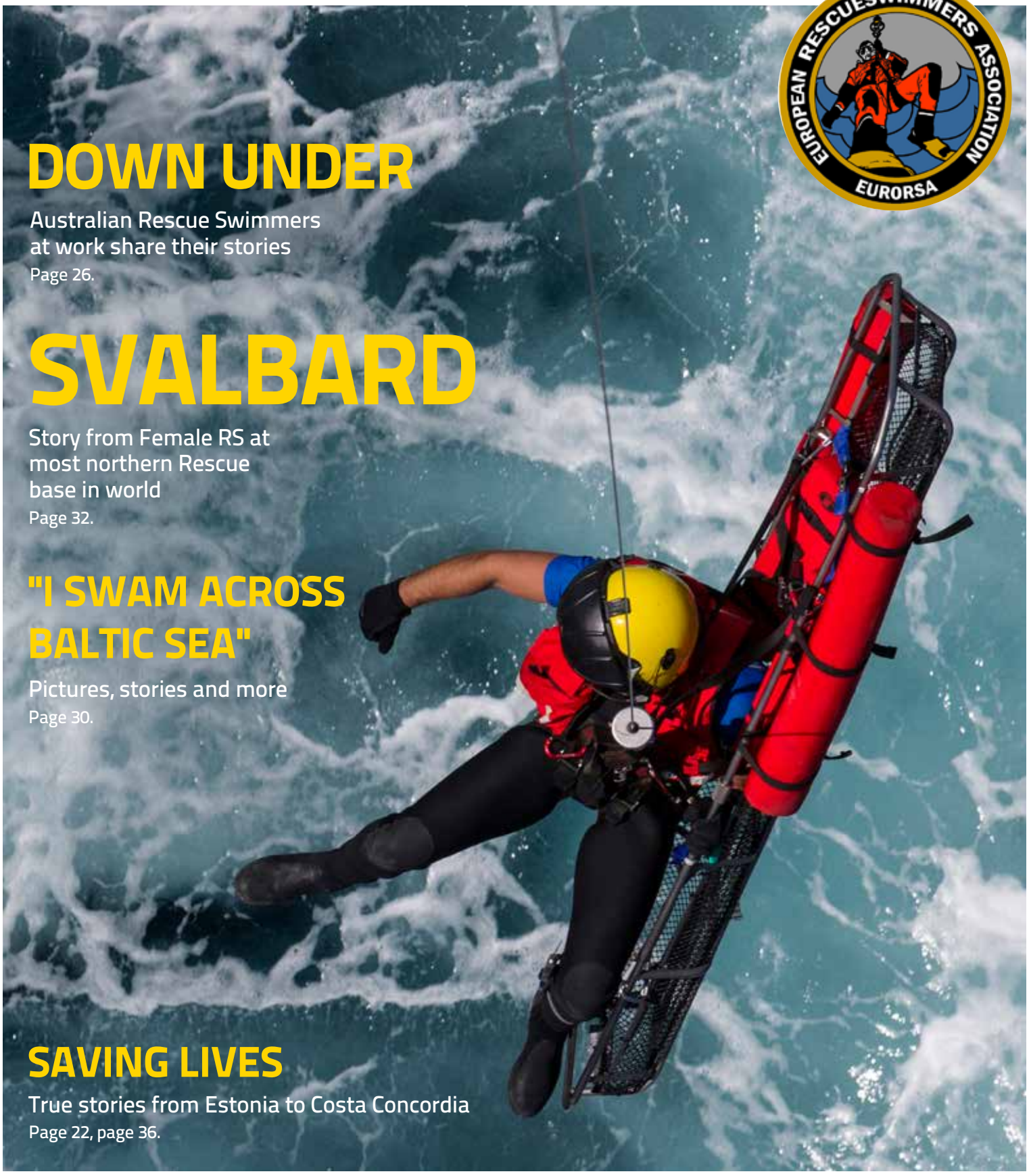
RESCUE SWIMMER

1/2014 Nobody gets left behind www.eurorsa.com



DOWN UNDER

Australian Rescue Swimmers at work share their stories

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SVALBARD

Story from Female RS at most northern Rescue base in world

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"I SWAM ACROSS BALTIC SEA"

Pictures, stories and more

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SAVING LIVES

True stories from Estonia to Costa Concordia

Page 22, page 36.

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NOBODY GETS LEFT BEHIND

On behalf of EURORSA, European Rescue Swimmers Association, spanish helicopter search and rescue crews and "3rd Rescue Swimmers Meeting" Staff we are delighted to welcome all the Search and Rescue organizations, companies involved and every Helicopter Rescue Swimmer.

Welcome to spanish Jovellanos Maritime Trainning Safety Center. Welcome to Gijón. Welcome to Spain.

First of all we want to thank everyone who helped to make this conference possible. The list of names is so long that there is no space even in a book, but there is enough in our hearts – we will never forget you.

What is our task? Simple… Saving lifes so it is our intention that this international meeting will become a forum for discussion, consultation and communication for rescue swimmers, with the aim of improving safety and efficiency in our work. To achieve this, conferences, colloquium talks, equipment stands, visits to different units and rescue centers, practical exercises with rescue helicopters and static exhibition of them are included in the conference program, and we will have the presence of active manufacturers of specialized equipment, rescue organizations and industry-related professionals.

First time ever our association will give the Rescue Swimmer Award as recognition for those of us who have made extraordinary missions or acts during our task of saving lives. We created also the Rescue Swimmer Wings to recognize rescuing human lives during our missions and we will start today forward the noble tradition of the "Red hat", a symbol which will identifies you as a member of the brotherhood between the men of the ocean, and does honor the values we subscribe to and defend.

One by one, step by step the walk we started in 2009 in Finland and Estonia it is doing growing up and better. I am proud of you and honoured to work and walk with you.

But remember, on SAR be safe "out there"… NOBODY GETS LEFT BEHIND.

Carlos del Campo Campos
EuroRSA Vice-Presindent
RSM14 Staff Coordinator
INAER Helicopteros SAU
Rescue swimmer

SHOOTING FROM THE HIP

After Herakles-Bulk SAR mission in 2004, after Risto was picked up from the Baltic Sea by Daniel, we Finns started to plan a meeting with our Swedish colleagues. The urge to meet the Swedish crew who saved our swimmer was there, but also the idea was to organize a sports related day and have fun.

Five years later our plans had changed. In the same time there was built a great venue to have this kind of a meeting, as the Maritime Safety Training Centre Meriturva was built. In the first meeting the participants represented five nationalities consisting of 15 swimmers. The most significant output was that we agreed to keep up good co-operation and contact to each other over the national boarders to support each other's good work.

Again few years went by before the Danish Dynamite Duo Jesper and Jorgen organized the 2nd meeting 2012 in Aalborg hosted by the RDAF. It was a great success with 50 participants from 10 countries. Some surprises took place but J&J gave birth motto to us all: "Be always ready to shoot from the hip".

3rd time we met last summer when swimming together across the Baltic Sea. In the middle of the ocean we had some rough water and hard moments when everyone was seasick while 3 meters waves challenged us. That was when we just had to decide to continue swimming to make a statement: "Safety first, but step by step we are able to do it". Maybe it was some place near we had decided to give birth to our very own association, EURORSA 5 years earlier.

Now, here in Gijon, Spain, we meet again with more than 100 swimmers all over the world. That, if anything, is amazing. Our forum, our society is founded for us and by us. There have been much as 25 different nationalities in our members´ list – from The North Pole to Australia – online continuously.

This magazine hopefully gives a view to our work in the good and the bad. A whole lot of unique stories still exists only waiting to be published – hopefully next year.

Juha Eteläinen
President, EuroRSA
Rescue swimmer
Air Patrol Squadron
Finnish Boarder Guard

Rescue Swimmer is published by European Rescue Swimmers Association.
Editor de chief: Juha Eteläinen | **Writers:** Hugo Ramos, Sami Ollila, Sam Fielder, Niina Kummu, Mari Move Martinsen, Marco Restivo | **Proofreaders**: Benjamin Darlington, Christopher Gibbins, Darren Torrey
Photos: Patrik Nilsson, Risto Leino, Roi R. Labrador, Hugo Ramos | **Cover photo:** Paulo Mata

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Hugo Ramos

THE CIVIL SAR IN SPAIN

The global responsibility of maritime shipping was assumed by the IMO (International Maritime Organization) since its inception in 1959. Through it, is created the 1979 SAR Convention (SAR/79) in Hamburg, with the idea of create a global system of maritime emergency response. Through the development of thereof, the oceans and seas of the world were divided into zones, which would be allocated to the signatories riparian countries.

On SAR/79 were created two manuals, that facilitate to countries to implement the Convention. One on maritime services, called; MERSAR (Merchant Ship Search And Rescue) and another for the flight operations; IMOSAR (International Maritime Organization Search And Rescue), the latter performed under the collaboration between IMO and ICAO (International Civil Aviation Organization). Although it has been updated several times, both have now been replaced by a common one, called: IAMSAR (International Aeronautical and Maritime Search And Rescue).

Once the Spanish state had completed its organization and maritime and air fleet, with the need to cover the SAR areas would be the responsibility of Spain with its accession, the Convention signed in March 1993, are were assigned the maritime areas; 1: North Atlantic and 12A: Mediterranean. Whose total area covers 1.5 million km².

