

Midland Gliding Club

Retrieve Winch Operation

Operating instructions

(Pasted on winch)

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Pre first launch checklist (short West only)

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Midland Gliding Club Retrieve Winch Operation

1. **When launch is imminent**, start engine, check warning lights off, speed selector set, guillotine unlocked.
2. **As cable is connected to glider**,
 - a. Check field is clear ahead for full launch distance, call "Clear ahead"
 - b. Radio "Main winch, this is Launchpoint, Next glider is xyz"
Wait for confirmation from main winch.
 - c. Left hand on guillotine
 - d. Wait for "all clear above and behind" call and "take up slack" hand signal from launch signaller
3. Do your own **All Clear Ahead** then Clear Above and Behind Check. Press button to signal "Take up slack"
4. When glider starts to move:
 - a. Press button to signal "All Out" and hold until glider rotates.
 - b. Watch the retrieve cable. **If it is about to come into contact with the glider, or poses a risk to anyone or anything, operate the guillotine and stop button immediately.**
 - c. Release the "All Out" once the glider has rotated. The Beep uses the radio channel, the winch driver cannot communicate with you when the signal buttons are pressed, nor for 6 seconds after the STOP button is pressed.
5. Move left hand to the retrieve winch clutch lever, hold speed control with right hand
6. Wait for main winch to call 'Release, Release' and immediately engage the clutch fully. **If no radio call, or not clear, DON'T retrieve.**
7. Monitor the wing runner and Main Winch for stop signal. (a continuous light). **Release the clutch lever immediately if there is a stop signal and hit the red "stop" button.**

8. If the wing runner alerts you or you see anyone approaching the cable, a glider about to land across the cable, anything that might pose a risk to anyone, release the clutch lever and hit the red STOP button immediately.
9. As the parachute approaches mid field, begin to slow it and bring it to a halt progressively, using throttle, about 10-15m away, then disengage clutch. Do not slip the clutch.
10. Return speed lever to specified position
11. If in any doubt about the safety of the launch or retrieve do not hesitate to hit the red button and/ or operate the guillotine.
12. In the event of a cable break:
 - a. Stop the engine, remove the key.
 - b. Stay on the radio and await winch driver instructions.
 - c. Do not let anyone open the drum cover without the permission of the main winch driver.
 - d. Don't put your hands near the drum or let anyone handle the cable if there are vehicles moving on the airfield between the winches.
13. The person attaching the cable to the glider must be the signaller, and must check that there are no people or aircraft above, behind or in front of the glider to be launched. The signaller does not give the all out signal. The decision to launch is made by the retrieve winch driver.
14. The wing holder must monitor the airfield for the whole launch, until the cable is back on the ground. If any person, vehicle or aircraft is seen to approach the area under the cable, they must alert the retrieve winch driver.

