An unauthorised power tool leads to disaster
Are you ready?

The Defence Aviation Hazard Reporting and Tracking System (DAHRTS) will be replaced in February 2018.

The Aviation Safety Management Information System (ASMIS) Project is delivering a better aviation safety reporting system that will enhance Defence’s ability to learn and take action to improve safety.

Information packs and training opportunities are on the way.

Get ready for 2018

For more information visit the DDAAFS intranet
Have you ever considered the hidden dangers when you plug in one of those readily available power tools to do a hard yakka task? Sure they can make the job easier if all goes well — but what if it doesn’t? Have you ever considered the associated hazards and risks?

Just because you use certain tools at home does not mean you are authorised to use them at work — the scope of your employment and local orders define what you are authorised to do or use. Air Force has spent a considerable amount of time and money on you and continues to provide contemporary safety awareness, training and tools, which should be equally applied at home as well as at work.

If you conducted a risk assessment, did your emergency plan identify a safety person and is this person your partner, your five-year-old who loves to help or perhaps no-one at all?

While the Air Force cannot control how you conduct yourself or these jobs away from work, it is morally and legally required to have procedures and processes in place to ensure your safety while undertaking a Defence-related task or in a Defence-controlled workplace.

The following article describes what happened to one Air Force member who attempted to use a privately owned, not workplace-approved angle grinder to conduct an unsupervised ad-hoc task.

The member suffered a severe laceration to his upper left thigh when he lost control of the angle grinder and the still under-power grinding disc contacted his leg. The injury occurred at work, met the definition of a serious injury in accordance with the Work Health and Safety Act (Commonwealth), 2011 and prompted the commanding officer (CO) to commission an independent investigation.

Power tools can bite
Background

The unit is headquartered at RAAF Base Darwin and is the normal workplace for the CO, senior engineering officer (SENGO), unit safety advisor (USA) and the majority of unit personnel.

In early 2016 the unit assumed command and control of a detached element at RAAF Base Amberley. Around the same time, the Amberley detachment was moved into temporary accommodation to allow refurbishment of their existing facilities.

During this period, the newly appointed SENGO undertook a review of the workshop and used anticipated Defence-related tasks to identify and reduce the amount of under-utilised or non-essential equipment. One of the tools identified for removal was an angle grinder.

The Amberley detachment moved back into its facility in mid-2016 following completion of the refurbishment, which included installation of computer cabling, sound-proofing offices and personnel amenities and supply of general office fittings. Personnel commenced post-refurbishment clean-up tasks in parallel with limited on-going operational tasks.

While operational and other Defence-related maintenance tasks was managed through the Maintenance Control Section, junior members of the detachment took it upon themselves to identify and allocate workplace clean-up tasks through an informal process based largely around individual interest and availability.

Local management trusted the staff to do the right thing and, other than keeping a cursory eye on progress, largely left such tasks to those involved and focused on meeting operational and administrative requirements.

This process appeared to be working, no one was complaining, the level of clutter reduced significantly and operational task requirements continued to be met.

As the end of the working year drew close, the CO and SENG0 visited the detachment to reinforce their commitment to maintaining a safe and consultative workplace and to assess progress before the Christmas shutdown to ensure both workers and the workplace were ready for unfettered operational tasking in the New Year.

During the final end-of-year safety briefings, the SENG0 observed a large steel storage cage at the far edge of the maintenance carpark, which, due to being out of normal view, had been overlooked during earlier sweeps.

When highlighted to local management, it was agreed the cage was surplus to requirement and should be disposed of.

A small team discussed options for disposal, some suggested logging a job through the local base-support manager to arrange removal/disposal.

Others suggested it could be put into a waste skip-bin in one piece and others suggested cutting it into smaller pieces to make it easier to move.

One member of the team (the unit safety co-ordinator (USC)) strongly advised against cutting the cage up and encouraged use of existing base waste-management arrangements. Having given his opinion, the USC left the team and departed on an extended away-base deployment.

As the remaining members of the team continued to consider removal/disposal options, the discussions drifted down the path of cutting up the cage.

