

Kiwi Airlift

Information for tow pilots



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Introduction

This document contains important information for pilots that want to be towed up by the Kiwi Airlift winch. It will outline procedures used on the field and contains a pilot briefing.

Organization Structure

During the day winch operations are managed by a team of people. Every team member has a one or more roles, which are defined below:

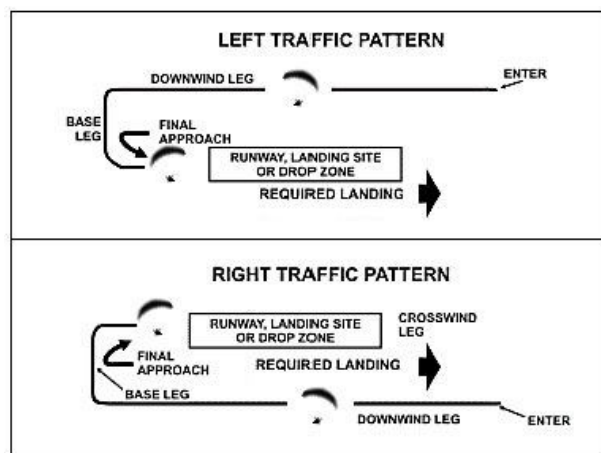
Instructor on duty

The instructor on duty is an NZHGPA recognized instructor that has the following responsibilities:

The instructor determines the landing pattern to be used for the day (or until conditions change) and the location of the landing zone. We will be using an aircraft type approach whenever possible. If we are towing on an airfield, using an aircraft type approach is mandatory.

To refresh your memory:

An aircraft type approach is also known as a DBF (Downwind, Base & Final) approach, or in general aviation terms; an "aircraft pattern". An aircraft pattern can be either a left traffic pattern or right traffic pattern, meaning all turns on that pattern are either left or right respectively.



At the start of the day the instructor is responsible for the safety briefing informing the team about safety considerations and other important matters. Team members will be relaying this information to you if necessary.

There has to be an **appointed "instructor on duty" on the field at all times**, or operation has to be ceased until the instructor is back.

Launch Assistant

The launch assistant is the person in charge at the launch and is part of the Kiwi Airlift Team.

The launch assistant will:

1. Make sure you filled in and signed the Kiwi Airlift – Acromania Ltd. Waiver of Liability
2. Brief you (see "Pilot briefing" below)
3. Hand out a tow bridle and/or radio
4. Maintain a starting order
5. Maintain communications with the winch operator
6. Make sure all is clear for takeoff
7. Initiate start of tow

Cable Driver

Everybody can (and is expected to) be a cable driver. A cable driver is someone who gets the cables from the winch back to the launch site.

If you get the cables you must:

1. Make sure you can hear the radio at all times while driving
2. Drive to the winch while the first line is being towed up
3. Keep an eye on the line whilst driving (in order to stay clear of it) and stay clear of the line still on the field (in other words: stay on the upwind side of the field when driving to the winch)
4. Connect the two lines to the cable retrieve vehicle
5. Drive **smoothly** and **in a straight line** from the winch to the launch area
6. **Smoothly** come to a stop about 10 to 15 meters before the launch area
You don't drive all the way to the launch area because pulling a line further if needed is easy, pulling it back results in slack

The reason why it is very important to get to speed and slow down to a stop very smoothly is because the drums act as a fly-wheel and thus resists speed changes; the drum wants to keep its current rotation speed. If you stop abruptly, the drum will continue spinning with tow line spaghetti as the result. Same if you accelerate too fast; you will jerk the drum and the drum will spin very fast for a couple of rotations with tow line spaghetti as the result.

Winch operator

Normally you only see the winch operator from very high above or very far away! ;-)

Tow pilot

As a pilot you need to:

1. Make sure you have signed the Kiwi Airlift – Acromania Ltd. Waiver of Liability
2. Make sure you know what to do and what not to do on tow (in short; make sure you have been briefed and understand the briefing)
3. Make sure you do a proper 5 point self-check before takeoff
4. Make sure your harness is equipped with a properly installed reserve
5. Make sure you double check if the tow bridle's release system is connected properly
6. Make sure you have a radio and can hear the radio whilst in flight
7. Make sure you are aware of the current aircraft landing pattern and the location of the landing zone

Tow launches

Just as with normal flying there are two ways to launch a paraglider on tow; using the forward or reverse launch. Which method to use depends on the amount of wind and the pilot's capabilities. Preferred method for inexperienced tow pilots is the forward launch (independent of the wind strength) because it is easier for the pilot, launch assistant and winch operator.

