

# Lasham Gliding operations post Farnborough CAS implementation

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# Lasham Airfield



# Lasham Gliding Society

- We own Lasham Airfield, operating 364 days a year and have 45-50,000 movements per annum making us the busiest gliding operation in the world.
- We currently have about 750 flying members.
- 250 aircraft on site.
  - 24 Club aircraft.
  - 18 gliders and 5 towplanes with modern instruments.
  - Falke Motorglider for glider and TMG training
  - 230 privately owned gliders with a handful of TMGs and SEPs.
- 100+ students under training all year round to licence standard at any one time.



# Times of year for Gliding

- Lasham is active 364 day a year weather pemitting.
- Minimum flying conditions 800ft QFE ceiling, No significant weather and visibility >3km with winds less than 25kts.
- Peak season April-September when there is lift.
- Busy midweek as well as weekends.
- Airfield active with Gliding 0830L-Dusk



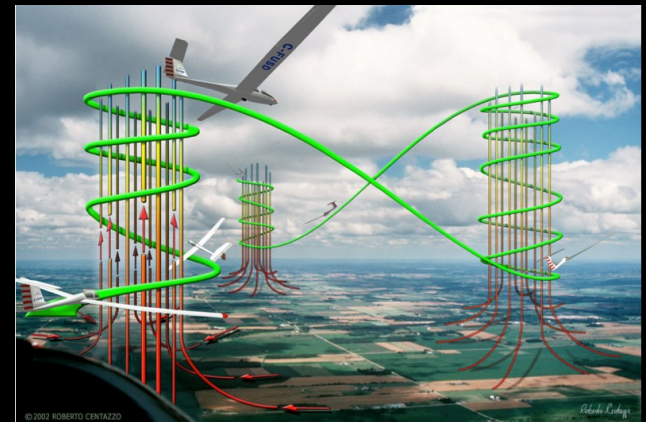
# Lasham on a busy day

- Over 100 gliders flying cross country from Lasham on the good days.
- Movement rate sometimes exceeding 60 per hour.
- Lots of training gliders in the local area.