After a cursory search of the workshop and used anticipated Defence-related tasks to identify and reduce the amount of under-utilised or non-essential equipment. One of the tools identified for removal was an angle grinder. The as-yet-uninjured member, in the presence of at least two other members, had a crack at breaking down the cage by attempting to grind through some of the welds securing the square mesh sides but found this was quickly wearing down the grinding disc and taking too long. He ceased the task and suggested he would bring in one of his own discs from home.

Following a couple of days off work, the still-not-yet-injured member arrived at work with a replacement grinding disc and, having given his opinion, the USC left the team and departed on an extended away-base deployment.

While this procedure appeared to be working, it again quickly wore down the grinding disc. During a rest break, another member fitted the new disc on the workbench near the angle grinder and headed upstairs into the lunchroom to join almost all the other detachment personnel for lunch and informed the soon-to-be-injured member that the new disc was downsizing.

After the very-soon-to-be-injured and now unescorted member fitted the new disc he attempted to recommence an upwards cut at the place where he had previously stopped cutting.

Because of the effective noise insulation fitted during the refurbishment, no one heard the noise generated by the angle grinder.

The new, thicker disc grabbed the edge of the existing cut and, due to the torque of the motor, jumped out of control.

The member was unable to prevent the angle grinder from falling towards his body and the still rapidly spinning blade contacted his leg.

Having dropped the angle grinder the now badly injured member grabbed his leg to stem the bleeding and managed to move into the workshop, open the door into the domestic section of the building and call out for assistance.

The other members of the team, realising the now-injured member was the source of the cry for help immediately headed down and began to render assistance.

Other detachment members also attended and called the on-base medical section for help. In addition to despatching an ambulance and crew, medical also correctly contacted the Queensland Ambulance Transport Brigade via 0-000.

The injured member was treated on site and transported to a local civilian hospital for further treatment. Thankfully the injury missed vital organs and arteries and, after an overnight stay, the member was discharged with a very sore leg that was likely to take some time to recover.
Observations

The safety event investigation team identified a range of organisational and individual shortfalls that included:

- a sense of learned helplessness carried over from the previous CO
- some members of the detachment believed that safety got in the way of delivery
- members believed the CO Safety Statement comprised of just words and was simply tokenism
- safety was considered a catch-phrase and not to be taken seriously
- detachment management and experience was inadequate
- ad-hoc tasks were not managed at an organisational level
- self-interest/ego negatively influenced decisions regarding the cage disposal
- lack of thought when introducing private equipment in the workplace

The Air Force Safety Manual AAP 6730.001 (AFSM) contains high-level policy in relation to the management of plant. Plant can be easily defined as any item of machinery, equipment or tool and component thereof, such as items of plant and machinery, equipment and plant. Plant can be easily defined as any item of machinery, equipment or tool and component thereof, such as machinery, equipment, and plant. Plant can be easily defined as any item of machinery, equipment or tool and component thereof, such as machinery, equipment, and plant. Plant can be easily defined as any item of machinery, equipment or tool and component thereof, such as machinery, equipment, and plant.

Air Force has always supplied the tools and equipment required to complete authorised and approved tasks. These tasks are normally conducted by an upstream duty holder before the introduction of new plant and it is for these reasons the use of personal tools in Air Force-controlled workshops (or even office environments) is discouraged. Have the hazards been addressed and who is willing to retain the risk?

Lessons learnt

COs and supervisors need to be informed when new plant is brought into their unit. The uncontrolled or poorly considered introduction of privately owned plant into a workplace potentially exposes the CO and supervisors to legal scrutiny and more importantly, the risk of injury to one or more personnel. Policies and procedures (such as the base disposal program) are established for a reason – to prevent exposing personnel to unnecessary hazards and risks.

Use of the promulgated local purchase process would likely have prompted questions why discs were being purchased for an item of plant not held on the unit’s equipment list. Safety statements and programs are worthless unless they are backed up with positive action at all levels – adherence is recognised and rewarded, non-compliance is investigated and appropriately actioned.

So next time you are about to pick up a power tool, consider the hidden hazards and the potential consequences.

By WOFF Jeremy Hayler

The fact is, not enough is known about the long-term chronic effects of exposure to Military Aviation Turbine Fuel (MATF).

