

THE NEW VIGILANTE HELIKITE

A Silent Revolution in Bird Control

WHAT IS A VIGILANTE HELIKITE ?

Designed by ALLSOPP HELIKITES LTD specifically for bird control, a Vigilante Helikite is a unique combination of kite, disposable helium balloon and protective nylon balloon cover. The Helikite is the world's only successful lighter-than-air kite!

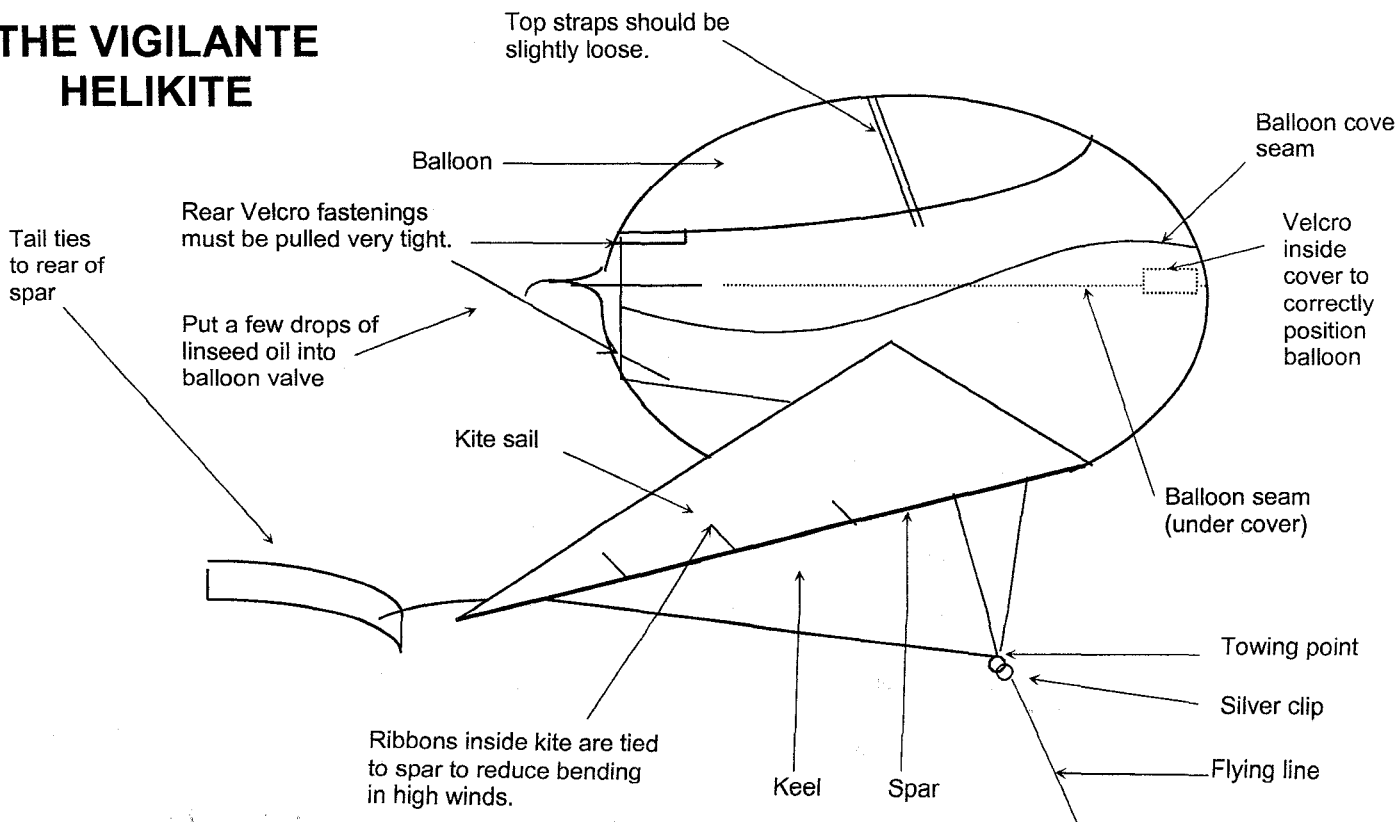
Patented in 1993 by English zoologist and crop-consultant Sandy Allsopp, Helikites will fly in wind speeds from nil up to 25 miles per hour. Winds above this may bring Vigilante Helikites down, as will wet weather due to the weight of the water. The nylon cover protects the balloon until the Helikite dries out & automatically re-launches itself. Only Helikites can fly reliably in the zero to 200 ft height range necessary for bird-control. (Note: Our larger Skyhook Helikites do fly in rain and higher winds and can also be used for birdscaring)

