

# CHAPTER 1:

## WHAT IS A FIGHTER KITE?

A fighter kite is a maneuverable, one-line kite.

Almost any kind of kite can be controlled by manipulating the tension or pull on the line. Flying objects, by their very nature, are quite unstable. Most kites rely on design features such as shape, frame, bridle lines, or a tail to reduce that reaction.

Fighters, on the other hand, are designed to take advantage of that natural instability in order to produce controlled mobility.

Think of a car with no steering wheel. This particular car is designed to keep turning in a circle until you step on the accelerator. Then it moves off in the direction it's pointed. Let up on the gas and the car starts turning again.

Fighters work pretty much the same way. They spin in the air until you apply throttle. Of course, there is no pedal to step on so you use the only other control you have — you pull on the line.

Try it a few times and you'll see that fighters rely on line tension changes to maximize flight responsiveness.

Controlling the seemingly erratic and random flight of a fighter is one of the greatest challenges and joys a kiteflier can master. The task requires practice, dexterity, and constant attention. But if you can master fighter kites, the skills you develop will make you a better flier of almost any kind of kite.

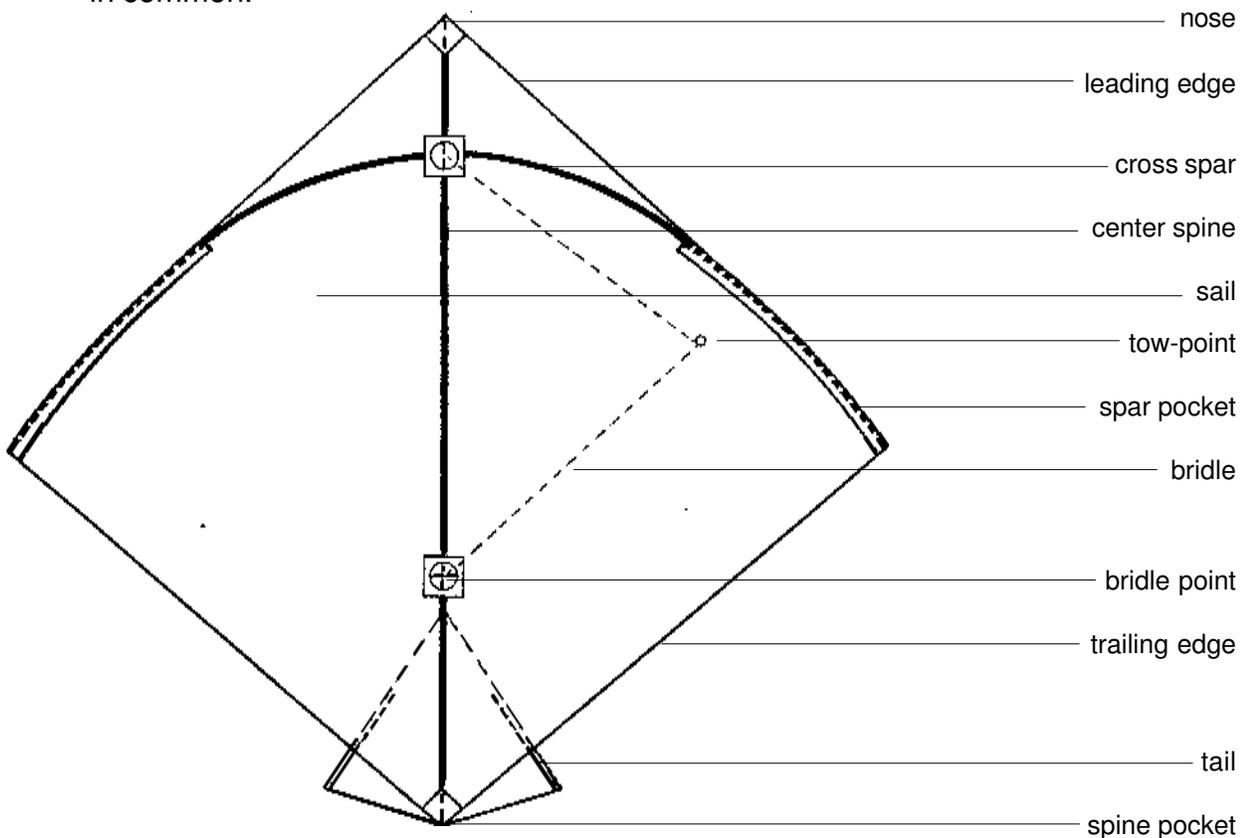
*The best thing that ever happened to me in kiting was learning to fly fighters. Fighters produce a state of mind unequaled by other types of kites. It is the purest form of the sport.*

**Joel Scholtz**  
**Austin, Texas**

### Kite Components

Fighters come in a variety of shapes and sizes. With a bit of research, you'll learn that most of them are based on cultural and historical designs as well as some fairly complex scientific principles. We'll talk more about that later.

