



Diving Industry Standards

Why have standards, regulations & laws?

Room 1

What are the benefits to people working in the diving industry?

Room 2

What are the benefits to other groups (the public, government, travel industry, etc.)?

Overview

- ISO Standards
- EUF
- EUF Certification International
- EN Standards
- Training Organisation Standards
- RSTC
- CMAS
- RTC
- RESA
- CRISAG

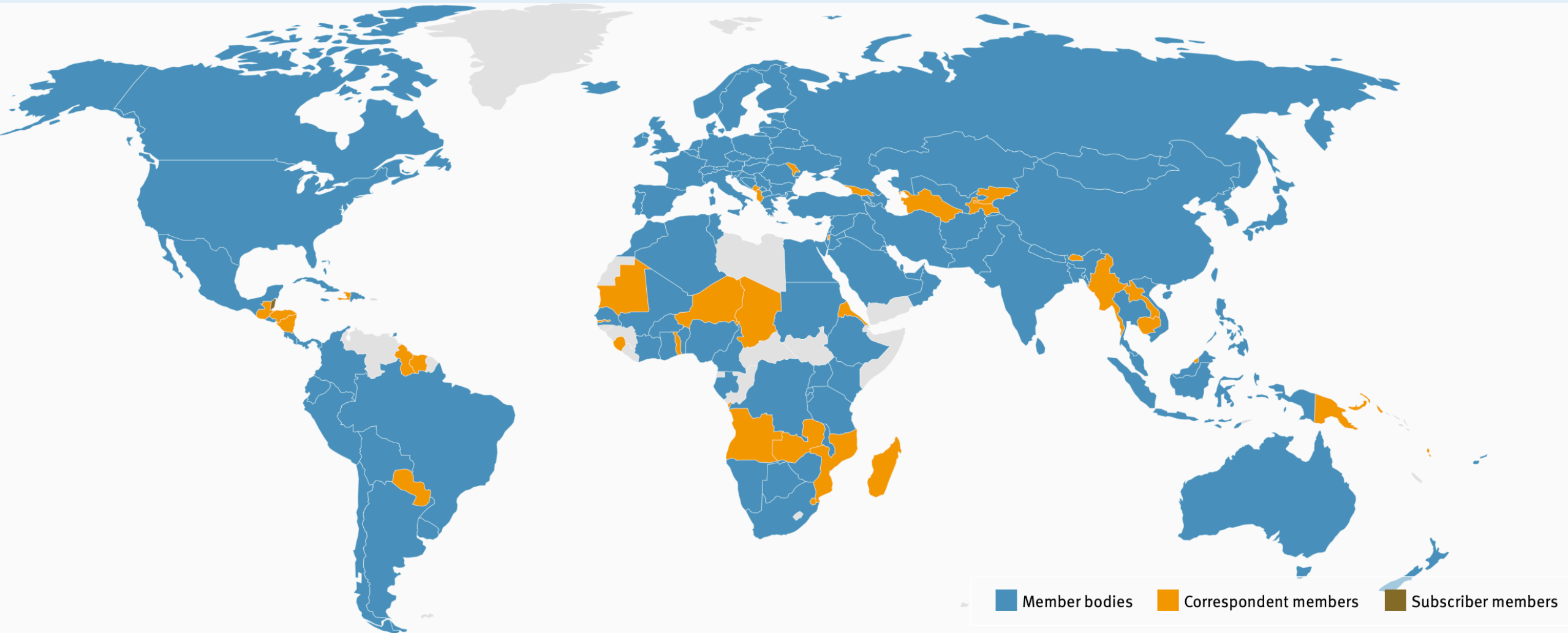


ISO Standards

International Organisation for Standardisation



ISO Member Countries



What are ISO Standards?



