



## Structured and practical Incident Investigation at Allseas

Allseas, a global leader in offshore pipeline installation and subsea construction, uses BlackBox and Investigator 3 to deliver a recognized incident investigation solution throughout the company. The software – based on the TOP-SET methodology – enables Allseas to investigate and report incidents in a timely, structured and practical manner.

Allseas' decision to implement a recognized incident investigation solution was influenced by a variety of reasons, says Johan Vermeer, Manager QHSE. "We wanted to implement a more structured and uniform method to better facilitate our Vessel Management Teams (VMTs) to report incidents. And in Australia there were triggers that encouraged us to start looking for a leading methodology and software."

### Triggers to implement a recognized method

Allseas opted to apply a standardized and universally accepted incident investigation and reporting system across their fleet to satisfy their

own requirements as well as exceeding the standard expected by clients and industry regulators. "Although we already had an in-house incident investigation program in place, clients and regulators were looking for an accepted industry standard to be applied," explains Wally Gelok, QHSE Project Manager in Australia.

### Investigation and reporting as a standard and repeatable process

Allseas selected the Kelvin TOP-SET method and related BlackBox and Investigator 3 software after reviewing a number of industry recognized programs.

According to Gelok, the combination of Kelvin TOP-SET methodology and BlackBox and Investigator 3 technology provided Allseas with a “best fit” solution, both in terms of being a recognized system and offering a straightforward, practical approach.

“After researching the TOP-SET program, we realized that the BlackBox and Investigator 3 software combination was the right choice for us. The software provides a simple and practical method for capturing the information required and helps to provide a suitable pathway for the investigation,” says Gelok.

“Effectively implementing automatic reporting to a set standard means that offshore personnel can now investigate and report in a timely manner; it enables them to provide a high level of investigation and reporting as a standard and repeatable process.”

### Two-tier system

Allseas sees TOP-SET as a two-tier system. “For the lower level of incidents that can occur on our vessels, the on-board VMT and Safety Officer are confident that investigation, and subsequently reporting the root causes, are carried out in an effective and reliable manner that can be repeated,” continues Gelok.

“For the second tier, we trained onshore personnel to take the lead and to assist the offshore team in the more serious or higher level investigations when required. It was important that the system Allseas decided to implement was practical and could be used in combination with our management processes, whilst also providing support and assistance to our offshore personnel in particular.”

### Allseas’ safety program

In 2009 Allseas launched Allsafe, a safety program with the ultimate goal of lowering incident and accident rates to zero. Vermeer says that safety awareness and behavior are fundamental to the Allsafe way of thinking.

We believe that that behavior can be positively changed by encouraging a proactive approach at all levels within Allseas. We do this through workshops, videos and posters, but also by highlighting the efforts of personnel who actively contribute to improved safety on the vessels, reporting their contributions in Allseas’ in-house magazine and presenting them with phone cards to make calls from the vessel to their families.”

The majority of the VMTs and Safety Officers are now trained in the Kelvin TOP-SET method and know how to use BlackBox. With Allseas’ vessels operating all over the world, this required a lot of planning and Vermeer is delighted with the outcome. “An additional advantage of the in-company courses given by the Kelvin trainers is that our people from all over the world met and discussed the same cases. Consequently, we all use the same methodology and language now.”

### “More consistent, with correct data and well-founded causes”.

Furthermore, Vermeer is pleased with the positive influence the introduction of BlackBox software has had on the way incidents are reported and investigated. Vermeer explains: “Compared to the old situation, the standard of reports has improved, providing us with correct data and well-founded causes. They are also more consistent, with the same structure for each report.”

On board Allseas' vessels, the recording and reporting of incidents is done by the VMT, comprising the Master, Chief Engineer and Construction Superintendent, people who are trained to make instant decisions. Vermeer says that under the past system this could sometimes cause the VMT to jump to conclusions. "The new incident investigation method, supported by the BlackBox software, helps our VMTs to investigate incidents with an open mind before reaching conclusions and implementing preventive measures," says Vermeer.

The feedback from the vessels is also positive, adds Vermeer. "The vessels are sending me pictures from walls filled with the charts used in the TOP-SET method. Onshore, we occasionally want to further investigate incidents for which the reports are started offshore. We used to do this in Microsoft Word, which meant some of our reports were unstructured and lacked the necessary consistency.

"BlackBox and, where needed Investigator 3, enables us to use the information entered in the system offshore and continue with the investigation on-shore. This is much more efficient, with a lower chance of errors and no loss of information. Fortunately, the Investigator 3 software – in place for the investigation of more serious incidents – has not been needed yet."

### "Structured and timely recording leads to the right analysis"

In Australia, Gelok is also positive about the benefits of implementing TOP-SET and Black-Box: "It's a good fit for our operations and it closes the perceived gap between our previously used in-house system and the client and regulator expectations."



The Swiss-based Allseas Group, founded in 1985 and headed by Edward Heerema, is a global leader in off-shore pipeline installation and sub-sea construction. They are experts in the execution of large and complex projects, providing worldwide support to clients from the conceptual design stage to engineering, procurement, installation and commissioning.

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Investigator 3 structures your incident investigation by following the steps of the TOP-SET® methodology. There are two incident analysis methods in Investigator 3: Root Cause analysis and Tripod Beta analysis. Both are well-known methods to find the most important and underlying causes of an incident.