





GWO: The industry's standard

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The first half of 2018 has been a very busy period for Global Wind Organisation, with members and the Secretariat active on numerous fronts.

We have been developing two new training standards; Enhanced First Aid (EFA) and Advanced Rescue Training (ART), which will align and enhance the safety and rescue skills of technicians in remote locations. Meanwhile, we're developing other innovative training standards and reviewing existing ones to ensure they remain absolutely fit for purpose.

I am very pleased to see the progress outlined in this report. GWO's Basic Safety Training (BST) and Basic Technical Training (BTT) have quickly established themselves as industry standards and I am delighted so much growth has been possible over such a short time.

In addition, GWO is spreading into new markets. In this report, we look at growing adoption of the standards as the network of training providers grows. These numbers demonstrate GWO has become a trusted standard that can keep workers safe and help the industry meet ambitious installation and service targets over the coming years.

It is my strong belief that GWO is on the correct path. Our members collaborate and share information on the risks that technicians face in their jobs. This is an efficient way to identify training that creates a safer and more productive workforce for everyone.



Chief Executive's report

This report covers activities in the GWO training network from January to the end of June 2018.

We have drawn our intelligence from WINDA, the wind industry database. Now approaching the end of its second full year of operation, WINDA is delivering the insight we anticipated when it launched.

The database is a secure, robust, repository to which independent training providers can upload certificates as technicians' proof of competence.

WINDA is also providing valuable data on the skills and training dynamics of our industry. The trends and comparisons make for interesting reading.

The numbers show increases in completed training across the board. More people have been certified to the Basic Safety Training (BST) or Basic Technical Training (BTT) standard than ever before.

Over 28,000 technicians received a BST or BTT certificate during the first half of 2018.

GWO is recognised as the industry standard for training in wind energy. Companies across the supply chain are aligning their operations and sending employees for GWO safety or technical training because it is a pre-requisite for primary contractors.

WINDA has become a truly open system for the supply chain. Users (typically employers or contracting parties) validate the certificates of technicians using the individuals' unique WINDA IDs.

Of the top 15 organisation users verifying records in WINDA, nine of them are service providers to the wind energy industry.

Responsible for thousands of highly specialized workers, the service provider community trains and support the needs of a rapidly expanding sector. In the past, when pitching for a new contract, they would receive a training matrix that was unique to every customer.

Today, where disparate trainings once were, the industry sees a standard with three letters everyone can trust, understand and verify.

GWO Basic Safety Training double digit growth

During the first six months of 2018, significantly more (+12%) windpower technicians completed GWO Basic Safety Training (BST). They did more training (2.87 modules per person) than in the same period during 2017 which is reflected by the fact total modules completed rose even more (+14%).

From January 1 to 30 June 2017, 56% of the year's total training was completed.

Our projections indicate 48,000+ technicians will have been GWO trained during 2018.

Seasonal variations

One of the most interesting trends to have emerged from this half year comparison is the amount of training completed in the second quarter of 2018. It has been generally agreed Q1 was the busiest period as the industry used up the colder winter months upskilling employees.

However, as the graph on the facing page shows the fall in volumes from Q1-Q2 this year is shallower (-12%) than during the same period in 2017 (-37.5%). This levelling out will require some further analysis and comparison in subsequent quarters to help build a reliable trend.

NUMBER OF DELEGATES TRAINED

	2017	2018
1 H1	24,085	27,191
1 H2	20,333	21, 500 (forecast)

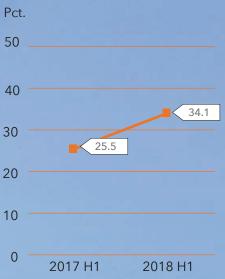
NUMBER OF CERTIFICATES UPLOADED

H1	67,440	78,185
H1	54,304	61,500 (forecast)

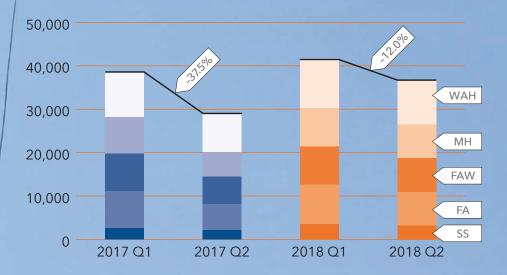


Refresher proportions increase

REFRESHER COURSES GROW



CERTIFICATES UPLOADED



Training modules in focus

Four out of five technicians (78%) were certified in Working at Height during H1 2018, which is comfortably the most common BST module and the same proportion as H1 2017. Fire Awareness, First Aid and Manual Handling was taken by almost two thirds (61%), again the same proportion as last year.

