporting Events
- Store Openings
- Marketing Event
- Schools
- Non-Profits

Single, low number (accidental?) releases
- Restaurants
- Real Estate Companies
- Grocery Stores
- Fairs and Festivals
- Car Dealerships
- Parades
Balloons as Litter: Latex Balloons
Biodegradable, Natural Latex!

- Produced from the sap of the rubber tree
- Made from 100% organic material and it’s 100% biodegradable
- Stress and exposure assist the decomposition cycle
- Research has shown that under similar conditions latex decomposes as quickly as an oak leaf. ~Balloon Council
Balloons as Litter: Latex Balloons

Research shows that most of these latex balloons -- the ones that are well-tied and have no structural flaws -- rise to an altitude of about five miles, where they freeze, breaking into spaghetti-like pieces that scatter as they return to earth. ~ The Balloon Council
Balloons as Litter: Latex Balloons
Balloons as Litter: Latex Balloons
Approximately 10,000 red balloons were released March 2, 2011 by gaming company in San Francisco.

Bad weather prevented balloons from getting far off the ground.

Company promised to clean up the mess.
A statement from THQ assured concerned bayside residents that the balloons released "were made from a 100% organic product and are 100% biodegradable," with no history of causing environmental pollution.

~Sfgate.com
Balloons as Litter: Mylar? (plastic)

- "Metalization" of plastic sheeting that has given us foil balloons comes directly out of the NASA Space Mission
- The balloon industry refers to them as "foil" balloons, because they are made of nylon sheet, coated on one side with polyethylene and metallized on the other.

~http://www.balloonhq.com/faq/making.html

All Photos VAQS
Balloons as Litter: Foil, Metallic

Sea turtles love jellies!

Pbs.org

asnailsodysssey.com

EarthShots.org
Balloons as Litter: Foil, Metallic
Balloons as Litter: Foil, Metallic

Kathy O’Hara
Balloons as Litter: Foil, Metallic
Balloons as Litter: Foil, Metallic

The New Jersey Osprey Project
The most recent outage occurred on June 1, when a Mylar balloon became tangled in power lines near Scholl Canyon Park, leaving over 14-hundred residents without power for more than 25 minutes. ~City of Glendale Water and Power

PHOENIX - Nearly 5,000 customers were left without power Wednesday, and APS thinks a Mylar balloon may have tripped a power line. ~http://www.myfoxphoenix.com/story/18661115/2012/05/30/stray-balloon-may-be-cause-of-power-outage

Last year, metallic balloons that drifted into PG&E power lines caused nearly 300 outages, affecting electric service to more than 150,000 customers throughout Northern and Central California. ~www.sanluisobispo.com/2012/03/10/1984463/mylar-balloons-are-hazardous-to.html

A metallic party balloon is blamed for causing a power outage in southwest neighborhoods of El Centro on Wednesday afternoon, leaving hundreds of homes and businesses without air conditioning as temperatures hovered around 110 degrees. ~ivnews.info
Balloons as Litter: Attachments
Balloons as Litter: Attachments

(Photo from Florida Fish and Wildlife Conservation Commission)
Balloons as Litter: Attachments
Balloons as Litter: Attachments

Christine McGuinness
Former North Korean defectors living in South Korea release balloons containing snacks called “Choco Pie” and anti-Pyongyang leaflets towards the North near the demilitarized zone separating the two Koreas in Ganghwa, northwest of Seoul. (Lee Jae-Won/Reuters)
Balloons as Litter: Weather Balloons?

- In 1999, more than 440,000 soundings were made from 992 stations outside the US.
- The US NWS releases about 75,000 radiosondes each year.
- More than half a million radiosondes are launched around the world every year.
Balloons as Litter: Impacts on Wildlife

Who is being affected

- loggerhead sea turtle***
- Kemp’s ridley sea turtle****
- green sea turtle***
- hawksbill sea turtle****
- leatherback sea turtle****
- pygmy sperm whale*
- northern gannet
- Guadalupe fur seal*** (MMPA depleted)
- laughing gull
- common dolphin*
- Risso’s dolphin*
- blue shark**
- northern fulmar+
- western gull
- cormorant
- petrel
- guillemot
- rusty blackbird
- swift
- anhinga
- osprey

+ moderate concern (N. America)
* protected (MMPA); may become threatened with extinction (CITES App II)
** near threatened (IUCN)
*** threatened (ESA)
**** endangered (ESA)

References: Virginia Aquarium, BalloonsBlow.org, UK Rivers Network, Clean Virginia Waterways and more
Balloons as Litter: Cause and Effect?

Virginia Aquarium Stranding Response Program
Balloons as Litter: Cause and Effect?
Balloons as Litter: Cause and Effect?
Balloons as Litter: Cause and Effect?
Balloons as Litter: The Industry
National & International Associations

“Social Expression Products”

September is
International Balloon Month!
Bring Balloons
Put a Smile on Someone’s Face

Classes, Schools and Academies
Balloons as Litter: The Industry

Balloon Manufacturers and Suppliers

Ribbons, weights, inserts, etc manufacturers and suppliers

Helium products and suppliers
A Palestinian woman prepares to release a bunch of balloons with foreign peace activists, ... during a Nakba rally in the West Bank town of al-Ram, on the outskirts of Jerusalem. (ABBAS MOMANI/AFP/Getty Images)
Balloons as Litter: An Emotional Subject
Balloons as Litter: Offering Alternatives

Plant a Tree
Plant a Butterfly Garden
Blow Bubbles
Use streamers or pinwheels
Don’t use helium
Mass Balloon Pop
Indoor balloon release
Candle light vigil
Release a rehabilitated bird (work with local wildlife rehabilitators)
Dedicate a park bench
Sky Lanterns are not a safe alternative!
Most are made of thin paper wrapped around a wire or bamboo frame. When an attached candle or other heat source warms the air inside, they rise and float away.

