

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION COMMISSION OCÉANOGRAPHIQUE INTERGOUVERNEMENTALE COMISIÓN OCEANOGRÁFICA INTERGUBERNAMENTAL МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ

اللجنة الدولية الحكومية لعلوم المحيطات

政府间海洋学委员会

UNESCO – 7 Place de Fontenoy - 75352 Paris Cedex 07 SP, France http://ioc.unesco.org - contact phone: +33 (0)1 45 68 03 18 E-mail: ioc.secretariat@unesco.org

IOC Circular Letter No 2998

(Available in English only)

IOC/VH/ON/ah 24 May 2024

- To : ICG/PTWS and ICG/CARIBE-EWS Tsunami National Contacts (TNC) and Tsunami Warning Focal Points (TWFP) ICG/PTWS and ICG/CARIBE-EWS Chairs and Vice-Chairs
- C.c. : Official National Coordinating Bodies for liaison with the IOC Member States Permanent Delegations/Observer Missions to UNESCO of IOC Member States Permanent Delegates/Observer Missions to UNESCO and National Commissions for UNESCO of Brunei Darussalam, Cambodia, Federated States of Micronesia, Marshall Islands and Tokelau National Commissions for UNESCO in IOC Member States Permanent Observers to ICG/PTWS Director, International Tsunami Information Centre (ITIC) Director Pacific Tsunami Warning Center (PTWC) IOC Officers

Subject: ITIC Training Programme on Tsunami Early Warning Systems and the PTWC Enhanced Products, Tsunami Evacuation Planning and Tsunami Ready Programme (ITP-TEWS-Chile), Valparaiso, Chile, 19–30 August 2024

Through this circular letter, members of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS) and the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions Member States (ICG/CARIBE-EWS), and countries in other regions with tsunami warning and mitigation interests, are invited to participate in the above-mentioned activity.

The training is jointly conducted by the International Tsunami Information Center (ITIC) and the Servicio Hidrográfico y Oceanográfico de la Armada de Chile (SHOA). The ITP-TEWS-Chile will use Chile as a working example of an end-to-end tsunami warning and mitigation system, with SHOA as its national warning centre. It will follow the same format at the ITP-Hawaii, where Hawaii is used as a working example with PTWC as its warning centre. ITIC is hosted by the US National Oceanic and Atmospheric Administration (U.S.) and Chile in partnership with the IOC of UNESCO.

Looking over history, we are reminded that globally 90% of the casualties of tsunamis (99% in the Pacific) have been caused by local or regional tsunamis that can hit in minutes. In this case, communities and individuals need to know in advance what to do and where to evacuate. Tsunami

Chairperson

Yutaka MICHIDA, Prof. Special Presidential Envoy for UN Ocean Decade The University of Tokyo (Atmosphere and Ocean Research Institute) Kashiwanoha 5-1-5 2778564 Kashiwa JAPAN

Executive Secretary

Mr Vidar HELGESEN Intergovernmental Oceanographic Commission — UNESCO 7 Place de Fontenoy 75352 Paris Cedex 07 SP FRANCE

Vice-Chairpersons

Dr Marie-Alexandrine SICRE Directrice de Recherche Centre national de la recherche scientifique (CNRS) 3 rue Michel Ange 75016 Paris FRANCE

Dr Nikolay VALCHEV Director Institute of Oceanology Bulgarian Academy of Sciences 40 Parvi May Str. 9000 Varna BULGARIA Mr Juan Camilo FORERO HAUZEUR Executive Secretary Colombian Ocean Commission (COO) Avenida Ciudad de Cali No. 51 – 66 Edificio WBC, Oficina 306 111071 Bogotá, D.C. COLOMBIA

Dr Srinivasa Kumar TUMMALA Director Indian National Centre for Ocean Information Services (INCOIS) Pragathi Nagar (BO), Nizampet (SO) Hyderabad 500090 INDIA Prof. Amr Zakaria HAMOUDA President National Institute of Oceanography and Fisheries (NIOF) Qaitbay, Al-Anfoshi Alexandria EGYPT Warning Centres (TWC) must have clear standard operating procedures that can be quickly executed in the event of a warning, and TWC staff must be well-trained and prepared to act quickly and decisively.

