

PORTSMOUTH NAVAL GLIDING CENTRE



Winch Cable Retrieve Instruction Manual

First Edition

AMENDMENT RECORD

When you receive any amendment sheet(s) please change the page(s) concerned and sign below to say that you have received and completed the amendment.

Amendment No.	Date Received	Signed	Amendment No.	Date Received	Signed
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WINCH CABLE RETRIEVING

ALL FLYING MEMBERS ARE REQUIRED TO BE QUALIFIED IN WINCH CABLE RETRIEVING

The purpose of this manual is to instruct members in towing out and retrieving glider winch launch cables, and to explain how to handle some eventualities. A Register of Winch Cable Retrievers and Cable Retrieve Trainers is to be kept. Only persons in this Register are allowed to Retrieve Cables.

Requirements:

You must be

- over 16 years of age.
- a member of PNGC.
- a current DVLA license holder (not provisional) to drive a vehicle on the airfield perimeter track.

You are a Winch Cable Retriever when you have:

- Signed the Register to say you have read & understood this manual.
- Satisfied the Winch Master, or his representative, that you are competent in all aspects of Winch Cable Retrieving, and have been signed off in the Register.

You are a Cable Retriever Trainer when you have:

- Satisfied the Winch Master, or his representative, that you are competent to Train in all aspects of Winch Cable Retrieving, and have been signed off in the Register.

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Safety Notes:

- You are required to handle winch cables etc. The use of protective gloves is recommended.
- Note that the Winch has a Signalling Lamp.
(See Laws & Rules for Glider Pilots for light signals)
Do not move cables if STOP is signalled (Continuous ON)
- Give the Retrieve Vehicle a Daily Inspection before use.

1. Driving the Cable Retrieve Vehicle

A Range Rover is the prime vehicle used for Cable Retrieves. It is also used for other jobs like towing out the Log Cabin and retrieving gliders. It is therefore very important to gliding operations, and therefore must be looked after.

Please observe the following:

- When you take over the driving of the vehicle have a quick check for obvious new damage, look in the logbook for any reported damage and sign the logbook to say that you are taking over the vehicle with no extra damage.
- Drive with care and attention. Never race away or drive at speed anywhere.
- Never carry passengers. (Except when a winch driver is being changed or a cable retrieve driver is under training.)
- Always keep a good lookout, particularly if approaching the ends of runways. Look for air traffic, backtracking aircraft etc, only cross runways when clear.
- If you notice any vehicle damage whilst you are driving, report it immediately to the Duty Instructor and make a note in the logbook.
- The back of the vehicle is not a stowage area for tyres/strops etc. Please clear any rubbish that you may have made, when you are finished.

2. Communications

Communications between the three places of Winch, Retrieve Vehicle, and Launch Point is essential to winching operations. PNGC use three identical handheld radios, one for each place. (See Laws & Rules for Glider Pilots for other methods of signalling)

When the radios are switched on they are in listening mode, with volume control. They transmit when a button is pressed, and revert to listening mode again when the button is released. When transmitting, speak normally into it about 6 inches away.

The Launch Point uses the radio to instruct the Winch to launch gliders. There are three commands issued to do this:

1. **TAKE UP SLACK.** The words use may be: “WINCH, LAUNCH POINT, RUNWAY CABLE, K13, TAKE UP SLACK”.
2. **ALL OUT.** When the cable slack has been taken up and the glider is moving forward. The command is “ALL OUT, ALL OUT”
3. **STOP.** This is given as necessary. The command is “STOP, STOP, STOP” and may be initiated by anybody.

The Winch Operator will use the same three commands to the Retrieve Vehicle when the cable is being towed back to the Launch Point.

Additional use of the radio by all holders is to communicate with each other when sorting problems. E.g. Cable Breaks, Cable on the runway etc.

Before transmitting a message, listen to ensure no one else is transmitting, then press the button. Say who you are calling, followed by who you are. E.g.: If you are want to call Retrieve, and you are the Winch, you would say “Retrieve, Winch” followed by your message. Release the button after transmitting otherwise you will not hear a reply.

