

Aerial collision avoidance rules in Europe

General advice for pilots flying abroad concerning priority rules

1. The pilot ALWAYS must take responsibility for avoiding collisions. When applying the rules, priority must never be taken, but always be given.
2. There is a small set of rules everybody must know, and which apply European-wide:
 - When in doubt turn right.
 - When thermalling, the first pilot in the thermal determines the circling direction, everybody else is required to turn in the same direction.
 - When ridge soaring, the pilot with the ridge to his left must give way to oncoming traffic.

Aerial collision avoidance rules - details

NOTE:

M..... rule is mandatory in this particular country (usually enforced by air traffic laws)

R..... rule is recommended in this particular country (local pilots may be expected to oblige to that rule, although the rule is not enforced by air traffic laws)

IC..... rule is clearly and seriously contradicting national rules (in general or in some specific cases)

Please note: Mandatory or recommended, in case of a law suit courts in most countries may be expected to treat recommended rules as if they were mandatory

In the following the term “glider” applies to hanggliders (HG) and paragliders (PG)

General rules	A	CH	D	F	I	N	S	UK
Despite the priority rules below the pilot is always obliged to avoid collisions	M	M	M	M	M	M	M	M
You may break air traffic rules if it is required for safety reasons	M	M	M	M		M	M	M
To avoid collisions always keep a sufficient distance from other gliders	M	M	M	R	M	M	M	M
The glider having priority according to the priority rules below has to keep his course and his speed	M	M	M	R			M	M
The glider having to change his course according to the priority rules below has to do that in a safe way	M	M	M	R	M		M	M

General priority rules	A	CH	D	F	I	N	S	UK
Different categories of aircraft: Gliders always have to give way to all other categories of aircraft except microlights	IC	IC	IC	IC	M	IC	IC	IC
Different categories of aircraft:								
– gliders and sailplanes always have priority over engine-powered aircraft	IC	IC	IC	M	IC	IC	M	IC
– gliders always have priority over engine-powered microlights	IC	IC	IC	M	M	IC	M	IC
– balloons always have priority over sailplanes and gliders				M			M	
Impediment of manoeuvrability: A glider being clearly impeded in his manoeuvrability has priority		M	M	R	R	R	M	
Emergency situations: A glider in an emergency situation has priority		M	M	R		R	M	

Degree of manoeuvrability: Less manoeuvrable aircraft always have priority over better manoeuvrable aircraft				R		R	M	
Different altitudes: Any lower glider has priority over gliders flying above	!C	!C	!C	!C	!C	M	R	!C
Approaching head-on: Glider approaching head-on both have to turn right	M	M	M	M	M	M	M	M
Intersecting courses, same category of aircraft: If gliders are approaching on intersecting courses, the glider approaching from the right has priority	M	M	M	M	M	M	M	M
Intersecting courses, different categories of aircraft: If two aircraft of different categories are approaching on intersecting courses, the following rules apply:								
– sailplanes and gliders have priority over engine-powered aircraft	M	M	M	M	!C		M	M
– gliders have priority over sailplanes	M	!C	!C	M	!C		!C	!C
– balloons, sailplanes and gliders have priority over engine-powered PG and HG	M	M	M	M			1	M
– balloons have priority over sailplanes and gliders	M	M	M	M	M		M	M
Overtaking (angle between courses less than 70°): When overtaking, the following rules apply:								
– gliders being overtaken have priority	M	M	M	M	!C	R	M	M
– gliders overtaking have priority; the glider being overtaken must not change its course in a way to impede the overtaking glider; overtaking above or below is only allowed if the distance is big enough not to impede the glider being overtaken	!C	!C	!C	!C	M		!C	!C
– gliders overtaking other gliders have to change their course to the right	M	M	M	M			R HG	
– gliders overtaking other gliders may change their course to the right or to the left	!C	!C	!C	!C			R PG	M
Landing: When landing the following rules apply:								
– gliders approaching any landing place have priority	M	M	M	M		R	M	
– gliders approaching any landing place have priority over other gliders	M	M	M	M	M	R	M	M

– if two gliders are approaching any landing place, the lower one has priority	M	M	M	M	M	M	M	M
– if two gliders are approaching any landing place at the same altitude, they have to share the landing area				R		R	R	
– if a glider is approaching any landing place a lower glider may not intersect its course	M		M				M	M
– gliders in the final glide have priority over powered aircraft in the final approach	M	M	M	M			M	
– gliders approaching any landing place have priority over gliders taking off	M	M	M	M	M	R	R	M
– gliders clearly doing a forced landing have priority	M	M	M	M		R	M	M
Take-off: gliders may only take off if there is no danger of collisions	M	M	M	M	R	M	M	

