SOME ORGANISATIONAL TRENDS - ARE THEY FOR THE BETTER?

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A NOSTALGIC AND SAD REFLECTION

- Last time I did this presentation was during 9/11, Huntsville, Alabama
- US Air-space closed
  - Keynote speaker couldn't fly in from Canada
- I was asked at the last minute to fill in
- Given the circumstances - pleased to help out

BACKGROUND TO THE PRESENTATION

APPLICATION TO A TECHNICAL ORGANISATION

Personal Opinions

PURPOSE OF THE PRESENTATION

- Technical based organisations
  - To list some of the current trends that organisations appear to go through
  - To discuss whether they are for better 'or worse'
  - What are the problems (side effects) that might arise?
  - How they relate to the 'Law of Unintended Consequences'
  - What might be the Root Causes

Their influence on safety

TREATING THE SYMPTOM RATHER THAN ROOT CAUSE

- Lesson from the medical industry
  - Treat and tackle the root cause**.**
- Are we too focussed on treating the symptoms?
    - The urgency of the here and now
    - Configured to treat a series of symptom related problems – symptom paralysis!
    - Is this having an undue effect (detriment) on the configuration of the business.
- Shouldn't we be more strategic and look towards eliminating the root cause rather than to be too focused on the symptoms?
  - Are the symptoms a consequence of earlier poor strategic technical decisions
  - If so what was the deficiency that led to this
  - What are we doing about it – to prevent re-occurrence
- Have we got the balance right – symptom response versus root cause assessment?
- Does our Review Learn and Improve processes really get to the root cause aspects – somewhat after the event – rather than before?

Very often the sequence of symptoms arises from earlier poor technical decisions. Was there a technical deficiency at the time.

MANAGEMENT STYLE – TECHNICAL LEADERSHIP TO MORE CONVENTIAL PROCESS LED MANAGEMENT

- Organisations appear to have moved somewhat from
  - A technical leadership style of management
  - To a more traditional style with a strong emphasis on project management and control through processes
  - Has it changed from - Management with the aid of processes to management being the prisoner of processes?
  - There can be damaging conflicts between the need for sound judgement and subservience to prescription.

Which management style is suited to provide the best balance

MANAGEMENT STYLE - RESPECTIVE CHARACTERISTICS

- Strong technical leadership is best placed to assess which aspects of prescription are necessary and what aspects are not
  - Better judgment on context
    - Based on expert knowledge, experience and technical confidence
  - Allows greater flexibility and agility in decision making
    - What is necessary and when
  - Aids in the avoidance of nugatory (and even wrong) compliance with unnecessary prescription - context
- A more traditional ‘process led’ management style may not be so well placed. Does follow the rigour of due process but:
  - More limited in flexibility in decision making
  - A compulsion to comply with full prescription –or else!
  - Can lead to less targeted effort
  - Less value for expended resource

A personal opinion

IS THERE A GROWING TREND – IMPACT!

- Does the prescriptive trend lead towards a dilution of the technical leadership position in management structures?
- Can technical leadership be relegated in importance as the trend to prescription increases?
- Is there a perception that a full set of company prescriptions can effectively substitute for technical leadership in company management structures?

Might this be becoming a worrying trend?

TECHNICAL KNOWLEDGE MANAGEMENT 1

- A strong technical leadership structure ensures the maintenance and development of knowledge and experience - as part of day to day activity at all levels of the structure.
  - The knowledge, skills an experience are continually 'active' within the structure
  - It maintains and encourages a strong technical edge
  - There is a strong technical mentoring characteristic
  - It minimised technical loss when key personnel leave
  - This is key when the nature of the business is such that it is not readily available from 'outside'.
  - This lessens the need for the organisation to have an independent knowledge management (KM) process
    - Is such a KM process always effective?

On the other hand

TECHNICAL KNOWLEDGE MANAGEMENT 2

- A more process led organisation
  - Is not so adept at sharing and developing technical knowledge and experience as part of normal day to day business
  - The knowledge and experience can be more passive – more characterised by training and 'in docs'
  - Essential knowledge and experience can well be irretrievably lost when key personnel leave
  - Such an organisation will require a strong knowledge management process
    - Will training and 'reading about it' ever be as effective?

Are we losing something important as we drift away from technical leadership structures?

THE PROCESS STRUCTURE IS NOT ENOUGH!

- A structured process with rigor is an important strategy but
  - Is there a growing belief that following the company process structure will of itself lead to success?
  - Isn't it the quality within the processes an important element to success?
  - Does over reliance in a structured process approach lead to false confidence in quality and unintended consequences.
- Management is more comfortable in checking that due process has been adhered to rather than independently checking the technical quality within the processes – is this a weakness?
  - Is this a growing problem as technology and programmes become more complex.
  - A similar problem is arising in the context of independent peer review – see Nimrod next slide

How do we ensure an adequate cadre of independent qualified technical experts at each level?

