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M.O. 319

Amendment No. 3

AIR MINISTRY
METEOROLOGICAL OFFICE

Gazetteer of
British Meteorological Stations
used in the preparation of
Synoptic Reports

Amendment issued 1939

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Decimal Index
551.501.9

FRONTISPIECE

Substitute the following map:—



TABLE OF CONTENTS

Add the following :—

Hartland Point
St. Abb's Head

INTRODUCTION

(3) Telegraphic reporting stations—

Add the following :—

Hartland Point
St. Abb's Head

STATION INFORMATION

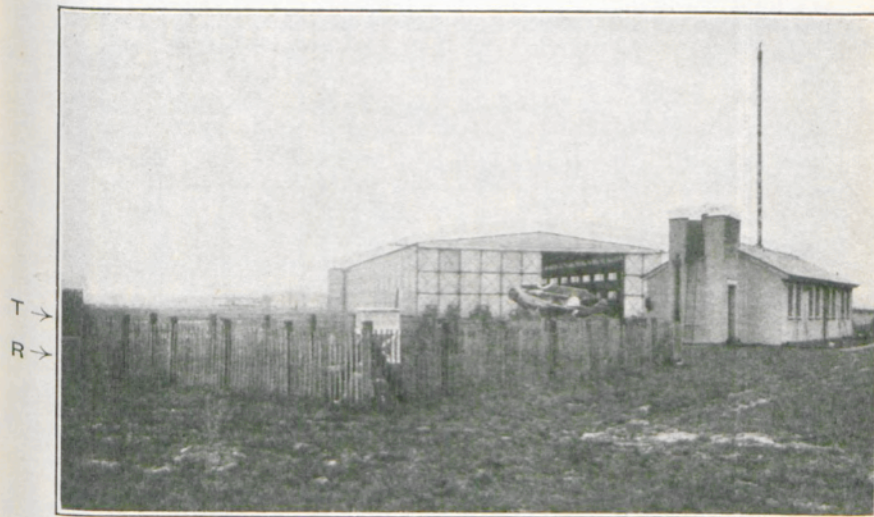
Amend as follows :—

ABBOTSINCH. Instrumental Equipment ; *for* " Hyetograph " *read* " Tilting siphon rain-gauge ".

Site, fourth line ; *delete* " and a disused foundry 50 ft. high and 300 ft. distant ". In last line *for* " east-north-east " *read* " north-east ".

Visibility. Nature of object C ; *for* " Telephone post " *read* " Corner of hangar ".

Photograph of station. *Substitute the following :—*



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R

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T

Looking N.E.

(December, 1933)

ALDERGROVE. Wind. Add the words "and south" after "north-west".
 Photograph of station. Substitute the following:—



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R

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T

Looking N.N.W.

(July, 1937)

BIRMINGHAM. Height of anemometer vane above ground; for "110 ft." read "118 ft."

Instrumental Equipment; for "Nephoscope (Besson)" read "Nephoscope (Fineman)".

Visibility Table. Amend as follows:—

Object A. Bearing—130°. Nature of object—Chimney.

„ B. Bearing—70°. Nature of object—Chimney.

Map. The shaded area should be extended about 4 miles to south and south-east.

BRISTOL. Visibility. Substitute the following table:—

Object	Distance	Bearing	Nature of object
A	28 yards	180°	Flagstaff
B	55 "	30°	Pump
C	105 "	173°	Squash court
D	222 "	270°	Corner of public enclosure
E	570 "	213°	House
F	1,000 "	358°	Wind sleeve
G	1,900 "	326°	House
H	2 ² / ₃ miles	255°	Church
I	4 "	274°	Wood
J	6 "	290°	West end of hill
K	—	—	—
L	20 miles	350°	Ridge of Forest of Dean
M	—	—	—

CALSHOT. Instrumental Equipment. Add "Cloud height searchlight".

CRANWELL. Instrumental Equipment; for "Hyetograph" read "Tilting siphon rain-gauge"; add "Cloud height searchlight"; Thermometers, delete "Solar radiation".

Wind. After "anemometer" in first line add "at old office site about $\frac{3}{4}$ mile west of present office".

Visibility. Second line, for "21 miles" read "20 miles". Amend Visibility table as follows:—

Object F. Bearing—239°. Nature of object—Wind sock.

CROYDON. Instrumental Equipment; add "Distant-reading dry- and wet-bulb thermograph".

Wind, last paragraph. Amend as follows:—"The theodolite stand is situated in a small enclosure at the centre of the east side of the roof of the administration block of the building."

DALWHINNIE. General Surroundings. Fifth line, for "Loch Ericht reaches to within two miles" read "Loch Ericht reaches to about one mile".

DUNGENESS. For "Height of rain-gauge above M.S.L. 20 ft." read "Height above M.S.L. of ground on which the rain-gauge stands 23 ft."

Instrumental Equipment. Delete "Barometer and Barograph".

General Surroundings, fourth line. After "vegetation" insert "except for rough grass and broom".

Site. Height above M.S.L. for "20 ft." read "23 ft."

Visibility Table. Substitute the following:—

Object	Distance	Bearing	Nature of object
A	25 yards	32°	Post
B	50 "	11°	Screen
C	98 "	360°	Post
D	220 "	9°	Well
E	550 "	354°	Post
F	1,100 "	48°	Building
G	1,760 "	26°	Building
H	2.5 miles	58°	Buoy
I	4.0 "	355°	Littlestone-on-Sea
J	—	—	—
K	13 miles	260°	Hill
L	16 "	46°	Cliffs
M	33 "	247°	Headland

ESKDALEMUIR. Instrumental Equipment. Add "Psychrograph".

General Surroundings. Seventh line; "Ettrick Pen rises to 2,270 ft." read "Ettrick Pen rises gradually to 2,270 ft." Tenth line; for "surrounding country is somewhat bare and wild" read "surrounding country is mainly open grass-covered moorland".

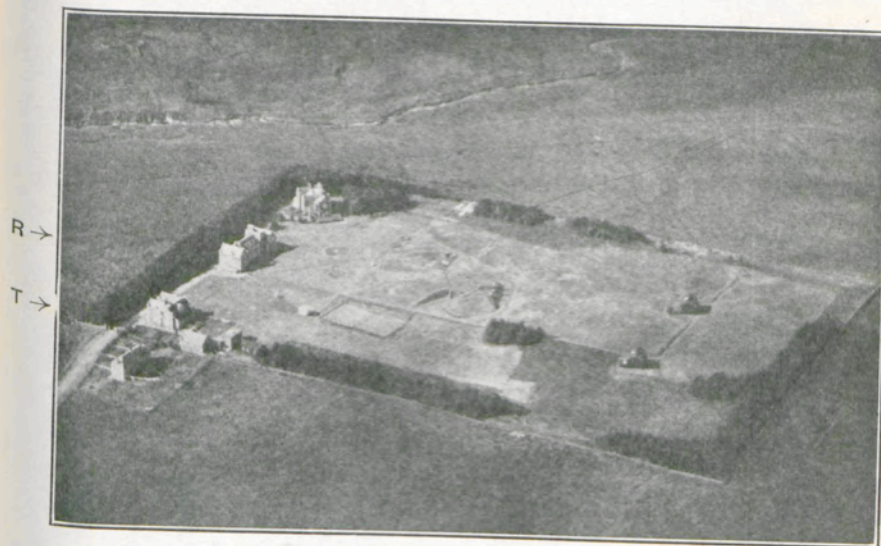
Site. Second line; for "belt of young trees, but as yet these are not high enough to have any appreciable effect on the exposure" read "belt of trees, but the height of these trees is controlled so as not to interfere with the exposure".

