

Forefront of QZSS utilization in water sports

26 November 2021

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Director

Discover **new** sports

SPORTS TRACKING LAB

About us

Yokosuka city windsurfing mecca of Japan



World Cup is held since 2017

Summary

Company: N-Sports tracking Lab, LLC

CEO: Shinya Yokoi

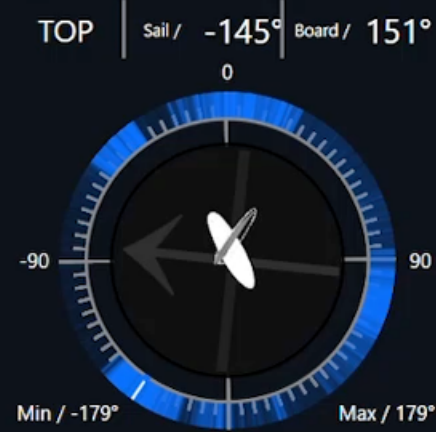
Location: Kanagawa Yokosuka city,
Ogawacho 19-5

Establishment: 15 August 2019



Our Business

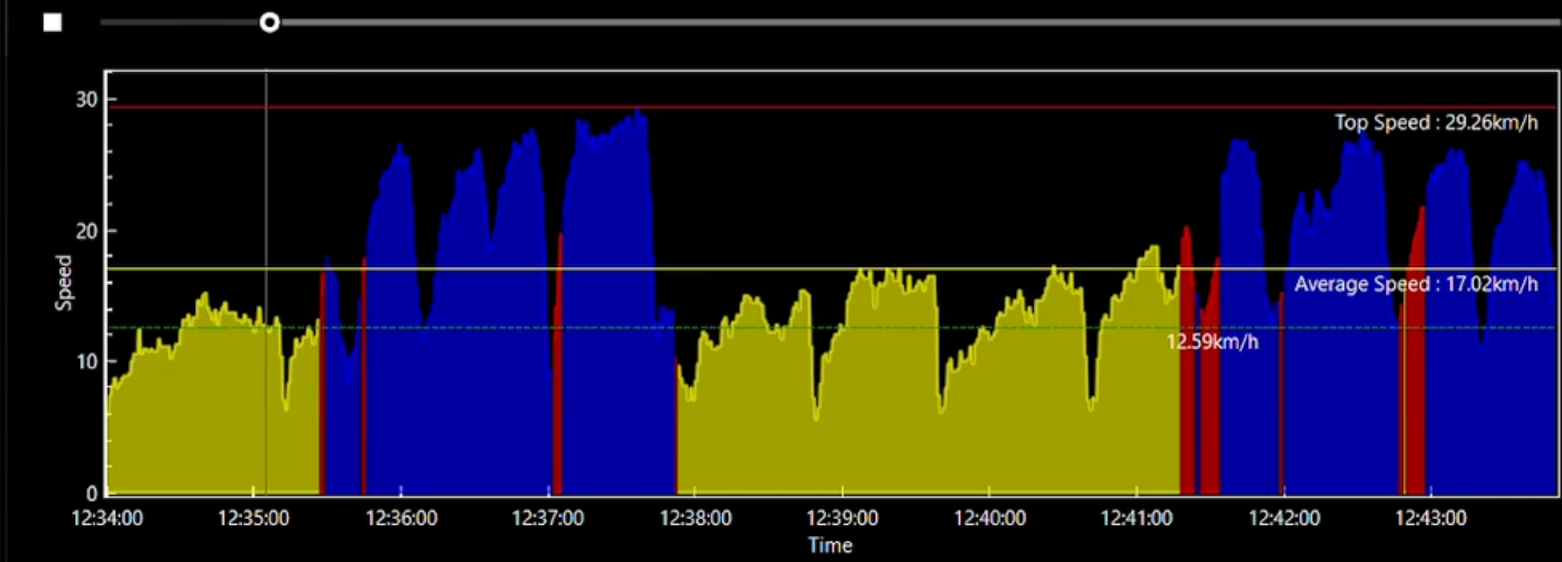
- (1) Sports Performance Analysis
- (2) Sports Entertainment Business



