

Newfoundland & Labrador Atlas of Storm Surge and Wave Climates

Extreme Value Analysis

December 8, 2023

Prepared for Water Resources Management Division (WRMD)



DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-001 (LBR_2_0110)
Longitude [deg.E]: -60.7634
Latitude[deg N]: 56.5941
Projection: EPSG 4326
Depth [mMSL]: -124.6722
Models: DHI-LBR_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.56		0.60		0.65	
					0.69		0.73
						0.78	
							0.82

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.0		6.4		6.9	
Tp5%		10.6		10.9		11.2	
Tp50%		12.7		13.0		13.4	
Tp95%		15.0		15.3		15.8	
					7.3		7.8
						7.8	
							8.4
							8.9

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.3		5.9		6.6	
Tp5%		10.2		10.6		11.0	
Tp50%		12.1		12.6		13.1	
Tp95%		14.3		14.9		15.5	
					7.0		7.3
						7.3	
							7.7
							8.0

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.6		6.0		6.6	7.0	7.5	8.3	8.8
Tp5%		10.3		10.6		11.0	11.3	11.6	12.0	12.3
Tp50%		12.4		12.7		13.2	13.5	13.9	14.3	14.7
Tp95%		14.6		15.0		15.5	16.0	16.4	16.9	17.3

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.8		5.5		6.1	6.4	6.7	6.9	7.1
Tp5%		9.8		10.3		10.7	10.9	11.0	11.2	11.3
Tp50%		11.7		12.3		12.7	13.0	13.2	13.4	13.5
Tp95%		13.8		14.5		15.1	15.3	15.6	15.8	16.0

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		3.5		3.9		4.4	4.9	5.3	5.8	6.2
Tp5%		8.7		9.1		9.5	9.9	10.1	10.5	10.7
Tp50%		10.4		10.9		11.4	11.8	12.1	12.5	12.8
Tp95%		12.3		12.9		13.5	13.9	14.3	14.8	15.2

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.5		2.9		3.3	3.6	4.0	4.4	4.7
Tp5%		7.8		8.2		8.6	8.9	9.2	9.5	9.7
Tp50%		9.3		9.8		10.3	10.6	10.9	11.3	11.6
Tp95%		11.0		11.5		12.1	12.5	12.9	13.4	13.7

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		2.2		2.5		2.9	3.0	3.2	3.4	3.5
Tp5%		7.5		7.8		8.2	8.3	8.5	8.7	8.8
Tp50%		8.9		9.4		9.7	10.0	10.2	10.4	10.5
Tp95%		10.5		11.1		11.5	11.8	12.0	12.3	12.4

Dir =270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.3		2.6		3.0	3.2	3.4	3.6	3.8
Tp5%		7.6		7.9		8.3	8.5	8.7	8.9	9.0
Tp50%		9.0		9.5		9.9	10.2	10.4	10.6	10.8
Tp95%		10.7		11.2		11.7	12.0	12.3	12.5	12.7

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.2		3.5		3.9	4.3	4.6	5.0	5.3
Tp5%		8.5		8.8		9.1	9.4	9.7	10.0	10.2
Tp50%		10.1		10.5		10.9	11.2	11.5	11.9	12.2
Tp95%		11.9		12.4		12.9	13.3	13.6	14.1	14.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-002 (LBR_2_0048)
Longitude [deg.E]: -60.4336
Latitude[deg N]: 56.1818
Projection: EPSG 4326
Depth [mMSL]: -46.8447
Models: DHI-LBR_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.57		0.60		0.66	0.70	0.75	0.81	0.86

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	6.1		6.6		7.2		7.8	8.3	9.1	9.7
Tp5%	10.2		10.5		10.8		11.0	11.3	11.6	11.8
Tp50%	12.6		12.9		13.3		13.6	13.9	14.3	14.6
Tp95%	15.0		15.4		15.8		16.2	16.5	17.0	17.3

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.7		6.3		7.1	7.6	8.2	8.9	9.4
Tp5%		10.0		10.4		10.8	11.0	11.3	11.6	11.8
Tp50%		12.4		12.8		13.3	13.6	13.9	14.3	14.5
Tp95%		14.7		15.2		15.8	16.2	16.5	17.0	17.3

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.4		5.9		6.5	7.0	7.5	8.3	8.9
Tp5%		9.9		10.1		10.5	10.7	11.0	11.3	11.6
Tp50%		12.2		12.5		12.9	13.3	13.6	14.0	14.3
Tp95%		14.5		14.9		15.3	15.7	16.1	16.6	17.0

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.4		5.0		5.5	5.8	6.0	6.3	6.4
Tp5%		9.2		9.6		9.9	10.1	10.2	10.3	10.4
Tp50%		11.4		11.9		12.2	12.4	12.6	12.7	12.9
Tp95%		13.6		14.1		14.5	14.8	14.9	15.1	15.3

Dir=135 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.1		3.5		4.0	4.3	4.7	5.2	5.5
Tp5%		8.3		8.6		9.0	9.2	9.4	9.7	9.9
Tp50%		10.3		10.7		11.1	11.4	11.7	12.0	12.3
Tp95%		12.2		12.6		13.2	13.5	13.8	14.3	14.5

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.2		2.6		3.0	3.3	3.5	3.8	4.0
Tp5%		7.5		7.9		8.2	8.5	8.7	8.9	9.0
Tp50%		9.2		9.7		10.2	10.5	10.7	11.0	11.1
Tp95%		10.9		11.5		12.1	12.4	12.7	13.0	13.2

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.2		2.5		2.8	3.1	3.3	3.6	3.8
Tp5%		7.4		7.7		8.1	8.3	8.5	8.7	8.8
Tp50%		9.2		9.6		10.0	10.2	10.5	10.7	10.9
Tp95%		10.9		11.4		11.8	12.1	12.4	12.7	13.0

Dir=270		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		2.5		2.9		3.2	3.5	3.7	3.9	4.0
Tp5%		7.8		8.1		8.4	8.6	8.7	8.9	9.0
Tp50%		9.6		10.0		10.4	10.6	10.8	11.0	11.1
Tp95%		11.4		11.9		12.3	12.6	12.8	13.1	13.2

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.7		4.1		4.6	4.9	5.2	5.5	5.7
Tp5%		8.8		9.1		9.4	9.5	9.7	9.9	10.0
Tp50%		10.8		11.2		11.6	11.8	12.0	12.2	12.4
Tp95%		12.9		13.3		13.7	14.0	14.2	14.5	14.7

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File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-003 (LBR_3_0266)
Longitude [deg.E]: -60.0857
Latitude[deg N]: 55.9441
Projection: EPSG 4326
Depth [mMSL]: -57.8499
Models: DHI-LBR_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.58		0.62		0.67	0.72	0.77	0.83	0.88

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	6.5		7.2		8.0		8.6	9.2	10.0	10.6
Tp5%	10.6		11.0		11.5		11.9	12.2	12.7	13.0
Tp50%	12.5		13.0		13.6		14.0	14.5	15.0	15.3
Tp95%	14.7		15.2		15.9		16.4	16.9	17.5	17.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		6.3		6.9		7.7		8.4	9.0	9.9	10.5
Tp5%		10.4		10.9		11.4		11.8	12.1	12.6	13.0
Tp50%		12.3		12.8		13.5		13.9	14.3	14.9	15.3
Tp95%		14.4		15.0		15.8		16.3	16.8	17.4	17.9

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.5		6.3		7.1	7.7	8.2
Tp5%		9.9		10.4		11.0	11.4	11.7
Tp50%		11.7		12.3		13.0	13.4	13.8
Tp95%		13.7		14.4		15.2	15.7	16.2

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.4		5.1		5.7	6.1	6.4
Tp5%		9.0		9.6		10.1	10.3	10.6
Tp50%		10.7		11.3		11.9	12.2	12.5
Tp95%		12.5		13.2		13.9	14.3	14.6

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.2		3.6		4.0	4.2	4.4
Tp5%		7.9		8.3		8.6	8.8	9.0
Tp50%		9.3		9.8		10.2	10.4	10.7
Tp95%		10.9		11.4		11.9	12.2	12.5

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.3		2.7		3.2	3.5	3.8
Tp5%		6.9		7.4		7.9	8.2	8.5
Tp50%		8.2		8.7		9.3	9.7	10.0
Tp95%		9.6		10.2		10.9	11.3	11.7

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.3		2.5		2.9	3.1	3.4
Tp5%		6.8		7.2		7.6	7.8	8.1
Tp50%		8.1		8.5		8.9	9.3	9.6
Tp95%		9.4		9.9		10.5	10.8	11.2

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.6		3.0		3.5	3.7	4.0
Tp5%		7.3		7.7		8.2	8.4	8.6
Tp50%		8.6		9.1		9.6	9.9	10.2
Tp95%		10.1		10.7		11.3	11.6	11.9

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.7		5.6		6.3	6.7	7.1
Tp5%		9.3		9.9		10.5	10.8	11.0
Tp50%		11.0		11.7		12.3	12.7	13.0
Tp95%		12.8		13.7		14.5	14.9	15.2

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File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-004 (LBR_3_0155)
Longitude [deg.E]: -59.0551
Latitude[deg N]: 55.3098
Projection: EPSG 4326
Depth [mMSL]: -96.2406
Models: DHI-LBR_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.55		0.59		0.65	0.70	0.74	0.80	0.85

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		6.5		7.1		7.9	8.4	8.9	9.5	10.0
Tp5%		10.3		10.7		11.1	11.4	11.6	11.9	12.1
Tp50%		12.4		12.8		13.3	13.6	13.9	14.3	14.5
Tp95%		14.5		14.9		15.5	15.9	16.2	16.6	16.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		6.2		6.9		7.7	8.3	8.8	9.5	9.9
Tp5%		10.1		10.5		11.0	11.3	11.6	11.9	12.1
Tp50%		12.2		12.6		13.2	13.6	13.9	14.3	14.6
Tp95%		14.2		14.7		15.4	15.8	16.2	16.6	17.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.3		5.9		6.7	7.2	7.7
Tp5%		9.6		10.0		10.4	10.7	11.0
Tp50%		11.5		12.0		12.5	12.9	13.2
Tp95%		13.4		14.0		14.6	15.0	15.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.0		4.6		5.1	5.4	5.7
Tp5%		8.7		9.1		9.4	9.6	9.8
Tp50%		10.4		10.9		11.3	11.6	11.8
Tp95%		12.1		12.7		13.2	13.5	13.7

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.7		3.0		3.4	3.6	3.9
Tp5%		7.5		7.8		8.1	8.4	8.5
Tp50%		9.0		9.4		9.8	10.0	10.2
Tp95%		10.5		10.9		11.4	11.7	11.9

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.9		2.3		2.7	3.0	3.3
Tp5%		6.5		7.0		7.5	7.8	8.0
Tp50%		7.9		8.4		9.0	9.3	9.6
Tp95%		9.1		9.8		10.5	10.9	11.2

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.9		2.3		2.8	3.1	3.4
Tp5%		6.6		7.1		7.6	7.9	8.1
Tp50%		7.9		8.5		9.1	9.5	9.8
Tp95%		9.2		9.9		10.6	11.0	11.4

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.7		2.9		3.3	3.6	3.9
Tp5%		7.4		7.7		8.1	8.3	8.6
Tp50%		8.9		9.3		9.7	10.0	10.3
Tp95%		10.4		10.8		11.3	11.6	12.0

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.4		5.9		6.5	6.9	7.2
Tp5%		9.6		10.0		10.3	10.5	10.7
Tp50%		11.6		12.0		12.4	12.6	12.9
Tp95%		13.5		13.9		14.4	14.7	15.0

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File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-005 (LBR_4_0269)
Longitude [deg.E]: -57.0571
Latitude[deg N]: 54.2507
Projection: EPSG 4326
Depth [mMSL]: -73.1083
Models: DHI-LBR_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.60		0.65		0.70	
					0.75		0.79
						0.84	0.88

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.3		6.8		7.4	
Tp5%		11.1		11.3		11.6	
Tp50%		13.2		13.4		13.7	
Tp95%		15.9		16.2		16.5	
					7.9		8.3
						8.9	9.3

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.4		5.9		6.6	
Tp5%		10.7		10.9		11.2	
Tp50%		12.7		13.0		13.4	
Tp95%		15.3		15.7		16.1	
					7.0		7.5
						8.1	8.6

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.8		6.5		7.3		7.8
8.2								8.8
9.2								
Tp5%		10.9		11.2		11.6		11.8
11.9								12.1
12.3								
Tp50%		12.9		13.3		13.7		14.0
14.2								14.4
14.6								
Tp95%		15.5		16.1		16.5		16.8
17.1								17.4
17.5								

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.5		5.2		5.9		6.3
6.7								7.2
7.5								
Tp5%		10.2		10.6		10.9		11.1
11.3								11.5
11.6								
Tp50%		12.1		12.6		13.0		13.2
13.4								13.6
13.8								
Tp95%		14.6		15.1		15.6		15.9
16.1								16.4
16.6								

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.8		4.1		4.4		4.6
4.8								5.2
5.4								
Tp5%		9.8		9.9		10.1		10.3
10.4								10.6
10.7								
Tp50%		11.6		11.8		12.0		12.2
12.4								12.5
12.7								
Tp95%		14.0		14.2		14.5		14.7
14.9								15.1
15.3								

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.3		2.6		3.0		3.3
3.5								3.7
3.9								
Tp5%		8.6		8.9		9.2		9.4
9.6								9.7
9.9								
Tp50%		10.2		10.6		11.0		11.2
11.4								11.6
11.7								
Tp95%		12.3		12.8		13.2		13.5
13.7								13.9
14.1								

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.2		2.6		3.0		3.3
3.6								3.9
4.1								
Tp5%		8.5		8.9		9.2		9.4
9.6								9.8
10.0								
Tp50%		10.1		10.5		11.0		11.2
11.4								11.7
11.8								
Tp95%		12.1		12.7		13.2		13.5
13.8								14.1
14.3								

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.6		3.0		3.4		3.6
3.8								4.0
4.1								
Tp5%		8.9		9.2		9.5		9.6
9.7								9.9
10.0								
Tp50%		10.6		10.9		11.3		11.4
11.6								11.7
11.8								
Tp95%		12.8		13.2		13.6		13.8
13.9								14.1
14.3								

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.9		4.4		4.9		5.2
5.5								5.8
6.0								
Tp5%		9.9		10.2		10.4		10.6
10.7								10.9
11.0								
Tp50%		11.7		12.1		12.4		12.6
12.8								12.9
13.1								
Tp95%		14.1		14.5		14.9		15.2
15.3								15.6
15.7								

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-006 (LBR_4_0215)
Longitude [deg.E]: -56.8284
Latitude[deg N]: 54.0221
Projection: EPSG 4326
Depth [mMSL]: -64.0179
Models: DHI-LBR_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.61			0.66		0.72	0.77 0.81 0.87 0.91

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.4			6.9		7.5	7.9 8.2 8.7 9.0
Tp5%	10.8			11.0		11.3	11.4 11.6 11.7 11.8
Tp50%	13.1			13.4		13.6	13.8 14.0 14.2 14.3
Tp95%	15.9			16.2		16.6	16.8 17.0 17.2 17.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.9			6.5		7.0	7.4 7.7 8.0 8.3
Tp5%	10.6			10.9		11.1	11.2 11.3 11.5 11.6
Tp50%	12.8			13.1		13.4	13.6 13.7 13.9 14.0
Tp95%	15.5			15.9		16.3	16.5 16.7 16.8 17.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.8		6.5		7.2	7.7	8.1
								8.6
								9.0
Tp5%		10.6		10.9		11.2	11.4	11.5
								11.7
								11.8
Tp50%		12.8		13.1		13.5	13.7	13.9
								14.2
								14.3
Tp95%		15.5		15.9		16.4	16.7	16.9
								17.2
								17.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.1		4.7		5.4	5.9	6.3
								6.8
								7.2
Tp5%		9.7		10.0		10.4	10.6	10.8
								11.0
								11.2
Tp50%		11.7		12.1		12.5	12.8	13.0
								13.3
								13.5
Tp95%		14.2		14.7		15.2	15.5	15.8
								16.2
								16.4

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.2		3.5		3.8	3.9	4.1
								4.3
								4.4
Tp5%		9.1		9.3		9.5	9.6	9.7
								9.8
								9.8
Tp50%		11.0		11.2		11.4	11.6	11.7
								11.8
								11.9
Tp95%		13.3		13.6		13.9	14.0	14.2
								14.3
								14.4

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.0		2.4		2.8	3.1	3.3
								3.6
								3.8
Tp5%		8.1		8.4		8.8	9.0	9.1
								9.3
								9.5
Tp50%		9.8		10.2		10.6	10.9	11.1
								11.3
								11.5
Tp95%		11.9		12.4		12.9	13.2	13.4
								13.7
								13.9

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.9		2.3		2.7	2.9	3.2
								3.4
								3.6
Tp5%		8.0		8.3		8.7	8.9	9.0
								9.2
								9.4
Tp50%		9.6		10.1		10.5	10.7	10.9
								11.2
								11.3
Tp95%		11.7		12.2		12.7	13.0	13.3
								13.6
								13.8

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.4		2.7		3.1	3.3	3.5
								3.7
								3.9
Tp5%		8.4		8.7		9.0	9.1	9.3
								9.4
								9.5
Tp50%		10.2		10.5		10.9	11.1	11.2
								11.4
								11.5
Tp95%		12.3		12.8		13.2	13.4	13.6
								13.8
								14.0

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.3		4.8		5.3	5.6	5.9
								6.3
								6.5
Tp5%		9.8		10.1		10.3	10.5	10.6
								10.8
								10.9
Tp50%		11.8		12.2		12.5	12.7	12.9
								13.0
								13.2
Tp95%		14.3		14.8		15.2	15.4	15.6
								15.8
								16.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-007 (NFL_8_0871)
Longitude [deg.E]: -55.646
Latitude[deg N]: 52.5509
Projection: EPSG 4326
Depth [mMSL]: -176.8149
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.58			0.61		0.66	0.71 0.77 0.84 0.90

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.9			6.5		7.2	7.8 8.2 8.8 9.3
Tp5%	10.7			10.9		11.1	11.2 11.3 11.5 11.6
Tp50%	12.9			13.1		13.3	13.5 13.6 13.8 13.9
Tp95%	15.5			15.7		16.0	16.2 16.4 16.6 16.7

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	4.6			5.0		5.4	5.7 5.9 6.1 6.3
Tp5%	10.2			10.4		10.5	10.6 10.7 10.7 10.8
Tp50%	12.3			12.5		12.7	12.8 12.9 13.0 13.0
Tp95%	14.8			15.0		15.2	15.3 15.4 15.6 15.6

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.6		6.2		7.0	7.6	8.1
Tp5%		10.6		10.8		11.0	11.2	11.3
Tp50%		12.7		13.0		13.3	13.5	13.6
Tp95%		15.3		15.6		16.0	16.2	16.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.9		5.6		6.4	6.9	7.4
Tp5%		10.3		10.6		10.8	11.0	11.1
Tp50%		12.4		12.8		13.1	13.3	13.4
Tp95%		15.0		15.3		15.7	15.9	16.1

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.6		5.0		5.5	5.9	6.3
Tp5%		10.2		10.4		10.5	10.7	10.8
Tp50%		12.3		12.5		12.7	12.9	13.0
Tp95%		14.8		15.0		15.3	15.5	15.7

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.2		2.5		2.7	2.9	3.1
Tp5%		9.0		9.1		9.3	9.4	9.5
Tp50%		10.8		11.0		11.2	11.4	11.5
Tp95%		13.0		13.3		13.5	13.7	13.8

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.1		1.3		1.7	1.9	2.2
Tp5%		7.9		8.2		8.6	8.8	9.0
Tp50%		9.5		9.9		10.3	10.6	10.8
Tp95%		11.5		11.9		12.4	12.7	13.0

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.5		1.8	2.1	2.3
Tp5%		8.0		8.3		8.7	8.9	9.0
Tp50%		9.6		10.1		10.5	10.7	10.9
Tp95%		11.6		12.1		12.6	12.9	13.1

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.8		2.0		2.3	2.4	2.6
Tp5%		8.7		8.8		9.0	9.1	9.2
Tp50%		10.4		10.7		10.9	11.0	11.1
Tp95%		12.5		12.8		13.1	13.2	13.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-008 (NFL_8_0616)
Longitude [deg.E]: -56.3741
Latitude[deg N]: 51.6515
Projection: EPSG 4326
Depth [mMSL]: -71.4527
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.54		0.58		0.64	0.68	0.72	0.78	0.83

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	3.3		3.6		4.0	4.3	4.5	4.8	5.0
Tp5%	7.9		8.2		8.5	8.8	9.0	9.2	9.3
Tp50%	10.6		11.1		11.5	11.8	12.1	12.4	12.6
Tp95%	14.7		15.3		15.9	16.3	16.7	17.1	17.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.6		1.8		2.0	2.1	2.2	2.3	2.4
Tp5%		6.0		6.3		6.6	6.7	6.8	6.9	7.0
Tp50%		8.0		8.5		8.8	9.0	9.2	9.3	9.4
Tp95%		11.1		11.7		12.2	12.5	12.7	12.9	13.0

Dir = 45		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		3.1		3.5		3.9		4.2	4.4	4.7	4.9
Tp5%		7.7		8.1		8.5		8.7	8.9	9.2	9.4
Tp50%		10.4		10.9		11.4		11.7	12.0	12.4	12.7
Tp95%		14.4		15.0		15.7		16.2	16.6	17.1	17.5

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.8		3.0		3.4	3.6	3.9	4.3	4.6
Tp5%		7.5		7.7		8.0	8.3	8.5	8.8	9.0
Tp50%		10.0		10.4		10.8	11.1	11.4	11.9	12.2
Tp95%		13.9		14.3		14.9	15.4	15.8	16.4	16.8

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		1.7		1.8		2.0	2.1	2.3	2.4	2.5
Tp5%		6.1		6.3		6.6	6.7	6.9	7.0	7.1
Tp50%		8.2		8.5		8.9	9.1	9.2	9.4	9.6
Tp95%		11.3		11.8		12.2	12.5	12.8	13.0	13.2

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.8		2.0		2.1	2.2	2.3	2.4	2.5
Tp5%		6.3		6.5		6.7	6.8	6.9	7.1	7.1
Tp50%		8.5		8.8		9.1	9.2	9.4	9.5	9.6
Tp95%		11.8		12.1		12.5	12.7	12.9	13.1	13.3

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		2.7		3.0		3.3	3.6	3.8	4.1	4.3
Tp5%		7.4		7.6		8.0	8.2	8.4	8.6	8.8
Tp50%		9.9		10.3		10.7	11.0	11.2	11.6	11.8
Tp95%		13.7		14.2		14.8	15.2	15.5	16.0	16.3

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.5		1.7		1.9	2.0	2.1	2.3	2.4
Tp5%		5.9		6.1		6.4	6.6	6.7	6.9	7.0
Tp50%		7.9		8.2		8.6	8.8	9.0	9.2	9.4
Tp95%		10.9		11.4		11.9	12.2	12.5	12.8	13.0

Dir=315		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		1.2		1.4		1.7	1.8	1.9	2.1	2.2
Tp5%		5.3		5.7		6.1	6.3	6.5	6.7	6.8
Tp50%		7.2		7.7		8.2	8.5	8.7	9.0	9.2
Tp95%		9.9		10.7		11.4	11.7	12.1	12.4	12.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-009 (NFL_8_0631)
Longitude [deg.E]: -55.7317
Latitude[deg N]: 51.6515
Projection: EPSG 4326
Depth [mMSL]: -36.2077
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.50		0.53		0.58	0.62	0.65	0.70	0.73

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.8		5.4		6.1		6.6	7.0	7.6	7.9
Tp5%	9.8		10.2		10.6		10.9	11.1	11.4	11.6
Tp50%	12.5		13.0		13.5		13.8	14.1	14.5	14.7
Tp95%	15.1		15.7		16.4		16.8	17.2	17.6	17.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.1		4.4		4.7	5.0	5.3	5.7	5.9
Tp5%		9.3		9.5		9.8	10.0	10.1	10.4	10.5
Tp50%		11.8		12.1		12.4	12.7	12.9	13.2	13.4
Tp95%		14.3		14.7		15.1	15.4	15.7	16.0	16.2

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.8		5.4		6.1	6.6	7.0
Tp5%		9.8		10.2		10.6	10.9	11.1
Tp50%		12.5		13.0		13.5	13.9	14.1
Tp95%		15.1		15.7		16.4	16.8	17.2

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.0		3.3		3.6	3.9	4.1
Tp5%		8.4		8.7		9.0	9.2	9.3
Tp50%		10.7		11.0		11.4	11.6	11.9
Tp95%		12.9		13.4		13.8	14.1	14.4

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.1		2.3		2.5	2.7	2.8
Tp5%		7.4		7.7		7.9	8.1	8.2
Tp50%		9.5		9.8		10.1	10.3	10.4
Tp95%		11.5		11.9		12.2	12.5	12.7

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.0		2.2		2.4	2.5	2.6
Tp5%		7.4		7.6		7.8	7.9	8.1
Tp50%		9.4		9.6		9.9	10.1	10.3
Tp95%		11.4		11.7		12.0	12.3	12.5

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.3		2.6		2.7	2.9	3.0
Tp5%		7.8		8.0		8.2	8.3	8.4
Tp50%		9.9		10.1		10.4	10.5	10.7
Tp95%		12.0		12.3		12.6	12.8	12.9

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.8		3.0		3.2	3.4	3.5
Tp5%		8.2		8.4		8.6	8.8	8.9
Tp50%		10.4		10.7		11.0	11.1	11.3
Tp95%		12.6		13.0		13.3	13.5	13.7

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.7		3.0		3.3	3.4	3.6
Tp5%		8.1		8.4		8.6	8.8	8.9
Tp50%		10.3		10.7		11.0	11.2	11.3
Tp95%		12.5		13.0		13.3	13.5	13.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-010 (NFL_8_0556)
Longitude [deg.E]: -55.4319
Latitude[deg N]: 51.523
Projection: EPSG 4326
Depth [mMSL]: -62.536
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.50		0.55		0.61	
					0.65		0.69
						0.74	
							0.78

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.5		5.9		6.5	
					7.0		7.4
						8.0	
							8.4
Tp5%		10.3		10.6		10.9	
					11.1		11.3
						11.6	
							11.8
Tp50%		12.5		12.8		13.2	
					13.5		13.7
						14.0	
							14.3
Tp95%		15.4		15.7		16.2	
					16.5		16.8
						17.2	
							17.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		2.2		2.3		2.5	
					2.7		2.8
						3.0	
							3.2
Tp5%		7.8		8.0		8.2	
					8.3		8.5
						8.6	
							8.8
Tp50%		9.5		9.7		10.0	
					10.1		10.3
						10.5	
							10.6
Tp95%		11.7		11.9		12.2	
					12.4		12.6
						12.8	
							13.0

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		4.8		5.5		6.3	6.7	7.1	7.6	8.0
Tp5%		9.9		10.3		10.8	11.0	11.3	11.6	11.7
Tp50%		12.1		12.6		13.1	13.4	13.7	14.0	14.3
Tp95%		14.8		15.4		16.0	16.4	16.8	17.2	17.4

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.8		5.2		5.8	6.3	6.8	7.5	8.1
Tp5%		9.9		10.2		10.6	10.8	11.1	11.4	11.7
Tp50%		12.0		12.4		12.8	13.1	13.5	13.9	14.2
Tp95%		14.7		15.1		15.7	16.1	16.5	17.0	17.4