- ISO = [International Standards Organization](#)
- [Most countries](#) are members of ISO
- For example, [Malta](#) is a Full Member of ISO
- A way of comparing quality *globally*. Parallels with EN standards.
- There is a suite of thirteen ISO Standards covering Recreational Diving
- Any training organization may *claim* that they comply with these standards
- However, there also exists a separate, independent international certifying body that audits training organisations and, if they pass the audit process, certify as following the standards
- The certification process has to be renewed at intervals to prove continuing compliance

The Main ISO Diving Standards

ISO Level	ISO Reference
Introductory training programmes to scuba diving	ISO 11121
Diver Level 1 - Supervised Diver	ISO 24801-1
Diver Level 2 - Autonomous Diver	ISO 24801-2
Diver Level 3 - Dive Leader	ISO 24801-3
Training programmes on enriched air nitrox diving	ISO 11107
Requirements for training on environmental awareness for recreational divers	ISO 21417
Requirements for Gas Blender training programmes	ISO 13293
Instructor Level 1	ISO 24802-1
Instructor Level 2	ISO 24802-2
Recreational scuba diving service providers	ISO 24803

EUF

European Underwater Federation





Purpose of the EUF

- To be a totally inclusive platform for all recreational diving activities, whether voluntary or remunerated. To be the consultative body for all matters concerning safety, regulation or legislation in areas affecting the recreational diving sector.

EUF Member Classifications

RTSC
Europe


Independent
Training
Agencies


CMAS
Europe

Independent
Federations

Observers

Associate
Members

 Profit distributing bodies

 Non-profit distributing bodies (one per country)

EUFC Certification International

- European and International Standards define the state of the art for safety and quality of scuba diving training organisations and dive centres.
- [EUFC Certification International](#) provides them the opportunity to **prove their competence and quality of service** and confirms as an **independent body**, that a service has been tested and that its quality is subject to proper control mechanisms.
- A co-operation between the [European Underwater Federation \(EUFC\)](#) and Austrian Standards.

Certification Process

- All entities providing recreational scuba diving training systems and certification and which assume responsibility for the implementation and quality management of scuba diver and scuba instructor training can apply for certification. The standards provide the opportunity for certification of scuba divers as well as for scuba diving instructors.
- On submission of the application for certification, the training organisation must provide specified information and documentation (e.g. training standards, training material for students). These are checked as to whether they meet the requirements of the applicable standards and justify the performance of on-site audits.

Certification Process continued

- Assessments within the framework of the certification procedures are carried out by an audit team. This audit team is composed of a Lead Auditor who is appointed by Austrian Standards and a Technical Auditor who is a professional from the diving training industry.
- In order to validate the practical aspects of the training system, on-site audits are performed by the observation of a number of scuba diver and scuba instructor training events at appropriate levels.

The Audit Process

- EUF Certification International is completely independent and sends highly-skilled auditors to conduct each assessment
- The audits include:
 - visits to the organisation's offices
 - review of all training materials
 - observation of actual courses
 - verification of the organisation's Quality Management processes



These certifications have become the global standard for measuring the quality of diver training organisations


Recertification is required every five years



CERTIFICATE

No.: S EUF CB 2004001

Austrian Standards plus GmbH (certification body in accordance with ISO/IEC 17065) issues this certificate.

Holder of certificate:	Professional Association of Diving Instructors CA 92688 Rancho Santa Margarita, United States of America (USA)
Scope:	All PADI regional offices and representatives
Standard(s):	ISO 11107:2009-06-15 <i>Training programmes on enriched air nitrox (EAN) diving</i> ISO 11121:2009-06-15 <i>Introductory training programmes to scuba diving</i> ISO 13293:2012-11-01 <i>Gas blender training programmes</i> ISO 21417:2019-08-01 <i>Training on environmental awareness</i> ISO 24801-1:2014-04-01 <i>Training of recreational scuba divers - Supervised diver</i> ISO 24801-2:2014-04-01 <i>Training of recreational scuba divers - Autonomous diver</i> ISO 24801-3:2014-04-01 <i>Training of recreational scuba divers - Dive leader</i> ISO 24802-1:2014-04-01 <i>Training of scuba instructors - Level 1</i> ISO 24802-2:2014-04-01 <i>Training of scuba instructors - Level 2</i> This certificate attests the conformity of the service listed with the requirements of the standard referenced.
Service:	Training systems for recreational scuba divers ISO 24801-1 - PADI Scuba Diver; ISO 24801-2 - PADI Open Water Diver; ISO 24801-3 - PADI Divemaster; ISO 24802-1 - PADI Assistant Instructor; ISO 24802-2 - PADI Open Water Scuba Instructor; ISO 11207 - PADI Enriched Air Diver; ISO 11121 - PADI Discover Scuba Diving; ISO 13293 "Level 1 gas blender" - PADI Nitrox Blender; ISO 13293 "Level 2 gas blender" - PADI Trimix Blender; ISO 21417 - PADI Project Aware Specialty Course
Mark of conformity:	This certificate entitles the holder of the certificate to use the following conformity mark: 
Date of issue:	2020-01-28
Date of initial issue:	2004-11-01
Date of expiry:	2024-12-15

