

Launch Control Signalling (Lights & Radio)

Objective

All winch and aerotow launch communications are managed by the launch control signaller using signal lights and radio installed in the launch control bus. This SOP addresses the launch control light and radio processes for winch and aerotow launching. It needs to be considered in conjunction with other club SOPs.

Overview

The glider launch signaller will indicate the launch using hand signals. The hand signals are monitored by the launch control signaller, who uses the launch control lights or radio to relay the hand signals to the winch or aerotow. Lights are used to signal a winch launch and radio an aerotow. The launch control signaller does not initiate or control the launch, only relay launch signals from the glider launch crew.

Launch Control Positioning

The launch control bus should be positioned to one side of the winch track and at an angle so the winch can clearly see the launch signal lights. There is a launch control position marker at each end of the launch track. The signal lights are on the top and rear of the launch control bus facing the winch. The signal lights are pivoted and can be aligned with the winch by them moving from side to side.

Launch Control Signalling Facilities

The launch control uses different systems for signalling winch and aerotow launches. See appendix A for illustrations.

- Winch signalling relies on a lights system to transmit launch instructions to the winch. The signal lights can be operated by two separate systems. The primary control is a fixed signalling console in the launch control bus. The secondary control is an extension cable and control switch, which can be connected to the signal console and used outside the launch control bus.
- The launch control bus has two radios, a fixed radio used for aerotow communications and a portable radio console used for winch communications. The portable radio console also has a cell phone. The cell phone is one used for land outs.

Launch Control Checks

Before flying can commence each day the launch control must conduct a series of operational checks.

- The batteries have enough capacity to power the launch operations
- The portable radio is operational and there are communications between the launch control and winch driver.
- The signal lights are visible from the winch (if not they need to be adjusted)
- The light and sound signals are functioning
 - a) Up Slack Signal
 - b) All Out Signal
 - c) Stop Signal
- The fixed radio can communicate with the tug pilot.

Signalling a Winch Launch

The launch “begins” when the glider is attached to the winch cable. At this point the signaller should let the winch know a glider is ready to launch.

- Radio the winch and announce the next launch (see radio procedures section). Wait for a response from the winch. When the response is received pass the following information to the winch driver:
 - a) The winch cable being used, either the north cable or south cable. The north cable is the cable closest to the club house.
 - b) The glider type
 - c) The weak link colour
 - d) If the glider is carrying water ballast (the pilot will tell you).

When the winch driver has acknowledged the launch type and the launch signaller has started to signal the launch sequence can begin.

- When the signaller indicates “Up Slack”, move the signalling console switch to the “Up Slack” position. This will slowly flash the lights and issue an audio accompaniment
- When the signaller indicates “All Out”, Move the signalling console switch to the “All Out” position. This will rapidly flash the lights and issue an audio accompaniment. Leave the switch in the all out position until the glider begins its accelerated ground run and move the signalling console switch to the off position.
- If anyone issues a Stop signal, immediately move the signalling console switch to the “stop position” and keep it there until the launch stops.

Signalling and Aerotow

Aerotow signals use the fixed launch control radio to pass launch instructions to the tug pilot. The tug pilot does not need to know the cable, glider type or weak link. The launch begins when the glider is attached to the tow rope.

- When the signaller indicates “Up Slack”, call the tug and pass the “Up Slack” message (see radio procedures section). The tug pilot should acknowledge the message.
- When the signaller indicates “All Out”, call the tug and pass the “All Out” message. The tug pilot should acknowledge the message.
- If anyone issues a Stop signal, immediately radio the tug and pass the “Stop” message.