For now, let's get acquainted with a basic fighter and the parts that many will have in common.



One basic part of the kite is the **sail**. All kinds of materials are used. Paper, nylon fabric, plastic and mylar are common. It's important for the fighter's sail to be lightweight, smooth, and taut.

Almost all fighters also have a defined vertical centerline which is formed by a rigid rod which we call the **spine**. The spine goes on the back of the kite. Most spines have a slight curve at the upper end. When you assemble your kite, make sure the curved part is at the top, and that it bends back from the sail of the kite.

Fighters rely on a horizontal spreader that we call the **cross spar** or spar for short. Usually, spars are made of thin, flexible fiberglass or bamboo. Spars and spines are usually held against the sail with fabric **pockets**.

The **bridle** is the string that attaches to the kite and is then tied to your flying line. Where your flying line attaches to the bridle is called the **tow-point**. Bridles are designed to set the angle that the kite faces into the wind. They also balance the force of the wind across the kite's frame (spine and spars). Depending on the design of your fighter, the bridle can connect at two, three, four or more places. We call these connections the **bridle points**.

Finally, some fighters incorporate extra design features like tails, battens, or even strategically placed holes in the sail.

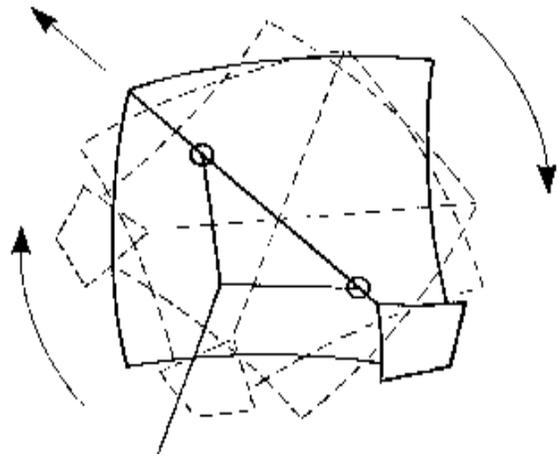
## Basic Control

Fighters are controlled by increasing or decreasing flying line tension. A slack line lets the kite flatten out and lose stability. It begins to spin since it has no built-in stabilizing features. In other words, the kite has no reason to fly in any one direction or another.

When you pull on the kite line, the wind bends or bows the cross spar back and creates a stabilizing feature called a dihedral. The kite stops spinning and moves in the direction it's pointed.

Many kites will respond in this manner but fighters do it more quickly and precisely.

By alternating between a slack and taut line, you direct your kite to spin, or fly straight. To change direction, all you have to worry about is picking the "right" time to pull on the line or let it out.



*The amount of tension and the sharpness or subtlety with which it is applied to the line at precisely the right moment is the key to good control. This can only be learnt through practice which is well rewarded as you get to know your kite and slowly master the skills of flying.*

**Martyn Lawrence**  
**Gwynedd, Wales, United Kingdom**

We'll talk more about dihedral and the other scientific principles that effect fighter flight in Chapter Three. In the meanwhile, let's take a brief look at the cultural development of fighters and some of the different designs history has produced.

## Fighter Development

Kiteflying originated in China over 2,000 years ago. The expansion and development of Buddhism in this area later brought about a cultural exchange between India, China, and Japan. In fact, the introduction of kites to India is credited to Chinese scholars and monks.