ESKDALEMUIR—*contd.*

Wind. *Substitute* new paragraph as follows:—

Wind.—Wind direction and velocity are measured by a Dines pressure tube anemometer. The exposure is open, but the winds from different directions are probably subject in some degree to local effects of the broken country. E. winds, especially are deflected towards north-east. There is also a pronounced gustiness in strong winds from due W. owing to a building in that quarter.

Photograph of station. *Substitute* the following:—



↑ ↑
T R

Looking S.W.

(October, 19'8)

FARNBOROUGH. Wind. *Substitute* new paragraph as follows:—

Wind.—Winds are measured and recorded by a distant reading Dines pressure tube anemometer situated 340 yds. to the east of the station; the recording apparatus with velocity and direction pens is in the meteorological office. The exposure is generally good, the effective height being about 35 ft. Eddies from buildings are most pronounced in WNW. winds.

HARTLAND POINT. *Add* new page.

KEW OBSERVATORY. Height of anemometer vane above ground; for "67 ft." *read* "75 ft."

Instrumental Equipment. *Delete* Note.

LEUCHARS. Instrumental Equipment. *Add* "Cloud height searchlight".

LIZARD. Instrumental Equipment. *Delete* "grass minimum thermometer".

Visibility Table. *Amend* as follows:—

Object D. Bearing—341°. Nature of object—Building.

„ G. Distance—1,600 yds. Bearing—210°. Nature of object—Headland.

„ L. Nature of object—House.

MANSTON. *Substitute* new page.

PEMBROKE (ST. ANN'S HEAD). Wind. *Substitute* new paragraph as follows :—

Wind.—This is measured by a Dines pressure tube anemometer. A gap in the cliffs to the north-west causes extremely gusty winds from that direction, but otherwise the exposure is good.

PEMBROKE DOCK. Instrumental Equipment; *add* "Nephoscope". General Surroundings and Site. *For* sentence beginning "Dockyard buildings" *read* "Between north and east-north-east from the enclosure are situated 60 ft. hangars lying west to east; these are about 50 yds. distant from the enclosure at the nearest point (to the north). Between east and south-east are situated playing fields. In other directions two-storey buildings or trees are situated at distances varying from 40 to 100 yds."

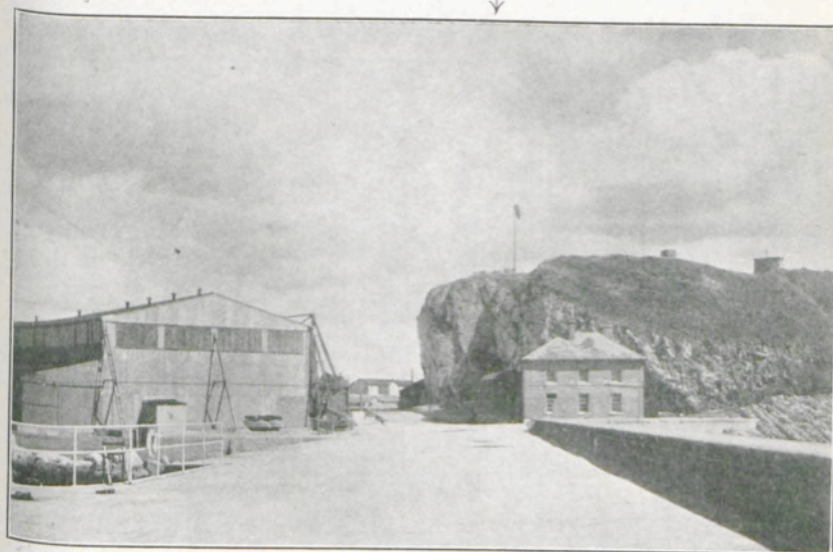
Visibility Table. *Amend* as follows :—

Object F. Distance—1,230 yds. Bearing—360°. Nature of object—North shore of haven.

„ G. Distance—1½ miles. Bearing—10°. Nature of object—Roof of building.

PLYMOUTH (MOUNT BATTEN). Photograph of station. *Substitute* the following :—

R T



Looking E.

(May, 1938)

ROSS-ON-WYE. Instrumental Equipment; *for* "Rain-gauge, 8-inch" *read* "Rain-gauge, 5-inch".

Visibility Table. *Add* the following :—

Object M*. Distance—27 miles. Bearing—265°. Nature of object—Black Mountains.

*Only used when the mountains appear extremely clear.

SCILLY (ST. MARY'S). Visibility Table. *Amend* as follows :—

Object D. Nature of object—West end of house.

„ K. Distance—13 miles. Bearing—59°. Nature of object—Lightvessel.

SEALAND. Visibility. *Substitute* new paragraph as follows :—

Visibility.—Winds from directions between N. and SE. (through E.) laden with atmospheric impurities from the industrial areas of Lancashire and the Midlands, affect the visibility considerably. Owing to the proximity of Liverpool and Birkenhead winds from the N. produce a much thicker smoke haze than winds from other directions.

ST. ABB'S HEAD. *Add* new page.

STORNOWAY. Site ; *for* sentence beginning " Owing to the rapid slope away " *read* " Owing to the rapid slope away of the ground to the shore everywhere except to the north and north-east the station is very open and wind-swept. The rain-gauge near the north-west corner of the enclosure is surrounded by a turf wall, and is further protected to the south and east by the anemometer hut and coast-guard look-out hut. It stands where the ground is most level for the greatest distance outside the enclosure."

Visibility Table. *Amend* as follows :—

Object F. Distance—1,100 yds.

„ G. Distance—1.3 miles

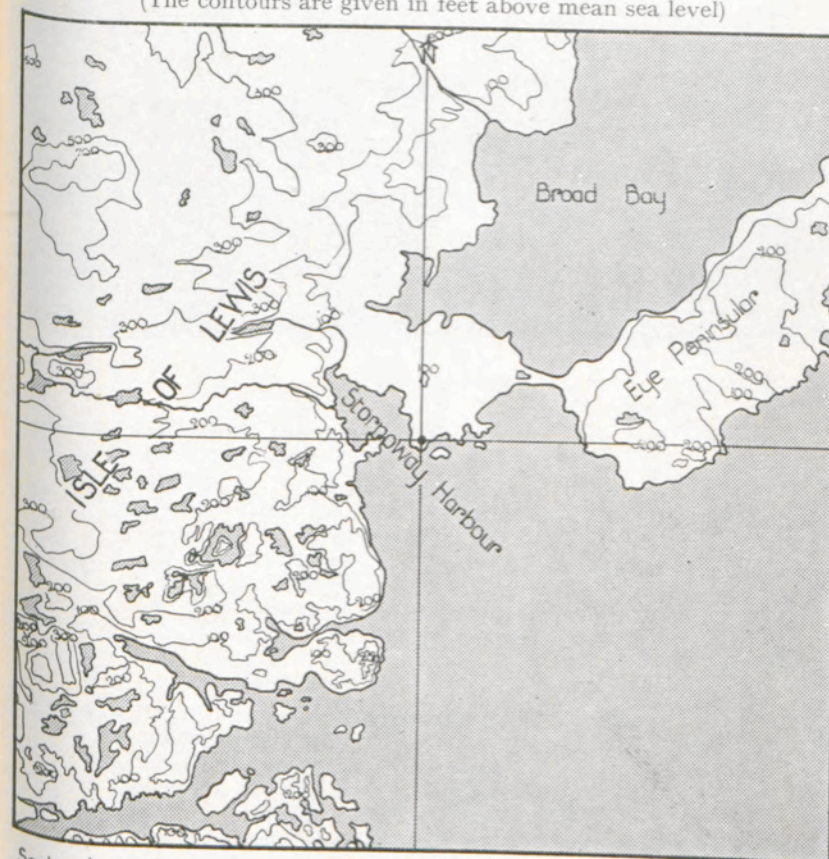
„ H. Distance—2.2 miles.