Dr. Peter Jonas
Director Certification

Training Organisation Standards

Case study: PADI



PADI

- PADI issues about one million certifications globally a year
- PADI is not only the largest organisation in the world, but also has the most globally consistent standards
- PADI has the largest and most effective Quality Management system

Instructor Manual



PADI
padi.com

PADI

- Departments in PADI's international offices include:
 - Quality Management department
 - Training experts
 - Instructor Development department
 - Customer Services personnel
 - PADI Retail and Resort support
 - Field personnel



Quality Management

- PADI gathers information in various ways:
 - 33% of all students are surveyed
 - 100% of technical diving courses are surveyed
 - 100% of leadership-level courses are surveyed
 - Customer complaints
 - Member reports
 - Incident reports
 - Staff observations
- Investigations are very thorough and may result in punitive action

Expelled Individual Pros

The following list identifies former individual PADI Members who have been expelled from the PADI organization within the last few years. These individuals are no longer PADI Members, can't conduct PADI courses nor represent themselves as PADI Members.

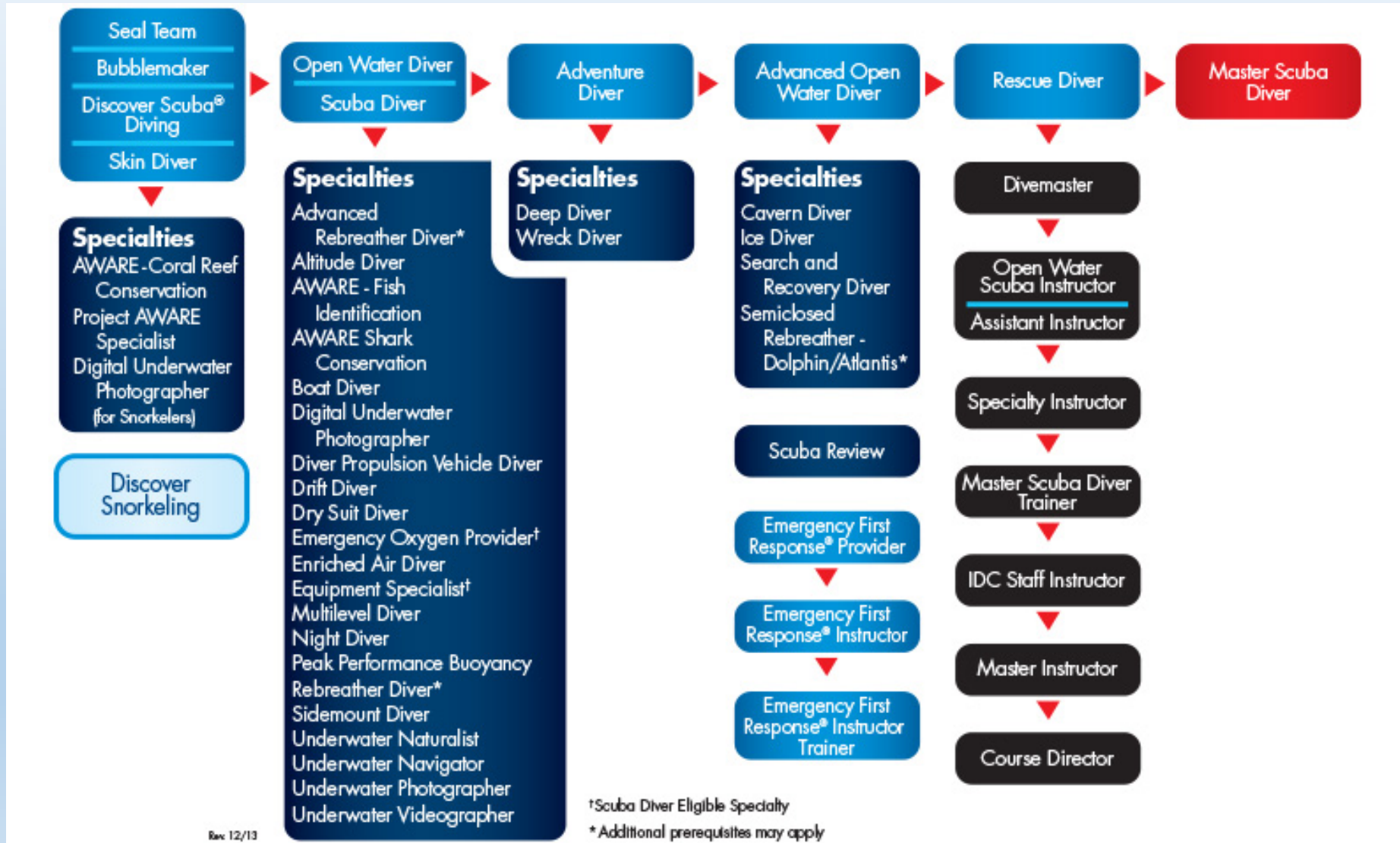
Note that expulsion is a last resort. The PADI Quality Management Program follows an extensive process that includes fact checking, getting all perspectives about the issue (including the member's) and, when necessary, offering corrective retraining and cooperative compliance. Expulsion results when the PADI Member refuses to implement corrective measures, or when the nature of the complaint is so severe that expulsion is necessary to protect the public or to preserve the reputation of the PADI organization.