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		4.8		5.3		5.7	6.0	6.2	6.5	6.7
Tp5%		9.9		10.2		10.5	10.6	10.8	10.9	11.0
Tp50%		12.1		12.4		12.7	12.9	13.0	13.2	13.4
Tp95%		14.8		15.2		15.5	15.8	16.0	16.2	16.3

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.9		3.3		3.6	3.8	4.0	4.1	4.3
Tp5%		8.6		8.9		9.1	9.3	9.4	9.5	9.6
Tp50%		10.4		10.8		11.1	11.2	11.4	11.5	11.6
Tp95%		12.7		13.2		13.6	13.8	13.9	14.1	14.2

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		1.2		1.4		1.5	1.7	1.8	1.9	2.0
Tp5%		6.6		6.8		7.1	7.2	7.4	7.5	7.6
Tp50%		8.0		8.3		8.6	8.8	8.9	9.1	9.3
Tp95%		9.8		10.1		10.5	10.7	10.9	11.2	11.4

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		0.9		1.0		1.1	1.2	1.3	1.4	1.5
Tp5%		6.0		6.2		6.4	6.6	6.7	6.9	7.0
Tp50%		7.3		7.5		7.8	8.0	8.2	8.4	8.5
Tp95%		8.9		9.2		9.6	9.8	10.0	10.3	10.4

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.0		1.1		1.2	1.3	1.4	1.5	1.6
Tp5%		6.2		6.4		6.6	6.7	6.9	7.0	7.2
Tp50%		7.5		7.7		8.0	8.2	8.3	8.5	8.7
Tp95%		9.1		9.4		9.8	10.0	10.2	10.5	10.6

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-011 (NFL_8_0487)
Longitude [deg.E]: -55.5603
Latitude[deg N]: 51.3089
Projection: EPSG 4326
Depth [mMSL]: -97.9861
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.50		0.55		0.60	
					0.64		0.68
						0.73	
							0.76

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.4		5.8		6.2	
					6.6		7.0
						7.5	
							7.9
Tp5%		9.5		9.8		10.1	
					10.3		10.5
						10.8	
							11.0
Tp50%		11.8		12.1		12.5	
					12.8		13.0
						13.4	
							13.7
Tp95%		15.2		15.6		16.1	
					16.4		16.8
						17.3	
							17.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		2.7		2.9		3.1	
					3.2		3.3
						3.4	
							3.5
Tp5%		7.3		7.5		7.7	
					7.8		7.9
						8.0	
							8.0
Tp50%		9.0		9.3		9.5	
					9.7		9.8
						9.9	
							10.0
Tp95%		11.7		12.0		12.3	
					12.5		12.6
						12.7	
							12.8

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.5		5.1		5.7		6.1	6.5
Tp5%	8.9		9.3		9.7		10.0	10.3
Tp50%	11.0		11.5		12.1		12.4	12.7
Tp95%	14.2		14.8		15.5		16.0	16.4

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.9		5.2		5.8		6.2	6.6
Tp5%	9.2		9.4		9.8		10.1	10.4
Tp50%	11.3		11.7		12.2		12.6	12.9
Tp95%	14.6		15.1		15.7		16.2	16.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.9		5.4		5.8		6.1	6.3
Tp5%	9.2		9.5		9.8		10.0	10.2
Tp50%	11.4		11.8		12.2		12.4	12.6
Tp95%	14.7		15.2		15.7		16.0	16.3

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.6		4.0		4.3		4.5	4.7
Tp5%	8.2		8.5		8.8		8.9	9.1
Tp50%	10.2		10.5		10.9		11.1	11.2
Tp95%	13.1		13.5		14.0		14.3	14.5

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.9		3.2		3.5		3.7	3.9
Tp5%	7.5		7.8		8.1		8.2	8.4
Tp50%	9.3		9.6		10.0		10.2	10.4
Tp95%	12.0		12.4		12.9		13.1	13.4

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.5		2.8		3.0		3.2	3.3
Tp5%	7.1		7.4		7.6		7.8	7.9
Tp50%	8.8		9.1		9.5		9.7	9.8
Tp95%	11.3		11.8		12.2		12.5	12.7

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.3		2.5		2.7		2.9	3.0
Tp5%	6.9		7.1		7.3		7.5	7.7
Tp50%	8.5		8.8		9.1		9.3	9.5
Tp95%	11.0		11.3		11.7		12.0	12.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-012 (NFL_8_0317)
Longitude [deg.E]: -56.0743
Latitude[deg N]: 50.6665
Projection: EPSG 4326
Depth [mMSL]: -190.5584
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.50		0.54		0.59	0.63	0.66	0.71	0.74

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.0		4.2		4.5		4.7	5.0	5.3	5.5
Tp5%	8.6		8.7		8.9		9.0	9.2	9.3	9.5
Tp50%	10.8		10.9		11.2		11.3	11.5	11.7	11.9
Tp95%	14.5		14.7		15.0		15.2	15.4	15.8	16.0

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.3		1.5		1.6		1.8	1.9	2.0	2.1
Tp5%		5.9		6.2		6.4		6.5	6.7	6.8	6.9
Tp50%		7.4		7.7		8.0		8.2	8.4	8.5	8.7
Tp95%		10.0		10.4		10.8		11.0	11.2	11.5	11.6

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.3		3.8		4.2	4.4	4.7
5.0								5.2
Tp5%		8.1		8.4		8.7	8.9	9.1
9.3								9.5
Tp50%		10.1		10.5		10.9	11.2	11.5
11.7								11.9
Tp95%		13.6		14.1		14.7	15.1	15.4
15.8								16.0

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.7		3.9		4.1	4.4	4.6
4.9								5.1
Tp5%		8.3		8.5		8.7	8.9	9.0
9.3								9.4
Tp50%		10.4		10.6		10.9	11.1	11.4
11.6								11.9
Tp95%		14.0		14.3		14.7	15.0	15.2
15.6								15.9

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.7		3.9		4.2	4.4	4.7
5.0								5.2
Tp5%		8.3		8.5		8.7	8.9	9.1
9.3								9.5
Tp50%		10.5		10.7		11.0	11.2	11.4
11.7								11.9
Tp95%		14.1		14.3		14.7	15.0	15.3
15.7								16.0

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.5		2.7		3.0	3.2	3.5
3.8								4.0
Tp5%		7.3		7.5		7.8	8.0	8.1
8.4								8.6
Tp50%		9.2		9.4		9.8	10.0	10.2
10.5								10.7
Tp95%		12.3		12.7		13.1	13.4	13.7
14.1								14.4

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.5		1.7		1.9	2.0	2.1
2.2								2.3
Tp5%		6.2		6.4		6.7	6.8	6.9
7.0								7.1
Tp50%		7.7		8.1		8.4	8.5	8.7
8.8								8.9
Tp95%		10.4		10.9		11.2	11.5	11.6
11.8								12.0

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.9		1.0		1.2	1.3	1.4
1.5								1.6
Tp5%		5.2		5.4		5.7	5.9	6.1
6.2								6.4
Tp50%		6.5		6.8		7.2	7.4	7.6
7.8								8.0
Tp95%		8.8		9.2		9.6	9.9	10.2
10.5								10.8

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.9		1.0		1.2	1.3	1.4
1.6								1.7
Tp5%		5.2		5.5		5.7	5.9	6.1
6.3								6.5
Tp50%		6.5		6.8		7.2	7.5	7.7
8.0								8.1
Tp95%		8.8		9.2		9.7	10.0	10.3
10.7								10.9

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Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-013 (NFL_8_0012)
Longitude [deg.E]: -56.7167
Latitude[deg N]: 49.8099
Projection: EPSG 4326
Depth [mMSL]: -296.7607
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.50		0.55		0.61	0.66	0.72	0.79	0.85

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	2.3		2.6		2.9		3.2	3.5	3.9	4.2
Tp5%	6.8		6.9		6.9		7.0	7.1	7.2	7.2
Tp50%	9.8		9.9		10.1		10.2	10.3	10.4	10.5
Tp95%	13.6		13.7		13.9		14.0	14.2	14.3	14.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.2		1.4		1.6		1.7	1.8	2.0	2.1
Tp5%		6.3		6.4		6.5		6.6	6.6	6.7	6.7
Tp50%		9.2		9.3		9.4		9.5	9.6	9.6	9.7
Tp95%		12.6		12.8		13.0		13.1	13.2	13.3	13.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.3		2.6		2.9		3.2	3.5
Tp5%	6.8		6.9		6.9		7.0	7.1
Tp50%	9.8		9.9		10.1		10.2	10.3
Tp95%	13.6		13.7		13.9		14.0	14.2

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.0		1.1	1.2
Tp5%	6.1		6.1		6.2		6.2	6.3
Tp50%	8.8		8.9		9.0		9.0	9.1
Tp95%	12.1		12.2		12.4		12.5	12.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.1		1.1	1.2
Tp5%	6.1		6.1		6.2		6.3	6.3
Tp50%	8.8		8.9		9.0		9.1	9.1
Tp95%	12.1		12.3		12.4		12.5	12.6

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.3	1.3
Tp5%	6.2		6.3		6.3		6.3	6.4
Tp50%	9.0		9.1		9.1		9.2	9.2
Tp95%	12.4		12.5		12.6		12.7	12.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.1		1.2		1.3	1.3
Tp5%	6.2		6.3		6.3		6.4	6.4
Tp50%	9.0		9.1		9.2		9.2	9.2
Tp95%	12.4		12.5		12.6		12.7	12.8

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.2	1.3
Tp5%	6.2		6.2		6.3		6.3	6.3
Tp50%	8.9		9.0		9.1		9.1	9.2
Tp95%	12.3		12.4		12.6		12.6	12.7

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.2	1.3
Tp5%	6.2		6.2		6.3		6.3	6.4
Tp50%	8.9		9.0		9.1		9.2	9.2
Tp95%	12.3		12.4		12.6		12.7	12.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-014 (NFL_8_0106)
Longitude [deg.E]: -56.0315
Latitude[deg N]: 50.1097
Projection: EPSG 4326
Depth [mMSL]: -115.8749
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.51		0.55		0.60	
					0.65		0.69
						0.75	
							0.80

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		4.4		4.8		5.3	
					5.6		6.0
						6.4	
							6.7
Tp5%		8.5		8.7		9.0	
					9.2		9.4
						9.6	
							9.8
Tp50%		11.1		11.5		11.8	
					12.1		12.3
						12.6	
							12.8
Tp95%		14.4		14.8		15.3	
					15.6		15.9
						16.3	
							16.5

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		3.1		3.4		3.7	
					4.0		4.2
						4.4	
							4.6
Tp5%		7.6		7.8		8.1	
					8.2		8.4
						8.5	
							8.6
Tp50%		9.9		10.2		10.6	
					10.8		11.0
						11.2	
							11.3
Tp95%		12.8		13.2		13.7	
					13.9		14.2
						14.4	
							14.6

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.3		4.7		5.2		5.6	5.9
Tp5%	8.4		8.7		9.0		9.2	9.4
Tp50%	11.0		11.4		11.8		12.1	12.3
Tp95%	14.3		14.8		15.3		15.6	15.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.8		4.0		4.4		4.6	4.9
Tp5%	8.1		8.3		8.5		8.6	8.8
Tp50%	10.6		10.8		11.1		11.3	11.5
Tp95%	13.8		14.0		14.4		14.6	14.9

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.7		2.9	3.1
Tp5%	6.8		7.0		7.3		7.4	7.6
Tp50%	8.9		9.2		9.5		9.7	9.9
Tp95%	11.5		11.9		12.3		12.6	12.8

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.1		2.2	2.2
Tp5%	6.3		6.5		6.7		6.7	6.8
Tp50%	8.3		8.5		8.7		8.8	8.9
Tp95%	10.7		11.0		11.3		11.4	11.5

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.0		2.1	2.2
Tp5%	6.2		6.4		6.6		6.7	6.8
Tp50%	8.1		8.4		8.6		8.7	8.8
Tp95%	10.5		10.9		11.2		11.3	11.4

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.1		2.2	2.3
Tp5%	6.3		6.5		6.7		6.8	6.8
Tp50%	8.3		8.5		8.7		8.9	9.0
Tp95%	10.7		11.0		11.3		11.4	11.6

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.1		2.4		2.6		2.7	2.8
Tp5%	6.7		6.9		7.1		7.3	7.4
Tp50%	8.8		9.1		9.4		9.5	9.7
Tp95%	11.4		11.7		12.1		12.3	12.5

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-015 (NFL_8_0068)
Longitude [deg.E]: -55.6032
Latitude[deg N]: 50.024
Projection: EPSG 4326
Depth [mMSL]: -108.9303
Models: DHI-NFL_8-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.52		0.56		0.61	
					0.66		0.70
						0.75	
							0.80

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.6		6.1		6.6	
					7.0		7.3
						7.7	
							8.0
Tp5%		9.2		9.4		9.7	
					9.8		9.9
						10.1	
							10.2
Tp50%		11.8		12.0		12.3	
					12.5		12.6
						12.8	
							12.9
Tp95%		14.9		15.2		15.6	
					15.8		16.0
						16.2	
							16.4

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		4.5		4.9		5.3	
					5.5		5.7
						5.9	
							6.0
Tp5%		8.7		8.9		9.1	
					9.2		9.3
						9.4	
							9.4
Tp50%		11.1		11.4		11.6	
					11.7		11.8
						11.9	
							12.0
Tp95%		14.0		14.4		14.7	
					14.8		15.0
						15.1	
							15.2

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.5		6.0		6.6		6.9	7.3
Tp5%	9.2		9.4		9.7		9.8	10.1
Tp50%	11.7		12.0		12.3		12.5	12.6
Tp95%	14.8		15.2		15.6		15.8	16.0

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.3		4.8		5.4		5.8	6.2
Tp5%	8.6		8.9		9.2		9.3	9.5
Tp50%	11.0		11.3		11.7		11.9	12.1
Tp95%	13.9		14.3		14.8		15.0	15.3

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.5		2.8		3.2		3.5	3.8
Tp5%	7.5		7.7		8.0		8.2	8.3
Tp50%	9.5		9.8		10.2		10.4	10.6
Tp95%	12.0		12.4		12.9		13.2	13.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.1		2.3		2.4		2.6	2.7
Tp5%	7.1		7.3		7.4		7.5	7.6
Tp50%	9.1		9.3		9.5		9.6	9.7
Tp95%	11.5		11.7		12.0		12.1	12.2

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.5		2.6	2.7
Tp5%	7.2		7.4		7.5		7.6	7.6
Tp50%	9.2		9.4		9.6		9.7	9.7
Tp95%	11.6		11.9		12.1		12.2	12.3

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.6		2.8		3.1		3.2	3.4
Tp5%	7.6		7.7		7.9		8.0	8.1
Tp50%	9.7		9.9		10.1		10.2	10.3
Tp95%	12.2		12.5		12.7		12.9	13.0

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.2		3.6		3.9		4.0	4.1
Tp5%	8.0		8.2		8.4		8.5	8.5
Tp50%	10.2		10.5		10.7		10.8	10.9
Tp95%	12.9		13.3		13.5		13.6	13.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-016 (NFL_1_0416)
Longitude [deg.E]: -55.7344
Latitude[deg N]: 49.7138
Projection: EPSG 4326
Depth [mMSL]: -212.7743
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.50		0.54		0.60	0.64	0.68	0.74	0.79

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.4		4.8		5.3		5.7	6.0	6.5	6.8
Tp5%	9.2		9.4		9.6		9.8	9.9	10.1	10.2
Tp50%	11.7		11.9		12.2		12.4	12.6	12.8	12.9
Tp95%	15.0		15.3		15.7		15.9	16.1	16.4	16.6

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		2.4		2.6		2.8		2.9	3.0	3.1	3.1
Tp5%		8.0		8.2		8.3		8.4	8.4	8.5	8.5
Tp50%		10.2		10.4		10.5		10.6	10.7	10.8	10.8
Tp95%		13.0		13.3		13.5		13.6	13.7	13.8	13.8

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.4		4.8		5.3	5.7	6.0
Tp5%		9.2		9.4		9.6	9.8	9.9
Tp50%		11.7		11.9		12.2	12.4	12.6
Tp95%		15.0		15.3		15.7	15.9	16.1

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.3		3.6		4.0	4.3	4.6
Tp5%		8.6		8.8		9.0	9.2	9.3
Tp50%		11.0		11.2		11.5	11.6	11.8
Tp95%		14.1		14.3		14.7	14.9	15.2

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.0		2.2		2.4	2.5	2.6
Tp5%		7.7		7.8		8.0	8.1	8.2
Tp50%		9.7		9.9		10.1	10.3	10.4
Tp95%		12.5		12.7		13.0	13.2	13.3

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.8		1.9		2.0	2.1	2.2
Tp5%		7.5		7.6		7.7	7.8	7.8
Tp50%		9.5		9.6		9.8	9.9	9.9
Tp95%		12.2		12.4		12.5	12.6	12.7

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.7		1.8		2.0	2.1	2.2
Tp5%		7.4		7.5		7.7	7.7	7.8
Tp50%		9.4		9.6		9.7	9.8	9.9
Tp95%		12.0		12.2		12.5	12.6	12.7

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.8		1.9		2.1	2.2	2.3
Tp5%		7.5		7.6		7.7	7.8	7.9
Tp50%		9.5		9.7		9.8	10.0	10.1
Tp95%		12.2		12.4		12.6	12.8	12.9

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.9		2.1		2.3	2.4	2.6
Tp5%		7.6		7.7		7.9	8.0	8.1
Tp50%		9.6		9.8		10.0	10.2	10.3
Tp95%		12.3		12.6		12.9	13.1	13.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-017 (NFL_1_0311)
Longitude [deg.E]: -55.5276
Latitude[deg N]: 49.5898
Projection: EPSG 4326
Depth [mMSL]: -275.8009
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.51			0.55		0.60	
					0.65		
						0.69	
							0.75
							0.79

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.4			5.9		6.5	
					6.9		
						7.3	
							7.8
							8.2
Tp5%	9.6			9.8		10.0	
					10.2		
						10.3	
							10.5
							10.6
Tp50%	12.5			12.7		12.9	
					13.1		
						13.3	
							13.5
							13.7
Tp95%	15.5			15.8		16.1	
					16.3		
						16.5	
							16.8
							17.0

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	4.1			4.6		5.2	
					5.5		
						5.8	
							6.1
							6.4
Tp5%	9.0			9.3		9.5	
					9.7		
						9.8	
							9.9
							10.0
Tp50%	11.7			12.0		12.3	
					12.5		
						12.6	
							12.8
							12.9
Tp95%	14.5			14.9		15.3	
					15.5		
						15.7	
							15.9
							16.0

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.4		5.9		6.5		6.9	7.3 7.8 8.2
Tp5%	9.6		9.8		10.0		10.2	10.3 10.5 10.6
Tp50%	12.4		12.7		12.9		13.1	13.3 13.5 13.7
Tp95%	15.5		15.7		16.1		16.3	16.5 16.8 17.0

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.6		2.8		3.1		3.3	3.5 3.8 4.0
Tp5%	8.1		8.3		8.5		8.6	8.7 8.9 9.0
Tp50%	10.5		10.7		10.9		11.1	11.3 11.4 11.6
Tp95%	13.0		13.3		13.6		13.8	14.0 14.2 14.4

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.0		2.0		2.2		2.2	2.3 2.4 2.5
Tp5%	7.7		7.7		7.8		7.9	8.0 8.0 8.1
Tp50%	9.9		10.0		10.1		10.2	10.3 10.4 10.5
Tp95%	12.3		12.4		12.6		12.7	12.8 12.9 13.0

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.0		2.1	2.2 2.4 2.5
Tp5%	7.5		7.6		7.7		7.8	7.9 8.0 8.1
Tp50%	9.7		9.8		10.0		10.1	10.2 10.3 10.4
Tp95%	12.0		12.2		12.4		12.5	12.6 12.8 13.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.7		2.0		2.1	2.2 2.4 2.5
Tp5%	7.3		7.5		7.7		7.8	7.9 8.0 8.1
Tp50%	9.4		9.6		9.9		10.0	10.2 10.4 10.5
Tp95%	11.7		12.0		12.3		12.5	12.7 12.9 13.0

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.1		2.2	2.3 2.5 2.6
Tp5%	7.4		7.6		7.8		7.9	8.0 8.1 8.2
Tp50%	9.6		9.8		10.0		10.2	10.3 10.5 10.6
Tp95%	11.9		12.2		12.5		12.6	12.8 13.0 13.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.7		2.8	3.0 3.2 3.4
Tp5%	7.9		8.0		8.2		8.3	8.4 8.6 8.7
Tp50%	10.2		10.4		10.6		10.8	10.9 11.1 11.2
Tp95%	12.6		12.9		13.2		13.4	13.5 13.8 13.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-018 (NFL_1_0321)
Longitude [deg.E]: -55.114
Latitude[deg N]: 49.5898
Projection: EPSG 4326
Depth [mMSL]: -216.4639
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.52		0.56		0.62	
					0.66		0.70
						0.75	
							0.78

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.9		6.5		7.1	
					7.5		7.9
						8.4	
							8.8
Tp5%		9.9		10.2		10.4	
					10.6		10.8
						11.0	
							11.1
Tp50%		12.3		12.6		12.9	
					13.1		13.3
						13.6	
							13.7
Tp95%		15.3		15.7		16.1	
					16.3		16.6
						16.9	
							17.1

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.8		6.3		6.9	
					7.3		7.7
						8.2	
							8.5
Tp5%		9.9		10.1		10.4	
					10.6		10.7
						10.9	
							11.1
Tp50%		12.2		12.5		12.8	
					13.1		13.3
						13.5	
							13.7
Tp95%		15.2		15.5		16.0	
					16.3		16.5
						16.8	
							17.1

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.3		5.8		6.4	6.9	7.3	7.9	8.3
Tp5%		9.6		9.9		10.2	10.4	10.6	10.8	11.0
Tp50%		11.9		12.2		12.6	12.8	13.1	13.4	13.6
Tp95%		14.8		15.2		15.6	16.0	16.3	16.7	16.9

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.7		2.9		3.1	3.3	3.5	3.7	3.8
Tp5%		7.9		8.1		8.3	8.4	8.5	8.7	8.8
Tp50%		9.8		10.0		10.2	10.4	10.6	10.7	10.9
Tp95%		12.2		12.5		12.7	12.9	13.1	13.4	13.5

Dir=135 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.3		2.5		2.6	2.7	2.8	3.0	3.1
Tp5%		7.6		7.7		7.9	8.0	8.1	8.2	8.2
Tp50%		9.4		9.6		9.7	9.9	10.0	10.1	10.2
Tp95%		11.7		11.9		12.1	12.3	12.4	12.6	12.7

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.1		2.2		2.4	2.5	2.6	2.8	2.9
Tp5%		7.4		7.5		7.7	7.8	7.9	8.0	8.1
Tp50%		9.2		9.3		9.5	9.6	9.7	9.9	10.0
Tp95%		11.4		11.6		11.8	11.9	12.1	12.3	12.5

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.0		2.2		2.3	2.5	2.7	2.9	3.0
Tp5%		7.3		7.5		7.6	7.8	7.9	8.1	8.2
Tp50%		9.1		9.2		9.5	9.6	9.8	10.0	10.2
Tp95%		11.3		11.5		11.8	12.0	12.2	12.4	12.6

Dir =270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.5		2.8		3.1	3.3	3.5	3.7	3.8
Tp5%		7.8		8.0		8.3	8.4	8.5	8.7	8.7
Tp50%		9.6		9.9		10.2	10.4	10.6	10.7	10.8
Tp95%		11.9		12.4		12.7	12.9	13.1	13.3	13.4

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.7		4.1		4.6	4.9	5.3	5.9	6.3
Tp5%		8.7		8.9		9.2	9.4	9.6	9.9	10.1
Tp50%		10.8		11.0		11.4	11.7	11.9	12.3	12.5
Tp95%		13.4		13.7		14.2	14.5	14.8	15.3	15.6

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-019 (NFL_1_0482)
Longitude [deg.E]: -54.7831
Latitude[deg N]: 49.7552
Projection: EPSG 4326
Depth [mMSL]: -227.6382
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.51		0.56		0.61	
					0.65		0.68
						0.73	
							0.76

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.4		7.2		7.9	
					8.3		8.6
						9.0	
							9.3
Tp5%		10.3		10.6		10.9	
					11.1		11.2
						11.4	
							11.5
Tp50%		12.8		13.2		13.5	
					13.7		13.9
						14.1	
							14.2
Tp95%		15.7		16.2		16.7	
					17.0		17.2
						17.4	
							17.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.2		6.9		7.6	
					8.0		8.4
						8.8	
							9.1
Tp5%		10.1		10.4		10.8	
					11.0		11.1
						11.4	
							11.5
Tp50%		12.6		13.0		13.4	
					13.6		13.9
						14.1	
							14.3
Tp95%		15.5		16.0		16.5	
					16.8		17.1
						17.4	
							17.6

Dir = 45		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		5.8		6.4		7.1		7.6	8.0	8.5	8.9
Tp5%		9.9		10.2		10.6		10.8	11.0	11.2	11.4
Tp50%		12.3		12.7		13.1		13.4	13.7	14.0	14.2
Tp95%		15.2		15.7		16.2		16.5	16.9	17.2	17.5

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		3.5		3.7		4.0	4.2	4.4	4.7	4.9
Tp5%		8.5		8.7		8.9	9.0	9.1	9.3	9.4
Tp50%		10.6		10.8		11.0	11.2	11.4	11.6	11.7
Tp95%		13.1		13.3		13.6	13.8	14.0	14.3	14.5

Dir=135 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.7		2.8		3.0	3.2	3.3	3.6	3.7
Tp5%		7.9		8.0		8.2	8.3	8.4	8.6	8.7
Tp50%		9.8		9.9		10.1	10.3	10.5	10.7	10.8
Tp95%		12.1		12.3		12.5	12.7	12.9	13.2	13.4

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.6		2.7		2.9	3.0	3.1	3.3	3.5
Tp5%		7.8		7.9		8.0	8.2	8.3	8.4	8.5
Tp50%		9.7		9.8		10.0	10.1	10.3	10.4	10.6
Tp95%		11.9		12.1		12.3	12.5	12.7	12.9	13.1

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.9		3.1		3.3	3.6	3.8	4.1	4.4
Tp5%		8.1		8.2		8.4	8.6	8.7	9.0	9.1
Tp50%		10.0		10.2		10.5	10.7	10.9	11.1	11.3
Tp95%		12.4		12.6		12.9	13.2	13.4	13.7	14.0

Dir =270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		3.6		3.9		4.4	4.7	5.0	5.4	5.7
Tp5%		8.6		8.9		9.2	9.3	9.5	9.7	9.9
Tp50%		10.7		11.0		11.4	11.6	11.8	12.1	12.3
Tp95%		13.2		13.6		14.0	14.3	14.6	14.9	15.2

Dir=315	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.7		5.2		5.9	6.4	6.9	7.5	8.0
Tp5%		9.3		9.6		10.0	10.2	10.5	10.8	11.0
Tp50%		11.6		11.9		12.4	12.7	13.0	13.4	13.6
Tp95%		14.3		14.7		15.3	15.7	16.1	16.5	16.8