Rainfall. *Delete* paragraph.

Map. *Substitute* the following :—

STORNOWAY

(The contours are given in feet above mean sea level)



Scale 1 0 1 2 3 miles

Stornoway

TIREE. Site. Second line ; for " 110 yds." read " 50 yds."

Wind. Second line after " exposed " insert " except to the south-east where buildings cause some interference ".

Visibility Table. Amend as follows :—

Object	Distance	Bearing	Nature of object
A	26 yards	270°	Corner of enclosure
B	57 "	130°	Building
C	107 "	95°	Building
D	240 "	90°	Telegraph pole

Rainfall. Substitute new paragraph as follows :—

Rainfall.—Probably too little rain is recorded in strong winds owing to the excessive shelter of the enclosure walls and anemometer hut.

Note at foot of page. Delete this.

Photograph of station. Substitute the following :—

R T
↓ ↓



Looking S.E.

(May, 1938)

UPPER HEYFORD. Instrumental Equipment ; for " Hyetograph " read " Recording rain-gauge (natural siphon) ".

Visibility Table. Amend as follows :—

- Object C. Distance—116 yds. Bearing—290°. Nature of object—Lamp post.
 „ G. Distance—2,200 yds. Bearing—225°. Nature of object—Trees.
 „ H. Bearing—280°. Nature of object—Trees.
 „ J. Distance—8 miles. Bearing—240°. Nature of object—Woods.
 „ M. Bearing—205°.

YARMOUTH (GORLESTON). Instrumental Equipment ; add " Thermometers—earth, 1 ft., 4 ft."

Visibility Table. Amend as follows :—

- Object D. Nature of object—Lighthouse.
 „ G. Bearing—315°.
 „ H (sea). Distance—2½ miles. Bearing—225°. Nature of object—Church.

OVERSEAS SUPPLEMENT

Back of title page

Mediterranean. *Add* Gibraltar.

Iraq. *For* "Dhibban" *read* "Habbaniya". *Delete* Hinaidi and Rutbah.

STATION INFORMATION

GIBRALTAR. *Add* new page.

MALTA. Photograph of station. *Substitute* the following:—

R T

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← T
← R

Looking S.W.

(May, 1938)

ABOUKIR (EGYPT). *Substitute* new page.

AMMAN. *Substitute* new page.

HELIOPOLIS (EGYPT). Second line; *for* "above roof 25 ft." *read* "above gable 22 ft."

Instrumental Equipment. *For* "anemograph" *read* "anemometer" and *for* "Theodolites—Watts and equipment for pilot balloon work" *read* "Theodolite and pilot balloon equipment".

Visibility. *Substitute* new paragraph as follows:—

Visibility is generally good except in the early morning towards the Nile Valley. Fogs occur occasionally about dawn, especially in the autumn and winter, but usually clear after two to three hours. Duststorms are most frequent in spring and early summer.

The objects used to estimate visibility are :—

Object	Distance	Bearing	Nature of object
A	28 yards	37°	Theodolite pillar
B	55 "	270°	Nearest corner of shed
C	117 "	265°	Tree
D	220 "	263°	Roof of shed
E	550 "	344°	Trees
F	1,120 "	46°	Dome
G	1 $\frac{1}{4}$ miles	37°	Building
H	2 $\frac{1}{2}$ "	239°	Chimney
I	4 $\frac{1}{2}$ "	194°	Hills
J	6 "	300°	Chimney and factory
K	13 $\frac{1}{2}$ "	238°	Pyramids
L	—	—	Estimated
M	—	—	Estimated

ISMAILIA. *Substitute* new page.

RAMLEH (PALESTINE). Instrumental Equipment; *for* "Recording rain-gauge (hyetograph)" *read* "Recording rain-gauge (natural siphon)" and *for* "Theodolites—Cary and equipment for pilot balloon work" *read* "Theodolite and pilot balloon equipment".

Wind. *Substitute* new paragraph as follows :—

Wind speed and direction is obtained from a pressure tube anemometer, the mast of which is erected above the office. To reduce interference from camp buildings, hangars, etc., between east-south-east and west-north-west the anemometer head is at a height of 51 $\frac{1}{2}$ ft. above ground.

Temperature. Second line; *for* "5 ft." *read* "4 ft. 6 in."

Visibility Table. *Amend* as follows :—

Object B. Bearing—160°. Nature of object—Pillar.

DHIBBAN. *For* "Dhibban" *read* "Habbaniya". *Add* "Height of anemometer vane above ground 50 ft.; above roof of building 29 ft."

Instrumental Equipment; *for* "Anemometer—cup electric" *read* "Anemometer—pressure tube (direction and velocity)". *Add* "Microbarograph; Sunshine recorder; Thermometers — grass minimum and earth; and Theodolite."

Wind. *For* first sentence *read* "Surface wind is measured both for direction and speed by the pressure tube anemometer".

Temperature. *Add* new paragraph as follows :—

Temperature.—The Stevenson screen is in an enclosure 60 ft. to the north of the office building; the thermometer bulbs are 4 ft. 4 in. above the sandy ground.

Sunshine. *Add* new paragraph as follows :—

Sunshine.—The recorder is mounted on the wall enclosing the roof platform built for pilot balloon observations; the exposure is unobstructed.

DIWANIYAH. General Surroundings and Site. *Substitute* new paragraph as follows :—

General Surroundings and Site.—The office is in the buildings of the railway station which lies about $\frac{1}{4}$ mile north-west of the new aerodrome site and $\frac{1}{2}$ mile south-east of the township. The Euphrates runs in a general north-west to south-east direction $\frac{1}{4}$ mile north of the office. The general surroundings are flat partially cultivated desert with scattered vegetation along the river banks and canals.

Visibility Table. *Amend* as follows :—

Object D. Nature of object—House.

HINAIDI } *Delete* pages. Stations now under control of Iraqi Meteorologica
RUTBAH } Service.

SHAIBAH. Temperature. *Substitute* new paragraph as follows :—

Temperature.—The Stevenson screen is at the north-west corner of the office enclosure ; the bulbs of the thermometers are 4 ft. 3 in. above ground level.

HARTLAND POINT (DEVONSHIRE, ENGLAND)

Latitude 51° 1' N., Longitude 4° 32' W. Height above M.S.L. of ground on which the rain-gauge stands, 299 ft.

Instrumental Equipment.

Barometer.	Stevenson screen.
Barograph.	Thermometers—dry bulb, wet
Rain-gauge, 5-inch.	bulb, maximum, minimum,
Sunshine recorder.	grass minimum.