Recognizing that local tsunamis are the most challenging operation for countries, the 2024 ITP-TEWS will focus on Standard Operating Procedures (SOP) for warning and emergency response as guided by the PTWS National Tsunami Warning Center Minimum Competency Levels and the Local-Source Tsunami Response Best Practices. The training will also focus on preparedness and will overview tsunami evacuation planning, including inundation and evacuation mapping, response planning and exercising, as indicators for the UNESCO-IOC Tsunami Ready Recognition Programme (IOC Manual and Guides <u>74</u>, 2022). A goal of the IOC's Ocean Decade Tsunami Programme is "make 100% of communities at risk of tsunami prepared for and resilient to tsunamis by 2030" through initiatives such as the Tsunami Ready Programme.

On the last day of the training, a tsunami exercise will be conducted requiring country decisionmaking and action using national products supplemented by the PTWC Enhanced Products. The ITP-TEWS Chile programme description and provisional agenda for the 10-day training are attached.

ITP-Hawaii is open primarily to country members of ICG/PTWS and ICG/CARIBE-EWS. Participants from other regional tsunami warning systems are also welcome. During the first week, participants are expected to give a 15-minute presentation on their country's tsunami warning and mitigation system, including their tsunami SOPs and plans for implementing Tsunami Ready or other similar initiatives.

Participants are expected to provide their own travel funding. Organizations are kindly asked to confirm that funding is available to cover their participants to this course. A small amount of travel support may be available but is not yet confirmed. SHOA will provide break refreshments and the SMART Cables International Programme Office will provide lunches during the training. The training will be conducted in English and Spanish. More information will be made available through the website http://www.ioc-tsunami.org/ITP-TEWS-Chile.

Applications using the attached form should be sent together with a CV to the Associate Director of ITIC, Lt. Cdr. Matías Sifón (<u>msifon@shoa.cl</u>), with a copy to the Director of ITIC, Dr Laura Kong (<u>laura.kong@noaa.gov</u>) and to the ICG/PTWS Technical Secretary, Dr Öcal Necmioğlu (<u>o.necmioglu@unesco.org</u>). Applications should be endorsed by the country TNC or TWFP. The deadline for applications is 7 June 2024. Successful candidates will be notified by 28 June 2024.

With the assurances of my highest consideration, I remain,

Yours sincerely,

[signed]

Vidar Helgesen Executive Secretary

Enclosures (2): 1/ ITP-TEWS-Chile 2024 Programme Description and Provisional Agenda 2/ ITP-TEWS-Chile 2024 Application Form 3/ Logistic Information

UNESCO-IOC INTERNATIONAL TSUNAMI INFORMATION CENTER (ITIC)

ITIC TRAINING PROGRAMME (ITP-TEWS-Chile) TSUNAMI EARLY WARNING SYSTEMS AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS, TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME

19–30 August 2024 Valaparaiso, Chile

PROVISIONAL AGENDA (version May 2024)

Session	•		
1–3	MONDAY, 19 AUGUST, DAY 1		
	Opening, Course Overview, Tsunami Early Warning, Country Presentations		
1.1	Opening Welcome and Self-introductions		
1.2	Programme Logistics		
1.3	Course Overview, Manual, Materials, including Awareness and TW Tools		
2.1	Responding Rapidly and Effectively: Tsunami Warning and Emergency Response Requirements		
2.2	Country Presentations throughout Week 1 (15 min each)		
2.3	UNESCO IOC Global Tsunami System: Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS); Roles of Tsunami National Contacts, Regional Tsunami Service Providers and Tsunami Information Centers, Tsunami Warning Focal Points, National Tsunami Warning Centers		
	Earthquake and Tsunami Science		
3.1	What earthquake science you need to know to warn for and respond to tsunami warnings? Earthquake Seismology - what, where, how, when, and damage caused		
3.2	What tsunami science you need to know to warn for and respond to tsunami warnings? Tsunami generation, propagation, and inundation - what, where, how, when, and damage caused		
3.3	Great Earthquakes and tsunamis - why, where, and when. Probabilistic seismic and tsunami hazard assessment		
4–6	TUESDAY, 20 AUGUST, DAY 2		
	End-to-End Tsunami Early Warning - Chile Example		
4.1	Tsunami Warning and Mitigation Systems – Chile example 1. Tsunami Hazard Risk Assessment: 2. Tsunami Warning Center (SNAM) 3. Tsunami Emergency Response (SINAPRED) 4. Tsunami Preparedness, Exercises, and Awareness		
4.2	Chile office visits - during week 1 National Tsunami Warning Center, SNAM - Tsunami Warning Center operations room - Tsunami Sea Level Monitoring Instrumentation - coastal stations, DART National Seismological Center, Univ of Chile National Emergency Operations Center, SINAPRED:		