For birdscaring, a Helikite is superb because it is able to enter into the bird's safe area - the sky. No other man-made object can do this for so long or so easily. The Vigilante Helikite can fly very high and very successfully mimics the hovering and swooping movement of deadly wild hawks to exploit bird's innate fears and repel them over vast areas. Helikites are probably the most powerful birdscarer yet devised. In a few short years they have become the standard against which all other scarers are measured and they do this with no irritating noise, explosive gas, or pollution. **Learn more about birdscaring and Helikites on the web at: www.birdscaring.com**

PLEASE READ AND OBEY ALL THESE HELIKITE SAFETY INSTRUCTIONS

1. THIS HELIKITE IS NOT A TOY AND IS NOT INTENDED FOR USE BY CHILDREN.
2. READ ALL INSTRUCTIONS BEFORE USE.
3. OBEY ALL LOCAL, STATE, OR FEDERAL LAWS RELATED TO FLYING BALLOONS AND KITES IN YOUR AREA.
4. IF POSSIBLE, NEVER FLY HELIKITE DURING ELECTRICAL STORMS BECAUSE IT MAY CONDUCT LIGHTNING DOWN THE LINE. IF THE HELIKITE IS UP DURING AN ELECTRICAL STORM, DO NOT GO NEAR IT UNTIL THE STORM HAS FINISHED, IT WILL PROBABLY SURVIVE.
5. ENSURE NO POWER LINES, TELEPHONE WIRES, TREES, OBSTRUCTIONS, ANIMALS OR PEOPLE CAN COME NEAR THE HELIKITE ANYWHERE IT CAN POSSIBLY FLY. KEEP HELIKITE WELL AWAY FROM POWER LINES AS MAINTENANCE HELICOPTORS PATROL THESE REGULARLY. DO NOT FLY NEAR CROPSPRAYERS OR ANY LOW-FLYING AIRCRAFT. THE BALLOON CAN CONDUCT ELECTRICITY - KEEP AWAY FROM POWER LINES.
6. IN BRITAIN, DO NOT FLY WITHIN 5 KILOMETRES OF ANY AIRFIELD WITHOUT AIR TRAFFIC CONTROL PERMISSION. IN THE USA, DO NOT FLY WITHIN 5 MILES OF ANY AIRFIELD WITHOUT AIR TRAFFIC CONTROL PERMISSION.
7. DO NOT FLY OVER ROADS AT ANY TIME.
8. MAX. HEIGHT ALLOWED IS 60 METRES IN BRITAIN. OVERSEAS CUSTOMERS SHOULD CHECK LOCAL KITE RULES.
9. IF YOU WISH TO MAKE THE LINE MORE NOTICEABLE, TIE SOME RIBBONS ALONG IT.
10. WEAR GLOVES WHEN HANDLING THE LINE TO AVOID IT CUTTING HANDS.
11. PLEASE NOTE; WHEN WET, THE DISPOSABLE BALLOONS MAY LOSE SOME COLOURING THAT CAN STAIN FABRIC.