General Surroundings and Site.—The station is on a very exposed headland with an almost perpendicular drop to the sea in all directions from about north-east through north to south-west. The ground within the enclosure slopes down to south-south-east about 1 in 12. The surrounding country is undulating, and for the most part covered with scrub grass; further inland, however, there are some cultivated fields with a few wooded valleys. On the headland itself there is about 8 in. of turf overlying 6 in. to 12 in. of light sandy soil with stone and rock below.

Wind.—Winds are estimated without instrumental aid. The exposure is very free in all directions, but very pronounced eddies occur near the cliff edge especially with winds from a westerly point.

Visibility.—For most wind directions, visibility is good except when low coastal cloud covers the headland. Many sea fogs do not extend to the level of the station. Radiation fogs and industrial haze are almost entirely absent. The objects used to estimate visibility are:—

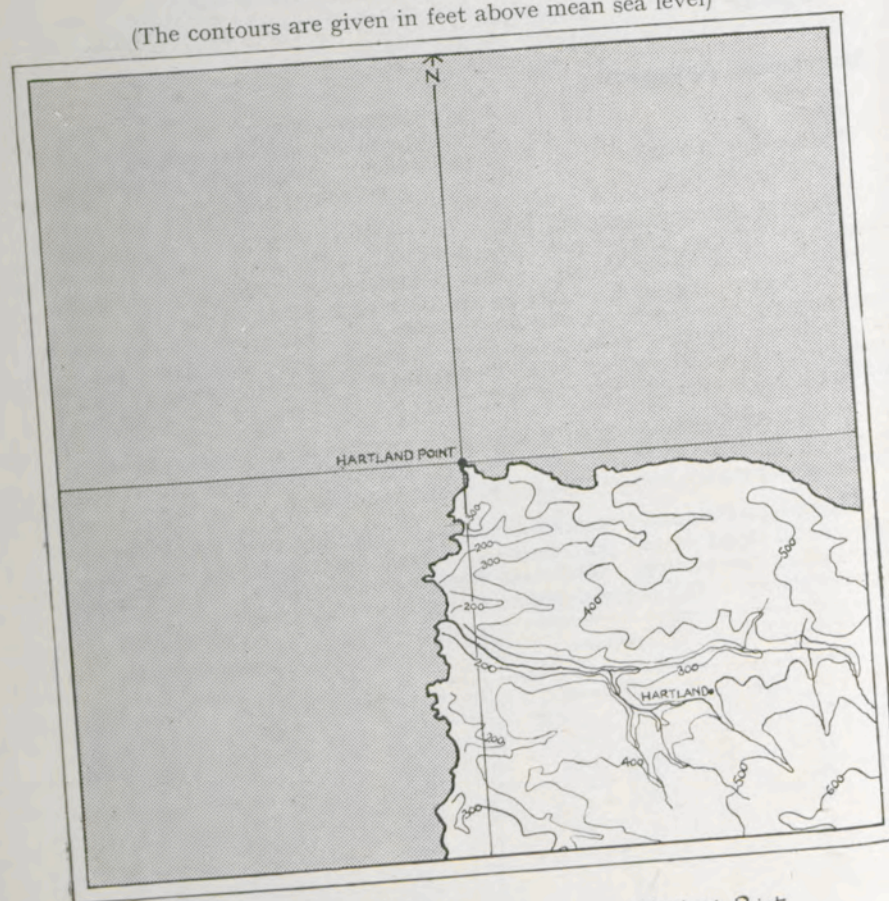
Object	Distance	Bearing	Nature of object
A	27 yards	180°	Post
B	60 "	113°	Post
C	100 "	360°	Rock
D	220 "	180°	Huts
E	550 "	247°	Headland
F	1,000 "	90°	Headland
G	1 1/4 miles	225°	Headland
H	2 1/4 "	203°	Ruins
I	4 1/2 "	90°	Buildings
J	6 "	203°	Headland
K	12 "	349°	Hills
L	17 1/2 "	45°	Headland
M	40 "	225°	Headland

Rainfall.—The very open character of the site and its liability to cliff eddies make accurate measurement of rainfall difficult except in light or moderate winds.

June, 1938.

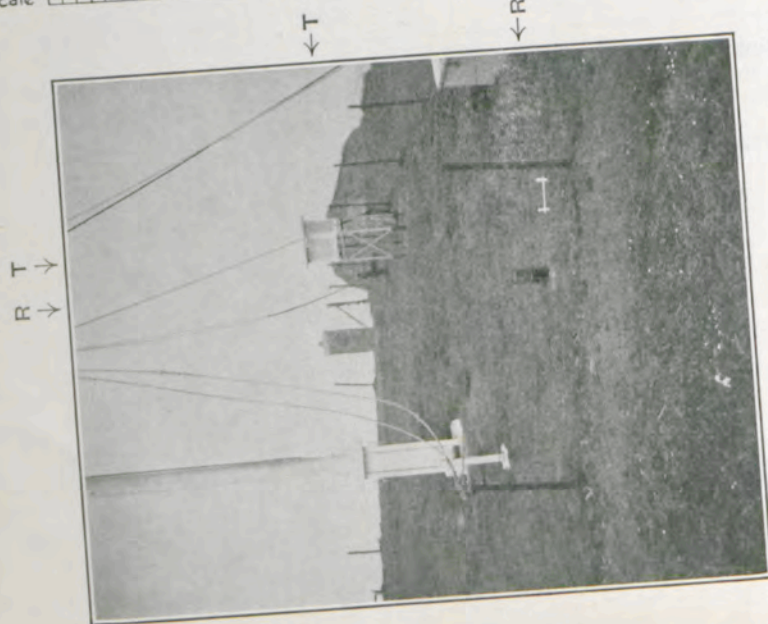
HARTLAND POINT

(The contours are given in feet above mean sea level)



Scale 0 1 2 3 Miles

Hartland Point



(June, 1938)

Looking N.N.W.

MANSTON (KENT, ENGLAND)

Latitude $51^{\circ} 21' N.$, Longitude $1^{\circ} 22' E.$ Height above M.S.L. of ground on which the rain-gauge stands, 154 ft. Height of anemometer vane above ground, 46 ft.; above roof, 33 ft.

Instrumental Equipment

Barometer (Kew pattern).
Barograph.
Rain-gauge, 8-inch.
Recording rain-gauge (natural siphon).
Nephoscope (Besson).
Sunshine recorder.
Hygrograph.

Stevenson screen.
Thermometers—dry bulb, wet bulb, maximum, minimum, grass minimum.
Thermograph.
Anemometer, Dines pressure tube (direction and velocity).
Cloud searchlight.
Pilot balloon equipment.

General Surroundings and Site.—The station is situated on the north-east side of Manston aerodrome, about $2\frac{1}{2}$ miles south of Margate and $2\frac{1}{2}$ miles west of Ramsgate. It lies near the centre of the Isle of Thanet with the sea to the north and east, and the river Stour to the south and west. The aerodrome is between 140 and 150 ft. above mean sea level, and covers approximately 500 acres, consisting of open grass land which forms a shallow basin, sloping down from the south towards the north-west. The soil is a heavy loam (varying in depth from 6 in. to 4 ft.) overlying chalk many hundreds of feet deep.