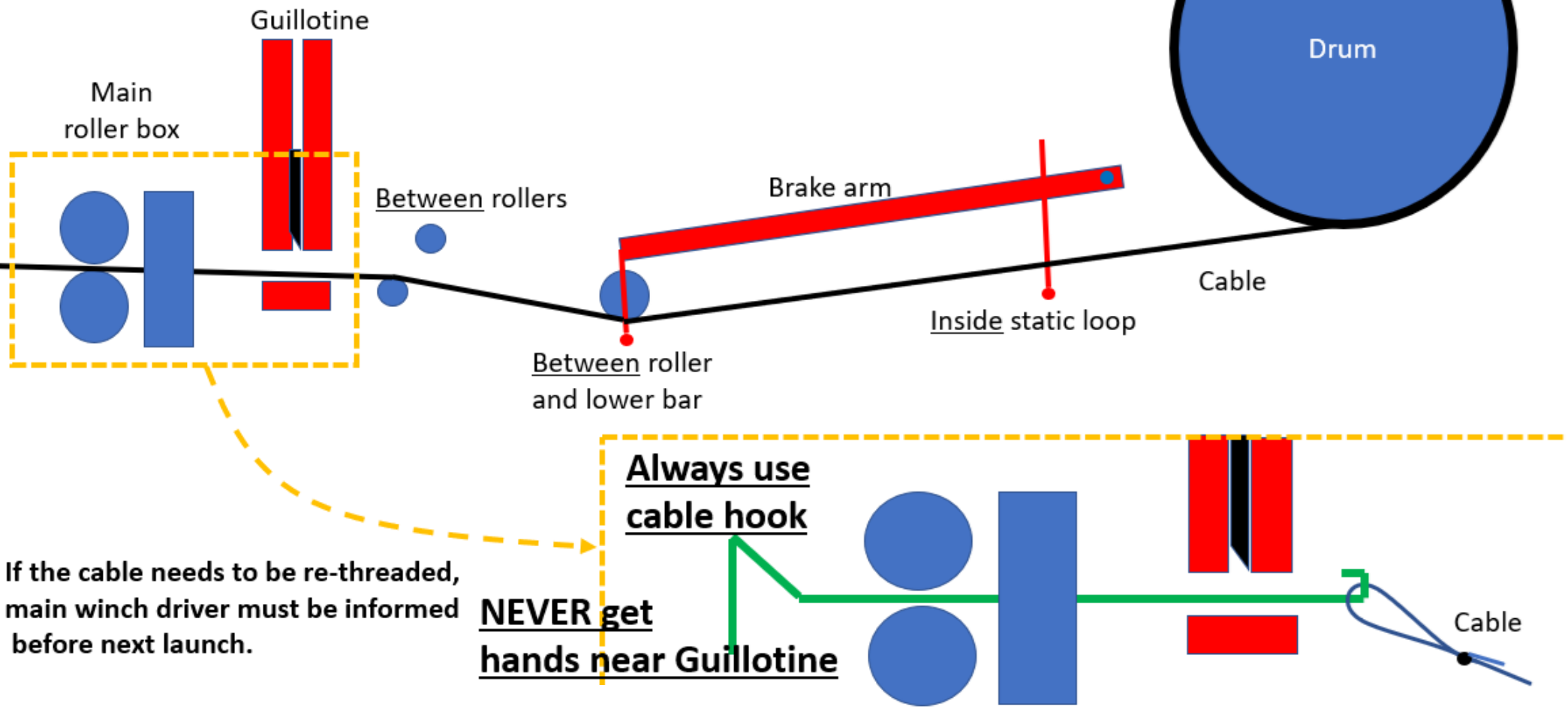


Retrieve winch pre first launch checklist (except short West)

- Positioned as directed by No 1. When launching to North check visibility of gravel track.
- Aligned with expected cable direction during retrieve (i.e. from downwind of main winch)
- Barrier square to retrieve winch, winch rollers centred in aperture, wings secured open, safety shutters down.
- Cone on downwind side, positioned using measuring rope secured above rollers.
- Wheels chocked (swinging chock plus inter-wheel chock on drum side, remaining chock on the barrier side of wheels on other side) , brake on (if fitted), jockey wheel down and locked, jack opposing jockey wheel for stability.
- Guillotine unlocked
- Drum checked, cable connected to parachute swivel.
- NB if cable must be re-threaded, see diagram on reverse, **use cable threading tool, notify MW driver.**
- Ground and airband radios checked
- Lights connected (either plug), alignment checked with MW (engage “stop”, wait 6 sec until tone stops. You will then be able to use the radio).
- Main gate shut
- Engine warm
- Notify Main winch driver that checks have been completed