The first civil SAR Service in Spain, and second in Europe

The 20th of august of 1990, born the Galician Coast Guard Service. Was the first to follow the footsteps of the Norwegians in SAR work and combating the marine pollution, using helicopters and civilian crews. Before its existence there were only a one helicopter to cover the entire Galician coast (up 1990), it belonged to the 48 Wing of Spanish Air Force, belonging to 803 Squadron, with base on the airport Alvedro (La Coruña) between 1973–1991.

Therefore the service they provide the two SAR aircraft of Galician Coast Guard, from almost twenty-four years ago (in collaboration with the current company Inaer), have been the pioneers in Spain and second in Europe in civilian search and rescue work.

Approximately one year after, the Directorate General of Merchant was born with the incorporating in the year 1991, the first 5 helicopters Sikorsky S-61N, to cover the 7,880 km of coastline and sea area, within the maximum range of machines, the SAR zone of responsibility (search And rescue, search and Rescue) assigned to Spain (1.5 million km ², three times the size of the country).

Initially as Emergency Intervention Group, now Emergency and Rescue Group, GES (Canary islands), born in year 2000 develop those logistical and intervention actions operational measures to prevent, reduce and monitor the effects of an emergency and to assist the affected population by catastrophe, and out of emergencies will perform functions relating to the prevention and risk planning, working with various public authorities in the field general emergencies and civil protection.

HELICOPTERS

The actually fleet of civilian SAR helicopters in Spain, it formed for aircraft Sikorsky S-76C+, S-61N, AgustaWestland AW139, and Bell-412SP.

Emergency and Rescue Group (GES)

The Bell-412 is a medium utility helicopter built by Bell Helicopter Textron. It was developed from the Bell Model 212.

The Bell 412 reliably performs in the most extreme climates. Its expansive cabin can be configured to accommodate either cargo or personnel. Its wide opening 7.7 foot doors accommodate forklift loading into a 220 cubic foot cabin. It seats 13 passengers and 2 crew in a cabin adaptable for any mission.

The Bell 412 is certified for single pilot IFR with a dual digital automatic flight control system allowing for automatic approach to hover and automatic hover capabilities.

Galician Coast Guard

The S-76C+ It is a medium-sized helicopter, twin-engine, certified for up to fourteen people; two pilots and twelve passengers (depending on cabin configuration) and retractable landing gear. Its main rotor is fully articulated, four blades made of composite materials (plastic, fiberglass, carbon fiber and titanium on their leading edges) , for which the support for the turns is 313 rpm, and four the tail rotor blades . To increase security on the ground allows you to completely stop the rotors with engines running and not lose the same cycles (stops and starts), only possible with main rotor to idle (remember that movement of the tail depends on the principal) since are designed relying on the transit of personnel, common in the Sikorsky appliances, and extremely important in a helicopter with rotor disc as under to nose (have ocurred accidents with this model by bad approaches of people on the ground) .

The fuselage is made of kevlar and carbon fiber with metal reinforcements, the tail is designed monocoque aluminum frame and the nose is fiberglass. Its undercarriage system features energy absorption in case of hard landings. Air inlets for the engines are small and very delayed, also have particulate filters; which prevents, in the way as possible, the ingestion of water or ice with the consequent drop in power or "stall".

Spanish Maritime Safety and Rescue Agency

The S-61N is a heavy helicopter specially designed for offshore operations, both in search and rescue missions (SAR) and for the transport of people and cargo to oil platforms. It has a main rotor of five blades made of metal (on devices that have passed through the modernization program of the manufacturer, they are replaced by modern composite materials blades), a tail rotor also five blades and two General motors Electric CT58-140-2 that yield a maximum power of 2 x 1,500 hp for a maximum of 2.5 minutes (2 x 1,400 hp at max. 5 minutes and 2 x 1,267 hp and maximum continuous) allowing you maintain flight performances of situation OEI (One Engine Inoperative) category A.

These two Sikorsky now in service in Spain have a rescue crane Goodrich model 76378-260-D certified for a maximum load of 272 kg. allowing extension and retraction of up to 90 meters of cable, at variable speed (0 to 0.75 m/s) very common in Dauphin helicopters, although these with no fairing, have little aerodynamic profile but allows a continuous use, because prevents overheating. The cable is manufactured from galvanized steel with 19 strands of 7 wires each with 94.5 meters long and a nominal breaking load of 1,533 kg.

The AW139 is a twin-engine transport apparatus equipped with a fully articulated main rotor 5 blades, bearings and dampers with elastométricos in each of them, made of composite material (carbon fiber, plastic, fiberglass and nickel in their attack edges), tail rotor blades 4 and landing gear retractable and willing in tricycle.

This machine is capable of operating over any surface, from the deserts of the Middle East with its high temperatures, flights offshore at high speed, up rescue missions in the mountains, offering security and power necessary for the stationary crane under these conditions. All this is thanks to the great impulse that produced its two Pratt & Whitney, never a medium size helicopter mounted a power plant capable of generating as much force, which needs a completely revolutionary transmission capable of turning 20,000 rpm, to which they work, in 300 turns needed by the main rotor and 1,200 of his tail rotor. The fuselage is made of titanium and aluminum to reduce weight and the queue is built in monocoque structure.

It is a machine with a lower likelihood of "stall" (which is a loss of airflow in the compressor due to the ingestion of water, common in offshore flights at low altitude), due to the placement of its two engines inverted (to minimize this effect if possible, you can subtract between 3 and 5% power). ■


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MEMBERS

INTRODUCTION OF SAR ORGANIZATIONS OF EURORSA MEMBERS

AUSTRALIA / BELGIUM / CYPRUS / DENMARK / ESTONIA / FINLAND / FRANCE / GREECE ICELAND / IRELAND / ITALY / LATVIA / NETHERLANDS / NORWAY / POLAND / PORTUGAL SCOTLAND / SPAIN / SWEDEN / UNITED KINGDOM

EUROPEAN RESCUE SWIMMER ASSOCIATION was founded in 2009 by rescue swimmers from Denmark, Estonia, Finland, Spain and Sweden. The association was originally registered in Finland and our official hometown is Helsinki, but EuroRSA lives in every base we have members in. At the moment we have members from 22 nations. The next pages give you an overview of the organizations we work in. The list is not complete but it gives you an idea of the current memberships. If you want to join us contact nearest EuroRSA contact person. Updated list of those persons can be found at our website: **www.eurorsa.com**

Northern Region Westpac Rescue Helicopter Service

Number of Bases: 1
Helo Type: AS365N2 Dauphin × 2
Rescue Swimmers: 8
Readiness: 14hr Standby at base, 10 mins readiness. On call by night
SAR Authority: AMSA Australian Maritime Safety Authority, AUSSAR Australian Search and Rescue
Avg. Missions p year: 360

Hunter Region SLSA Helicopter Rescue Service – New South Wales Health contract

Number of Bases: 2
Helo Types: 2 x B412 in Newcastle and 2 x BK117 in Tamworth
Rescue Swimmers: 10
Readyness: less than 20 minutes, 24 hours a day
SAR authority: The Rescue Co –Ordination Center in Canberra or the state Medical Retrieval Unit in Sydney
Avg. Missions: Around 1200 per year across the two bases

EMQ Helicopter Rescue Queensland Australia (Queensland Government)

Number of bases: 3
Helo Types: AW 139 x 3, BELL 412 x 2
Rescue swimmers: 15
Readyness: 10 mins DAY, 30 mins NIGHT
SAR Authority: AUSSAR / AMSA
Avg. Missions: 1200 hours per year BRISBANE Base, 100 jobs per month on average with SAR only around 10 % of our work

Australian Helicopters – Queensland Health, Air Ambulance Victoria, South Australian Government and Australian Army contracts

Number of Bases: Seven SAR/EMS
Helo Type: Currently B412 for SAR/EMS with BK117 to supplement
Rescue Swimmers: 8 + paramedics or police officers at some bases
Readiness: Depending on the base, as little as "skids off" in under 10 minutes to 30mins 24hrs
SAR Authority: The Rescue Co –Ordination Center in Canberra or various state Government emergency agencies
Avg. Missions p year: Around 600 hours or 300 – 400 tasks per year per aircraft

NHV Helicopters Belgium

Number of Bases: 1
Helo Types: Currently Dolphins N3/EC 155
Rescue Swimmers: 8
Readyness: 30 min
SAR authority: MRCC Belgium
Avg. Missions: 50

Cyprus Police Aviation Unit

Number of Bases: 1 or 2 (including EF)
Helo Types: AW139 and BH412 (on maintenance)
Rescue Swimmers: 8 or 14 (including EF)
Readyness: 12h/30min 12h/1:30 min or some nights 12h/30 min when EF is standby on station)
SAR authority: Joint Rescue Coordination Center
Avg. Missions: 45/year

Royal Danish Air Force SQ 722

Number of Bases: 4
Helo Types: EH 101
Rescue Swimmers: 40
Readyness: 15 min. Daytime and 30 min. Night time
SAR authority: RDAF
Avg. Missions: Aprox pr. year 750 missions

Estonia Police and Boarderguard board

Number of Bases: 1
Helo Types: Agusta Westland 139
Rescue Swimmers: 5
Readyness: 9–17:00/15min, 17–09:00/1h
SAR authority: MRCC Tallinn
Avg. Missions: 350

Finnish Army – Helicopter battalion

Number of Bases: 1
Helo Types: NH90
Rescue Swimmers: 12
Readyness: 8h/30min 16h/2h
SAR authority: Army Command
Avg. Missions: 30

