



Weather Observing

Overtaken by Technology but has it replaced the Human Touch.



Coastline and County of Mayo

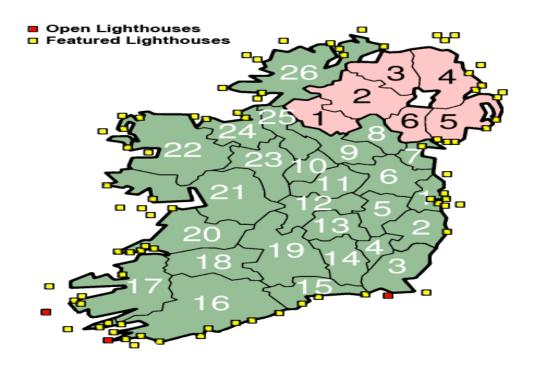
- 1167 KM
- Weather observers down the Years
- 20 Coastguard Stations 1823 1923
- Average staff: 6 men

Weather important Coastguard Stations

- 1. Claggan Island 1884
- 2. Blacksod Point
- 3. Elly Bay
- 4. Ballyglass

Lighthouses: Average staff: 6 men (3 person rotation)

- 1. Clare Island 1806
- 2. Inishgort, Clew Bay 1927
- 3. Broadhaven
- 4. Eagle Island (East and West)
- 5. Blackrock
- 6. Blacksod





Met Offices

- 1. Belmullet 1956 2011 (50 Staff)
- 2. Claremorris 1943 1996 (56 staff)
- 3. Knock Airport 1996 (20 staff)

Climate Stations

- 1. Belacorrick Power Station
- 2. Creagh, Ballinrobe
- 3. Newport
- 4. Straide

Rainfall Stations 1904 -

Twenty nine in Service today

- 1. Westport House
- 2. Delphi Lodge
- 3. Castlebar Rectory
- 4. Castlemacgarrett, Claremorris
- 5. Ashleagh Falls, Leenaun



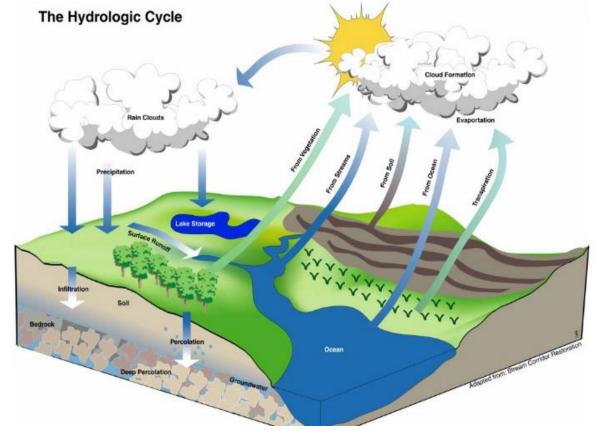




Tomus sextus operum. PERIPATETICOR V M PRINCIPIS, Naturalis eam Phylosophia adferens sectionem, QVAE AD METEOROLOGICORVM, seu sublimium corporum, & vegetabilium quidditates species, & passiones, Animalium vero Historiam , partes , & Incessum v aumina Cum summi Pontificis, Gallorum Regis, Senatusq: Veneti decretic. V E N E T 1 1 S M D L X.

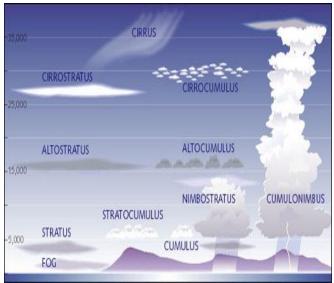
In 350 BC Aristotle wrote three books on Meteorology. Aristotle is considered the founder of meteorology.

One of the most impressive achievements described in the Meteorologica is the description of what is now known as the hydrologic cycle.



Luke Howard 1772–1864

- One of the founding father's of Meteorology
- 1803: Essay on the Modification of Clouds
- In it he named the three
 principal categories of clouds –
 <u>Cumulus</u>, <u>Stratus</u>, and <u>Cirrus</u>,
- He identified the importance of clouds in meteorology.