EXAMPLES – WHERE VALUE MATTERED – BUT FAILED!

- The Nimrod tragedy in the UK – military A/C which caught fire and crashed
  - A sound structure of processes – a customer, a supplier and an independent assessor/adviser
  - But what happened to the quality within these independent processes
  - They were flawed
- The Minot 'event' in the US
  - A 'sound process structure' for independent checking that the wrong item could not slip through the net
    - But the quality within the process structure failed.
- The Haddon- Cave enquiry following the Nimrod tragedy noted that:

"The safety case regime had led to: compliance-only exercises; audits of process only."

PROCESS/ROUTINE AND THE CHECKLIST MENTALITY 1

- Following naturally from the previous slide
- A process rich environment runs the danger of activities becoming ‘too routine/mechanical’.
  - Just slavishly following the process
  - What about the context - is the process appropriate
  - Dulls the mind
    - Not thinking outside the box
    - What about the ‘what ifs’
  - Impact on peer review
    - Which shouldn’t be trapped into this way of working

Is there a risk that we may be generating a culture and cadre of personnel who fall into this way of operating?

PROCESS/ROUTINE AND THE CHECKLIST MENTALITY 2

- The checklist mentality
  - Have all items in the list been considered?
    - But what might be missing?
    - But what does considered mean?
    - Is this really an assessment against the real requirements for each item in the checklist?
  - Someone else has already done it – so its probably OK
    - Minot again
  - Not thinking in the wider context within which the check list sits.
    - Its overall purpose
  - Does this issue also apply to independent peer review?
    - Which shouldn't be trapped into this way of working

Haddon - Cave notes the Nimrod tragedy became a paperwork 'tickbox' exercise.

"PROTECTIVE COMMENTS"!!!

- Views are my own and not those of AWE.
- Do they reflect on activities within AWE?
- You may well ask – I couldn't possibly comment!
- The stock phrase by

  "Francis Eckhart

  In House of Cards

  a BBC TV Political drama"

  How to rise to the top by hinting but not admitting to anything

OUTSOURCING

- A necessary process for all organizations – 'Make or Buy' decisions
  - Product/process cannot reasonably be undertaken internally .
- Outsourcing is not a simple 'hand over' process.
- The organization needs to maintain its credentials as a competent if not expert customer (especially for high consequence safety)
  - Ideally has all the knowledge and capability to do/produce it oneself if given the resources and budgets – but these are not normally available
- There are still risks if the customer employs an independent adviser
- As a competent customer
  - Could do but subject to resource and financial restraints
  - Absolutely clear about what is required and can competently specify
  - To ensure that supplier fully understands and can meet the specification
  - To be competent in ensuring that what is supplied fully meets the specification.
  - Customer consistently 'Eyes on the Ball'
    - Following the agreed programme.

THE DANGERS AND AN EXAMPLE

- What are the dangers?
  - Overconfident trust that the ‘supplier knows best’
  - Relaxing and ‘Eyes off the Ball’
  - Drift away from competent customer status.
    - Suppliers are happy to give you what they want to give you!
    - External advisers are happy to give you the advice they want to give you!.
- Again the Nimrod example
  - The customer
    - No longer fully competent in fully specifying what it wants and scrutinizing what is offered – and dependent on independent adviser - supplier knows best?
  - The supplier – design authority
    - Not confronted with competent customer and a challenging independent adviser – lacking pressure to comply with due diligence and quality
  - The independent adviser to the customer
    - Lack of true independence and scrutiny – not giving the due diligence required

Another example of what appears to be a sound process framework – but quality?

THE LOSS OF HANDS ON EXPERIENCE

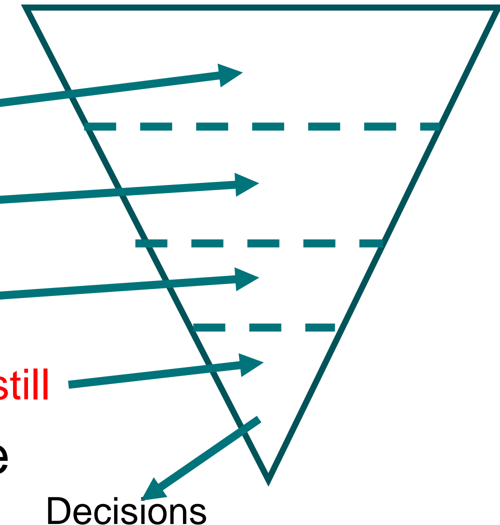
- Hands on experience - or reading about it and being trained as a substitute – which is best – the most effective?
  - Have we got the balance right?
  - Are we developing a cadre of personnel without the true experience of 'hands on'?
    - Only experienced to PowerPoint level
  - Does this ultimately lead to leadership with 'something missing'.
    - Limited appreciation of the true nature of the technology for which they are responsible.
    - Unable to manage effectively?
    - Is there a danger of management losing effective understanding of what's really going on below them?