The Winch has a STOP light on the cab top. A continuous WHITE light is an official STOP signal. Check before you move a cable that the STOP light is NOT ON.

Remember that generally all your instructions for moving winch cables will come from the Winch Operator

3. RETRIEVING CABLES FROM WINCH TO LAUNCH POINT

- **A Normal Retrieve**

Assuming both cables are stationary at the winch, the retrieve vehicle should be positioned between the two cables, pointing towards the Launch Point. Then attach each cable onto each end of the towing bar using the towing out wire weak links. Wait for the Winch to say “**Take up Slack**” and then **VERY SLOWLY** drive forward until the Winch says “**All Out**”. Then increase speed smoothly to no more than 20 mph, and drive in a **STRAIGHT LINE** to the Launch Point. Maintain speed until about 100m from the Launch Point and then reduce the accelerator to let the drag of the cables smoothly slow you down to stop at the Launch Point. Avoid using the brakes because this can cause the cables to spill off the winch drums and make a mess. If there is an obstruction in your straight line path to the Launch Point, you must slow down smoothly, using cable drag, to stop until it has been removed. Communicate and take commands from the Winch before moving off again. Once stopped at the Launch Point ensure the cables are removed from the vehicle before driving off.

- **Weak Link Break During Retrieve**

If a towing out weak link on one of the cables breaks whilst towing out **DO NOT STOP** but continue to the launch point normally. Then arrange the retrieve of the cable with the Winch and the Duty Instructor, using normal instructions from the Winch Driver for taking up slack etc. If both weak links break, you should stop. Communicate with the Winch before repairing the links.

- **Whereabouts at the Launch Point**

Before driving to the Launch Point, try to establish which side of the glider launch line the cables are required. If there is a cross wind, then the cables are required on the upwind side of the launch line. If you get this wrong, do not correct it by turning as this will risk crossing the cables and causing a mess. Turning is only allowed if you are pulling one cable.

If the gliders are positioned to launch two abreast, then generally you should aim to drive in the gap between them, stopping when level with the wings.

- **Weak Link Repair Mid-Field**

To retrieve a cable from a mid-field weak link break, inform the Winch Operator that you will be replacing the weak link, and do not touch the cable until the Winch gives the OK and shows a STOP signal. Replace the weak link on the cable, connect it to the vehicle and inform the Winch that you are ready to tow the cable back to the launch point. If the Winch is ready he will then give the normal “Take Up Slack” and “All Out” instructions. **DO NOT**, repeat, **DO NOT** start to drive the vehicle until you have been given the “**Take Up Slack**” instruction from the Winch and **NOBODY ELSE**. Reasons for keeping the Winch informed are:

- He may be about to wind in the cable as you are handling it.
- He may be working on the cable as you take up slack.

4. RETRIEVING CABLE FROM MID-FIELD TO LAUNCH POINT

Mid-field retrieves are used when the winch is being used with one cable only. It speeds up the retrieve because the distance is less. Mid-field retrieves may also be necessary if the winch has had a problem which has resulted in the cable being left at mid-field. Communication between Retrieve Vehicle and Winch in either case is mandatory.

Drive to the parachute where it lands, and place the cable weak link onto the centre ball of the Retrieve vehicle. **DO NOT**, repeat, **DO NOT** start to drive the vehicle until "Take Up Slack" is given **ONLY** from the Winch Operator.

5. RETRIEVING CABLE AFTER A CABLE BREAK (To WINCH)

If the cable, or a weak link breaks, while launching a glider, wait until the winch driver gives you all clear. Then go into the field and find the loose end of the cable, or the stop. Keep a good lookout for landing gliders. You are looking for the broken end of the cable which is **NOT** now attached to the winch, so as to retrieve it to the winch.