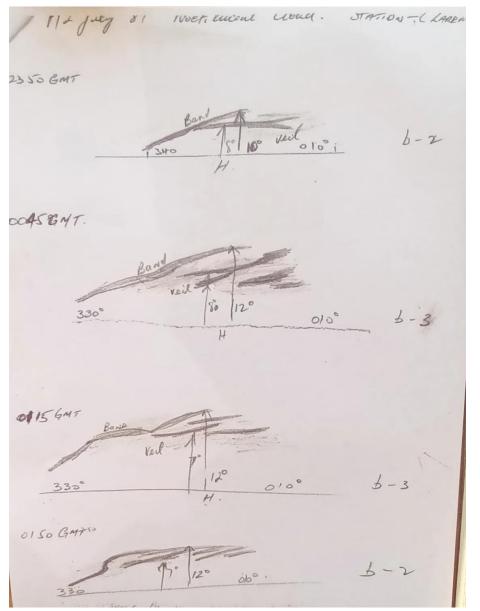








Aurora and Noctilucent Cloud Observations





Aurora from Easkey March 17th 2015



Aurora to the north of Knock Airport 2016



Bright Noctilucent Cloud display over Lough Corrib in July 2017



Aurora to the north of Knock Airport 2017

- •Rear Admiral Sir Francis Beaufort 1774 1857
- *Born in Navan on 27 May 1774
- •1810: The Admiralty gave Beaufort his first ship command, HMS Woolwich
- **•**Alexander Dalrymples wind drawings





Beaufort	Kind of wind	Kn	ots	kn	n/h	Service (Control of Control of Co	Effects	Height of
grade	Killa Ol Willa	Min	Max	Min	Max	Earth	Sea	waves (metre)
0	Calm	<	1		1	Smoke rises vertical	Flat sea	78
	Very light	1		1		The wind bends smoke	Small ripples with no white foamy crests.	0.1
2	Light breeze	4	6	6	11	It can be felt on face	Small wavelets, with unbroken crests.	0.2 - 0.3
3	Gentle breeze	7	10	12	19	It shakes leaves	Very small crests; crests begin to break.	0.6 - 1
4	Moderate breeze	11	16	20	28	It lifts dust and papers	Small waves that begin to grow longer; spuma più frequente e più evidente.	1 - 1.5
5	Fresh breeze	17	21	29	38	It shakes branches	Moderate waves that grow longer in shape; possible spray.	2 - 2.5
6	Strong breeze	22	27	39	49	It shakes big branches	Bigger waves; white foamy crests are longer everywhere.	3 - 4
7	Near gale	28	33	50	61	It impedes walking	The sea swells up; white foam forms when waves break up.	4 - 5.5
8	Gale	34	40	62	74	It shakes big trees	Medium-high, longer waves; crests start to break up in sprays.	5.5 - 7.5
9	Strong gale	41	47	75	88	Chimney pots and slated removed	High waves; tight strips of foam form in the direction of the wind.	7 - 10
10	Storm	48	55	89	102	It uproots trees	Very high waves with long crests; the sea looks completely white; waves fall down violently, visibility is reduced.	9 - 12.5
11	Violent storm	56	63	103	117	Serious devastation	Exceptionally high waves (small and medium tonnage ships disappear for a few seconds); visibility is still more reduced.	11.5 - 16
12	Hurricane	>	64	>1	118	Very serious catastrophes	Air is filled with foam and sprays; sea is completely white because of foam; visibility is greatly reduced.	>14

BEAUFORT NUMBER	WIND	SYMBOL	WIND SPEED (MPH)
0	calm	0	less than 1
1	light air	0	1-3
2	slight breeze	0.7	4-7
3	gentle breeze	07	8-12
4	moderate breeze	OI	13-18
5	fresh breeze	0 111	19-24
6	strong breeze	0 111	2531
7	moderate gale	0 1111	32-38
8	íresh gale	0 1111	39-46
9	strong gale	0 11111	47-54
10	whole gale	OIIII	55-63
11	storm	اللله ن	64-75
12	hurricane	O IIIII	more than 75

Foundations of Meteorology in the British Isles

1854 International Congress of Meteorology.

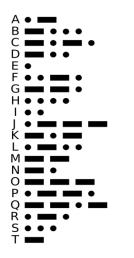
This congress agreed to an initiative to transmit meteorological intelligence via telegraph lines.

Samuel Finley Breese Morse (1791–1872) was an American painter and inventor.