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-020 (NFL_1_0529)
Longitude [deg.E]: -53.9973
Latitude[deg N]: 49.7966
Projection: EPSG 4326
Depth [mMSL]: -45.2496
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.51			0.57		0.62	0.66 0.69 0.74 0.77

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.9			7.4		8.1	8.5 8.9 9.4 9.8
Tp5%	10.6			10.9		11.2	11.4 11.6 11.8 12.0
Tp50%	13.1			13.4		13.8	14.1 14.3 14.5 14.7
Tp95%	15.7			16.1		16.5	16.8 17.1 17.4 17.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.8			7.3		7.9	8.4 8.8 9.3 9.6
Tp5%	10.6			10.8		11.1	11.4 11.6 11.8 12.0
Tp50%	13.0			13.3		13.7	14.0 14.2 14.5 14.8
Tp95%	15.6			16.0		16.4	16.7 17.0 17.4 17.7

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.9		6.5		7.1	7.6	8.1
Hp5%		10.1		10.4		10.8	11.0	11.2
Hp50%		12.4		12.8		13.2	13.5	13.8
Hp95%		14.9		15.3		15.9	16.2	16.5

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.9		5.5		6.1	6.5	6.8
Hp5%		9.5		9.9		10.2	10.4	10.6
Hp50%		11.7		12.1		12.6	12.8	13.0
Hp95%		14.0		14.5		15.0	15.3	15.6

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.4		4.8		5.3	5.6	5.8
Hp5%		9.2		9.4		9.7	9.9	10.0
Hp50%		11.3		11.6		12.0	12.2	12.4
Hp95%		13.5		13.9		14.3	14.6	14.8

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.1		3.3		3.7	3.9	4.2
Hp5%		8.2		8.4		8.6	8.8	9.0
Hp50%		10.1		10.3		10.6	10.8	11.1
Hp95%		12.0		12.3		12.7	13.0	13.3

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.1		3.4		3.8	4.1	4.4
Hp5%		8.1		8.4		8.7	8.9	9.2
Hp50%		10.0		10.3		10.7	11.0	11.3
Hp95%		12.0		12.4		12.8	13.2	13.5

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.8		4.2		4.6	4.8	5.0
Hp5%		8.8		9.0		9.3	9.4	9.6
Hp50%		10.8		11.1		11.4	11.6	11.8
Hp95%		12.9		13.3		13.6	13.9	14.1

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.3		5.8		6.5	6.9	7.4
Hp5%		9.7		10.0		10.4	10.7	10.9
Hp50%		12.0		12.4		12.8	13.1	13.4
Hp95%		14.3		14.8		15.3	15.7	16.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-021 (NFL_1_0371)
Longitude [deg.E]: -53.9146
Latitude[deg N]: 49.6311
Projection: EPSG 4326
Depth [mMSL]: -47.8151
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.52		0.58		0.64	
					0.68		0.72
						0.77	
							0.81

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.3		6.8		7.4	
					7.8		8.1
						8.5	
							8.8
Tp5%		10.1		10.3		10.6	
					10.7		10.9
						11.1	
							11.2
Tp50%		12.7		13.0		13.3	
					13.5		13.7
						13.9	
							14.1
Tp95%		15.7		16.0		16.4	
					16.7		16.9
						17.2	
							17.3

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.9		6.5		7.1	
					7.5		7.9
						8.4	
							8.7
Tp5%		9.9		10.2		10.5	
					10.7		10.8
						11.1	
							11.2
Tp50%		12.5		12.8		13.2	
					13.4		13.6
						13.9	
							14.1
Tp95%		15.4		15.8		16.3	
					16.6		16.8
						17.2	
							17.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.7		6.3		7.0		7.4	7.7
Tp5%	9.8		10.1		10.4		10.6	10.8
Tp50%	12.3		12.7		13.1		13.3	13.5
Tp95%	15.2		15.7		16.2		16.5	16.7

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.7		5.2		5.7		6.0	6.3
Tp5%	9.3		9.6		9.8		10.0	10.1
Tp50%	11.7		12.0		12.4		12.5	12.7
Tp95%	14.4		14.9		15.2		15.5	15.7

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.8		4.1		4.4		4.7	4.9
Tp5%	8.7		8.9		9.1		9.2	9.4
Tp50%	10.9		11.2		11.4		11.6	11.8
Tp95%	13.5		13.8		14.1		14.3	14.5

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.8		3.1		3.4		3.6	3.9
Tp5%	8.0		8.2		8.4		8.6	8.8
Tp50%	10.0		10.3		10.6		10.8	11.0
Tp95%	12.4		12.7		13.1		13.3	13.6

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.8		3.0		3.3		3.5	3.6
Tp5%	7.9		8.1		8.3		8.5	8.6
Tp50%	10.0		10.2		10.5		10.7	10.8
Tp95%	12.3		12.6		12.9		13.1	13.3

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.9		3.3		3.6		3.8	3.9
Tp5%	8.1		8.3		8.6		8.7	8.8
Tp50%	10.1		10.5		10.8		10.9	11.1
Tp95%	12.5		12.9		13.3		13.5	13.6

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.4		5.0		5.4	5.7
Tp5%	8.8		9.1		9.4		9.6	9.8
Tp50%	11.1		11.4		11.8		12.1	12.3
Tp95%	13.7		14.1		14.6		14.9	15.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-022 (NFL_1_0204)
Longitude [deg.E]: -53.5424
Latitude[deg N]: 49.383
Projection: EPSG 4326
Depth [mMSL]: -59.1998
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.54		0.59		0.65	0.70	0.74	0.81	0.85

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	6.3		6.8		7.3	7.6	7.8	8.1	8.3
Tp5%	10.3		10.6		10.9	11.0	11.2	11.3	11.4
Tp50%	13.0		13.3		13.7	13.9	14.0	14.2	14.3
Tp95%	15.8		16.2		16.6	16.9	17.1	17.3	17.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.8		6.5		7.0	7.3	7.6	7.9	8.1
Tp5%		10.1		10.4		10.7	10.9	11.1	11.3	11.4
Tp50%		12.6		13.1		13.5	13.7	13.9	14.1	14.3
Tp95%		15.4		15.9		16.4	16.7	16.9	17.2	17.4

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.7		6.3		6.9	7.2	7.5	7.8	8.0
Tp5%		10.0		10.3		10.7	10.9	11.0	11.2	11.3
Tp50%		12.6		13.0		13.4	13.6	13.8	14.0	14.2
Tp95%		15.3		15.8		16.3	16.6	16.8	17.1	17.3

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.9		5.5		6.1	6.4	6.6	6.9	7.1
Tp5%		9.5		9.9		10.2	10.4	10.5	10.7	10.8
Tp50%		11.9		12.4		12.8	13.0	13.2	13.4	13.6
Tp95%		14.5		15.1		15.6	15.9	16.1	16.4	16.5

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		4.1		4.5		4.8	5.1	5.2	5.5	5.6
Tp5%		8.9		9.2		9.4	9.6	9.7	9.8	9.9
Tp50%		11.2		11.5		11.8	12.0	12.2	12.4	12.5
Tp95%		13.6		14.0		14.4	14.6	14.8	15.0	15.2

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.0		2.2		2.5	2.7	2.9	3.1	3.3
Tp5%		6.9		7.2		7.5	7.7	7.9	8.1	8.2
Tp50%		8.7		9.0		9.4	9.6	9.9	10.1	10.3
Tp95%		10.6		11.0		11.4	11.7	12.0	12.4	12.6

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		1.8		2.1		2.3	2.5	2.6	2.8	2.9
Tp5%		6.7		7.0		7.3	7.5	7.6	7.7	7.8
Tp50%		8.4		8.8		9.1	9.4	9.5	9.7	9.8
Tp95%		10.2		10.7		11.1	11.4	11.6	11.8	12.0

Dir =270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.0		2.3		2.6	2.8	3.0	3.2	3.3
Tp5%		7.0		7.3		7.6	7.8	7.9	8.1	8.3
Tp50%		8.7		9.1		9.5	9.7	10.0	10.2	10.4
Tp95%		10.6		11.1		11.6	11.9	12.1	12.4	12.6

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.9		4.3		4.8	5.3	5.7	6.2	6.7
Tp5%		8.7		9.0		9.4	9.7	10.0	10.3	10.6
Tp50%		11.0		11.4		11.8	12.2	12.5	13.0	13.3
Tp95%		13.4		13.8		14.4	14.8	15.3	15.8	16.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-023 (NFL_1_0166)
Longitude [deg.E]: -53.4596
Latitude[deg N]: 49.0934
Projection: EPSG 4326
Depth [mMSL]: -80.3569
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.52		0.55		0.60	0.64	0.69	0.74	0.79

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.4		5.8		6.2		6.4	6.6	6.9	7.1
Tp5%	9.2		9.3		9.4		9.4	9.5	9.5	9.6
Tp50%	11.7		11.8		12.0		12.0	12.1	12.2	12.2
Tp95%	15.4		15.6		15.8		15.9	15.9	16.1	16.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
1	2	5	10	20	50	100				
Hm0	2.9		3.2		3.5		3.7	3.9	4.1	4.2
Tp5%	8.3		8.4		8.5		8.6	8.7	8.7	8.8
Tp50%	10.6		10.7		10.9		11.0	11.1	11.1	11.2
Tp95%	13.9		14.1		14.3		14.5	14.6	14.7	14.8

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.8		5.3		5.7	5.9	6.1	6.4
Tp5%	9.0		9.1		9.2	9.3	9.4	9.4
Tp50%	11.5		11.6		11.8	11.9	12.0	12.0
Tp95%	15.1		15.3		15.6	15.7	15.8	15.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.0		5.5		5.9	6.2	6.4	6.7
Tp5%	9.0		9.2		9.3	9.4	9.5	9.5
Tp50%	11.5		11.7		11.9	12.0	12.1	12.2
Tp95%	15.2		15.4		15.7	15.8	15.9	16.0

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.6		5.2		5.7	6.0	6.3	6.7
Tp5%	8.9		9.1		9.2	9.3	9.4	9.5
Tp50%	11.4		11.6		11.8	11.9	12.0	12.1
Tp95%	15.0		15.3		15.6	15.7	15.9	16.0

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.0		3.3		3.7	4.0	4.2	4.5
Tp5%	8.3		8.5		8.6	8.7	8.8	8.9
Tp50%	10.6		10.8		11.0	11.1	11.2	11.4
Tp95%	14.0		14.2		14.5	14.6	14.8	15.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		2.0		2.2	2.4	2.5	2.7
Tp5%	7.6		7.7		7.9	8.0	8.1	8.2
Tp50%	9.7		9.9		10.1	10.2	10.3	10.4
Tp95%	12.7		13.0		13.3	13.4	13.6	13.7

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.8		2.1	2.3	2.4	2.6
Tp5%	7.4		7.6		7.8	7.9	8.0	8.1
Tp50%	9.5		9.8		10.0	10.1	10.2	10.3
Tp95%	12.5		12.9		13.2	13.3	13.5	13.6

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		2.1		2.4	2.6	2.8	3.0
Tp5%	7.6		7.8		8.0	8.1	8.2	8.3
Tp50%	9.8		10.0		10.2	10.4	10.5	10.6
Tp95%	12.9		13.2		13.5	13.6	13.8	14.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-024 (NFL_1_0156)
Longitude [deg.E]: -53.5837
Latitude[deg N]: 49.0107
Projection: EPSG 4326
Depth [mMSL]: -44.0735
Models: DHI-NFL_1-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.52		0.55		0.60	
					0.64		0.69
						0.74	0.79

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		4.7		5.1		5.5	
					5.8		6.1
						6.5	6.7
Tp5%		8.3		8.4		8.5	
					8.6		8.7
						8.7	8.8
Tp50%		10.8		10.9		11.1	
					11.2		11.3
						11.4	11.5
Tp95%		14.6		14.8		15.0	
					15.2		15.3
						15.4	15.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		1.8		1.9		2.1	
					2.3		2.4
						2.6	2.8
Tp5%		7.0		7.1		7.3	
					7.3		7.4
						7.5	7.6
Tp50%		9.2		9.3		9.5	
					9.6		9.7
						9.8	9.9
Tp95%		12.4		12.6		12.8	
					13.0		13.1
						13.3	13.4

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.5		3.9		4.3	4.5	4.8
Tp5%		7.9		8.0		8.1	8.2	8.3
Tp50%		10.3		10.5		10.6	10.7	10.8
Tp95%		13.9		14.1		14.4	14.5	14.7

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.6		5.0		5.5	5.8	6.1
Tp5%		8.3		8.4		8.5	8.6	8.7
Tp50%		10.8		10.9		11.1	11.2	11.3
Tp95%		14.6		14.8		15.0	15.2	15.3

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.7		4.2		4.6	4.9	5.2
Tp5%		8.0		8.1		8.3	8.3	8.4
Tp50%		10.4		10.6		10.8	10.9	11.0
Tp95%		14.1		14.3		14.6	14.7	14.9

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.4		2.6		2.9	3.1	3.3
Tp5%		7.4		7.5		7.6	7.7	7.8
Tp50%		9.7		9.8		10.0	10.1	10.2
Tp95%		13.1		13.3		13.5	13.6	13.8

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.7		1.8		2.0	2.1	2.2
Tp5%		7.0		7.1		7.2	7.3	7.3
Tp50%		9.1		9.2		9.4	9.5	9.5
Tp95%		12.3		12.5		12.7	12.8	12.9

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.4		1.6		1.9	2.0	2.2
Tp5%		6.8		6.9		7.1	7.2	7.3
Tp50%		8.8		9.0		9.3	9.4	9.5
Tp95%		11.9		12.2		12.5	12.7	12.9

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.4		1.6		1.8	2.0	2.1
Tp5%		6.8		6.9		7.0	7.2	7.2
Tp50%		8.8		9.0		9.2	9.3	9.5
Tp95%		11.9		12.2		12.4	12.6	12.8

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-025 (NFL_2_0479)
Longitude [deg.E]: -53.6672
Latitude[deg N]: 48.7064
Projection: EPSG 4326
Depth [mMSL]: -102.491
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.52		0.55		0.60	0.64	0.69	0.74	0.79

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.4		4.9		5.3		5.5	5.7	5.9	6.0
Tp5%	9.3		9.6		9.8		9.9	10.0	10.1	10.1
Tp50%	12.0		12.4		12.6		12.7	12.8	12.9	13.0
Tp95%	15.0		15.4		15.8		15.9	16.0	16.2	16.3

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		2.4		2.6		2.9		3.1	3.2	3.3	3.4
Tp5%		7.9		8.1		8.3		8.5	8.6	8.7	8.7
Tp50%		10.2		10.5		10.7		10.9	11.0	11.1	11.2
Tp95%		12.7		13.1		13.4		13.6	13.8	13.9	14.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.4		4.9		5.3	5.5	5.7
5.9								6.0
Tp5%		9.3		9.6		9.8	9.9	10.0
10.1								10.1
Tp50%		12.0		12.4		12.6	12.7	12.8
13.0								13.0
Tp95%		15.0		15.4		15.8	15.9	16.0
16.2								16.3

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.7		3.1		3.4	3.6	3.8
4.0								4.1
Tp5%		8.2		8.5		8.7	8.8	8.9
9.1								9.1
Tp50%		10.6		10.9		11.2	11.4	11.5
11.7								11.8
Tp95%		13.2		13.6		14.0	14.2	14.4
14.6								14.7

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.3		1.4		1.5	1.6	1.6
1.7								1.8
Tp5%		6.7		6.8		7.0	7.1	7.2
7.3								7.4
Tp50%		8.6		8.8		9.0	9.1	9.2
9.4								9.5
Tp95%		10.8		11.0		11.2	11.4	11.5
11.7								11.8

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.1		1.2		1.3	1.4	1.5
1.6								1.6
Tp5%		6.4		6.6		6.7	6.8	6.9
7.1								7.2
Tp50%		8.3		8.5		8.7	8.8	8.9
9.1								9.2
Tp95%		10.4		10.6		10.8	11.0	11.2
11.4								11.5

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.1		1.2		1.3	1.4	1.5
1.5								1.6
Tp5%		6.5		6.6		6.8	6.9	7.0
7.1								7.1
Tp50%		8.3		8.6		8.8	8.9	9.0
9.1								9.1
Tp95%		10.4		10.7		10.9	11.1	11.2
11.3								11.4

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.3		1.5	1.5	1.6
1.7								1.8
Tp5%		6.6		6.8		6.9	7.0	7.1
7.2								7.3
Tp50%		8.5		8.7		8.9	9.1	9.2
9.3								9.4
Tp95%		10.6		10.9		11.2	11.3	11.5
11.6								11.7

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.4		1.6		1.7	1.8	1.9
2.1								2.2
Tp5%		6.9		7.1		7.2	7.4	7.5
7.6								7.7
Tp50%		8.9		9.1		9.3	9.5	9.6
9.8								9.9
Tp95%		11.1		11.4		11.6	11.8	12.0
12.2								12.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-026 (NFL_2_0429)
Longitude [deg.E]: -53.5462
Latitude[deg N]: 48.545
Projection: EPSG 4326
Depth [mMSL]: -173.2823
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.51			0.55		0.60	0.64 0.69 0.74 0.78

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	3.9			4.2		4.6	4.9 5.1 5.3 5.5
Tp5%	9.0			9.2		9.3	9.4 9.5 9.6 9.6
Tp50%	11.3			11.5		11.6	11.8 11.8 11.9 12.0
Tp95%	14.3			14.5		14.7	14.9 15.0 15.1 15.2

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	3.9			4.2		4.6	4.9 5.1 5.3 5.5
Tp5%	9.0			9.2		9.3	9.4 9.5 9.6 9.6
Tp50%	11.3			11.5		11.6	11.8 11.8 11.9 12.0
Tp95%	14.3			14.5		14.7	14.9 15.0 15.1 15.2

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.5		2.8		3.1		3.3	3.5 3.7 3.8
Tp5%	8.3		8.5		8.7		8.8	8.9 8.9 9.0
Tp50%	10.4		10.6		10.8		11.0	11.1 11.2 11.3
Tp95%	13.1		13.5		13.7		13.9	14.0 14.2 14.2

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.6		1.7	1.8 1.9 2.0
Tp5%	7.5		7.6		7.7		7.8	7.9 7.9 8.0
Tp50%	9.4		9.5		9.6		9.7	9.8 9.9 10.0
Tp95%	11.9		12.0		12.2		12.3	12.4 12.6 12.7

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.4		1.5		1.6	1.6 1.7 1.7
Tp5%	7.4		7.5		7.6		7.6	7.7 7.7 7.8
Tp50%	9.2		9.4		9.5		9.5	9.6 9.7 9.7
Tp95%	11.7		11.8		12.0		12.1	12.2 12.2 12.3

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.3		1.4		1.5	1.5 1.6 1.6
Tp5%	7.3		7.4		7.5		7.5	7.6 7.6 7.7
Tp50%	9.2		9.3		9.4		9.4	9.5 9.5 9.6
Tp95%	11.6		11.7		11.9		11.9	12.0 12.1 12.1

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.2		1.3		1.4	1.4 1.5 1.5
Tp5%	7.3		7.3		7.4		7.5	7.5 7.6 7.6
Tp50%	9.1		9.2		9.3		9.3	9.4 9.5 9.5
Tp95%	11.5		11.6		11.7		11.8	11.9 12.0 12.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.4		1.5		1.5	1.6 1.7 1.8
Tp5%	7.4		7.4		7.5		7.6	7.7 7.8 7.8
Tp50%	9.2		9.3		9.4		9.5	9.6 9.7 9.8
Tp95%	11.7		11.8		11.9		12.1	12.2 12.3 12.4

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.8		2.0		2.2	2.3 2.5 2.7
Tp5%	7.7		7.8		8.0		8.1	8.2 8.3 8.4
Tp50%	9.7		9.8		10.0		10.2	10.3 10.4 10.6
Tp95%	12.2		12.4		12.7		12.8	13.0 13.2 13.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-027 (NFL_2_0473)
Longitude [deg.E]: -53.1429
Latitude[deg N]: 48.666
Projection: EPSG 4326
Depth [mMSL]: -33.7157
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.52		0.56		0.62	0.67	0.72	0.78	0.83

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.9		6.2		6.6		6.9	7.3	7.8	8.2
Tp5%	10.6		10.9		11.2		11.4	11.7	12.0	12.3
Tp50%	13.3		13.6		14.0		14.3	14.6	15.0	15.4
Tp95%	16.0		16.4		16.9		17.2	17.6	18.1	18.5

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.8		6.1		6.6	6.9	7.3	7.8	8.2
Tp5%		10.6		10.8		11.2	11.4	11.7	12.0	12.3
Tp50%		13.2		13.6		14.0	14.3	14.6	15.0	15.4
Tp95%		16.0		16.3		16.8	17.2	17.6	18.1	18.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.1		3.5		4.0		4.2	4.5 4.8 5.0
Tp5%	8.0		8.5		8.9		9.2	9.4 9.7 9.9
Tp50%	10.0		10.6		11.2		11.5	11.8 12.1 12.3
Tp95%	12.1		12.8		13.4		13.9	14.2 14.6 14.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.6		1.7	1.8 1.9 2.0
Tp5%	5.6		5.8		6.0		6.2	6.4 6.5 6.6
Tp50%	7.0		7.2		7.6		7.8	7.9 8.2 8.3
Tp95%	8.4		8.7		9.1		9.4	9.6 9.8 10.0

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.5		1.5	1.6 1.7 1.8
Tp5%	5.3		5.5		5.8		5.9	6.0 6.2 6.3
Tp50%	6.6		6.9		7.2		7.4	7.5 7.7 7.8
Tp95%	7.9		8.3		8.7		8.9	9.1 9.3 9.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.6		1.7	1.8 1.9 2.0
Tp5%	5.3		5.7		6.0		6.2	6.3 6.4 6.5
Tp50%	6.7		7.1		7.5		7.7	7.9 8.1 8.2
Tp95%	8.1		8.6		9.0		9.3	9.5 9.7 9.9

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.0		2.1	2.2 2.4 2.5
Tp5%	6.2		6.4		6.6		6.7	6.9 7.1 7.3
Tp50%	7.8		8.0		8.2		8.4	8.6 8.9 9.1
Tp95%	9.4		9.6		9.9		10.2	10.4 10.7 10.9

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.4		2.6		2.9		3.1	3.3 3.6 3.8
Tp5%	7.2		7.5		7.8		8.0	8.3 8.6 8.8
Tp50%	9.0		9.3		9.7		10.0	10.3 10.7 11.0
Tp95%	10.9		11.2		11.7		12.1	12.4 12.9 13.3

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.7		5.4		5.7	6.0 6.4 6.6
Tp5%	9.0		9.7		10.2		10.5	10.8 11.0 11.2
Tp50%	11.3		12.1		12.8		13.1	13.4 13.8 14.0
Tp95%	13.6		14.6		15.4		15.8	16.2 16.6 16.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-028 (NFL_2_0420)
Longitude [deg.E]: -53.0219
Latitude[deg N]: 48.5047
Projection: EPSG 4326
Depth [mMSL]: -21.7503
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]										
	1	2	5	10	20	50	100				
WLres		0.52		0.56		0.63		0.68	0.74	0.82	0.88

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.4		5.7		6.1		6.3	6.5	6.7	6.9
Tp5%	9.3		9.5		9.7		9.8	9.9	10.0	10.1
Tp50%	12.9		13.1		13.4		13.5	13.7	13.8	13.9
Tp95%	16.5		16.8		17.1		17.3	17.5	17.7	17.8

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		0.8		1.0		1.2		1.3	1.5	1.6	1.8
Tp5%		5.0		5.4		5.7		5.9	6.1	6.4	6.5
Tp50%		6.9		7.4		7.9		8.2	8.5	8.8	9.0
Tp95%		8.9		9.4		10.0		10.4	10.8	11.2	11.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.4		4.8		5.1	5.3
Tp5%	8.5		8.8		9.0		9.2	9.3
Tp50%	11.7		12.1		12.4		12.6	12.8
Tp95%	14.9		15.4		15.9		16.1	16.3

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.1		5.5		5.9		6.2	6.4
Tp5%	9.2		9.4		9.6		9.8	9.9
Tp50%	12.7		13.0		13.3		13.5	13.6
Tp95%	16.2		16.6		17.0		17.2	17.4

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.1		5.4		5.8		6.0	6.2
Tp5%	9.2		9.3		9.5		9.7	9.8
Tp50%	12.7		12.9		13.1		13.3	13.5
Tp95%	16.2		16.5		16.8		17.0	17.2

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.0		3.2		3.4		3.5	3.7
Tp5%	7.8		7.9		8.0		8.2	8.3
Tp50%	10.7		10.9		11.1		11.2	11.4
Tp95%	13.7		13.9		14.2		14.4	14.6

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.8		1.1		1.2	1.4
Tp5%	4.6		5.1		5.5		5.8	6.1
Tp50%	6.4		7.0		7.6		8.0	8.4
Tp95%	8.2		8.9		9.7		10.3	10.7

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.1		0.3		0.5		0.5	0.6
Tp5%	2.9		3.8		4.2		4.5	4.7
Tp50%	4.0		5.2		5.9		6.2	6.4
Tp95%	5.1		6.7		7.5		7.9	8.2

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.2		0.3		0.4		0.5	0.6
Tp5%	3.4		3.8		4.1		4.4	4.6
Tp50%	4.7		5.2		5.7		6.1	6.4
Tp95%	6.0		6.6		7.3		7.7	8.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-029 (NFL_2_0274)
Longitude [deg.E]: -53.5462
Latitude[deg N]: 48.0611
Projection: EPSG 4326
Depth [mMSL]: -252.5918
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.53		0.56		0.63	0.68	0.74	0.82	0.89

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		3.4		3.8		4.2		4.4	4.6	4.9	5.1
Tp5%		8.9		9.3		9.7		9.9	10.1	10.4	10.5
Tp50%		12.3		12.8		13.4		13.7	14.0	14.3	14.5
Tp95%		15.6		16.3		17.0		17.4	17.7	18.1	18.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.0		1.1		1.3		1.4	1.5	1.7	1.8
Tp5%		5.4		5.7		6.0		6.2	6.4	6.7	6.8
Tp50%		7.4		7.8		8.3		8.6	8.8	9.2	9.4
Tp95%		9.5		9.9		10.5		10.9	11.2	11.7	12.0

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		3.4		3.8		4.2	4.4	4.6	4.9	5.1
Tp5%		8.9		9.3		9.7	9.9	10.1	10.4	10.5
Tp50%		12.3		12.8		13.4	13.7	14.0	14.3	14.5
Tp95%		15.6		16.3		17.0	17.4	17.7	18.1	18.4

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.4		2.7		3.0	3.1	3.3	3.5	3.6
Tp5%		7.8		8.1		8.4	8.7	8.8	9.0	9.2
Tp50%		10.7		11.2		11.6	11.9	12.1	12.4	12.6
Tp95%		13.6		14.2		14.8	15.1	15.4	15.8	16.0

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		1.9		2.1		2.3	2.5	2.7	2.9	3.0
Tp5%		7.0		7.3		7.7	7.9	8.1	8.3	8.5
Tp50%		9.7		10.1		10.5	10.8	11.1	11.4	11.7
Tp95%		12.3		12.8		13.4	13.8	14.1	14.5	14.8

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.3		2.4		2.6	2.8	2.9	3.1	3.2
Tp5%		7.6		7.8		8.0	8.2	8.4	8.6	8.7
Tp50%		10.4		10.7		11.1	11.3	11.5	11.8	12.0
Tp95%		13.2		13.6		14.0	14.3	14.6	15.0	15.2

