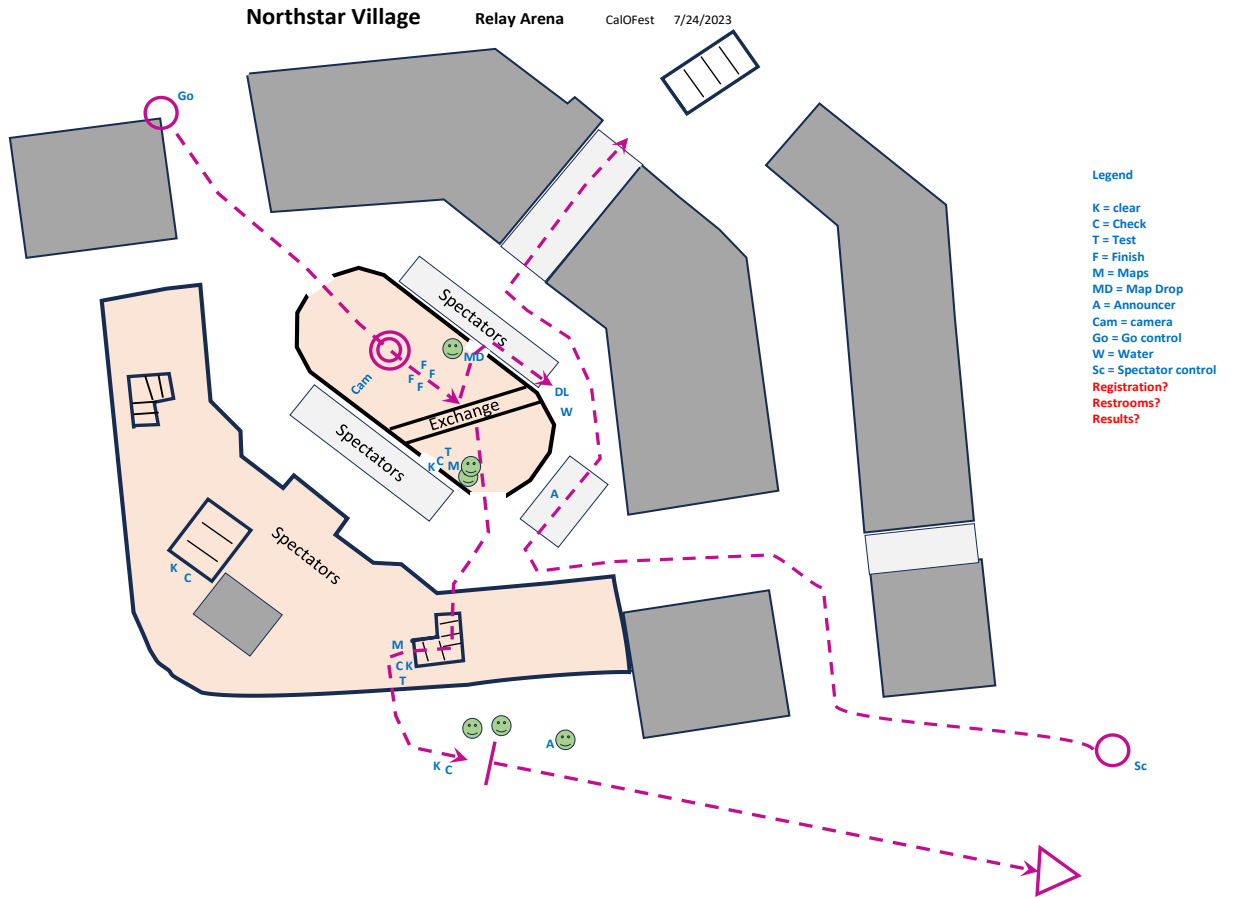


**California Orienteering Festival
 Stage 7: Northstar Relay
 North American Orienteering Championships
 NAOC, NAJOC, NAYOC, Club and Open Relay
 Monday July 24, 2023**

Meet Director's Notes



Course Designer's Notes

By Misha Kreslavsky

Terrain.

Alpine forest with varying runnability from fast thin pine forest to slow dense undergrowth and a part of Northstar Village. Ground is varying: mostly smooth and firm, in some places wet marshy (not shown on the map), or rocky (shown), or paved in the Village. Some watercourses are dry, some have flowing water.

Hazards.

One of the staircases on the way to the Go control is closed and out of bound, see the arena map. Do not enter.

Northstar Recreation Center (olive on the map) is out of bounds, do not enter.

F-21+E and M-21+E only: the course crosses Highlands View Road. Traffic is not dense, however, there is no traffic control (only warning signs), and some irresponsible driver drive well above the speed limit. Cross with caution. Vertical walls above and below the road (mapped as rock cliffs) are dangerously high and may be not obvious, when you approach them from above at high speed.

Map.

ISSOM-2017. Scale 1:10 000 for NAOC/NAJOC/NAYOC relay and 1:7 500 for Club Relay. Contour interval 5 m.

Black circles and black crosses denote a variety of small man-made objects. Those used as control features are snowmakers (circles in both map and control descriptions) and small ruined sheds (crosses in both map and control descriptions).

Control codes are shown both in the control description table at the face side of the map and on the map next to the control numbers.

Courses.

3-leg relay with forking.

Class	Leg length	Leg controls	Leg climb	Climb %
NAOC/NAJOC/NAYOC				
F-16	2.3 km	9	75 – 80 m	3.3%
F-18	2.6 km	10	95 – 100 m	3.7%
F-20	3.6 km	10	110 – 120 m	3.2%
F-21+E	4.6 km	15	175 – 185 m	3.9%
M-16	2.6 km	10	95 – 100 m	3.7%
M-18	3.6 km	10	110 – 120 m	3.2%
M-20	4.0 km	13	175 m	4.4%
M-21+E	5.7 km	19	245 – 250 m	4.3%
Club Relay				
Club/Open 12+	1.3 – 1.4 km	5	35 – 40 m	2.8%
Club/Open 8+	1.5 – 1.6 km	6	45 – 50 m	3.1%
Club/Open 4+	2.1 km	8	85 – 90 m	4.1%
Club/Open Select	2.6 km	9	110 – 115 m	4.3%

NAOC/NAJOC/NAYOC courses have a spectator control. After the spectator control, follow marked corridor through the arena and continue your course after the exit from the corridor. Do not shortcut. There is water at the spectator control. On M21E and F21E courses, there is one more water control.

Club relay courses have no spectator control and no drinking water on the courses.

Please, check the arena map to see locations of the mass start, beginning of orienteering (triangle), spectator control, spectator corridor, go control, finish, and relay exchange.