	Lessons Learned from Past Tsunamis
5	Lessons Learned from Past Tsunamis – Warning and Response (Hawaii 1946, 1986, 1994; Chile 1960; Papua New Guinea 1998; Japan 1983/1993; Nicaragua 1992 / Java 2006 / Mentawai 2010; Sumatra 2004; Tonga 2006; American Samoa/Samoa/Tonga 2009; Chile 2010; Japan 2011; Bengkulu 2012; Haida Gwaii 2012; Kaikoura NZ 2016, Palu and Anak Krakatau 2018, Tonga 2022, and others)
	Tsunami Warning Center Operations
6.1	Tsunami Warning Center Overview: What do Tsunami Warning Centers (TWCs) do? What do TWCs provide to Tsunami Emergency Response (TER) agencies? Challenges in Detection and Tsunami Threat Assessment
6.2	Tsunami Emergency Response Overview: What do TER agencies provide to the Public? Challenges in Alerting, Evacuation, Safe-to-Return (All-Clear), and Preparedness
6.3	UN Ocean Decade Tsunami Warning goals - Emerging Techniques and Technologies for faster more accurate tsunami forecasts: Earthquake Finite Fault Modeling, GNSS/GPS detection of co-seismic deformation
6.4	UN Ocean Decade Tsunami Warning goals - Emerging Tools and Technologies for faster and more accurate tsunami forecasts - ITU/WMO/IOC SMART Cables for Observing the Ocean
6.5	UN Ocean Decade Tsunami Warning goals - Emerging Tools and Technologies for faster and more accurate tsunami warnings - non-seismic tsunami sources
7–8	WEDNESDAY, 21 AUGUST, DAY 3
	Tsunami Mitigation - Ports and Harbors, Tsunami-resistant Building Design
7.1	Tsunami Mitigation: Ports and Harbors, and Marine Sector Readiness
7.2	Tsunami Mitigation: Designing buildings to withstand tsunamis - Japan, US, and International Building Codes, Vertical Evacuation
	TWC Topics: Standard Operating Procedures (SOPs), PTWC SOPs
8.1	IOC TWC and TER SOP Manual, End-to-end Tsunami Warning – Stakeholder and their needs, Roles and Responsibilities, Standard Operating Procedures, and their linkages (IOC MG 76)
8.2	SOPs and Checklists: TWC Templates and examples for Distant, Regional, and Local Tsunamis: Monitoring, Detection and Evaluation, Communications, Message Dissemination (IOC MG 76)
8.3	Pacific Tsunami Warning Center: Crisis Event SOPs: Earthquake and Sea Level Monitoring (Data networks and acquisition, quality-control/health status), Earthquake Analysis Methods, Threat Analysis, Forecasting, Products, Dissemination
8.4	Pacific Tsunami Warning Center: Routine Operations SOPs: Quality Control and redundancy, contingency and backup (PTWC Operations, Systems and Procedures Manual)
	TWC Topics - Earthquake and Tsunami Forecasts
8.5	TWC Operations: Real-time Earthquake Detection and Fast Source Characterization, Methods and Limitations: Locating Earthquakes (seismometers, seismic stations, sparse networks and hypocentral bias, etc). Estimating Magnitudes (macroscopic intensity and instrumental)