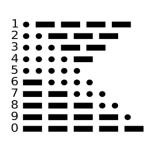
Developed a recording electric telegraph in 1837. Morse and his assistant developed the Morse code signalling alphabet.

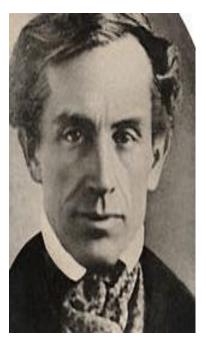
International Morse Code

- 1. The length of a dot is one unit
- A dash is three units.
- 3. The space between parts of the same letter is one unit
- 4. The space between letters is three units.
- 5. The space between words is seven units.





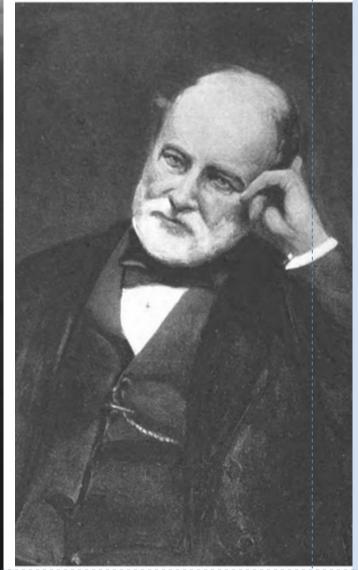




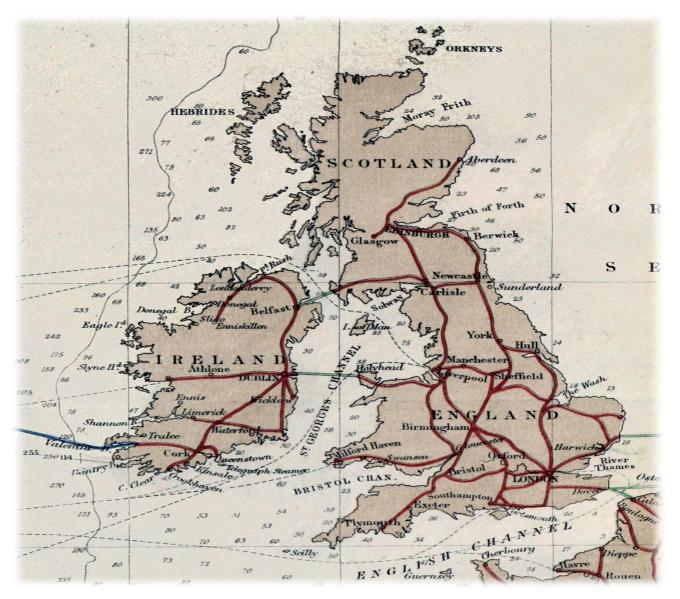


- Commander Mathew Maury. U S Navy... main organiser of Brussels conference 1853
- Admiral Fitzroy...appointed head of Met Office 1858.





Telegraph Network



Morse Code Telegraph Network British Isles

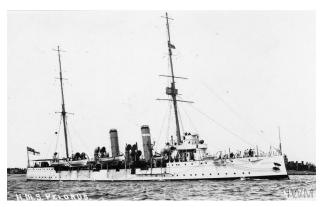
Connecting Ireland to England 1858

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in shade. M.—Moistened but P.—Force (1 to 12—estimated	d). C.—Cloud	(1 to 9).	I.—Initials	b.—blue sk	y; c.—cloud	a (detached)	; f.—fog ; h.	-hail;	
L-lightning; m.—misty (has	y); o.—overcas	it (dull) ; r	-min: n-	snow; tth	under. S,-	Sea-disturba	nce (1 to 9.)		
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- Weather reports from stations around Ireland and the UK for 31st July 1861.
- They include reports from Portrush, Galway, Valentia and Queenstown (Cobh).
- The reports give the air pressure, temperature, wind direction and force (Beaufort), cloud cover, etc.









Belmullet Coastguard Station Claggan IslandCo-Mayo





For Telegraphic Reporting Stations only.

METEOROLOGICAL OBSERVATIONS, taken at Schnulle during the during the stations only.

1884 Shary & Glace

Barometer, No. 595 at 40 ft. above Mean Sea Level.

Height of rim of Rain Gauge

					2 p.m.			-	6 p.m.			
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DAILY WEATHER REPORT

Wednesday 1st OCTOBER 1884.