In terms of the acute effects, when it comes to MATF, ingestion may result in nausea, vomiting, diarrhoea, dizziness and drowsiness; aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema; and contact with the eyes may result in irritation, iritis and pain.

One of the main findings in most of these investigations was that when the worker did use some level of PPE, it did not adequately protect them from fuel exposure. Dangerous incident

DDAAFS recently conducted an investigation of a dangerous incident where an Air Force member was sprayed on the face and body by about three litres of F-34 MATF. The exposure happened during a maintenance task on a 15,000L refuelling tanker.
The investigation identified the following as the key contributing factors leading to this incident.

Individual and team actions

The incident person (IP) had never conducted this task before. On the day before the task he briefly reviewed the maintenance procedure in the publication but did not have the publication with him while he conducted the task and preferred to rely on memory-based execution. Relying on memory-based execution is a risky undertaking even when not compounded by never having performed the task before.

Planning for the task was conducted solely by the individual with little direct oversight by the supervisor. While the supervisor had given the person greater scope to plan and execute this task to demonstrate responsibility, there was no follow up conducted to check on their knowledge and understanding.

Supervision is not a set-and-forget activity and supervisors have a responsibility to ensure their workers conduct their tasks correctly and safely.

The IP was not wearing the correct PPE for the task. Shorts and a t-Shirt are not adequate to protect skin from exposure to MAT. Similarly, the selection of safety glasses in lieu of goggles/facemask was also incorrect for the circumstances and did not protect the IP against MAT contact with the eyes.

PPE is the last line of defence and when you choose not to use it correctly you are compromising your own safety.

Task and environmental conditions

This was a non-routine task conducted once every four years. A contractor conducts the servicing of the PRV and to maximise value for money, the PRVs on all of the refuelling trucks are serviced at the same time. The presence of the contractor placed pressure on the unit to complete the task quickly.

Compromising safety does not represent value for money and the organisation needs to allocate sufficient resources, including time, to allow tasks to be conducted safely.

The task was conducted in northern Australia in summer. This meant that high temperatures led to declining PPE compliance. The organisation did not identify that the environmental conditions were causing these non-compliances, nor did they take action to rectify the situation.

Safety is everyone’s responsibility and it takes commitment and vigilance to ensure that safety systems, including PPE, are provided, serviceable for use and are used correctly.

Organisational factors

The refuelling trucks are old. While this was not a contributory factor to the incident, it did mean the maintenance publications were also old. They were generic in nature and did not address the specific task. The PRV was listed as a thermal relief valve and the only task related to it was adjusting the valve.

Air Force does have a large amount of equipment that is old and the supporting documentation is often less than adequate to provide all of the contemporary safety instructions. Organisations need to recognise this and supplement these inadequate publications with locally developed instructions that fill the gap.

To overcome the inadequate publications, a culture of grandfathering has been developed in these maintenance environments. This is where tradespeople rely on the knowledge of conducting maintenance tasks that is passed on from previous members of the section.

Just like Chinese whispers, grandfathering maintenance knowledge is fraught with danger. Vital steps are often lost, ultimately compromising safety.

The RAAF Safe publication with him while he conducted the task and preferred to rely on memory-based execution. Relying on memory-based execution is a risky undertaking even when not compounded by never having performed the task before.

Planning for the task was conducted solely by the individual with little direct oversight by the supervisor. While the supervisor had given the person greater scope to plan and execute this task to demonstrate responsibility, there was no follow up conducted to check on their knowledge and understanding.

Supervision is not a set-and-forget activity and supervisors have a responsibility to ensure their workers conduct their tasks correctly and safely.

The IP was not wearing the correct PPE for the task. Shorts and a t-Shirt are not adequate to protect skin from exposure to MAT. Similarly, the selection of safety glasses in lieu of goggles/facemask was also incorrect for the circumstances and did not protect the IP against MAT contact with the eyes.

PPE is the last line of defence and when you choose not to use it correctly you are compromising your own safety.

Task and environmental conditions

This was a non-routine task conducted once every four years. A contractor conducts the servicing of the PRV and to maximise value for money, the PRVs on all of the refuelling trucks are serviced at the same time. The presence of the contractor placed pressure on the unit to complete the task quickly.