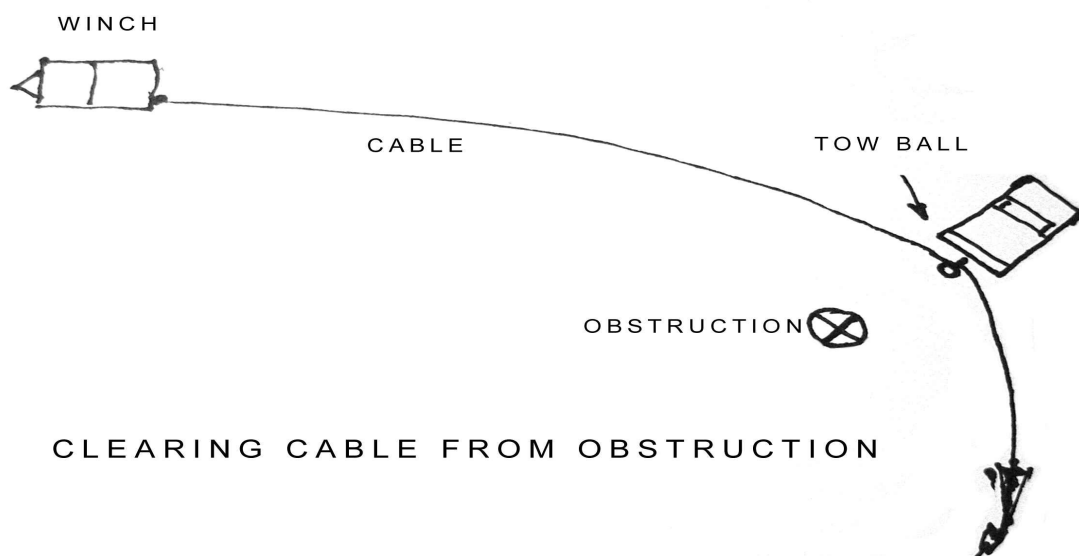
If there is a problem finding the loose end, drive to where the parachute has landed and trace the cable back from there.

Attach the loose end it to the rear of the Retrieve Vehicle and slowly drive back to the Winch, going approximately 10 metres past the launch end of the winch so as to provide enough free cable to join.

6. RETRIEVING CABLE FROM AROUND RUNWAY LIGHTS

If a cable falls onto the runway 23/05 near to runway lights, or any other obstructions, the Winch should stop winding in the cable. With permission from the Winch, follow the cable to the obstruction.

- If the cable is close to a runway light, do not touch it. See if it has severed any electric cables. If it may have, inform both the Winch and Launch Point. The Winch Operator should then **STAY IN THE WINCH**, and the Launch Point should take action to ensure the cable is not electrified.
- Otherwise inform the Winch of the situation. If the cable is clear of the obstruction, instruct the Winch to “Take Up Slack”, and then, if it clears, “All Out”. Be prepared to say “Stop”.
- Otherwise, if it is not clear for the Winch to “Take Up Slack”, inform the Winch that you are going to use the Retrieve Vehicle as a **PULLEY** to clear the cable, and to standby. Then position the Retrieve Vehicle at the Launch Point side of the obstruction, as in the diagram below. Manually drag the cable away from the obstruction towards the nearest ball hook on the vehicle, and loop it over. Stand clear and instruct the Winch to “Take Up Slack. Be prepared to **STOP**” before the parachute gets too close to the ball, and then unhitch the cable. Ensure all is clear of the obstruction before instructing the Winch to “Take Up Slack” followed by “All Out”.



7. RETRIEVING CABLE FROM RUNWAY AFTER A CABLE BREAK

- If the cable has broken and the cable/parachute is on the runway, inform the Launch Point, that you need to go onto the runway to retrieve it.
- Only proceed onto the runway after you have permission from the Launch Point. Keep a good lookout for aircraft, and then proceed to retrieve the cable, making sure that it is not going to foul a runway light. Once clear of the runway, inform the Launch Point that you are clear of the runway, and then proceed as in 5 above.

8. RETURNING VEHICLE TO THE HANGAR.

- Refuel
- Clear rubbish
- Put Radio on Charge
- Help out with anything else, then go and have a pint

**Please leave the vehicle
as you would wish to
find it.**