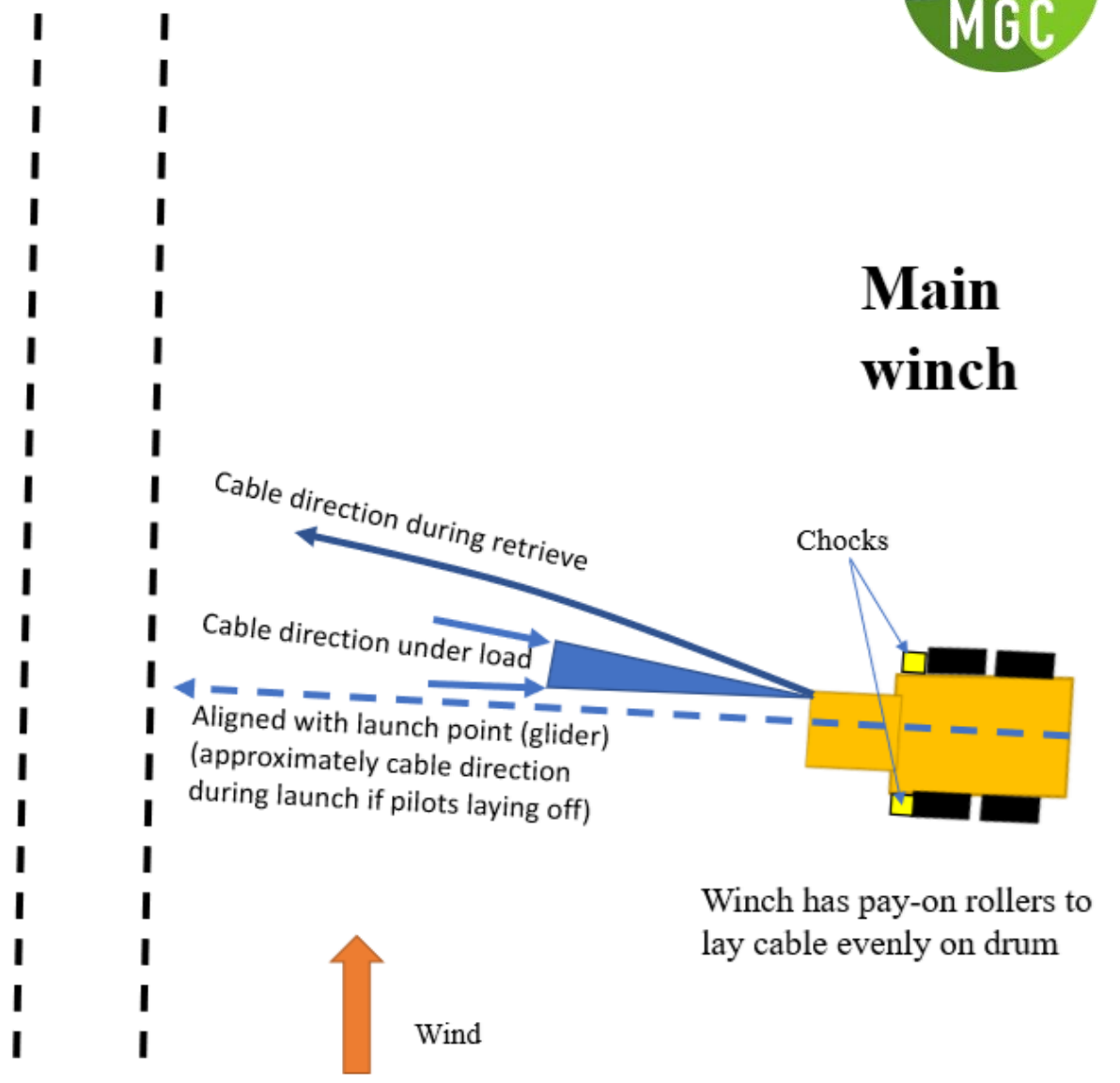
