Weather

'The most significant risk variable we face'

'other than ourselves'

'The Good, the Bad and the Ugly'

Harry Nelson

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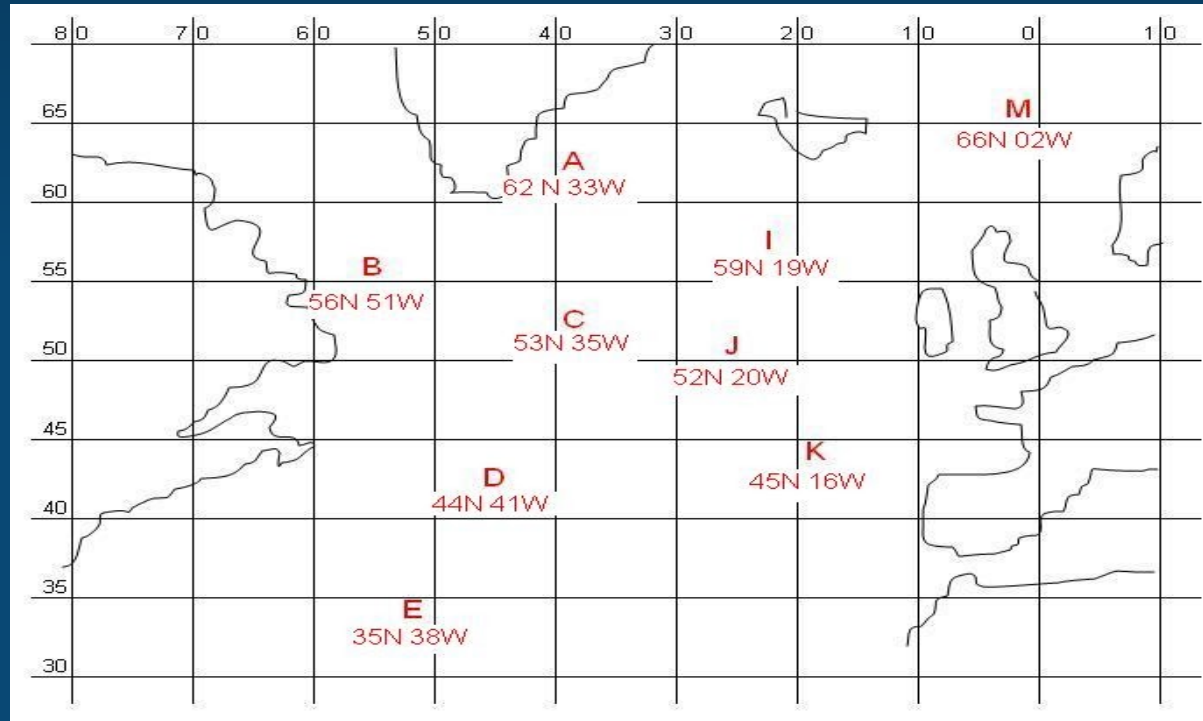
The GOOD

The BAD

The UGLY

The GOOD

International Collaboration

The GOOD

International Collaboration

How can it be further improved?

Forecast accuracy trends

But do we fully understand the pre-conditions of area wide forecast errors ?
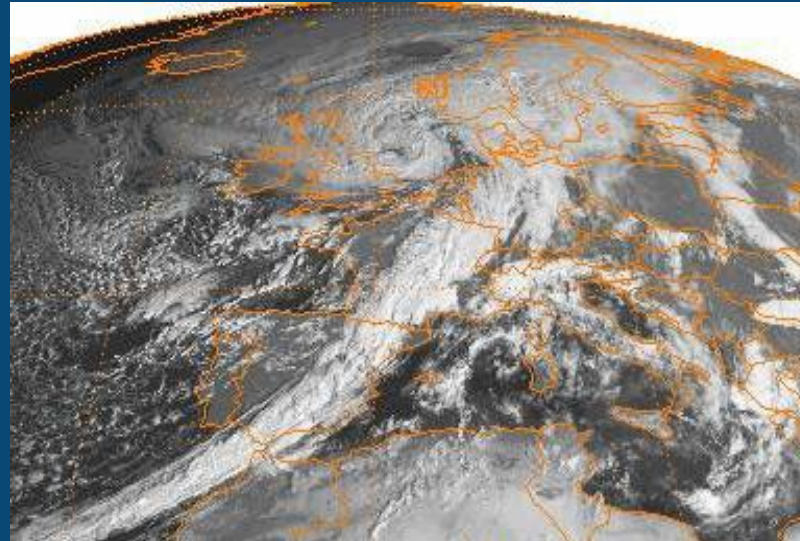

Ref- Our world in data

The GOOD

International Collaboration

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Moving towards 'live wx data'

Weather changes very quickly under certain circumstances

Opportunities to use AI ?

Data is just data
  e.g. Radio sonde digital data (weather parameters)

Information is data in a usable form
  e.g. An updated weather forecast
  (Forecast is for very low visibilities)

Knowledge is information in a context
  e.g. The impact that new forecast has in an operational sense
  (A/C diverting from destination)

Wisdom is the application of that knowledge modified by experience
  e.g. "We need to divert NOW"

Better Decision making - How can AI help ?

The GOOD

International Collaboration

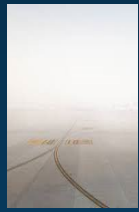How can it be further improved?

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Opportunities to use AI ?

We need to get AI under some sort of control before it gets control of us.

The BAD

Inconsistency in how weather data is used in ATC

Can't we agree a best practice standard ?

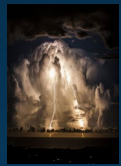Evidence of more extreme weather phenomena ?

Do we need to look again at design certification standards, training, currency and operational limits?

Threat of forecast complacency

Importance of relevant LOFT exercises ?

Less knowledge and awareness of local threats

Can we not capture them and then share them ?

The UGLY

Increase in turbulence incidents and accidents ?

Is this another AI opportunity ?

Lack of vertical wind component awareness

Why do we ignore vertical components of wind most of the time ?

We need to control the commercial bus that has no brakes

There are times when even the birds don't fly! Oh, and they always take off and land into wind

All pilots (and controllers) do not have the same ability

Why should the Captain have to impose experience and skill -based limits?

Thank you for Listening

Questions?