Dir =225		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		1.3		1.5		1.6		1.7	1.8	2.0	2.1
Tp5%		6.0		6.3		6.6		6.8	7.0	7.1	7.3
Tp50%		8.3		8.7		9.1		9.4	9.6	9.8	10.0
Tp95%		10.6		11.0		11.6		11.9	12.2	12.5	12.7

Dir =270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		0.8		0.9		1.0	1.1	1.2	1.3	1.3
Tp5%		4.9		5.2		5.5	5.7	5.8	6.0	6.1
Tp50%		6.7		7.1		7.5	7.8	8.0	8.3	8.4
Tp95%		8.5		9.0		9.6	9.9	10.2	10.5	10.7

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		0.7		0.8		1.0	1.1	1.3	1.4	1.5
Tp5%		4.6		5.0		5.5	5.7	6.0	6.3	6.5
Tp50%		6.4		6.9		7.5	7.9	8.2	8.6	8.9
Tp95%		8.1		8.8		9.6	10.0	10.5	11.0	11.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-030 (NFL_2_0080)
Longitude [deg.E]: -53.6269
Latitude[deg N]: 47.6174
Projection: EPSG 4326
Depth [mMSL]: -152.1143
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.55		0.58		0.64	0.70	0.76	0.84	0.91

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.3		2.5		2.8	3.0	3.2	3.5	3.7
Tp5%		4.7		4.8		4.9	5.0	5.1	5.3	5.3
Tp50%		5.9		6.1		6.2	6.4	6.5	6.7	6.8
Tp95%		8.1		8.3		8.6	8.8	8.9	9.1	9.3

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		2.3		2.5		2.8		3.0	3.2	3.5	3.7
Tp5%		4.7		4.8		4.9		5.0	5.1	5.3	5.3
Tp50%		5.9		6.1		6.2		6.4	6.5	6.7	6.8
Tp95%		8.1		8.3		8.6		8.8	8.9	9.1	9.3

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.8		2.0		2.1	2.2 2.3 2.4
Tp5%	4.2		4.4		4.5		4.6	4.6 4.7 4.7
Tp50%	5.3		5.5		5.7		5.8	5.8 5.9 6.0
Tp95%	7.3		7.6		7.8		7.9	8.0 8.1 8.2

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.1		1.2	1.3 1.3 1.4
Tp5%	3.6		3.7		3.8		3.9	3.9 4.0 4.0
Tp50%	4.6		4.7		4.8		4.9	4.9 5.0 5.1
Tp95%	6.3		6.5		6.6		6.7	6.8 6.9 6.9

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.2	1.3 1.3 1.4
Tp5%	3.7		3.8		3.8		3.9	3.9 4.0 4.0
Tp50%	4.7		4.8		4.9		4.9	5.0 5.0 5.1
Tp95%	6.4		6.5		6.7		6.8	6.8 6.9 7.0

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.4		1.4	1.5 1.5 1.6
Tp5%	3.8		3.9		4.0		4.1	4.1 4.1 4.2
Tp50%	4.9		5.0		5.1		5.1	5.2 5.2 5.3
Tp95%	6.7		6.8		7.0		7.0	7.1 7.2 7.2

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.2		1.3	1.4 1.4 1.5
Tp5%	3.8		3.8		3.9		3.9	4.0 4.1 4.1
Tp50%	4.8		4.9		4.9		5.0	5.1 5.1 5.2
Tp95%	6.6		6.7		6.8		6.9	6.9 7.1 7.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.0		1.1		1.1	1.2 1.2 1.3
Tp5%	3.6		3.7		3.8		3.8	3.8 3.9 3.9
Tp50%	4.6		4.7		4.8		4.8	4.9 4.9 4.9
Tp95%	6.3		6.4		6.5		6.6	6.7 6.7 6.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.4		1.5	1.6 1.7 1.8
Tp5%	3.8		3.9		4.0		4.1	4.2 4.3 4.3
Tp50%	4.8		4.9		5.1		5.2	5.3 5.4 5.5
Tp95%	6.6		6.8		7.0		7.1	7.3 7.4 7.6

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-031 (NFL_2_0141)
Longitude [deg.E]: -53.5462
Latitude[deg N]: 47.7384
Projection: EPSG 4326
Depth [mMSL]: -137.6604
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.54			0.58		0.64	0.70 0.76 0.84 0.91

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.3			2.6		2.8	3.0 3.2 3.5 3.7
Tp5%	4.8			5.0		5.2	5.3 5.4 5.6 5.7
Tp50%	6.9			7.1		7.4	7.6 7.7 8.0 8.1
Tp95%	10.6			11.0		11.4	11.7 11.9 12.3 12.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.3			2.6		2.8	3.0 3.2 3.5 3.7
Tp5%	4.8			5.0		5.2	5.3 5.4 5.6 5.7
Tp50%	6.9			7.1		7.4	7.6 7.7 8.0 8.1
Tp95%	10.6			11.0		11.4	11.7 11.9 12.3 12.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.8		2.0		2.1	2.2 2.4 2.5
Tp5%	4.2		4.4		4.5		4.6	4.7 4.9 5.0
Tp50%	6.0		6.2		6.4		6.6	6.7 6.9 7.0
Tp95%	9.2		9.6		9.9		10.2	10.4 10.7 10.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.0		1.1		1.2	1.2 1.3 1.3
Tp5%	3.5		3.6		3.7		3.8	3.8 3.9 3.9
Tp50%	4.9		5.1		5.3		5.4	5.4 5.5 5.6
Tp95%	7.6		7.9		8.1		8.3	8.4 8.5 8.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.2	1.3 1.3 1.4
Tp5%	3.5		3.7		3.8		3.8	3.9 3.9 4.0
Tp50%	5.0		5.2		5.4		5.5	5.5 5.6 5.6
Tp95%	7.8		8.0		8.3		8.4	8.5 8.6 8.7

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.8		1.9		2.0	2.1 2.2 2.3
Tp5%	4.3		4.4		4.5		4.6	4.6 4.7 4.8
Tp50%	6.1		6.2		6.4		6.5	6.6 6.7 6.8
Tp95%	9.4		9.6		9.9		10.0	10.2 10.4 10.5

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.0		2.1	2.2 2.4 2.5
Tp5%	4.4		4.5		4.6		4.7	4.8 4.9 4.9
Tp50%	6.2		6.4		6.5		6.7	6.8 6.9 7.0
Tp95%	9.6		9.8		10.1		10.3	10.4 10.7 10.8

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.7		1.8		1.9	2.0 2.1 2.1
Tp5%	4.2		4.3		4.4		4.5	4.5 4.6 4.7
Tp50%	6.0		6.1		6.3		6.4	6.5 6.6 6.6
Tp95%	9.3		9.5		9.7		9.8	10.0 10.1 10.2

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.8		2.0		2.1	2.2 2.3 2.4
Tp5%	4.3		4.4		4.6		4.7	4.7 4.8 4.9
Tp50%	6.0		6.3		6.5		6.6	6.7 6.9 6.9
Tp95%	9.3		9.7		10.1		10.3	10.4 10.6 10.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-032 (NFL_2_0281)
Longitude [deg.E]: -53.2639
Latitude[deg N]: 48.0611
Projection: EPSG 4326
Depth [mMSL]: -99.1269
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.53		0.57		0.63	0.69	0.75	0.83	0.90

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.0		4.5		4.9		5.2	5.4	5.6	5.8
Tp5%	9.2		9.6		9.9		10.1	10.2	10.4	10.5
Tp50%	12.8		13.3		13.7		13.9	14.1	14.3	14.5
Tp95%	15.7		16.3		16.9		17.2	17.4	17.7	17.8

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		3.0		3.3		3.6	3.8	4.0	4.3	4.5
Tp5%		8.4		8.6		8.9	9.0	9.2	9.4	9.6
Tp50%		11.6		11.9		12.3	12.5	12.8	13.1	13.3
Tp95%		14.3		14.6		15.1	15.4	15.7	16.1	16.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.5		4.9		5.2	5.4
Tp5%	9.2		9.6		9.9		10.1	10.2
Tp50%	12.8		13.3		13.7		13.9	14.1
Tp95%	15.7		16.3		16.9		17.2	17.4

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.1		2.2	2.3
Tp5%	7.0		7.2		7.4		7.5	7.7
Tp50%	9.6		9.9		10.3		10.5	10.6
Tp95%	11.9		12.2		12.6		12.9	13.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.7		1.9		2.1	2.2
Tp5%	6.7		6.9		7.2		7.4	7.5
Tp50%	9.2		9.6		10.0		10.2	10.4
Tp95%	11.4		11.8		12.3		12.6	12.9

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.1		2.2	2.4
Tp5%	6.9		7.1		7.4		7.5	7.7
Tp50%	9.6		9.9		10.2		10.4	10.7
Tp95%	11.8		12.1		12.5		12.8	13.1

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.3		2.4		2.6		2.7	2.8
Tp5%	7.6		7.7		7.9		8.0	8.2
Tp50%	10.5		10.7		11.0		11.1	11.3
Tp95%	12.9		13.2		13.5		13.7	13.9

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.0		2.2		2.3	2.3
Tp5%	7.2		7.3		7.5		7.6	7.7
Tp50%	9.9		10.1		10.4		10.5	10.6
Tp95%	12.2		12.5		12.8		12.9	13.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.0		2.2		2.4		2.6	2.7
Tp5%	7.2		7.5		7.7		7.9	8.1
Tp50%	10.0		10.4		10.7		11.0	11.2
Tp95%	12.3		12.8		13.2		13.5	13.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-033 (NFL_2_0306)
Longitude [deg.E]: -53.0219
Latitude[deg N]: 48.1014
Projection: EPSG 4326
Depth [mMSL]: -19.7174
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.53		0.57		0.64	0.70	0.76	0.84	0.91

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	4.1		4.4		4.8	5.0	5.2	5.5	5.7
Tp5%	8.9		9.1		9.4	9.6	9.8	10.0	10.1
Tp50%	12.1		12.4		12.8	13.1	13.3	13.6	13.8
Tp95%	15.3		15.8		16.3	16.6	16.9	17.2	17.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.1		4.4		4.8	5.0	5.2	5.5	5.7
Tp5%		8.9		9.1		9.4	9.6	9.8	10.0	10.1
Tp50%		12.1		12.4		12.8	13.1	13.3	13.6	13.8
Tp95%		15.3		15.8		16.3	16.6	16.9	17.2	17.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.1		2.4		2.6	2.7
Tp5%	6.5		6.8		7.1		7.3	7.5
Tp50%	8.8		9.2		9.6		9.9	10.2
Tp95%	11.2		11.7		12.2		12.6	13.0

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.7		0.8		0.9		1.0	1.0
Tp5%	4.3		4.5		4.8		4.9	5.0
Tp50%	5.8		6.2		6.5		6.7	6.9
Tp95%	7.4		7.8		8.2		8.5	8.7

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.8		0.8	0.8
Tp5%	4.1		4.3		4.5		4.6	4.6
Tp50%	5.5		5.9		6.1		6.2	6.3
Tp95%	7.0		7.4		7.7		7.9	8.0

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.9		1.0	1.0
Tp5%	4.1		4.4		4.7		4.9	5.0
Tp50%	5.6		6.0		6.4		6.7	6.9
Tp95%	7.1		7.6		8.2		8.5	8.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.8		1.9		2.0	2.1
Tp5%	6.2		6.3		6.5		6.7	6.8
Tp50%	8.4		8.6		8.9		9.1	9.2
Tp95%	10.6		10.9		11.3		11.5	11.7

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.3		2.4		2.6	2.7
Tp5%	6.8		7.0		7.2		7.3	7.4
Tp50%	9.3		9.5		9.8		10.0	10.1
Tp95%	11.8		12.1		12.4		12.6	12.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.7		3.0		3.4		3.6	3.9
Tp5%	7.5		7.8		8.2		8.4	8.6
Tp50%	10.2		10.6		11.2		11.5	11.8
Tp95%	12.9		13.5		14.1		14.6	14.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-034 (NFL_2_0287)
Longitude [deg.E]: -52.9009
Latitude[deg N]: 48.0611
Projection: EPSG 4326
Depth [mMSL]: -101.3264
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.54			0.58		0.65	0.71 0.78 0.86 0.93

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.3			5.6		6.0	6.2 6.5 6.8 7.0
Tp5%	9.1			9.2		9.3	9.4 9.5 9.6 9.6
Tp50%	11.2			11.3		11.5	11.6 11.7 11.8 11.9
Tp95%	13.9			14.1		14.3	14.4 14.5 14.7 14.8

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	1.4			1.6		1.8	1.9 2.0 2.1 2.2
Tp5%	6.9			7.1		7.3	7.4 7.5 7.5 7.6
Tp50%	8.5			8.8		9.0	9.1 9.2 9.3 9.4
Tp95%	10.6			10.9		11.2	11.3 11.4 11.6 11.6

Dir = 45	T_R [years]						
	1	2	5	10	20	50	100
Hm0		3.1		3.5		3.8	4.0
Tp5%		8.2		8.4		8.5	8.6
Tp50%		10.1		10.3		10.5	10.6
Tp95%		12.5		12.8		13.0	13.2

Dir = 90	T_R [years]						
	1	2	5	10	20	50	100
Hm0		4.7		5.1		5.7	6.0
Tp5%		8.9		9.0		9.2	9.3
Tp50%		10.9		11.1		11.4	11.5
Tp95%		13.6		13.9		14.1	14.3

Dir =135	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.0		5.4		5.8	6.0
Tp5%		9.0		9.1		9.3	9.4
Tp50%		11.1		11.3		11.4	11.5
Tp95%		13.8		14.0		14.2	14.3

Dir =180	T_R [years]						
	1	2	5	10	20	50	100
Hm0		3.3		3.5		3.9	4.1
Tp5%		8.3		8.4		8.5	8.7
Tp50%		10.2		10.3		10.5	10.7
Tp95%		12.7		12.8		13.1	13.3

Dir =225	T_R [years]						
	1	2	5	10	20	50	100
Hm0		1.3		1.5		1.7	1.8
Tp5%		6.9		7.1		7.2	7.3
Tp50%		8.5		8.7		8.9	9.0
Tp95%		10.5		10.8		11.1	11.2

Dir =270	T_R [years]						
	1	2	5	10	20	50	100
Hm0		0.9		1.1		1.4	1.6
Tp5%		6.3		6.6		6.9	7.1
Tp50%		7.8		8.1		8.5	8.7
Tp95%		9.7		10.1		10.6	10.9

Dir =315	T_R [years]						
	1	2	5	10	20	50	100
Hm0		0.9		1.1		1.3	1.5
Tp5%		6.4		6.6		6.9	7.0
Tp50%		7.9		8.2		8.5	8.6
Tp95%		9.8		10.2		10.5	10.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-035 (NFL_2_0144)
Longitude [deg.E]: -53.1429
Latitude[deg N]: 47.7384
Projection: EPSG 4326
Depth [mMSL]: -54.5581
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.55		0.59		0.66	0.71	0.78	0.87	0.95

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	3.6		4.1		4.5		4.8	5.1	5.3	5.5
Tp5%	9.0		9.2		9.5		9.6	9.7	9.9	9.9
Tp50%	11.9		12.2		12.5		12.7	12.9	13.0	13.1
Tp95%	15.6		16.1		16.5		16.7	16.9	17.1	17.3

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.3		1.4		1.6	1.7	1.7	1.8	1.9
Tp5%		6.9		7.1		7.3	7.4	7.5	7.6	7.7
Tp50%		9.1		9.4		9.6	9.8	9.9	10.0	10.1
Tp95%		12.0		12.3		12.7	12.8	13.0	13.2	13.3

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		3.6		4.1		4.5	4.8	5.1	5.3	5.5
Tp5%		9.0		9.2		9.5	9.6	9.7	9.9	9.9
Tp50%		11.9		12.2		12.5	12.7	12.9	13.0	13.1
Tp95%		15.6		16.1		16.5	16.7	16.9	17.1	17.3

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.5		2.8		3.1	3.3	3.4	3.6	3.7
Tp5%		8.2		8.4		8.6	8.7	8.8	8.9	9.0
Tp50%		10.8		11.2		11.4	11.6	11.7	11.8	11.9
Tp95%		14.3		14.7		15.0	15.2	15.4	15.5	15.6

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		2.0		2.2		2.4	2.5	2.6	2.8	2.9
Tp5%		7.8		7.9		8.0	8.2	8.3	8.4	8.5
Tp50%		10.3		10.4		10.6	10.8	10.9	11.1	11.2
Tp95%		13.5		13.7		14.0	14.2	14.4	14.6	14.7

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.8		2.0		2.2	2.3	2.4	2.5	2.6
Tp5%		7.5		7.7		7.9	8.0	8.1	8.2	8.3
Tp50%		9.9		10.2		10.4	10.6	10.7	10.8	10.9
Tp95%		13.0		13.4		13.7	13.9	14.1	14.2	14.4

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.2		1.3		1.4	1.5	1.5	1.6	1.7
Tp5%		6.9		7.0		7.1	7.1	7.2	7.3	7.4
Tp50%		9.1		9.2		9.3	9.4	9.6	9.7	9.8
Tp95%		11.9		12.1		12.3	12.4	12.6	12.8	12.9

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		0.9		1.1		1.2	1.2	1.3	1.3	1.4
Tp5%		6.4		6.6		6.8	6.9	6.9	7.0	7.0
Tp50%		8.5		8.8		9.0	9.1	9.1	9.2	9.3
Tp95%		11.2		11.5		11.8	11.9	12.0	12.2	12.2

Dir=315	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.0		1.1		1.2	1.2	1.3	1.4	1.4
Tp5%		6.4		6.6		6.8	6.9	7.0	7.1	7.1
Tp50%		8.5		8.7		9.0	9.1	9.2	9.4	9.4
Tp95%		11.2		11.5		11.8	12.0	12.1	12.3	12.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-036 (NFL_2_0122)
Longitude [deg.E]: -53.1429
Latitude[deg N]: 47.6981
Projection: EPSG 4326
Depth [mMSL]: -68.2785
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.55		0.59		0.66	0.72	0.78	0.87	0.94

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	3.7		4.1		4.5		4.8	5.0	5.3	5.5
Tp5%	9.2		9.4		9.6		9.7	9.8	9.9	10.0
Tp50%	12.0		12.3		12.6		12.7	12.9	13.0	13.1
Tp95%	15.9		16.3		16.6		16.8	17.0	17.2	17.3

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
1	2	5	10	20	50	100				
Hm0	1.5		1.6		1.8		1.9	2.0	2.2	2.3
Tp5%	7.5		7.7		7.9		8.0	8.1	8.2	8.3
Tp50%	9.9		10.1		10.3		10.5	10.6	10.8	10.9
Tp95%	13.0		13.3		13.6		13.8	14.0	14.2	14.3

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		3.7		4.1		4.5	4.8	5.0	5.3	5.5
Tp5%		9.2		9.4		9.6	9.7	9.8	9.9	10.0
Tp50%		12.0		12.3		12.6	12.7	12.9	13.0	13.1
Tp95%		15.9		16.3		16.6	16.8	17.0	17.2	17.3

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.3		2.5		2.8	2.9	3.1	3.3	3.4
Tp5%		8.3		8.5		8.6	8.8	8.8	9.0	9.0
Tp50%		10.9		11.1		11.3	11.5	11.6	11.7	11.8
Tp95%		14.4		14.6		14.9	15.1	15.3	15.5	15.6

Dir=135 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		2.0		2.1		2.3	2.4	2.5	2.7	2.8
Tp5%		8.0		8.1		8.3	8.4	8.5	8.6	8.7
Tp50%		10.5		10.7		10.8	11.0	11.1	11.3	11.4
Tp95%		13.9		14.1		14.3	14.5	14.6	14.9	15.0

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.7		1.9		2.1	2.2	2.3	2.4	2.5
Tp5%		7.8		8.0		8.2	8.2	8.3	8.4	8.5
Tp50%		10.2		10.5		10.7	10.8	10.9	11.0	11.1
Tp95%		13.5		13.8		14.1	14.3	14.4	14.5	14.6

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.3		1.4		1.5	1.6	1.7	1.8	1.9
Tp5%		7.4		7.4		7.6	7.7	7.7	7.9	8.0
Tp50%		9.6		9.8		9.9	10.0	10.1	10.3	10.4
Tp95%		12.7		12.9		13.1	13.2	13.4	13.6	13.7

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.0		1.1		1.2	1.3	1.3	1.4	1.4
Tp5%		7.0		7.1		7.3	7.3	7.4	7.4	7.5
Tp50%		9.1		9.3		9.5	9.6	9.7	9.8	9.8
Tp95%		12.1		12.3		12.6	12.7	12.8	12.9	12.9

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.1		1.2		1.3	1.3	1.4	1.5	1.5
Tp5%		7.0		7.2		7.3	7.4	7.5	7.5	7.6
Tp50%		9.2		9.4		9.6	9.7	9.8	9.9	9.9
Tp95%		12.2		12.4		12.6	12.8	12.9	13.0	13.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-037 (NFL_2_0084)
Longitude [deg.E]: -53.1832
Latitude[deg N]: 47.6174
Projection: EPSG 4326
Depth [mMSL]: -37.4696
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.56		0.59		0.66	0.71	0.78	0.87	0.95

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	3.3		3.7		4.1	4.3	4.6	4.8	5.0
Tp5%	8.3		8.6		8.9	9.1	9.3	9.5	9.6
Tp50%	12.1		12.6		13.0	13.3	13.6	13.9	14.1
Tp95%	15.2		15.8		16.4	16.8	17.1	17.5	17.7

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.6		1.8		1.9	2.0	2.1	2.2	2.3
Tp5%		6.3		6.5		6.8	6.9	7.0	7.1	7.2
Tp50%		9.3		9.6		9.9	10.1	10.3	10.4	10.6
Tp95%		11.6		12.0		12.4	12.7	12.9	13.2	13.3

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		3.3		3.7		4.1	4.3	4.6	4.8	5.0
Tp5%		8.3		8.6		8.9	9.1	9.3	9.5	9.6
Tp50%		12.1		12.6		13.0	13.3	13.6	13.9	14.1
Tp95%		15.2		15.8		16.4	16.8	17.1	17.5	17.7

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		2.0		2.1		2.3	2.5	2.6	2.8	2.9
Tp5%		6.8		7.0		7.3	7.4	7.6	7.8	7.9
Tp50%		10.0		10.3		10.6	10.8	11.1	11.3	11.5
Tp95%		12.5		12.9		13.3	13.6	13.9	14.3	14.5

Dir=135 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.7		1.9		2.0	2.1	2.2	2.3	2.4
Tp5%		6.5		6.7		6.9	7.0	7.1	7.3	7.4
Tp50%		9.5		9.8		10.1	10.2	10.4	10.6	10.8
Tp95%		12.0		12.3		12.7	12.9	13.1	13.4	13.6

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.4		1.5		1.7	1.8	1.9	2.0	2.1
Tp5%		6.1		6.2		6.4	6.6	6.7	6.9	7.0
Tp50%		8.9		9.1		9.4	9.6	9.8	10.1	10.3
Tp95%		11.2		11.4		11.8	12.1	12.4	12.7	12.9

Dir =225		T_R [years]							
	1	2	5	10	20	50	100		
Hm0		1.3		1.3		1.4	1.5	1.6	1.7
Tp5%		5.8		5.9		6.0	6.2	6.3	6.4
Tp50%		8.5		8.6		8.8	9.0	9.2	9.4
Tp95%		10.7		10.9		11.1	11.3	11.5	11.8

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.2		1.3		1.4	1.4	1.5	1.5	1.6
Tp5%		5.7		5.8		6.0	6.1	6.1	6.3	6.3
Tp50%		8.4		8.5		8.7	8.8	9.0	9.1	9.3
Tp95%		10.5		10.7		11.0	11.1	11.3	11.5	11.7

Dir=315	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.3		1.3		1.4	1.5	1.5	1.6	1.6
Tp5%		5.8		5.9		6.1	6.2	6.2	6.3	6.4
Tp50%		8.5		8.7		8.9	9.0	9.1	9.3	9.4
Tp95%		10.7		10.9		11.2	11.3	11.5	11.7	11.8

DHI Water & Environment Inc.
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Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-038 (NFL_2_0041)
Longitude [deg.E]: -53.1429
Latitude[deg N]: 47.4561
Projection: EPSG 4326
Depth [mMSL]: -36.2727
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.56		0.60		0.66	0.72	0.79	0.88	0.95

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	2.3		2.5		2.8		3.0	3.2	3.5	3.7
Tp5%	6.1		6.2		6.4		6.4	6.5	6.6	6.6
Tp50%	9.2		9.4		9.6		9.7	9.8	9.9	10.0
Tp95%	13.3		13.5		13.8		14.0	14.1	14.3	14.4

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		2.3		2.5		2.8		3.0	3.2	3.5	3.7
Tp5%		6.1		6.2		6.4		6.4	6.5	6.6	6.6
Tp50%		9.2		9.4		9.6		9.7	9.8	9.9	10.0
Tp95%		13.3		13.5		13.8		13.9	14.1	14.3	14.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		2.0		2.2		2.3	2.4
Tp5%	5.8		6.0		6.1		6.1	6.2
Tp50%	8.7		9.0		9.1		9.2	9.3
Tp95%	12.6		12.9		13.2		13.3	13.4

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.0		1.0	1.1
Tp5%	5.1		5.2		5.3		5.3	5.4
Tp50%	7.7		7.8		7.9		8.0	8.1
Tp95%	11.1		11.3		11.4		11.5	11.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.8		0.9		0.9	1.0
Tp5%	5.1		5.1		5.2		5.3	5.3
Tp50%	7.6		7.7		7.8		7.9	8.0
Tp95%	11.0		11.2		11.3		11.4	11.5

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.7		0.7		0.8		0.9	0.9
Tp5%	5.0		5.0		5.1		5.2	5.2
Tp50%	7.5		7.6		7.7		7.8	7.8
Tp95%	10.8		10.9		11.1		11.2	11.3

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.7		0.8	0.8
Tp5%	4.9		5.0		5.0		5.1	5.1
Tp50%	7.4		7.5		7.6		7.6	7.7
Tp95%	10.6		10.7		10.9		11.0	11.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.7		0.8	0.8
Tp5%	4.9		5.0		5.0		5.1	5.1
Tp50%	7.4		7.5		7.6		7.6	7.7
Tp95%	10.6		10.8		10.9		11.0	11.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.0		1.1	1.2
Tp5%	5.1		5.2		5.3		5.4	5.5
Tp50%	7.7		7.8		8.0		8.2	8.3
Tp95%	11.1		11.3		11.6		11.8	11.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-039 (NFL_2_0059)
Longitude [deg.E]: -52.9816
Latitude[deg N]: 47.5368
Projection: EPSG 4326
Depth [mMSL]: -55.418
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.57		0.60		0.67	0.74	0.80	0.90	0.97

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	1.9		2.1		2.3	2.4	2.6	2.8	3.0
Tp5%	4.5		4.7		4.9	5.1	5.2	5.5	5.6
Tp50%	7.9		8.2		8.6	8.9	9.2	9.6	9.9
Tp95%	13.1		13.6		14.3	14.8	15.3	16.0	16.5

