

COMPETITION TECHNICAL SPECIFICATIONS

BIATHLON

B.1 The following Table 1 sets out the desired skiing and shooting specifications for classes of Biathlon competitions that will be held at AWSA events (amended IBU Rule 1.3.8):

TABLE 1 – AWSA BIATHLON COMPETITION SPECIFICATIONS

CLASS	COMPETITION DISTANCE & TYPE	START TYPE & INTERVAL	SHOOTING BOUT ORDER (P = Prone, S = Standing); PENALTY FOR TARGETS NOT HIT	DISTANCE BETWEEN & LOCATION OF SHOOTING BOUTS	TOTAL CLIMB (TC)
(a)	(b)	(c)	(d)	(e)	(f)
SENIOR MEN	20km INDIVIDUAL	Single, 20, 30, 60sec	P, S, P, S 1 minute added time	4 km 4, 8, 12, 16 km	600–800m
	10km SPRINT	Single, 20, 30, 60sec	P, S 150 m penalty loop	3.3 km between 3 & 7 km	300–400m
	12.5km MASS START	Simultaneous	P, P, S, S 150 m penalty loop	2.5 km 2.5, 5, 7.5, 10 km	350–500m
	4 x 7.5km RELAY	Simultaneous and Tag	P, S (each) + 3 Spares per Bout 150 m penalty loop	2.5 km 2.5 and 5 km	200–300m
WOMEN	12.5km INDIVIDUAL	Single, 20, 30, 60sec	P, S, P, S 1 minute added time	2.5 km 2.5, 5, 7.5, 10 km	350–500m
	7.5km SPRINT	Single, 20, 30, 60sec	P, S 150 m penalty loop	2.5 km 2.5 and 5 km	200–300m
	10km MASS START	Simultaneous	P, P, S, S 150 m penalty loop	2 km 2, 4, 6, 8 km	200–400m
	3 or 4 x 6km RELAY	Simultaneous and Tag	P, S (each) + 3 Spares per Bout 150 m penalty loop	2 km 2 and 4 km	150–240m
JUNIOR MEN	15km INDIVIDUAL	Single 20, 30, 60sec	P, S, P, S 1 minute added time	3 km 3, 6, 9, 12 km	400–500m
	10km SPRINT	Single 20, 30, 60sec	P, S 150 m penalty loop	3 or 4 km between 3 & 7 km	300–450m
	12.5km MASS START	Simultaneous	P, P, S, S 150 m penalty loop	2.5 km 2.5, 5, 7.5, 10 km	350–500m
YOUTH MEN	12.5km INDIVIDUAL	Single 20, 30, 60sec	P, S, P, S 1 minute added time	2.5 km 2.5, 5, 7.5, 10 km	350–500m
	10km SPRINT	Single 20, 30, 60sec	P, S 150 m penalty loop	3 or 4 km between 3 & 7 km	300–450m
	10km MASS START	Simultaneous	P, P, S, S 150 m penalty loop	2 km 2, 4, 6, 8 km	200–350m
NOVICE MEN	12.5km INDIVIDUAL	Single 20, 30, 60sec	P, S, P, S 1 minute added time	2.5 km 2.5, 5, 7.5, 10 km	350–500m
	10km MASS START	Simultaneous	P, P, S, S 150 m penalty loop	2 km 2, 4, 6, 8 km	200–350m

Note: The Women’s Biathlon Relay will consist of 4 skiers (legs) from the squad of 6 at divisional level; at the Army/National Championships it will consist of 3 skiers (legs) from each Corps squad of 4 or 5.

- B.1.1 **Height Difference (HD).** The maximum permitted difference in altitude between the highest and lowest points on the Biathlon competition course is to be 80m for all competitions.
- B.1.2 **Maximum climb (MC).** The maximum permitted height difference of an ascent, without either a flat part or a descent of at least 200m in length, is to be 75m for all Biathlon competitions.

B.2 For ease of reference, Table 2 below sets out the IBU skiing and shooting specifications for examples of Biathlon competitions that are not normally held at AWSA championships:

TABLE 2 – OTHER IBU BIATHLON COMPETITION SPECIFICATIONS

COMPETITION DISTANCE & TYPE	START TYPE & INTERVAL	SHOOTING BOUTS (P = Prone, S = Standing); PENALTY FOR TARGETS NOT HIT	DISTANCE BETWEEN & LOCATION OF SHOOTING BOUTS	TOTAL CLIMB (TC)
(a)	(b)	(c)	(d)	(e)
10km PURSUIT	Pursuit	P, P, S, S 150 m penalty loop	2 km 2, 4, 6, 8 km	200–400m
SUPER SPRINT QUALIFICATION	Single, 15 sec	P, S (each) + 3 Spares per Bout Penalty = Disqualification	2.4 - 3.6 km 800 m - 2400 m	45–75m
SUPER SPRINT FINAL	Simultaneous	P,P,S,S (ea) + 3 Spare per Bout Penalty = Disqualification	4 - 6 km 800 m - 4800 m	60–125m
MIXED RELAY WWMM	Simultaneous and Tag	P, S each + 3 Spares per Bout 150 m penalty loop	2 x 6 km(W) 2 km/2 & 4 km 2 x 7.5 km (M) 2.5 km/2.5 & 5km	150–250m 200–300m

B.2.1 **Specifications for Super Sprint.** The Biathlon Super Sprint consists of a Qualification and a Final competition taking place on the same day.

