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# Confirmation Bias & Human Factors

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# The Human Element

How could this have happened?



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# ***Confirmation Bias***

...the tendency for appraisers to believe something and search for confirmation of what they already believe. When appraisers jump to premature conclusions, or are biased in a certain direction, they do not wait until all the pertinent market facts have been gathered and objectively analyzed. They try to interpret everything to justify their conclusions.

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# ***Exercise***

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# ***Effective Listening***

**Talk at 60 - 80 wpm.**

**Listen at 120 - 160 wpm.**

**Read at 200 – 300 wpm.**

**We think at 800 wpm raised to 1000 under pressure.**

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# Listening Exercise

- Listen to the following list of words.
- At the end you will be allowed 1 minute to write as many as you can



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Night Awake Dark Sheets  
Duvet Dark Quiet Dream  
Bed Warm Dark Snore  
Nightmare Drowsy Relax Slumber  
Cosy Pillow Dark Late

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# FV Ocean Way

The fishing vessel OCEAN WAY sank some 100nm northeast of Tynemouth, with three fatalities.

It was noted in the MAIB report that confirmation bias on the part of the SMC affected the SAR response, but did not affect the outcome of the incident.

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# FV Ocean Way

- 1056 – Vessel Capsized
- 1101 – Detect Only EPIRB alert received
- 1104 – Unresolved EPIRB alert received
- 1115 – Humber informed. AIS position SSE Holy Island
- 1117 – Amble ALB tasked from exercise
- 1120 – Amble detect 121.5MHz signal

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# FV Ocean Way

- 1131 – Vessel intended fishing on the Gut, 120nm offshore
- 1131 – Amble have radar target 12nm away
- 1145 – Resolved EPIRB alert received
- 1148 – Amble ALB stood down
- 1155 – SAR Helicopter tasked

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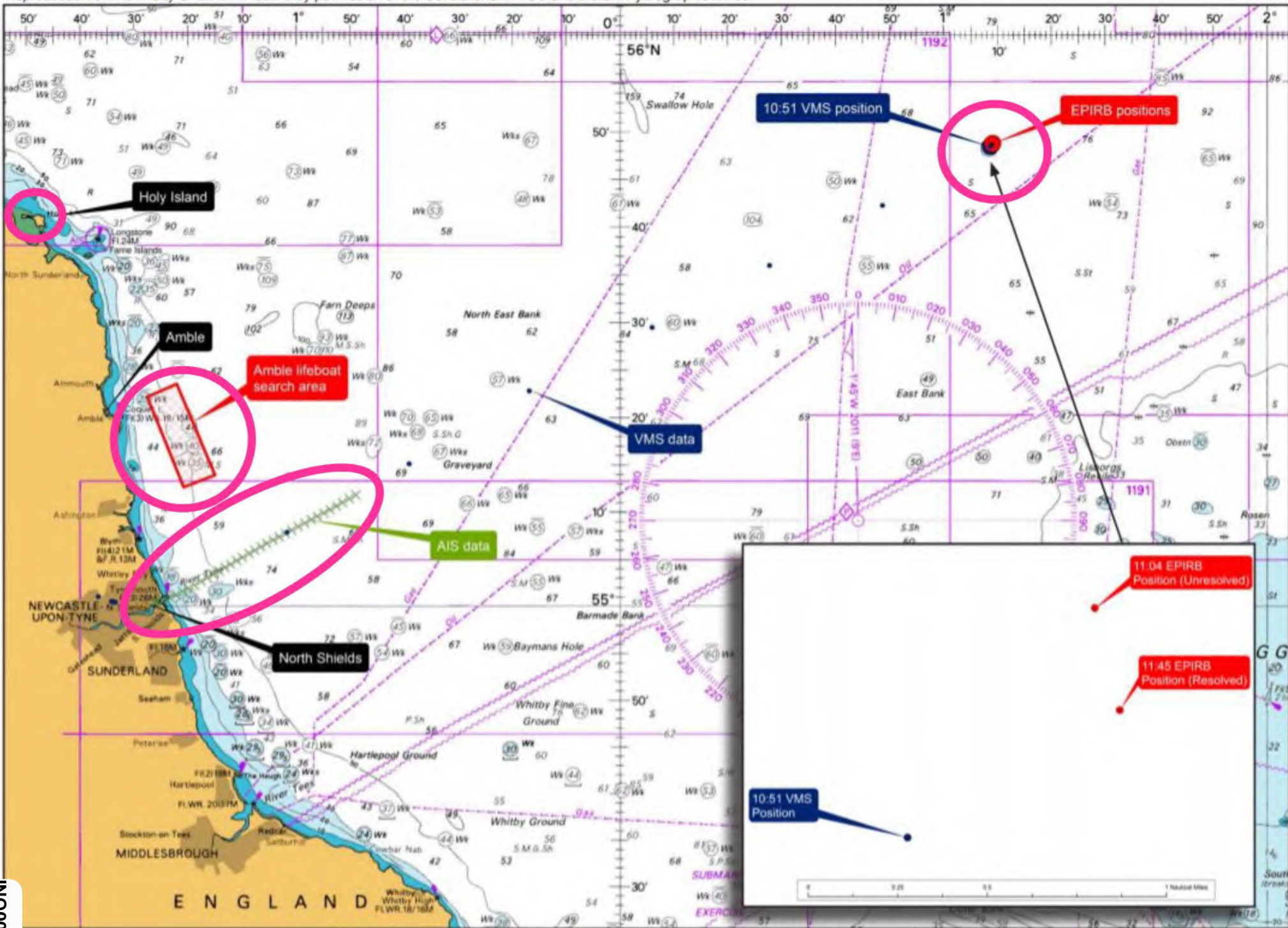