If you have any questions about an individual listed, please contact the Quality Management Department at a [PADI Regional Headquarters](#).

List of Expelled Members

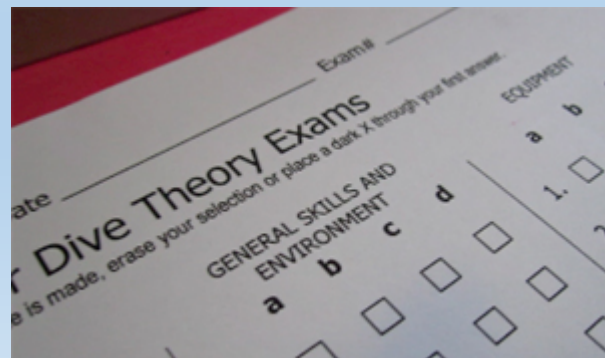
Last Name	First Name	No.	City	Country/Region	Date
Abdalmechoed	Ahmed Zaki	258230	Tabuk	Saudi Arabia	24-Oct-2013
Adel	Mohamed	358197	Port Said/Dahab	Egypt	17-Aug-2018
Aceituno	Marvin	239543	Atlanta	GA, USA	24-Oct-2014
Acosta	Jose C	239926	Columbus	GA, USA	24-Mar-2011
Aguilar Perera	Hector	52537	Cozumel	Mexico	9-Jul-2015
Aguilera Monuayo	Oswaldo	336541	Santa Cruz-Puerto Ayora	Ecuador	24-Jun-2014
Ahmed	Samir	312703	Terengganu	Malaysia	22-Jun-2017

PADI Courses



PADI Training Materials

- Consistent global format
- Translated in many languages
- Ensure student learning has been achieved
- Includes protocols to document student progress



PADI

- Diver safety as first priority
- Dependable standards
- Rigorous Quality Management process
- Process for correcting or removing problem instructors



