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GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month January 1950

Supplement to the monthly Weather Report, January 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—ϕ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud = 7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

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S. N. NAQVI,
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March 28, 2002

TABLE—1 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N λ = 89° 23′ E Hs = 27 metres	6-25 26-50 51-75 > 75	31	3	1	1			1		4	21	27	9 2	1	1 1	1 1	1	2 1	1	2 2	2	28	5	4 1	2	1	2	4	2	4	3	26	3	2		1			4 1 5	2 7 1	
Chhor Φ = 25° 31′ N λ = 69° 50′ E Hs = 7 metres	6-25 26-50 51-75 > 75	31	5	4			2	4		1	15	29	2	4 8	2		2 1	3 3	2	1	1	28	6	3 4		1	1	1 1	2 4 2	2	1	28	5	1 1		2	1	1 5 1	3 4 2	1 1	
Chittagong Φ = 22° 21′ N λ = 91° 50′ E Hs = 21 metres	6-25 26-50 51-75 > 75	31	3	2		1	1				24	31	5	14	6	3	2		1			31	11 2	2			3	3 1	3	5	1	30	1 1				1	2	5 6	3 4	
Dacca Φ = 23° 47′ N λ = 90° 23′ E Hs = —	6-25 26-50 51-75 >75	30	9	2			1		1		17	27	8 2	5	1	3	2	3			3	26	4 1	4	1			2	6 1	5	2	22					1	1	3 1	6 7 1 1	1
Dalbandin Φ = 28° 54′ N λ = 64° 26′ E Hs = 855 metres	6-25 26-50 51-75 > 75	21	1		3		1	1	2		13	15		4	5	1	1	1		2	1	15		2 1	2		3 1	3 2			1	15	3	1			2	1 5	1	1 1	
Drosh Φ = 35° 34′ N λ = 71° 47′ E Hs = 1512 metres	6-25 26-50 51-75 > 75	31		3 1	1						26	22	1	7	1		4				9											22	2	15				3			2
Fort Sandeman Φ = 31° 21′ N λ = 69° 27′ E Hs = 1420 metres	6-25 26-50 51-75 > 75	31		2	1	1		5	1	1	20	26		3	1	1	5	6	2	2	6											26	4	3	3	2	4	2	3	4	1
Jacobabad Φ = 28° 17′ N λ = 68° 29′ E Hs = 63 metres	6-25 26-50 51-75 > 75	31	2	1	6	3			1	7	11	30	2	4	10 1	1				7 3	2	28	3	4	4	5	1	3		4	4	28	4				5 1	3	7 4	4	
Jhelum Φ = 32° 56′ N λ = 73° 44′ E Hs = 240 metres	6-25 26-50 51-75 > 75	31	3	1	1				3	7	16	28	2	3 1	1	2		1	2	12 3	1	28	8	2	2	5 1 1	1	1	2	3 1	1	25	1	1	2 1	11 2	2	1	1	1	1
Karachi (Drigh Road) Φ = 24° 53′ N λ = 67° 07′ E Hs = 28 metres	6-25 26-50 51-75 > 75	31	2	9	1			2	2	1	14	30	2 1	7 8	2 1			1 2	1 1	2 1	1	30	1	3 2	1 3			1 3	4 5 1	2	4	27		2	1	1	1	2 1	4 5 6	2	2
Khanpur Φ = 28° 39′ N λ = 70° 41′ E Hs = 94 metres	6-25 26-50 51-75 > 75	31	6	6	1					1	17	31	4 2	8 4	6		2	2	1	2		30	2 1	8 2	3 1	1	1 1	1	3	3 1	2	27	5 1	1			1	2 3 1	6 1	5	1
Lahore Φ = 31° 35′ N λ = 74° 20′ E Hs = 224 metres	6-25 26-50 51-75 > 75	31	2	2	1	4		1			21	30	5	1	3 1	3 2 1	1	1	2	7 1	2	29	5			3 1 3	4	2	4	5 1	1	27	2 1			2 1	2 1 2	3	7	2	4
Multan Φ = 30 12′ N λ = 71° 31′ E Hs = 124 metres	6-25 26-50 51-75 > 75	31	2	1					1	1	26	29	3 5	5 1			2	1	4	5 1	2	27	12 1	2 2	1		1	3	1	1	3	25	7	1		1		2 3	5	4	2
Peshawar Φ = 34° 01′ N λ = 71° 35′ E Hs = 368 metres	6-25 26-50 51-75 > 75	31				4	2	3		1	21	28	3	2	1 1	5	5	4	4	1	2	28	5	4				2	5	6	6	28	12	6	3		1		2	1 2	1
Samungli (Quetta) Φ = 30° 15′ N λ = 66° 53′ E Hs = 1602 metres	6-25 26-50 51-75 > 75	31		1	7	7			4	1	11	25	3	1	1	8 1	4	1	1	1	4											25	3	1	1	6 2	2	3	3	2 4	1

FREQUENCY (MORNING)

TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING)

TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	24					1		1	2		1 — 8				1		1			1	28											Bogra
26-50			1					13																								
51-75								2	1													1				1	4	21	4			
> 75									3		7 or 8																					
6-25	25	1			2	1	1	5			1 — 8				1	1					29											Chhor
26-50						1	2	7	1																							
51-75							1	3																2	3		2		3	21		
> 75											7 or 8				1						4											
6-25	25						2		1		1 — 8				1	1		1			28											Chittagong
26-50							1	8	5																							
51-75		1						3	3																1		16	14				
> 75									1		7 or 8																					
6-25	13						1	1			1 — 8						2				29											Dacca
26-50								4	2																							
51-75								1	3																1		5	23	1			
> 75								1			7 or 8																					
6-25	13	1				1		4			1 — 8									2	29											Dalbandin
26-50							2	3	1																							
51-75							1																				3	7	21			
> 75											7 or 8										1											
6-25	20	1	2			4	2				1 — 8		3	2		3	1	2	4		16											Drosh
26-50		10					1																									
51-75																								2	1	1	8	3	12	4		
> 75											7 or 8		2	2		3	1	1	1		10											
6-25	26					1	3	6	2	2	1 — 8						1		5	5	20											Fort Sandeman
26-50		1				1	3	1	6																							
51-75																									2	1	3	5	20			
> 75											7 or 8						1				7											
6-25	28	2					2	3	3	1	1 — 8					1					30											Jacobabad
26-50							3	9																								
51-75						1		2																	1	1	4	19	4	2		
> 75								1	1		7 or 8					1					4											
6-25	22		2		5	5	1		1	1	1 — 8							5	4	1	21											Jhelum
26-50					3	3	1																									
51-75																											2	12	14	2	1	
> 75											7 or 8										10											
6-25	20	1				2	1	2	1		1 — 8					2	1	4	1		23											Karachi (Drigh Road)
26-50							2	6	2																							
51-75							2	1																		1	2	8	10	2		
> 75											7 or 8										7											
6-25	27	3					3	2	3	1	1 — 8						2	1	1		27											Khanpur
26-50							3	7	2																							
51-75								3																	4	9	12	6				
> 75											7 or 8						1	1			7											
6-25	25	1	1	1		6	4	3	1	3	1 — 8					2	1		2	1	25											Lahore
26-50							2																									
51-75						1	1		1																3	3	19	6				
> 75											7 or 8					1					8											
6-25	24	4				1	3	5	3		1 — 8	1		1	1	2	1				25											Multan
26-50							1	3	2																							
51-75							1																1				13	16	1			
> 75							1				7 or 8										9											
6-25	27	6	5	2	3	3	1	1	2	1	1 — 8				1	1	1		5		23											Peshawar
26-50						2		1																								
51-75																											8	17	9	2		
> 75											7 or 8										13											
6-25	23	2		1		1	1	3	1	1	1 — 8				2	1	2	1	3	1	21											Samungli (Quetta)
26-50		2			1	1	3	3	2																							
51-75					1																				2	1	5	9	12	2		
> 75											7 or 8					1	2		1		4											