8.6	TWC Operations:		
	Real-time Earthquake Detection and Fast Source Characterization, Methods		
	and Limitations: Determine Fault Mechanisms (Double-couple 1st motions		
	to W- Phase Centroid Moment Tensors)		
8.7	TWC Operations:		
	Decision Support System (DSS) / Tsunami Warning Integrated Forecast		
	System (Chile SIPAT)		
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9	THURSDAY, 22 AUGUST, DAY 4		
	PTWC Enhanced Products, NTWC and TER Guidance		
9.1	Pacific Tsunami Warning Center Enhanced Products - Why, What, Criteria,		
	Staging of Products; Explanation of Each Product: Public Text, Graphical		
	Deep-Ocean Tsunami Amplitude, Coastal Tsunami Amplitude, Coastal		
	Tsunami Amplitude Polygons, Tsunami Amplitude Statistics, Coastal		
	Tsunami Amplitude KMZ file (video and discussion)		
9.2	PTWC Operations:		
5.2	Travel Time Forecasting – Methods, Limitations, Uncertainty, Sensitivity		
	Studies (Location, Depth, Magnitude)		
9.3	PTWC Operations:		
3.5	Wave Amplitude Forecasting – Methods (ATFM, SIFT, RIFT), Limitations,		
	Uncertainty, Sensitivity Studies (Location, Depth, Magnitude)		
9.4	NTWC and TER Guidance on how to use PTWC Enhanced Products for		
9.4			
	National Warnings and Evacuation - Land and Marine Threats and Public		
	Safety: Flow Charts, Criteria Tables, Timeline-driven SOPs, Message		
~ =	Templates (IOC MG 76)		
9.5	Tsunami Warning Decision Support Tools		
10.11			
10-11	FRIDAY, 23 AUGUST, DAY 5		
10-11	Chile National Emergency Management Agency and National		
10-11			
10-11	Chile National Emergency Management Agency and National Seismological Center visitSINAPRED Emergency Operations Center, CSN Seismic Monitoring Center		
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10.1	Chile National Emergency Management Agency and National Seismological Center visitSINAPRED Emergency Operations Center, CSN Seismic Monitoring CenterTWC Free Choice (SOPs, Tsunami Warning Decision Support Tools, SNAM, Tsunami Monitoring instruments), Week 2 Planning		
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10.1	Chile National Emergency Management Agency and National Seismological Center visit SINAPRED Emergency Operations Center, CSN Seismic Monitoring Center TWC Free Choice (SOPs, Tsunami Warning Decision Support Tools, SNAM, Tsunami Monitoring instruments), Week 2 Planning Small Group Sessions - 4 Groups, 4 Sessions, Switch after 60 minutes Instructions and switch to rooms Group 1: Review & improve your Country TWC SOP / Checklists. 1-to-1 or small group discussion and question-and-answer on your SOPs. Reference for Day 9 Exercise Chile Wave 2024 Group 2: Tsunami Warning Decision-Support Tools Install and use Tsunami Warning Decision-Support Tools (CISN, Tide Tool, TTT), Tsunami Coastal Assessment Tool (TsuCAT) Group 3: SNAM SNAM Operational Tools Group 4: Sea Level Monitoring and DARTs Week 2 Planning - August 26 Evacuation Drill		