THE VIGILANTE HELIKITE



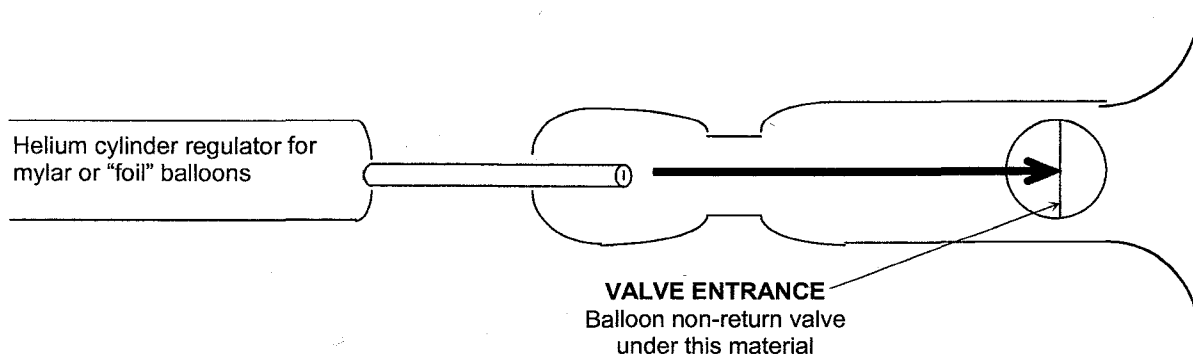
THE VIGILANTE HELIKITE PACKAGE SHOULD CONTAIN:

Rip-stop nylon sail/cover.
5 Spare Mylar (foil) balloons.
Carbon-fibre spar in sections.
Special extra strength "Dyneema" line plus handle.
Brightly coloured tail.
Instructions.

Silver coloured flying line clip.
1 Swivel.
Straw for oiling valve and releasing excess helium.
5 pieces of sticky-back Velcro.
Short length of thick cord.

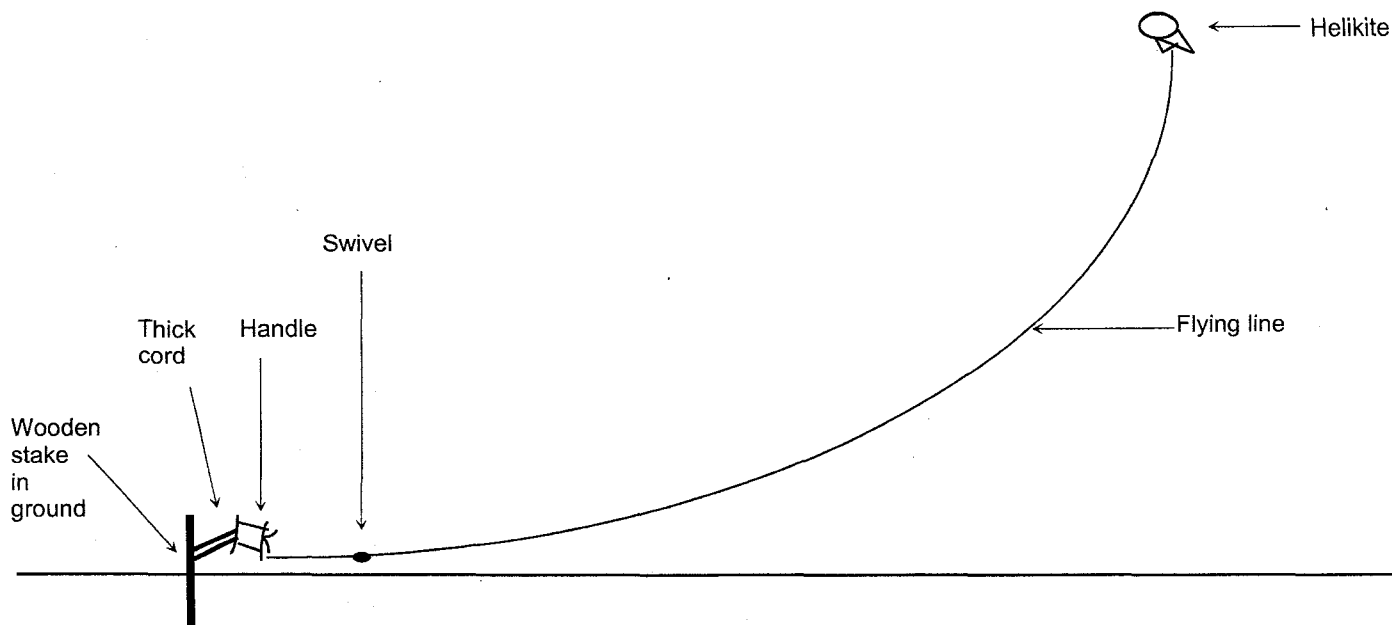
INSTRUCTIONS FOR PREPARING THE VIGILANTE HELIKITE FOR FLIGHT – *Read them first !!*