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		N	NE	E	SE	S	SW	W	NW	C	N	NE	E	SE	S	SW	W	NW	C	N	NE	E	SE	S	SW	W	NW	C	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N λ = 89° 23′ E Hs = 27 metres	6-25 26-50 51-75 > 75	31	3	1					4	1	22	28	3	1	1	1	2	1	7	8	4	31	4		1			2	11 2	8	3	30	1	1		1			4 11 4	3 1 3 1	
Chittagong Φ = 22° 21′ N λ = 91° 50′ E Hs = 21 metres	6-25 26-50 51-75 > 75	31	2					9	9	4	7	31	6 1				1	5 1	12	4	1	31	10	2			2 3	1	6 1	5 1		31	2				2	2 1	6 5	3 8 2	
Dacca Φ = 23° 47′ N λ = 90° 23′ E Hs = —	6-25 26-50 51-75 > 75	31	1	1			1	3 1	8	11	5	30	3	1	-	-	2	1 1	10	8 1	3	31	6					1 3	10	10	1	29						2 1	3 12 1	4 5 1	
Dalbandin Φ = 28° 54′ N λ = 64° 26′ E Hs = 855 metres	6-25 26-50 51-75 > 75	23		1 1	4	1	2	3 1	2 1		7	18		2	5		2	5	2		2	18		5	2		3	8				18	2	3	1		1	1 6 1	1 1	1	
Drosh Φ = 35° 34′ N λ = 71° 47′ E Hs = 1512 metres	6-25 26-50 51-75 > 75	31		4 1		2		2			22	27	3	7	4 1		1	4			7											27	6 1	9 1				5			5
Fort Sandeman Φ = 31° 21′ N λ = 69° 27′ E Hs = 1410 metres	6-25 26-50 51-75 > 75	31	1	1				3	5	1 1	19	26	3		1			7	6	3	6											26		2	1	1	3	7	6	2	4
Jacobabad Φ = 28° 17′ N λ = 68° 29′ E Hs = 63 metres.	6-25 26-50 51-75 > 75	31	2	1	2		2			4	20	31	2	1	5 1	1	1		7	3 1	9	29	3	2	6 2	2	2	3	3		6	27	2		1	3	4 1	4 4	4	2	2
Jhelum Φ = 32° 56′ N λ = 73° 44′ E Hs = 240 metres	6-25 26-50 51-75 > 75	31	1	1		2	1		1	4	21	27	3	2	3	3	1	1	2	7 2	3	26	4		3	4 2	1	2	3	4 1	2	23			2	11 1 1	2 3		2		1
Karachi (Drigh Road) Φ = 24° 53′ N λ = 67° 07′ E Hs = 28 metres	6-25 26-50 51-75 > 75	31	1	8		2		5 3	2	2	8	31	4	5 3	3	1	2	2 1	3 3		4	31	5	5 1	1 2	1	1	3 1	5 4	1	1	24	1	2 1				5 2 1	2 3 4 1	1 1	
Khanpur Φ = 28° 39′ N λ = 70° 41′ E Hs = 94 metres	6-25 26-50 51-75 > 75	31	2	8 1		1		1 1			17	29	3	9 2	2	2	1	5	1	1	3	29	1	9	4	2	4	1 1	3	1	3	25	3		1	1	2	5 2 1	5 2	2	1
Lahore Φ = 31° 35′ N λ = 74° 20′ E Hs = 224 metres	6-25 26-50 51-75 > 75	31	1	2		3	1	1	3	6	14	31	1		3	4 2	1	5	3 1	6	8	29	2		1 1		4 2 1	2	3	7 1	5	29	1		1	1	9 3 - 1	6 2 1		3	1
Multan Φ = 30° 12′ N λ = 71° 31 E Hs = 124 metres	6-25 26-50 51-75 > 75	31	8					4	1	7	11	29	11	3			1	2	5	3	4	26	7 2	3	1	2	1	5 1		3	1	26	3		1	1	3	6 3	3 1	2 1	2
+Peshawar Φ = 34° 01′ N λ = 71° 35′ E Hs = 368 metres	6-25 26-50 51-75 > 75	31		2	1	1			1	1	25	29	2	4 1	3	3	2	1	2	2	9	28	6	3	1	1			2	10	5	26	5	7	2		3		1	3 1	4
+Samungli (Quetta) Φ = 30° 15′ N λ = 66° 53′ E Hs = 1602 metres	6-25 26-50 51-75 > 75	31	1		3	3	3	3 1	5 1	6 1	4	30	1	1		4 1	4 3	5	2 2	6	1												30	2			3 2	7 3	3 1	5 1	1	2