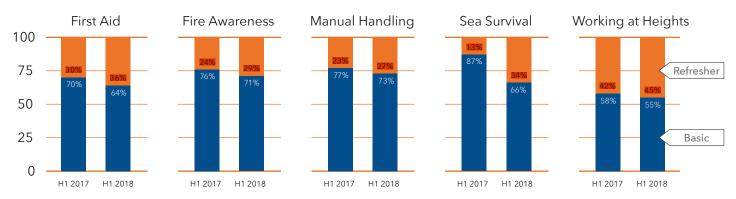
Sea Survival training was completed by 24% of delegates in H1 2018, an increase from 19% in the same period of 2017.

WHICH TRAINING DO TECHNICIANS TAKE THE MOST?

Working at Height	78%	<u>፟፟ጟጟጟጟጟጟጟጟጟጟ</u>
Fire Awareness, First Aid and Manual Handling	61 %	<u>፟፟፟፟ጟጟጟጟጟጟጟጟ</u>
Sea Survival training	24%	<u>プス</u> なななななななな



PROPORTION OF MAIN COURSES TAKEN VS REFRESHER COURSES



Sea Survival - Refreshers up +268 %

Volumes of BST training have increased as certificates were refreshed, and this has certainly been the case for the Sea Survival module. There were +10% more technicians taking the main course, but a substantial (+268%) rise in the number of refresher modules completed.

In H1 2018, Sea Survival's share rose from 7% to 9% of total training and this means the H1 2018 figure of GWO Sea Survival certified technicians (6704) is now a more accurate representation of the industry's skill base.

Basic Technical Training establishing an industry technical standard

This has been a milestone year for the BTT. After March 31 2018, all new technicians employed or contracted by GWO member companies are expected to complete BTT standard training. Meanwhile, employers have been aligning their existing training programmes with the BTT standard and either merit assessing technicians' skills or providing gap training where necessary.

BTT MODULES



The BTT electrical and hydraulics modules represent the larger proportion of certifications owing to the differing requirements between turbine manufacturers.

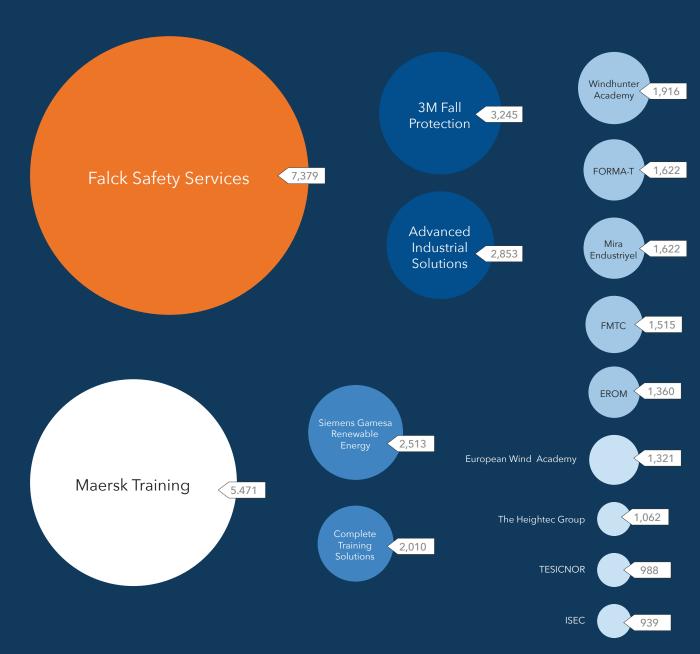
GWO expects this process of alignment to continue as members review their existing technical training programmes against the BTT.

Top 15 GWO Training Providers

Several new entrants have joined the top 15 providers.

The data displayed in the graphic below discounts Basic Technical Training, which would promote one or two providers much higher up the list.