Finnish Border Guard – Air Patrol Squadron

Number of Bases: 3
Helo Types: AS332 Super Puma, AB/B 412, AW119Ke
Rescue Swimmers: 16
Readyness: 12h/15min 12h/60min
SAR authority: Finnish Border Guard, MRCC Turku
Avg. Missions: 650

Icelandic coast guard

Number of Bases: 1
Helo Types: three Eurocopter Super puma As-332 (Airbus Helicopters)
Rescue Swimmers: 7
Readyness: 24/7 365 days
SAR authority: ICG has SAR authority over the sea around Iceland
Avg. Missions: 165 missions per year, both sea and land missions. (Including EMS missions)

Irish Coast Guard

Number of Bases: 4
Helo Types: Sikorsky S92A
Rescue Swimmers (winchmen): 36
Readyness: 07:30 -21:00 on 15 mins standby, 21:00-07:30 on 45 mins standby
SAR authority: Irish Coast Guard National Maritime Operations Centre Dublin and Sub centres at Malin Head and Valentia
Avg. Missions: 750

Italian Coast Guard

Number of Bases: 2
Helo Types: AB 412 CP, AW 139 CP
Rescue Swimmers: 15
Readyness: HJ/30', HN/120'
SAR authority: Italian Coast Guard Imrcc Rome With 16 Mrsc
Avg. Missions: 500

Italian Air Force

Number of Bases: 6 (CSAR Bases)
Helo Types: AB 212, HH 3 F, HH 139 A
Rescue Swimmers: 100
Readyness: 0/120 24h/24h
SAR authority: Air Operations Command Poggio Renatico
Avg. Missions: 500

Latvian Air Force

Number of Bases: Air Force Base "Lielvārde"
Helo Types: 4 Helicopters Mi-17-1V and 2 Helicopters Mi-2
Rescue Swimmers: 15
Readyness: 20 minutes during working hours (8:30–17:00) and 90 minutes during the rest of the time
SAR authority: MRCC and AOC
Avg. Missions: 30 missions

CHC Helikopter Service AS

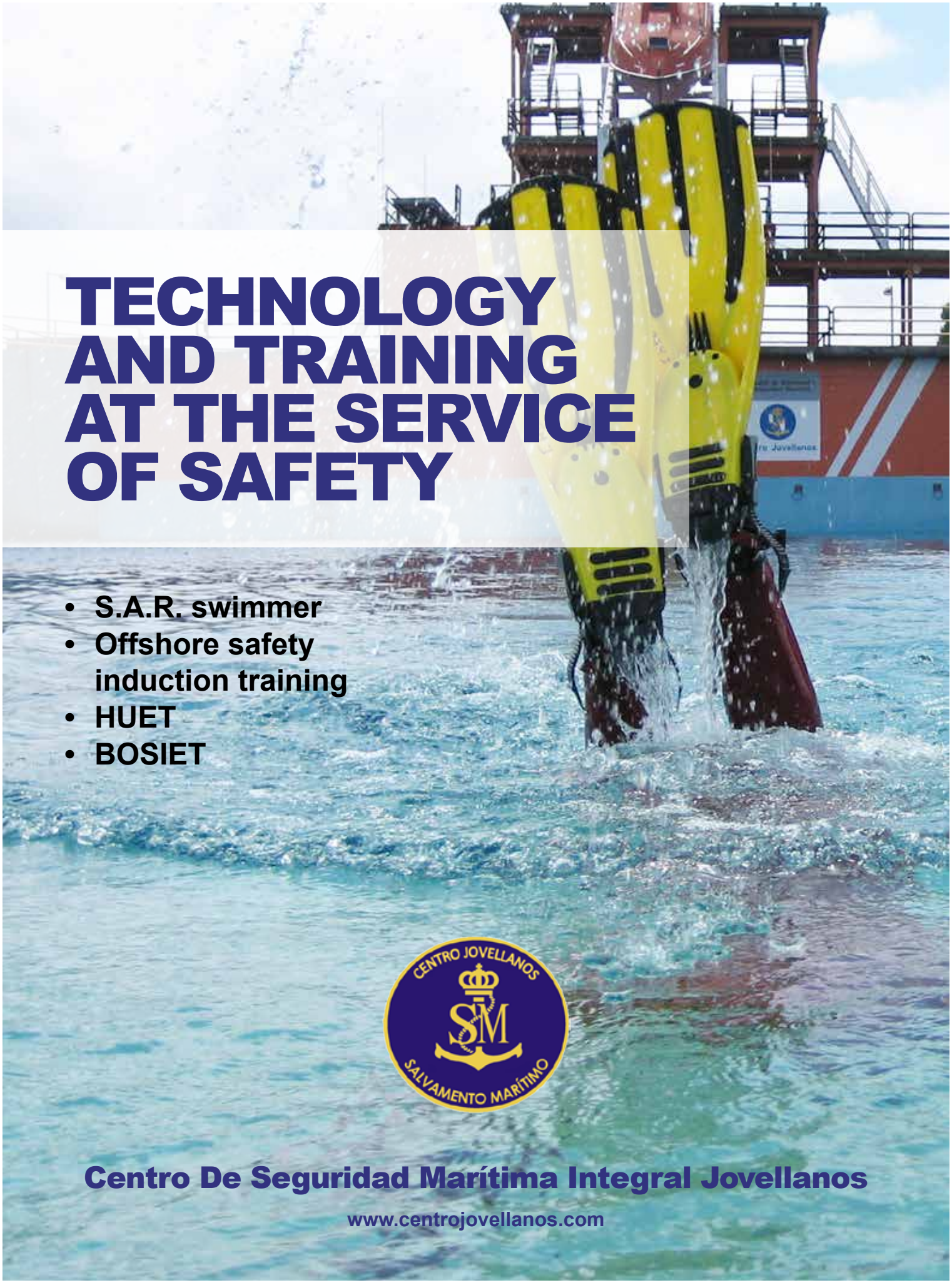
Number of Bases: 4
Helo Types: AS332L1 & EC225, all with AWSAR
Rescue Swimmers: 14
Readyness: 12h/15min, 12h/25min
SAR authority: Conoco Phillips, Statoil & Norwegian Joint Rescue Coordination Center AVG
Avg. Missions: 100 per year

Lufttransport AS, Norway

Number of Bases: 1 SAR base
Helo Types: : Two AS332 L1
Rescue Swimmers: 7
Readyness: 24h/60min, 24h/120min
SAR authority: The governor of Svalbard - Sysselmannen, Norwegian Joint Rescue Coordination Center
Avg. Missions: 80 per year

Royal Norwegian Air Force Sqn 330

Number of Bases: 6
Helo Types: Westland Sea King Mk 43B
Rescue Swimmers: 24
Readyness: 15 min 24/7
SAR authority:
Avg. Missions: 591 SAR and 810 medical missions



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Naval Air Brigade (Poland)

Number of Bases: 2
Helo Types: W-3 Anaconda, Mi-14 PŁ/R
Rescue Swimmers: 17
Readyness: 20 min 24/7

www.mw.mil.pl

Portuguese Air Force

Number of Bases: 5
Helo Types: : EH-101 Merlin, SE-3160 Alouette
Rescue Swimmers: 20
Readyness: 24H/30min
SAR authority: SRR Lisboa, SRR Santa Maria
Avg. Missions: 250

Portuguese Civil Protection

Number of Bases: 2
Helo Types: Kamov 32ª 11BC
Rescue Swimmers: 12
Readyness: Day /15min Night 40min
SAR authority: SRR Lisboa
Avg. Missions: 275

Bond Offshore Helicopters/Scotland

Number of Bases: Miller Oil platform, Shetland
Helo Types: L2 Super Puma
Rescue Swimmers: 20 SAR Paramedic Winchmen & Winchop´s
Readyness: 10min 24/7 365 days
Avg. Missions: 450

Spanish Maritime Safety Agency – SASEMAR

Number of Bases: 11
Helo Types: Sikorsky s61n and AW-139
Rescue Swimmers: 114
Readyness: 365/24h
SAR authority: Spanish Maritime Safety Agency
– MRCC Madrid.
2 Regional SAR Services:
– Galician Coast Guard (2 SAR bases)
– GES Canary Islands (5 bases, also montain rescue service)
1 Military SAR Service