12-13	MONDAY, 26 AUGUST, DAY 6		
	Evacuation Drill, NTWC Competencies, Tsunami Emergency Response (TER) SOPs		
12.1	Evacuation Drill, City of Vina Del Mar		
13.1	NTWC Competencies (ICG/PTWS-XXX-SC, 2024)		
13.2	SOPs and Checklists: TER operations - Example Warning Plans for Coordination of Information Flow and Evacuation (IOC MG 76). Private Sector SOPs. Developing timeline-driven SOPs (Who does What, and When (Roles and Responsibilities)?)		
	HOMEWORK - Review & improve country TWC TER SOP / Checklists (especially for local/regional threat) and Media SOP. Reference for Day 9 ECW-24 exercise		
	Communications, Local Source SOPs, UNESCO IOC Tsunami Ready, QGIS		
13.3	Emergency communications - Robustness, reliability, redundancy. Technologies for the downstream transmission of warnings to communities. Case Study: Palu, Indonesia tsunami, 2018		
13.4	Local-Source Tsunami Response Best Practice (approved at ICG/PTWS- XXVIII, 2019)		
13.5	Implementing Tsunami Ready programs to recognize community readiness - UNESCO IOC Tsunami Ready Recognition Programme - Guidelines, Recognition Process (IOC MG 74)		
13-14	TUESDAY, 27 AUGUST, DAY 7		
	Event flow, Evacuation Planning		
13.6	Improving Response and Managing (reliable and unreliable) Information Flow during an Event: Media and Social Media - Good Practices		
13.7	Learning Activity: Improving Response – Tsunami Warning and Emergency Response - What happens during an event?		
13.8	Building Awareness and Community Preparedness - Tsunami Evacuation Planning - considerations and requirements. Preparing for Community Tsunami Evacuations: from inundation to evacuation maps, response plans and exercises (IOC MG 82)		
	Hazard Assessment, Evacuation Maps		
14.1	TR ASSESS-1: Tsunami Hazard Risk Assessment - Data Requirements, Methods, Techniques. Case Study - Chile		
14.2	Hazard Assessment - IOC Regional Efforts on Tsunami Seismic Sources - Caribbean, Central America, South China Sea, Tonga Kermadec, New Hebrides/San Cristobal, New Britain meeting outcomes, and upcoming plans		
14.3	TR PREP-1: Making Community-based Evacuation Maps, Routes, and Signage - guidance		
14.4	Create Community Evacuation Map - Caribbean and Pacific examples, 'paper and pencil'		
14-15	WEDNESDAY, 28 AUGUST DAY 8		
	Evacuation Maps, Response Plans		
12.2	Evacuation Drill outcomes. Did you escape the wave?		
14.5	Evacuation maps when inundation modeling is not possible or practical – Case Study		

14.6	TR RESP-1 and RESP-2:		
	Making Tsunami Response Plans and Managing Emergency Response -		
	guidance, how-to, and templates		
	HOMEWORK - Finish reviewing country TER SOP / Checklists for exercise.		
	Awareness, Exercises		
14.8	TR PREP-3 and PREP-4:		
	Building Awareness and Community Preparedness 1 - Strategies and		
	examples, World Tsunami Awareness Day, Caribbean PAE Strategy and Philippines Development Process, ITIC available materials, Hawaii examples		
14.9	TR PREP-3:		
14.9	Creating Public Awareness Material, including evacuation (poster,		
	presentation, video, etc)		
14.10	Team Sharing: Creating Public Awareness poster		
14.11	TR PREP 5:		
	Building Awareness and Community Preparedness 2 - Tsunami Exercises		
	and Drills, IOC Community Tsunami Exercise Guideline (IOC MG 86),		
	examples from participating countries		
15.1	Exercise Chile Wave 2024 (ECW-24) –		
	Decision-making using PTWC Enhanced Products. EXPLAN: Introduction, Format, Conduct		
15	THURSDAY, 29 AUGUST, DAY 9		
15	Exercise Chile Wave 2024 (ECW-24)		
15.2	ECW-24Tsunami Exercise Preparation –		
	"Country" TWC / TER SOPs, Criteria Tables, Response Plans, Alerting,		
	Media, Evacuation, Cancellation, etc		
15.3	ECW-24Tsunami Exercise –		
	Setup and last instruction		
15.4	ECW-24Tsunami Exercise –		
	Decision-making using PTWC Enhanced Products		
15.5	ECW-24Post-Exercise Evaluation –		
	Preparation for Press Conference		
45.40	HOMEWORK - Finish Situation Report and Briefing		
15-18	FRIDAY, 30 AUGUST, DAY 10		
	ECW-24 Press Conference		
15.6	ECW-24 Tsunami Exercise Hotwash –		
	Press Conference: "Country" brief followed by "Media" / Audience Question- and-Answer		
47.4	Summary and Next Steps, Closing		
17.1	2024-2025 Calendar: ICG and TOWS WG Action Items and Priorities		
17.2	Summary Discussion (Way Forward, Next Steps, Gaps and Needs):		
	UNESCO IOC Tsunami Ready, World Tsunami Awareness Day, UN Decade		
	of Ocean Science for Sustainable Development		
18	Presentation of Certificates and Closing Ceremony		
	FRIDAY, SATURDAY, 30-31 AUGUST		
	Hotel Checkout - Depart for home country		