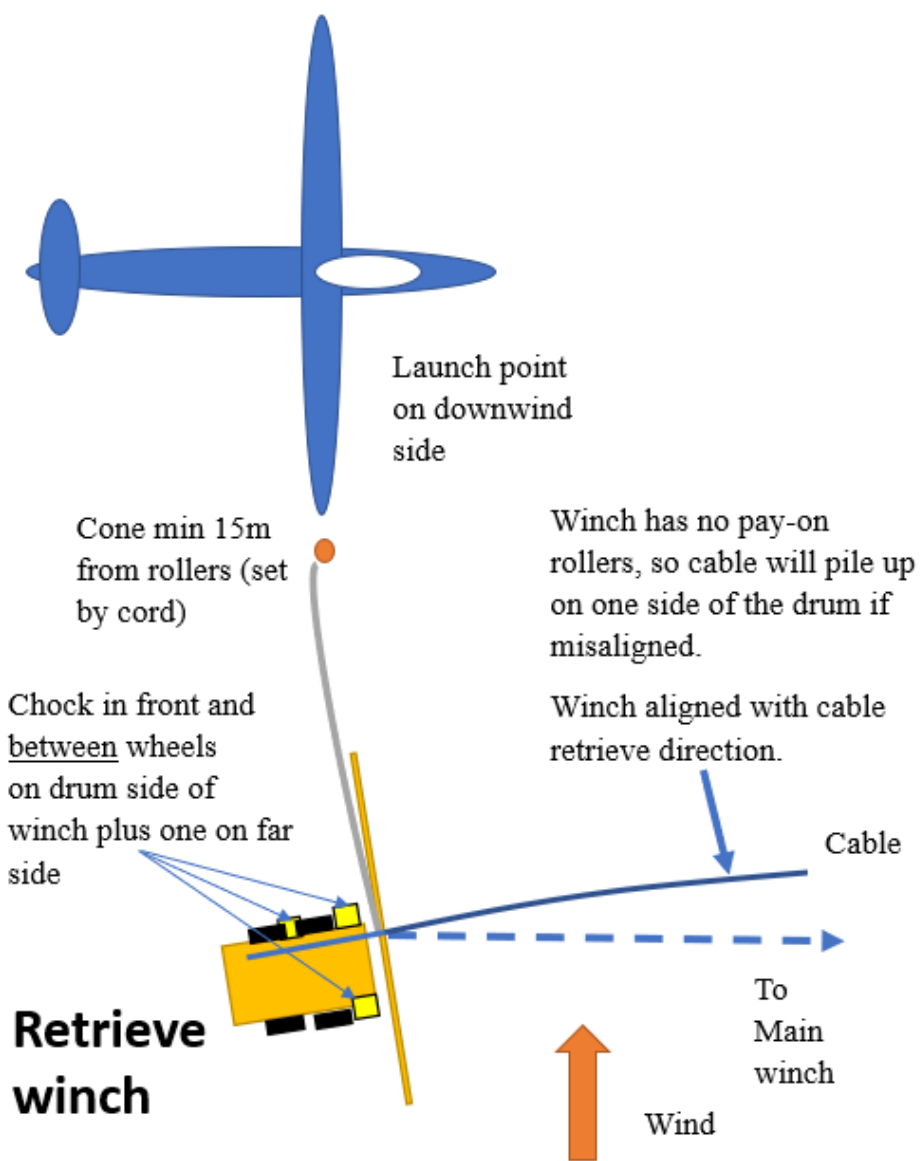
Retrieve winch cable route