Wind.—The wind is measured both for direction and force by a Dines pressure tube anemometer. The exposure is considered to be excellent.

Temperature.—The screen is placed too far from any buildings for the temperature to be materially affected. The position is considered to give readings representative of the interior of the Isle of Thanet. The station is near enough to the sea for both maxima and minima to be affected, more especially with winds blowing from the sea.

Visibility.—Owing to the flat nature of this part of Kent and to a ridge of ground to the south-west, visibility objects at the standard distances for J, K, L and M are not available and hence these visibilities are estimated with the assistance of objects at non-standard distances. The objects used for estimating visibility are:—

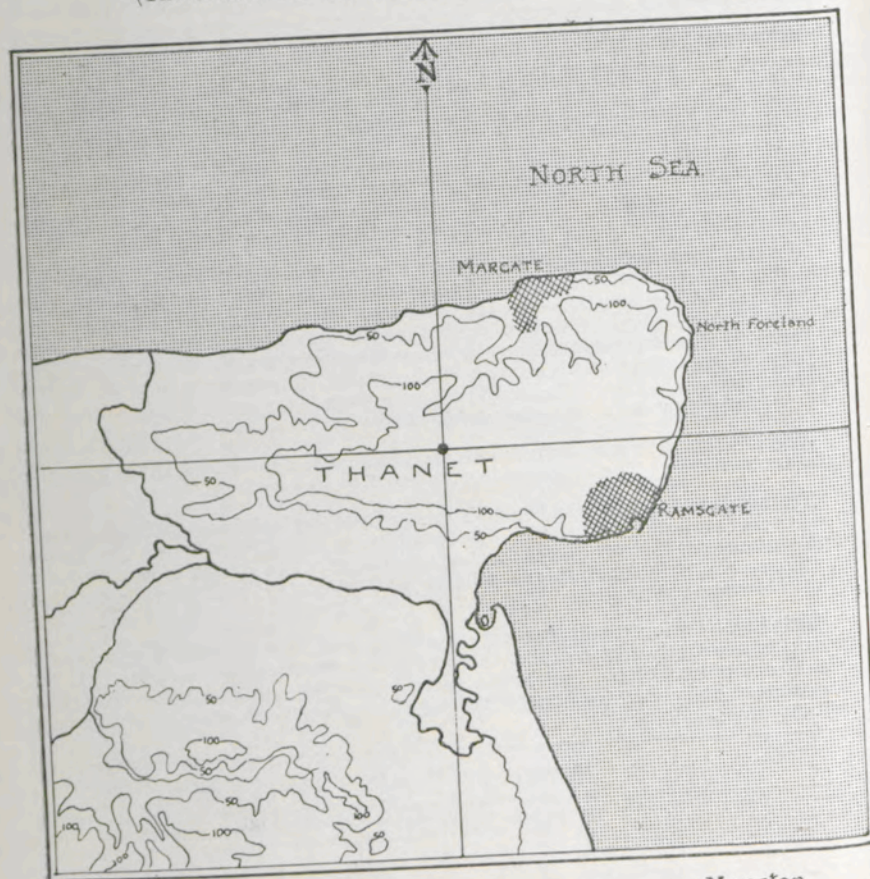
Object	Distance	Bearing	Nature of object
A	27 yards	185°	Corner of office
B	55 "	189°	Lamp
C	110 "	162°	Post
D	220 "	127°	South corner of house
E	550 "	358°	Building
F	1,100 "	276°	Building, east end
G	2,200 "	328°	Farm
H	$2\frac{1}{2}$ miles	326°	Chimney
I	$4\frac{1}{2}$ "	280°	Trees
J	Estimated with the assistance of, rising ground towards Chislet, $7\frac{1}{2}$ miles, rising ground towards Tilmanstone, 10 miles and South Foreland lighthouse, 14 miles (visible at night).		
K			
L			
L			

Rainfall.—The exposure of the rain-gauge is satisfactory.

April, 1938

MANSTON

(The contours are given in feet above mean sea level)



Scale 1 0 1 2 3 Miles

Manston

RT
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T →
R →



Looking W.N.W.

(May, 1938)

ST. ABB'S HEAD (BERWICKSHIRE, SCOTLAND)

Latitude $55^{\circ} 55' N.$, Longitude $2^{\circ} 8' W.$ Height above M.S.L. of ground on which the rain-gauge stands, 280 ft.

Instrumental Equipment.

Barometer. Stevenson screen.
Barograph. Thermometers—dry bulb, wet bulb, maximum, minimum.
Rain-gauge, 8-inch.

General Surroundings and Site.—The station is situated on the top of a knoll on the cliffs. The ground falls away quickly on all sides and is very undulating. The cliff edge is about 100 to 200 yds. away to the north and east. Hills lie within a mile or two between south and west, rising to 700 ft. two miles west-south-west of the station, and to 800 ft. six miles to the south-west. The station is surrounded by the sea from west-north-west through north and east to south-south-east.

Wind.—Direction is obtained from a vane 50 ft. above the ground and the force is estimated.

Visibility.—The objects used for estimating visibility are:—

Object	Distance	Bearing	Nature of object
A	25 yards	331°	Fence
B	50 "	110°	House
C	107 "	113°	Pole
D	230 "	170°	Loch
E	600 "	130°	Hill
F	1,100 "	170°	House
G	2,110 "	197°	Chimney
H	$2\frac{1}{2}$ miles	292°	Point
I	—	—	—
J	$6\frac{1}{4}$ miles	170°	Hill top
K	$12\frac{3}{4}$ "	293°	Lighthouse
L	—	—	—
M	$27\frac{1}{2}$ miles	130°	Lighthouse
	35 "	170°	Hills
	37 "	344°	Lighthouse

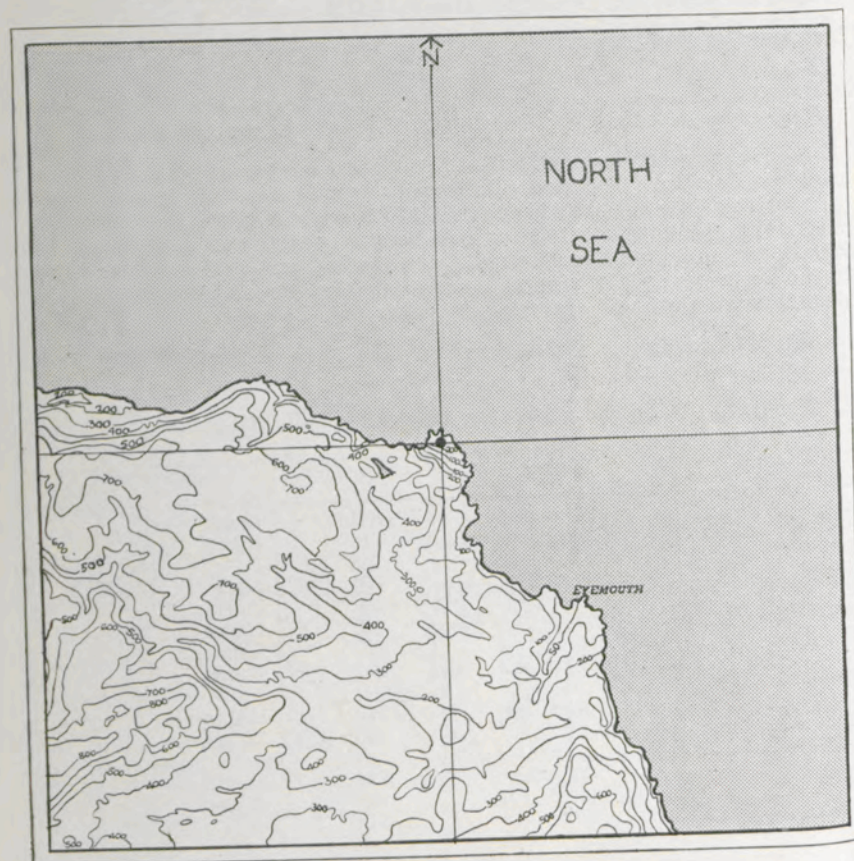
Rainfall.—The gauge is placed in a garden about 30 ft. lower than the station buildings on the west side.