Dates JPN-224 : 16 3218_2018-11-28T0

Practices 2 12/3/2018 12:12:48 PM

Legs 5 p 12/3/2018 12:33:59 PM



12:35:01:00

Sports Entertainment Business

Windsurf World Cup



Stand Up Paddle (SUP) World Cup



Rowing

2020 Coastal Rowing
2021 Waseda vs Keio Regatta



THE REGATTA
WASEDA vs KEIO

Sailing

2020 Techno 293 Windsurfing
2020 470 / Snipe class competition



Nat'l Highway Route 301



2021 Jul.-Aug. International Sailing Competition @Enoshima

Event	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug					
Men's Windsurfer	Village Open	Venue Security Sweep	Venue Open						Technical Meeting	EI	EI	Opening Ceremony		1,2,3	4,5,6	R	7,8,9	10,11,1 2	R	MR	RMR								Closing Ceremony				
Women's Windsurfer				EI	EI		1,2,3	4,5,6		R	7,8,9		10,11,1 2	R	MR	RMR																	
Men's One Person Dinghy				EI	EI													1,2	3,4	5,6	R	7,8	9,10	R	MR	RMR							
Women's One Person Dinghy				EI	EI													1,2	3,4	5,6	R	7,8	9,10	R	MR	RMR							
Men's One Person Dinghy (Heavyweight)																	EI	EI	EI	1,2	3,4	5,6	R	7,8	9,10	R	MR	RMR					
Men's Two Person Dinghy																	EI	EI	EI		1,2	3,4	5,6	R	7,8	9,10	R	MR		RMR			
Women's Two Person Dinghy																	EI	EI	EI		1,2	3,4	5,6	R	7,8	9,10	R	MR		RMR			
Men's Skiff																EI		EI		1,2,3	4,5,6	R	7,8,9	10,11,1 2	R	MR	RMR						
Women's Skiff																EI		EI		1,2,3	4,5,6	R	7,8,9	10,11,1 2	R	MR	RMR						
Mixed Two Person Multihull																	EI	EI	EI		1,2,3	4,5,6	R	7,8,9	10,11,1 2	R	MR	RMR					

- Race Boats : 250 (OMEGA)
- Support Vessels : 400 (N-Sports)

Operational Period

- Official training 7/14 -24
- Races 7/25 – 8/5



Our QZSS experiment was conducted during official training period (7/15-22)

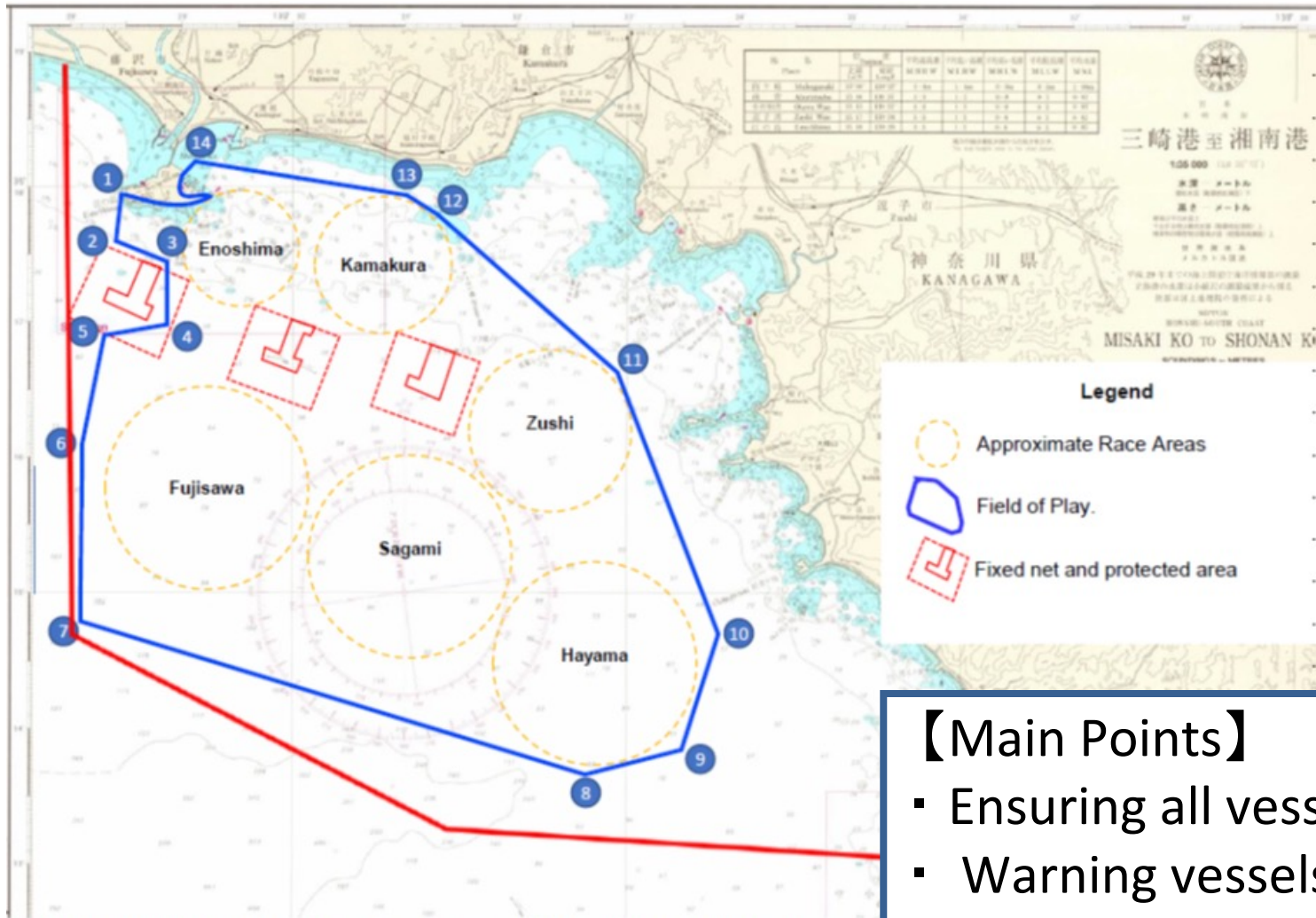
Centralization of Marine Traffic Control in International Sailing Competition