THE BURDEN OF PAPERWORK

- As technologies and programmes become more complex so does the paperwork and its size!
- Obviously there is a need for a comprehensive document/information management system
  - All working to the latest formally agreed text etc.
  - Application of latest computer and proprietary information tools
  - Different media – converting to digital
  - Capturing legacy data - converting to digital

Two emerging problems

EMERGING PROBLEMS 1



(1) As one moves up (down) the information Processing tree ideally we should have

- Data – vast amount
- Information – condensed
- More targeted information – condensed further
- Appropriate for top level decision making – condensed further still

- The paperwork burden (document size) should reduce
  - But this is not always so
    - Giving rise to problems for management clarity and ultimately decision making
    - Not seeing the 'wood for the trees'?

Can this be one reason for erroneous decisions which can affect safety?

EMERGING PROBLEMS 2

- The conflict between positive safety action and documentation
  - It becomes more and more difficult to make the safety enhancement because of the burden associated with all the document changes necessary to cater for it.
  - *Haddon-Cave – notes*
  - *"The exponential growth of the 'Safety Case Industry' has led to a culture of 'paper safety' at the expense of real safety. It is easy to produce vast quantities of paper; it is more difficult to focus on the key hazards and think about them"*
  - *"The safety case regime had led to a culture of 'paper safety' at the expense of real safety and did not represent value for money. Its shortcomings included bureaucratic length; obscure language, failure to see the wood for the trees"*

EFFECTIVE OVERSIGHT AND INTERFACES

- General management systems – for instance matrix management – has the tendency to give rise to more and smaller administrative blocks.
- Like-wise programmes/ projects seem to be broken into more and smaller blocks and this is likely to continue as programmes become larger and more complex.
- One may well ask – is this right way to go – is there a growing problem? - what is the best balance?
- It is historically known that interfaces give rise to major integration problems
  - The more and smaller – the more interfaces and **potential problems**
  - More problems of effective communication between elements - **integration**
  - Isolation/silos – only interested in **my small section**
  - Effective management oversight of interacting elements can become **more complex and challenging**

WHAT IS CORPORATE (EFFECTIVE) MEMORY?

- Do we really understand what corporate memory really is and its impact on safety?
- Organisations make mistakes learn from them and hopefully get better.
  - Review Learn and Improve – stored in corporate memory?
  - Suggest there are two forms of corporate memory
    - **Active** - learned the hard way and very much still sits in the minds of those affected
    - **Passive Documented** – not necessarily complete – stored – hopefully remembered and can be effectively located and extracted when the occasion demands – correct context?.
  - If active memory is the more important, then Corporate Memory may be a transient item which is impaired when key individuals lose power or leave the organisation

Perhaps an Example

EXAMPLE

- Challenger to Columbia
- Was there a loss of **active** corporate memory by the time of the latter?
- How might this have influenced the focus on safety in the period leading up to Columbia.
- Note the conflicting driving forces in play during phases 5 to 7 in the Normal Accident Cycle with the potential loss of active ‘Corporate Memory’.

The Normal Accident Cycle

Occurrence of a detrimental event
Stage 1

Identification of shortfalls and recrimination
Stage 2

Spotlight firmly on safety both from within and without
Stage 3

Strongly supported campaign for major safety improvements and implementation
Stage 4

Close down and decommission
Stage 4a

A growing history of safety success, and (false?) comfort.
Stage 5

Attention slowly being focussed elsewhere
Stage 6

Safety concerns raised but judged as not sufficiently important (or welcomed) in the overall scheme of things
Stage 7

Occurrence of a detrimental event
Stage 1

Figure 1. The Normal Accident Cycle.

MORE FOR LESS AND ORGANISATIONAL STABILITY

- Budget and resource constraints – **do more for less**
- Shouldn't it be achieve **more value for less**?
- Requires the need for a clear understanding of the difference between **more value** and **simply more**
- Ironically we sometimes end up achieving less **value with more effort – does it apply to real safety?**
- Are these problems linked with the stability of organisations – constant structural changes?

Haddon –Cave notes for Nimrod

"There is a large element of continuously trying to get 'a quart out of a pint pot', with all the attendant hazards that such a scenario presents to safe aircraft operations."

"Very often the requirement to do more comes from a situation of organisational lack of stability where a significant effort has to be directed towards re-alignment to the changes in organisation as opposed to the core activity". One may ask do you suffer from this?

"We tried hard, but it seemed that every time we were beginning to form up into teams, we would be reorganised. I was to learn later in life that we tend to meet any new situation by reorganising: and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralization (Gaius Petronius Arbiter, 210BC)".

Are we still trying to learn this lesson after more than 2000 years

PRODUCT WARNING

Just a personal views

One among many

Apply with caution