Issued by the Meteorological Office, 116, Victoria Street London, R. H. SCOTT, Secretary,

	† YESTE	RDAY	EVEN	ING.			8 .	A.M. T	O=DA	Υ					PAS	T 24 1	IOURS.
			W	IND.		Ваном	RTER.	SH	ADE T	Speed to it to differ the several section of the con-	W	IND.			SHADE	THEMS	
STATIONS.	Barraneter at 32° P. and Sex Level.	Temp, in Shade,	Direct.	Force. (6 to 12)	Weather	Muading at 35° F. and sea Lavel.	Difference from 8 s.m. yesterday.	Di	West.	Difference from 8 a.m. yrskerday.	Direc.	Porce. (0 to 12.)	Weather	844. (0 to 5).	Msr.	Mio.	Amount of Nainfail.
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Belmartlet.	24 66	54	'n	7	b	29.92	?	5e	47	?	WINT	3	b	Q	54	30	0.79

EXPLANATION OF COLUMNS.

WEATHER. - Beaufort Scale is b. blue Sky; c. detached clouds; d. drizzling rain; f. fog; g. dark, gleomy; h. hall; L. lightning; m. misty (hazy) o. overeast; p. passing showers; q. squally; r. rain; s. snow; t. thunder; u. ngly, threatening; v. visibility, unusual transparency; w. dow,
* AN ASTERISK is inserted in all places for which information is not usually received.

The evening observations are taken at 6 p.m. in France and our Islands with the exception of Oxford, where they are taken at 8 p.m. In Swedien. Norway, and Denmark, the observations are taken at 8 p.m. (Christiania time).

These Stations send Reports at 2 p.m. daily (Sundays excepted)

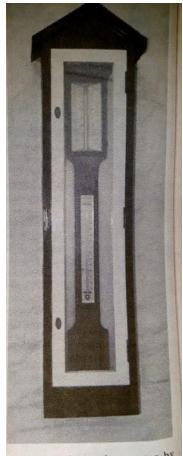


Figure 4.5 Storm barometer by Negretti and Zambra in original coastal position.



Ballyglass Coastguard Station. This building stood on the Western side of Broadhaven Bay and was occupied until 28th August, 1920, when the personnel were evacuated by a British destroyer. On the following day the station was burned by Republican forces to prevent it being re-occupied. Nothing of the building remains to-day. The original of this photo is in the possession of Mr. Jack Barrett, Knockshanbo.

• Storm Barometer No.226, Ballyglass, Belmullet

• 26 June 1893

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Blacksod Point, Co. Mayo loseph Hodge, Chief Boatman recorded the first weather observations on 25 September 1899.







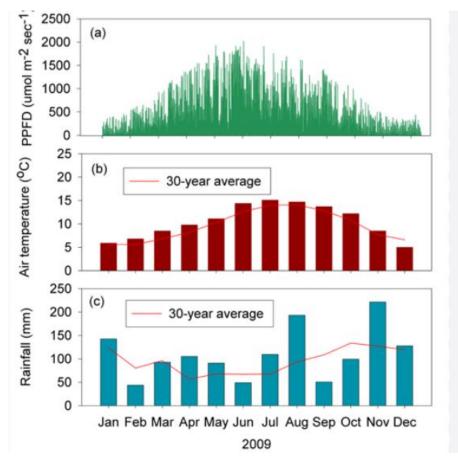
DAILY WEATHER REPORT for 8 a.m. on Monday, 9"October, 1899. Issued by the Meteorological Office, 63, Victoria Street, London. R. H. SCOTT, Secretary.