UNESCO-IOC International Tsunami Information Center (ITIC)

ITIC TRAINING PROGRAMME – TSUNAMI EARLY WARNING SYSTEMS, CHILE (ITP-TEWS-CHILE)

19-30 AUGUST 2024

APPLICATION FORM

APPLICATION DEADLINE: FRIDAY, 7 JUNE 2024

Please type or write in BLOCK letters in English Please submit by E-MAIL or FAX to:

E-MAIL: msifon@shoa.cl (SHOA) laura.kong@noaa.gov (ITIC) o.necmioglu@unesco.org (IOC)

1. PERSONAL INFORMATION

NAME	
TITLE	DR. PROF. MR. MS. others
SEX	
NATIONALITY	
HOME ADDRESS	
TELEPHONE NUMBER	
FAX NUMBER	
EMAIL ADDRESS	

2. PROFESSIONAL BACKGROUND

OFFICE/ ORGANIZATION	
POSITION	
ADDRESS	
TELEPHONE NUMBER	
FAX NUMBER	
EMAIL ADDRESS	

3. EDUCATIONAL BACKGROUND

LEVEL	SCHOOL	DEGREE	YEAR GRADUATED
COLLEGE			
MASTER			
DOCTORAL			
POST DOCTORAL			

4. TSUNAMI- RELATED TRAININGS ATTENDED

TITLE OR SUBJECT	CONDUCTED BY	DATES

5. OTHER RELATED TSUNAMI-RELATED JOB EXPERIENCE

OFFICE / ORGANIZATION JOB DESCRIPTION	POSITION	DATES

6. TRAVEL INFORMATION

NAME ON PASSPORT	
PASSPORT COUNTRY	
PASSPORT NUMBER	
BIRTHDAY (DD-MM-YYYY)	
DATE OF ISSUE	
PLACE OF ISSUE	
EXPIRY DATE	
COUNTRY OF BIRTH	
COUNTRY OF CITIZENSHIP	
NAME OF NEAREST INTERNATIONAL AIRPORT	

7. OTHER

ENGLISH	Excellent	🗌 Fair
LANGUAGE PROFICIENCY	Good Good	Poor
SPANISH	Excellent	🗌 Fair
LANGUAGE PROFICIENCY	Good Good	Poor
DO YOU REQUIRE TRAVEL FUNDING	 Yes, Full Funding Yes, Partial Funding, Amount USD No, Self-funded 	

STATEMENT OF INTEREST:

Why are you interested in attending this training?

What topics are you most interested in?

What additional topics you would like to learn about?

After the Training, where and how will the experience gained in the Training will be used?

PLEASE ALSO SUBMIT SEPARATELY YOUR CURRICULUM VITAE (CV).

PRINTED NAME

SIGNATURE

DATE

ENDORSED BY TSUNAMI WARNING FOCAL POINT OR TUNAMI NATIONAL CONTACT:

PRINTED NAME

SIGNATURE

ORGANIZATION

DATE



ITIC Training Programme Tsunami Early Warning Systems Chile 2024 (ITP-TEWS-Chile)

LOGISTICS INFORMATION

VALPARAÍSO, CHILE 19 – 30 AUGUST 2024

Hosted by Servicio Hidrográfico y Oceanográfico (SHOA) de la Armada de Chile

1. TRAINING PROGRAMME

DATE AND TIME

The training will take place between August 19 and 30, 2024. The activities during these days will start at 09:00 and end at 17:00.

VENUE

The training course will take place at the facilities of the "Hydrographic and Oceanographic Service of the Navy" (known as SHOA by its acronym in Spanish).

The address is: Errázuriz Echaurren 254, Playa Ancha, Valparaíso.



LANGUAGE

The training course will be conducted in English and Spanish. Simultaneous translation into each language will be available.