Compromising safety does not represent value for money and the organisation needs to allocate sufficient resources, including time, to allow tasks to be conducted safely.

The task was conducted in northern Australia in summer. This meant that high temperatures led to declining PPE compliance. The organisation did not identify that the environmental conditions were causing these non-compliances, nor did they take action to rectify the situation.

Safety is everyone’s responsibility and it takes commitment and vigilance to ensure that safety systems, including PPE, are provided, serviceable for use and are used correctly.

Organisational factors

The refuelling trucks are old. While this was not a contributory factor to the incident, it did mean the maintenance publications were also old. They were generic in nature and did not address the specific task. The PRV was listed as a thermal relief valve and the only task related to it was adjusting the valve.

Air Force does have a large amount of equipment that is old and the supporting documentation is often less than adequate to provide all of the contemporary safety instructions. Organisations need to recognise this and supplement these inadequate publications with locally developed instructions that fill the gap.

To overcome the inadequate publications, a culture of grandfathering has been developed in these maintenance environments. This is where tradespeople rely on the knowledge of conducting maintenance tasks that is passed on from previous members of the section.

Just like Chinese whispers, grandfathering maintenance knowledge is fraught with danger. Vital steps are often lost, ultimately compromising safety.

The risk-awareness knowledge of the maintenance staff was generally low. Use of the Rule of Three (RoT) and PEAR tool was not well understood and significantly underutilised. Additionally, no formal PBED (Plan, Brief, Execute, Debrief) structure existed.

The PBED and RoT/PEAR tools are simple to use and repeatable actions that help maintainers remain risk aware while they are working. They help identify risky situations and ensure controls are implemented to protect workers’ safety.

This was not the first incident of this kind. The unit had two previous similar events and while PPE compliance, inadequate publications and poor supervision were all identified as causal factors, the unit did not recognise the passive tolerance of violations that existed. Consequently, no follow-up actions were implemented to prevent recurrence.

It is very important to investigate incidents and to conduct regular reviews of organisational performance to identify trends and patterns and follow up when violations are noted. These actions help to proactively attack safety head on.

WHS Act

The WHS Act imposes a duty of care on workers to protect the health and safety of themselves and their fellow workers. This means that workers need to use all of the PPE required for the task.

Supervisors also have a duty of care and are responsible for ensuring their workers wear PPE that is serviceable and appropriate for the intended task. The workers must be given appropriate training in the fitment, usage, and appropriate for the intended task.

The workers must be given appropriate training in the fitment, usage, maintenance and disposal of their PPE and checks must be made to ensure their PPE is appropriately fitted, used, maintained and correctly disposed of.

It doesn’t matter if you’re an officer or an airman, a pilot or a maintainer, a supervisor or a worker - safety is everyone’s responsibility and safety systems are used to protect your safety.

So if PPE has been identified for the task you are performing, make sure you use it and use it correctly.
Remain vigilant when handling Fuel products.

Don't let poor work practice threaten your long-term health.

Prevention is better than a cure.

Every decision you make, every action you take, has consequences.

FUEL EXPOSURE
Remain vigilant when handling Fuel products

but also those who care!
... it not only hurts you
Don't ruin your tomorrows

Fuel Exposure

Every decision you make ... every action you take ... has consequences.
Understanding safety

By WOFF Gavin Jones

When our technicians get a chance to gather around the water cooler, inevitably the talk at some point turns to overbearing rules and instructions.

Seemingly, technicians spend more time searching for and complying with the plethora of instructions than they do actually turning spanners.

Many Air Force hangars and workshops display images of de-gloved fingers or other gruesome injuries from the workplace. Thankfully these injuries are relatively few in our organisation; however, many of the older-generation technicians do bare scars, albeit of a different kind.

Whether through ignorance or arrogance, the bad backs, knees and necks, skin conditions, tinnitus and hearing loss are degrading our quality of life.

The rules and instructions are intended to protect the younger generation of technicians from a similar fate in their later years.

However, despite the organisation’s best intentions, injuries continue to happen in hangars and workshops with a common contributor being a willingness to ignore the rules.