- Cause fires, burns
- Can entangle animals
- Animals ingest the left over metal
- Can be mistaken for coastal distress flares
- (and are illegal in several states including Virginia)
Balloons as Litter: Environmental Responsibility

All photos taken by VAQS
Balloon release bans were passed at the state level in several states including:

- Connecticut (1990)* (10 or more)
- Florida (1990)* (10 or more)
- Tennessee (1990)* (25 or more)
- California (1990) (foil only)*
- Virginia (1991) (50 or more)

*Before the Balloon Council (TBC) was formed
Since its inception, TBC has been successful in defeating restrictions in:
- California (2008)
- Hawaii
- Maryland (defeated in 2007)
- Massachusetts (bill currently pending)
- New Hampshire (defeated in 2007)
- New Jersey
- New York (bill currently pending) (25 or more)
- Pennsylvania
- Washington
- Wisconsin
Balloons as Litter: Virginia Law

§ 29.1-556.1. Release of certain balloons prohibited; civil penalty.

- Within a one-hour period fifty or more balloons
- That are made of a nonbiodegradable or nonphotodegradable material or any material which requires more than five minutes’ contact with air or water to degrade
- Inflated with a substance which is lighter than air.
What is helium used for besides balloons?

*Helium “is inert and has extreme melting and boiling points”*

- Medical Equipment (MRI)
- Scientific (Cryogenics)
- Construction (Arc welders)

Why is there a helium shortage?

In the essence of time: Google It!
Balloons as Litter: Where Do We Go From Here?

1. Alliance for Balloon Education
2. Virginia Aquarium and Clean Virginia Waterways partner to study balloon litter in Virginia.
Alliance for Balloon Education

The Alliance for Balloon Education's (ABE) mission is to prevent the mass releases of balloons, and prevent balloons and their attachments from entering the environment by providing education, alternatives and resources.

1. Create a White Paper
2. Create a Website
   1. Information
   2. Resources
   3. Images
   4. Success Stories
   5. Pledges
   6. Action Items
   7. Social Media
3. Recruit Members
   1. Businesses
   2. Non-Profits
   3. Clubs
   4. Groups
   5. Anyone

www.AllianceforBalloonEducation.org
Virginia Litter Study

- Clean Virginia Waterways and Virginia Aquarium collaborate to study balloon litter for 2 years

- Created a datasheet and online form for data entry

- Advertised to people and organizations in Virginia who spend time in the field

- Request balloon and attachment types, balloon status (burst or deflated), locations, business names, colors and photos.
Virginia Litter Study

Single Balloon Report

If you have found a single balloon, please choose one of the forms below, based on the type of balloon that you have found.

Fill out this form if you have found a latex balloon

Fill out this form if you have found a foil balloon

Latex Balloon

If you have found a latex balloon, please fill out the following form and check the option which best describes the latex balloon that you found.

* Required

Name *

Email *

Phone Number
We will only call regarding this form if necessary

Date *
Please enter the date in which you found the balloon

Location *
Please give a detailed description of where you found the balloon, include a gps location if possible. Also, please describe type of area, i.e. stream, beach, woods, etc.

Foil Balloon

If you have found a foil balloon, please fill out the following form and check the option which best describes the foil balloon that you found.

* Required

Name *

Email *

Phone Number
We will only call regarding this form if necessary

Date *
Please enter the date in which you found the balloon

Location *
Please give a detailed description of where you found the balloon. Also include if found on a waterway, in a tree, etc.
Virginia Litter Study

Interesting finds:
Foil vs. Latex
  Latex: 323 (39%)
  Foil: 500 (61%)
Attachments
  479 had no attachments (58%)
Burst vs deflated
  Latex burst with no attachment: 26 (8%)
  Latex deflated with no attachment: 144 (45%)
  (Total Latex Balloons: 323)
  Industry claims that latex balloons burst into fragments when released
Virginia Litter Study (future?)

Ocean Debris Summary for All Years

- **Debris Observed**
  - Number of Whale Watch Trips: 2,269
  - Number of pieces of trash observed: 17,330
  - Different types of debris found: 280
  - Average number of pieces of trash observed per trip: 8

- **Debris Facts**

- **About this Graph:**
  - These are the top 5 types of debris for that year.

Click on the year to display the cleanup data for that period.
Balloons as Litter: Innovate, Educate

not
Balloons as Litter: Questions?

New Years Red Balloon Release Party
December 31, 2012 via mobile

Due to rain I will not be flying my balloons tonight :( maybe it will clear up

Like · Comment · Share

Leonardo A Matos Ramirez Good! You should not be littering our lands with plastic! Save them for a birthday and dispose of properly!
December 31, 2012 at 5:34pm via mobile · Like

New Years Red Balloon Release Party Leonardo i will be releasing the balloons tomorrow & an extra one for the comment you made.
December 31, 2012 at 5:37pm via mobile · Like

Leonardo A Matos Ramirez Make sure to put my name on it! ... Prick
December 31, 2012 at 5:40pm via mobile · Like

New Years Red Balloon Release Party Excuse yourself there was no name calling needed.
December 31, 2012 at 7:43pm via mobile · Like

Leonardo A Matos Ramirez Oh put a sock in it. You started by being sarcastically rude. So put your big people pants on and suck it up.
December 31, 2012 at 8:20pm via mobile · Like

New Years Red Balloon Release Party Wow..
December 31, 2012 at 8:30pm via mobile · Like