BREAKS AND LUNCH

On each day, Monday to Friday,

- Coffee/tea breaks will be provided by SHOA
- Lunch will be provided by the SMART Cables International Programme Office

2. LODGING

The local host, Chile SHOA, will provide assistance for their lodging. Please direct questions to Lt. Cdr. Matías Sifón, e-mail: msifon@shoa.cl, ITIC Associate Director, Head Oceanography Dept, SHOA

There are many hotels, apart hotels and apartments that can be found with apps like Booking, Trivago, Airbnb, etc. Although Valparaíso is close to the training venue, it is a Port City and can be more dangerous especially at night. Thus, it is recommended to book hotels in Viña del Mar, which is a more touristic city. The travel time between Viña and Valparaiso is of about 30 minutes (by car) as long as there is no heavy traffic.

Name	Location	Phone	E-Mail	Type room	Cost
Mare	4 Norte 646	+56961908684	recepcionmarenostrum@bienestararmada.cl	Single	\$ 56.000
Nostrum	4 None 040	+50901906064		Double	\$ 68.300
Pullman	Av. San Martin 667	+56323817102	Ventas.pullmansanmartin@accor.com	Single	\$ 110.000
Diego de	1 Nte. 221	600 2620100	centraldereservas@dahoteles.com	Single	\$ 99 USD
Almagro	I INCE. ZZ I	000 2020100	_	Double	\$ 116 USD
Rustika Bed & Breakfast	Traslaviña 500	+56987545152	<u>Web Page</u> rustikahostel@gmail.com	Single	\$50.000
Vista	Check	Check	Web Dage	Single	\$33.000
Hermosa Hoteles	webpage	webpage	Web Page	Double	\$56.000

Recommended options in Viña del Mar are:

Recommended options in Valparaíso:

Name	Location	Phone	Mail	Type room	Cost
Fortunata Chacana Guest House	Waddington 270	+563226017 46	Web Page reservas@fortunatachacana.cl	Single	\$ 87.000
lbis Valparaíso	Av Errazuriz 811		Web Page	Double 2 Single	\$ 45.000 \$ 45.000
Loft Waddington	Waddington 290	+569934249 89	Web Page	Single	\$ 55.000
Hotel Reina Victoria	Sotomayor 190	+569576993 48	Web Page reservas@hotelreinavictoriavalparaiso.cl	Double	\$ 56 USD
				Double (small room)	\$ 43 USD
		+56 (32) 2117983	Web Page info@hotellatitud33sur.cl	Double	\$ 82.5 USD
Hotel Latitud				Double	\$ 58.6 USD
33 Sur				Double	\$ 44.7 USD
				Double	\$ 66.4 USD

3. TRANSPORTATION

Transportation from Santiago airport to your Viña del Mar or Valparaiso hotel, and from your hotel to the Training Venue will be informed to confirmed participants at a later date.

4. ELECTRICITY

The electricity in Chile is 220 Volts. Plug types are "C" and "L"



5. TAP WATER

In Chile, tap water undergoes purification and treatment processes, which makes it safe to drink.



6. CURRENCY

The currency in Chile is the Chilean peso (CLP). There are exchange offices both at the airport and in downtown Valparaíso and Viña del Mar.

Similarly, credit cards are used in many stores. The most popular cards accepted are Visa, Mastercard and American Express.

Bills: 1.000, 2.000, 5.000, 10.000, 20.000 pesos.

Coins: 10, 50, 100, 500 pesos.



DOLLARS (USD) TO CHILEAN PESOS (CLP)*		
1	\$ 938	
5	\$ 4.691	
10	\$ 9.381	
50	\$ 46.907	

* values calculated on 03/17/2024

7. TIME ZONE

Chile is in the GMT- 4 time zone during the winter season. The Magallanes area in the south of the country is in GMT-3 and Rapa Nui (Easter Island) is in GMT-6.

8. WEATHER AND CLIMATE

The ITP-TEWS-Chile (August 2024) will take place at the end of winter. The temperatures will be cool, averaging between 11 and 16 °C, with precipitation average of 75 mm.

In Valparaíso, summers are comfortable, arid and clear, and winters are cold and partly cloudy. The temperature generally varies from 7 °C to 20 °C and rarely drops below 4 °C or rises above 25 °C. The *cool season* lasts 3.1 months, from June 2 to September 5, and the average daily maximum temperature is less than 16 °C. The coldest month of the year in Valparaíso is July, with an average minimum temperature of 7 °C and a maximum of 15 °C.