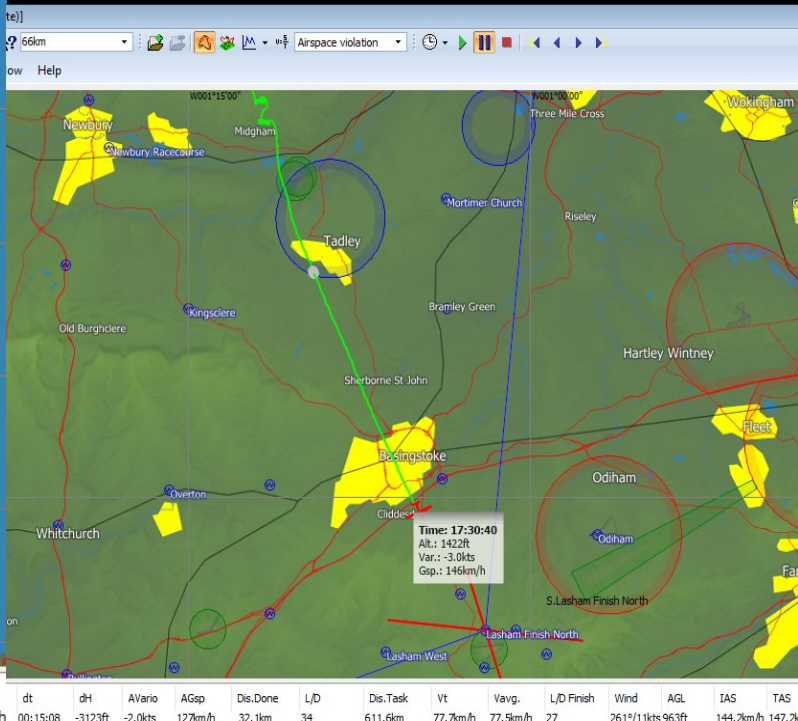
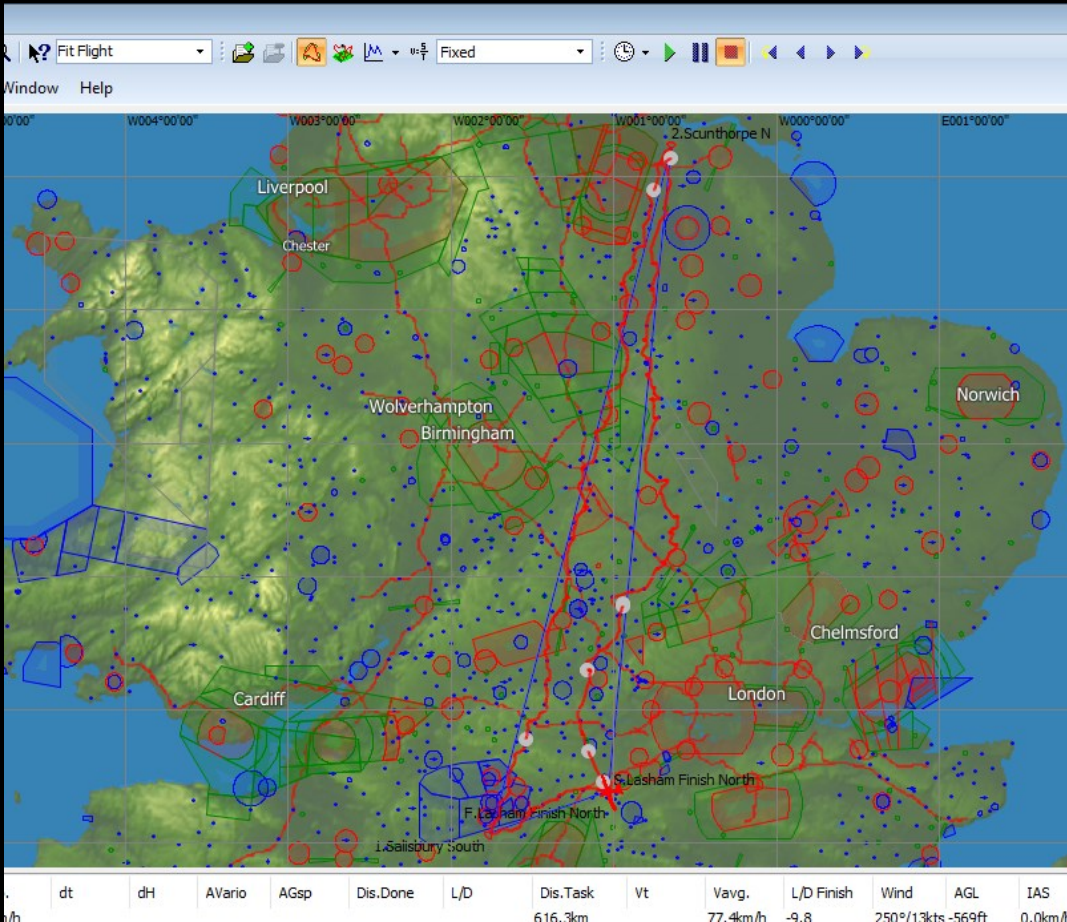
# How glider pilots operate

- Glider pilots are used to flying in close proximity to others.
- Glider Pilots look for lift (thermals)
  - Often over brown fields / towns
  - Large birds (red kite) indicate thermals
  - Other gliders (gaggles)
  - Following cloud “streets” (just below cloud)
- Pilots rely on lookout for collision avoidance, but this can be difficult when turning, FLARM is a major aid and has reduces mid air collisions substantially.
- Gliders do operate in VMC and IMC when conditions permit but do so safely and with training.



# Cross Country flying

- We follow the clouds to find thermals and energy lines (ridge or wave lift).
- Crossing CAS is possible but generally avoided.



