

CURRICULUM VITAE

May 2013

Norman Lynagh

Date of Birth: 30 March 1943

Nationality: British

Qualifications: Chartered Meteorologist
Fellow of the Royal Meteorological Society
Vice-President of the Royal Meteorological Society 2009-2011
Weather Officer Certificate (Australian Bureau of Meteorology)
Member of The Academy of Experts
Fellow of the American Board of Forensic Examiners Institute

Career:

Oct 1996 to date

NORMAN LYNAGH WEATHER CONSULTANCY

Founding Partner in consultancy which provides expert meteorological services to the Legal and Insurance professions and specialist weather consultancy and forecasting services to a range of industries.

The following is a representative list of the legal cases that have been dealt with:

- Analysis of weather conditions encountered by a vessel while on passage from Norway to Iceland. The vessel's cargo was severely damaged as a result of the vessel's motion.
- In-depth investigation of the weather around the time that a vessel suffered severe structural damage in the English Channel.
- Construction of a time-series of weather experienced by a vessel while on passage from Aden to Suez.
- Analysis of weather conditions relevant to the dispersal of a smoke plume from a fire in Liverpool.
- Analysis of the winds that resulted in the roof being blown off a building in Mexico.
- Detailed investigation into the possible causes of airframe icing that led to the loss of an aircraft over Cuba.
- Analysis of weather conditions at the time of the loss of a ferry in the Philippines.
- Investigation into the occurrence of very strong wind gusts during a thunderstorm at a location in the Amazon Basin in Brazil.
- Detailed investigation into the cause of severe turbulence encountered by an airliner while on descent to an airport in the United States.
- Analysis of wind conditions at the time of damage to several yachts in a south of England harbour.
- Investigation into the winds during a thunderstorm at a port in Brazil that resulted in a ship breaking its moorings and colliding with another ship.
- Investigation into the weather conditions at the time of a serious injury sustained by a person while paragliding.
- Damage to a vessel due to the sudden onset of heavy swell in an exposed port in North Africa.

- Analysis of weather conditions leading up to a fatal helicopter crash in France
- Detailed investigation of the causes of an episode of severe flooding in Central Europe.
- Analysis of the winds and seas at a port in Chile at the time a ship ran aground.
- Loss of a vessel due to fire resulting from mooring failure in sudden strong winds while discharging gasoline at an exposed port in the Mediterranean Sea.
- Analysis of the weather conditions at a port on the north coast of Colombia, in relation to their effect on bulk cargo that was being loaded onto a ship.
- Structural damage sustained by a bulk carrier during a voyage across the Arabian Sea during the SW Monsoon.
- Investigation of severe turbulence encountered by an aircraft over the British Isles resulting in injury to a crew member.
- Assessment of wind conditions at the time of a parachute drop in which a number of paratroopers sustained injuries.
- Loss of deck cargo from a vessel which experienced sudden heavy weather in the Mediterranean Sea.
- Weather relating to a fatal road traffic accident in Birmingham.
- Numerous occurrences of personal injury resulting from hazardous weather.

The following is a representative selection of recent consultancy work:

- Calculation of directional metocean extreme conditions for a location in the central North Sea to be used for exploration drilling approval.
- Review of a third-party metocean report that was prepared for use in the design of the structures in an offshore wind farm.
- Technical expert in the audit team that carried out an ISO 9001 audit of a major state-funded weather forecasting organisation.
- Calculation of 50-year extreme metocean conditions at a location in the Java Sea for exploration drilling rig approval purposes.
- Review of extensive metocean documentation prepared for the design of an offshore production facility in the Mediterranean Sea.
- Calculation of directional and seasonal 50-year metocean extremes for a location off the west coast of India.

1980 to 1996

NOBLE DENTON GROUP

Oct 86 to Oct 96

Managing Director, Noble Denton Weather Services Limited. Responsible to the Chief Executive, Noble Denton International Ltd for the running of Noble Denton Weather Services Limited. Day-to-day responsibility for the provision of Forensic Meteorology services.

Jul 85 - Oct 86

Manager of Forecast Services, Noble Denton Weather Service. Responsible for day-to-day operations of Weather Forecast Department.

Sep 83- Jun 85

Manager of Dept. of Meteorology & Oceanography. Responsible for the day-to-day operations of the Department.

Forensic Meteorology

Provision of Consultancy and Expert Witness services for the legal profession and the insurance industry. Investigations have been carried out on meteorological events in many parts of the world, both on land and at sea. The topics investigated include the following:

- Loss of a vessel under tow in the South China Sea when caught in a typhoon. This included assessment of the accuracy of weather forecasts received.
- Detailed analysis and assessment of the origins of a stretch of ice on a main road which resulted in a serious traffic accident.
- Loss of jack-up oil drilling rig when caught in heavy weather while under tow off West Australia.
- Assessment of the rate of formation of ice on a vehicle's windscreen following a traffic accident.
- Assessment of wind conditions at the time of collapse of a hoarding which seriously injured a pedestrian.
- Detailed analysis of weather conditions relating to loss of the bow section of a tanker in the Indian Ocean.
- Numerous small investigations relating to property damage caused by weather.