Radio Procedure

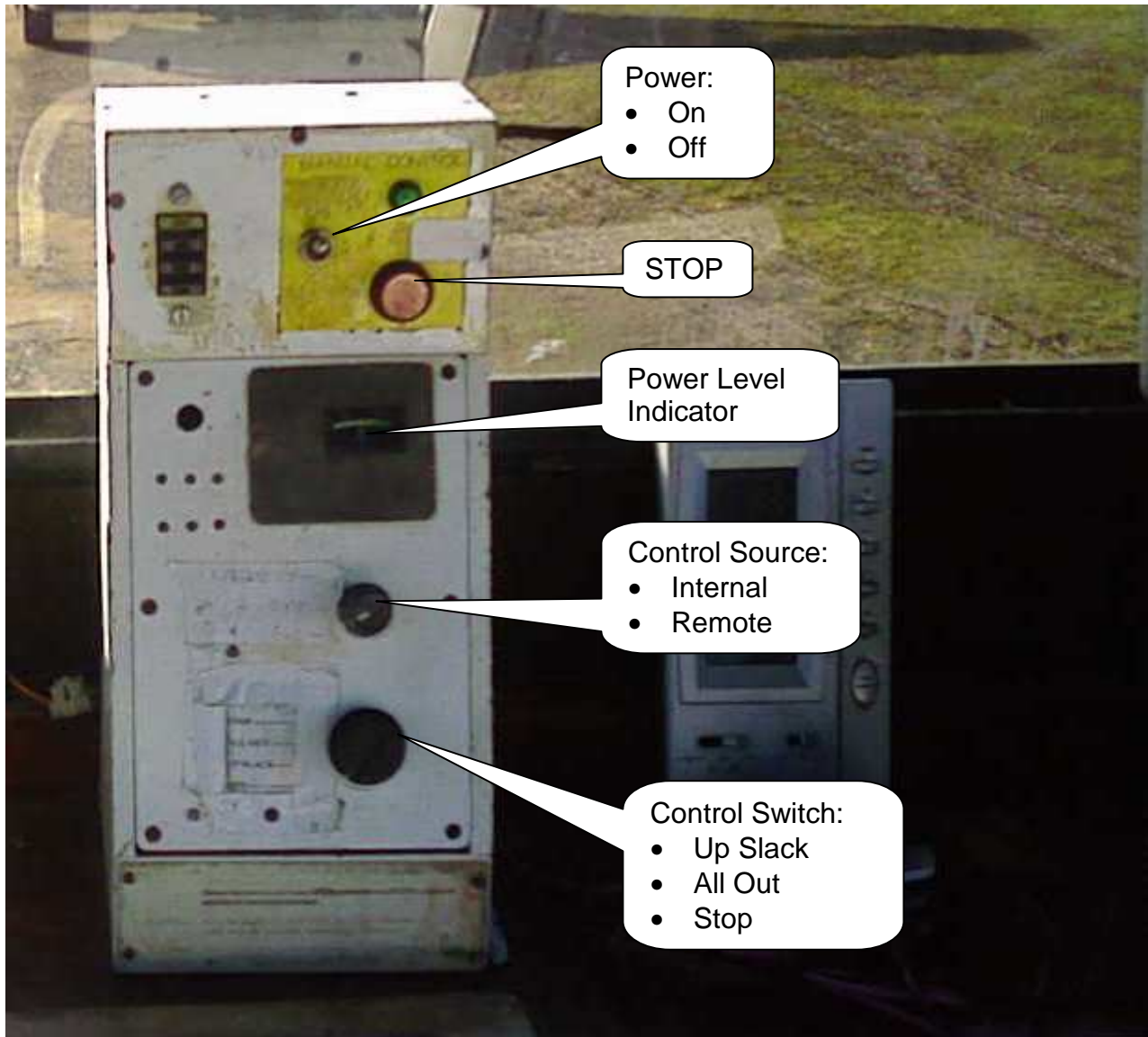
To use the radio press the transmit button on the microphone and speak clearly and slowly. When you have finished speaking release the transmit button. Examples:

- When calling the Winch prefix the opening call with whom you and who you are calling: “Winch, Launch”.
- Wait for the winch response “Launch, pass your message (or similar)”.
- Pass the details of the launch: “Next glider, Discus B, blue link, north cable”.
- When calling the tug use the last two digits of the tug’s registration you are calling (the club Pawnee is MF or “Mike Fox”): “Mike Fox, Up Slack” or “Mike Fox, All Out”.