The rainy season lasts between 5 to 3 months, from April 15 to September 23, with a moving interval of 31 days of rainfall of at least 13 millimeters. The month with the most rain in Valparaíso is June, with an annual average of 54 millimeters. In case of rain, we recommend using layers or waterproof ponchos rather than umbrellas, mainly because Playa Ancha is particularly windy.



9. TELEPHONE AND INTERNET

If your mobile phone does not have international roaming, you may purchase prepaid options. Chips can be bought providing internet time from minutes and/or Gigabytes, which are known as "Bolsas" (Prepaid plan). Some chips come with prepaid time included, so ask about the conditions of the chip.

Normally, a passport is not required to buy a chip. The cost is approximately \$2.000 CLP (~2 USD).

Some options are:

Entel: Company with best overall signal, both in urban and rural areas. <u>https://www.entel.cl/prepago/</u>

WOM: Newer company with good signal, but only in urban areas. The good part is the unlimited gigas for internet for 1, 3, 8 or 30 days. https://www.wom.cl/prepago/#bolsasilimitadas

Where to buy a chip?

Department Stores: Tricot, Hites, La Polar, Abcdin, Corona, Multicentro, Ripley and París. Supermarkets: Líder, Tottus, Jumbo.

Pharmacies: Salcobrand, Cruz Verde.



Where to buy a chip?

Locations are on https://www.wom.cl/estamos-contigo/#sucursales



There are more mobile phone stores and companies, but they do not have prepaid options of more than 3 days. Other companies are:

- Movistar: https://ww2.movistar.cl/movil/prepago/bolsas/
- Claro: <u>https://www.clarochile.cl/personas/servicios/servicios-moviles/prepago/</u>
- Virgin Mobile: <u>https://www.virginmobile.cl/bolsas</u>

10. TOURIST ATRACTIONS NEARBY

Casa Museo La Sebastiana	Celtera Celtera Celtera Celtera Celtera	Dirección: Ricardo De Ferrari 692, Valparaíso.
Cerro Concepción		Valparaíso
Paseo Dimalow		Cerro Concepción
Paseo Gervasoni		Cerro Concepción

Paseo Yugoslavo	Cerro Concepción
Ascensor Reina Victoria.	Desde el Paseo Dimalow o desde Av. Elías 122
Museo Marítimo Nacional	Paseo 21 de Mayo #45, Playa Ancha.

Paseo 21 de Mayo	<image/>	Cerro Artillería
Ascensor El Peral		Miramar Plaza de la Justicia
Palacio Rioja		Quillota 214, Viña del Mar
Reloj de Flores		Alamos 590. Caleta Abarca, Viña del Mar

Casino Viña del Mar	Av. San Martín 199, Viña del Mar
Parque Quinta Vergara	Errázuriz 563-596, Viña del Mar.
Castillo Wulff	Av. Marina 37, Viña del Mar
Dunas de Concón	Av. Concón Reñaca

11. SAFETY CONSIDERATIONS

Since 2018, crime has increased in Chile. For this reason, we advise to take safety considerations. In general, Valparaíso and Viña del Mar are fairly quiet cities compared to other cities such as Santiago. The seasons where more robberies occur are usually in the summer when there are more visitors (December to March). It is unlikely that something will happen during your visit, but please take precautions to be on the lookout, and do not show anything valuable when you are walking around. Hotels should have a safe box and you may want to keep valuables there.

Tourism schedule

In the morning, there is no major danger of touring Valparaíso or Viña del Mar. When the sun goes down, it is preferable to be as cautious as possible in transportation and in the center of the cities, since this is when the greatest number of robberies and accidents occur.

Whenever possible, prefer to go out with a companion for a walk and avoid taking photographs.

Protect your belongings



Do not carry your cell phone in plain sight, for example in the back pocket of your pants or in your hand you're walking.





Do not store valuables in easy-to-open outside pockets of backpacks. This type of theft is often seen on public transportation. Store them in internal pockets, secret pockets or use the backpack facing forward.

As with mobile phones, do not carry your camera around your neck or in your hand if you are not using it. Rather carry it inside your bag or backpack until you are going to use it.