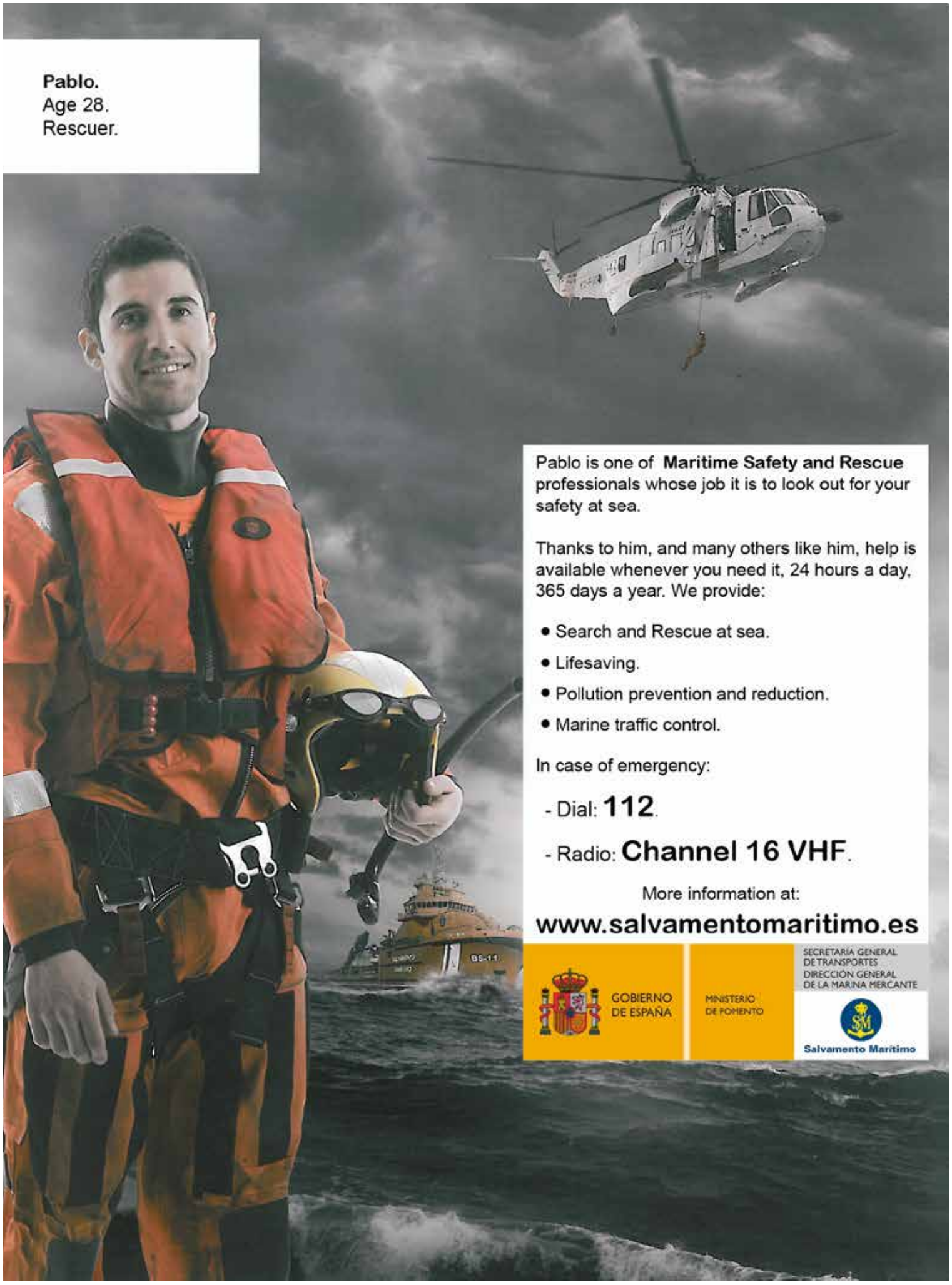
Swedish Maritime Administration – Helicopter Unit

Number of Bases: 5
Helo Types: Agusta Westland AW139, Sikorsky S76 (ongoing transition from S76 to AW139)
Rescue Swimmers: 21
Readyness: 24h/ 15min
SAR authority: Swedish Maritime Administration
Avg. missions: 500/year (total all bases)

HM Coastguard/Bristow UK SAR

Number of Bases: 2
Helo Types: S92A
Winchmen/Paramedics: 20
Readyness: 0800–2200 = 15 mins / 2200–0800 = 45 mins
Sar/Medevacs 2013: 460

From 1st April 2015–
Helicopters: S92a & Aw189
Bases: 10
Readiness: 0800–2200 = 15 Mins / 2200–0800 = 45 Mins
Winchmen/Paramedics: 50


Pablo.
Age 28.
Rescuer.
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IMPOSSIBLE THINGS JUST TAKE A LITTLE BIT MORE TIME

Ursuk is a suit manufacturer from Finland and have been doing great collaboration with Rescue Swimmers. We interviewed Ursuk Export manager Mika Aitio and one pleased swimmer, Jens Samuelsson from Sweden.

Q. You have been developing suits for Rescue Swimmers for many years, having been in business since 1964. As a manufacturer you design and make suits to the users requirements. What is most unusual request you have had?
Mika: We have made a dry suit for a newly born infant for a sailing trip, which is really nice. It was more like a sleeping bag for her. We have also manufactured body bags for CSI's to collect evidence relating to drowned casualties. Our motto is: "Impossible things just take a little bit more time…."

Q. You have many models for different customer groups, which is best development you have made?
Mika: We redesigned a transport suit for the wind energy business, which has been a huge success. That was a product that we were about to cease but working together with customers, it has become a standard for the industry.

Q. What are your new designs at the moment?
Mika: We have some new products coming soon, for chemical protection and water sports like kayaking and sailing.

Q. Free word to Rescue swimmers?
Mika: Keep yourself and your equipment in good shape! Keep UP good work guys!

Q. You have made new suit with Ursuk how it was?
Jens: It´s been very nice to work and co-operate with them. At Ursuk they are open to new ideas and different solutions. Also they have had many new ideas in development.

Q. How did process go?
Jens: First we did a lot of work through email with them and finally visited them at their factory in Finland. After which they started to make new suits for us.

Q. What kind of suit did they make?
Jens: It's a mixed suit that you can use as a flying suit and also as a swimming suit, during the summer. I have also tried it for swimming in winter without any problems. We are very pleased to have this kind of kit in our toolbox.

Q: Greetings to brothers?
Jens: Stay safe brothers and hope to see you at 2016. Don´t forget to shoot from the hips when needed.

MEETING IN DENMARK

1. Parachute training tower. Jump from 15 meters. **2.** Butch Flythe retired RS from USCG with Patrik Nilsson from Sweden after jump. **3.** EH-101 Danish multirole Helicopter. **4.** Royal Danish Air Force ESK 722 Squadron. **5.** Family picture after flight.

THE ROYAL DANISH AIR FORCE HOSTED THE 2ND MEETING at Air Transport Wing Aalborg. We had almost 50 participants from Denmark, Canada, Finland, Sweden, Spain, USA, Australia, Norway, Estonia and Portugal.

We were priviledged to hear very interesting lectures and presentations. Everybody was very active in sharing their own experiences and several suppliers had their special gear on display with some new innovations as well. The program also included a demo flight with the Danes new multirole Helicopter EH-101 and some training with safety equipments.

Main focus was to meet colleagues and to share knowledge and experiences of this job that very often involves a high risk. Meeting was organized by Jorgen Blach and Jesper Jorgensen who are also EuroRSA Board members.

IN THE MIDDLE

– Estonia interview

The Estonia disaster occurred on Wednesday, 28 September 1994, between 00:55 to 01:50 as the ship was crossing the Baltic Sea, en route from Tallinn, Estonia, to Stockholm. She was carrying 989 people: 803 passengers and 186 crew. Most of the passengers were Scandinavian, while most of the crew members were Estonian.

This is an interview of two rescue swimmers that took part in this challenging rescue operation; Risto Leino from Finnish Border Guard and Patrik Nilsson from Swedish Maritime Administration.

1. When and how did you become a rescue swimmer?

Risto: I spent my childhood summers in the Finnish archipelago watching Coast Guard boats passing by. Being close to water has always felt natural to me. Before my conscription I decided to find out how to get a job from the coast guard. At an interview I was also told about the Border Guard aviation unit – Air Patrol Squadron. Introductions of helicopters doing rescues at sea stuck into my mind. My goal was clear; I wanted to work in a rescue helicopter and I applied to the Finnish Navy divers for my conscription. After conducting my conscription in the Finnish Navy I applied to Finnish Border Guard – Air Patrol Squadrons rescue swim-

OF DISASTER

2009 MERITURVA, 1ST RS MEETING
PATRIK NILSSON ASSISTED BY RISTO LEINO

mer program. I was the only one selected out of 50 applicants that year. I started working as a rescue swimmer at Turku base in 1988.

Patrik: I received my training to rescue swimmers during my military service in the Swedish Air Force in the beginning of 1994.

2. What kind of expectations did you have of the job?

Risto: The Border Guards aviation and its operations were not as known in Finland at the time as they are today. My expectations were mostly related to flying in a helicopter as a crewmember and hanging at the end of a winch cable as a rescue man.

Patrik: I did not have any special expectations to serve as a rescue swimmer. As a 19 year old guy it was mostly exciting to fly helicopter. I remember I looked forward to the rescue swimmer training as a physical challenge.

3. Has the job fullfilled your expectations?

Risto: My expectations were pretty simple but I soon realized that the job consisted of a lot more than just the rescue missions you could read from the newspapers. I´m still working as a rescue swimmer at same base to where I was originally stationed.

Patrik: I liked my job as a rescue swimmer (and I still do) and it was exciting to fly helicopter, and it was even more exciting to hang under a helicopter hovering in the air The job is a challenge both physically and mentally, but I have never regretted my choice. Today 2014, I still work as a Rescue Swimmer.

4. Who did you work for and what type of helos where you operating with at the time of Estonia disaster?

Risto: The Finnish Border Guard – Air Patrol Squadron. AS332 Super Puma.

Patrik: When M/S Estonia sank, I was stationed on the island of Gotland with one of the Swedish Air Force's AS332 Super Puma, Callsign Q 97.

5. Describe your personal gear you used at the time.
Risto: We used Aquion dry suits. It was custom made for our demands. Inside the suit we wore a floatable radio vest. VHF radio was connected to "push to talk", throat microphone and small ear speakers. At the time we used the GQ quick strop in water rescues. And of course mask and fins.
Patrik: We were equipped with a Poseidon neoprene suit, fins and mask. No reflectors and no lights. Now that was 20 years ago and development has progressed.