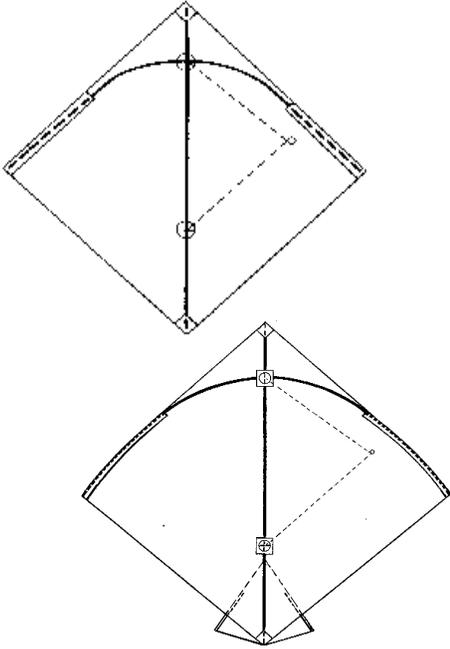
The earliest kites were probably simple fighters. Unstable forms tethered to the ground were gradually controlled by their fliers. Experimentation and experience then led to more easily maneuvered designs.

One reason kite fighting did not come to the West until relatively recently is that it started in Asia and most books that mention kite fighting were written in Sanskrit, Persian, Arabic, and Urdu. Most of us don't read Urdu.

## Indian Fighters

One of the oldest and most familiar kite designs is the Indian Fighter.

For hundreds of years, residents of rural areas throughout India have gathered to join in combat with colorful tissue paper and bamboo fighter kites. In the larger cities, rooftops and terraces are covered with fliers and excited throngs of supporters. Everyone takes time off from work and there is a holiday atmosphere as an incredible number of kites fill the sky.



Most Indian festivals are held in January. Kites are flown on glass coated flying line and fliers search out any available opponent and try to cut their line and then capture the loose kite.

Below, the outstretched hands of children compete for the spoils.

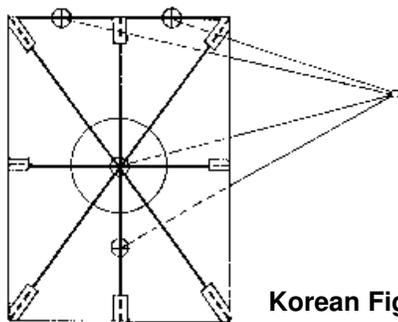
The kites are handmade by methods passed down from master to apprentice for centuries. Deceptively simple looking, Indian Fighters require careful and precise crafting to insure a balanced and responsive flier.

Indian style fighters are now produced all over the world. The design is so efficient that it is still one of the most common models we see.

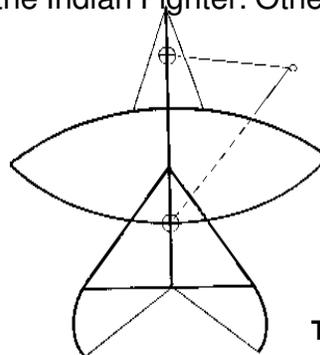
## Designs from the Far East

Fighter kites have long been popular in many Asian countries and a tremendous variety of designs and flying styles have emerged. People in Japan, Korea, Thailand, and Malaysia fly fighters unique to their countries. Each has their own long and colorful tradition of kite fighting.

Fliers in Tibet and Nepal fly kites similar to the Indian Fighter. Other nationalities fly