+ On two days cloud observations could neither be measured nor estimated

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	27			1			1				1 — 8						2	3	2		24											Bogra
26-50						1	2	9	2																		1	12	18			
51-75								5	2																							
>75								3	1		7 or 8																					
6-25	28	1				1	1	1	3		1 — 8					1	1	5			24											Chittagong
26-50								7	5																							
51-75		1						4	3																		5	23	3			
> 75									1		7 or 8										2											
6-25	27		1				1	1			1 — 8						8				23											Dacca
26-50							1	5	5																							
51-75								5	6																			16	15			
> 75									2		7 or 8																					
6-25	18	1					1	3			1 — 8								3	1	27											Dalbandin
26-50						2	2	2	3																							
51-75							2	1																		1	1	7	22			
> 75							1				7 or 8										3											
6-25	27	9	2			3	3		1	2	1 — 8		3	2	2	3			7	3	11											Drosh
26-50		3				1	3																									
51-75																								2		2		6	7	11	3	
> 75											7 or 8		2	2						2	6											
6-25	26	1			2	3	2	5	1		1 — 8						1		3		27											Port Sandeman
26-50							6	4	1																							
51-75								1																		1	4	4	22			
> 75											7 or 8								1		9											
6-25	26				1		1	6	2	1	1 — 8							1			30											Jacobabad
26-50						1	5	5																								
51-75							1	3																			4	16	8	3		
> 75											7 or 8							1			7											
6-25	22				6	7				1	1 — 8						1	9	4		17											Jhelum
26-50			1				2	1																								
51-75						3																					1	10	14	4	2	
> 75					1						7 or 8						1	5			20											
6-25	18						3	2	2		1 — 8						3	8			20											Karachi (Drigh Road)
26-50							2	3	3																							
51-75							1	1																			2	7	11	11		
> 75							1				7 or 8										3											
6-25	23					1	2	2	3		1 — 8						2	2	1	2	24											Khanpur
26-50		2					6	5																								
51-75								2																1	2	5	13	10				
> 75											7 or 8						2				9											
6-25	25				1	2	6	3	3		1 — 8					1	-	2	2	5	21											Lahore
26-50						3	3	1	1																							
51-75							2																		1	1	1	19	9			
> 75											7 or 8										14											
6-25	23	1					2	2	2	2	1 — 8	2			1	1	2				25											Multan
26-50						3	3	5	2																							
51-75							1																1	1			3	21	5			
> 75											7 or 8				1						6											
6-25	28		2	1	2	3	6	4	1	3	1 — 8					1	3	1	9	1	14											Peshawar
26-50						1			2																							
51-75																										1	5	8	13	4		
> 75											7 or 8										9											
6-25	25	1			1	1	4		3		1 — 8				2	1	1		2	4	19											Samungli (Quetta)
26-50					1	1	7	3																								
51-75							1		2																2	1	6	6	13	3		
> 75											7 or 8				1		1		1													

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Chittagong	6-25	31	8	2		1					20	29	14	6		3	2			1		29	11				3	2		8	3	26	1				3	4	2	
Φ = 22° 21′ N ...	26-50												3										1					1								1	5	8		
λ = 91° 50′ E ...	51-75																																					1		
Hs = 21 metres ...	> 75																																							
Dacca	6-25	29	5		1		1			2	20	25	10	2	2	1	1	1	1	3		24	7	2				2	6	6		19					2	1	4	
Φ = 23° 47′ N ...	26-50												3					1												1							1	2	6	
λ = 90° 23′ E ...	51-75																																					1	2	
Hs = — ...	>75																																							
Dalbandin	6-25	13	1	1	2		1		2		6	10		1	2	1	2	2	1			10	1	1	1	1	2	2				10	1			1	1	1		2
Φ = 28° 54′ N ...	26-50																1							1				1					1				3			
λ = 64° 26′ E ...	51-75																																							
Hs = 855 metres ..	> 75																																							
Drosh ...	6-25	31		1	1	2		1			26	20		10	2		1	3			4											20		12			1	5			1
Φ = 35° 34′ N ...	26-50																																	1							
λ = 71° 47′ E ...	51-75																																							
Hs = 1512 metres ...	>75																																							
Jacobabad	6-25	31	14	4	3				1	3	5	30	13	4	1	1				5	1	29	1	1	5	3	5	3		1	6	29		1	1	1	2	3	7	5	1
Φ = 28° 17′ N ...	26-50		1										1		2					1			1		1			1		1							1	4	1	
λ = 68° 29′ E ...	51-75												1																								2			
Hs = 63 metres. ...	> 75																																							
† Jhelum	6-25	31	1	1	1	1		1	4	6	16	28	3	3	3	2	1	1		10		28	4		2	5	2	1	2	7		26			6	5	2	1	1	4	3
Φ = 32° 56′ N ...	26-50															1				4						3	1			1						1	2	1			
λ = 73° 44′ E ...	51-75																																							
Hs = 240 metres ...	> 75																																							
Karachi (Drigh Road)	6-25	31	2	12				5	3		9	31	4	6				1	2	1	1	30	2	2	4		1	3	2	1	1	26		2	3		1	2	6		1
Φ = 24° 53′ N ...	26-50												2	4	1			2	5	1				1	2			1	6	2								4	6		
λ = 67° 07′ E ...	51-75																		1																				1		
Hs = 28 metres ...	> 75																																							
Lahore	6-25	31	1	2	4	1				3	20	29	2	1	3	3	1		4	10	-	28	5	2	2	3	3	2	2	3	2	24	2	1	1		2	5	3	3	1
Φ = 31° 35′ N ...	26-50													1	2	2											2			2						1	1	3			
λ = 74° 20′ E ...	51-75																																					1			
Hs = 224 metres ...	> 75																																							
Multan	6-25	31	4		1	1					26	28	2	4	3			2	5	2	5	27	9	2	1		3	6		3	2	24					7	6	5	1
Φ = 30 12′ N ..	26-50												2		1	1		1					1										1				3	1			
λ = 71° 31′ E ...	51-75																																							
Hs = 124 metres ...	> 75																																							
Peshawar	6-25	31		1				4		1	25	29	6	2	3	3	2		2	4	7	29	3	2	3		1	1	2	8	9	27	7	5	1	2	1	1	1	1	3
Φ = 34°01′ N ...	26-50																																				1	2	1	1	
λ = 71° 35′ E ...	51-75																																							
Hs = 368 metres ...	> 75																																							
Samungli (Quetta) ..	6-25	31			3	7	1	1	3		13	2					1	1														2					1			
Φ = 30° 15′ N ...	26-50				2		1																														1			
λ = 66° 53′ E ...	51-75																																							
Hs = 1602 metres ...	> 75																																							