		(See	note at	bottom o	of last p	ego.)	,		(See :	bote at	bottom of	last page	3.)							
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	STATIONS.	At 82° and M.S.L.	Dry Bulb	Direc.	Forne (0 to. 12.)	Weather	At 82° Fahr. and M. S. L.	Change since Yester- day.	Dry Bulb	Wet Bulb	Change since Yester- day.	Direc.	Force (0 to 13.)	Weather	Sea (0 to 9.)	Weather.	Hours of Bright Sun- thine.	Max	Min.	Rainfall
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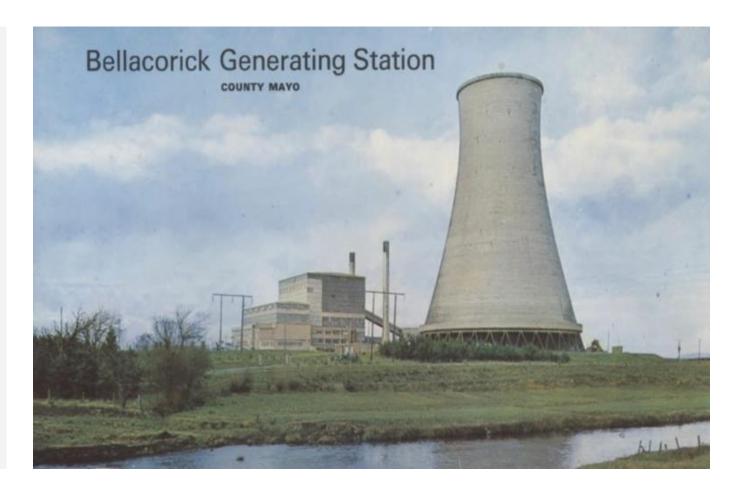


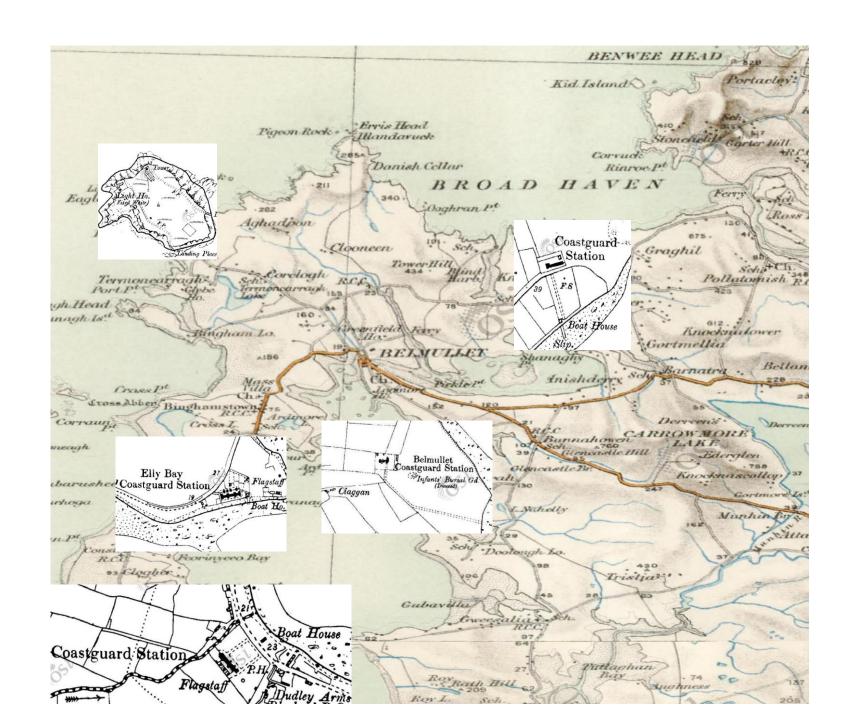






Climate data for Bellacorick, Co. Mayo in 2009. (a) Photosynthetic photon flux density (PPFD; μ mol m -2 sec -1), (b) monthly air temperature (°C) and (c) monthly rainfall (mm)