Barometer Readings.—Owing to the situation of the station the barometer frequently reads rather low.

December, 1936.

ST. ABB'S HEAD

(The contours are given in feet above mean sea level)



Scale 1 0 1 2 3 Miles

Sr. Abb's Head



Looking W.S.W.

(July, 1938)

GIBRALTAR

Latitude 36° 6' N., Longitude 5° 21' W. Height above M.S.L. of ground on which the rain-gauge stands, 392.7 ft. Height of anemometer vane above ground, 33 ft.; above roof of hut, 19.6 ft.

Instrumental Equipment.

Barometer (Kew pattern).
Barograph (open scale).
Rain-gauge, 8-inch.
Recording rain-gauge (tilting siphon).
Nephoscope (Besson).
Sunshine recorder.
Hydrograph.

Stevenson and Bilham screens.
Thermometers—dry bulb, wet bulb, maximum, minimum, grass minimum.
Thermograph.
Anemometer, pressure tube (direction and velocity).
Pilot balloon equipment.

General Surroundings and Site.—The instruments enclosure is situated on Windmill Hill Flats, a plateau at the foot of the southern peak of the Upper Rock, which is 1,350 ft. above sea level. The plateau is bounded on its eastern, western and southern edges by precipitous cliffs which drop about 100 ft. to the lower shelf of land that extends southwards to Europa Point. The coastline is about 400 yds. away from the enclosure to the east and west and 1,000 yds. away to the south. Buildings in the neighbourhood of the enclosure are mostly single-storied, and their effect on the exposure is negligible compared with the effect of the natural contours.

Wind.—Despite the very open exposure on three sides the wind shows unusual gustiness owing to the cliff eddies and to the proximity of the Upper Rock. With easterly winds the records are quite unrelated to the winds that are experienced in the eastern half of the Bay of Algeiras where the effect of very large eddies in the lee of the Rock causes the wind direction to be very erratic. In all except light winds the effect of cliff eddies makes the estimates, by means of pilot balloons, of winds up to 2,000 ft., extremely unreliable.

Temperature.—The readings are more representative of temperatures over the sea than of those in the city.

Visibility.—Fog is extremely rare at the station, but very infrequently sea fog spreads across the Straits; on such occasions the depth of fog is such that visibility at the level of the station remains unaffected. The objects used for estimating visibility are as follows:—

Object	Distance	Bearing	Nature of object
A	27 yards	40°	Roof ridge
B	55 "	140°	Tank
C	112 "	132°	Building
D	220 "	40°	Building
E	550 "	18°	Barracks
F	1,100 "	339°	Barracks
G	1 1/2 miles	323°	Lighthouse
H	2 1/2 "	333°	Lighthouse
I	5 1/4 "	240°	Lighthouse
J	6 3/4 "	342°	Town
K	15 "	167°	Headland
L	20 "	209°	Mountain
M	33 "	229°	Lighthouse
	140 "	60°	Mountains

Rainfall.—Too little is probably recorded in strong winds owing to the very open exposure and the effect of cliff eddies.

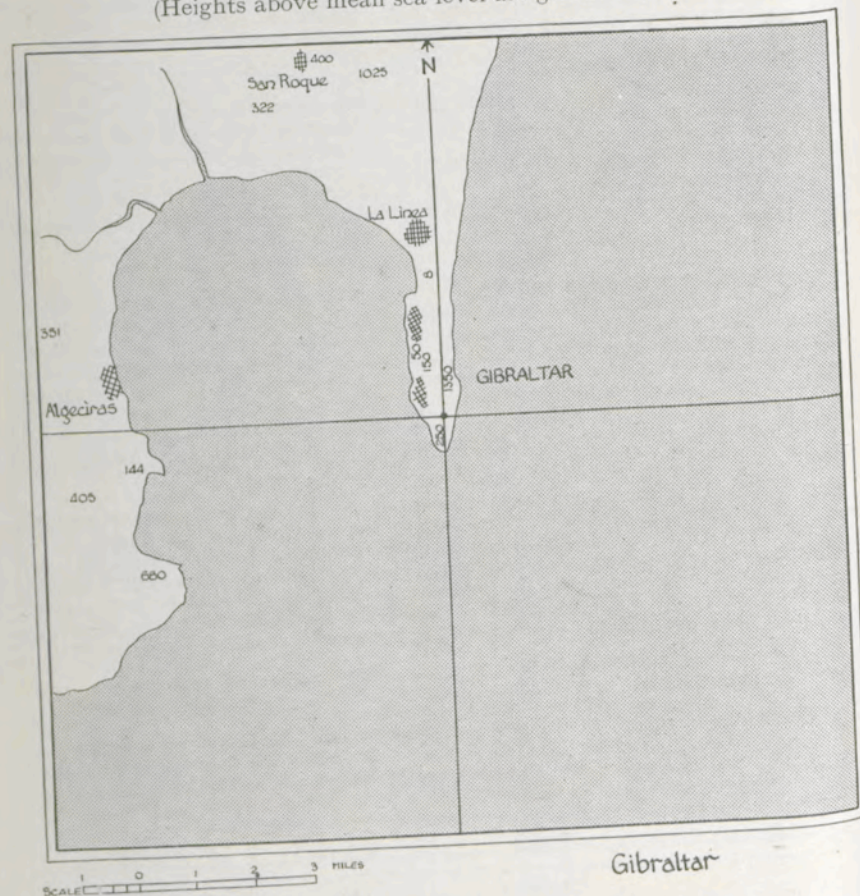
Cloud.—Easterly winds (Levanter) are usually associated with banner clouds that form on the western side of the Rock.

State of Sea.—A clear view of the sea is obtainable over a very wide angle.

May, 1938.

GIBRALTAR

(Heights above mean sea level are given in feet)



Looking N.E.

(July, 1938)

ABOUKIR (EGYPT)

Latitude $31^{\circ} 18' N.$, Longitude $30^{\circ} 6' E.$ Height above M.S.L. of ground on which the rain-gauge stands, 37 ft. Height of anemometer vane above ground, 40 ft.; above roof, 22 ft.

Instrumental Equipment.

Barometer (Kew pattern).
Barograph.
Microbarograph.
Rain-gauge, 8-inch.
Recording rain-gauge (natural siphon).
Nephoscope (Besson).
Sunshine recorder.
Hydrograph.

Stevenson screen (large pattern).
Thermometers—dry bulb, wet bulb, maximum, minimum, grass minimum.
Thermograph.
Anemometer, pressure-tube (direction and velocity).
Theodolite and pilot-balloon equipment.