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.9		2.1		2.3	2.4	2.6	2.8	3.0
Tp5%		4.5		4.6		4.9	5.1	5.2	5.5	5.7
Tp50%		7.8		8.1		8.6	8.9	9.2	9.6	9.9
Tp95%		13.0		13.6		14.3	14.8	15.3	16.0	16.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.5		1.7		1.8	1.9
Tp5%	3.6		3.9		4.1		4.3	4.4
Tp50%	6.3		6.8		7.3		7.5	7.7
Tp95%	10.5		11.4		12.1		12.5	12.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.8		0.8	0.9
Tp5%	2.5		2.6		2.7		2.8	2.9
Tp50%	4.3		4.5		4.7		4.9	5.0
Tp95%	7.2		7.5		7.9		8.1	8.4

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.6		0.7		0.7	0.7
Tp5%	2.3		2.4		2.5		2.6	2.7
Tp50%	4.1		4.3		4.4		4.6	4.7
Tp95%	6.8		7.1		7.4		7.6	7.8

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.7		0.7		0.8		0.9	0.9
Tp5%	2.5		2.7		2.8		2.9	3.0
Tp50%	4.4		4.7		4.9		5.1	5.2
Tp95%	7.4		7.8		8.2		8.4	8.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.4		1.5	1.5
Tp5%	3.5		3.6		3.7		3.8	3.9
Tp50%	6.1		6.3		6.5		6.7	6.9
Tp95%	10.2		10.5		10.9		11.2	11.5

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.6		1.7	1.7
Tp5%	3.8		3.9		4.0		4.1	4.2
Tp50%	6.6		6.8		7.1		7.2	7.4
Tp95%	11.0		11.4		11.8		12.1	12.4

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.8		1.9		2.1	2.2
Tp5%	4.0		4.3		4.5		4.6	4.8
Tp50%	7.1		7.5		7.9		8.1	8.4
Tp95%	11.8		12.5		13.1		13.6	13.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-040 (NFL_2_0172)
Longitude [deg.E]: -52.7396
Latitude[deg N]: 47.7788
Projection: EPSG 4326
Depth [mMSL]: -82.881
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.56		0.60		0.67	0.73	0.80	0.89	0.97

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.9		6.4		6.9		7.2	7.5	7.9	8.1
Tp5%	10.1		10.4		10.8		11.1	11.3	11.5	11.7
Tp50%	13.2		13.7		14.2		14.6	14.9	15.2	15.4
Tp95%	16.2		16.8		17.4		17.8	18.2	18.6	18.9

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.2		5.6		6.1	6.5	6.9	7.4	7.7
Tp5%		9.5		9.9		10.3	10.6	10.9	11.2	11.5
Tp50%		12.5		13.0		13.5	13.9	14.3	14.8	15.1
Tp95%		15.3		15.9		16.6	17.1	17.5	18.1	18.5

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.7		6.2		6.8		7.1
Tp5%		9.9		10.4		10.8		11.1
Tp50%		13.1		13.6		14.2		14.6
Tp95%		16.0		16.7		17.4		17.8

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.0		5.3		5.7		6.0
Tp5%		9.4		9.6		10.0		10.2
Tp50%		12.3		12.7		13.1		13.4
Tp95%		15.1		15.5		16.0		16.5

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.9		4.3		4.6		4.9
Tp5%		8.3		8.7		9.0		9.2
Tp50%		11.0		11.4		11.9		12.2
Tp95%		13.4		14.0		14.5		14.9

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.3		1.4		1.5		1.6
Tp5%		5.0		5.2		5.4		5.5
Tp50%		6.6		6.8		7.1		7.3
Tp95%		8.1		8.3		8.7		8.9

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.1		1.3		1.4		1.4
Tp5%		4.6		4.9		5.1		5.2
Tp50%		6.0		6.4		6.7		6.9
Tp95%		7.4		7.9		8.2		8.4

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.3		1.5		1.6
Tp5%		4.8		5.0		5.3		5.5
Tp50%		6.3		6.6		7.0		7.3
Tp95%		7.7		8.1		8.5		8.9

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.6		1.9		2.2		2.5
Tp5%		5.5		5.9		6.4		6.7
Tp50%		7.2		7.7		8.4		8.9
Tp95%		8.9		9.5		10.3		10.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-041 (NFL_2_0152)
Longitude [deg.E]: -52.6993
Latitude[deg N]: 47.7384
Projection: EPSG 4326
Depth [mMSL]: -33.3464
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

		T_R [years]									
1		2	5	10	20	50	100				
WLres		0.55		0.60		0.67		0.73	0.80	0.89	0.96

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.9		6.3		6.8		7.1	7.4	7.8	8.0
Tp5%	10.0		10.3		10.7		10.9	11.1	11.4	11.5
Tp50%	13.2		13.6		14.1		14.4	14.7	15.0	15.2
Tp95%	16.1		16.7		17.3		17.6	18.0	18.4	18.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		4.8		5.1		5.6		6.0	6.3	6.7	7.0
Tp5%		9.1		9.4		9.8		10.1	10.3	10.6	10.9
Tp50%		11.9		12.4		12.9		13.2	13.6	14.0	14.3
Tp95%		14.6		15.1		15.8		16.2	16.6	17.2	17.5

Dir = 45		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.7		6.2		6.7	7.0	7.3	7.7	7.9
Tp5%		9.9		10.3		10.7	10.9	11.1	11.4	11.5
Tp50%		13.0		13.5		14.0	14.3	14.6	14.9	15.2
Tp95%		15.9		16.5		17.2	17.6	17.9	18.3	18.6

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.3		5.6		6.0	6.3	6.7	7.1	7.4
Tp5%		9.5		9.8		10.1	10.4	10.6	10.9	11.2
Tp50%		12.5		12.8		13.3	13.6	14.0	14.4	14.7
Tp95%		15.3		15.7		16.3	16.7	17.1	17.6	18.0

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.0		5.3		5.7	6.0	6.2	6.5	6.7
Tp5%		9.3		9.5		9.8	10.1	10.2	10.5	10.6
Tp50%		12.2		12.6		13.0	13.2	13.5	13.8	14.0
Tp95%		14.9		15.4		15.9	16.2	16.5	16.9	17.1

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.7		1.8		2.0	2.2	2.3	2.5	2.6
Tp5%		5.6		5.8		6.1	6.3	6.5	6.7	6.9
Tp50%		7.3		7.7		8.0	8.3	8.6	8.9	9.1
Tp95%		9.0		9.4		9.9	10.2	10.5	10.8	11.1

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		0.7		0.8		1.0	1.1	1.2	1.4	1.5
Tp5%		3.8		4.1		4.4	4.6	4.8	5.1	5.2
Tp50%		5.0		5.3		5.8	6.1	6.3	6.7	6.9
Tp95%		6.1		6.5		7.1	7.4	7.8	8.2	8.4

Dir=270	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		0.7		0.8		1.0	1.1	1.2	1.4	1.5
Tp5%		3.7		4.0		4.4	4.6	4.8	5.1	5.4
Tp50%		4.9		5.3		5.7	6.1	6.4	6.8	7.1
Tp95%		6.0		6.5		7.0	7.4	7.8	8.3	8.6

Dir=315 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.0		1.2		1.4	1.6	1.8	1.9	2.1
Tp5%		4.3		4.8		5.2	5.5	5.7	6.0	6.2
Tp50%		5.7		6.3		6.9	7.2	7.5	7.9	8.1
Tp95%		7.0		7.7		8.4	8.9	9.2	9.7	10.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-042 (NFL_2_0131)
Longitude [deg.E]: -52.6589
Latitude[deg N]: 47.6981
Projection: EPSG 4326
Depth [mMSL]: -104.3726
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.56		0.60		0.67	0.74	0.80	0.90	0.97

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	6.3		6.8		7.3	7.7	8.0	8.4	8.7
Tp5%	10.2		10.6		10.9	11.2	11.4	11.6	11.8
Tp50%	13.1		13.5		14.0	14.3	14.6	14.9	15.1
Tp95%	15.7		16.2		16.8	17.2	17.5	17.9	18.1

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		5.4		5.9		6.5	7.0	7.4	7.9	8.3
Tp5%		9.5		9.9		10.4	10.7	11.0	11.5	11.8
Tp50%		12.2		12.7		13.3	13.7	14.1	14.7	15.0
Tp95%		14.6		15.2		15.9	16.4	17.0	17.6	18.1

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.6		7.2	7.5	7.8
5%		10.0		10.4		10.8	11.1	11.4
50%		12.8		13.3		13.9	14.2	14.5
95%		15.4		16.0		16.7	17.1	17.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.5		5.9		6.3	6.7	7.0
5%		9.6		9.9		10.2	10.5	10.8
50%		12.2		12.6		13.1	13.4	13.8
95%		14.7		15.2		15.7	16.1	16.5

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.6		6.0		6.4	6.7	6.9
5%		9.7		10.0		10.3	10.5	10.6
50%		12.4		12.8		13.2	13.4	13.6
95%		14.9		15.4		15.8	16.1	16.3

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.8		3.0		3.2	3.4	3.6
5%		7.1		7.3		7.6	7.8	7.9
50%		9.1		9.4		9.7	9.9	10.1
95%		10.9		11.2		11.6	11.9	12.2

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.3		1.5	1.6	1.8
5%		4.8		5.1		5.3	5.6	5.8
50%		6.2		6.5		6.8	7.1	7.4
95%		7.4		7.8		8.2	8.5	8.9

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.3		1.5	1.7	1.9
5%		4.8		5.1		5.4	5.7	5.9
50%		6.1		6.5		6.9	7.3	7.6
95%		7.3		7.8		8.3	8.7	9.1

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.4		1.5		1.8	1.9	2.1
5%		5.2		5.4		5.8	6.0	6.3
50%		6.6		7.0		7.4	7.7	8.1
95%		8.0		8.4		8.9	9.3	9.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-043 (NFL_2_0076)
Longitude [deg.E]: -52.6186
Latitude[deg N]: 47.5771
Projection: EPSG 4326
Depth [mMSL]: -148.8362
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.57		0.61		0.69	
					0.75	0.82	0.90
							0.97

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.6		7.1		7.6	
Tp5%		10.2		10.4		10.7	
Tp50%		13.0		13.3		13.7	
Tp95%		15.9		16.3		16.7	
					7.8	8.1	8.3
							8.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.1		5.5		6.1	
Tp5%		9.2		9.5		10.0	
Tp50%		11.7		12.2		12.8	
Tp95%		14.4		14.9		15.6	
					6.5	7.0	7.5
							7.9

Dir = 45		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		6.1		6.7		7.2		7.5	7.7	8.0	8.2
Tp5%		9.8		10.1		10.5		10.7	10.9	11.1	11.3
Tp50%		12.6		12.9		13.4		13.7	13.9	14.2	14.4
Tp95%		15.4		15.9		16.4		16.7	17.1	17.4	17.7

Dir = 90	T_R [years]										
	1	2	5	10	20	50	100				
Hm0			5.5		5.8		6.2	6.5	6.9	7.3	7.6
Tp5%			9.5		9.7		10.0	10.2	10.4	10.7	10.9
Tp50%			12.1		12.4		12.8	13.1	13.4	13.7	14.0
Tp95%			14.8		15.2		15.7	16.0	16.4	16.8	17.1

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		6.1		6.7		7.2	7.4	7.7	7.9	8.1
Tp5%		9.8		10.2		10.4	10.6	10.7	10.9	10.9
Tp50%		12.6		13.0		13.3	13.5	13.7	13.9	14.0
Tp95%		15.4		15.9		16.4	16.6	16.8	17.0	17.2

Dir=180	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.6		5.0		5.5	5.9	6.3	6.9	7.4
Tp5%		8.8		9.1		9.5	9.8	10.1	10.5	10.8
Tp50%		11.3		11.7		12.2	12.6	12.9	13.4	13.8
Tp95%		13.8		14.3		14.9	15.4	15.9	16.5	16.9

Dir =225	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.4		1.5		1.6	1.7	1.8	1.9	2.1
Tp5%		5.5		5.6		5.8	6.0	6.1	6.3	6.4
Tp50%		7.0		7.2		7.4	7.6	7.8	8.1	8.2
Tp95%		8.6		8.8		9.1	9.3	9.6	9.9	10.1

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		1.1		1.2		1.4	1.6	1.7	1.8	1.9
Tp5%		5.0		5.3		5.6	5.8	5.9	6.1	6.2
Tp50%		6.4		6.8		7.2	7.4	7.6	7.8	7.9
Tp95%		7.8		8.3		8.8	9.1	9.3	9.6	9.7

Dir=315	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.3		1.4		1.5	1.6	1.7	1.9	2.0
Tp5%		5.4		5.5		5.7	5.9	6.0	6.3	6.4
Tp50%		6.9		7.1		7.3	7.5	7.7	8.0	8.2
Tp95%		8.4		8.7		9.0	9.2	9.5	9.8	10.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-044 (NFL_2_0043)
Longitude [deg.E]: -52.6589
Latitude[deg N]: 47.4561
Projection: EPSG 4326
Depth [mMSL]: -56.3937
Models: DHI-NFL_2-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.58		0.63		0.71	
					0.77		0.83
						0.92	0.98

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.1		6.7		7.2	
Tp5%		8.7		8.9		9.0	
Tp50%		11.4		11.6		11.8	
Tp95%		14.6		14.8		15.0	
					7.5		7.7
						8.0	8.2
						9.1	9.2
						11.9	12.0
						15.2	15.3

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		0.9		1.2		1.4	
Tp5%		6.3		6.5		6.8	
Tp50%		8.2		8.6		8.9	
Tp95%		10.5		10.9		11.3	
					1.6		1.7
						1.9	2.0
						7.0	7.2
						9.2	9.4
						11.7	12.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.3		4.7		5.0	5.2	5.4
Tp5%		8.2		8.3		8.5	8.5	8.6
Tp50%		10.7		10.9		11.0	11.1	11.2
Tp95%		13.7		13.9		14.1	14.2	14.3

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.8		5.3		5.8	6.1	6.5
Tp5%		8.4		8.5		8.7	8.8	8.8
Tp50%		11.0		11.1		11.3	11.4	11.5
Tp95%		14.0		14.2		14.4	14.6	14.7

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.6		7.1	7.4	7.6
Tp5%		8.7		8.9		9.0	9.0	9.1
Tp50%		11.4		11.6		11.7	11.8	11.9
Tp95%		14.5		14.8		15.0	15.1	15.2

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.8		5.3		5.9	6.3	6.7
Tp5%		8.4		8.5		8.7	8.8	8.9
Tp50%		11.0		11.1		11.3	11.5	11.6
Tp95%		14.0		14.2		14.5	14.7	14.8

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.6		0.7		0.8	0.9	1.0
Tp5%		5.8		6.0		6.1	6.3	6.4
Tp50%		7.6		7.8		8.0	8.2	8.3
Tp95%		9.6		9.9		10.2	10.4	10.6

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.2		0.4		0.6	0.6	0.7
Tp5%		4.6		5.4		5.7	5.9	6.0
Tp50%		6.0		7.1		7.5	7.7	7.8
Tp95%		7.7		9.0		9.6	9.8	10.0

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.3		0.5		0.6	0.7	0.8
Tp5%		5.1		5.6		5.8	6.0	6.1
Tp50%		6.6		7.3		7.6	7.8	7.9
Tp95%		8.4		9.3		9.7	9.9	10.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-045 (NFL_3_0207)
Longitude [deg.E]: -52.755
Latitude[deg N]: 47.2895
Projection: EPSG 4326
Depth [mMSL]: -77.3338
Models: DHI-NFL_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.59			0.64		0.72	0.78 0.85 0.93 1.00

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.8			6.3		6.8	7.2 7.6 8.1 8.5
Tp5%	9.3			9.4		9.6	9.7 9.8 9.9 9.9
Tp50%	10.9			11.0		11.2	11.3 11.4 11.5 11.6
Tp95%	14.1			14.3		14.5	14.7 14.8 15.0 15.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	0.5			0.9		1.1	1.3 1.5 1.6 1.8
Tp5%	6.2			6.7		7.0	7.2 7.3 7.5 7.6
Tp50%	7.2			7.8		8.2	8.4 8.6 8.7 8.8
Tp95%	9.3			10.1		10.7	10.9 11.1 11.4 11.5

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.1		4.5		4.9		5.2
Tp5%		8.8		8.9		9.0		9.1
Tp50%		10.3		10.4		10.6		10.7
Tp95%		13.3		13.5		13.7		13.9

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.8		5.3		6.1		6.6
Tp5%		9.0		9.2		9.4		9.5
Tp50%		10.5		10.7		10.9		11.1
Tp95%		13.7		13.9		14.2		14.4

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.5		6.0		6.5		6.9
Tp5%		9.2		9.4		9.5		9.6
Tp50%		10.8		10.9		11.1		11.2
Tp95%		14.0		14.2		14.4		14.6

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.0		5.4		6.0		6.3
Tp5%		9.1		9.2		9.4		9.4
Tp50%		10.6		10.8		10.9		11.0
Tp95%		13.8		14.0		14.2		14.3

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.3		0.5		0.7		0.9
Tp5%		5.7		6.1		6.5		6.8
Tp50%		6.7		7.1		7.6		7.9
Tp95%		8.7		9.2		9.9		10.3

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		-0.0		-0.0		-0.0		-0.0
Tp5%		0.0		0.1		0.1		0.1
Tp50%		0.0		0.1		0.1		0.1
Tp95%		0.0		0.2		0.2		0.2

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		-0.0		-0.0		-0.0		-0.0
Tp5%		0.0		0.1		0.1		0.1
Tp50%		0.0		0.1		0.1		0.1
Tp95%		0.0		0.2		0.2		0.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-046 (NFL_3_0204)
Longitude [deg.E]: -52.755
Latitude[deg N]: 47.2502
Projection: EPSG 4326
Depth [mMSL]: -102.8503
Models: DHI-NFL_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.59		0.64		0.72	0.78 0.84 0.93 0.99

%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.0		6.5		7.1	7.5 7.9 8.4 8.8
Tp5%		9.5		9.6		9.8	9.9 10.0 10.1 10.1
Tp50%		11.1		11.3		11.4	11.5 11.6 11.8 11.8
Tp95%		14.4		14.6		14.8	15.0 15.1 15.3 15.4

%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		1.2		1.5		1.8	2.0 2.2 2.5 2.6
Tp5%		7.2		7.5		7.7	7.9 8.0 8.2 8.2
Tp50%		8.4		8.7		9.0	9.2 9.4 9.5 9.6
Tp95%		10.9		11.3		11.7	12.0 12.2 12.4 12.5

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.6		5.0		5.5	5.8	6.0
Tp5%		9.1		9.2		9.3	9.4	9.5
Tp50%		10.6		10.8		10.9	11.0	11.1
Tp95%		13.8		14.0		14.2	14.3	14.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.9		5.5		6.3	6.8	7.3
Tp5%		9.2		9.3		9.6	9.7	9.8
Tp50%		10.7		10.9		11.2	11.3	11.5
Tp95%		13.9		14.2		14.5	14.7	14.9

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.6		6.1		6.7	7.1	7.4
Tp5%		9.4		9.5		9.7	9.8	9.8
Tp50%		11.0		11.1		11.3	11.4	11.5
Tp95%		14.2		14.5		14.7	14.8	14.9

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.4		5.8		6.3	6.7	7.2
Tp5%		9.3		9.4		9.6	9.7	9.8
Tp50%		10.9		11.0		11.2	11.3	11.5
Tp95%		14.1		14.3		14.6	14.7	14.9

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.0		1.3		1.5	1.7	1.8
Tp5%		7.0		7.3		7.5	7.6	7.7
Tp50%		8.1		8.5		8.8	8.9	9.0
Tp95%		10.6		11.0		11.4	11.6	11.7

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.1		0.5		0.8	0.9	1.0
Tp5%		4.5		6.2		6.7	6.9	7.0
Tp50%		5.3		7.3		7.8	8.0	8.2
Tp95%		6.9		9.4		10.1	10.4	10.7

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		-0.0		-0.0		-0.0	-0.0	-0.0
Tp5%		0.0		0.1		0.1	0.1	0.1
Tp50%		0.0		0.1		0.1	0.1	0.1
Tp95%		0.0		0.2		0.2	0.2	0.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-047 (NFL_3_0194)
Longitude [deg.E]: -52.8336
Latitude[deg N]: 47.1716
Projection: EPSG 4326
Depth [mMSL]: -81.8549
Models: DHI-NFL_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

		T_R [years]												
1		2	5	10	20	50	100							
WLres		0.60		0.65		0.73		0.79		0.85		0.94		1.00

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.6		6.0		6.6		7.0	7.4	7.9	8.3
Tp5%	9.4		9.5		9.6		9.7	9.8	9.9	10.0
Tp50%	10.9		11.1		11.2		11.3	11.4	11.6	11.6
Tp95%	14.0		14.1		14.3		14.5	14.6	14.8	14.9

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		0.5		0.8		1.1		1.3	1.4	1.6	1.7
Tp5%		6.3		6.9		7.3		7.4	7.6	7.7	7.8
Tp50%		7.4		8.1		8.5		8.7	8.8	9.0	9.1
Tp95%		9.4		10.3		10.8		11.1	11.3	11.5	11.6

Dir = 45		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		4.1		4.5		4.9		5.2	5.4	5.8	6.0
Tp5%		8.9		9.0		9.2		9.2	9.3	9.4	9.5
Tp50%		10.4		10.6		10.7		10.8	10.9	11.0	11.1
Tp95%		13.3		13.5		13.7		13.8	13.9	14.0	14.1

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		4.6		5.2		6.0	6.5	7.1	7.7	8.2
Tp5%		9.1		9.3		9.5	9.6	9.7	9.9	10.0
Tp50%		10.6		10.8		11.1	11.2	11.4	11.5	11.7
Tp95%		13.6		13.8		14.1	14.3	14.5	14.7	14.9

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.3		5.8		6.3	6.7	7.0	7.3	7.5
Tp5%		9.3		9.4		9.5	9.6	9.7	9.7	9.8
Tp50%		10.9		11.0		11.2	11.2	11.3	11.4	11.4
Tp95%		13.9		14.1		14.3	14.4	14.4	14.5	14.6

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		4.1		4.5		5.0	5.2	5.5	5.7	5.9
Tp5%		8.9		9.1		9.2	9.3	9.3	9.4	9.4
Tp50%		10.4		10.6		10.7	10.8	10.9	11.0	11.0
Tp95%		13.3		13.5		13.7	13.8	13.9	14.0	14.1

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		0.2		0.3		0.4	0.6	0.7	0.8	0.9
Tp5%		5.6		5.9		6.3	6.5	6.7	6.9	7.0
Tp50%		6.5		6.9		7.3	7.6	7.8	8.1	8.2
Tp95%		8.3		8.8		9.4	9.7	10.0	10.3	10.5

Dir=270	T_R [years]								
	1	2	5	10	20	50	100		
Hm0		-0.0		-0.0		-0.0	-0.0	-0.0	-0.0
Tp5%		0.0		0.2		0.2	0.2	0.2	0.2
Tp50%		0.0		0.2		0.2	0.2	0.2	0.2
Tp95%		0.0		0.2		0.2	0.2	0.2	0.2

Dir=315	T_R [years]								
	1	2	5	10	20	50	100		
Hm0		-0.0		-0.0		-0.0	-0.0	-0.0	-0.0
Tp5%		0.0		0.2		0.2	0.2	0.2	0.2
Tp50%		0.0		0.2		0.2	0.2	0.2	0.2
Tp95%		0.0		0.2		0.2	0.2	0.2	0.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-048 (NFL_3_0171)
Longitude [deg.E]: -52.8336
Latitude[deg N]: 47.0144
Projection: EPSG 4326
Depth [mMSL]: -100.4394
Models: DHI-NFL_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.59		0.65		0.72	0.78	0.84	0.91	0.97

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	6.3		6.7		7.3	7.7	8.1	8.5	8.9
Tp5%	9.7		9.8		9.9	10.0	10.1	10.2	10.2
Tp50%	11.2		11.3		11.4	11.5	11.6	11.7	11.8
Tp95%	14.8		15.0		15.1	15.2	15.4	15.5	15.6

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.7		2.0		2.4	2.7	2.9	3.3	3.6
Tp5%		8.0		8.2		8.5	8.6	8.7	8.9	9.0
Tp50%		9.2		9.5		9.7	9.9	10.0	10.2	10.3
Tp95%		12.3		12.5		12.9	13.1	13.3	13.5	13.6

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.8		5.3		5.8		6.2	6.5 6.9 7.1
Tp5%	9.4		9.5		9.6		9.7	9.8 9.9 9.9
Tp50%	10.8		10.9		11.1		11.2	11.2 11.3 11.4
Tp95%	14.3		14.5		14.7		14.8	14.9 15.0 15.1

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.9		5.6		6.4		6.9	7.4 8.1 8.5
Tp5%	9.4		9.6		9.7		9.9	10.0 10.1 10.2
Tp50%	10.8		11.0		11.2		11.3	11.5 11.6 11.7
Tp95%	14.3		14.5		14.8		15.0	15.2 15.4 15.5

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.4		7.0		7.4	7.6 8.0 8.2
Tp5%	9.6		9.8		9.9		10.0	10.0 10.1 10.1
Tp50%	11.1		11.2		11.4		11.4	11.5 11.6 11.6
Tp95%	14.6		14.9		15.1		15.2	15.2 15.3 15.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.7		6.1		6.6		7.0	7.4 8.0 8.4
Tp5%	9.6		9.7		9.8		9.9	10.0 10.1 10.2
Tp50%	11.0		11.1		11.3		11.4	11.5 11.6 11.7
Tp95%	14.6		14.7		14.9		15.1	15.2 15.4 15.5

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.5		1.8		1.9	2.1 2.3 2.4
Tp5%	7.8		7.9		8.1		8.2	8.3 8.4 8.5
Tp50%	8.9		9.1		9.3		9.4	9.5 9.7 9.7
Tp95%	11.8		12.1		12.3		12.5	12.6 12.8 12.9

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.1		1.3		1.3	1.4 1.4 1.5
Tp5%	7.3		7.6		7.7		7.8	7.8 7.9 7.9
Tp50%	8.4		8.7		8.8		8.9	9.0 9.0 9.1
Tp95%	11.1		11.5		11.7		11.8	11.9 12.0 12.0

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		1.0		1.2		1.3	1.4 1.5 1.6
Tp5%	7.2		7.5		7.7		7.8	7.8 7.9 8.0
Tp50%	8.3		8.6		8.8		8.9	9.0 9.1 9.2
Tp95%	11.0		11.4		11.7		11.8	11.9 12.1 12.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-049 (NFL_3_0055)
Longitude [deg.E]: -53.3839
Latitude[deg N]: 46.6606
Projection: EPSG 4326
Depth [mMSL]: -34.859
Models: DHI-NFL_3-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.63			0.69		0.77	0.84 0.90 0.99 1.06

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.6			7.1		7.8	8.4 9.1 9.9 10.7
Tp5%	12.3			12.7		13.3	13.8 14.2 14.8 15.3
Tp50%	14.7			15.2		15.9	16.4 17.0 17.7 18.3
Tp95%	17.1			17.7		18.5	19.1 19.7 20.5 21.2

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	0.4			0.5		0.7	0.7 0.8 0.9 1.0
Tp5%	3.7			4.0		4.4	4.6 4.8 5.0 5.2
Tp50%	4.4			4.8		5.3	5.5 5.7 6.0 6.2
Tp95%	5.1			5.6		6.1	6.4 6.7 7.0 7.2