- Can happen year round but generally March-October.
- Example 8hr 600km flight from Lasham

- Final glide can be from 40km to Lasham at 100kts crossing M3 at 1500 Lasham QFE

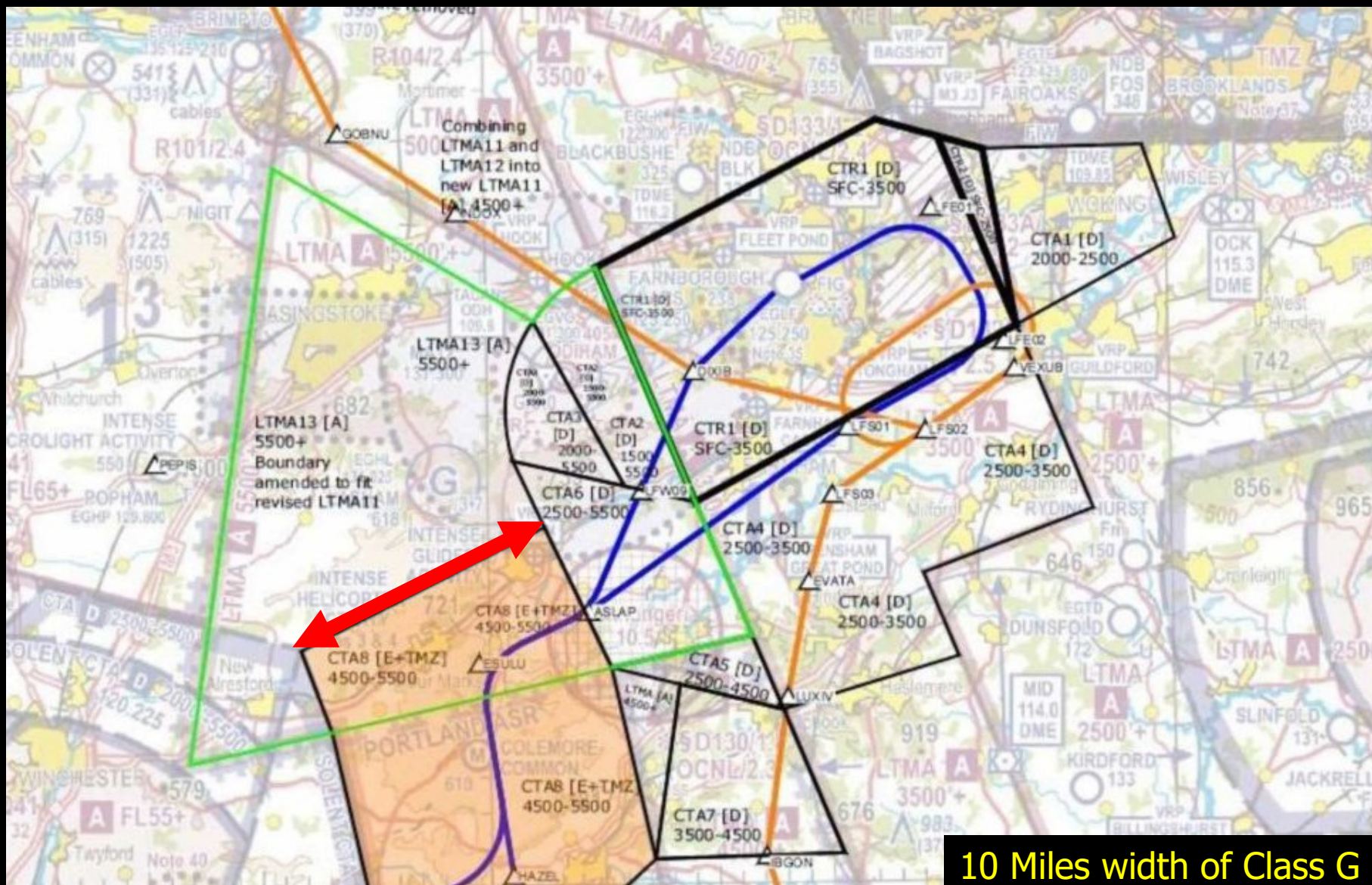
# Airspace Currently



27 Miles width of Class G

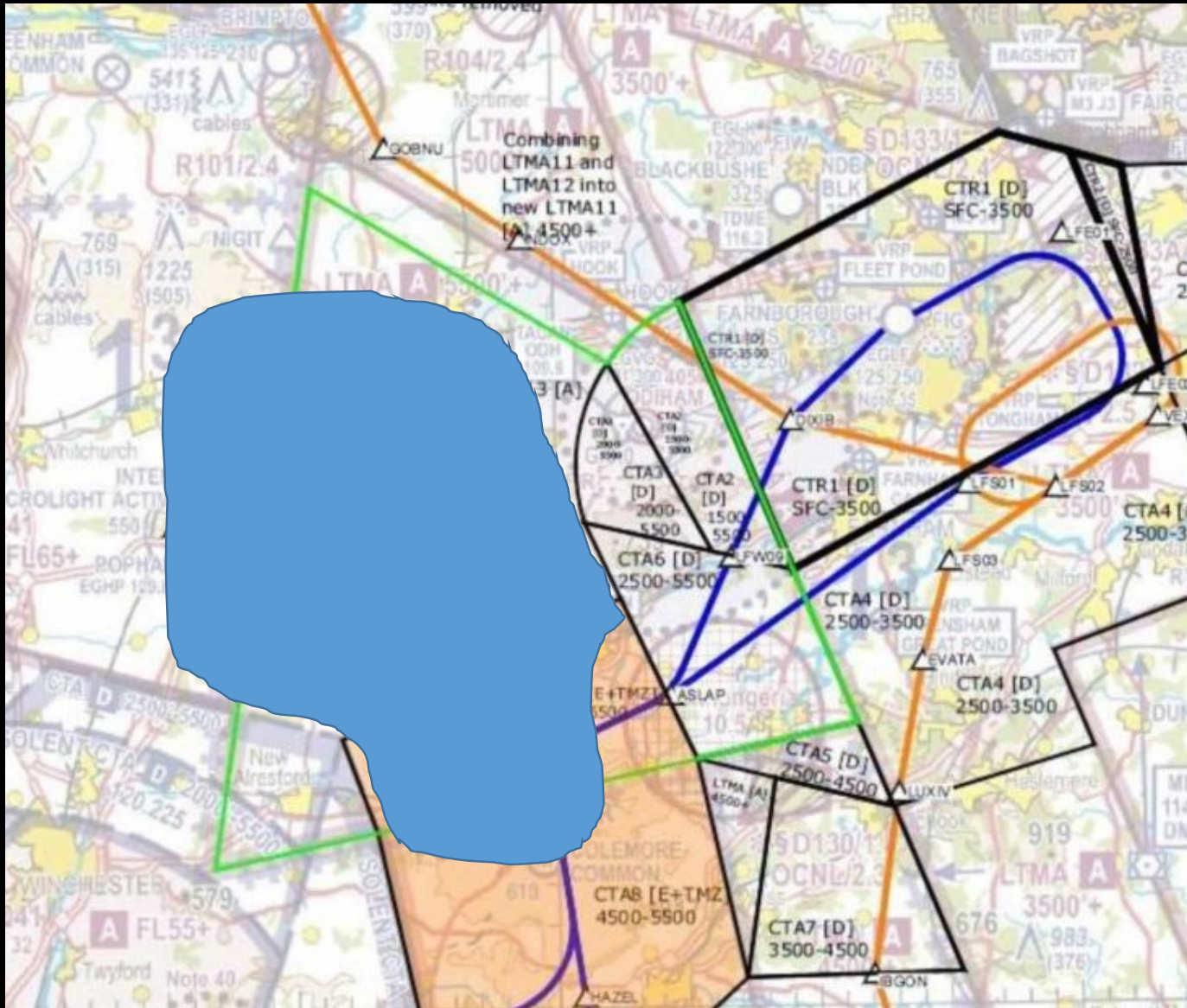


# Airspace After Implementation



10 Miles width of Class G

# Where will we operate locally?

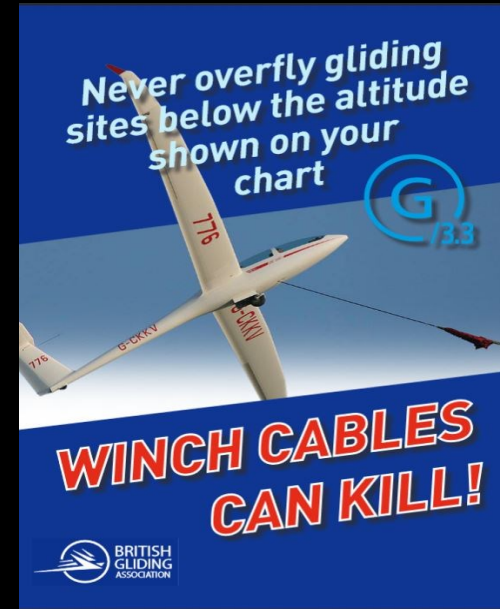


- Very busy circuit
- Generally upwind of the airfield.
- Outside CAS (Unless LoA in effect)
- To the base of CAS
- Avoiding immediate overhead
- Further away from Lasham, the higher gliders generally are.