6. You got the alarm to Estonia catastrophe. Where were you at the time and what kind of mission were you alarmed for?
Risto: My flight commander Heikki Malkamäki called me about 04:00 am. I wasn't on duty at the time but the commander told me that Estonia had sunk and I was to arrive at work ASAP.
Patrik: AAt 01:03 came the alarm from the MRCC Turku to MRCC Sweden.

"The ferry Estonia pos N.5922, E.2140 has 30 ° list and ask for assistance".

The alarm came from MRCC Sweden to us in Visby at 01:07. At this time the entire crew slept in an apartment in central Visby, about 10 kilometers from the air station. Due to lack of information the start for Q97 were delayed to 01.55

7. What was your and the crews thoughts when you first arrived on scene?
Risto: At the time the on duty Super Puma crew consisted of only one rescue swimmer in a 5 man crew. I was assigned as the second rescue swimmer in the crew for this mission. The PIC of the first helicopter on scene (02:30–04:40) had realized that the task was too dangerous and too slow with just one rescue swimmer. They would need a second rescue swimmer in the crew. I collected my gear and as I was waiting I wondered if the wind conditions were so bad at the sea as they said. It was strangely calm inland. When we approached the scene we were notified that there was no longer expected survivors in water so the main focus would be in the remaining life rafts.
Patrik: When we arrived on scene at 02:50 with Q 97, I think a Finnish helicopter had just left the area. The first thing we experienced was a feeling of inadequacy. There was so much to do, so many people to rescue and we were at that moment entirely alone doing so.

8. Did your crew have a game plan on what you would start doing first?
Risto: To check to life rafts and winch the survivors who were still alive.
Patrik: As long as we found people who were still alive, rescue efforts were concentrated on those who survived. Later we went over to salvage fatalities. At nine o'clock in the morning the last one still alive was rescued. Then we went over to the harvesting of fatalities. This search went on until six thirty in the evening on September 29 (but not for me, we left the scene on the evening of 28).

9. What was the conditions on scene?
Risto: Winds up to 40–50 kts. Wave height 6–10 meters.
Patrik: The weather during the approach was wind 280/50 kt, heavy rain, darkness and wave heights estimated 6–10 meters.

10. How did you proceed with the winch operations? Double hoists/guideline?
Risto: From life rafts we winched with the quick strops. Two survivors as a double and the rescue swimmer stayed at the life raft controlling the guideline and came up with the last survivor that was lifted up from the raft.
Patrik: I did all hoists with a single Quick Strop and without guideline.

11. How long did you have to work continuously until the helo was fully loaded and you had to unload?
Risto: We arrived on scene 05:55 am and the following 3 hours we were able to lift up 44 survivors. We refueled at Nauvo coast guard station and took off again at 09:30 am. During the second flight we inspected 25 life rafts. Unfortunately we could now longer find people alive, just drowned victims. 12:35 we arrived to Turku for a crew change.
Patrik: The limiting factor is always the helicopter fuel level alternatively the physical space in the helicopter. I think our flight sessions was approximately two hours in length. But from that we started from Gotland until we landed there again it took 17 hours.

12. Where did you unload?
Risto: We evacuated the survivors to passenger ferries M/S Mariella, M/S Symphony and to Nauvo coast guard station.
Patrik: M/S Silja Europa had appointed Finnish military island, Utö, as a collection point where Q 97 did unload the first survivors at 04:00 in the morning of september the 28th. Finnish military took care of those in need. After refueling we started for the area at 04:40. There was at this early time also the possibility to refuel the helicopter on Utö.

I remember we did our second landing in the sunrise on a football field near Hanko in Finland. There we unloaded the

next 9 survivors. The fuel storage in Finnish Utö ended at 6:30 in the morning. Subsequently, the helicopters had to fly to Hanko on the Finnish mainland to refuel.

13. Difficulty on determining a hypothermic human being alive or dead. Did you find it difficult to determine who is alive and who is not?

Risto: I didn't find this difficult. Generally the ones that were alive were awake inside the raft.

Patrik: There were many difficulties during the sinking of the Estonia that normally we rescue swimmers not face. In most cases, we need to prioritize the order in which those in need is to be lifted up to the helicopter, in this specific case, we got to decide who we would rescue and who we would leave behind in the first stage.

If we were to take up room in the helicopter for which we judged as dead, we would probably have sacrificed the lives of many who certainly lived.

The hardest thing for us rescue swimmers was to decide which ones lived and therefore would be saved in the first stage.

Everything was dark except for the light from the helicopter search lights, a number of hours in the water meant that all survivors had an unnatural color. The sound of the sea and the helicopter made it impossible to communicate. Cold hands and thick gloves made it impossible for the rescue swimmer trying to take the pulse of those in distress. Although we have been without gloves it would have been difficult to find the pulse of a hypothermic person. We had to rely on our sight, which seemed to live. Possibly we could see a pupil movement of someone.

"Most of the 137 survivors were rescued by the helicopter crews."

14. If you can pick one single moment during the rescue mission. What would it be?

Risto: I was sitting on raft controlling the guideline and looking at a scenery that changed from the top of the wave to the bottom of the wave. Despite the fact that we were in the middle of a catastrophe I couldn't help thinking how remarkable this was of us doing this task in the middle of the stormy Baltic Sea.

Patrik: The moment I remember most from this rescue mission is the feeling of inadequacy, right from the start knowing that you will not be able to help all those who need your help.

15. How did you cope the mental and physical issues?

Risto: There was a debriefing arranged for us after the mission. I felt it was very useful although I was fortunate to be able to actually bring up people alive. This wasn't the case for many other crews who worked long hours collecting only victims from this disaster. I didn't get any injuries and it was good that I was able to take turns with other rescue swimmer in the crew. Still at the end of the day I had really given all that I had.

Patrik: Numerous rescue swimmers were injured by different objects, I got away without physical damage.

I was never offered any help from the Swedish Air Force to handle the psychological stress. If this had happened today it would have been different.

16. Did the rescue procedures and/or standards on rescue gear change after the Estonia catastrophe?

Risto: During the rescue missions it was really nice to notice how our pretrained procedures really worked even though the weather was as bad as it was. Sometimes you got lowered straight into the raft. Occasionally we got lowered beside the raft and had to climb up into the raft. The best way was to lower the swimmer down wind of the raft so that the raft drifted towards the swimmer. The Finnish RS used quick strops as personal winch gear in water rescues. The rough seas and movement of the helicopter caused some violent wrenches at times. After Estonia catastrophe the Finnish swimmers started also using a harness in water rescues.

We used the guideline which we see a faster way when evacuating several survivors. The swimmer has to decide on whether the survivor is in good enough shape to stay on the quick strop non-aided.

Our guideline swung dangerously close to the tail rotor a few times. We decided to add some weight in our ropes and bags to prevent this from happening. This modified bag/rope combo is still in use in Finland.

Patrik: In the 20 years since the M / S Estonia sinking the equipment is no longer the same.

Swedish Air Force made no immediate changes in the equipment following just this rescue mission. However, it was made several changes to the equipment in the Swedish Navy. The hoists on the Swedish Navy Boeing Vertol 107 broke down on several occasions, which affected the rescue operation and caused in some cases injury to Rescue Swimmer.

The Navy Rescue Swimmer equipment were reviewed as well as other rescue equipment in Navy. ■

The interview was made by Sami Ollila who was accepted to the Finnish Border Guard rescue swimmer program during the after math of Estonia disaster in 1996.

DOWN UND 27*S

Due to the remoteness of the area the crews on Rescue 700 are rostered on for two weeks of duty on the Island, followed by two weeks off. The crews are all based in mainland Australia for their off time and fly in to complete their duty, some travelling over 3000km to work every two weeks. With most of the SAR/EMS helicopters in Australia not equipped with 4 axis auto hover capabilities and rated to be flown single pilot IFR, Rescue Crewman have a unique opportunity to be trained up in front left seat operations, assisting the pilot with navigation, and acting as a mission co-ordinators for the various tasks. At this base when conducting HEMS tasks the crew of Rescue 700 comprises an aircraft captain, rescue crewman who sits in the front left seat to assist the pilot and a flight paramedic. With this roster a crewman will cover a week of nights for HEMS tasks then transition to a week of days. Both crewmen however are on 24 hour call out, in case of a SAR or primary tasking that requires both crewmen on board. Sam has just recently completed his winch operators course and is checked to line as a duel rolled rescue swimmer/winch operator so for this tour he will be the winch operator and Ben the Rescue swimmer for any such tasks.

The next couple of pages follows Sam through a particularly busy weekend in the Torres straits.

ER

Sam Fielder

Off the Northern most tip of Australia, on an Island in the Torres Straits, Sam Fielder and Ben Darlington are two Rescue Crewman (swimmers) that crew the SAR/EMS helicopter "Rescue 700". The area of operations covers the coastal waters North and North East to the Papua New Guinean coastline, North West to the Indonesia boarder and South around 250nm over pristine rainforest. This sparsely populated area while beautiful, certainly keeps the boys busy and the blades on the trusty 412 workhorse turning.

Like many other SAR/EMS base around the world the duty commences with a thorough handover from the previous crew, with two weeks since the boys have been on base a long list of procedures, snags and experiences are discussed, both by email prior to arrival on base, and in person before the outgoing crewman leaves the Island to go off tour.