1. Push both the carbon-fibre spar sections together.
2. Thread spar through loop along the spine of the kite sail then push rubber ends into the two kite pockets. Then tie the ribbons that are positioned along the length of the kite, over the spar to stop it from bending in high winds.
3. Firmly and tightly tie the small silver coloured clip to the end of the flying line.
4. Clip the flying line to the mooring loop at the base of the triangular keel of the rip-stop nylon cover.
5. Lay a Mylar balloon down flat on a very clean surface so that the valve entrance is facing upwards.
6. Stick a piece of "Sticky-Back Velcro" as far away from the valve as possible and **exactly on the edge of the balloon**.
7. Insert the un-inflated balloon into the cover of the Helikite so that the piece of Velcro stuck onto the edge of the balloon attaches to the corresponding Velcro that is on the inside-front of the Helikite balloon cover. Correct balloon positioning is essential for stability in high winds. The balloon valve should protrude backwards out of the Helikite, with the valve entrance facing upwards.
8. Screw the gas regulator carefully onto your helium cylinder. Do not cross-thread !
8. Inflate the balloon by placing the stem of the helium regulator into the non-return valve of the balloon. Slowly release the gas by pressing the regulator stem gently sideways or downwards, (see diagram below). Clamp fingers around valves so that no air can be sucked into the balloon with the helium. Pause filling occasionally to arrange the balloon cover nicely around the balloon. Continue filling until the balloon is drum tight so the Helikite becomes slightly lighter than air and the cover can be pulled tightly around the balloon and secured with the rear Velcro fasteners.
9. Take the straw and fill the first-inch of the balloon valve with linseed oil (Do *not* use WD40 or any oil with solvents). Insert the straw **exactly one inch (2.5 cm)** into the balloon valve and then blow the oil the rest of the way into the balloon valve. Thick oil in the valve greatly reduces gas leakage.



FLYING THE VIGILANTE HELIKITE

1. **Moor the Helikite by tying the length of thick cord to the flying line handle, and then to a wooden stake hammered firmly into the ground. Avoid using metal stakes. Ensure that nothing can cut or fray the special 150lb breaking strain "Dyneema" flying line.** As you release the line the Helikite will move back and upwards. For birdscaring as much height as possible is usually best.
2. **To stop the line from twisting, introduce the swivel into the line near the handle end.** You will have to cut the line to do this. This way it doesn't add weight to the kite and you enables you to untwist the line every few days by running your fingers down the square section line and pushing all the twists down to the swivel. The swivel will not work on its own. It needs help from you! Twisted lines are dramatically weaker.
3. **Pull on the line to test for weakness and repeat every few days.** Helikites only pull about 8lbs in a twenty M.P.H. wind, so our 150lb line is way too strong to break unless it is worn or abused. We will not replace Helikites lost through broken lines. If you test it initially and regularly afterwards with much force you will gain confidence in the line. For situations of regular high winds (coastal, mountain etc) we recommend that the line is doubled up or a second line is bought.
4. **IMPORTANT!** For stability, the front of the kite needs to be tight against the balloon. This is achieved by having a firm balloon and by pulling and tightening the ripstop-nylon under the balloon so the front of the kite spar is forced as flat as possible against the underneath of the balloon. Secure this by tightening the Velcro at the back of the balloon cover. It is also essential that the ribbons along the spine of the kite are all tied tightly to the spar to stop the spar from bending which can cause the Helikite to veer to one side. Top up the helium at least every 5 days. Once set up properly the Helikite will fly in winds of up to twenty five miles an hour without a tail. In stronger winds the Helikite may spin so needs to be taken in.
5. Birdscaring Metallic Tails. These are not needed for Helikite stability. Fit by tying to the carbon-fibre spar. The tail will spin in light breezes to make flashes and movement. It will not withstand high winds for long. Remove in wet weather.