- Aerotows to to base of CAS.

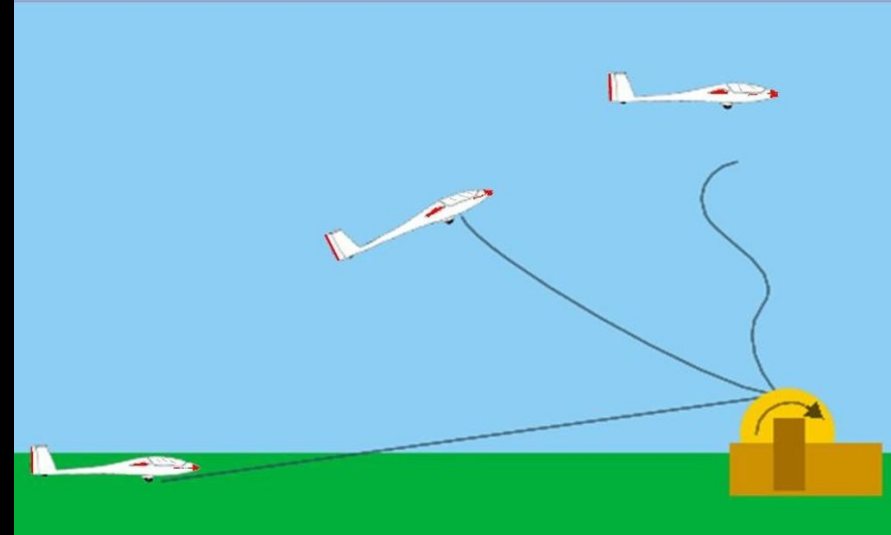
# Risks and Mitigations

# Winch Cables

- Cables launched to max altitude 3600ft often over 100 times a day above the airfield. (14,000 times pa)
- Process takes less than 60 seconds after a 'all clear above and behind check' for conflicting traffic
- Quick acceleration. Climbing at 70kts at 3000FPM.
- High workload
- A number of Airproxes and MORs both locally and nationally.
- If a cable were to hit an aircraft, it could cause a fatal accident.



Winch Launch





High traffic density in remaining Class G



# Lasham's mitigation steps

- All gliders fitted with FLARM, Radio and Moving Maps