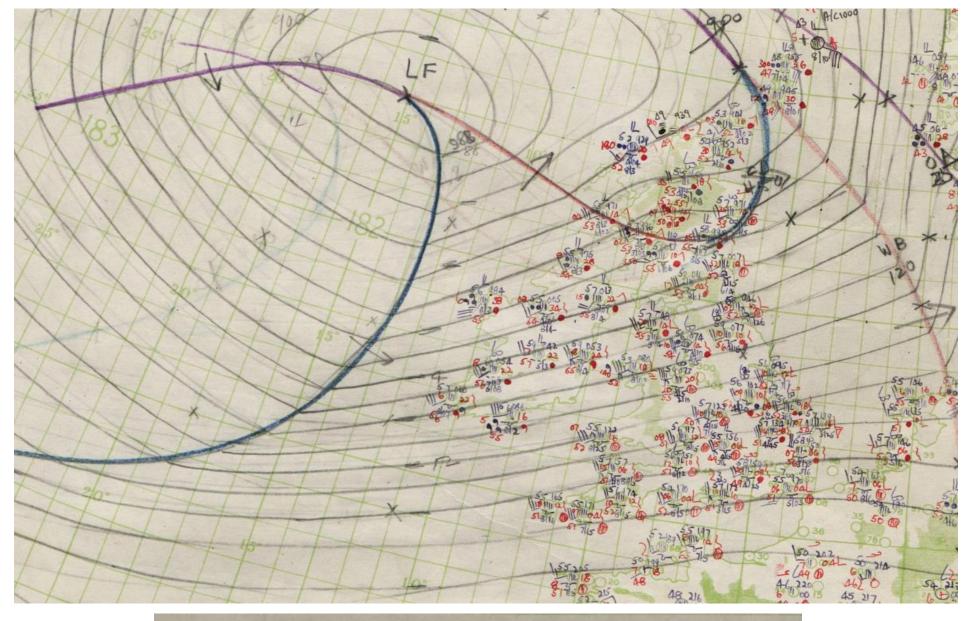






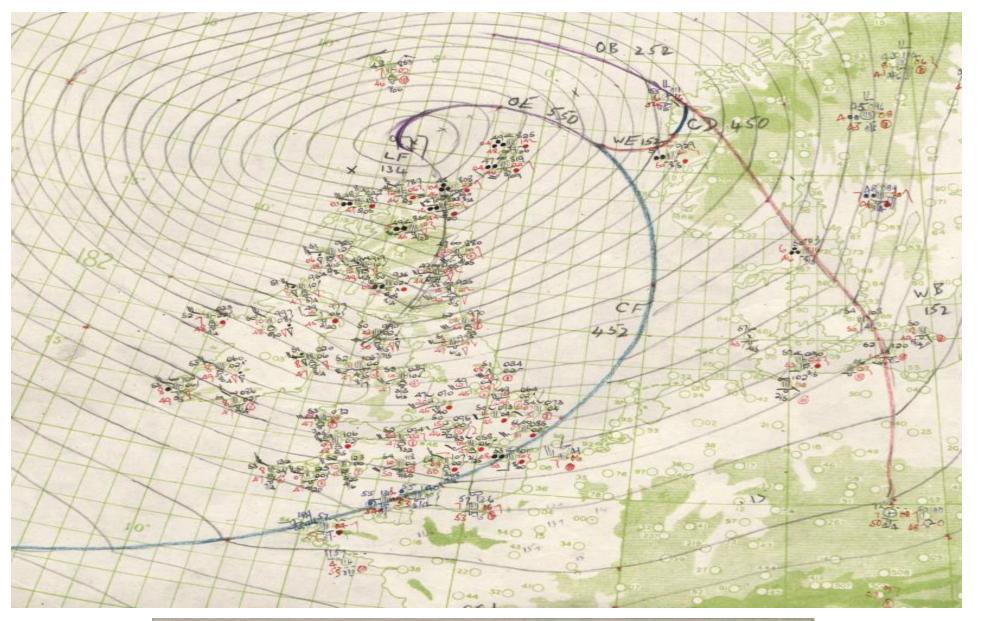


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AIR MINISTRY, METEOROLOGICAL OFFICE.

SUNDAY JUNE 4th 1944 at 0700 hes. G.M.T.



MONDAY St JONE 19 LL CHOOLS G.M.T.





Mr & Mrs Edward Sweeney (nee Maureen Flavin) of Blacksod Lighthouse and the 1944 D-Day Landings