If the cable needs to be re-threaded, main winch driver must be informed before next launch.

NEVER get hands near Guillotine

Always use cable hook



Intentionally blank



Retrieve winch pre first launch checklist (short West only)



- Positioned as directed by No 1. This should be:
 - Launch point directly downwind of main winch
 - **Retrieve cable must not be connected.**
 - Retrieve winch positioned as signal station. Barrier only if needed for signalling
 - Lights options: any of RW repeater, tall pole, barrier lights.
 - Launch crew (preferably signaller) must be able to monitor the road from the entrance gate to the turning towards the car park, and the apron. The main winch driver can't see this. Use remote observer if necessary.
- Ground and airband radios checked
- Lights alignment checked with MW (engage "stop", wait 6 sec until tone stops. You will then be able to use the radio).
- Main gate shut
- Supplementary warning signs in place (see plan overleaf)
- Notify Main winch driver that checks have been completed



Short West – New (in fact reversion to an older method)

Temporary sign
Warning cyclists
Near main gate



Concrete pads



Temporary sign
Warning cyclists



Position main winch to give view along starboard way. Little margin to shift and still see into dips (red).

Can be close East or West of track (preferably East).

Allow for emergency landing area (consult No 1)

Main winch as far N as possible to increase emergency landing area, but without losing sight of Southern dip (red).

Launch point directly downwind of MW

Retrieve winch positioned so that launch crew can monitor road both ways. If not, use remote observer.

Retrieve cable not used.