Ridge soaring rules	A	CH	D	F	I	N	S	UK
Approaching head-on: If two gliders are approaching head-on, the one with the ridge to his left has to turn right	M	M	M	M	R	M	R	R
Turning: When turning while ridge soaring, the following rules apply:								
– before turning the pilot has to make sure there results no danger of collision		M	M	R	R	R	M	R
– never turn towards the ridge						M		
Overtaking: when overtaking while ridge soaring, the following rules apply:								
– no overtaking when ridge soaring; the glider approaching from behind either has to decrease its speed or turn 180°							R ²	
– no overtaking when ridge soaring and the ridge is on the right; the glider approaching from behind either has to decrease its speed or turn 180°				M				
– the glider overtaking must overtake on the ridge side				!C		M	!C	R

¹Flying with engine-powered PG and HG is not legal in Sweden and is thus not regulated.

²For PG, no specific rule for HG exist.

Thermalling rules	A	CH	D	F	I	N	S³	UK
Turning direction: The first pilot in the thermal determines the circling direction, everybody else is required to turn in the same direction	M	M	M	R	R	M	R	R
Climbing faster: A glider climbing faster and approaching from below has priority			M	R	R	M	R	
Climbing faster, flying faster: Overtaking shall be done on the outside of the turn				R			R	
Not seeing other gliders any more: If a pilot can't see another glider previously thermalling close to him any more, he has to leave the thermal immediately	M			R				
Joining a thermal: When joining a thermal, the following rules apply:								
– gliders joining a thermal should give way to those gliders already established in it	IC	M	IC	R	IC	IC	IC	R
– if there are gliders thermalling in opposite directions, the joining glider should turn in the same way as the nearest glider (least vertical separation)				R				R
– the entry to the turn should be planned so as to give continual visual contact with all other aircraft at or near the planned entry height				R				R
– the entry should be flown at the tangent to the circle so that no aircraft already turning will be required to manoeuvre to avoid the joining aircraft				R		R		R
Sharing a thermal: When sharing a thermal with other gliders, the following rules apply:								
– pilots should adhere to the principle of “see and be seen”				R		R		R
– when at a similar level, never turn inside, point at, or ahead of another aircraft unless you intend to overtake, and can guarantee safe separation				R				R
– leave the thermal if, in your judgement, you cannot guarantee adequate separation				R		R		R
– look for other aircraft joining or converging in height				R		R		R
– do not manoeuvre sharply unless clear of all other aircraft				R		R		R
Leaving a thermal: Look outside the turn and behind before straightening				R		R		R

³PG rules, no specific rules exist for HG

Airspace rules for flights with HG/PG (VFR flights)

NOTE:

OK..... airspace may be entered without explicit permission

PM..... airspace may be entered only with explicit permission (usually to be obtained by radio)

NO..... airspace prohibited for HG/PG

$\frac{3}{4}$ airspace class not used in this country

Airspace	A	CH	D	F	I	N	S	UK
airspace class G	OK	OK	OK	OK	OK ¹	OK	OK ³	OK
airspace class F	OK	$\frac{3}{4}$	OK	$\frac{3}{4}$	OK ¹	OK	$\frac{3}{4}$	OK
airspace class E	PM ²	OK	OK	OK	NO	PM	$\frac{3}{4}$	OK
airspace class D	PM	PM	PM	NO	NO	PM	$\frac{3}{4}$	PM
airspace class C	PM	PM	PM	$\frac{3}{4}$	NO	PM	PM	$\frac{3}{4}$
airspace class B	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	NO	$\frac{3}{4}$	$\frac{3}{4}$	NO
airspace class A	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	NO	NO	$\frac{3}{4}$	NO	NO

¹ In Italy HG and PG are allowed to fly in uncontrolled airspace within 500 ft AGL (level measured from the highest ground within 3 km radius); on Saturdays, Sundays and holidays the limit is raised to 1000 ft AGL

² request by phone prior to take-off, or (at some sites) general arrangements with air traffic control are possible; this permission requirement for airspace class E will be dropped soon (probably by summer 2000; status of 15/06/2000)

³ Report and double-sided radio contact within TIA and TIZ required