† Visibility observations were not recorded throughout the month.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	17							3			1 — 8	2						1			28											Chittagong
26-50							1	6	3														1	1		1	12	16				
51-75								3	1																							
> 75											7 or 8																					
6-25	7										1 — 8					1					28											Dacca
26-50							1	3	1																	1	1	27				
51-75									1																							
> 75									1		7 or 8																					
6-25	6							2			1 — 8								2		29											Dalbandin
26-50		1						1																								
51-75								2																			1	7	23			
> 75											7 or 8																					
6-25	17	7	3			3				2	1 — 8		3	6	2	3			1	1	15											Drosh
26-50		1					1																	3	7	2	3	7	9			
51-75																																
>75											7 or 8		3	5	2	3					17											
6-25	16	1					1	4	1		1 — 8										31											Jacobabad
26-50							1	3	1																	1	2	27		1		
51-75							1	3																								
> 75											7 or 8										2											
6-25	21	2		1	3	5	2		2		1 — 8							5	5		21					N	/	L				Jhelum
26-50					3	1	1	1																								
51-75																																
> 75											7 or 8							2			8											
6-25	23		1				1	2		2	1 — 8					1		1			29											Karachi (Drigh Road)
26-50			1				5	8																			2	26	3			
51-75							1	2								1					2											
> 75											7 or 8																					
6-25	21					1	6	4	5		1 — 8					2	1	1	1	1	25											Lahore
26-50						1	2																			N	1	L				
51-75						1	1																									
> 75											7 or 8					2		1		1	8											
6-25	16	1					2	3	1		1 — 8				2	1	1	1			26											Multan
26-50							2	5																			5	25	1			
51-75							2																									
> 75											7 or 8				1	1					4											
6-25	25	5	2		3	5	4			2	1 — 8						1	1	8	1	20											Peshawar
26-50					1	1	1	1																			2	27	2			
51-75																																
> 75											7 or 8										9											
6-25	2										1 — 8				2		2		2		25											Samungli (Quetta)
26-50							1	1																	3	2	3	15	6	2		
51-75																																
> 75											7 or 8						2				2											

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month February 1950

Supplement to the monthly Weather Report, February 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—Φ= Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan
The August 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	28	1	1	4	2	2	-	-	3	15	26		3	1	5	4	3	3	4	3	26		1	2	1		2	6	5	4	21							2		
Φ = 24° 51′ N ...	26-50														1					1									1	2						1			7	2	
λ = 89° 23′ E ...	51-75																												1	1									9		
Hs = 27 metres ...	> 75																																								
Chhor	6-25	28	2	5	1			2		1	17	28	2	5	4				1	1		28	3	11	3	1				1		23	1	3	2	2	1	2	4	4	
Φ = 25° 31′ N ...	26-50												1	2	6			3		1			1	2	1				2		2		2						1		
λ = 69° 50′ E ...	51-75													2																									1		
Hs = 7 metres ...	> 75																												1												
Chittagong	6-25	28	4	1					1	22	28	6	2	5	4	2	-	1	2	1	23	5	1					2	8	2	1	22		1			1	2	3	2	
Φ = 22° 21′ N ...	26-50											2	2		1							1							1	2									4	4	
λ = 91° 50′ E ...	51-75																																						1	4	
Hs = 21 metres ...	> 75																																								
Dacca	6-25	19			2	3	2	1	5		6	18			2	4	2	3	-	3	2	15		1		1		2	3	5		13	1							1	
Φ = 23° 47′ N ...	26-50												1						1										2									7	1	
λ = 90° 23′ E ...	51-75																												1										1	2	
Hs = — ...	>75																																								
Dalbandin	6-25	28	1	1					1	1	23	23	1	6	9	1	1		2	1	2	23		5	7	1	1		1		8	23	4	2			1	1		2	
Φ = 28° 54′ N ...	26-50								1																								4	1			1	6			
λ = 64° 26′ E ...	51-75																																					1			
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	28		4	5						19	27	1	14	5	1		1			5											27	2	21	2						
Φ = 35° 34′ N ...	26-50																																	2							
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
✣ **Fort Sandeman**	6-25	28						6	1	-	20	24	1	1				11	1		10											24	4	1	1		2	1	5	6	3
Φ = 31° 21′ N ...	26-50									1																													1		
λ = 69° 27′ E ...	51-75																																								
Hs = ~~1410~~ 1420 metres ..	> 75																																								
Jacobabad	6-25	28	7		5	2	1		1	3	7	28	3	2	5	2	2	-	-	6	1	27	5	1	1	2	5	1	1	5	2	26	3	2		1	1	2	3	6	1
Φ = 28° 17′ N ...	26-50											3			3					1		2								1									1	2	
λ = 68° 29′ E ...	51-75																					1											1					3			
Hs = 63 metres ...	> 75																																								
Jhelum	6-25	28		1	1				4	7	15	27	4	3	1			1	2	9		27	4		2	2		1	1	11	1	27	2	2	1	4	1	1	2	5	2
Φ = 32° 56′ N ...	26-50													1					1	5			2							3			1		1	1			1		2
λ = 73° 44′ E ...	51-75																																			1					
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	28	5	7				1		3	11	27	5	8					1	2		27	1	4	4	2			5	2	26	1	7	3		2	2	2		
Φ = 24° 53′ N ...	26-50											1	7						2	1			1	2	1				3			1	1			1	3		2	
λ = 67° 07′ E ...	51-75							1																				1	1									1			
Hs = 28 metres ...	> 75																																								
✣ **Khanpur**	6-25	28	2	4	1	3	1	1			15	27	2	5	8	3	2	1		2	2	26	6	7	2				6	1		26	3	1			2		2	5	
Φ = 28° 39′ N ...	26-50									1				1				1						2			1		1				2	2				1	3	4	
λ = 70° 41′ E ...	51-75																																					1			
Hs = 94 metres ...	> 75																																								
✣ **Lahore**	6-25	28	1	1		1			1	1	23	28	3	2	1			2	3	9		27	3	2		1	1		4	10		23	7	2	1	1		3		6	
Φ = 31° 35′ N ...	26-50											2	1			1				4			2							3							1		2		
λ = 74° 20′ E ...	51-75																									1															
Hs = 224 metres ...	> 75																																								
Multan	6-25	28	1		1		1	1		2	22	28	8	2	1	3	-	1	4	4	1	27	8	1		1	2	2	1	5	1	27	6	4				1	3	3	
Φ = 30° 12′ N ..	26-50											2				1	1						3				1			2			4					1	4	1	
λ = 71° 31′ E ...	51-75																																								
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	28			1	6	3				18	27	1	1	5	6	3	4		2	4	27	5		1		5	1	6	3	4	27	7	2	2		1			5	
Φ = 34° 01′ N ...	26-50															1														2			3						1	6	
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	28			3	4	1	1	1	2	14	21	-	-	-	5	3	3	2	3	4											21	3			3	2	2	3	3	2
Φ = 30° 15′ N ...	26-50							1	1							1																				1				2	
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

✣ On one day cloud height could neither be measured nor estimated

FREQUENCY (MORNING)

TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING)

TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

Speed limit (km./hr.)	3.0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
Bogra																																
6-25	16							1			1 — 8						1	1		1	25					1	5	17	4	1	
26-50							1	3																								
51-75								7	1		7 or 8																					
> 75								1	2																							
Chhor																																
6-25	20	4	1					2			1 — 8					1					27											
26-50		1	1				2	6																	2			1	2	23		
51-75								3			7 or 8										2											
> 75																																
Chittagong																																
6-25	15						1				1 — 8					2	3	1		1	21											
26-50							1	6	3																	1	11	16				
51-75								1	2		7 or 8					1	1				5											
> 75									1																							
Dacca																																
6-25	6								2		1 — 8				2	1	2			1	13						3	16				
26-50																																
51-75								1	2		7 or 8				1						4											
> 75								1																								
Dalbandin																																
6-25	20	1							1		1 — 8										28											
26-50		3					4	2	6															1	1	6	7	9	4			
51-75							2	1			7 or 8										3											
> 75																																
Drosh																																
6-25	25	5	2				1			2	1 — 8		1			1		4		1	21											
26-50		15																						1			1	3	15	8		
51-75											7 or 8		1					1			6											
> 75																																
Fort Sandeman																																
6-25	24	4			1	1	3	1	2	2	1 — 8								2	2	23											
26-50		1	1				1	2																1			1	6	20			
51-75		1						2	2		7 or 8								1	1	6											
> 75																																
Jacobabad																																
6-25	24	1		1		1	3	2	2		1 — 8								2		26											
26-50		1				1		4	5																		2	17	3	6		
51-75									1		7 or 8								1		4											
> 75							1	1																								
Jhelum																																
6-25	27	1	1	5		2	2	2	6		1 — 8							1	2		25											
26-50		1			4		2		1																	1	2	4	13	7	1	
51-75											7 or 8							1			7											
> 75																																
Karachi (Drigh Road)																																
6-25	24		1	1		3		2	3		1 — 8					1		1	1		25											
26-50		1					2	1	5																	1	1	6	19	1		
51-75							1	3			7 or 8										2											
> 75								1																								
Khanpur																																
6-25	25	2			1		3	4	1		1 — 8						1		1		25											
26-50		1	1				2	4	1															1		2	20	5				
51-75								1	2		7 or 8										2											
> 75								1	1																							
Lahore																																
6-25	23	2	2			3	3	2	3		1 — 8					1					26											
26-50				1			3	2	2																1	1	5	19	1		1	
51-75											7 or 8					1					7											
> 75																																
Multan																																
6-25	25	2				2	5	4	4		1 — 8			1							27											
26-50		1						3	3																		4	23	1			
51-75									1		7 or 8										3											
> 75																																
Peshawar																																
6-25	27	7	2	2	2	2	2		5		1 — 8					1		1	2	2	22											
26-50		1	1					1	1																	1	3	8	12	4		
51-75									1		7 or 8										5											
> 75																																
Samungli (Quetta)																																
6-25	18	1				2	1	2	1		1 — 8			1	4		1		1		21				1	1	3	8	11	4	
26-50		2				1	1		4																							
51-75		1					1		1		7 or 8				3		1															
> 75																																

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N λ = 89° 23′ E Hs = 27 metres	6-25 26-50 51-75 > 75	28	1	-	-	-	-	1	6	3	17	28	2	1	2	-	-	3	8 2	5	5	27	-	-	-	1	1	2	15 2	5	1	27	-	-	-	-	-	1	1 7 13	1 1 2 1	
Chittagong Φ = 22° 21′ N λ = 91° 50′ E Hs = 21 metres	6-25 26-50 51-75 > 75	28	-	1	1	-	3	7	7	3	6	28	4	1	1	-	3 1	3	11	3	1	27	5	2	-	1	2	7	4	4	2	24	1	-	1	-	-	3	2 7 1	1 5 3	-
Dacca Φ = 23° 47′ N λ = 90° 23′ E Hs = — +	6-25 26-50 51-75 > 75	19	-	-	-	-	1	4	6	3	5	17	1	-	-	-	-	1	8	4	3	16	1	-	-	-	1	3	7	3	1	15	-	-	-	-	-	1	7 3	4	
Dalbandin Φ = 28° 54′ N λ = 64° 26′ E Hs = 855 metres	6-25 26-50 51-75 > 75	28	-	2	5	1	1 1	6	- 2		10	21	-	4	7	1	-	3	-	1	5	21	-	3	7	1	-	3	-	-	7	21	8	3 1	1	-	- 1	- 4	- 2	1	-
Drosh Φ = 35° 34′ N λ = 71° 47′ E Hs = 1512 metres	6-25 26-50 51-75 > 75	28	-	10 2	-	2	-	-	-	-	14	27	- 1	14 1 1	4	-	-	-	-	-	6											27	7 1	8 3	2	-	-	1	-	-	5
Fort Sandeman Φ = 31° 21′ N λ = 69° 27′ E Hs = ~~1410~~ 1426 metres	6-25 26-50 51-75 > 75	28	-	-	-	-	-	2	4 1	3 1	17	24	-	-	-	-	1	3	10	4	6											24	1	1	-	1	6	3	7	2	3
Jacobabad Φ = 28° 17′ N λ = 68° 29′ E Hs = 63 metres.	6-25 26-50 51-75 > 75	28				2	1	-	2	6 1	16	28	2	-	2	6	2	-	2	7 1	6	27	3 1	3	1	2	7	2	-	5 1	2	26	2 1	-	1	-	2 2	1 1	3 3	4 4	2
Jhelum Φ = 32° 56′ N λ = 73° 44′ E Hs = 240 metres	6-25 26-50 51-75 > 75	28	-	-	-	1	-	-	5	6	16	28	1	-	-	1 1	1	-	4 1	11 1	7	27	2	1	1	2	1	1	2	11 1	5	26	4	-	3	5 2	2 1	2	3	3	1
Karachi (Drigh Road) Φ = 24° 53′ N λ = 67° 07′ E Hs = 28 metres	6-25 26-50 51-75 > 75	28	2	8	-	3	1	4	1	- 1 1	7	27	2	7	2 1	3	1	1 1	1 1	2	5	27	1	13 1	3	-	-	1	1 2	1 1	3	24	8	2	1	-	-	1 1	3 5 1	2	
+ Khanpur Φ = 28° 39′ N λ = 70° 41′ E Hs = 94 metres	6-25 26-50 51-75 > 75	28	4	2	1	1	-	2	1	1 1	15	28	5	4	1	2	1	3	2 - 1	3	6	28	4	4 1	4	2	1	2	2 1	3 1	3	26	3	1	2	-	1 1	3 - 1	3 2	5 3 1	
+ Lahore Φ = 31° 35′ N λ = 74° 20′ E Hs = 224 metres	6-25 26-50 51-75 > 75	28	1	-	-	1	2	-	3	5	16	28	2	-	-	- 1	3	4	6	9	3	26	5	1	1	-	1	2 1	5	7 2	1	23	3	2	-	2	4	2	5 1	4	
Multan Φ = 30° 12′ N λ = 71° 31′ E Hs = 124 metres	6-25 26-50 51-75 > 75	28	4	2	-	1	1	2	-	6	12	27	7	2	1	-	2	5	2	4 1	3	27	3	2	1	2	2	3	3 1	5	5	26	7	-	1	1	1	2 3	3	5 2	1
+ Peshawar Φ = 34° 01′ N λ = 71° 35′ E Hs = 368 metres	6-25 26-50 51-75 > 75	28	2	-	-	-	3	-	-	4	19	27	- 9	- 4	- 2	- 2	- - 1	- -	- 1	- 2	- 6	28	9	2	-	-	1 1	-	-	12	3	28	4	5	1	2	1	1 1	2 1	5 3	2
Samungli (Quetta) Φ = 30° 15′ N λ = 66° 53′ E Hs = 1602 metres.	6-25 26-50 51-75 > 75	28	1	-	1	4 1	-	-	7 2	5 7		21	1	-	1	3 1	1	1	1	9	3											21	1	-	-	2 2	1	4	3 1	5	2

+ On 1 day cloud heights could neither be measured nor estimated.