At **14:05** the Queensland Clinical Co-ordination (QCC) calls the tasking line asking Rescue 700 to respond to reports via satellite phone of a head on collision, around 25 Kilometres South of "Bramwell Station". A road Ambulance has been dispatched but as the accident is around 180 kilometres (100NM) from the nearest town, travel being over unsealed roads and the Ambulance having to cross a major river via barge it could be hours before they arrive on scene.

The aircraft captain and I plot the rough position of the accident, then while he conducts his flight planning I call in the second Rescue Crewman then head off to refuel the aircraft. At **14:20** we take off for the Thursday Island Hospital to pick up our flight paramedic and Doctor and track for the accident site. While Ben is in the back getting briefed by the paramedic and Doctor on what may be required on scene, the pilot and I run through checks and I call QCC for an update. A police car has arrived on scene and found one person trapped with serious injuries who we will take back to Thursday Island hospital and another who will be transported via road ambulance. The police officer has also been able to provide an accurate position for us which I load into the GPS, the position is far closer than we were originally advised (75nm from base as opposed to a little over 100nm), and as such we are now carrying more fuel than required and will be too heavy to winch when we arrive on scene. Around 15nm out from the scene I transition from the front to the rear of the aircraft. While it is a two lane road, dense rainforest on both sides may be too tight for us to land the aircraft so the Paramedic and Rescue crewman may have to be winched in. Unfortunately if this is required, we will now need to circle overhead to burn off fuel before we will be able to insert Ben and the Flight Paramedic. We brief for a stretcher winch recovery and establish how long the aircraft could loiter on scene before having to return to base for fuel. Around 5 minutes out we conduct our initial winch and equipment checks as the pilot starts his descent. At **15:23** we arrive on scene and inspect the area. Luckily the vegetation has opened up a little and after discussion with the pilot we have identified an area on the road around 200 meters from the crash site where we will be able to land. As the area available to land the helicopter is limited, with trees encroaching from both sides, we decide to open both doors of the aircraft with one crewman on each side to con the aircraft in (Myself on the right & Ben on the left) The aircraft is positioned so that the nearest obstacles are on the right hand side of the aircraft, in view of both the crewman and pilot with Ben ensuring that the aircraft does not drift toward the obstacles on the left as we descend. Once on the ground Ben heads off with the Paramedic & Doctor to assist on scene while I set up the medical equipment in the aircraft and update QCC via sat phone on the situation. With the extra fuel on board, 5 crew and the patient, weight is fast becoming an issue, so the aircraft captain and I crunch the numbers. Being a hot and humid 35 degree Celsius day and a towering departure required to clear the 120ft trees on either side of the road the pilot wishes to lighten the load just to be safe. I begin to strip all equipment not required for the flight and load it into a police car. I haven't told Ben yet but to ensure we have a sufficient power margin we will save even more weight by leaving him behind, giving him the very serious task of escorting all the gear back to town with the police!

At **16:45** the patient has been extricated from the car, stabilised and loaded up. We fire up for the hospital with a crew of four and the patient. Rescue 700 arrives at Thursday Island Hospital at approximately **17:35**. After unloading the patient, Doctor and Flight Paramedic the aircraft returns to base to be cleaned, restocked and refuelled. It will be another couple of hours before Ben reaches Bamaga with the police by road.

As this task started early in the afternoon, and Ben being on duty for night hospital transfers, we need to manage our fatigue & duty times carefully. Ben will run of duty time at about 4am due to his early start, so after reconfiguring the aircraft and completing the post flight paperwork I return to the accommodation for an early night so that I have had some rest and am able to cover the early hours of the morning if Ben's duty runs out.

At around **19:30** Ben calls the night Captain who takes the aircraft back to Bamaga on the mainland to collect him. By **21:00** he is back at the accommodation block, and grabs some sleep in case any night jobs come in.

The next morning I head out to the hanger, check over the aircraft then attend to a crew life raft that needs to be sent away for annual inspection, the Rescue Crewmen need to be especially organised with their scheduling of annual inspections and servicing as all dangerous goods must travel 5 days by boat to the nearest major port before continuing by road to service centres. At **09:45** QCC request Rescue 700 head to Saibai Island, one of the northern most islands in Australian Territory, only a few kilometres from the Papua New Guinean (PNG) coast. A PNG national has presented at the local clinic on Saibai Island in a serious condition, he has suffered an injury during a tribal dispute, suffering a spear wound to his right eye and a deep machete laceration to his upper left arm. On arrival the Flight Paramedic is pleased to see that the nurse at the Island health clinic has done a fantastic job of cleaning & immobilising the wounds as well as preparing the patient for their flight to Thursday Island Hospital. After a brief patient handover with the nurse, the patient is loaded in to the aircraft and we head south for the hospital. On the return leg, the Flight Paramedic comments about how tough the patient is, the nurse had explained that the patient and his brother had paddled a hollowed out tree, which had been carved into a canoe, for 2 days down a river from their village to arrive at Saibai Island for help.

"After a brief patient handover with the nurse, the patient is loaded in to the aircraft and we head south for the hospital."

We arrive back at base at about **12:30** and after refuelling and checking over the aircraft the pilot and I head back to the accommodation for lunch. Afterwards a pretty standard afternoon is spent checking over the lifesaving equipment and other gear. At **17:00** we head back to the accommodation. I have a quick chat to Ben about the status of the aircraft and he then heads off for a run. I then get changed and head over to the gym for a quick session before dinner. At **17:50** the night captain gets a call from the Rescue Co-ordination Center (RCC) in Canberra advising that a beacon registered to a local helicopter operator has been activated at a location around 40nm North of Horn Island. I jump in the car with the Captain and grab Ben who is on the road between the accommodation and the hanger. While beacon activations are quite common in this area, many are inadvertent or non life threatening, however due to origin and location of this activation it appears this one may be a little more urgent. On arrival at the hanger our fears are realised, a pilot from the local helicopter company meets us at the hanger and tells us that the RCC has called him advising a beacon registered to his company has been activated, and he advises that the helicopter it is registered to is indeed overdue. While our captain commences flight planning, with the help of the pilot from next door we reconfigure the aircraft for a water winch, fuel it up and have a quick brief before the captain starts the engines at **18:15**. Once established on cruise and around at around 30nm from the scene we elaborate on the initial brief. Sunset for the area is at **18:29** with last light (Civil twilight) at **18:51**. The captain reiterates that if a horizon cannot be maintained the task will have to be aborted and another plan for the recovery of the pilot will have to be initiated. At **18:32** about ten miles out from the location given to us by the RCC a strong signal is picked up on the direction finder, we track straight for the position and I transition into the back and prepare for what will hopefully be the winch recovery of our rescue crewman and survivor in the quick strop. With the pre winch briefs complete we ready the gear and start scanning the seas below. At **18:36** a flare is sighted just right of the nose, the captain slows below 60 knots, the right door comes back and we are greeted with the rather unusual but very pleasing sight of a helicopter bobbing around on the sea on it's emergency floats. We fly overhead the helicopter and drop two Mk 25 flares upwind to aid with the pilot's reference. As the captain turns the aircraft downwind we run through our on scene winch checks and the cable is run in. Ben connects up, I watch him run through his final checks then gesture him to the door as the aircraft turns finals with about 1000 ft to run to the ditched helicopter. I do a final check of Ben and move him out on to the skids. With 500 ft to run and 50ft below to the water I call for the pilot to maintain height and winch out, at 100 ft from the helicopter we hold position, both myself and the pilot have good reference with the helicopter and watch Ben swim over the cabin. After the pilot performed a very good ditching onto the water he is a little reluctant to leave his relatively dry seat in the helicopter, however with a little coaxing, Ben gets him in the water and a couple of minutes later we have him strapped in our aircraft and are on climb and tracking back to Horn Island. At around **21:30** we finally have the aircraft reconfigured and all the salt water washed out. As post task paperwork is finally finished we have a debrief on the task just completed.

It has been a busy weekend but being part of a much bigger team that has been able to provide assistance to people in a variety of different situations in a very remote part area makes us realise how lucky we are to be able to call ourselves and carry out the duties of a rescue crewman in this great little corner of the world. ■

SAVE THE BALTIC SEA

EuroRSA arranged a charity swim 1st-2nd July 2013. The idea was to swim across the Baltic Sea from Tallinn, Estonia to Helsinki, Finland. I made an open suggestion to our members in Facebook and was surprised that within a few weeks we had a group of ten volunteers ready to go! The swim team eventually consisted of 12 swimmers who were from: Australia, Denmark, Estonia, Finland, Portugal, Spain and Sweden.

Sami Ollila

When the team was set up, I contacted the Baltic Sea Action Group. BSAG is an independent non-profit foundation (2008) based in Finland. The mission of BSAG is to revive the ecological state of the entire Baltic Sea. BSAG showed their interest to our initiative in the first meeting and EuroRSA made a commitment to BSAG for making an effort to raise awareness on the dire state of the Baltic Sea.

Getting Ready!

To conduct the swim safely we needed to gear up properly. We got a support boat from a Finnish diving team Teredo Navalis who co-operates voluntarily for the National Bureau for antiques, maritime section. TYR promised to sponsor our swim with triathlon wetsuits. Finnish RIB boat manufacturer, Boomeranger Boats, delivered a safety RIB for us. These supporters where followed by URSUK, Meriturva, MCBwear, AXNES, RTU-Finnish Border Security Union, LSE – Life Saving Equipment, AVINCIS, Novadays and Sportslife Nutrition.