- NOTAM published by Lasham on busiest planned days to aid situational awareness for other airspace users.
- Daily briefings to ensure all airfield users are aware of the day's operations and potential hazards.
- Reviewing further conspicuity options.



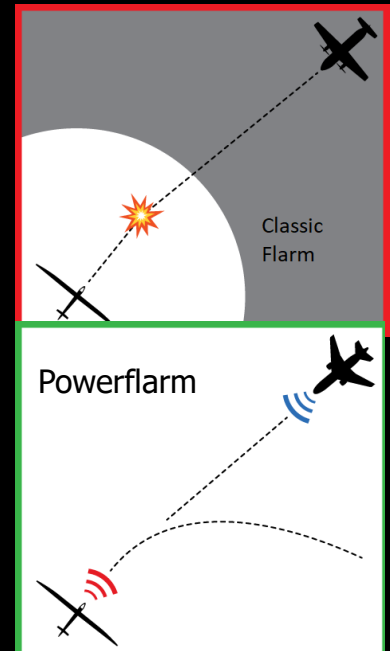
# Potential Mitigations from other airspace users

- Avoid immediate vicinity of Lasham and certainly overhead due to risk of cables.
- Passing downwind of Lasham will avoid most gliding activity.
- If required, make any unusual intentions known on 'Lasham Gliders' 131.030MHz to aid situational awareness.
- Assume Lasham is active unless you have positive confirmation it isn't.