✧ On two days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	23	-	-	-	-	-	-	-	-	-	1 — 8							2	4		22											Bogra
26-50								2	1																							
51-75								13	-																	1	1	10	16			
>75								6	1		7 or 8							1			1											
6-25	23	-	-	-	-	-	1	1	1	-	1 — 8						3	5	1		19											Chittagong
26-50							1	9	5																		1	20	7			
51-75								2	2																							
> 75									1		7 or 8						1				2											
6-25	12	-	-	-	-	-	-	3	1		1 — 8						4	2	1	-	10											Dacca
26-50								4	3																	1	10	7	1			
51-75								1																								
> 75											7 or 8						1				2											
6-25	18	4	1	-	-	-	-	-	3		1 — 8								3	1	22											Dalbandin
26-50			1				1	3	3															2	3	4	2	9	7	1		
51-75								2																								
> 75											7 or 8								1		1											
6-25	27	13	4	1	-	-	4	-	-	2	1 — 8					1	1	5	4	1	16											Drosh
26-50		3																									1	3	3	15	6	
51-75																																
> 75											7 or 8					1			2		8											
6-25	24	1	1	-	1	1	3	4	2		1 — 8								5		23											Fort Sandeman
26-50		1				3	1	1	4																		2	2	24			
51-75							1																									
> 75											7 or 8										6											
6-25	25	1	1	1	-	1	2	3	2		1 — 8										28											Jacobabad
26-50		2					3	3	3																		2	2	18	6		
51-75		1						1																								
> 75								1			7 or 8																					
6-25	25	5	-	1	4	3	2	5	2	1	1 — 8							1	4		23											Jhelum
26-50						2																				1	2	3	12	7	3	
51-75																																
> 75											7 or 8							1			9											
6-25	26	-	-	-	-	1	2	1	3		1 — 8							1	1		26											Karachi (Drigh Road)
26-50		3					-	6	2															1			1	1	20	5		
51-75							1	3	1																							
> 75							1	2			7 or 8																					
6-25	25	-	1	-	-	-	1	3	4		1 — 8							1	1	3	22											Khanpur
26-50			1				6	2	3																2		19	7				
51-75								2	1																							
> 75								1			7 or 8										4											
6-25	22	-	1	-	-	4	1	1	5	1	1 — 8					1	1			2	23											Lahore
26-50		1				2	3	3																	1		1	9	17			
51-75																																
> 75											7 or 8										9											
6-25	24	3	-	-	-	-	1	4	3		1 — 8								1		27											Multan
26-50		1				1	1	4	2																		1	26	1			
51-75		1					2		1																							
> 75											7 or 8										2											
6-25	26	6	1	2	2	1	2	3	1		1 — 8				1				6	4	16											Peshawar
26-50		1			1	1	1		4																		4	3	13	6		
51-75																																
> 75											7 or 8										6											
6-25	20	3	-	-	1	-	3	-	3		1 — 8			1	4		1			3	19											Samungli (Quetta)
26-50		1				1	2	2	2																							
51-75									2														1		1		4	4	7	11		
> 75											7 or 8			1	1					1												

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
† Chittagong	6-25	28	3	2	1	3	1			2	16	25	3	7		4	3		1	1		20	3		1	1		2	5	2	4	18	1					1	2	1	
Φ = 22° 21′ N ...	26-50												2		1		3													2								1	3	6	
λ = 91° 50′ E ...	51-75																																							3	
Hs = 21 metres ...	> 75																																								
Dacca	6-25	14					1	4			9	13		1	1	1		3	1		1	10			1			1	1	2		6						1			1
Φ = 23° 47′ N ...	26-50																	2	2	1									1	2									1	1	
λ = 90° 23′ E ...	51-75																													2									2		
Hs = — ...	>75																																								
+ Dalbandin	6-25	28	2	6	3		3	1	2		10	14		5	5	2	1					14		5	5	2	1					14	2		2		1	1	1	3	1
Φ = 28° 54′ N ...	26-50								1				1										1														1	1			
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																							1	
♣ Drosh ...	6-25	28		2	3	2					21	26		12	5						9										26	4	18							4
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	>75																																								
Jacobabad	6-25	28	8	4	2	1				7	5	28	5	3	3	1			1	9		27	3	2	4	1	3	1	3	2	4	25	4		2	1	3	1	4		1
Φ = 28° 17′ N ...	26-50								1				3	1					1	1			2					1										5	1	1	
λ = 68° 29′ E ...	51-75																												1										1	1	
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	28	1			1	1		1	8	16	27	8			1	2		2	5	2	27	5		1	1	2	2		8	3	27	2	2	2	5	2	2	2	3	3
Φ = 32° 56′ N ...	26-50																1			6			1			1				3						3		1			
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	28	6	5				1	2	1	9	28	9	4					2	3		27	2	6	5	1	1	2				25	5	2		2	3		1	1	2
Φ = 24° 53′ N ...	26-50							1		3				3				1	2	3			2		1				4	2			3			1		1	1	1	
λ = 67° 07′ E ...	51-75												1																1										2		
Hs = 28 metres ...	> 75																																								
† Lahore	6-25	28	2							3	23	27	4		1	1	1	2	6	5	1	27	5	1	1	1	2	3	5	5	1	25	1	2		1	2	4	4	6	2
Φ = 31° 35′ N ...	26-50												1							5			1							1			1				1		1		
λ = 74° 20′ E ...	51-75																						1																		
Hs = 224 metres ...	> 75																																								
♣ Multan	6-25	27	1		1	2	1			1	20	26	3		1	4	3	1	2	4	2	26	5	2			1	6	3	2	2	25	2		2			1	9	1	
Φ = 30° 12′ N ..	26-50								1				1			2		1		1			1	1				1		1			2	1					3	2	
λ = 71° 31′ E ...	51-75												1											1																1	
Hs = 124 metres ...	> 75																																				1				
Peshawar	6-25	28	1			3	4	3	1	1	15	27	5		1		2	1	2	6	9	27	2	2	1			2	3	14	3	27	11	3	1	1		2	1	6	1
Φ = 34° 01′ N ...	26-50												1																										1		
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								