CROSS COUNTRY

B.3 The following Table 3 sets out the course specifications for classes of XC competitions that will normally be held at AWSA events (FIS art 311 - 313):

TABLE 3 – AWSA XC COMPETITION SPECIFICATIONS

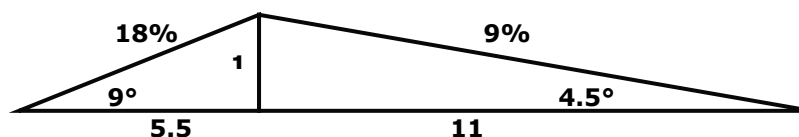
CLASS	COMPETITION DISTANCE & TYPE	START TYPE & INTERVAL	TECHNIQUE	COURSE LENGTH OPTIONS
(a)	(b)	(c)	(d)	(e)
SENIOR MEN	15km INDIVIDUAL	Single or Pair 15, 30 or 60 sec	Classic	2.5, 3.75, 5, 7.5, 10, 15km
	10km PURSUIT	Simultaneous	5km Classic followed by 5km Free without a break	2.5, 5km 2.5, 5km
	4 x 10km RELAY	Simultaneous and Tag	1 st & 2 nd leg Classic; 3 rd & 4 th leg Free	2.5, 3.3, 5km 2.5, 3.3, 5km
	800–1200m SPRINT	Group Heats & Finals	Free	400 - 1200m
WOMEN	10km INDIVIDUAL	Single or Pair 15, 30 or 60 sec	Classic	2.5, 3.3, 5, 7.5, 10km
	6km PURSUIT	Simultaneous	c 3km Classic followed by c 3km Free without a break	2.5, 3.3km 2.5, 3.3km
	4 x 5km RELAY	Simultaneous and Tag	1 st & 2 nd leg Classic; 3 rd & 4 th leg Free	2.5, 5km 2.5, 5km
	800–1200m SPRINT	Group Heats & Finals	Free	400 - 1200m
JUNIOR MEN	15km INDIVIDUAL	Single or Pair 15, 30 or 60 sec	Classic	2.5, 3.75, 5, 7.5, 10, 15km
	7.5km PURSUIT	Simultaneous	3.75km Classic followed by 3.75km Free w/out a break	3.75km 3.75km
	800–1200m SPRINT	Group Heats & Finals	Free	400 - 1200m
NOVICE MEN	7.5km PURSUIT	Simultaneous	3.75km Classic followed by 3.75km Free w/out a break	3.75km 3.75km

B.3.1 Fundamental Characteristics (FIS art 312.1)

B.3.1.1 XC courses must be laid out so as to provide a technical, tactical and physical test of competitors' qualifications. The degree of difficulty should be in accordance with the level of competition. The course should be laid out as naturally as possible to avoid any monotony, with rolling undulated sections, climbs and downhill sections. Where possible the course should be laid out through woodland. Rhythm should not be broken by sharp changes in direction or steep climbs. The downhill sections must be laid out so that they can be negotiated without danger, even on a particularly fast or icy track.

B.3.1.2 In principal, the Cross Country course should consist of:

B.3.1.2.1 One third uphill defined as climbs with a gradient between 9% (1:11) and 18% (1:5.5) with height differences over 10 metres plus some short climbs steeper than 18%:



B.3.1.2.2 One third undulating, rolling terrain, utilising all terrain features with short climbs and downhills (with height differences of 1 - 9m).

B.3.1.2.3 One third varied downhill, demanding versatile downhill techniques.

B.3.2 Preparation for Classical Technique. For individual competitions in classical technique a single track should be set along the ideal skiing line of the competition course. The track is normally set in the middle of the course except through curves. In curves there should only be set track where the skis can glide unrestrained within it. Where the curves are too sharp and the speed is considered to be too high to stay in the track, the track should be removed. To decide the proper course preparation and track setting, the best competitors and highest possible speed must be taken into consideration. In curves the track is to be set close to the fence to avoid the possibility to ski between the track and the fence. (FIS art 315.3.1)

B.3.3 Course Norms. Table 4 sets out the physical limits for XC courses of set lengths (FIS art 313):

TABLE 4 – AWSA XC COURSE NORMS

COURSE LENGTH	HEIGHT DIFFERENCE (HD)	MAXIMUM CLIMB (MC)	TOTAL CLIMB (TC)
(a)	(b)	(c)	(d)
0.4 – 1.4km Sprint Free	50m	0-30m	0-60m
0.4 – 1.4km Sprint Classical	50m	10-30m	20-60m
2.5km	50m	50m	75-105m
3.3km	65m	50m	100-135m
3.75km	75m	50m	100-150m
5km	100m	50m	150-210m
7.5km	125m	65m	200-315m
10km	150m	80m	250-420m
15km	200m	80m	400-600m

B.3.3.1 Height Difference (HD). The maximum permitted difference in height between the lowest and highest points of a XC competition course.

B.3.3.2 Maximum Climb (MC). The maximum permitted height difference of an ascent on a XC competition course, without either undulating terrain of at least 200m in length or a descent of at least 10m.

B.3.3.3 **Total Climb (TC).** The permitted range of the sum of all ascents on a XC competition course.

B.3.4 **Width of Courses.** The minimum width of groomed XC competition courses should ideally be:

B.3.4.1 **Individual Classic Technique** : 3m

B.3.4.2 **Individual Free Technique** }:
Relay Classic Technique }: 4m up hills

B.3.4.3 **Relay Free Technique** }:
Mass Start Classic Technique}: 6m up hills

B.3.4.4 **Sprint Free Technique** }:
Relay both techniques }:
Mass Start Free Technique }: 9m up hills

B.4 The complete range of approved FIS competition formats and course lengths is shown in FIS art 311.