Korean Fighter

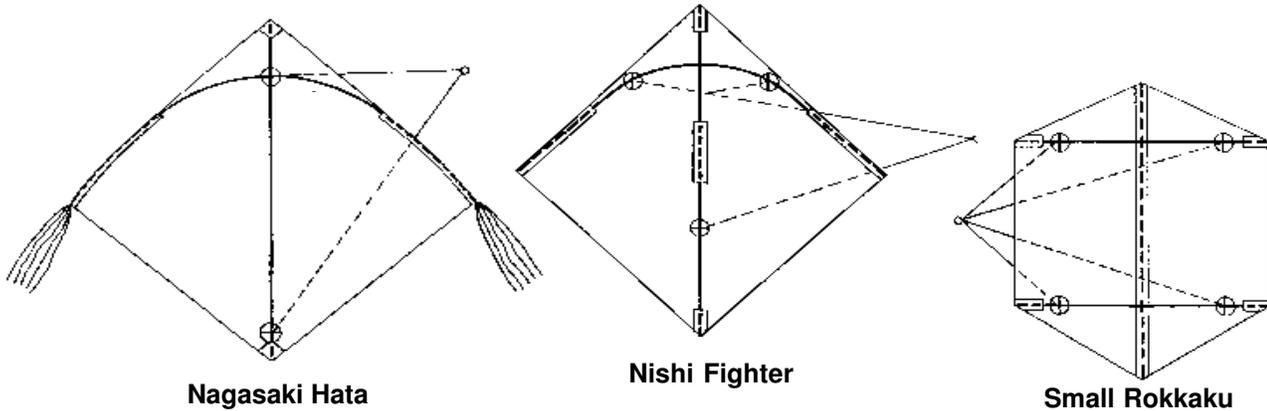


Thai Chula

*Every kiteflying competition in Thailand is a symbolic battle of the sexes between the "male" Chula kite and the "female" Pakpao. The former is larger, dominant and aggressive. The latter is flighty and clever. He sets out to capture her; she, though smaller, has many tricks and can ensnare her man with cunning. The outcome of the competition, as in real life, is no foregone conclusion.*

**Ron Spaulding  
Bangkok, Thailand**

kites which are probably derived from it such as Japan's Nagasaki Hata. The city of Nagasaki has a tradition of flying unique fighter kites which dates back



to the 1500's. At that time, the city was the only Japanese port open to European traders. Nagasaki's kites are called "Hata" which means "flag" in Japanese. Usually made of red, white, and blue paper, the Hata is one of the quickest of the traditional paper fighters.

*Nagasaki's oldest record of kite flying is a picture of Indonesian children flying from the trading center. It is interesting that the kites use colors from the Dutch flag, and that we call our cutting line "bidoro" which is Portugese for "glass". There are over 200 traditional designs used to decorate the Hata. These designs are taken from signal flags used on trading ships, from family crests, and from Japanese words or characters. A unique feature of these kites are the "myu" or tassels attached to the corners.*

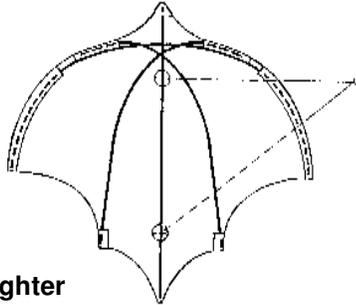
**Seiko Nakamura  
Nagasaki, Japan**

Because of similarities to traditional Indian kites and use of foreign flag designs, we can theorize that the Hata was brought to Japan by traders. Other areas in southeast Asia also fly distinct red, white, and blue kites. They provide an interesting example of the interplay between culture, history, and kite development.

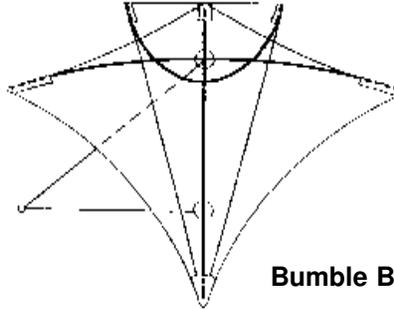
The Hata is distinct from most other Japanese kites which tend to be rectangular. The Japanese kite fighting tradition also moved beyond smaller kites flown by one person to the larger "battle kites" which are maneuvered by teams of fliers.

## New Designs

In America and Europe, most people fly fighters as single line stunters. Modern materials such as lighter weight nylon or plastic and mylar for sails, and fiberglass and graphite for spars have bred a new generation of colorful and unique designs. These fast and sensitive kites encourage sophisticated and skillful line handling techniques.



**Butterfighter**



**Bumble Bee Fighter**

Although traditionally, fighter kites are involved contests and combat, many Western fliers focus more on flying them as a contemplative art.

Contemplative art ... that means for fun.

Glass coated flying line is seldom used and most fliers concentrate on control and precision in a variety of wind conditions. The priority is no longer a competition to vanquish an opponent, but instead, an opportunity to demonstrate your ability while remaining aware and in control as you fly.

*I don't even like to call them fighting kites. For me, these are "dancing kites". Flying is an enriching expression of a beautiful art form. It's a transcending experience. Concentration is essential which makes flying a mind-clearing experience.*

**Joe Vaughan**  
**Mifflinville, Pennsylvania**

If there is a message in this chapter, it's that fighters are deceptively simple. Two sticks and a cover are all it takes to make a small diamond fighter. Yet embodied in this modest form is the whole essence and true spirit of kites!

So now that we've told you a little about the tradition, background and development of fighters, let's get ready to go fly one.