† On one day cloud height and visibility observations could neither be measured nor estimated.
♣ On two days cloud height and one day visibility observations could not be recorded.
+ On three days cloud heights could neither be measured nor estimated.
♣ Visibility observations were not recorded throughout the month.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	6										1 — 8					1	3	5			18											Chittagong
26-50								1	3																1	1	5	20				
51-75									2																							
> 75											7 or 8					1	3	1			7											
6-25	3							2			1 — 8							1	1		11											Dacca
26-50								1																			3	10				
51-75											7 or 8							1			2											
> 75																																
6-25	9	1				1		4	1		1 — 8										25											Dalbandin
26-50							1	1																3	1	3	6	12	3			
51-75											7 or 8										2											
> 75																																
6-25	25	12	4		1	2	1			2	1 — 8		1			1		1	3		22											Drosh
26-50		3																								N	1	L				
51-75											7 or 8		1			1		1			7											
> 75																																
6-25	11		1				1	1	3	1	1 — 8										28											Jacobabad
26-50							1	2																			1	27				
51-75								1			7 or 8										2											
> 75																																
6-25	22	2	4	1	1	4	2	2	2		1 — 8							2			26											Jhelum
26-50		1			1	2																					6	22				
51-75											7 or 8							1			2											
> 75																																
6-25	22	1	2	1		1	3	2	1	1	1 — 8							1	1		26											Karachi (Drigh Road)
26-50		1					1	2	1																		1	23	4			
51-75							1	1	3		7 or 8																					
> 75																																
6-25	23	3	2		1	2	4	4	4		1 — 8						1				26											Lahore
26-50								1	1																		1	26				
51-75							1				7 or 8										2											
> 75																																
6-25	19	2				1	2	2	1		1 — 8						1				25											Multan
26-50		3					2	2	3															1			2	22	2			
51-75						1					7 or 8										2											
> 75																																
6-25	26	4	3	3	2	2	2	2	1	1	1 — 8						1	1	1	2	23											Peshawar
26-50			1		3			1	1																		9	13	6			
51-75											7 or 8										3											
> 75																																

Registered No. S - 1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month March 1950

Supplement to the monthly Weather Report, March 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents, while data for table 4 are obtained from special ascents at 06 G.M.T. during norwester period only. They are classified under four sets of tables according to the times of their commencement Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. The ascents taken during norwester period at about 0600 G.M.T. commencing from 15th March to 15th June at East Pakistan Stations are classified as "forenoon". Ascents taken at about 0900 hours G. M. T. are classified as "afternoon" Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified as "Morning", "forenoon," "After-noon". and "Late-night", are 0300, 0600, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—φ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C = the number of observations when the speed of wind is 5 km hr. or less and n = number of observations

Tables of Frequency of Heights of base of low clouds: Tables 2, 5, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 6, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables Nos. 2, 3, 5, 6, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m	1,500 to 1,999m	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August 1955

S. N. NAQVI.

Director,

Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27′ metres ...	6-25 26-50 51-75 > 75	31		2	1	1		1	3		23	31	2	3	1	4 1		4 1	7 1	4	3	27	2	2	1		1	2 1	5 4 1	1 4	3	25	1					2 1	3 9 2	6 1	
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	31	1	4			3	6	1	1	15	31	4	5 2	4 2	2	2	2 4	3	1		31	1	6 2	5 1	2		1 2	3 1	5 1 1		26	4	1	1	1	2	2 1 1	1 4 1	6 1	
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	31	2	1	1	5	1				21	29	8 1	6 1	2	5 1	3				2	27	5 6				1	4 1	3 1	3 2	1	28	1				2	2 1	2 2	4 11 2	1
*Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	31	4	2		4	2	4	3	3	9	30	7	2	2	3	5 1	2 1	4 2	1		27	5 1	1	1	1	2	3 1	1 1	7 1	2	23						2 2	3 6	2 8	
*Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31		3	1	1	1	1			24	29		11 2	6	1	1 1	3	2	2		29		9 1	6	1	2	2	2	1	5	29	2 2			2		1 1	4 4 1	2 3 1	4	2
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31		2							29	23		5	2	3		1	1		11											23	4	15			1				3
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1420 metres ..	6-25 26-50 51-75 > 75	31		1				8	4		17	28		3	1	1	1	11	5 1	1	4											28					2	2 2	14	6	2
†Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres ...	6-25 26-50 51-75 > 75	31	5	2	12	3	2	1		3	3	31	2 5	1	7 6	4 1	1		1	3		31	1 2	3	3 1	2 1	3 2	1	3 1	2 2	4	31	1			1	1 1	6 4	7 3	2 2	3
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31	2	1				2	1	11	14	30	7	2	2	1	1		2 1	9 4	1	30	3 2	2	2 3	3	1		1	8 4	1	29	4 1		4	3	3 1	3 1	1	6 1	1
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31	2	8				3	3	6	9	31	3	5 4	1				5 6	2 3 1	1	31	5 2	2	1 2		3		3 4 1	3 4 1		26	2	2		2 1	4 1	1 2	4 4	2 1	
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31	2 1	12	1	2	3	2		1	7	30	2 4	4 5 1	4 2	3	3	1 1				30	3 1	5 3	2 2	1 2	1	2 1	1	5 1		29	2 1	1		3	2	3 1	4 3	6 1 1	1
†Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	2	2	1			1		1	24	31	5 4	2 1 1	3 2			2	1 1	8 1		30	4 1	2	2 1	1 1		2	2	8 5	1	28	2	1	1	3	2 1	2 1	5	6 3	1
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31	4	3			1			2	21	31	6 4	4 4	2 1	1 2	3 1	1	1	1		31	4 1	7 2	1 1	3	2	3 1	2	4		31	4 1		1	1	1	4 3	11	4 1	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31	1	1		1				1	27	29	4	1	4	4	2	3	4	4 2	1	28	4 2	1		1		2	6	6 1 1	4	28	10 1	1		1	1	3	1	9 1	
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31	1		3 1	7	1	2	1		15	29	2		4	9 1	1	1 2	4 1	2	2											29			1	3 2	3	7 1	4 1	4	3

* On one day cloud observations could neither be measured nor estimated.

† On two days cloud observations could neither be measured nor estimated.