General Surroundings and Site.—The R.A.F. camp lies about $\frac{1}{4}$ mile south of Aboukir village and approximately 13 miles east-north-east of Alexandria. The ground is fairly level at about 5 ft. above M.S.L. with the exception of a chain of hillocks stretching in a line east to west with the hillock on which the Meteorological Office is situated approximately in the centre. From November to May the surface of the camp is covered with a coarse grass; this disappears from June to October. To the south is irrigated land on which are grown cotton, bananas, dates, etc., otherwise the surrounding terrain is desert sand with a few scattered palms and bushes. An almost continuous belt of palms stretches from approximately north to south on the eastern and southern boundaries of the camp. To the south-west at a distance of 3 miles are the wooded grounds of Montaza Palace. The Meteorological Office is in the north-west portion of the camp on ground rising above the average level. The exposure is not affected by the palm groves or buildings.

Wind.—Wind direction and velocity are measured by an anemometer. The exposure is open in all directions.

Temperature is read from thermometers in a large Stevenson screen, the bulbs are 4 ft. above the ground.

Visibility is generally good to excellent. Fog is infrequent but occurs occasionally in spring, autumn and winter. It forms suddenly after dawn but usually disperses within two or three hours. Duststorms occur occasionally, their greatest frequency being in spring. The objects used to estimate visibility are :—

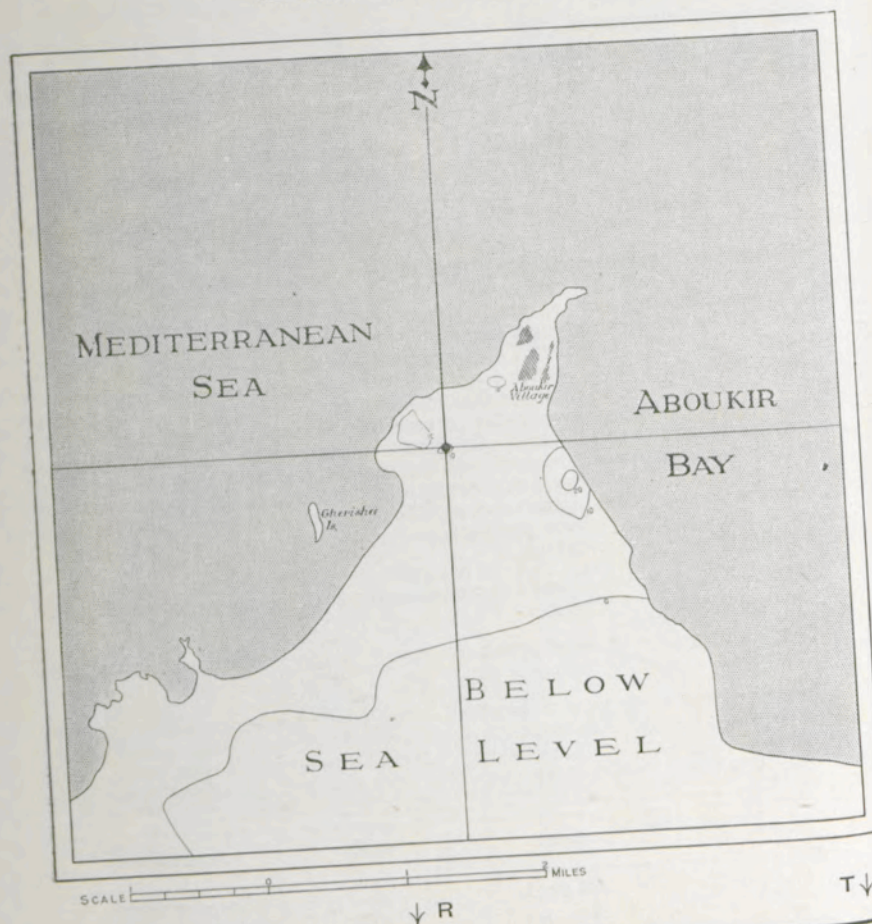
Object	Distance	Bearing	Nature of object
A	28 yards	—	Wire of enclosure
B	60 "	78°	Telegraph pole
C	110 "	72°	Church
D	240 "	150°	Hut
E	688 "	175°	Water tank
F	911 "	220°	Building
G	$1\frac{1}{4}$ miles	230° – 238°	Western bay
H	3 "	237°	Palace
I	$4\frac{1}{2}$ "	40°	Island
J	6 "	130°	Coast line
K	—	—	Estimated
L	18 miles	100°	Coast line
M	—	—	Estimated

Rainfall.—The exposure of the rain-gauge and recording rain-gauge is good except to the north-east and east-north-east where, owing to the limitations of the enclosure, the instruments are situated 23 ft. from the office building which is 18 ft. high.

May, 1938.

ABOUKIR

(Contours are given in metres above sea level. The cross hatching shows the area covered by buildings)



Looking N.W.

(November, 1929)

AMMAN (TRANS-JORDAN)

Latitude $31^{\circ} 57' N.$, Longitude $35^{\circ} 57' E.$ Height above M.S.L. of ground on which the rain-gauge stands, 2,548 ft. Height of anemometer vane above ground, 50 ft.; above roof, 35 ft.

Instrumental Equipment.

Barometer (Kew pattern).	Stevenson screen (large pattern).
Barograph.	Thermometers—dry bulb, wet bulb,
Microbarograph.	maximum, minimum, grass
Rain-gauge, 8-inch.	minimum.
Recording rain-gauge (natural	Thermograph.
siphon).	Anemometer, pressure tube
Nephoscope (Besson).	(direction and velocity).
Sunshine recorder.	Theodolite and pilot-balloon
Hygograph.	equipment.

General Surroundings and Site. The meteorological office is situated on the northern corner of the Royal Air Force station which stands on a tongue of land, an extension of the western corner of the plain which forms the aerodrome, about $3\frac{1}{2}$ miles east-north-east of Amman town. A long wadi or valley some 280 ft. deep borders the west and north-west sides of the camp, its edge passing within 20 ft. to 25 ft. of the office enclosure. An undulating range of hills extends from north-east to south-west, its nearest point being within one mile, and its highest point some 800 ft. above the level of the aerodrome. Westward of the camp on the far side of the wadi, which varies in width from $\frac{1}{4}$ to $\frac{1}{2}$ mile, are further ranges of hills, the highest, about 4 miles distant, being about 500 ft. higher than the aerodrome. For the greater part of the year the ground is devoid of vegetation or, at most, sparsely covered with camel thorn. From January to April, however, patches are covered with wild flowers and weeds which die off early in the season.

Wind.—The velocity and direction of the wind are measured by a pressure tube anemometer.

Temperature.—The thermometer bulbs are 4 ft. above the ground, the soil being sandy and the vegetation as indicated above.