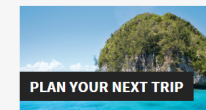
CONSUMER PROTECTION

PADI'S QUALITY MANAGEMENT PROGRAM

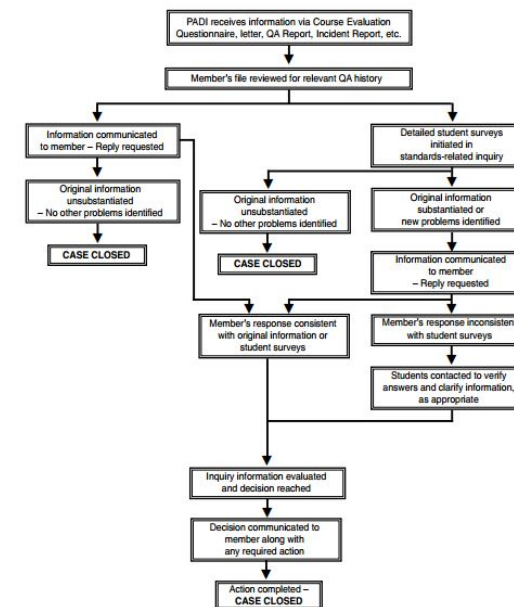
The PADI organization's commitment to providing divers with consistent, first-rate scuba diving training has made the PADI name synonymous with quality diver education. Acknowledging, as well as preserving, the high level of customer satisfaction achieved by PADI Dive Centers, Resorts and individual PADI Members is the cornerstone of the PADI Quality Management and Recognition program.

Whether you just returned home from a fabulous dive vacation and want to express your satisfaction with a PADI Dive Resort, or perhaps you encountered a problem during your training and want assistance or just to let someone know, PADI's Quality Management Program serves both purposes.

The primary objective is to ensure that all PADI Members understand the importance of using PADI's educational system and adhering to PADI Standards. PADI Dive Centers, Resorts and individual professional members who demonstrate excellent service are acknowledged through the Recognition of Excellence program. Had a great experience and want to share it? Please send complimentary reports about PADI Members to QM@padi.com.