Forecasting (Marine)

Weather forecasting for offshore drilling, construction and production operations in the North Sea. Weather forecasting for various marine operations including harbour construction, oil exploration, on-loads and off-loads in all parts of the world. Weather forecasting for ocean-towages and ocean-crossing in all parts of the world.

Major projects worked on include:-

Benghazi Port Extension - PIM Company
Misurata Harbour Construction - S.T.F.A.
Maureen Platform Construction/Towage - Phillips Petroleum
Heimdal Platform Installation - Elf Aquitaine Norge
Bouri Platform Installation - Micoperi
Leman F&G Platform Installation - Shell Expro.

Forecasting (Non Marine)

Provision of regular forecasts for the media, farming, film-making, construction and food distribution.

Desk Studies

Meteorological and oceanographic desk studies to determine environmental design criteria for a wide range of marine activities throughout the world including exploration drilling, platform emplacement, ocean towage and marine transportation.

Analysis of archived data to provide tables of extremes, directionality, exceedance or occurrence of winds, wave, currents, temperatures, ice accretion, sea ice, etc. Bathymetric studies and tidal analysis. Major projects worked on include:-

Heimdal Field Development - Elf Aquitaine Norge
Hutton TLP - Conoco (UK)
Grand Banks/Scotian Shelf - P.F. Bassoe A/S
Maureen Field Development - Phillips Petroleum

Tierra del Fuego Offshore Development - Total Austral
Morecambe Bay Gas Field - British Gas
Troll Field - Norske Shell
Statfjord Field - Statoil
Hibernia Field- Mobil
Andrew Field- BP
Dunbar Field- Total
Oresund Tunnel - Norwegian Contractors

1970 - 1980

IMCOS MARINE LTD.

Meteorologist engaged in provision of specialised weather forecast services for the offshore oil industry in many parts of the world including the North Sea, Mediterranean, Arabian Gulf, Andaman Sea, Madagascar, West and Northwest Africa and Labrador. Approximately half the work carried out at forecast offices established at operational shorebases, the other half carried out at forecast offices established on offshore vessels including drillships, semi-submersible rigs, crane barges and pipe-laying barges.

During the final 2¹/₂ years employed at Company Head Office in London as Operations Co-Ordinator responsible for the day-to-day running of the Company's forecast offices worldwide.

1967 - 1970

AUSTRALIAN BUREAU OF METEOROLOGY.

Technical officer.

Weather forecasting for aviation and the general public at various locations in East and North Australia and in New Guinea.

1961 - 1967

U.K. METEOROLOGICAL OFFICE.

Scientific Assistant.

Surface and upper air observations in the U.K. and on board North Atlantic Ocean Weather Ships.

Education/Training:

1999
(2 days)

Training in the role of Single Joint Expert.

1967 - 1968
(9 months)

Forecaster training course with the Australian Bureau of Meteorology.

1963
(2 months)

U.K. Meteorological Office radio-sonde training course.

1962
(2 months)

U.K. Meteorological Office Scientific Assistant training course.

1958 - 1961

Ardrossan Academy, Ardrossan, Ayrshire (Scottish Leaving Certificate - 4 Higher and 1 Lower).

Papers

"Environmental factors affecting the movement & dispersal of oil spills with particular reference to the Arabian Gulf" - Middle East Oil Technical Conference & Exhibition, Bahrain, 1985.

"The calculation of extreme wind speeds from observations with particular emphasis on the choice of Beaufort scale" (with Norman Babbedge) Oceanology International, Brighton 1984.

"Flood exposure in the UK" - Conference on Changing Weather Patterns - What does this mean to the Insurance Industry - Insurance and Reinsurance Research Group, London 1990.

"Design Environmental Criteria - What are the Consequences of Exceedance" - Conference on Offshore Safety and Reliability - The Institute of Marine Engineers, London 1990.

"The 50-year Storm, Or Is It?" - Seminar on Risk Reduction in Offshore Operations, London 1990.

"Environmental Design Criteria for Transporting Offshore Oil Platforms through areas affected by Tropical Cyclones" - The Society of Naval Architects and Marine Engineers - Offshore Symposium on Design Criteria and Codes, Houston 1991.

"The Impact of Weather Forecasting on Offshore Safety" - Conference on Offshore Operations Post Piper Alpha, London 1991.

"The Use of Probability Weather Forecasting to Enhance Operational Safety" - Offshore 95: Design and Safety Assessment for Floating Installations, London 1995.

"Weather Sensitive Towages" - The Institute of Marine Engineers - Seminar on Latest Developments and Applications of Metocean Services for Operations Offshore, Bracknell 1997.

"Provision of Meteorological Services to Non-Specialists" - Royal Meteorological Society - Keynote Speech 3 at First National Conference - New frontiers in using Atmospheric Predictive Models, Reading 1998.

Books

Burroughs, W.J. and Lynagh, N., (1999) "Maritime Weather and Climate", First Edition. Witherby & Co Ltd., London.

Affiliations:

Member of the American Meteorological Society.
Member of the Society for Underwater Technology.
Member of the Royal Institute of Navigation.
Member of the Institute of Directors.
Associate Member of The Society of Naval Architects and Marine Engineers.

Committee

Membership:

Member of Council of the Royal Meteorological Society 1990-93.
Society for Underwater Technology Group on Environmental Forces.
Secretary/Treasurer of the Association of Independent Weather Services.