	Belmullet Staff List		Arrival	Departure	Destination	17	Tony Greene	03/04/1966	10/03/1968	
Start l	Jp 14/9/1956					18	John Fox	08/06/1967	20/07/1970	HQ
1	Frank Meenan O/C		07/05/1956	04/02/1959		19	Jim Neary	21/06/1967	14/07/1971	Dublin Airp
2	Gerry McDonald	1st Obs	14/09/1956	04/04/1961	HQ	20	Bill Dalton	21/06/1967	14/07/1971	HQ
3	Tom Nolan		16/09/1956	04/10/1956	Resigned	21	Des Newman	06/03/1968	04/10/1968	Dublin Airp
4	Louis Power		19/09/1956	23/10/1956	HQ	22	Brian Horan	15/7/1970	Jan 2000 Retired	R.I.P 17/7/
5	Hugh O' Regan		02/10/1956	30/07/1958		23	Tom Barry	30/06/1971	14/01/1972	
6	Dermot Hearne		18/10/1956	06/05/1960	Rosslare	24	Michael McCarthy	30/06/1971	15/06/1974	Shannon
7	Michael Kavanagh O/C		31/10/1956	23/11/2000	Retired	25	Tony Butler	01/02/1972	21/04/1972	
8	Tom O'Kelly		02/08/1958	11/07/1961	HQ	26	Paul Halton	12/04/1972	17/06/1975	Cl
9	Marty Brennan O/C		03/02/1959	12/05/1960	Valentia	27	Donal Shine O/C	12/04/1972	30/05/2014	Ro
10	Alan Nolan		04/05/1960	18/07/1967	Claremorris	28	Mick Hopkins	05/06/1974	15/12/1975	N
11	Ned Walsh O/C		07/05/1960	03/05/1961	Claremorris	29	John O'Flanagan	04/06/1975	28/03/1978	G
12	Mick Sexton		28/03/1961	10/06/1965	HQ	30	Noel Fitzpatrick	13/02/1976	23/03/1976	ı
13	Jim Nolan O/C		02/05/1961	11/07/1987	Retired	31	Robert Slattery	29/07/1976	26/03/1979	٧
14	Pascal Marrinan		11/07/1961	07/02/1966		32	Columba Creamer	03/10/1978	18/04/1983	D
15	Adrian Hunt		31/01/1965	15/06/1967	HQ	33	Liam Keegan	05/01/1979	10/09/1979	ŀ
16	Tom Hunt		27/10/1956	03/04/1966	Dublin Airpor	34	Mick Spillane	14/09/1979	16/06/1980	D

35	Peter Lennon	27/05/1980	29/10/1980	HQ
36	Edel Hart	02/09/1980	28/05/1981	HQ
37	Aidan Murphy	20/10/1980	17/11/1980	
38	Joe Guven	05/01/1981	07/03/1981	HQ
39	James Brennan	17/02/1981	22/04/1981	HQ
40	Hugh Daly	22/04/1981	27/02/1984	Dublin Airpor
41	John Hanley *	06/04/1983		Dubiin Ali þol
42	Brian Doyle	14/02/1984	10/07/1986	Dublin Airmant
43	Kevin Donnelly * Last Obs	01/07/1986	15/0//1500	Dublin Airport
44	Gerry Hetherton	07/07/1987	04/07/1988	Casamant
45	Shay McLoughlin	01/07/1988	15/10/1990	Casement
46	Willie Byrne	05/03/1991		HQ
47	,	03/03/1991	01/08/2014	Retired
47	PJ O'Regan	05/03/1991	07/10/1998	Cork Airport
48	Brian O'Shea	05/01/2000	10/08/2012	Knock Airport
49	S J O'Byrne	01/08/2001	02/04/2007	Casement
50	Conor Lally	6/6/2007	31/08/2012	Shannon

Claremorris staff.. 1943----1995

First staff in Claremorris

1940s ...P.J. Vahey, R. Vahey, J, Vahey, Imelda Vahey P. Vahey

1950s..... C O Cathain, P.J. Cotter, M.T. Neilan, S. Hickey, D O Regan T. Reynolds, J Kelly, T. Moore, J. Malone

D.S O Brian. J Kerins, W. Ryan, O .Kelly, J Horgan, R Leneghan, L. Power., P. Coen, C. P. O h Aoda, F. O Briain

D. Newman, W. Long, M. Mac Fearaith , , D. O Loughlin

J.Dempsey,

1960s/ 90s.... N. Walsh, S. De Faoite, T. Nolan, F. Mc Cord, P. Lacy. M. Walsh, T. Lally, P Marrinan, D. Barry, J. Donlon, M. Harte,,.... D O "Mahony. N. O Keeffe. S Kearney, S.J. Hoye.

Treacy, A. Nolan, S. Hennigan, Anne Clifton, W.P. Byrne, B. Horan, F. Clabby,

Last Staff before closure 1995

L. Newman, D. Middleton,

A. Clohessy, S Mc Grenra, M. Pierce M. Haverty