The spring was late in Finland 2013 and the ice cover was melting later than normally in the Gulf of Finland. Water temperature was a big concern still in the beginning of June. We decided to follow triathlon safety rules in Finland and set a minimum of 13°C sea water temp. as a limit to proceed with the swim. A week before the swim the temperatures had gradually risen to a level of 16°C, which was ideal for us. Second concern was of course the winds and what the sea state was going to be during the swim. A wind limit of 10m/s was set to not proceed with the swim. We had planned a tight 3 day envelope for the launch and for safety reasons we decided not exceed the limits that we had set our selves.

Start from Pirita Harbour, Tallinn

The 12 swimmers were divided into 3 groups of 4 swimmers. Each group swam in 4 hour shifts: 30 min swimming followed by 1h 30min rest. Weather and forecast was as good as we could expect. Wind 6–8 m/s and water temp. 16°C. The sea surface was a little bit choppy but good enough for start. The Estonian representative; Deniss Pervunin got the honor to start the swim.

We had minor problems in the beginning. Swimming progressed although we had a slight head wind from NW with the choppy water. It was not as enjoyable as it could have been. For our misfortune the winds started unexpectedly building up later in the afternoon. Wave height started to

SWIM 2013

TEAM 2013

The EuroRSA swim team for Save the Baltic Sea swim 2013:

Mr. Ben Darlington, AUS
Mr. Deniss Pervunin, EST
Mr. Eero Ahonen, FIN
Mr. Helio Madeiras, POR
Mr. Javier Losada Carballo, SPN
Mr. Jens Samuelsson, SWE
Mr. Jesper Jorgensen, DEN
Mr. Jorgen Blach, DEN
Mr. Juha Eteläinen, FIN
Mr. Patrik Nilsson, SWE
Mr. Pedro Silva, POR
Mr. Sami Ollila, FIN

grow and you could feel some hesitation within the team if this was such a good idea after all. Going towards the evening it got even worse and we had winds of 12 m/s with 1–2 meters wave height at times. Swimming in these circumstances for recreational purposes with just wetsuits on does not sound like a good idea to a professional. We made a decision to proceed in 1h periods and decided to jump into fins (small fins that are actually made for swim training). We decided to abort if the weather gets any worse when it gets dark. The weather did not ease up on us but to our fortune the direction of the wind and waves changed to our benefit.

We got a good tailwind and the swimming started really progressing and by the time the sun was rising the Baltic Sea showed its beauty to us and was literally carrying us towards Helsinki.

Variations in the Baltic Sea surface temperature

After swimming 2/3 of the distance the swimmers started to notice some change in the water temperature and we realized that it had gone below our limits to 12°C. We geared up with hoods to cover our heads and shortened the swim shifts if it felt necessary. This was no time to abort, we could see Helsinki in the horizon and the swim was progressing well.

We had scheduled an overestimated maximum of 48 hours for the swim but we arrived in Suomenlinna fortress island, Helsinki in 26 hours. We were very pleased to have achieved our goal after the few difficult moments we had during the swim. The total swim distance 100 km was verified from the support boats navigation data.

Finnish Naval Academy supported us by offering accommodation for us in Suomenlinna fortress island. We also got facilities from Suomenlinna conference and banquet facilities for our after swim party.

"Save the Baltic Sea swim was a success in many ways"

The weather and water temperature (12–16°C) challenged us, but we overcame the difficulties with determination and "safety first" attitude. Our commitment on raising awareness on the dire state of the Baltic Sea and to BSAG – Baltic Sea Action Group was widely recognized. Save the Baltic Sea swim 2013 was a success in many ways. EuroRSA feels great pride of the members who open-mindedly travelled to northern hemisphere on their own cost and jumped in to the cold Baltic Sea to raise awareness in this important issue. ■

Mari Move Martinsen

RESCUE SWIMMERS ON SVALBARD, LONGYEARBYEN 78° NORTH

On Svalbard, the most Northern rescue base in the world, we have seven rescue swimmers in total, 6 guys and 1 girl.

RESCUE SWIMMERS ON SVALBARD, LONGYEARBYEN 78° NORTH

Our names are **Inge Skjevik**, who has been working as a rescue swimmer since 1996, EMT-B for 8 years. **Sten Nordal**, has been living on Svalbard since 1993 and been a rescue swimmer since 1998, EMT-B for 7 years. **Trond Viggo Beisland** has been working as a rescue swimmer since 2001, and took his EMT-B 1 year ago. These are the 3 guys that comes from Airlift which is the company that has been running the operations from 1996 until 1st of April 2014. Airlift has had an average of 70 missions per year and has been the only operator in the area. The rest of the group is **Arne Marius Pettersen**, who has background as an EMT-B in Tromsø for 9 years. **Helge Rønning**, background as an EMT-B in Asker for 6 years and as a Paramedic for 2 years. **Mathias Strømqvist**, background as an EMT-B for 10 years in Lofoten and 12 years as a member of the Norwegian alpine rescue group. Finally **Mari Mowe Martinsen**, has a background as an EMT-B in Oslo for 9 years and is a newly educated Paramedic. All four of us come from the ambulance services across the country. We are now all employees at Lufttransport AS which is the new company taking over the SAR operations after Airlift. Lufttransport has now been running the operations since 1st of April 2014. The operations on Svalbard is highly upgraded with more focus on medical evacuation and treatment.

We have intensive care units for two patients and the capacity to evacuate up to five litter patients. Our operations have also grown from one to two AS332L1 Super Puma helicopters, that are currently being rebuilt and integrated in our systems. In the transition we are renting one helicopter from our Icelandic friends. Our area of operation is a part of a large area around the northern hemisphere together with other countries as shown in the pictures below.

June 3rd 2013 started our journey to become rescue swimmers. Well, our real journey towards becoming a rescue swimmer started a long long time ago. I think I can speak for all of us to say that we all had this dream growing up and started early preparing us for this task. Among 12 participants, of nearly 100 applicants, we competed side by side for five days and we were tested in skills both physical and mentally, individually and in groups. The group was awesome from day one and the mood was light throughout the week, even though we were competitors. The waiting time after our testing was long and painful. The happy news came during summertime 2013 and the journey of becoming rescue swimmers had officially started. Our training began early fall and has continued throughout the winter by training on procedures on the mainland and here on Svalbard as well. We need to be current on hoisting on ships and in the sea, land operations such as glazier rescue, avalanche, medical evacuations and medical treatment among lots of things. We also cooperate with the hospital here in Longyearbyen and their staff join us on some missions. They support us with doctors and anesthetic nurses for optimal treatment of our patients. They are also trained to hoist to ships where critical treatment is needed.

The life here on Svalbard, seen through the eyes of a rookie, are simple and easygoing. The community is small but has all the necessary facilities such as schools, kindergarden, shops, hospital, fire emergency, police and of course training facilities, as we need to be fit at all time. It is easy to get to know people as the community is so small and people here mostly have the same interests and are doing the same activities. Everywhere you go inside you have to take your shoes off. Even in the hospital. At first I thought that was weird but now I think it's genius. The floor is so much cleaner this way! This tradition starter in the early days when the miners was dragging al this dirt and coal inside so they had to leave the shoes outside. One other thing special about Svalbard is that you have to protect yourself with weapons when you are move around the Island. Inside Longyearbyen you are mostly safe but there has been incidents with polar bears inside the city as well. Outside the city you are obligated to bring a rifle and flares and pyrotechnical for protection of campsites. The climate is dry and cold with lots of ice and lots of wind. But because of the climate changes and the warm sea currents the ice is melting rapidly and is a threat to the polar bears.

Back to rescue operations, we currently had a glacier rescue that was our first mission with two helicopters. A man had fallen down a crevasse, approximately 25 meters down, before he stopped on a snow bridge. The man was completely unharmed after this fall and was extremely lucky. One of our rescue men, Inge, went down the crevasse secured by rope and the working conditions was tight and limited. He managed to get down to the patient that had to put a harness around himself before he got pulled up from the crevasse. Both helicopters was scrambled on this mission to bring the qualified person-

MARI

nel efficient up to the glacier. We cooperate together with a dedicated glacier group on these kind of missions. The Sysselmann on Svalbard, top police authority, also participated on the mission as they are the on scene commander and our mission launcher. Every mission runs through the Sysselmann, or the emergency call is received by the hospital witch then alerts the Sysselmann. Here are some pictures from one of our own training missions on glacier.

This was a small presentation of the rescue swimmers on Svalbard and our life up here. We are eager to begin our mission up here and hopefully we will be seeing you all on the rescue swimmer gathering next time in 2016. ■

"It is easy to get to know people as the community is so small and people here mostly have the same interests and are doing the same activities."

Sc. 2ª cl. Ars.M. Marco Restivo

The shipwreck seen through the eyes of a rescue swimmer

COSTA CON

CORDIA

COSTA CONCORDIA: THE SHIPWRECK SEEN THROUGH THE EYES OF A RESCUE SWIMMER

The night between January 13th and 14th 2012 is known around the world for the most incredible maritime SAR event in recent years. I am Petty Officer 3rd Class Marco Restivo, helicopter rescue swimmer serving in the 1ª Sezione Volo Elicotteri (1st Helicopters Flight Squadron) Italian Coast Guard based in Sarzana (La Spezia), on duty the night of the sinking of the cruise ship Costa Concordia, which occurred one hundred years after the Titanic disaster.