Figure 3: Accident location and related positional information



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# FV Ocean Way

Confirmation Bias:

AIS information was SSE Holy Island

**This was from 2359 the previous evening**

Amble ALB had a homing signal in a similar  
area



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# FV Ocean Way

These two bits of information meant that information regarding the vessel's intentions and the unresolved EPIRB position were not considered when co-ordinating the initial response.

It wasn't until a resolved position was received that the actual location was fully understood



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# 1540 UTC

A Fishing Vessel with 4 persons on board snags it's gear and capsizes.

It is witnessed from a member of the public on shore.

The witness cycles back to his holiday cottage to call the emergency services.

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# 1602 BST

The witness calls 999 and is put through to MRCC A

A clear location is provided by the witness and his landlady.

During this call, the SMC calls the ARCC and requests a helicopter.

The aircraft is tasked at 1605 UTC.



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# 1608 UTC

The SMC becomes aware that the incident is not actually located in their AoR.

ARCC is contacted and the aircraft stood down.

MRCC B is contacted and requested to take co-ordination.

They accept, but are not informed of the helicopter having been stood down.





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# 1621 UTC

MRCC B contact ARCC and request a helicopter.

A different aircraft is tasked.

They are airborne at 1635 UTC.



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# Bias

The initial SMC assumed the location was one of 2 places with that name within their AoR.

When it became clear that it wasn't, actions were taken to stand down the tasked asset before handing it over to the appropriate MRCC and letting them decide.



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# The Human Element

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“People make mistakes –  
organisations make it possible  
for them to be really serious”

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## The job

*Nature of the task, the environment*

## The individual

*Competence, skills, attitudes,  
risk perception*

## The organisation

*Work patterns, one way communications,  
leadership, culture*





# Latent Failures

- “Latent failures are a greater threat (than active failures) as they create conditions in which mistakes are more likely and more serious”
- "A defining characteristic of latent failures is that they have been present within the operation before the onset of a recognisable accident sequence"
- "Latent failures are deficiencies or anomalies that create the preconditions that result in the creation of active failures"



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# Error Enforcing Conditions

"Anything acting on an individual or work place that promotes or makes more likely the performance of unsafe acts, errors or violations."