The graphic represents each training provider's uploads of BST records to WINDA during the period 1 January to 30 June 2018.



Where do GWO certified technicians come from?

Technicians from 126 different nations completed GWO training in the first half of 2018.

Four leading nationalities continue to take the most GWO training courses, with the British, Spanish, Germans and Danes the most common groups.

Growth outside Europe

Non EU-nationals took almost twice as many modules in the first half of 2018. 7804 certificates were issued to technicians born outside the European Union last year, while 14,939 were issued to people from non-EU countries in H1 2018.

Technicians from Mexico and the United States completed GWO courses in increasing numbers. Just outside the top ten, almost 2000 certificates were awarded to Turkish technicians, over 1200 to Indian technicians and Chinese technicians are expected to rise up the rankings in the coming years with over 600 certifications in the first half of 2018 - a notable development from relatively few (4) certified training sites.

THE TOP TEN NATIONALITIES TAKING GWO TRAINING

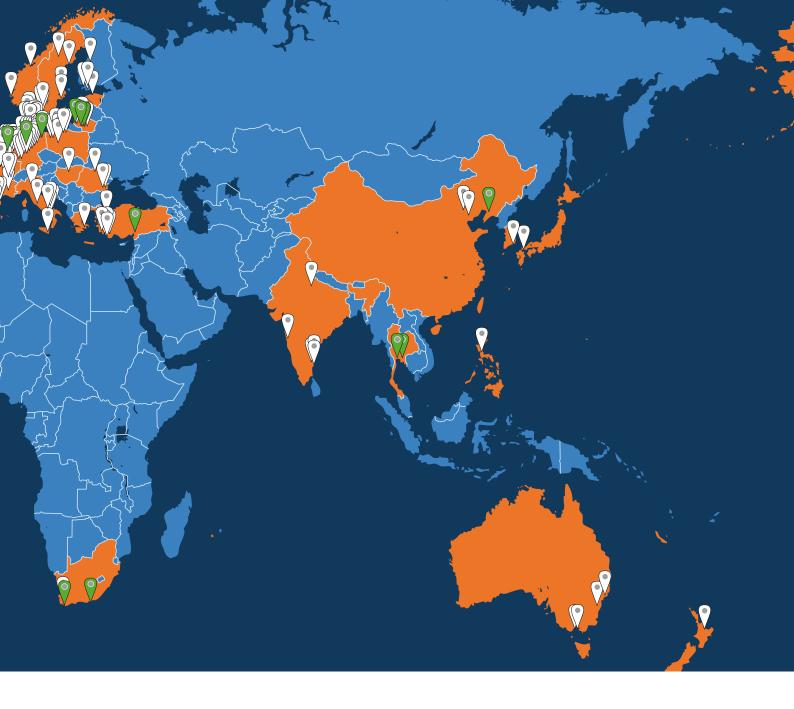
H1 2017	H1 2018	
22.0%	20.0%	
15.7%	14.9%	
14.2%	12.5%	
10.9%	9.3%	
6.8%	6.1%	
3.3%	3.7%	
3.2%	3.0%	
2.5%	2.7%	
1.8%	2.7%	
1.8%	2.5%	



Strong demand for GWO training outside Europe

Market projections for new capacity around the world inform how GWO training providers invest to develop new sites.

Global Wind Energy Council's latest cumulative regional market forecast shows Asia forging ahead with an expected annual installed capacity between 25GW and 31GW until 2022. GWO training sites have opened in four locations in China, while neighbouring Taiwan is also set to see several certified facilities led by Taiwan International Windpower Training Corporation.



North America's growth is expected to be by offshore installation, where GWO anticipates strong demand for Sea Survival training. This is especially true given that GWO member companies are active in the auction process up and down the Eastern Seaboard and the BST Sea Survival module represents a consensus safety standard based on known hazards faced uniquely by technicians in the offshore wind market.

Latin America is a market where cumulative capacity is expected to double by 2022 to 34GW. Again, GWO certification has become an important benchmark in the region, with Uruguay, Brazil and Chile seeing new sites recently, alongside a growing number in Mexico. The latter is now rivalling the United States in terms of volumes of training and it will be interesting to see how this market develops in the coming years.