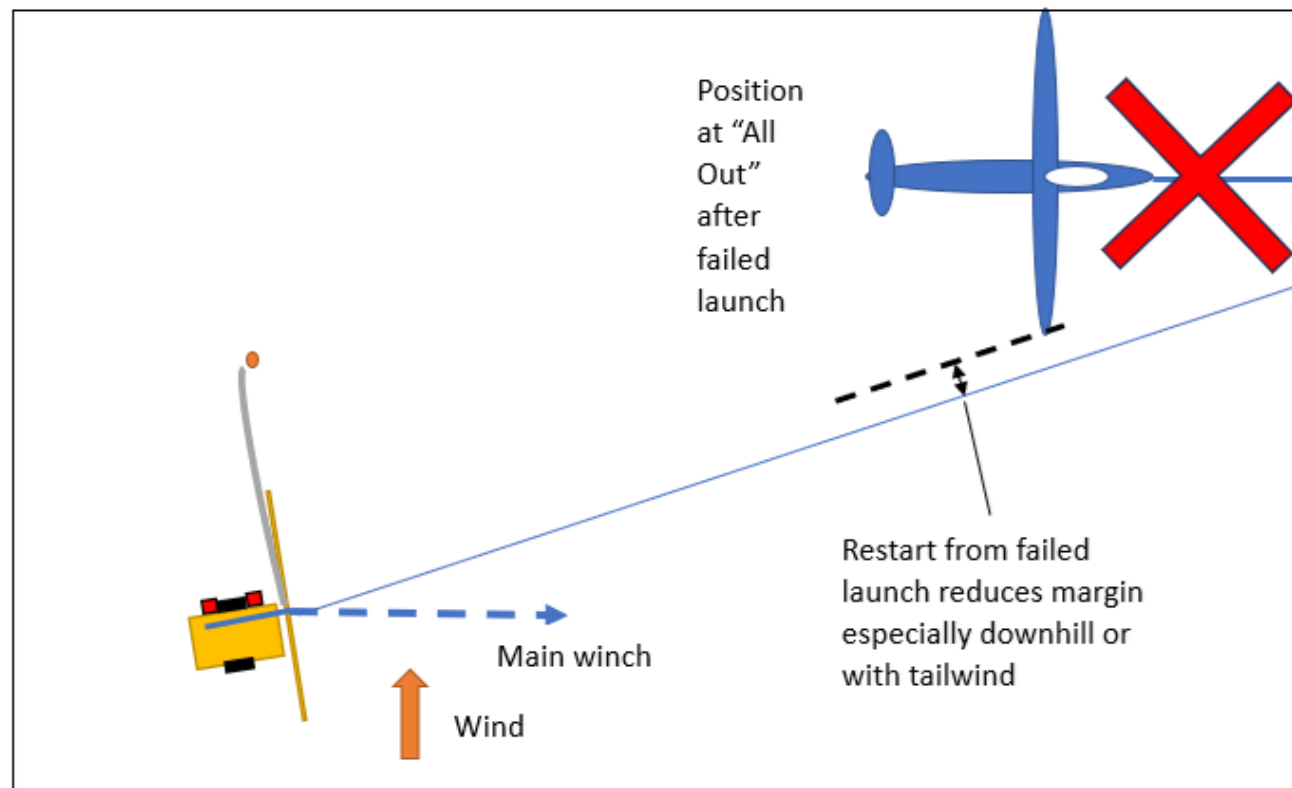
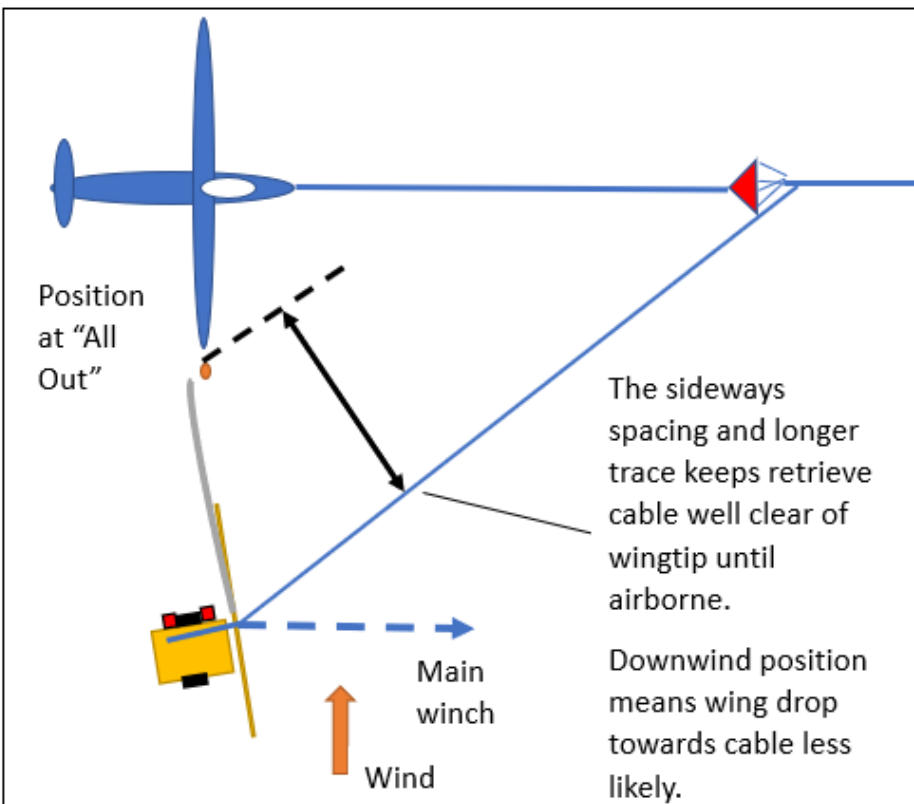
Ridge watcher in vehicle not needed.