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# Active Failures

“The frontline (primary) person associated with the source/cause of the accident or mistake”

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# Active Failures

- Knowledge / Skill failure
- Cognitive failure
- Communications failure
- Situational awareness failure
- Behaviour failure

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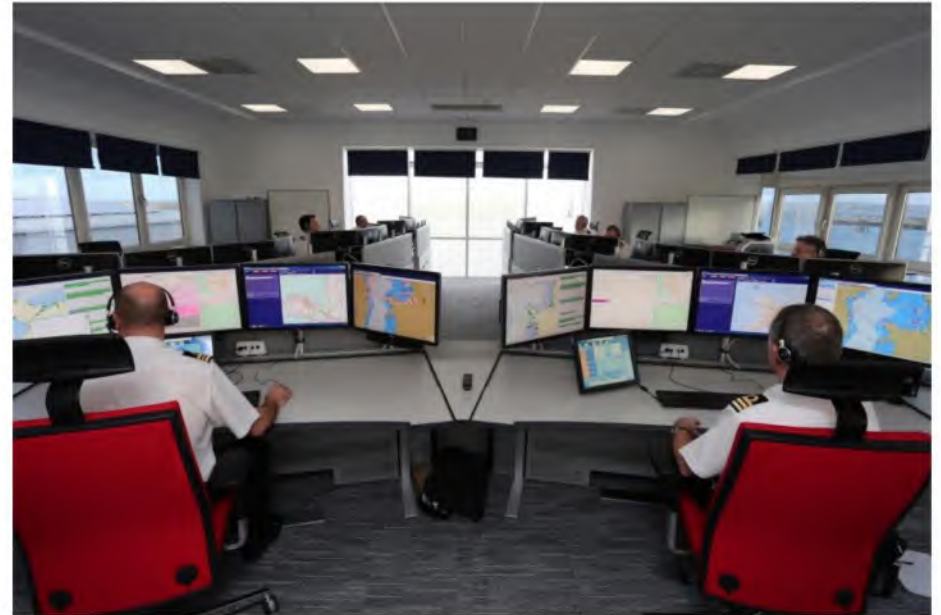
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# Situational Awareness

Being aware of factors and conditions which affect safe operations. Can be subject to a number of degrading influences including inattention and fatigue.

Confirming accuracy with other team members by sharing information and by stating intentions is important.