Maybe there was time pressure, or the hazards just didn’t seem that significant, perhaps the PPE was uncomfortable – the result is always someone getting hurt.

The right approach to complacency surrounding safety is a battle worth fighting. I am not saying individuals can address every rule or error, secure every hazard and police all violations but we can all make a contribution.

Starting simple
PPE is an immediate consideration, safety glasses today are provided in a range of styles for comfort as well as functionality. Hearing protection is available in every workplace, necessary specialist clothing and respiratory protection should be at arm’s reach and can be personalised.

The workplace should have first-aid kits, eye-wash stations, deluge showers, Automatic External Defibrillators, chemical-spill kits and hazardous-waste containers all commensurate with the hazard profile of your area.

Fall protection is always a concern around aircraft, work platforms should incorporate guardrails and when working on the upper surface controls should be in place – a harness and reel can be a lifesaver.

Safety signs, placards, lockout devices and other communication aids can be inexpensive and highly effective tools to maintain a technician’s focus on safety. Surely everyone is familiar with a remove-before-flight tag and if you haven’t seen a day-glo vest recently you must be walking around with your eyes closed.

Combining all vehicles undergoing component functional checks and a safety observer in clear view to provide clearance when operating, aircraft flight controls should be commonplace within the maintenance environment. If you are the designated safety observer stay vigilant, do not lose focus, remember why you are there.

Have a look around; can you identify the elements mentioned above? Are they present, suitable, operational and effective?

Safety management
The policy and instructions provide the minimum requirements for safety; however, when a rule does not exist actively think about safety.

Be proactive in seeking out hazards and addressing the controls before they present significant risk.

Having no accidents should be seen as having no accidents – yet every near-miss or dangerous incident needs to be seen as an opportunity to share an experience, renew focus, or improve a hazard control.

The cornerstone of any safety system is commitment, from the top-down and the bottom up. The maintenance manager and supervisor need to ensure the team have the right training, tools and direction while creating an environment where following procedures and doing the right thing is always the right answer.

This might be termed culture but whatever you label it, safety needs to become a way of life for the Air Force maintenance technician and they need support from the management team in order to realise this goal.

Empowerment and trust from management, discipline and commitment from leaders on the floor – the result is continual growth and improvement through safety momentum.

The safety advisor can be the champion for the cause; however, the best advocates will be the troops. Be disciplined and take the time to clean up spills in the workplace, wear PPE, care for equipment and maintain your situational awareness.

Seek first to understand
The tendency to blame or attribute fault to an individual immediately following an incident may prevent us from seeing the real failures. Have you ever seen a towmotor being driven erratically and thought to yourself “what a jerk”. Perhaps there is more to the story, could the person be avoiding a hazard on the tarmac like loose debris, is there a much deeper, complex, or stressful context that has influenced the driver?

Once blame has been attributed, to the ‘who’, there is a tendency to gloss over the ‘why’, which can hamper any effort to identify and improve hazard controls. When reading an ASOR or report relating to improper maintenance do you assume the person is a poor techo?

If your answer is yes, that’s the end of the learning. Take a step back and assume that like the rest of us, the person is skilled and a professional, so what could have caused either the bad judgement call or influenced the member’s actions resulting in the incident?

Don’t look now but you are beginning to understand why. This isn’t deflecting blame or protecting an individual, it will allow you and the organisation to understand the situation and learn how better to protect us all from future occurrences. We can all be better technicians, remember that many people rely on you to perform the maintenance correctly and safely.

Getting the maintenance completed is important but stop and take stock, it should never be at the expense of personnel safety.
By SGT Chris Johnston

We are now more than half a decade into the adoption of the Work Health Safety Act that governs us in our workplaces. Simply put, these regulations are in place so that we may return home safely at the end of a hard day’s work. So, how have we performed making the transition to a set of regulations designed for the 21st-century workforce?

How has this paradigm shift had an impact on aviation safety or more importantly, how has aviation safety shaped how the Air Force has adopted WHS?