The whole day had slipped away without distress calls, the weather provided an evening of good weather and I was returned home after the working day, ensuring the planned night availability. Shortly after, however, the call came: the on-duty officer informed me to return immediately on base for a SAR call. Reaching the base along with two pilots and the winch operator, we were informed by the staff of the operations center of what was happening: a cruise ship had difficulties near Giglio Porto, a small town on the coast of Isola del Giglio at about 140 NM from Sarzana helicopter's station.

Prepared in a few minutes, the AB412 helicopter rescue call sign RIMA, after a short briefing, we took off around 23.00 towards Giglio. During the transfer, which lasted just over an hour, the operations center of the 2nd ITGC-MRSC (Italian Coast Guard Maritime Rescue Sub Center) Livorno, authority who coordinated rescue aircraft and vessels in the area, informed us that more than 2,000 people on board the Concordia were starting to abandon the ship.

Once we arrived at the island of Giglio, no one expected ever to see that scenario: the ship, nearly 300 meters long, had banked about 60-70° on the starboard side and was lying on the rocks close to the small harbor of the island. Many people were stranded in the lifeboats on the port side that could not be lowered to the water due to the hull's grade and a large deployment of rescue vessels were scrambling to recover those who had fallen at sea. Despite the seriousness of the event, the feeling of everyone on board should have been on the scene of a Hollywood movie.

Hard to decide what to do, among hundreds of people with their arms raised to the sky asking to be retrieved, the biggest problem was deciding "who's first?". Then we began to orbit over the ship trying to figure out who might be most in need and decided on a plan of action.

In the meanwhile, two more helicopters belonging to our same Squadron arrived in the area (an AW139 call sign RIMB and another AB412 call sign RIMD) to provide additional support to the rescue efforts. Once we have planned the release of the three rescue swimmers, Chief Petty Officer Marco Savastano was hoisted down by the AW139. Subsequently,

I was released not too far from my colleague. After a quick count (in that area there were about 70 people), we evaluated who had more need to be hoisted by helicopter, according to the health's conditions and the state of hypothermia.

We transferred the first four castaways on the AW139 RIMB for subsequent transfer to the Grosseto Italian Air Force Base, about 20 minutes of flight time far from the island of Giglio. Not far from me, Petty Officer 3rd Class Vincenzo Pandolfo, rescue swimmer winched from the AB 412 RIMD rescued four other people. At that point, it was my turn: I've harnessed and hoisted four castaways one by one and completed the recovery. We decided with the rest of the crew that I had to remain on board of the Concordia to maintain calm and order among the survivors, as well as provide moral support before the return of the aircraft.

After about half an hour of relative calm, the silence between people was broken by the sound of the blades of the AW139. This time, however, the helicopter hovered on another area of the ship instead of heading towards us. The pilots, in fact, had noticed that there were some castaways in a critical area in the bow, where the water level was rapidly rising. From that distance, I could see Savastano, who after being released on the ship, had slipped inside those cramped rooms in the bow to release and to rescue five survivors despite the danger for his safety.

Until that time, the rotation of the helicopter allowed a rapid succession of recoveries and everyone realized that the ship had stabilized on the seabed. Also the disembarkation of the castaways was taking place with due expedition so, after about two hours of my arrival, the coordination center of Livorno had decided that two of the helicopters, the AB412s, would have to stay grounded on standby at the Grosseto AFB, while only the AW139 RIMB, with more endurance, would remain in the area to supervise from above the rescue operations and perform medical evacuations in case of urgent necessity.

"I tried to get one of the many disposable water-bags scattered on the ground but suddenly, I felt the hand of one of the last passengers still there. He was giving me his water and had a smile. A deed that leaves no room for comments and that I will always remember."

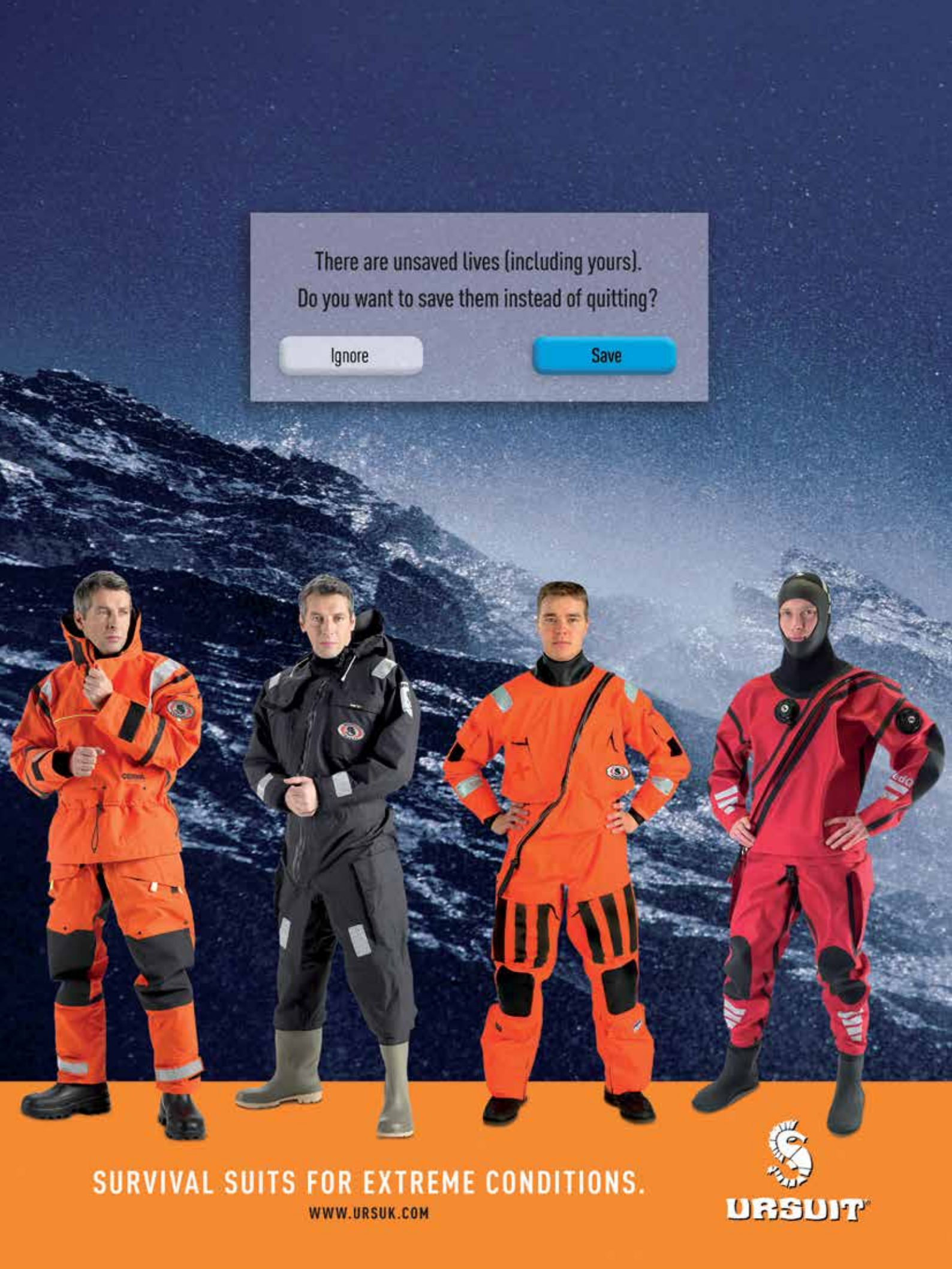
Left alone as the only rescuer on board, I proceeded to coordinate the disembarkation and report any stranded people and to find the safest and fastest way to evacuate the people closest to me. It was decided, in agreement with the coordination center of Livorno, to transfer the survivors from the bow to the stern of the ship, where leaving the ship seemed easier. We walked in single file towards the stern, proceeding slowly for the entire length of the ship. In a few minutes, and despite some difficulties due to the inclination of the path (the girl in front of me nearly slid into the sea), passengers have reached the rope stair and one by one went down on the rescue vessel below.

Shortly after trying to bring together other castaways to evacuate, I noticed some people stuck in the deck below including a girl with a broken leg: she had been stabilized by the ship's doctor, stuck in the same area. Due to the narrow area and the presence of oil on the floor which made it very slippery, I preferred not to risk an evacuation by helicopter but wait for further reinforcements with the most appropriate equipment to lower her on the lifeboat.

The lack of specific equipment to go up or come down on the side of the ship or to access the inside of the hull, prevented me from reaching the last people on board. Fortunately, after about five hours of my release on the ship, a team of firefighters reached the ship. They were equipped with specific equipment for reaching the stranded people so they could take over from me in the subsequent search operations of any missing.

After those hours that were so intense, the fatigue for the work done was so great: sitting near the rope stair through which the last passengers were disembarking, I tried to get one of the many disposable water-bags scattered on the ground but suddenly, I felt the hand of one of the last passengers still there. He was giving me his water and had a smile. A deed that leaves no room for comments and that I will always remember.

A few minutes before sunrise, the order to return to Sarzana came and RIMB recovered me. In more than six hours on the ship, we had hoisted 16 people, helped a hundred of passengers to abandon the ship, and the only thing I remember before landing was my head against "Sava" with my eyes closing. We are a wonderful family. None of us will forget this night for the rest of life. ■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