Safety II and Positive Reports?

You may have seen on recent Centrik reports references to Safety II and "positive" reports. But what is Safety II and why is a positive report a relevant thing?

Safety I

First a quick reminder of how we traditionally manage 'safety':

Traditionally safety has been considered a matter of risk reduction, in both a proactive and reactive manner. Processes and guidelines are given to employees; training is supplied to the employees; equipment (eg aircraft) are engineered (and monitored) to withstand wear/ fatigue/stress and designed to be as easy to use as possible; and then work is done. After an accident, incident or near miss, processes are dismantled and examined. 'Causes' are searched for – a broken component, a broken rule or a human error is searched for until the "a-ha" moment is found and the cause or causes can be reported – eg, the cause of the accident was a failure to follow procedures, or a broken widget etc. These causes are important in Safety I systems because they allow the creation of more risk reduction, through more rules, or strengthened components, monitoring of trends, or penalties for guilty and negligent personnel[1, 2].

However, Safety I is incomplete thinking: aircraft and their associated systems are too complex for every possible outcome to be predicted – therefore rules, procedures and trend-monitoring cannot be created for events that are not yet known.

Safety II

The Safety II model is based on building resilient systems that recognise that people and their behaviour are the solution and not the problem. Safety is built and encouraged based on successful outcomes – successful outcomes are shared and disseminated for others to learn from. A Safety II system might not even be thought of as a system but instead as an organic and live process that responds, monitors, learns and anticipates and is therefore resilient to the changes and variations of complex work systems and environments[3]. People therefore need to be empowered to have self-determination and collaborate to create safety based on the circumstances *at the time*, and not based on a previous risk-assessment or set of rules that may have become out-of-date or inappropriate.

In Simple terms....

In simple terms, let's think of traditional safety as *"what went wrong?"* and *"don't do that because it's bad"* and *"follow these rules"*

Lets think of Safety II as *"what went right?"* and "*do this because it works well"* and *"take the necessary action required at the time"*.

How do I achieve Safety II?

You already are... but you don't know it. Every time you operate and have no unsafe events, it's because YOU, the operator made hundreds of correct decisions, used your experience & knowledge and collaborated effectively to achieve a completely uneventful outcome! Well done – sounds a little boring doesn't it? Well before we start congratulating ourselves, let's see how we can improve our Safety II culture. It's important to look for the things that people do to make things work and succeed – and not just look for the hazards to avoid.

Examples:

Normal, routine activity is interesting! Don't take for granted all the little actions that you carry out when operating. Only a fraction of what we do is actually prescribed in a flying guide or contained in an SOP. The vast majority of our actions are the result of habits that we have created for ourselves. There could be many hundreds of positive little things that you do which have never occurred to a colleague. Have a think – can you share ideas and tips? Can others learn from what you do? If you're in a training role then do you praise the little positive successes that you observe? Do you spot neat little ideas and think to pass them on to the wider community? Or are you just concentrating on finding errors in technique?

Here's a quick example from Exeter: when taxing out of dispersal the windsock is not easily visible to the pilot – but it is to the LHS TFO. When we leave the dispersal on a dark night with the airfield closed, the TFO looks at the wind sock and says, 'Chris the wind's from the south' or whatever. Great – that's added a little positivity to my SA and helps me plan my departure. There's no way that can ever be in a rule book. But it is one of many useful little things that build safety and create a routine successful outcome.

Chris Chambers

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When flying with a similarly qualified person (eg, mutual IF) are you looking for the little differences? Are you saying to your buddy *"hey you do that? - that's neat"* and put it in your own back pocket… or are you concentrating on being "standard" and not messing up in front of your oppo, and in so-doing stifling the extra stuff you do? (The obsession with critique (in preference to praise) throughout military flying training/assessment has a lot to answer for I'm afraid…)

SMS reporting

If you report an in-flight malfunction, then report what you did to create a safe outcome – did you use the AP upper modes, did you use ACANS to assist with navigating to a diversion, did a member of crew make a suggestion, did ATC give assistance – there are so many variables – but some key decisions about the *positive* actions you took is how someone else could learn to have a similar positive outcome. In other words, what did you *do?* Just reporting that *"you carried out the drills iaw the FRCS and landed without further incident"* omits a lot of Safety II opportunities.

Summary

Safety II is a big area but largely unexplored – it shouldn't just be thought of as 'best practice' or 'common sense' or CRM or 'correct techniques'. It encompasses those but a Safety II culture also requires the *sharing, learning, reviewing, updating, rethinking and positive enactment* of all the little granular decisions and actions that you make every time you fly. People makes things safe; not rules and regulations.

References:

1. Drift Into Failure, Sidney Dekker
2. The Field Guide to understanding 'Human Error', Sidney Dekker
3. Safety-II and Resilience Engineering in a Nutshell, Dong Han Ham
4. Trailblazers into Safety-II: American Airlines' Learning and Improvement Team
5. https://safetydifferently.com/instead-of-top-down-safety/

I've also drawn on my own experiences in Quality Management in commercial business: encouraging employees to achieve quality work can generate similar barriers through fear of mistakes and error - telling staff what to do via a set of rules never worked! Giving staff guidelines, telling them what to achieve (and giving them the decision making power) achieves better outcomes.

Chris Chambers