I’ll start by sharing an experience I had as the unit safety advisor for my squadron at the time. I had just attended a safety brief on the Air Command Safety Always Pilot Project, which was being rolled out in Air Combat Group at the time. One of the topics touched on the need for cultural change and the length of time that change can take. I had one of those light-bulb moments when the presenter described some key factors that affect change management and just how hard it is to reconfigure an organisation’s instincts.

The two key factors that resonated with me the most among others were that the size of the organisation and its personnel churn rate can impact the shift.

Organisational size. Simply put, the larger the organisation the longer it takes to respond to change. We are not a very agile organisation when big changes are imposed upon us. This is not a fault of ours; it’s an inherent necessity of working in the Defence spectrum.

The bigger we are the more people we need to engage with to sell the product.

Personnel churn. For years my fellow colleagues and I had talked at length of the posting cycles and how they can affect workplaces. Admittedly we were looking from a pretty low level but it directly affected us when we had to pick up the slack when the newly posted members were getting up to speed on the platform.

We always came to the conclusion that the Air Force wanted more breadth of knowledge rather than depth when it came to aircraft maintenance. When you look at this aspect from a change-management perspective we are not doing ourselves any favours if we want to push big changes within our workforces.

The aviation safety management system (ASMS), I believe, has been the pinnacle of how to do safety well for a long time now. The only gripe that I and some of my colleagues shared over the years was that it is very aircrew centric. As an aircraft maintainer I believed that we were missing out somewhat on a mature SMS that really did what it said it would do.

Fast forward to the present and look at how the WHS RAAFSafe model has evolved over the last five to six years and there now seems to be some convergence between the two systems. ASMS policy has guided our current WHS system, which is reflected through the elements that govern each. They share common element intent even though they do not perfectly align; that is, a 17-element system versus 12.

Aviation safety has had a significant impact on how we do our jobs safely, not just from an aircrew perspective but from an all-inclusive WHS point of view as well. It has helped shape how the framework that is RAAFSafe has been implemented.

The level of change that has occurred in the WHS SMS has been significant. More than five years down the track we are still seeing how it is evolving into a mature system similar to what aviation safety has been for years.

These systems are never going to be perfect; however, and we are always striving for that generative culture that always looks to improve how we do business, in this case, how we do safety. I believe that aviation safety and WHS should co-exist to better each other, learn and improve off each other mutually.

Change is sometimes a long and difficult road but it’s also necessary to improve. We shouldn’t lose sight of the end goal when it comes to our safety systems and changing the way we do things for the better.
Look out — came the call from beside the starboard wing but it was all too late and the 2000-pound Mk-84 was already on the hardstand. Two in the morning — another early start, another 12-hour shift.

The maintainers had been deployed for around 30 days now, experiencing the varied delights the MEAO had on offer. This varied from 50°C daytime temperatures to living in tents with 70 other sweaty squadron members and squinting through the odd sand storm.

The F-18s had been reasonably well behaved, leaking but not breaking — they like it when they are being flogged, which was great, as the tempo didn’t look as if it was about to ease.

Tradesmen for multiple trades worked around each other as they carried out their maintenance tasks. I was sitting in the cockpit with ground-power applied, the ground cooling fan screaming its tortured song. An armament load crew rolled up with a couple of Mk-84s to load and configure into GBU-10’s LGB (Laser Guided Bomb).

The usual banter ensued as to whose jet it was and if they could load. The tow motor and trailer were positioned parallel to the starboard wing of the aircraft. This allowed for the Aircraft Aerial Munitions Lift Truck (Jammer) to lift the Mk-84 from the trailer and fit it to the aircraft pylon without the need for excessive manoeuvring.

It all appeared to happen so slowly, but in reality it was all over in an instant. As the Jammer positioned itself to lift one of the Mk-84s from the trailer, one of the gunnies released its restraint, with shouts of “look out!” the Mk-84 rolled forward and fell between the Jammer and trailer, landing on the hardstand.

Everyone working on the aircraft stopped and looked at each other for a moment, I’m sure we were all thinking the same thing — “that was lucky”.

This is an incident that has stuck with me for many years, a good war story to tell my kids, with wide-eyed “eeww, arrgh, what if it went BANG??”

Experts say “safe as houses, they drop these things from 20,000 feet and sometimes they still don’t go off”.