Tall light optional.

Winch driver can see glider much earlier.

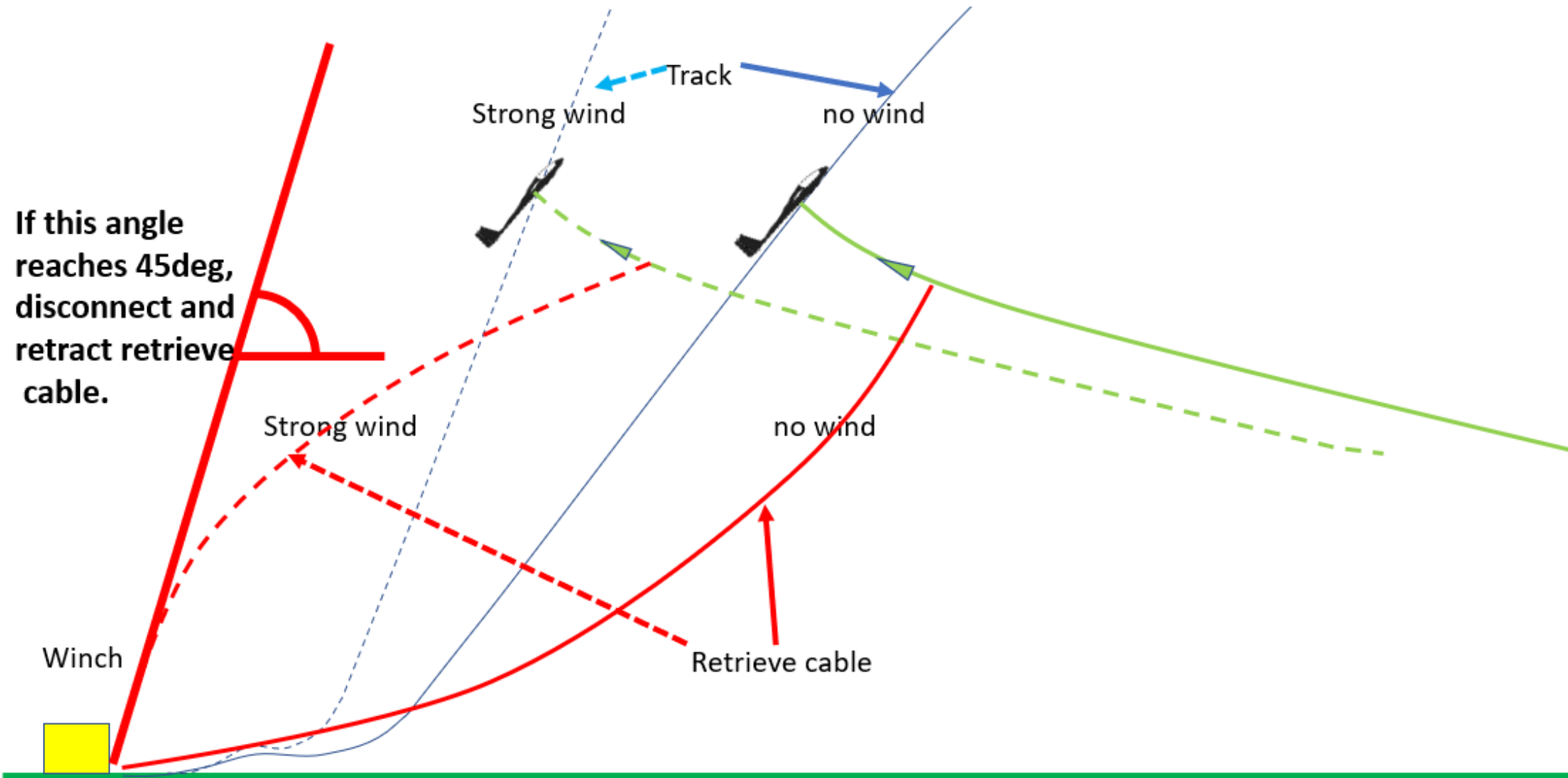


Always pull glider back to normal launch position after failed launch





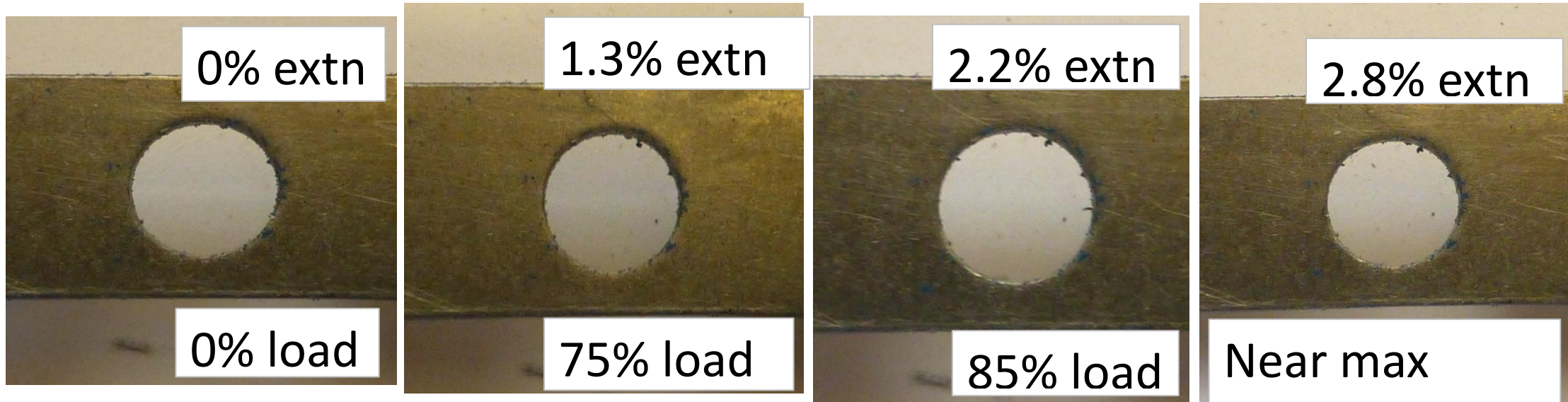
Retrieve winch cable – monitor angle to avoid blowback in strong wind





Inspect weak link every time before hooking on.

This will reduce the chance of low level launch failure caused by overloading during the previous launch



Extension is the %elongation of the hole diameter Load is % of rated strength

Accept these

Near max load.