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.5		0.6		0.7		0.7	0.8
Tp5%	3.8		4.1		4.4		4.6	5.1
Tp50%	4.6		4.9		5.2		5.5	6.1
Tp95%	5.3		5.6		6.1		6.4	7.1

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.8		2.0		2.2	2.3
Tp5%	6.5		6.9		7.3		7.5	8.0
Tp50%	7.8		8.2		8.7		9.0	9.5
Tp95%	9.1		9.6		10.1		10.4	11.0

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.6		5.0		5.6		5.9	6.3
Tp5%	10.5		10.9		11.4		11.8	12.1
Tp50%	12.6		13.1		13.6		14.0	14.4
Tp95%	14.6		15.1		15.8		16.3	16.8

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.5		7.0		7.8		8.4	9.0
Tp5%	12.2		12.7		13.3		13.8	14.2
Tp50%	14.6		15.2		15.9		16.4	17.0
Tp95%	17.0		17.6		18.4		19.1	19.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.3		6.9		7.3	7.6
Tp5%	11.6		12.0		12.5		12.9	13.2
Tp50%	13.9		14.4		15.0		15.4	15.8
Tp95%	16.1		16.7		17.4		17.8	18.3

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.1		1.2	1.3
Tp5%	4.7		5.1		5.5		5.7	5.9
Tp50%	5.6		6.1		6.5		6.8	7.0
Tp95%	6.5		7.1		7.6		7.9	8.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.5		0.7		0.8		0.9	1.0
Tp5%	3.9		4.4		4.8		5.1	5.3
Tp50%	4.7		5.3		5.8		6.1	6.3
Tp95%	5.4		6.1		6.7		7.0	7.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-050 (NFL_4_0051)
Longitude [deg.E]: -53.6772
Latitude[deg N]: 46.7496
Projection: EPSG 4326
Depth [mMSL]: -36.4189
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.63		0.72		0.82	0.90 0.97 1.08 1.15

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.6		7.3		8.1	8.7 9.3 10.0 10.6
Tp5%		12.2		12.7		13.3	13.7 14.1 14.6 14.9
Tp50%		13.8		14.3		15.0	15.5 15.9 16.5 16.9
Tp95%		16.4		17.1		17.9	18.5 19.0 19.7 20.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		0.7		0.9		1.1	1.3 1.5 1.9 2.1
Tp5%		4.6		5.1		5.6	6.0 6.4 7.0 7.4
Tp50%		5.3		5.7		6.3	6.8 7.3 7.9 8.3
Tp95%		6.3		6.8		7.6	8.1 8.7 9.4 9.9

Dir = 45 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		0.5		0.7		0.8		1.0 1.1 1.2 1.3
Tp5%		3.9		4.4		4.9		5.2 5.4 5.7 5.9
Tp50%		4.4		5.0		5.6		5.9 6.1 6.4 6.6
Tp95%		5.3		6.0		6.6		7.0 7.3 7.7 7.9

Dir = 90 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		0.6		0.7		0.9		1.0 1.1 1.2 1.3
Tp5%		4.1		4.6		5.1		5.3 5.5 5.7 5.9
Tp50%		4.7		5.3		5.7		6.0 6.2 6.5 6.7
Tp95%		5.6		6.3		6.8		7.2 7.4 7.7 7.9

Dir=135 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		0.9		1.0		1.2		1.3 1.4 1.5 1.6
Tp5%		5.0		5.4		5.8		6.0 6.1 6.3 6.4
Tp50%		5.6		6.1		6.5		6.7 6.9 7.1 7.3
Tp95%		6.7		7.3		7.8		8.0 8.3 8.5 8.7

Dir=180 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		4.1		4.6		5.2		5.5 5.9 6.4 6.7
Tp5%		9.9		10.4		10.9		11.2 11.6 11.9 12.2
Tp50%		11.2		11.7		12.3		12.7 13.1 13.5 13.8
Tp95%		13.3		14.0		14.7		15.2 15.6 16.1 16.5

Dir =225 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		6.6		7.3		8.1		8.7 9.3 10.0 10.6
Tp5%		12.2		12.7		13.3		13.7 14.1 14.6 14.9
Tp50%		13.8		14.3		15.0		15.5 15.9 16.5 16.9
Tp95%		16.4		17.1		17.9		18.5 19.0 19.7 20.1

Dir=270 T_R [years]							
	1	2	5	10	20	50	100
Hm0		4.2		4.8		5.4	5.7 5.9 6.2 6.4
Tp5%		10.0		10.6		11.1	11.4 11.6 11.8 12.0
Tp50%		11.3		12.0		12.5	12.8 13.1 13.3 13.5
Tp95%		13.4		14.3		14.9	15.3 15.6 15.9 16.1

Dir=315 T_R [years]							
	1	2	5	10	20	50	100
Hm0		1.2		1.4		1.6	1.8 2.0 2.3 2.5
Tp5%		5.8		6.2		6.6	6.9 7.2 7.6 7.9
Tp50%		6.6		7.0		7.4	7.8 8.1 8.6 8.9
Tp95%		7.9		8.3		8.8	9.3 9.7 10.2 10.6

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-051 (NFL_4_0200)
Longitude [deg.E]: -53.6377
Latitude[deg N]: 46.9074
Projection: EPSG 4326
Depth [mMSL]: -70.9911
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.64			0.72		0.83	0.92 1.01 1.12 1.21

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	4.0			4.2		4.6	4.9 5.1 5.4 5.7
Tp5%	10.7			11.1		11.6	11.9 12.2 12.6 12.9
Tp50%	12.5			13.0		13.6	14.0 14.4 14.8 15.2
Tp95%	14.9			15.5		16.2	16.7 17.1 17.7 18.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	0.7			0.8		1.0	1.1 1.3 1.5 1.7
Tp5%	4.3			4.7		5.1	5.5 5.8 6.3 6.7
Tp50%	5.1			5.5		6.0	6.4 6.9 7.4 7.9
Tp95%	6.0			6.5		7.2	7.7 8.2 8.9 9.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.4		0.6		0.8		0.8	0.9
Tp5%	3.2		3.9		4.4		4.7	4.9
Tp50%	3.8		4.6		5.2		5.5	5.8
Tp95%	4.6		5.5		6.2		6.6	6.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.4		0.5		0.7		0.8	0.9
Tp5%	3.0		3.7		4.2		4.5	4.7
Tp50%	3.5		4.3		4.9		5.3	5.6
Tp95%	4.2		5.1		5.9		6.3	6.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.5		0.6		0.7		0.8	0.9
Tp5%	3.5		3.9		4.3		4.6	4.8
Tp50%	4.1		4.6		5.1		5.4	5.7
Tp95%	4.9		5.5		6.1		6.5	6.8

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.4		1.5		1.6	1.8
Tp5%	5.9		6.1		6.4		6.7	6.9
Tp50%	6.9		7.2		7.6		7.9	8.1
Tp95%	8.3		8.6		9.0		9.4	9.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.2		4.6		4.9	5.1
Tp5%	10.7		11.1		11.6		11.9	12.2
Tp50%	12.5		13.0		13.6		14.0	14.4
Tp95%	14.9		15.5		16.2		16.7	17.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.1		2.4		2.6	2.8
Tp5%	7.2		7.6		8.1		8.5	8.9
Tp50%	8.5		8.9		9.5		10.0	10.5
Tp95%	10.1		10.6		11.4		11.9	12.5

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.4		1.5	1.6
Tp5%	5.3		5.7		6.1		6.3	6.5
Tp50%	6.2		6.7		7.2		7.4	7.7
Tp95%	7.4		8.0		8.5		8.9	9.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-052 (NFL_4_0192)
Longitude [deg.E]: -54.2296
Latitude[deg N]: 46.9074
Projection: EPSG 4326
Depth [mMSL]: -23.9948
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.61			0.70		0.81	0.89 0.97 1.08 1.16

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.6			7.2		7.9	8.3 8.7 9.2 9.6
Tp5%	11.9			12.6		13.3	13.7 14.1 14.6 14.9
Tp50%	13.7			14.4		15.2	15.7 16.2 16.8 17.1
Tp95%	16.5			17.4		18.4	19.0 19.6 20.2 20.7

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.0			2.1		2.4	2.6 2.8 3.0 3.3
Tp5%	5.7			6.0		6.4	6.7 7.0 7.4 7.8
Tp50%	6.5			6.9		7.3	7.7 8.0 8.5 8.9
Tp95%	7.9			8.3		8.8	9.3 9.7 10.3 10.7

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.3		1.4		1.6	1.7	1.9
Tp5%		4.4		4.7		5.0	5.3	5.6
Tp50%		5.0		5.3		5.7	6.1	6.4
Tp95%		6.1		6.4		6.9	7.3	7.7

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.1		1.3		1.5	1.7	1.8
Tp5%		4.1		4.4		4.9	5.2	5.4
Tp50%		4.7		5.1		5.6	5.9	6.2
Tp95%		5.6		6.2		6.7	7.1	7.5

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.2		1.4		1.5	1.6	1.7
Tp5%		4.3		4.6		4.9	5.1	5.2
Tp50%		4.9		5.3		5.6	5.8	6.0
Tp95%		5.9		6.4		6.8	7.0	7.3

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.4		3.7		4.1	4.3	4.4
Tp5%		8.0		8.4		8.9	9.1	9.4
Tp50%		9.2		9.7		10.1	10.5	10.7
Tp95%		11.1		11.7		12.3	12.6	13.0

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.5		7.1		7.8	8.2	8.6
Tp5%		11.8		12.5		13.2	13.7	14.0
Tp50%		13.5		14.3		15.2	15.7	16.1
Tp95%		16.3		17.3		18.3	18.9	19.5

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.4		7.0	7.4	7.9
Tp5%		11.3		11.7		12.4	12.8	13.3
Tp50%		12.9		13.4		14.2	14.7	15.3
Tp95%		15.6		16.2		17.1	17.8	18.5

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.7		3.0		3.3	3.5	3.7
Tp5%		6.9		7.3		7.8	8.1	8.3
Tp50%		7.9		8.4		8.9	9.3	9.5
Tp95%		9.5		10.2		10.8	11.2	11.5

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-053 (NFL_4_0464)
Longitude [deg.E]: -54.0718
Latitude[deg N]: 47.2625
Projection: EPSG 4326
Depth [mMSL]: -65.4755
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.62			0.70		0.83	0.92 1.02 1.15 1.25

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.1			5.4		5.7	6.1 6.4 6.8 7.2
Tp5%	9.4			9.7		9.9	10.2 10.4 10.7 10.9
Tp50%	11.5			11.7		12.1	12.4 12.6 13.0 13.2
Tp95%	14.4			14.7		15.1	15.4 15.8 16.2 16.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.0			2.3		2.5	2.7 2.8 2.9 3.0
Tp5%	6.5			6.8		7.1	7.2 7.4 7.5 7.6
Tp50%	7.9			8.3		8.6	8.8 9.0 9.2 9.3
Tp95%	9.8			10.3		10.8	11.0 11.2 11.5 11.6

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.6		1.7		1.7	1.8
Tp5%	5.6		5.8		6.0		6.0	6.1
Tp50%	6.8		7.1		7.2		7.3	7.4
Tp95%	8.5		8.8		9.1		9.2	9.3

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.0		1.1		1.2	1.3
Tp5%	4.7		4.8		5.0		5.2	5.3
Tp50%	5.7		5.9		6.1		6.3	6.5
Tp95%	7.1		7.4		7.7		7.9	8.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.2	1.3
Tp5%	4.8		5.0		5.1		5.2	5.3
Tp50%	5.9		6.0		6.2		6.3	6.4
Tp95%	7.3		7.6		7.8		7.9	8.1

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		2.0		2.2		2.4	2.5
Tp5%	6.1		6.4		6.7		6.9	7.0
Tp50%	7.5		7.8		8.1		8.3	8.5
Tp95%	9.3		9.8		10.2		10.4	10.6

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.1		5.4		5.7		6.1	6.4
Tp5%	9.4		9.7		9.9		10.2	10.4
Tp50%	11.5		11.7		12.1		12.4	12.6
Tp95%	14.4		14.7		15.1		15.4	15.8

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.7		4.1		4.5		4.7	4.9
Tp5%	8.3		8.6		9.0		9.1	9.3
Tp50%	10.1		10.5		10.9		11.1	11.3
Tp95%	12.6		13.1		13.6		13.9	14.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.6		2.8	3.1
Tp5%	6.7		6.9		7.2		7.4	7.7
Tp50%	8.1		8.4		8.8		9.0	9.3
Tp95%	10.1		10.5		10.9		11.3	11.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-054 (NFL_4_0833)
Longitude [deg.E]: -54.0323
Latitude[deg N]: 47.6966
Projection: EPSG 4326
Depth [mMSL]: -148.4482
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.63			0.72		0.84	0.95 1.05 1.20 1.32

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.4			2.5		2.7	2.8 2.9 3.1 3.2
Tp5%	4.6			4.7		4.8	4.9 5.0 5.1 5.2
Tp50%	5.8			6.0		6.1	6.3 6.4 6.5 6.6
Tp95%	7.4			7.5		7.8	7.9 8.1 8.3 8.4

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	1.2			1.3		1.4	1.6 1.7 1.8 1.9
Tp5%	3.4			3.5		3.7	3.8 4.0 4.1 4.2
Tp50%	4.3			4.5		4.7	4.9 5.0 5.2 5.3
Tp95%	5.5			5.7		6.0	6.2 6.3 6.6 6.7

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		0.9		1.0	1.0	1.0	1.1
Tp5%	3.0		3.1		3.2	3.2	3.2	3.3
Tp50%	3.8		3.9		4.0	4.1	4.1	4.2
Tp95%	4.8		5.0		5.1	5.1	5.2	5.3

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.8		0.9	0.9	1.0	1.0
Tp5%	2.8		2.9		3.0	3.1	3.1	3.2
Tp50%	3.6		3.7		3.8	3.9	4.0	4.1
Tp95%	4.5		4.7		4.9	5.0	5.0	5.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.4	1.5	1.6	1.7
Tp5%	3.4		3.6		3.7	3.8	3.9	4.0
Tp50%	4.4		4.5		4.7	4.8	4.9	5.0
Tp95%	5.5		5.7		5.9	6.1	6.2	6.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.4		2.5		2.7	2.8	2.9	3.1
Tp5%	4.6		4.7		4.8	4.9	5.0	5.1
Tp50%	5.8		6.0		6.1	6.3	6.4	6.5
Tp95%	7.4		7.5		7.8	7.9	8.1	8.3

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.0		2.1	2.2	2.3	2.5
Tp5%	4.2		4.3		4.4	4.5	4.6	4.7
Tp50%	5.3		5.4		5.6	5.7	5.8	5.9
Tp95%	6.7		6.8		7.0	7.2	7.3	7.5

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.5		1.6	1.7	1.7	1.8
Tp5%	3.6		3.8		3.9	4.0	4.0	4.1
Tp50%	4.6		4.8		4.9	5.0	5.1	5.2
Tp95%	5.8		6.0		6.3	6.4	6.5	6.6

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.5	1.6	1.8	1.9
Tp5%	3.5		3.6		3.8	3.9	4.1	4.2
Tp50%	4.4		4.6		4.8	5.0	5.1	5.3
Tp95%	5.5		5.8		6.1	6.3	6.5	6.8

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-055 (NFL_4_0426)
Longitude [deg.E]: -54.8609
Latitude[deg N]: 47.2231
Projection: EPSG 4326
Depth [mMSL]: -65.8786
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.62			0.71		0.84	0.93 1.03 1.15 1.24

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.0			6.5		7.1	7.4 7.7 8.0 8.2
Tp5%	9.6			10.0		10.4	10.6 10.7 10.9 11.0
Tp50%	12.5			13.0		13.5	13.8 14.0 14.2 14.4
Tp95%	16.5			17.2		17.8	18.1 18.4 18.7 18.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	1.3			1.4		1.6	1.7 1.9 2.0 2.2
Tp5%	5.0			5.2		5.5	5.7 5.8 6.1 6.2
Tp50%	6.5			6.8		7.2	7.4 7.6 7.9 8.1
Tp95%	8.6			9.0		9.4	9.7 10.0 10.4 10.7

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.8		1.9		2.1		2.2	2.3 2.4 2.5
Tp5%	5.8		5.9		6.1		6.3	6.4 6.6 6.7
Tp50%	7.5		7.7		8.0		8.2	8.4 8.6 8.7
Tp95%	9.9		10.2		10.5		10.8	11.0 11.3 11.5

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.6		2.8		3.1		3.2	3.3 3.5 3.6
Tp5%	6.7		7.0		7.3		7.4	7.5 7.7 7.7
Tp50%	8.8		9.1		9.5		9.7	9.8 10.0 10.1
Tp95%	11.5		12.0		12.5		12.7	12.9 13.1 13.3

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.9		4.4		4.8		5.0	5.3 5.5 5.7
Tp5%	8.1		8.4		8.8		9.0	9.1 9.3 9.4
Tp50%	10.5		11.0		11.4		11.7	11.9 12.1 12.3
Tp95%	13.8		14.5		15.1		15.4	15.7 16.0 16.2

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.9		6.5		7.1		7.4	7.7 8.0 8.2
Tp5%	9.6		10.0		10.4		10.6	10.7 10.9 11.0
Tp50%	12.5		13.0		13.5		13.8	14.0 14.2 14.4
Tp95%	16.5		17.2		17.8		18.1	18.4 18.7 18.9

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.8		4.0		4.3		4.6	4.9 5.2 5.6
Tp5%	7.9		8.1		8.4		8.6	8.8 9.1 9.3
Tp50%	10.3		10.6		11.0		11.2	11.5 11.9 12.2
Tp95%	13.6		13.9		14.4		14.8	15.2 15.7 16.0

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.7		1.9		2.0	2.2 2.3 2.4
Tp5%	5.5		5.7		5.9		6.1	6.2 6.4 6.5
Tp50%	7.1		7.4		7.8		8.0	8.1 8.3 8.5
Tp95%	9.4		9.8		10.2		10.5	10.7 11.0 11.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.5		1.7	1.8 2.1 2.2
Tp5%	4.9		5.1		5.4		5.6	5.8 6.1 6.3
Tp50%	6.3		6.6		7.0		7.3	7.6 8.0 8.3
Tp95%	8.3		8.7		9.2		9.6	10.0 10.5 10.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-056 (NFL_4_0325)
Longitude [deg.E]: -55.0188
Latitude[deg N]: 47.1047
Projection: EPSG 4326
Depth [mMSL]: -121.0493
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.61			0.70		0.82	0.92 1.01 1.13 1.23

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.0			6.6		7.2	7.5 7.9 8.2 8.5
Tp5%	9.9			10.3		10.7	10.9 11.1 11.3 11.5
Tp50%	12.4			12.9		13.4	13.7 13.9 14.2 14.4
Tp95%	16.1			16.8		17.4	17.8 18.1 18.5 18.7

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	1.1			1.2		1.3	1.5 1.6 1.8 1.9
Tp5%	4.7			4.9		5.1	5.3 5.5 5.8 6.0
Tp50%	5.8			6.1		6.4	6.7 6.9 7.2 7.5
Tp95%	7.6			7.9		8.4	8.7 9.0 9.4 9.7

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.2		2.4		2.7	2.8	3.0
Tp5%		6.4		6.7		6.9	7.1	7.3
Tp50%		8.0		8.3		8.7	8.9	9.1
Tp95%		10.4		10.8		11.3	11.6	11.8

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.3		3.6		3.9	4.1	4.3
Tp5%		7.6		7.9		8.2	8.4	8.5
Tp50%		9.5		9.9		10.3	10.5	10.7
Tp95%		12.4		12.9		13.3	13.6	13.9

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.0		5.5		6.0	6.4	6.7
Tp5%		9.1		9.5		9.9	10.2	10.4
Tp50%		11.4		11.9		12.4	12.7	13.0
Tp95%		14.8		15.4		16.1	16.5	16.9

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.6		7.2	7.5	7.8
Tp5%		9.9		10.3		10.7	10.9	11.1
Tp50%		12.4		12.9		13.4	13.7	13.9
Tp95%		16.1		16.8		17.4	17.8	18.1

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		2.9		3.1		3.3	3.5	3.6
Tp5%		7.2		7.4		7.6	7.8	7.9
Tp50%		9.0		9.3		9.5	9.7	9.9
Tp95%		11.7		12.0		12.4	12.7	12.9

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.3		1.5		1.7	1.8	1.9
Tp5%		5.1		5.4		5.6	5.8	5.9
Tp50%		6.4		6.7		7.0	7.2	7.4
Tp95%		8.3		8.7		9.2	9.4	9.6

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.0		1.2		1.4	1.5	1.6
Tp5%		4.6		4.9		5.2	5.4	5.6
Tp50%		5.7		6.1		6.5	6.8	7.0
Tp95%		7.4		7.9		8.5	8.8	9.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-057 (NFL_4_0148)
Longitude [deg.E]: -55.5317
Latitude[deg N]: 46.868
Projection: EPSG 4326
Depth [mMSL]: -89.1773
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.61			0.70		0.82	0.91 1.00 1.11 1.20

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.7			7.4		8.0	8.5 8.8 9.3 9.6
Tp5%	10.8			11.2		11.7	12.0 12.2 12.5 12.7
Tp50%	12.7			13.3		13.8	14.2 14.5 14.8 15.0
Tp95%	15.9			16.6		17.3	17.7 18.1 18.5 18.8

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	0.5			0.6		0.8	0.9 1.1 1.3 1.5
Tp5%	3.1			3.5		3.9	4.2 4.6 5.0 5.2
Tp50%	3.7			4.1		4.6	5.0 5.4 5.9 6.2
Tp95%	4.6			5.1		5.8	6.3 6.7 7.3 7.8

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.9		1.1	1.2
Tp5%	3.5		3.8		4.2		4.5	4.8
Tp50%	4.1		4.5		5.0		5.4	5.7
Tp95%	5.1		5.6		6.2		6.7	7.1

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.1		2.4		2.7		3.0	3.2
Tp5%	6.3		6.7		7.1		7.3	7.6
Tp50%	7.4		7.9		8.4		8.7	8.9
Tp95%	9.3		9.9		10.5		10.8	11.2

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.8		5.2		5.6		6.0	6.3
Tp5%	9.2		9.5		9.9		10.2	10.4
Tp50%	10.9		11.3		11.7		12.0	12.4
Tp95%	13.6		14.1		14.6		15.0	15.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.7		7.3		7.9		8.3	8.7
Tp5%	10.7		11.2		11.6		11.9	12.1
Tp50%	12.7		13.2		13.7		14.1	14.4
Tp95%	15.9		16.5		17.2		17.6	18.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.7		6.3		7.0		7.5	8.0
Tp5%	9.9		10.4		11.0		11.4	11.7
Tp50%	11.8		12.3		13.0		13.5	13.9
Tp95%	14.7		15.4		16.2		16.8	17.4

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.3		2.6		2.8		3.0	3.1
Tp5%	6.6		6.9		7.2		7.4	7.5
Tp50%	7.8		8.2		8.5		8.7	8.9
Tp95%	9.7		10.2		10.6		10.9	11.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.6		0.7		0.8		0.9	1.0
Tp5%	3.4		3.6		3.9		4.1	4.3
Tp50%	4.0		4.3		4.6		4.9	5.1
Tp95%	5.0		5.3		5.8		6.1	6.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-058 (NFL_4_0101)
Longitude [deg.E]: -55.8079
Latitude[deg N]: 46.8285
Projection: EPSG 4326
Depth [mMSL]: -24.9756
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.62			0.70		0.81	0.90 0.98 1.10 1.18

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.7			7.3		8.0	8.4 8.8 9.2 9.5
Tp5%	11.0			11.5		12.0	12.3 12.6 12.9 13.1
Tp50%	12.9			13.5		14.1	14.4 14.7 15.1 15.3
Tp95%	16.1			16.8		17.5	18.0 18.4 18.8 19.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	0.9			1.1		1.2	1.3 1.4 1.5 1.6
Tp5%	4.1			4.4		4.7	4.9 5.1 5.3 5.5
Tp50%	4.8			5.2		5.6	5.8 6.0 6.2 6.4
Tp95%	6.0			6.4		6.9	7.2 7.5 7.8 8.0

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.1		1.3		1.4	1.5
Tp5%	4.1		4.4		4.8		5.0	5.3
Tp50%	4.9		5.2		5.6		5.9	6.2
Tp95%	6.1		6.5		7.0		7.4	7.7

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.7		2.9	3.2
Tp5%	6.4		6.7		7.0		7.3	7.6
Tp50%	7.5		7.8		8.2		8.6	8.9
Tp95%	9.3		9.7		10.3		10.7	11.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.8		5.1		5.5		5.9	6.2
Tp5%	9.4		9.6		10.0		10.3	10.6
Tp50%	11.0		11.3		11.7		12.1	12.4
Tp95%	13.7		14.1		14.6		15.1	15.5

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.7		7.3		7.9		8.2	8.6
Tp5%	11.0		11.4		11.9		12.2	12.5
Tp50%	12.9		13.4		14.0		14.3	14.6
Tp95%	16.1		16.7		17.4		17.8	18.2

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.4		7.2		7.7	8.2
Tp5%	10.3		10.8		11.4		11.8	12.2
Tp50%	12.0		12.6		13.3		13.8	14.3
Tp95%	15.0		15.8		16.6		17.3	17.8

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.1		3.5		3.8		4.0	4.2
Tp5%	7.5		8.0		8.3		8.5	8.7
Tp50%	8.8		9.3		9.8		10.0	10.2
Tp95%	11.0		11.6		12.2		12.5	12.7

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.3		1.4		1.5	1.6
Tp5%	4.6		4.8		5.1		5.3	5.5
Tp50%	5.3		5.7		6.0		6.2	6.4
Tp95%	6.7		7.1		7.5		7.8	8.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
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File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-059 (NFL_4_0140)
Longitude [deg.E]: -55.9658
Latitude[deg N]: 46.868
Projection: EPSG 4326
Depth [mMSL]: -36.0847
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.59			0.66		0.75	0.83 0.91 1.02 1.11

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	6.3			6.9		7.6	8.1 8.5 9.1 9.5
Tp5%	11.0			11.5		12.1	12.4 12.8 13.2 13.5
Tp50%	12.8			13.3		14.0	14.5 14.9 15.4 15.7
Tp95%	15.9			16.6		17.5	18.0 18.6 19.2 19.6

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	1.9			2.1		2.4	2.5 2.7 2.8 3.0
Tp5%	5.9			6.2		6.6	6.8 7.0 7.2 7.4
Tp50%	6.9			7.3		7.7	7.9 8.1 8.4 8.6
Tp95%	8.6			9.0		9.6	9.9 10.2 10.5 10.7

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.0		2.2		2.4	2.5
Tp5%	5.8		6.0		6.3		6.6	6.8
Tp50%	6.7		7.0		7.4		7.6	7.9
Tp95%	8.4		8.7		9.2		9.5	9.8

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.1		2.3		2.5		2.6	2.7
Tp5%	6.2		6.5		6.7		6.9	7.0
Tp50%	7.2		7.5		7.8		8.0	8.1
Tp95%	9.0		9.4		9.8		10.0	10.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.3		4.6		4.9	5.1
Tp5%	8.6		8.9		9.3		9.6	9.8
Tp50%	10.0		10.4		10.8		11.1	11.4
Tp95%	12.5		12.9		13.5		13.8	14.2