Does it really matter that it was high explosive wrapped in a cast iron jacket? It could have been anything falling to the ground that morning, just lucky that nothing was damaged and no-one was hurt.

If we were to take a look at only the first two elements of PEAR — People and Environment, the load crew could have been affected by any number of influences. Some of these could have been identified as potential ambers; sensory limitations, fatigue, workload, communication, weather, priorities or pressure.

Any three combinations of these would have accumulated to a red and pull a temporary stop to work. A brief pause to loading may have been just enough for the crew to regroup, widen their view to the overall task, assess their safety defences and potentially avoid an incident.

Take the time to be prepared, brief your crew in advance. By doing so you can jointly identify your ambers and reds. And when things are starting to look a little pear shaped you can safely ‘knock it off’, take a step back and regroup.

You maybe robbing yourself of a good war story, but it may just save one of your mates from injury or something far worse.
Why is safety culture important?

On April 26, 1986, the 1000-ton concrete cap sealing the Chernobyl-4 reactor blew off, releasing molten core fragments and fission products.

The accident at Chernobyl was analysed by the International Atomic Energy Agency and the term safety culture was introduced as a result of their first analysis.

Professor James Reason said it was the Chernobyl accident that turned his interest to the human and organisational factors that cause major accidents. Since Chernobyl, the use of the safety culture concept has spread to other industries including aviation and medicine.

What is a safety culture?

The UK Health and Safety Commission Human Factors Study Group defines safety culture as: "The culture of an organisation is the product of individual and group values, attitudes, perceptions, competencies and patterns of behaviour that can determine the commitment to, and the style and proficiency of, an organisation’s health and safety management system."

Professor Reason considers an ideal safety culture "the engine that drives the system towards the goal of sustaining the maximum resistance towards its operational hazards — regardless of current commercial concerns or leadership style."

A safety culture consists of shared beliefs, practices, and attitudes that exist in an organisation. There are three vital elements of a safety culture according to Professor Reason — an informed culture, a reporting culture, and a just culture.

The relationship between culture and adverse events

There are numerous reports from major disasters throughout the world that have identified safety culture as a factor that influenced the outcome. Chernobyl, Piper Alpha, and the Kings Cross Station underground fire all highlighted the effect of organisational, managerial and human factors on safety outcomes in highly dynamic and dangerous environments.

Within the reports into such major disasters, observations have been made that accidents are not just a result of human error, environmental conditions or technical failures alone but also a result of a breakdown in policies and procedures established to manage safety.

With a safety management system in place, why is there a need for safety culture?

A safety management system (SMS) represents an organisation’s competence in the area of safety. It is important to have an SMS and competent and experienced safety personnel to execute it.

Rules and processes may not always be followed, particularly where personnel believe that getting the job done is the overriding priority — even if there are occasional risks or shortcuts.

Where do people get these ideas?

The answer, ultimately, is from their peers but more so from their superiors. To ensure a commitment to safety, organisational leaders must show that safety is their priority.

It is recognised that leadership is important in the creation of a culture that supports and promotes a strong health-and-safety performance of an organisation. The manager or the team leader is vital in inspiring employees to a higher level of safety and productivity, which means that they must apply good leadership on a daily basis.

Put simply, safety culture is the way we do things around here regarding safety. You can judge whether a company has a good safety culture from what its employees actually do rather than what they say.

Where do people get these ideas? The answer, ultimately, is from their peers but more so from their superiors. To ensure a commitment to safety, organisational leaders must show that safety is their priority. It is recognised that leadership is important in the creation of a culture that supports and promotes a strong health-and-safety performance of an organisation. The manager or the team leader is vital in inspiring employees to a higher level of safety and productivity, which means that they must apply good leadership on a daily basis.

Put simply, safety culture is the way we do things around here regarding safety. You can judge whether a company has a good safety culture from what its employees actually do rather than what they say.

A safety culture is not something you can buy — it is acquired as a product of the combined effects of organisational culture, professional culture and, quite often, national culture.
TRAVELLING FAR?

YOUR FATIGUE COULD IMPACT ON THE LIVES OF OTHERS