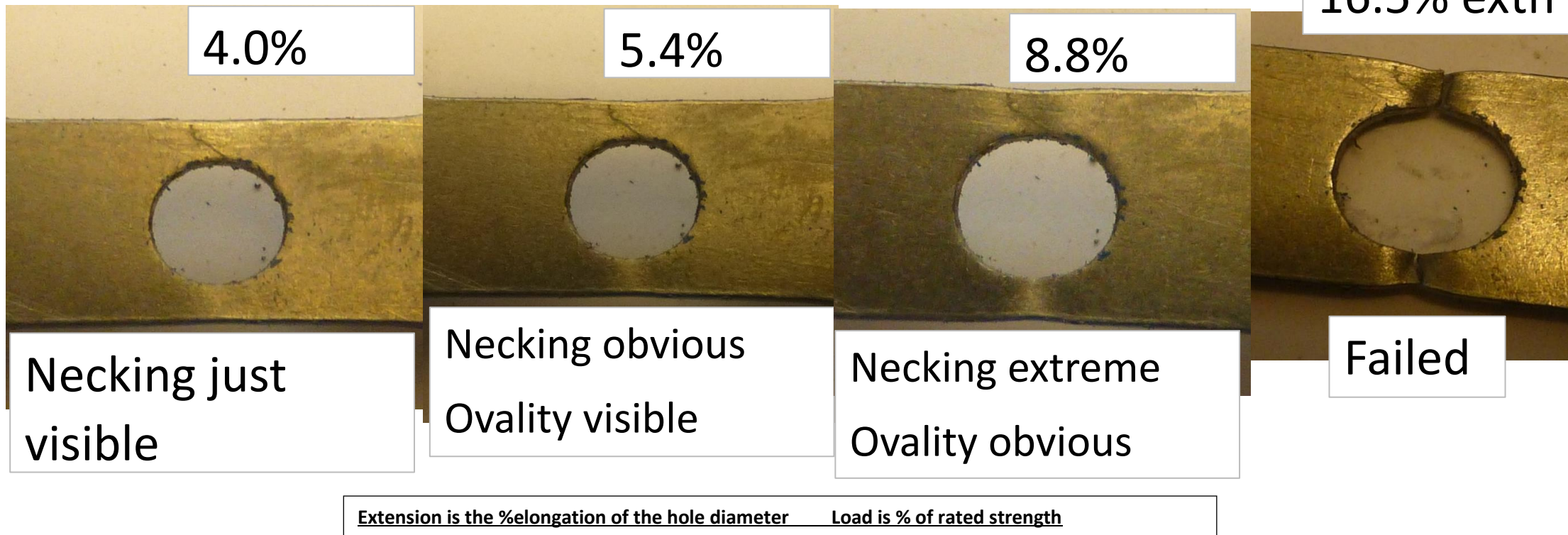
Strength beginning to reduce but not detectable by eye

Although weakening may have begun, it is not visible at this stage, so these must be accepted.



Inspect weak link every time before hooking on.

This will reduce the chance of low level launch failure caused by overloading during the previous launch



Reject these

All these have visible damage, which means significant weakening



Winch and vehicle fault and delay logging

- **Launch delays caused by winch problems** need to be recorded so we can identify trends and persistent failures, and justify expenditure.
 - Please record delays on the flight log sheet as if they were flights.
 - “Winch” in the glider type, start of delay in take-off, end of delay in landing, type of delay in comments.
 - If possible, include type of winch (Sky or Knox, MW or RW), and nature of failure (e.g. main/retrieve cable break, mechanical failure, signal lights, radio)
- Please record detail of mechanical problems with winch or vehicles that need to be fixed later.
- There is a record sheet at the back of the flight log folder.



Retrieve winch end of day checklist

- Before last launch, tidy winch tray, remove all tyres and rubbish from winch so it can be DI'd quickly next day.
- Towing back and parking:
 - Check barrier tyres
 - Windsock down
 - Barrier safety shields raised
 - Park barrier in lee of charging container, barrier turned ready for next day.
 - Park all vehicles and retrieve winches near gas point or gas them if you know how.
 - All windows shut
- Final items:
 - Problems with vehicles and winches should have been recorded in writing or via QR code during the day.
 - Broken strops and fittings should have been collected and kept separate.
 - Launch director delivers the written record and any broken strops to the winch driver or to the MT shed office, finds and returns hand-held radios (if used) to their chargers.