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.3		6.8		7.4		7.8	8.2
Tp5%	11.0		11.4		11.9		12.2	12.6
Tp50%	12.8		13.2		13.8		14.2	14.6
Tp95%	15.9		16.5		17.2		17.7	18.2

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.5		6.2		6.9		7.5	8.0
Tp5%	10.2		10.8		11.5		12.0	12.4
Tp50%	11.8		12.6		13.4		13.9	14.5
Tp95%	14.7		15.6		16.7		17.4	18.0

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.9		4.1		4.5		4.7	4.8
Tp5%	8.5		8.8		9.1		9.3	9.5
Tp50%	9.8		10.2		10.6		10.9	11.1
Tp95%	12.3		12.7		13.2		13.5	13.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.7		2.9		3.2		3.3	3.5
Tp5%	7.0		7.3		7.7		7.9	8.1
Tp50%	8.1		8.5		8.9		9.2	9.4
Tp95%	10.2		10.6		11.1		11.4	11.7

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-060 (NFL_4_0319)
Longitude [deg.E]: -55.8474
Latitude[deg N]: 47.1047
Projection: EPSG 4326
Depth [mMSL]: -99.3149
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.57		0.63		0.71	0.77	0.83	0.91	0.97

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]								
1	2	5	10	20	50	100			
Hm0	4.8		5.2		5.6	5.8	6.1	6.3	6.5
Tp5%	8.3		8.7		9.0	9.2	9.4	9.6	9.7
Tp50%	10.6		11.0		11.5	11.7	12.0	12.2	12.4
Tp95%	12.7		13.2		13.7	14.1	14.3	14.6	14.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.9		2.1		2.3		2.5	2.7	2.9	3.1
Tp5%		5.1		5.4		5.7		5.9	6.1	6.4	6.6
Tp50%		6.6		6.9		7.2		7.5	7.8	8.1	8.3
Tp95%		7.9		8.2		8.7		9.0	9.3	9.7	10.0

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.1		2.3		2.4	2.5
Tp5%	5.1		5.4		5.6		5.8	5.9
Tp50%	6.5		6.8		7.2		7.4	7.6
Tp95%	7.8		8.2		8.6		8.9	9.1

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.6		1.6	1.7
Tp5%	4.3		4.4		4.6		4.7	4.8
Tp50%	5.5		5.7		5.9		6.0	6.2
Tp95%	6.5		6.8		7.1		7.2	7.4

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.4		1.4	1.5
Tp5%	4.0		4.2		4.3		4.4	4.4
Tp50%	5.1		5.3		5.5		5.6	5.7
Tp95%	6.1		6.4		6.6		6.7	6.8

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.6		1.7		1.8	1.9
Tp5%	4.4		4.6		4.8		4.9	5.1
Tp50%	5.7		5.9		6.1		6.3	6.5
Tp95%	6.8		7.0		7.3		7.6	7.8

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.1		3.3		3.6		3.8	4.0
Tp5%	6.6		6.8		7.1		7.3	7.5
Tp50%	8.4		8.7		9.1		9.3	9.6
Tp95%	10.1		10.4		10.9		11.2	11.5

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.8		5.2		5.6		5.8	6.0
Tp5%	8.3		8.7		9.0		9.2	9.4
Tp50%	10.6		11.0		11.5		11.7	12.0
Tp95%	12.7		13.2		13.7		14.1	14.3

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.2		3.6		4.1		4.5	4.9
Tp5%	6.7		7.2		7.7		8.0	8.4
Tp50%	8.5		9.1		9.8		10.2	10.7
Tp95%	10.2		10.9		11.7		12.3	12.8

DHI Water & Environment Inc.
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Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-061 (NFL_4_0451)
Longitude [deg.E]: -55.4133
Latitude[deg N]: 47.2625
Projection: EPSG 4326
Depth [mMSL]: -75.437
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.57		0.64		0.71	
					0.77		0.83
						0.90	0.96

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		4.0		4.3		4.7	
Tp5%		8.0		8.5		8.8	
Tp50%		10.3		10.8		11.3	
Tp95%		12.3		12.9		13.4	
					4.9		5.0
						5.2	5.3
							9.5
							12.2
							14.5

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		1.4		1.5		1.7	
Tp5%		4.4		4.6		4.9	
Tp50%		5.7		5.9		6.3	
Tp95%		6.8		7.1		7.5	
					1.8		1.9
						2.0	2.1
							5.6
							7.2
							8.5

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.4		1.6		1.7	1.8
Tp5%	4.3		4.5		4.7		4.9	5.1
Tp50%	5.5		5.7		6.0		6.3	6.5
Tp95%	6.5		6.8		7.2		7.5	7.7

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		1.0		1.0	1.1
Tp5%	3.3		3.5		3.6		3.8	3.8
Tp50%	4.2		4.4		4.7		4.8	4.9
Tp95%	5.0		5.3		5.6		5.7	5.9

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		0.9		1.0	1.0
Tp5%	3.3		3.4		3.5		3.6	3.8
Tp50%	4.2		4.3		4.5		4.6	4.8
Tp95%	5.0		5.1		5.4		5.5	5.7

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.2		1.3	1.3
Tp5%	3.7		3.9		4.1		4.2	4.3
Tp50%	4.8		5.0		5.2		5.4	5.5
Tp95%	5.7		6.0		6.3		6.4	6.6

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.1		2.2		2.3	2.4
Tp5%	5.3		5.5		5.8		5.9	6.1
Tp50%	6.8		7.1		7.4		7.6	7.7
Tp95%	8.1		8.5		8.8		9.0	9.2

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.3		4.7		4.9	5.0
Tp5%	8.0		8.5		8.8		9.0	9.2
Tp50%	10.3		10.8		11.3		11.5	11.7
Tp95%	12.3		12.9		13.4		13.8	14.0

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.2		2.3	2.5
Tp5%	5.0		5.3		5.7		6.0	6.2
Tp50%	6.4		6.8		7.3		7.6	7.9
Tp95%	7.6		8.2		8.7		9.1	9.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-062 (NFL_4_0731)
Longitude [deg.E]: -55.0188
Latitude[deg N]: 47.5388
Projection: EPSG 4326
Depth [mMSL]: -201.2554
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.57		0.64		0.72	0.78	0.84	0.92	0.98

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	2.4		2.6		2.8		2.9	3.0	3.0	3.1
Tp5%	6.5		6.7		6.8		6.9	7.0	7.1	7.1
Tp50%	9.2		9.4		9.6		9.7	9.9	10.0	10.0
Tp95%	11.9		12.2		12.5		12.7	12.8	13.0	13.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		0.8		0.9		1.0		1.0	1.1	1.1	1.2
Tp5%		4.3		4.4		4.5		4.6	4.7	4.8	4.8
Tp50%		6.0		6.2		6.4		6.5	6.6	6.7	6.8
Tp95%		7.9		8.1		8.3		8.5	8.6	8.8	8.9

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.0		1.1		1.1	1.2
Tp5%	4.4		4.6		4.7		4.8	4.9
Tp50%	6.2		6.4		6.7		6.8	6.9
Tp95%	8.0		8.4		8.7		8.8	9.0

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.9		0.9		1.0	1.0
Tp5%	4.1		4.3		4.5		4.5	4.6
Tp50%	5.8		6.1		6.3		6.4	6.5
Tp95%	7.6		7.9		8.2		8.3	8.5

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.8		0.8		0.9		1.0	1.0
Tp5%	4.2		4.3		4.4		4.5	4.6
Tp50%	5.9		6.0		6.2		6.4	6.5
Tp95%	7.6		7.9		8.1		8.3	8.5

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.0		1.1		1.1	1.2
Tp5%	4.4		4.6		4.7		4.8	4.9
Tp50%	6.3		6.5		6.7		6.8	6.9
Tp95%	8.2		8.4		8.7		8.8	9.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.0		2.2		2.4		2.5	2.6
Tp5%	6.0		6.2		6.4		6.5	6.6
Tp50%	8.5		8.8		9.1		9.2	9.4
Tp95%	11.1		11.4		11.8		12.0	12.2

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.4		2.6		2.8		2.9	2.9
Tp5%	6.5		6.6		6.8		6.9	7.0
Tp50%	9.1		9.4		9.6		9.7	9.9
Tp95%	11.9		12.2		12.5		12.7	12.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.0		1.2		1.2	1.3
Tp5%	4.5		4.7		4.9		5.0	5.1
Tp50%	6.3		6.6		6.9		7.0	7.2
Tp95%	8.3		8.6		8.9		9.2	9.4

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-063 (NFL_4_0593)
Longitude [deg.E]: -55.8079
Latitude[deg N]: 47.4204
Projection: EPSG 4326
Depth [mMSL]: -128.728
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.57		0.63		0.71	0.77	0.84	0.92	0.98

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	5.2		5.5		5.9		6.1	6.3	6.6	6.8
Tp5%	8.1		8.3		8.4		8.5	8.6	8.7	8.8
Tp50%	11.0		11.2		11.4		11.5	11.7	11.8	11.9
Tp95%	13.8		14.0		14.3		14.5	14.6	14.8	14.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.1		1.2		1.4	1.5	1.6	1.7	1.9
Tp5%		5.1		5.2		5.4	5.5	5.6	5.8	5.9
Tp50%		6.8		7.0		7.3	7.4	7.6	7.8	8.0
Tp95%		8.6		8.8		9.1	9.3	9.5	9.8	10.0

Dir = 45 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		1.2		1.3		1.4		1.5 1.6 1.8 1.9
Tp5%		5.2		5.3		5.5		5.6 5.7 5.8 5.9
Tp50%		7.0		7.2		7.4		7.5 7.7 7.8 8.0
Tp95%		8.8		9.0		9.3		9.4 9.6 9.8 10.0

Dir = 90 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		1.4		1.6		1.7		1.8
Tp5%		5.4		5.6		5.7		5.8
Tp50%		7.4		7.6		7.8		7.9
Tp95%		9.2		9.5		9.7		9.9

Dir=135 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		1.8		1.9		2.1		2.2 2.3 2.4 2.5
Tp5%		5.9		6.0		6.1 6.2 6.3 6.4 6.5		
Tp50%		7.9		8.1		8.3 8.4 8.5 8.6 8.7		
Tp95%		9.9		10.2		10.4 10.5 10.7 10.8 10.9		

Dir=180 T_R [years]								
	1	2	5	10	20	50	100	
Hm0		2.6		2.8		3.0		3.2 3.3 3.4 3.5
Tp5%		6.5		6.7		6.9 7.0 7.1 7.1 7.2		
Tp50%		8.8		9.1		9.3 9.4 9.5 9.7 9.7		
Tp95%		11.1		11.4		11.7 11.8 12.0 12.1 12.2		

Dir =225 T_R [years]							
	1	2	5	10	20	50	100
Hm0		4.8		5.1		5.4	5.6 5.8 5.9 6.0
Tp5%		7.9		8.1		8.2 8.3 8.4 8.5	8.5
Tp50%		10.7		10.9		11.1 11.2 11.3 11.4	11.5
Tp95%		13.4		13.7		13.9 14.1 14.2 14.3	14.4

Dir=270 T_R [years]											
	1	2	5	10	20	50	100				
Hm0		5.0		5.4		5.8		6.1	6.3	6.6	6.8
Tp5%		8.0		8.2		8.4		8.5	8.6	8.7	8.8
Tp50%		10.9		11.1		11.4		11.5	11.7	11.8	11.9
Tp95%		13.6		14.0		14.3		14.5	14.6	14.8	14.9

Dir=315 T_R [years]							
	1	2	5	10	20	50	100
Hm0		1.3		1.4		1.5	1.7 1.8 1.9 2.0
Tp5%		5.3		5.4		5.6 5.7 5.8 6.0 6.1	
Tp50%		7.1		7.3		7.5 7.7 7.9 8.1 8.2	
Tp95%		8.9		9.1		9.4 9.7 9.9 10.1 10.3	

DHI Water & Environment Inc.
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Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-064 (NFL_4_0664)
Longitude [deg.E]: -56.7549
Latitude[deg N]: 47.4993
Projection: EPSG 4326
Depth [mMSL]: -192.8738
Models: DHI-NFL_4-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.53		0.59		0.67	0.73	0.79	0.87	0.94

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	7.1		7.5		8.1		8.6	9.1	9.7	10.2
Tp5%	10.5		10.7		11.0		11.3	11.5	11.8	12.0
Tp50%	12.4		12.7		13.1		13.3	13.6	14.0	14.3
Tp95%	14.8		15.1		15.6		15.9	16.2	16.7	17.0

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.1		1.3		1.5	1.6	1.7	1.8	1.9
Tp5%		5.1		5.4		5.7	5.9	6.0	6.2	6.3
Tp50%		6.1		6.4		6.8	7.0	7.2	7.4	7.5
Tp95%		7.3		7.7		8.1	8.3	8.5	8.8	8.9

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.6		1.7		1.9		2.0	2.0
Tp5%	5.9		6.1		6.3		6.4	6.5
Tp50%	7.0		7.2		7.4		7.6	7.7
Tp95%	8.3		8.6		8.9		9.0	9.2

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.5		2.8		2.9	3.1
Tp5%	6.7		7.0		7.3		7.5	7.6
Tp50%	8.0		8.3		8.6		8.8	9.0
Tp95%	9.5		9.9		10.3		10.5	10.8

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.5		3.8		4.1		4.3	4.5
Tp5%	8.0		8.3		8.5		8.7	8.8
Tp50%	9.5		9.8		10.1		10.3	10.4
Tp95%	11.3		11.7		12.0		12.2	12.4

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.1		6.5		7.1		7.6	8.1
Tp5%	9.9		10.2		10.5		10.8	11.0
Tp50%	11.7		12.0		12.4		12.7	13.1
Tp95%	14.0		14.3		14.8		15.2	15.6

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	7.0		7.4		7.9		8.4	8.8
Tp5%	10.4		10.6		10.9		11.2	11.4
Tp50%	12.3		12.6		12.9		13.2	13.5
Tp95%	14.7		15.0		15.4		15.7	16.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.9		6.5		7.1		7.3	7.6
Tp5%	9.7		10.2		10.5		10.6	10.7
Tp50%	11.5		12.0		12.4		12.6	12.7
Tp95%	13.7		14.3		14.8		15.0	15.2

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.7		1.8	1.9
Tp5%	5.6		5.8		6.0		6.2	6.3
Tp50%	6.6		6.9		7.1		7.3	7.5
Tp95%	7.9		8.2		8.5		8.7	9.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-065 (NFL_5_0010)
Longitude [deg.E]: -57.376
Latitude[deg N]: 47.4813
Projection: EPSG 4326
Depth [mMSL]: -48.4668
Models: DHI-NFL_5-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Maximum Likelihood / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]										
	1	2	5	10	20	50	100				
WLres		0.53		0.59		0.66		0.72	0.77	0.84	0.89

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	6.7		7.3		8.0		8.6	9.1	9.8	10.3
Tp5%	11.5		11.9		12.5		12.8	13.2	13.6	13.9
Tp50%	13.2		13.7		14.3		14.8	15.2	15.7	16.0
Tp95%	15.3		15.9		16.6		17.1	17.5	18.1	18.5

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		0.9		1.0		1.2		1.3	1.3	1.4	1.5
Tp5%		4.7		5.0		5.3		5.5	5.7	5.8	6.0
Tp50%		5.4		5.8		6.1		6.3	6.5	6.7	6.9
Tp95%		6.3		6.7		7.1		7.3	7.5	7.8	7.9

Dir = 45		T_R [years]									
	1	2	5	10	20	50	100				
Hm0		1.0		1.2		1.3		1.5	1.6	1.7	1.9
Tp5%		4.9		5.3		5.6		5.9	6.1	6.3	6.5
Tp50%		5.7		6.1		6.5		6.8	7.0	7.3	7.5
Tp95%		6.6		7.0		7.5		7.8	8.1	8.4	8.7

Dir = 90	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		3.0		3.6		4.2	4.6	4.9	5.3	5.6
Tp5%		8.0		8.7		9.4	9.7	10.0	10.4	10.6
Tp50%		9.2		10.1		10.8	11.2	11.6	12.0	12.2
Tp95%		10.7		11.6		12.5	13.0	13.4	13.8	14.1

Dir=135		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.5		6.1		6.8	7.3	7.8	8.3	8.7
Tp5%		10.6		11.1		11.6	11.9	12.2	12.5	12.7
Tp50%		12.2		12.7		13.3	13.7	14.0	14.4	14.7
Tp95%		14.1		14.7		15.4	15.8	16.2	16.6	16.9

Dir=180 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		6.5		6.9		7.6	8.1	8.7	9.5	10.1
Tp5%		11.3		11.7		12.2	12.6	13.0	13.5	13.9
Tp50%		13.0		13.5		14.0	14.5	15.0	15.6	16.1
Tp95%		15.1		15.6		16.2	16.8	17.3	18.0	18.6

Dir =225		T_R [years]								
	1	2	5	10	20	50	100			
Hm0		5.9		6.4		7.1	7.6	8.1	8.6	9.1
Tp5%		10.9		11.3		11.8	12.1	12.4	12.7	13.0
Tp50%		12.5		13.0		13.6	13.9	14.3	14.7	15.0
Tp95%		14.5		15.0		15.7	16.1	16.5	17.0	17.3

Dir=270 T_R [years]										
	1	2	5	10	20	50	100			
Hm0		3.5		4.2		4.9	5.2	5.6	6.0	6.2
Tp5%		8.6		9.3		10.0	10.3	10.6	10.9	11.1
Tp50%		9.9		10.8		11.5	11.9	12.2	12.6	12.8
Tp95%		11.4		12.5		13.3	13.7	14.1	14.5	14.8

Dir=315	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.1		1.1		1.2	1.3	1.4	1.6	1.7
Tp5%		5.1		5.2		5.5	5.6	5.8	6.1	6.3
Tp50%		5.8		6.0		6.3	6.5	6.7	7.0	7.2
Tp95%		6.8		7.0		7.3	7.5	7.8	8.1	8.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-066 (NFL_5_0071)
Longitude [deg.E]: -57.614
Latitude[deg N]: 47.5606
Projection: EPSG 4326
Depth [mMSL]: -154.1085
Models: DHI-NFL_5-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Maximum Likelihood / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]										
	1	2	5	10	20	50	100				
WLres		0.54		0.60		0.67		0.72	0.76	0.82	0.87

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	6.6		7.2		8.0		8.5	9.1	9.8	10.4
Tp5%	11.8		12.2		12.6		13.0	13.3	13.7	14.0
Tp50%	13.1		13.6		14.1		14.5	14.9	15.3	15.6
Tp95%	15.2		15.8		16.4		16.8	17.3	17.8	18.2

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.1		1.2		1.3		1.4	1.5	1.5	1.6
Tp5%		5.8		6.1		6.3		6.4	6.6	6.7	6.8
Tp50%		6.5		6.8		7.0		7.2	7.3	7.5	7.6
Tp95%		7.5		7.9		8.2		8.4	8.5	8.7	8.8

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.4		1.5	1.6
Tp5%	6.1		6.3		6.5		6.6	6.7
Tp50%	6.8		7.0		7.3		7.4	7.5
Tp95%	7.9		8.2		8.4		8.6	8.7

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.1		2.3		2.6		2.9	3.1
Tp5%	7.5		7.8		8.2		8.5	8.8
Tp50%	8.4		8.7		9.2		9.5	9.8
Tp95%	9.8		10.2		10.7		11.1	11.4

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.1		5.8		6.4		6.8	7.1
Tp5%	10.7		11.2		11.6		11.9	12.1
Tp50%	11.9		12.5		13.0		13.3	13.5
Tp95%	13.8		14.5		15.1		15.4	15.7

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	6.3		7.0		7.9		8.5	9.1
Tp5%	11.6		12.0		12.6		13.0	13.3
Tp50%	12.9		13.4		14.1		14.5	14.9
Tp95%	15.0		15.6		16.3		16.8	17.3

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.6		6.1		6.8		7.2	7.7
Tp5%	11.0		11.4		11.9		12.2	12.5
Tp50%	12.3		12.7		13.3		13.6	13.9
Tp95%	14.3		14.8		15.4		15.8	16.2

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.9		3.4		3.9		4.2	4.5
Tp5%	8.5		9.1		9.6		9.9	10.1
Tp50%	9.5		10.2		10.7		11.0	11.3
Tp95%	11.1		11.8		12.4		12.8	13.1

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.3		1.5		1.6	1.7
Tp5%	6.1		6.3		6.6		6.7	6.9
Tp50%	6.8		7.1		7.3		7.5	7.7
Tp95%	7.9		8.2		8.5		8.7	8.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-067 (NFL_6_0025)
Longitude [deg.E]: -58.8782
Latitude[deg N]: 47.5537
Projection: EPSG 4326
Depth [mMSL]: -122.3641
Models: DHI-NFL_6-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Maximum Likelihood / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.56		0.62		0.69	
					0.73		0.78
						0.83	
							0.87

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		6.5		7.0		7.7	
					8.2		8.8
						9.6	
							10.3
Tp5%		10.7		10.9		11.2	
					11.5		11.7
						12.1	
							12.3
Tp50%		12.1		12.4		12.8	
					13.1		13.3
						13.7	
							14.0
Tp95%		14.1		14.4		14.9	
					15.2		15.5
						16.0	
							16.3

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		0.6		0.7		0.8	
					0.9		0.9
						1.0	
							1.1
Tp5%		5.0		5.2		5.5	
					5.7		5.8
						6.0	
							6.1
Tp50%		5.6		6.0		6.3	
					6.4		6.6
						6.8	
							6.9
Tp95%		6.6		6.9		7.3	
					7.5		7.7
						7.9	
							8.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.6		0.7		0.9	1.0	1.0
1.1								1.2
Tp5%		5.0		5.4		5.7	5.8	6.0
6.1								6.2
Tp50%		5.7		6.1		6.4	6.6	6.8
7.0								7.1
Tp95%		6.7		7.1		7.5	7.7	7.9
8.1								8.2

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.1		4.8		5.5	5.9	6.2
6.6								6.8
Tp5%		9.3		9.7		10.1	10.3	10.5
10.7								10.8
Tp50%		10.5		11.0		11.5	11.7	11.9
12.2								12.3
Tp95%		12.3		12.9		13.4	13.7	13.9
14.2								14.3

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.1		6.7		7.3	7.7	8.1
8.6								8.9
Tp5%		10.4		10.8		11.1	11.3	11.5
11.7								11.8
Tp50%		11.9		12.2		12.6	12.8	13.0
13.3								13.4
Tp95%		13.8		14.2		14.7	15.0	15.2
15.5								15.7

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.5		7.2	7.8	8.5
9.4								10.2
Tp5%		10.4		10.7		11.1	11.4	11.7
12.1								12.4
Tp50%		11.8		12.1		12.6	12.9	13.2
13.7								14.1
Tp95%		13.8		14.1		14.6	15.0	15.4
16.0								16.4

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.4		5.8		6.4	6.7	7.0
7.4								7.7
Tp5%		10.0		10.3		10.6	10.8	10.9
11.1								11.2
Tp50%		11.4		11.7		12.1	12.3	12.4
12.6								12.8
Tp95%		13.3		13.7		14.0	14.3	14.5
14.7								14.9

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.3		3.9		4.6	5.0	5.3
5.8								6.1
Tp5%		8.6		9.1		9.5	9.8	10.0
10.3								10.5
Tp50%		9.8		10.3		10.8	11.1	11.4
11.7								11.9
Tp95%		11.4		12.0		12.6	13.0	13.3
13.6								13.8

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		0.8		0.9		1.0	1.1	1.1
1.2								1.2
Tp5%		5.6		5.8		6.0	6.0	6.1
6.2								6.2
Tp50%		6.3		6.6		6.8	6.9	6.9
7.0								7.1
Tp95%		7.4		7.7		7.9	8.0	8.1
8.2								8.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-068 (NFL_6_0003)
Longitude [deg.E]: -59.1585
Latitude[deg N]: 47.5137
Projection: EPSG 4326
Depth [mMSL]: -176.9033
Models: DHI-NFL_6-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Maximum Likelihood / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.56		0.62		0.69	0.73	0.77	0.83	0.86

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	6.9		7.4		8.1		8.7	9.3	10.1	10.8
Tp5%	11.1		11.4		11.7		11.9	12.2	12.6	12.8
Tp50%	12.4		12.6		13.0		13.3	13.6	14.0	14.3
Tp95%	13.8		14.1		14.6		14.9	15.2	15.6	16.0

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		1.4		1.6		1.8		2.0	2.2	2.4	2.6
Tp5%		6.5		6.8		7.2		7.4	7.6	7.9	8.0
Tp50%		7.3		7.6		8.0		8.2	8.5	8.8	9.0
Tp95%		8.1		8.5		8.9		9.2	9.5	9.8	10.0

Dir = 45	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		1.4		1.6		1.9		2.1
Tp5%		6.6		6.9		7.3		7.6
Tp50%		7.3		7.7		8.1		8.4
Tp95%		8.2		8.6		9.1		9.4

Dir = 90	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		4.1		4.7		5.3		5.6
Tp5%		9.3		9.8		10.1		10.3
Tp50%		10.4		10.9		11.3		11.5
Tp95%		11.6		12.2		12.6		12.9

Dir =135	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		5.6		6.3		7.1		7.7
Tp5%		10.4		10.7		11.2		11.5
Tp50%		11.5		12.0		12.4		12.8
Tp95%		12.9		13.4		13.9		14.3

Dir =180	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.0		6.5		7.3		7.9
Tp5%		10.6		10.9		11.3		11.6
Tp50%		11.8		12.1		12.6		12.9
Tp95%		13.2		13.5		14.1		14.5

Dir =225	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.2		6.8		7.3		7.6
Tp5%		10.7		11.0		11.3		11.4
Tp50%		11.9		12.3		12.6		12.7
Tp95%		13.3		13.7		14.1		14.2

Dir =270	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		6.3		7.0		7.6		8.0
Tp5%		10.8		11.1		11.4		11.6
Tp50%		12.0		12.4		12.7		12.9
Tp95%		13.4		13.8		14.2		14.5

Dir =315	T_R [years]							
	1	2	5	10	20	50	100	
Hm0		3.5		4.0		4.4		4.7
Tp5%		8.9		9.3		9.6		9.7
Tp50%		9.9		10.3		10.7		10.8
Tp95%		11.1		11.5		11.9		12.1

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-069 (NFL_6_0134)
Longitude [deg.E]: -58.9183
Latitude[deg N]: 48.2343
Projection: EPSG 4326
Depth [mMSL]: -31.8991
Models: DHI-NFL_6-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Maximum Likelihood / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.64		0.70		0.78	0.84	0.90	0.97	1.03

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		6.1		6.6		7.0	7.3	7.6	7.8	8.0
Tp5%		11.2		11.6		12.1	12.3	12.6	12.8	13.0
Tp50%		12.1		12.6		13.1	13.4	13.6	13.9	14.1
Tp95%		13.2		13.7		14.3	14.6	14.8	15.1	15.3

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]									
	1	2	5	10	20	50	100			
Hm0		1.8		2.0		2.2	2.4	2.6	2.9	3.1
Tp5%		5.7		6.0		6.4	6.7	7.0	7.4	7.6
Tp50%		6.2		6.5		7.0	7.3	7.6	8.0	8.3
Tp95%		6.8		7.1		7.6	7.9	8.3	8.7	9.0