Summary of Routine Quality Assurance Inquiry



RSTC

Recreational Scuba Training Council

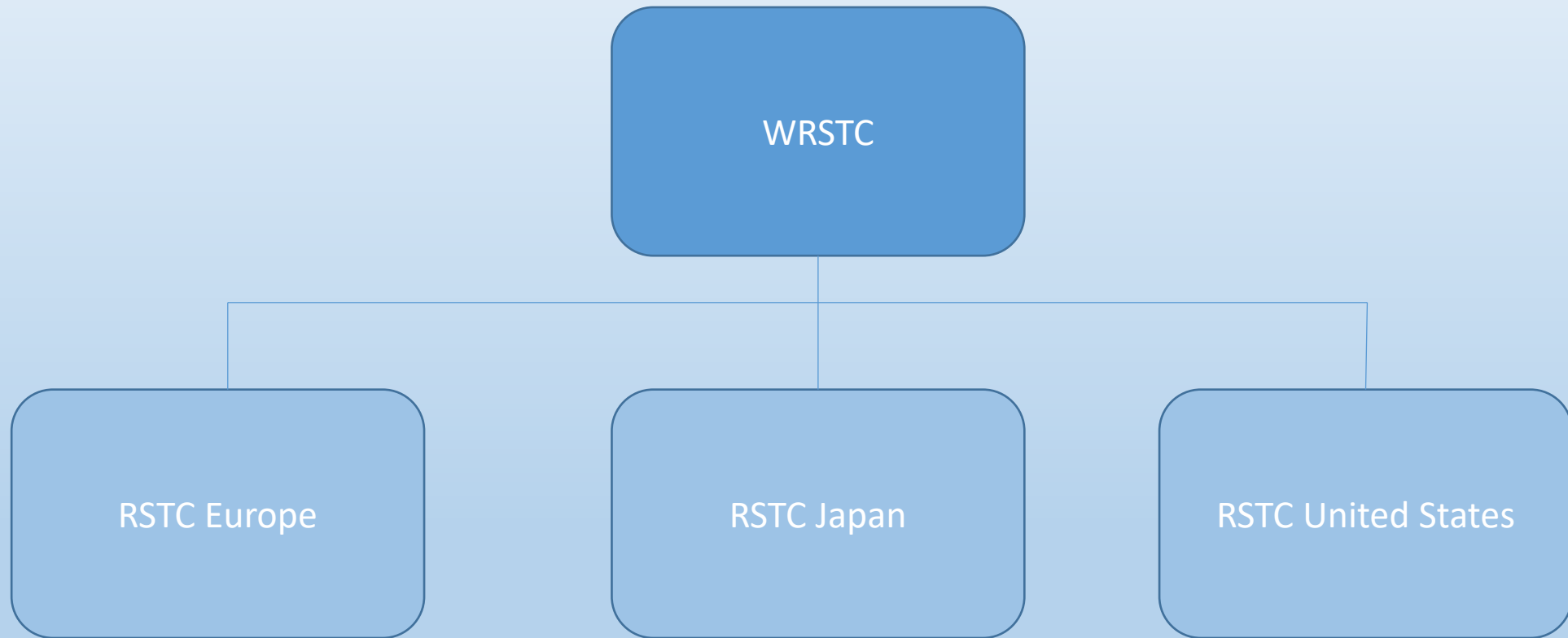


WRSTC's Mission Statement

The World Recreational Scuba Training Council (WRSTC) is dedicated to the worldwide safety of the recreational diving public. As such, one of the WRSTC's primary goals is the development of worldwide minimum training standards.



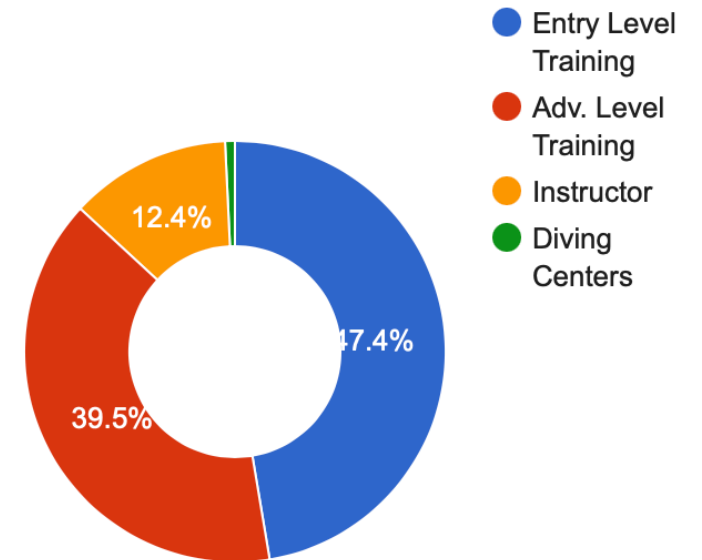
RSTC Structure



RSTC Europe

- RSTC Europe was formed in 1994
- RSTC Europe represents approximately 80% of European market
- It has been estimated that the European diving industry generates in excess of €190 million per year.
- The value of the diving industry is significant

RSTC Statistics





RSTC Europe Members

The Diving Consumer

- It is estimated that a diving student invests on average, either during or shortly after the entry-level training course, up to €1,600 into equipment, approximately €400 for the entry-level course, and between €80 to €300 for further training levels.
- It is common for the diving student to complete two training courses (at €300 each) and depending upon interest and local conditions, additionally between two to six specialty courses (at €100 each).
- The average diver's holiday for five to seven days costs about €750 without diving. Additionally, they spend another €300 to €400 for the diving package, the diving course or on additional equipment and fees.

CMAS

Confédération Mondiale des Activités Subaquatiques



Committees

- **Sport Committee**

Everything about underwater sport life. [More »](#)

- **Technical Committee**

World class standards for all aspects of Scuba Diving. [More »](#)

- **Scientific Committee**

Marine biology, geology and underwater archeology. [More »](#)

Underwater Sports

Next Championships

**15th CMAS Finswimming World Cup - round2
swimming pool (Postponed)**

26th - 28th Feb 2021, Eger - HUN

[more details »](#)

**Italian Finswimming Master Winter Open
Championships**

28th Feb 2021, Agropoli (SA) - ITA

[more details »](#)

**15th CMAS Finswimming World Cup - round3
swimming pool**

19th - 21st Mar 2021, Lignano Sabbiadoro, Ud - ITA

[more details »](#)

**4th Round - French Apnea National Cup (STA,
DYN, DNF & 16X50m)**

20th - 21st Mar 2021, Besançon - FRA

[more details »](#)

Technical Committee

Mission of the Technical Committee

The main focus of the T.C. is with providing the CMAS members with safe diving. This is achieved through promoting world class standards for all aspects of Scuba Diving and ensuring adherence of them by member federations and dive providers. [more »](#)

CMAS Dive Training Programmes - General Requirements

The CMAS has developed a CMAS International Diver Training Certification System that consists of Diver, Speciality Diver, Technical Diver and Leadership Diver Training Standards and which allows divers, that have been trained in accordance with the prescribed CMAS International Diver Training Standards, to have their certifications recognised throughout the world in countries that are members of the CMAS family of divers.