PUNCTURES

Find the hole by tightly filling the balloon with gas and listening. Clean away the colouring around the hole with soap and water, dry it, then cover the hole and surrounding area with any good contact adhesive (e.g. 'Bostic' or 'Evostik'), **when the glue is dry** cover the hole and glue with adhesive tape. Test mend with soapy water or spit. When the balloon is worn out (normally 14-21 days) replace it with another. Alternatively, please ask us for our special balloon repair patches.

WET WEATHER

If the Helikite is wet it is unlikely to fly. When the rain or fog clears, do not wait for the Helikite to dry itself off, because in winter this may take a while. Dry it with a soft cloth and get it flying. Trying to make a wet Helikite fly by adding extra gas seldom works and strains the balloon. Lightly applying waterproof leather spray or vegetable oil to the Helikite will help repel rainwater. A Helikite on the ground scares birds over about one third the area of a flying Helikite. Still useful control. **The colouring on the balloon may come off in wet weather. This has little effect on performance but it may mark clothes or car seats.**

HOT WEATHER

Warm air is thinner. So in temperatures above 105F (41C) the Vigilante Helikite may not rise if there is no wind to help it. You need a Lightweight Helikite. *Ring us!*

FLINTY LAND

The Vigilante Helikite can be used very successfully above flinty land but care is needed to ensure that it does not touch jagged flint in high winds. Wash mud off the Helikite regularly in cold water to remove the microscopic flint needles that can cause slow punctures.

HIGH WINDS

The Helikite, like any airborne object, is vulnerable in strong winds and even light winds will wear it out eventually. Hence the need for daily checking. Gusty winds over 15 mph (26 km/h) increase the wear rate greatly. Fly at your own risk!

1. **Test stake, line, and clip attachment by pulling on the line very hard - every day. Don't blame us for neglect.**
2. **Remove all twists from the line - every day. Check swivel is spinning ok.**
3. **Check Helikite and balloon for wear and firm inflation - every day.**
4. **Check that the well filled balloon is very tightly strapped into the balloon cover.**
5. **For use in regular high winds we recommend that the line is doubled up or a second one is bought.**

RODENTS

There have been some reports of inquisitive hares biting the line of Helikites when they are down. The main problems were with nylon lines. As this Helikite is supplied with special "Dyneema" lines which are far harder to bite through than nylon, the problem is greatly reduced. However, check the line's strength every day by pulling it against the stake. If you have many hares, rabbits or gophers etc the use of 2 lines is highly recommended, so please ring us for extra line. Alternatively, you can double-up your existing line.

EXCESSIVE BALLOON PRESSURE

As a balloon warms up, the pressure inside increases. This can happen when Helikites are put into hot cars. If necessary release pressure by *carefully* inserting the straw into the balloon valve until gas comes out.

In hot countries, even when outside, the balloon needs extra reinforcement with 19 mm wide Sellotape to cope with the midday sun. This is a slightly tedious procedure but well worthwhile: - 1. Inflate balloon 2. Tape the shape of a cross on both sides of the balloon 3. Tape around balloon seam 4. Insert balloon into Helikite.

STORAGE

After use, wash in cold water, dry well, fold up, and store in our rigid packet. **Beware mice, damp, and sharp objects.**

AVOIDING THEFT

Put your name, address and telephone number on the Helikite plus 'For birdscaring use only, please do not touch'. This helps if you let go of it too! Use permanent marker pen or indelible ink. You can also offer a reward for return. It is surprising how much effect this has as most people have no idea that the Helikite is flying for a serious purpose and will return lost Helikites from hundreds of miles away. **The Helikite can also be flown from a tall pole painted with grease or anti-climb paint. You can retrieve the Helikite with a long stick or weighted rope. Very effective theft deterrent !**