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.5		1.6	1.7
Tp5%	4.6		4.9		5.2		5.4	5.6
Tp50%	4.9		5.3		5.7		5.9	6.1
Tp95%	5.4		5.8		6.2		6.4	6.6

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.3		1.4		1.5	1.6
Tp5%	4.4		4.7		4.9		5.1	5.2
Tp50%	4.8		5.1		5.4		5.5	5.7
Tp95%	5.2		5.5		5.8		6.0	6.2

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.3		1.4	1.4
Tp5%	4.4		4.6		4.8		4.9	5.0
Tp50%	4.8		5.0		5.2		5.3	5.4
Tp95%	5.2		5.4		5.6		5.8	5.9

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.4		1.5		1.6	1.7
Tp5%	4.7		5.0		5.2		5.3	5.4
Tp50%	5.1		5.4		5.6		5.8	5.9
Tp95%	5.6		5.9		6.1		6.3	6.4

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.6		2.9		3.2		3.5	3.8
Tp5%	7.0		7.4		7.9		8.2	8.5
Tp50%	7.6		8.0		8.6		8.9	9.3
Tp95%	8.2		8.7		9.3		9.7	10.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.9		6.5		7.0		7.3	7.6
Tp5%	11.0		11.6		12.1		12.3	12.6
Tp50%	11.9		12.6		13.1		13.4	13.6
Tp95%	13.0		13.7		14.3		14.6	14.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.7		5.4		6.1		6.4	6.7
Tp5%	9.7		10.5		11.1		11.5	11.8
Tp50%	10.5		11.4		12.1		12.5	12.8
Tp95%	11.5		12.4		13.1		13.6	13.9

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-070 (NFL_6_0222)
Longitude [deg.E]: -58.638
Latitude[deg N]: 48.4746
Projection: EPSG 4326
Depth [mMSL]: -69.8092
Models: DHI-NFL_6-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]									
	1	2	5	10	20	50	100			
WLres		0.66		0.73		0.81	0.88	0.94	1.02	1.08

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]									
1	2	5	10	20	50	100				
Hm0	4.0		4.4		4.8		5.0	5.2	5.4	5.5
Tp5%	9.4		10.0		10.6		10.9	11.2	11.4	11.6
Tp50%	11.1		11.8		12.5		12.8	13.1	13.5	13.7
Tp95%	13.5		14.4		15.1		15.6	15.9	16.4	16.6

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]										
	1	2	5	10	20	50	100				
Hm0		0.7		0.8		0.9		1.0	1.0	1.1	1.2
Tp5%		3.2		3.5		3.7		3.9	4.1	4.3	4.4
Tp50%		3.8		4.1		4.4		4.6	4.8	5.0	5.2
Tp95%		4.6		5.0		5.4		5.6	5.8	6.1	6.3

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.7		0.8		0.9		1.0	1.1 1.2 1.3
Tp5%	3.2		3.5		3.9		4.1	4.3 4.6 4.7
Tp50%	3.8		4.2		4.6		4.8	5.1 5.4 5.6
Tp95%	4.6		5.1		5.5		5.9	6.2 6.5 6.8

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.1		1.2	1.3 1.4 1.5
Tp5%	4.0		4.1		4.4		4.5	4.7 4.9 5.1
Tp50%	4.7		4.9		5.1		5.3	5.6 5.8 6.0
Tp95%	5.7		5.9		6.2		6.5	6.7 7.1 7.3

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.3		1.3	1.4 1.4 1.4
Tp5%	4.3		4.5		4.6		4.8	4.8 4.9 5.0
Tp50%	5.0		5.3		5.5		5.6	5.7 5.8 5.9
Tp95%	6.1		6.4		6.6		6.8	6.9 7.1 7.1

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.5		1.6		1.8	1.9 2.0 2.1
Tp5%	4.8		5.1		5.4		5.7	5.9 6.2 6.4
Tp50%	5.6		6.0		6.4		6.7	7.0 7.3 7.5
Tp95%	6.8		7.3		7.8		8.1	8.4 8.8 9.1

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.4		4.8		5.0	5.2 5.4 5.5
Tp5%	9.4		10.0		10.6		10.9	11.2 11.5 11.7
Tp50%	11.1		11.8		12.5		12.8	13.1 13.5 13.7
Tp95%	13.5		14.3		15.1		15.6	15.9 16.4 16.7

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.4		3.7		3.9		4.1	4.3 4.5 4.6
Tp5%	8.6		9.0		9.4		9.7	9.9 10.2 10.4
Tp50%	10.1		10.6		11.1		11.4	11.7 12.0 12.2
Tp95%	12.2		12.8		13.5		13.8	14.2 14.6 14.8

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.1		1.2		1.3	1.4 1.5 1.5
Tp5%	3.9		4.2		4.5		4.7	4.9 5.1 5.2
Tp50%	4.5		4.9		5.3		5.5	5.7 6.0 6.2
Tp95%	5.5		5.9		6.4		6.7	7.0 7.3 7.5

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-071 (NFL_6_0252)
Longitude [deg.E]: -59.2386
Latitude[deg N]: 48.6347
Projection: EPSG 4326
Depth [mMSL]: -61.9917
Models: DHI-NFL_6-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres		0.67		0.73		0.81	
					0.87		0.93
						1.01	1.07

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0		7.3		7.9		8.5	
					8.8		9.1
						9.3	9.5
Tp5%		10.4		10.8		11.2	
					11.3		11.5
						11.7	11.8
Tp50%		11.8		12.2		12.6	
					12.8		12.9
						13.1	13.3
Tp95%		12.8		13.2		13.6	
					13.9		14.0
						14.2	14.4

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0		5.2		5.6		6.2	
					6.7		7.2
						7.9	8.4
Tp5%		9.0		9.3		9.7	
					10.0		10.4
						10.8	11.1
Tp50%		10.1		10.5		10.9	
					11.3		11.7
						12.2	12.6
Tp95%		10.9		11.3		11.9	
					12.3		12.7
						13.2	13.6

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.6		3.9		4.3		4.6	4.8
Tp5%	7.6		7.9		8.2		8.5	8.7
Tp50%	8.6		8.9		9.3		9.5	9.8
Tp95%	9.3		9.7		10.1		10.3	10.6

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.9		2.1		2.3		2.5	2.7
Tp5%	5.7		5.9		6.2		6.5	6.7
Tp50%	6.4		6.7		7.0		7.3	7.5
Tp95%	7.0		7.3		7.6		7.9	8.2

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.2		2.4		2.7		2.9	3.1
Tp5%	6.2		6.4		6.7		6.9	7.1
Tp50%	6.9		7.2		7.5		7.7	8.0
Tp95%	7.5		7.8		8.1		8.4	8.6

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.5		3.8		4.1		4.4	4.7
Tp5%	7.5		7.8		8.1		8.3	8.6
Tp50%	8.5		8.7		9.1		9.4	9.6
Tp95%	9.2		9.5		9.9		10.2	10.5

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.7		7.5		7.9	8.3
Tp5%	9.4		10.1		10.6		10.8	11.1
Tp50%	10.6		11.3		11.9		12.2	12.5
Tp95%	11.5		12.3		12.9		13.2	13.5

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	7.0		7.8		8.4		8.7	9.0
Tp5%	10.2		10.8		11.1		11.3	11.4
Tp50%	11.5		12.2		12.5		12.7	12.9
Tp95%	12.5		13.2		13.6		13.8	14.0

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.5		7.0		7.3	7.6
Tp5%	9.4		9.9		10.3		10.5	10.6
Tp50%	10.6		11.1		11.6		11.8	12.0
Tp95%	11.5		12.1		12.5		12.8	13.0

DHI Water & Environment Inc.
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File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-072 (NFL_7_0216)
Longitude [deg.E]: -58.3286
Latitude[deg N]: 49.2684
Projection: EPSG 4326
Depth [mMSL]: -57.8659
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.70			0.77		0.87	0.94 1.01 1.10 1.17

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.9			6.4		7.0	7.4 7.8 8.2 8.6
Tp5%	10.1			10.5		10.9	11.2 11.4 11.8 12.0
Tp50%	10.8			11.2		11.7	12.0 12.3 12.6 12.8
Tp95%	11.7			12.2		12.7	13.0 13.3 13.7 13.9

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	3.2			3.7		4.1	4.4 4.6 4.8 5.0
Tp5%	7.6			8.1		8.5	8.8 9.0 9.2 9.3
Tp50%	8.1			8.7		9.1	9.4 9.6 9.8 10.0
Tp95%	8.8			9.4		9.9	10.2 10.4 10.7 10.8

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.6		1.7	1.8
Tp5%	4.9		5.2		5.5		5.7	5.9
Tp50%	5.2		5.5		5.9		6.1	6.3
Tp95%	5.7		6.0		6.4		6.6	6.8

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.2		1.3		1.5	1.6
Tp5%	4.4		4.7		5.1		5.3	5.4
Tp50%	4.8		5.1		5.4		5.6	5.8
Tp95%	5.2		5.5		5.9		6.1	6.3

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.5		1.6	1.6
Tp5%	4.9		5.1		5.3		5.4	5.6
Tp50%	5.2		5.5		5.7		5.8	6.0
Tp95%	5.7		5.9		6.2		6.3	6.5

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.1		2.3	2.4
Tp5%	5.7		6.0		6.3		6.5	6.6
Tp50%	6.1		6.4		6.7		6.9	7.1
Tp95%	6.7		7.0		7.3		7.5	7.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.2		4.8		5.5		5.9	6.4
Tp5%	8.6		9.2		9.7		10.1	10.4
Tp50%	9.3		9.8		10.4		10.8	11.2
Tp95%	10.1		10.7		11.3		11.8	12.1

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.8		6.4		7.0		7.4	7.7
Tp5%	10.0		10.5		10.9		11.2	11.5
Tp50%	10.7		11.2		11.7		12.0	12.3
Tp95%	11.7		12.2		12.7		13.0	13.3

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.0		4.3		4.8		5.1	5.4
Tp5%	8.4		8.7		9.1		9.4	9.7
Tp50%	9.0		9.3		9.8		10.1	10.4
Tp95%	9.7		10.1		10.6		11.0	11.3

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-073 (NFL_7_0240)
Longitude [deg.E]: -58.1619
Latitude[deg N]: 49.5183
Projection: EPSG 4326
Depth [mMSL]: -32.9797
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.71			0.79		0.89	0.96 1.03 1.13 1.19

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.5			5.9		6.5	6.9 7.2 7.7 8.0
Tp5%	9.9			10.3		10.8	11.1 11.4 11.7 11.9
Tp50%	10.7			11.1		11.6	11.9 12.2 12.6 12.8
Tp95%	11.7			12.1		12.7	13.0 13.3 13.7 14.0

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	3.2			3.7		4.1	4.3 4.5 4.7 4.8
Tp5%	7.5			8.1		8.5	8.8 9.0 9.2 9.3
Tp50%	8.1			8.7		9.2	9.4 9.6 9.9 10.0
Tp95%	8.9			9.5		10.0	10.3 10.5 10.8 10.9

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.3		1.6		1.8		1.9	2.0
Tp5%	4.9		5.3		5.7		5.9	6.1
Tp50%	5.3		5.7		6.1		6.4	6.5
Tp95%	5.8		6.3		6.7		6.9	7.1

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.3		1.4	1.5
Tp5%	4.2		4.6		4.9		5.1	5.2
Tp50%	4.6		4.9		5.2		5.4	5.6
Tp95%	5.0		5.3		5.7		6.0	6.2

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.1		1.3		1.4	1.4
Tp5%	4.4		4.6		4.8		5.0	5.1
Tp50%	4.7		4.9		5.1		5.3	5.5
Tp95%	5.2		5.4		5.6		5.8	6.0

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.6		1.7		1.7	1.8
Tp5%	5.1		5.3		5.5		5.6	5.7
Tp50%	5.5		5.7		5.9		6.0	6.2
Tp95%	6.0		6.2		6.5		6.6	6.7

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.8		4.2		4.8		5.1	5.5
Tp5%	8.2		8.7		9.2		9.6	9.9
Tp50%	8.9		9.4		9.9		10.3	10.7
Tp95%	9.7		10.2		10.9		11.3	11.7

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.5		5.9		6.5		6.9	7.2
Tp5%	9.9		10.3		10.8		11.1	11.4
Tp50%	10.7		11.1		11.6		11.9	12.2
Tp95%	11.7		12.1		12.7		13.0	13.3

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.8		4.1		4.5		4.8	5.0
Tp5%	8.3		8.6		9.0		9.2	9.5
Tp50%	8.9		9.2		9.6		9.9	10.2
Tp95%	9.7		10.1		10.5		10.9	11.2

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-074 (NFL_7_0252)
Longitude [deg.E]: -58.037
Latitude[deg N]: 49.6017
Projection: EPSG 4326
Depth [mMSL]: -47.8227
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.72			0.80		0.90	0.97 1.05 1.15 1.22

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.2			5.6		6.1	6.4 6.8 7.2 7.5
Tp5%	9.9			10.3		10.7	11.0 11.3 11.7 11.9
Tp50%	10.6			11.0		11.5	11.9 12.2 12.5 12.8
Tp95%	11.7			12.1		12.7	13.0 13.4 13.8 14.1

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.7			3.1		3.5	3.7 3.8 4.0 4.1
Tp5%	7.1			7.7		8.1	8.3 8.5 8.7 8.8
Tp50%	7.7			8.3		8.7	8.9 9.1 9.4 9.5
Tp95%	8.4			9.1		9.6	9.8 10.0 10.3 10.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.5		1.6	1.7
Tp5%	4.8		5.1		5.4		5.6	5.7
Tp50%	5.1		5.5		5.8		6.0	6.1
Tp95%	5.6		6.0		6.4		6.6	6.7

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	0.9		1.1		1.2		1.3	1.4
Tp5%	4.2		4.5		4.8		5.0	5.1
Tp50%	4.5		4.8		5.1		5.3	5.5
Tp95%	5.0		5.3		5.7		5.9	6.1

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.3		1.3	1.4
Tp5%	4.5		4.7		4.9		5.0	5.1
Tp50%	4.8		5.1		5.3		5.4	5.5
Tp95%	5.3		5.6		5.8		5.9	6.1

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.7		1.8	1.8
Tp5%	5.1		5.3		5.6		5.8	5.9
Tp50%	5.5		5.8		6.0		6.2	6.3
Tp95%	6.0		6.3		6.6		6.8	7.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.4		3.8		4.3		4.7	5.0
Tp5%	8.0		8.5		9.0		9.4	9.7
Tp50%	8.6		9.1		9.7		10.1	10.4
Tp95%	9.5		10.0		10.6		11.1	11.5

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.2		5.6		6.1		6.4	6.8
Tp5%	9.9		10.3		10.7		11.0	11.3
Tp50%	10.6		11.0		11.5		11.9	12.2
Tp95%	11.7		12.1		12.7		13.0	13.4

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.5		3.7		4.1		4.3	4.6
Tp5%	8.1		8.4		8.8		9.0	9.3
Tp50%	8.7		9.0		9.4		9.7	10.0
Tp95%	9.6		9.9		10.4		10.7	11.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-075 (NFL_7_0287)
Longitude [deg.E]: -57.8703
Latitude[deg N]: 49.9766
Projection: EPSG 4326
Depth [mMSL]: -61.7305
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.73			0.81		0.92	1.00 1.09 1.19 1.27

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.5			5.9		6.3	6.7 7.0 7.3 7.6
Tp5%	9.9			10.2		10.6	10.9 11.1 11.4 11.6
Tp50%	10.6			11.0		11.5	11.7 12.0 12.3 12.5
Tp95%	11.7			12.1		12.6	12.9 13.1 13.5 13.7

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.9			3.3		3.7	3.9 4.1 4.3 4.4
Tp5%	7.2			7.7		8.1	8.3 8.5 8.7 8.8
Tp50%	7.7			8.3		8.7	9.0 9.2 9.4 9.5
Tp95%	8.5			9.1		9.6	9.8 10.1 10.3 10.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.7		1.9		2.0	2.1 2.2 2.3
Tp5%	5.1		5.5		5.8		6.0	6.2 6.3 6.4
Tp50%	5.5		6.0		6.3		6.5	6.7 6.8 6.9
Tp95%	6.1		6.5		6.9		7.1	7.3 7.5 7.6

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.3		1.4		1.5	1.6 1.7 1.8
Tp5%	4.4		4.7		5.0		5.2	5.3 5.5 5.6
Tp50%	4.8		5.1		5.4		5.6	5.8 5.9 6.1
Tp95%	5.3		5.6		5.9		6.1	6.3 6.5 6.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.5		1.6	1.7 1.7 1.8
Tp5%	4.6		4.9		5.2		5.3	5.4 5.6 5.6
Tp50%	5.0		5.3		5.6		5.7	5.9 6.0 6.1
Tp95%	5.5		5.8		6.1		6.3	6.4 6.6 6.7

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.7		1.9		2.1		2.2	2.3 2.4 2.4
Tp5%	5.5		5.8		6.1		6.2	6.4 6.5 6.6
Tp50%	6.0		6.3		6.6		6.7	6.9 7.0 7.1
Tp95%	6.5		6.9		7.2		7.4	7.5 7.7 7.8

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.6		5.1		5.6		6.0	6.3 6.7 7.0
Tp5%	9.0		9.5		10.0		10.3	10.6 11.0 11.2
Tp50%	9.7		10.3		10.8		11.2	11.5 11.9 12.1
Tp95%	10.7		11.2		11.8		12.2	12.6 13.0 13.3

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.4		5.8		6.3		6.6	6.9 7.2 7.5
Tp5%	9.8		10.2		10.6		10.9	11.1 11.4 11.6
Tp50%	10.6		11.0		11.4		11.7	12.0 12.3 12.5
Tp95%	11.6		12.0		12.5		12.9	13.1 13.5 13.7

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.3		3.6		3.9		4.1	4.3 4.6 4.7
Tp5%	7.7		8.0		8.3		8.5	8.7 9.0 9.2
Tp50%	8.3		8.6		9.0		9.2	9.4 9.7 9.9
Tp95%	9.1		9.5		9.8		10.1	10.4 10.6 10.8

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-076 (NFL_7_0295)
Longitude [deg.E]: -57.787
Latitude[deg N]: 50.0599
Projection: EPSG 4326
Depth [mMSL]: -61.6074
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.72			0.82		0.93	1.01 1.09 1.19 1.27

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.3			5.7		6.1	6.4 6.7 7.1 7.4
Tp5%	9.9			10.3		10.7	11.0 11.3 11.6 11.8
Tp50%	10.7			11.1		11.6	11.9 12.2 12.5 12.7
Tp95%	11.8			12.2		12.7	13.1 13.4 13.7 14.0

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.7			3.1		3.4	3.7 3.8 4.0 4.2
Tp5%	6.9			7.5		7.9	8.1 8.4 8.6 8.7
Tp50%	7.5			8.1		8.5	8.8 9.0 9.3 9.4
Tp95%	8.2			8.9		9.4	9.7 9.9 10.2 10.4

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.7		1.8	1.9
Tp5%	4.8		5.1		5.4		5.6	5.7
Tp50%	5.2		5.6		5.9		6.1	6.2
Tp95%	5.7		6.1		6.4		6.6	6.8

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.1		1.3		1.4	1.4
Tp5%	4.0		4.3		4.6		4.8	5.0
Tp50%	4.3		4.7		5.0		5.2	5.4
Tp95%	4.8		5.2		5.5		5.7	5.9

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.2		1.3		1.4	1.4
Tp5%	4.2		4.5		4.7		4.9	5.0
Tp50%	4.6		4.8		5.1		5.2	5.4
Tp95%	5.0		5.3		5.6		5.8	5.9

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.7		1.8		1.9	2.0
Tp5%	5.1		5.4		5.6		5.8	5.9
Tp50%	5.5		5.9		6.1		6.2	6.3
Tp95%	6.1		6.4		6.7		6.8	7.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.3		4.8		5.3		5.7	6.0
Tp5%	8.9		9.4		10.0		10.3	10.6
Tp50%	9.6		10.2		10.8		11.1	11.4
Tp95%	10.6		11.2		11.8		12.2	12.6

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.3		5.7		6.1		6.4	6.7
Tp5%	9.9		10.3		10.7		11.0	11.3
Tp50%	10.7		11.1		11.6		11.9	12.2
Tp95%	11.8		12.2		12.7		13.1	13.4

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.2		3.4		3.7		3.9	4.1
Tp5%	7.5		7.9		8.2		8.4	8.6
Tp50%	8.2		8.5		8.9		9.1	9.3
Tp95%	9.0		9.3		9.7		10.0	10.2

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Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-077 (NFL_7_0376)
Longitude [deg.E]: -57.662
Latitude[deg N]: 50.2682
Projection: EPSG 4326
Depth [mMSL]: -123.8642
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.72			0.82		0.93	1.02 1.10 1.21 1.29

%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.6			5.9		6.4	6.7 7.0 7.4 7.6
Tp5%	9.8			10.1		10.5	10.7 11.0 11.3 11.5
Tp50%	10.7			11.0		11.4	11.7 12.0 12.3 12.6
Tp95%	11.7			12.1		12.6	12.9 13.2 13.6 13.8

%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.8			3.2		3.6	3.8 3.9 4.1 4.3
Tp5%	6.8			7.3		7.7	8.0 8.2 8.4 8.5
Tp50%	7.4			8.0		8.4	8.7 8.9 9.1 9.3
Tp95%	8.2			8.8		9.3	9.6 9.8 10.0 10.2

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.6		1.8		1.9	2.0
Tp5%	4.9		5.2		5.5		5.6	5.7
Tp50%	5.3		5.7		6.0		6.1	6.3
Tp95%	5.9		6.2		6.6		6.7	6.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.0		1.2		1.4		1.5	1.5
Tp5%	4.1		4.4		4.7		4.9	5.0
Tp50%	4.5		4.8		5.1		5.3	5.5
Tp95%	4.9		5.3		5.6		5.8	6.0

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.1		1.3		1.4		1.5	1.6
Tp5%	4.2		4.5		4.8		5.0	5.1
Tp50%	4.6		5.0		5.3		5.4	5.6
Tp95%	5.1		5.5		5.8		6.0	6.1

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.8		1.9		2.0	2.1
Tp5%	5.0		5.4		5.6		5.8	5.9
Tp50%	5.5		5.9		6.1		6.3	6.4
Tp95%	6.0		6.4		6.8		6.9	7.0

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.3		5.7		6.1		6.4	6.7
Tp5%	9.5		9.9		10.3		10.6	10.9
Tp50%	10.4		10.8		11.2		11.6	11.8
Tp95%	11.5		11.9		12.4		12.7	13.0

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.3		5.7		6.1		6.4	6.7
Tp5%	9.6		9.9		10.3		10.6	10.8
Tp50%	10.4		10.8		11.2		11.5	11.8
Tp95%	11.5		11.9		12.3		12.7	13.0

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	3.1		3.4		3.7		3.9	4.1
Tp5%	7.2		7.5		7.9		8.1	8.3
Tp50%	7.9		8.2		8.6		8.8	9.0
Tp95%	8.6		9.0		9.4		9.7	10.0

DHI Water & Environment Inc.
Newfoundland and Labrador Atlas of Surge and Wave Climate
Date Created: 06-11-2023
DHI Project Manager: Meven Robin Huiban (mhu@dhigroup.com)
File Created by: Jose Ignacio Ribba Esteva (jire@dhigroup.com)
Quality controller: Aline Kaji (alka@dhigroup.com)
Point name: EVA-078 (NFL_7_0489)
Longitude [deg.E]: -57.412
Latitude[deg N]: 50.7682
Projection: EPSG 4326
Depth [mMSL]: -173.0569
Models: DHI-NFL_7-FWE
Run: HINDCAST
EVA - Settings
Waves / Water Level Residuals
Estimation Method: Least Squares / Least Squares
Average Annual Peaks: 1 / 1
Extreme Value Distribution: 2-p Truncated Weibull / 2-p Weibull

EVA: Extreme Value Analysis
T_R: Return period in years
WLres: Water level residuals (m) (Surge)
Hm0: Significant wave height (m) asociated with the EVA return period
Tp5%: 5th percentile of the wave peak period (s) asociated to extreme Hm0
Tp50%: 50th percentile of the wave peak period (s) asociated to extreme Hm0
Tp95%: 95th percentile of the wave peak period (s) asociated to extreme Hm0
Dir: Directional bins center

%%%%%%%%%%WATER LEVEL ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
WLres	0.74			0.83		0.95	1.05 1.15 1.28 1.38

%%%%%%%%%%OMNIDIRECTIONAL WAVE ANALYSIS%%%%%%%%%

	T_R [years]						
	1	2	5	10	20	50	100
Hm0	5.7			6.2		6.7	7.0 7.2 7.6 7.8
Tp5%	9.7			10.1		10.5	10.8 11.0 11.3 11.4
Tp50%	10.5			10.9		11.3	11.6 11.9 12.1 12.3
Tp95%	11.5			12.0		12.5	12.8 13.0 13.4 13.6

%%%%%%%%%%DIRECTIONAL WAVE ANALYSIS%%%%%%%%%

Dir = 0	T_R [years]						
	1	2	5	10	20	50	100
Hm0	2.5			2.8		3.2	3.5 3.7 4.1 4.3
Tp5%	6.3			6.7		7.2	7.5 7.8 8.1 8.4
Tp50%	6.8			7.2		7.7	8.0 8.4 8.7 9.0
Tp95%	7.5			7.9		8.5	8.9 9.2 9.6 9.9

Dir = 45 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.3		2.6		2.9		3.2	3.5
Tp5%	6.0		6.3		6.8		7.1	7.5
Tp50%	6.4		6.8		7.3		7.7	8.1
Tp95%	7.1		7.5		8.1		8.5	8.9

Dir = 90 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.4		1.5		1.7		1.9	2.0
Tp5%	4.5		4.9		5.2		5.4	5.6
Tp50%	4.9		5.2		5.6		5.8	6.0
Tp95%	5.4		5.8		6.2		6.4	6.6

Dir =135 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.2		1.4		1.6		1.7	1.8
Tp5%	4.3		4.6		5.0		5.2	5.3
Tp50%	4.6		5.0		5.4		5.6	5.7
Tp95%	5.1		5.5		5.9		6.1	6.3

Dir =180 T_R [years]								
1	2	5	10	20	50	100		
Hm0	1.5		1.7		2.0		2.1	2.2
Tp5%	4.7		5.2		5.5		5.7	5.8
Tp50%	5.1		5.6		5.9		6.1	6.3
Tp95%	5.6		6.1		6.5		6.8	6.9

Dir =225 T_R [years]								
1	2	5	10	20	50	100		
Hm0	5.7		6.2		6.7		7.0	7.2
Tp5%	9.7		10.1		10.5		10.8	11.0
Tp50%	10.5		10.9		11.3		11.6	11.9
Tp95%	11.5		12.0		12.5		12.8	13.0

Dir =270 T_R [years]								
1	2	5	10	20	50	100		
Hm0	4.3		4.9		5.4		5.7	5.9
Tp5%	8.4		8.9		9.4		9.7	9.9
Tp50%	9.0		9.6		10.2		10.4	10.7
Tp95%	9.9		10.6		11.2		11.5	11.7

Dir =315 T_R [years]								
1	2	5	10	20	50	100		
Hm0	2.5		2.8		3.1		3.3	3.5
Tp5%	6.3		6.6		7.0		7.3	7.5
Tp50%	6.8		7.2		7.6		7.9	8.1
Tp95%	7.4		7.9		8.3		8.6	8.9