Scientific Committee

About the Underwater Environment

About the CMAS Scientific & Sustainability Committee

The main task of the CMAS Scientific & Sustainability Committee (SC) is to bring into focus the important issues related to the freshwater and marine underwater world.

Respect for Environment and Cultural Heritage

Diving and snorkelling must be practiced in such a way that none of the sites where diving takes place are affected. The environmental and cultural resources, such as for instance animals, plants, geological formations, and underwater cultural heritage sites, have to be preserved. Commercial or personal interests do not justify negatively affecting the environment or the underwater cultural heritage sites.

CMAS Divers

- Many [national federations](#) are members of CMAS
- These are supposed to follow CMAS standards



RTC

Rebreather Training Council





RTC Mission

- The mission of the RTC is to promote the safe use of rebreathers by creating industry agreed training standards and operational protocols.
- These standards and protocols will be updated and amended as needed to reflect the evolving state of the art and best practices available.



RTC Structure

- The Rebreather Training Council is a forum for training organizations offering courses for divers using rebreathers. Each [member body](#) has one vote and generally decisions are based on a two thirds majority vote.
- The RTC has four officers: a President, Vice President, Secretary and Treasurer who are voted into office every two years.



RTC Standards

RTC Recreational Rebreather Diver Level 1

- A diver able to dive with a rebreather in the company of at least one other certified diver without supervision in conditions similar to those experienced during this course. The training organization may specify a maximum depth for certified divers up to a maximum of 30 metres/100 feet.

RTC Technical Rebreather Diver Level 1

- A diver able to dive with a rebreather in the company of at least one other certified diver without supervision in conditions similar to those experienced during this course. The training organisation may specify a maximum depth for certified divers up to a maximum of 40 metres/130 feet.

RTC Technical Rebreather Diver Level 2

- A diver able to dive with a rebreather and two or more off-board bailout cylinders in the company of at least one other certified diver without supervision in conditions similar to those experienced during this course. The training organization may specify a maximum depth for certified divers up to a maximum of 60 metres/200 feet.

RTC Technical Rebreather Diver Level 3

- A diver able to dive with a rebreather and at least two or more off-board bailout cylinders in the company of at least one other certified diver without supervision in conditions similar to those experienced during this course. The training organization may specify a maximum depth for certified divers up to a maximum of 100 metres/330 feet.

CRISAG

- The Combined Rebreather Industry Standards Alignment Group ([CRISAG](#)) was formed in January 2019 to allow discussions between RESA and RTC delegates, with the aim of creating harmonised standards for the training of rebreather divers.
- CRISAG now works closely on the process of developing ISO Standards with [Working Group 1 of ISO TC 228](#) (Diving Services), and typically meets in advance of ISO standards meetings to develop recommendations to the Working Group.

RESA

Rebreather Education & Safety Association



Structure and Goals

- A not for profit organization consisting of rebreather manufacturers and other similar entities. RESA was developed in order to aid in improving the safety and education in the rebreather industry.
- Aims to:
 - Promote standards based development and manufacture of rebreather equipment, the quality of which is measured by third party audited Quality Management Systems.
 - Promote a high level of safety awareness and training.



Accident Investigation

- Many rebreathers effectively have a “black box” built in that allow a lot of information available if they are properly handles following an incident.

GUIDELINES FOR COAST GUARD , POLICE, NAVY AND OTHER ACCIDENT INVESTIGATORS

This is a list of investigative procedures for specific equipment brands:

 [Ambient Pressure Diving](#)

 [Hollis Explorer SR](#)

 [Hollis Prism 2 CCR](#)

 [KISS Rebreathers](#)

 [rEvo Rebreathers](#)

 [Shearwater Research Inc.](#)

 [Triton mCCR](#)

Summary

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- EUF
- EUF Certification International
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