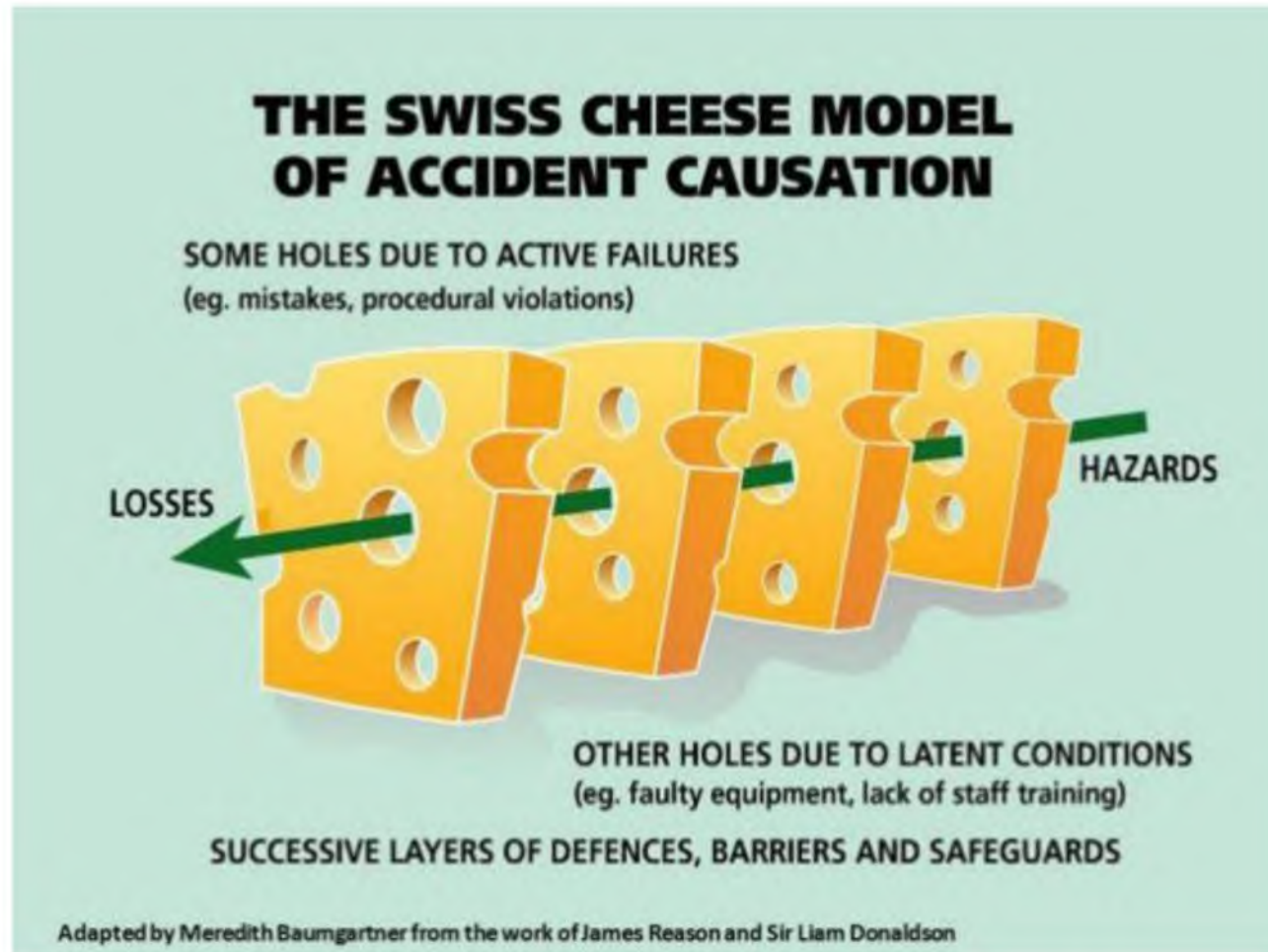
Sharing knowledge and information helps to avoid incidents and accidents arising from loss of situational awareness, and lays a firm foundation for high quality decisions regarding the overall management of operations.



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# The Swiss Cheese Model





TOWNSEND THORESEN



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# Herald of Free Enterprise

- Not the normal route of the vessel
- Port linkspan was not appropriate for normal method of loading
- Extra water ballast taken on in the bow to compensate
- Time constraints
- Assistant Boatswain fell asleep in cabin
- First Officer left the vehicle deck without checking the boatswain was there
- Last crewman on the vehicle deck did nothing
- Doors were not visible from the bridge and there were no indicator lights

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# Piper Alpha

- Safety valve was removed, but no handover to oncoming watch
- Work permit not easily located
- Firefighting system in manual control – could not be remotely activated
- Redesign of platform meant the control room was damaged in the initial explosion
- Feeder pipelines were not shut down

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# The Lessons Learnt

Even with the premier costs and technically advanced vessels, there is still the potential for major losses or large disasters. Managers have to take into consideration the unthinkable, even with the recent grounding and near sinking of the Costa Concordia. These are rare but when they happen, the results are catastrophic, have a financial impact and damage reputations.

Name

Global Marine Head,  
Americas, Allianz Global Corporate & Specialty (AGCS)



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