# Flarm/PowerFlarm

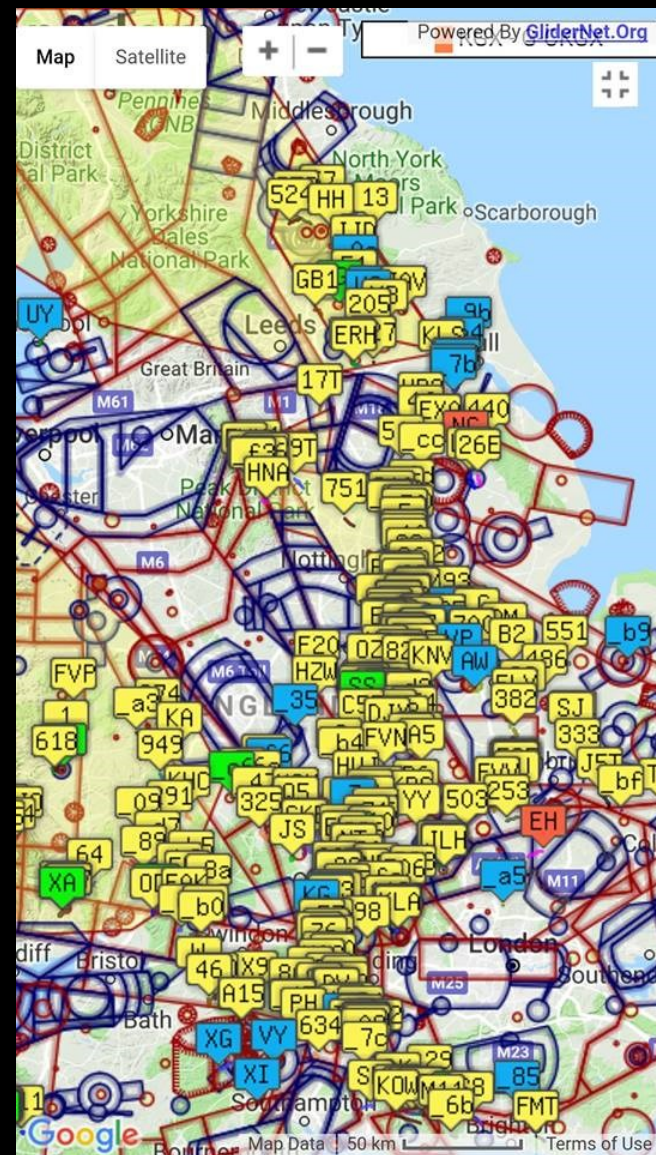
- Developed in use in Gliding since mid 2000s with substantial decrease in collisions.
- Predicts and warns of conflicting using GPS data, but no deconfliction, just collision warnings.
- Latest versions 'PowerFlarm' Receives (but does not transmit) ADSB.
  - Receives Mode C readouts (but does not transmit)
  - Range of 10km.
- People replacing their original Flarms with PowerFlarm when upgrading instruments.
- Technology continually improving. More gliders with ADSB and Transponders in the future.
- All Lasham based powered/glider aircraft will have a version of Flarm fitted by March 2020.





# Online Glider Network

- Unified tracking platform for anything Flarm Equipped.
- Being used by ATSU's (Generally only Military) for general glider activity information, not for control purposes.
- Integrates with other conspicuity devices like PilotAware to provide pilots equipped with information on Flarm Aircraft (but only when near a broadcasting station.)



# 2020 Gliding Competitions

- **18 and 20m Nationals and Lasham Regionals**
  - Range of glider types based on wingspan.
  - Around 80 competitors
  - Briefing at 1000
  - Grid take-off from 1100 (delay up to 1500 for weather)
  - Start approx. 1 hour after first launch
  - Finish tasking around 17:00 hrs
  - Finishing from West or North.
  - 10 tugs to ensure 80+ gliders can be launched in 1 hour.
  - Route (100-500km) promulgated by NOTAM each day.





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# Questions?