Appendix A

Fixed Winch Control Console

The Control console below is used to activate the winch signalling lights. The illustration highlights the main controls



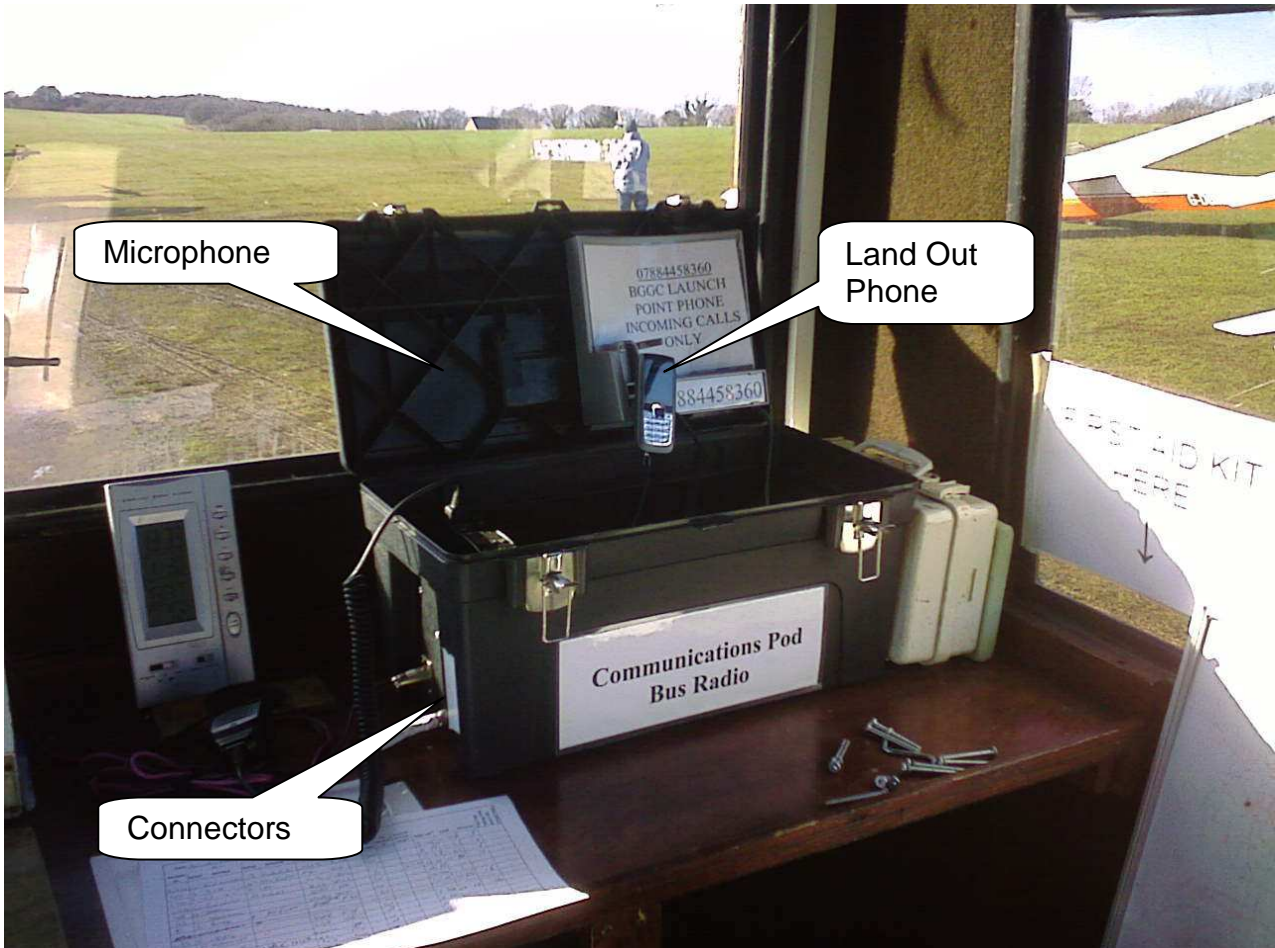
External (Remote) Winch Control Signal Switch

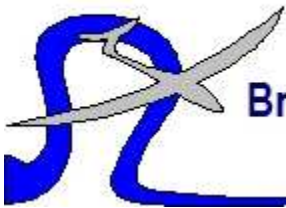
The Control switch below is used to activate the winch signalling lights remotely. The illustration highlights the main controls.



Winch Radio Console

The Winch Radio Console is portable. It is connected to the launch control bus at the start of the day's flying and returned to the club house at the end of the day's flying.





Aerotow Radio Console

The Aerotow Radio Console is fixed.