Pilot briefing

For a normal forward launch:

When you are connected to the line, you have checked yourself completely and are ready to go, you tell the launch assistant you are ready. The launch assistant will then tell the winch operator to start the tow. As soon as you see the line getting tight you pull up your wing. Don't forget to run forward and break the glider so it doesn't shoot overhead. If your glider moves to a side while launching, correct the glider and keep your course towards the winch.

For a reverse launch:

When you are connected to the line, you have checked yourself completely and are ready to reverse-launch your glider, you tell the launch assistant you are ready. The launch assistant will then tell the winch operator to take the slack out of the line. Then you pull up the glider, control it, and turn around. If everything is looking good the launch assistant will tell the winch operator to "Go! Go! Go!". If your glider moves to a side while launching, correct the glider and keep your course towards the winch.

Continued:

Once you are being lifted do not immediately sit in your harness but keep your legs ready because you may come down and need them again. Keep your legs ready until you are at least 100 feet (30 meters) above ground level. Go easy on the brakes at all times, just like in normal flight. Above 100 feet (30 meters) you can try to sit comfortably in your harness. Do not pull yourself in your harness by using the brakes. Either wiggle yourself in or let go of the brakes when you are on perfect course to the winch to pull yourself in your harness.

During the tow always keep your course towards the winch. A good way to see if you are on course is to look at the towline between your knees. If the towline is more towards your right knee, pull right brake until the towline is almost in the middle of your knees again. If the towline is more towards your left knee, pull the left brake until the towline is almost in the middle of your knees again. The launch assistant and winch operator will help you by giving instructions on the radio. You will hear commands like "left, left, left, left" if you need more left brake input, and "right, right, right, right" for more right brake input. Keep looking at the winch at the end of the line and try to keep course. Do not apply brakes other than to adjust your course.

The moment to release the towline is when you hear the tow instructor instruct you to do so over the radio, or when you feel the towline go slack. If you are not sure DO NOT RELEASE! If you release the towline under tension we'll have spaghetti on the winch and won't be able to winch for an hour or more. When the winch operator dumps pressure you WILL feel it; it is very obvious. Again, DO NOT RELEASE the towline before being instructed to do so or when you are absolutely sure the towline is not under tension anymore.

*Releasing normally only happens when you are straight above the winch. Make sure you double check the line is really released before making a turn. If the line is still attached; **do not panic**. Pull the release cord again and check if the towline released this time. If it still did*

not release, grab the towline below the bridle with one hand, the bridle itself with your other hand and pull them apart. If they still won't separate just make gentle circles with the towline attached and land in front of (or close to) the winch.

*The tow line can also break during tow. If this happens your glider will dive a bit in front of you. Always control the dive, and if this happens close to the ground break the dive hard and do a PLF landing. If you are still quite high grab the line below the bridle with one hand, and pull the release cord with the other. Hold the line in your hand and fly to the landing zone. **It is very important to release the line** and not fly around with the line attached to the tow bridle. Just hold the line loosely in your hand so that in case the line snags on something on the ground it will slip out of your hand instead of pulling you out of the air.*

Emergencies

In case of an accident:

Always notify the instructor on duty as soon as possible. Instructors are always certified first aiders!

DRS ABC

- Check for **D**angers
Is it safe for me? Can I help the patient without putting myself in danger?
Is the patient still in danger? If possible: remove danger from patient.
- Check for **R**esponse
Ask for name, shout, tap on patient.
- **S**end for help
Have somebody call 111 (or call 111 yourself if nobody is around).
- Open the **A**irway
Tilt head backwards and lift chin.
- Check for **B**reathing
Look at chest, listen for breathing, feel chest movement for 10 seconds
 - Patient is **not** breathing
If it's a child under 8 years old; give 5 small breaths and start **C**irculation (30:2 @ 100/min CPR). If alone, go for help after one minute of CPR.
If it's an adult (over 8 years old); go for help if alone, otherwise start **C**irculation (30:2 @ 100/min CPR)
 - Patient is breathing
Put patient in recovery position;



Keep monitoring **A**irway, **B**reathing and **C**irculation.

If patient is bleeding, try to stop the bleeding and treat shock (keep warm, keep talking, no drinking, no eating).

- Look for other injuries.