~Excerpt from document of organizing committee~

- Support the centralized management of departure/arrival for vessels deployed to FoP (Field of Play).
- Support the centralized management for vessels to execute safe arrival to harbor.
- In the emergency(**tsunami, storm, high waves**), provide support for safe arrival and **real-time location** of all vessels.
- Support the launch of investigation when there is unreturned boat.
- Support the investigation by providing real-time location of unreturned boat.
- When needed, support the organizing committee to control positions of safety, marshal and medical vessels **from the bridge(onshore control center)**.
- Support the organizing committee to ensure all vessels are in FoP.

Area under surveillance

The area under surveillance is inside the FoP(Field of Play) shown below.



- 【Main Points】**
- Ensuring all vessels are in FoP
 - Warning vessels that are close to fixed nets (fishing net) and dangerous areas



みちびきを活用した実証実験

大規模国際セーリング大会での活用を想定し、公式練習期間に実証をおこないました

Distance data of all boats

27-Jul			28-Jul			29-Jul			30-Jul		
Boat Num			Boat Num			Boat Num			Boat Num		
159			162			205			148		
Total Distance(km)		MaxSpd (km/h)	Total Distance(km)		MaxSpd (km/h)	Total Distance(km)		MaxSpd (km/h)	Total Distance(km)		MaxSpd (km/h)
4659.245		62.23	3566.265		51.12	5661.696		49.82	2441.394		61.49
BoatName	Distance (km)	MaxSpd (km/h)	BoatName	Distance (km)	MaxSpd (km/h)	BoatName	Distance (km)	MaxSpd (km/h)	BoatName	Distance (km)	MaxSpd (km/h)
URU1 031	0	0	URU1 031	15.084	46.3	URU1 031	51.995	49.63	URU1 031	0	0
URU2 032	30.877	35.37	URU2 032	0	0	URU2 032	25.87	27.22	URU2 032	5.767	18.15
ARG2 034	31.517	39.82	ARG2 034	0	0	ARG2 034	43.088	32.41	ARG2 034	7.354	30.74
ARG2 034	21.277	34.08	ARG2 034	0	0	ARG3 035	43.863	29.45	ARG3 035	8.518	32.78
ARG3 035	39.198	38.15	ARG3 035	0	0	ARG4 036	0	0	ARG4 036	11.221	37.04
ARG4 036	12.968	37.23	ARG4 036	0	0	ARG5 037	58.706	42.78	ARG5 037	0	0
ARG5 037	27.847	43.34	ARG4 036	39.919	32.97	ARG6 038	6.638	29.82	ARG6 038	0	0
ARG6 038	17.726	42.78	ARG5 037	21.725	41.48	ARG7 039	13.381	30.37	ARG7 039	39.108	31.11
ARG7 039	22.091	34.82	ARG6 038	22.064	36.48	CHI1 040	43.707	32.41	CHI1 040	4.216	26.48
CHI1 040	53.107	39.82	ARG7 039	12.894	31.3	LCA2 232	0	0	LCA2 232	0	0
LCA2 232	0	0	CHI1 040	0	0	LCA1 231	18.945	34.63	LCA1 231	6.383	27.41

Electric boats are expected to be used for **sustainable race management** in Paris 2024.
 →The data as Tokyo2020 model will help the next games in Paris.



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