HABITUATION

All kites scare birds by exploiting their instinctive fear of predatory hawks. This instinct has been a vital behavioural trait for tens of millions of years and is continually being naturally reinforced by hawks. This is why birds have such tremendous difficulty getting used to kites compared with their habituation to propane bangers or novelty scarers. (AKM Fazlul Haque and DM Broom, Zoology Dept., Reading University, 1984). This is not to say that it will never happen, especially with birds roosting within sight of a Helikite or tame birds. Observations suggest that pigeons tend to stay at least 200 metres from a flying Helikite but birds are very intelligent animals and it is possible that some may eventually decide that the Helikite is harmless, especially smaller birds who can quickly fly into a hedge if threatened. Therefore, we cannot guarantee habituation will not occur, but would be very interested in hearing about it and the relevant circumstances, for future development of the Helikite.

BIRD BEHAVIOUR & CONTROL WITH HELIKITES

Birds generally have two types of responses to hawks and Helikites. Larger birds, e.g. pigeons, starlings and rooks, fly away as far as possible from the Helikite threat. They are scared from an area that varies depending upon the height of the Helikite (the higher the better), the food value of the crop, the tameness of the birds and whether or not they live locally. Therefore, intelligent, locally living rooks are generally excluded from a smaller area than less intelligent non-locally living pigeons. Bean crops or new seed are high value foods, whereas oilseed-rape is a low value food so pigeons on OSR are excluded to about 20 - 25 acres, whereas rooks on bean crops tend to be excluded from 10 - 15 acres.

The second type of response comes from small birds, e.g. sparrows, thrushes, robins and most garden birds that will be excluded to their nearest source of deep cover, such as a windbreak or hedge. Helikites will scare over a larger area for low crops e.g. strawberries, than taller crops, e.g. Blueberries/grapes, simply because the birds can hide more easily in the taller crops. For exclusion the birds need to see the Helikite hovering above them. Therefore, usually, the higher the Helikite is flown over these crops, the better. However, at height the Helikite will be about 200 feet from the stake, therefore near areas of thick cover some small birds may feel that they can dive into cover quicker than the hawk effigy (the Helikite) can catch them, so in these circumstances it is sometimes better to have the Helikite lower, tucked in near the hedge. Moving the Helikite, altering its height and flying the tail increases the area of control.

WHAT ABOUT THE HELIUM ?

Within the UK

WIDGET WORLD

Midget Widgets – The most popular method of helium supply for Helikites

They supply 10 small (1 foot tall/ 1 Kg) high pressure cylinders, regulator filling valve and delivery for £49.69 + VAT. No bottle rental to pay (just a £85 returnable deposit). This pack of bottles will fill 5 x 38 inch wide Helikite balloons. Perfect for topping-up in the field or for people who have only got one or two Helikites. Ring us to order.

Mighty Widget – For people with multiple Helikites or long term usage.

A 2ft 6in tall cylinder weighing 17 Kg with enough helium to fill about 9 x 38 inch Helikite balloons for £52.00 delivered. No bottle rental to pay just a returnable deposit of £85. You will need a brass regulator valve from us to go with this bottle costing £28. Just ring us and we will organise it for you.

Within the USA

Balloon Gas Cylinders

Contact your local industrial gas supplier (e.g. Praxair, BOC or Air Products) for balloon gas. In the US the price is usually about \$25 for a steel helium cylinder about 2ft high.

Regulator Valves

The type for foil / Mylar balloons is required. Available directly from the gas supplier in the U.S.A.

Other Countries

Balloons Gas Cylinders

Contact your local supplier (e.g. Linde Gas, Afrox, BOC etc) for balloon gas cylinder containing about 1.8 metres cubed.

Regulator Valves

Contact your balloon gas supplier for a regulator for Mylar / foil balloons. Europe requires a European regulator.

Thank-you for reading all the instructions. If you have any problems or queries, please do not hesitate to contact us. We would also be very pleased to hear from you about any unusual bird behaviour or problems that you may know of. If you are satisfied with your Helikite, tell your colleagues. If you have any ideas for improvement or wish to purchase Helikites, spares or gas, please contact your local dealer, or us direct at:

ALLSOPP HELIKITES LIMITED

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