- **FLARM DRILLS**:

1. Never assume FLARM gives the full situational awareness as another glider/aircraft may have their FLARM signal masked by carbon fibre in the aircraft, turned off, not functional, and/or not installed. Also never assume you are visible to other aircraft. Third glider trap!
2. In gaggle flying, as in any other mode of flying, keep a constant look out and avoid looking at the FLARM for separation information.
3. To maintain situational awareness remember PowerFLARM is a tool/aide to help and does not replace the principle of see and be seen, scanning techniques, radio position reporting on aerodrome traffic frequencies and 126.7 VFR enroute reporting frequency, and using a transponder in "Transponder Airspace" or near congested "controlled airspace". Try to find threats visually before your FLARM does.
4. FLARM displays a threat relative to gliders position (clock ray, 12 o'clock being straight ahead) and angle above/below or on the horizon based on your altitude. When the glider is banked the threat is still relative to the earth's horizon not to the horizontal plane of the banked glider.
5. Descending provides the most rapid separation from a same altitude conflict if no other traffic is below. Caution is needed if both FLARM equipped pilots descend. Visual contact should be established first if possible before maneuvering to maintain situational awareness. However, note that 85% of collisions occur from behind one of the gliders wings, often in decent or climb of at least one or both aircraft. Visual contact may be difficult.
6. If turning (right) away from a conflict aircraft, do not bank so much that you cannot maintain visual separation. Turning the belly of your aircraft to an imminent threat will put it in your blind spot and you cannot judge the separation. Do not underestimate how fast conflicts can close.
7. Transponders in gliders during gaggle flying will give many warning alarms due to proximity as FLARM is less accurate for mode C transponders (range is based on signal strength – this feature can be manually shut off on PowerFLARM). Reduce volume if too distracting, but do not shut off the FLARM unit. Increase volume when leaving the gaggle. In a gaggle, if visual contact cannot be made after an alarm and traffic above or below does not permit vertical separation, tightening the turn may help to reduce chance of impact for a threat closing behind you in the same turn direction, turning to the right may create a greater conflict in left turns.
8. Do not assume altimeter readouts are always 100% accurate although GPS altitude is used and errors should be uniform for other nearby FLARM units. Pilots are noting on the FLARM readout that the altitude difference is absolute and assuming the separation is adequate and dismissing the fact that relative altimeter errors are possible with any device. Also, the heading of actual threat may differ from display as it is based on GPS track. (Professional pilots using expensive TCAS systems in airliners do not rely solely on the accuracy of their equipment; pilot flying follows TCAS and pilot not flying attempts visual confirmation if possible).
9. When a potential threat activates an "alert", note the location, direction/ altitude differences and start a sector scan in the area to find the threat. Do not ignore the rest of the airspace or your situational awareness as you search for the conflict. Other non- FLARM threats may be present and imminent.
10. When an "alarm" is given of a potential collision your eyes will be drawn to the FLARM device, quickly note the position and look out in the direction indicated in the device to avoid the collision. If conflict is not seen make another quick glance to the PowerFLARM readout for location, then lookout in that sector again. Take appropriate collision avoidance action. As the alarm intensity increases, your current direction and speed is partly causing the conflict so some change is required. If appropriate, start a descent and alter course slightly and keep looking out in the required sector - after checking quickly on the FLARM – alternating between sector

and FLARM until the threat is gone. The FLARM display should be positioned in your normal field of view.

11. Do not deliberately create a FLARM alarm situation. It is discourteous to the other pilot unless previous agreement/radio contact has been made to fly towards another glider to create an alarm.