Visibility.—Fog occurs chiefly in winter, especially during the months November to February. Frequently the fogs are due to low cloud covering the hill tops. Occasionally fog forms in the early morning after rainy periods, but it normally clears a couple of hours after sunrise. Duststorms are most frequent in spring and autumn. The objects used for estimating visibility are:—

Object	Distance	Bearing	Nature of object
A	27 yards	5°	Corner of store enclosure
B	55 "	20°	Post
C	110 "	50°	Corner of hangar
D	220 "	250°	Gate
E	510 "	240°	Building
F	1,100 "	272°	House
G	$1\frac{1}{2}$ miles	247°	House
H	$2\frac{1}{4}$ "	252°	Water tower
I	4 "	$251^{\circ}-253^{\circ}$	Hill
J	7 "	75°	Hill
K	13 "	80°	Hill
L	17 "	$65^{\circ}-75^{\circ}$	Range of hills
M	—	—	No object available.
a	70 miles* (approx.)	$40^{\circ}-60^{\circ}$	Jebel Druse (highest peak)

Rainfall.—The exposure is very open.

Sunshine.—The recorder has a free exposure.

* Object a is included in the local scale as it is unusual to have a good fixed object at so great distance.

AMMAN

R
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T
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Looking S.

(March, 1939)

ISMAILIA (EGYPT)

Latitude 30° 36' N., Longitude 32° 14' E. Height above M.S.L. of ground on which the rain-gauge stands, 39 ft. Height of anemometer vane above ground, 34 ft.; above roof, 19 ft.

Instrumental Equipment.

Barometer (Kew pattern).
Barograph.
Microbarograph.
Rain-gauge, 8-inch.
Recording rain-gauge (hyetograph).
Nephoscope (Besson).
Sunshine recorder.
Hygrograph.

Stevenson screen (large pattern).
Thermometers—dry bulb, wet bulb,
maximum, minimum, grass
minimum.
Thermograph.
Anemometer, pressure tube
(direction and velocity).
Theodolite and pilot-balloon
equipment.

General Surroundings and Site.—The station is situated on the east side of the aerodrome on practically level ground, about 1½ miles west of the centre of Ismailia town. There is a slight rise in ground level from Ismailia to near the camp boundary, after which the ground is almost level to the meteorological office. The nature of the ground is sand in the south-west and north-west quadrants, but there are many buildings and trees in the north-east and south-east quadrants. The office is 1,067 yds. east by north of the mooring tower.

Wind.—Wind speed and direction are obtained from a pressure tube anemometer, the mast of which is erected above the office. The exposure is good, except to the west, east and south-south-east, where buildings cause some interference.

Temperature.—Temperatures are read from thermometers in a large Stevenson screen erected in the enclosure. The bulbs are about 4 ft. 9 in. above the ground.

Visibility.—Visibility is generally good or very good apart from the early mornings, from dawn to 0700 G.M.T., especially in autumn and winter. Dust-storms are most frequent in spring and early summer. The objects used to estimate visibility are:—

Object	Distance	Bearing	Nature of object
A	30 yards	60°	Shed
B	38 "	150°	North-west corner of shed
C	107 "	14°	South corner of shed
D	228 "	338°	Shed
E	550 "	358°	Range
F	1,067 "	263°	Tower
G	1½ miles	243°	Rifle butts
H	2½ "	298°	Tower
I	—	—	Estimated
J	—	—	Estimated
K	—	—	Estimated
L	—	—	Estimated
M	44 miles	180°	Hills

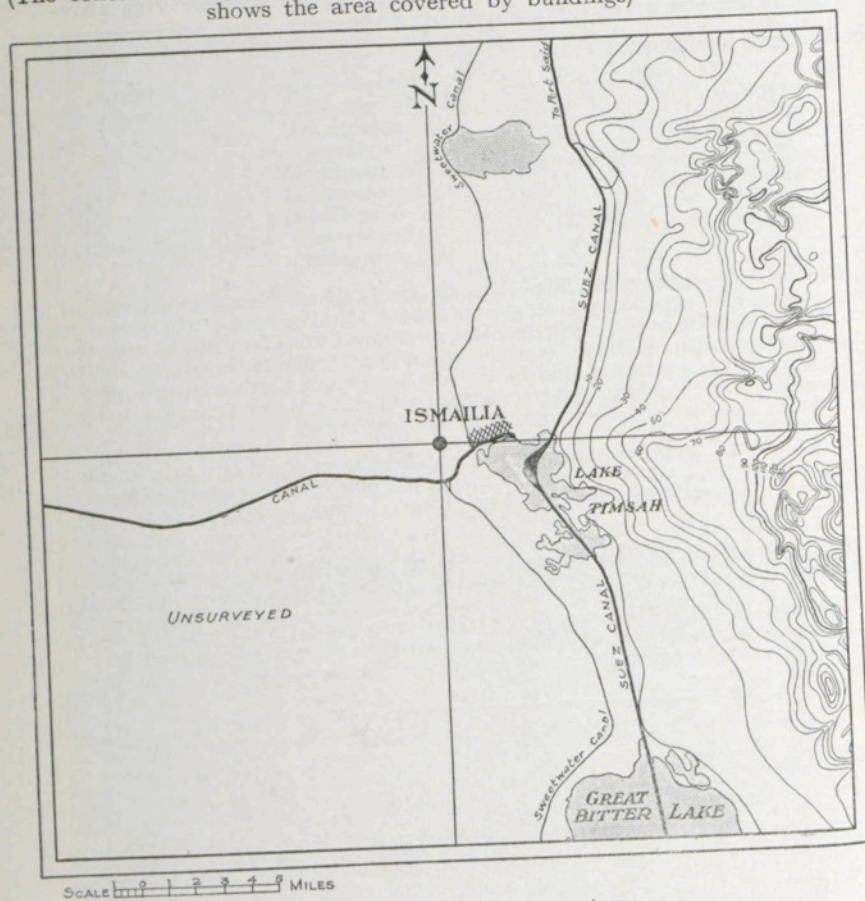
Rainfall.—The exposure of the rain-gauge is good.

Sunshine.—The sunshine recorder is mounted on a concrete platform on the roof of the office building and its exposure is good.

May, 1938.

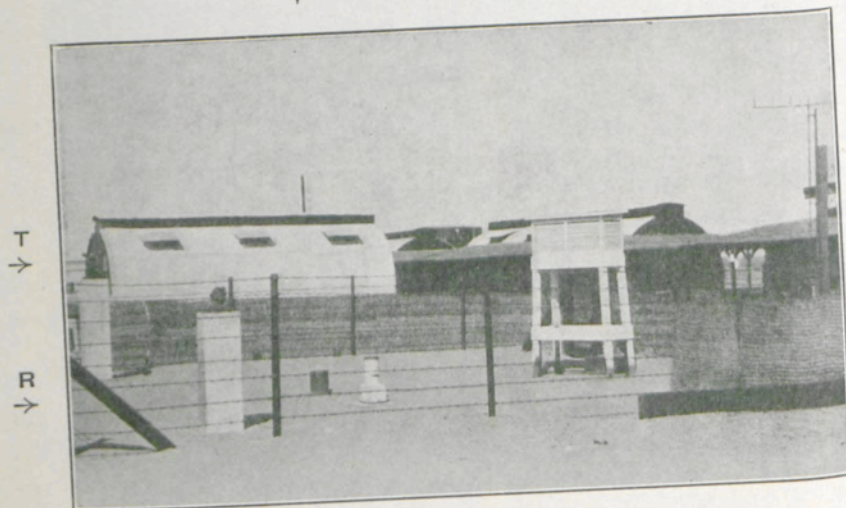
ISMAILIA

(The contours are given in metres above sea level. The cross hatching shows the area covered by buildings)



↓ R

↓ T



Looking N.W.

(November, 1929)