† Cloud heights were not recorded throughout the month.

peed mit km. hr.)	3.0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
6-25	20						1				1 — 8					2	3	1	2		23											Bogra
26-50							1	7	3																							
51-75								5	2																			18	12	1		
> 75									1		7 or 8					2	1				4											
6-25	21				1		3	4	1	1	1 — 8								2		29											Chhor
26-50		1					6	3	1																							
51-75																									1			2	2	26		
> 75											7 or 8										7											
6-25	19						2	5	2		1 — 8					1	4	3		1	22											Chittagong
26-50								4	3																							
51-75							1	1	1																		7	23	1			
> 75											7 or 8						1				6											
6-25	18								1		1 — 8				1	3	3				23											Dacca
26-50							2	4	5																							
51-75								3	3																		2	28	1			
> 75											7 or 8					1					1											
6-25	25						3	4	2		1 — 8						1	1	3	1	24											Dalbandin
26-50							2	8	2																							
51-75							1	1	1															1		6	9	13	2			
> 75								1			7 or 8																					
6-25	20	8		1		1					1 — 8				5	3	1	2	3		17											Drosh
26-50		10																														
51-75																										1	9	1	17	3		
> 75											7 or 8						1	2			18											
6-25	27	1				1		4	4	1	1 — 8							1	1		29											Fort Sandeman
26-50							1	4	10																							
51-75								1																				20	11			
> 75											7 or 8										6											
6-25	29						4	2	3		1 — 8																					Jacobabad
26-50						1	2	10	5																							
51-75						1		1																			3	16	12			
> 75											7 or 8																					
6-25	29	3	1	2	3	1	1	4	2	1	1 — 8						1	3	9		18											Jhelum
26-50					2	3		3	2																							
51-75							1																					7	14	10		
> 75											7 or 8										8											
6-25	23		1	1		2	1	6			1 — 8					2	2			1	26											Karachi (Drigh Road)
26-50							3	5																								
51-75								2	1																			8	22	1		
> 75								1			7 or 8										7											
6-25	28	1	1			1	2	4	2		1 — 8							4	2		25											Khanpur
26-50		1				2	2	8	2																	2	25	4				
51-75								2																								
> 75											7 or 8										7											
6-25	25	1	1	2	1	3	4	3	2		1 — 8						1	1	2	1	24											Lahore
26-50						1		3	4																							
51-75																											8	21	2			
> 75											7 or 8						1	1	1		8											
6-25	29	1					1	7	5		1 — 8						1	1	2		27											Multan
26-50							1	9	2																		2	27	2			
51-75								3																								
> 75											7 or 8										4											
6-25	28	2	5	1	1	3	2	3	4	3	1 — 8				1	1	1	1	12	2	13											Peshawar
26-50			1			1			1																							
51-75								1																			2	4	20	5		
> 75											7 or 8																					
6-25	27	1				2	3	2	2		1 — 8				1	2	1	2	3	5	17											Samungli (Quetta)
26-50						2	1	7	2																							
51-75							1	1	1																		1	9	17	4		
> 75											7 or 8				1	1					2											

TABLE— 4 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
Bogra	6-25	17				1			4	1	11	17	1	1	1	1	1	1	5	1	3	17			1		1		6	1	1	12						1	1	1
Φ = 24° 51′ N ...	26-50																		1	1								1	3	3								1	5	1
λ = 89° 23′ E ...	51-75																																						1	
Hs = 27 metres ...	> 75																																							
* **Chittagong**	6-25	17	3	1			1	5			7	17	4	1		1	2	2	4	1	1	17	3				2	3	6	1		8						1		
Φ = 22° 21′ N ...	26-50												1											1														1	4	1
λ = 91° 50 E ...	51-75																						1										1							
Hs = 21 metres ...	> 75																																							
+ **Dacca**	6-25	17	1	1	2	1		4	2	5	1	14			2		1	3	4	3		14	1	–	1	1	–	2	3	4	1	8						2	1	
Φ = 23° 47′ N ..	26-50																			1										–									3	1	
λ = 90° 23′ E ...	51-75																													1									1		
Hs = — ..	> 75																																								

* Cloud and visibility observations not recorded.

+ Visibility observations not recorded.

FREQUENCY (FORENOON)

TABLE—5 FREQUENCY OF LOW CLOUD HEIGHTS (FORENOON)

TABLE—6 FREQUENCY OF VISIBILITY (FORENOON)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	8							1	2		1 — 8							3	1		13											Bogra
26-50								2																				2	15			
51-75								1	1		7 or 8										1											
>75								1																								
6-25	3										1 — 8																					Chittagong
26-50									1																							
51-75							1	1			7 or 8																					
>75																																
6-25	5										1 — 8					1	1	3	2	2	8											Dacca
26-50								2																								
51-75								3			7 or 8																					
>75																																

TABLE—7 WIND

STATION.	Speed limit (km. hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N λ = 89° 23′ E Hs = 27 metres	6-25 26-50 51-75 > 75	31	–	1	–	1	4	1	7	4	13	31	–	1	–	3	4	2	9 3	5 1	3	31					4	4 1	12 2	4 2 1	1	30						3 3	3 13 2 1	2 2 1	
Chittagong Φ = 22° 21′ N λ = 91° 50′ E Hs = 21 metres	6-25 26-50 51-75 > 75	31	1	1				12	4	5	8	31	2	1	2	–	2	6	11 2	2 2	1	31	4 2	1 1			4	3	5	9 1	1	28	2 3					1 1	7 4	5 5	
✝ Dacca Φ = 23° 47′ N λ = 90° 23′ E Hs = —	6-25 26-50 51-75 > 75	31	1	2	1	1	4	2	6	7	7	29	2	2	–	–	4 1	5	6 1	7 1	–	28			1		4	4	8 3	6 1	1	18					1		4 4 1	3 5	
✱ Dalbandin Φ = 28° 54′ N λ = 64° 26′ E Hs = 855 metres	6-25 26-50 51-75 > 75	31		3	3		3 1	4	2 4	2	9	26		3	4	1	4	7 2	2	1	2											24	3	2			1 1	3 3	9		2
Drosh Φ = 35° 34′ N λ = 71° 47′ E Hs = 1512 metres	6-25 26-50 51-75 > 75	31	2	5				6			18	29	2	7	1	1		7			11											29		9	1		3	6			10
Fort Sandeman d) Φ = 31° 21′ N λ = 69° 27′ E Hs = 1410 metres	6-25 26-50 51-75 > 75	31		1				10	7	2	11	28	1				1	10 1 1	9	2	3											27		1			4	8 2	9	1	2
✝ Jacobabad Φ = 28° 17′ N λ = 68° 29′ E Hs = 63 metres.	6-25 26-50 51-75 > 75	31	1	2	3	4	3	2	1	2	13	31	1	3	7	7	2	3	2	2	4	31	3	2	6	6	4	3	– 3	2	2	31	2	1	1	1	3	7 2	3 2	7	2
Jhelum Φ = 32° 56′ N λ = 73° 44′ E Hs = 240 metres	6-25 26-50 51-75 > 75	31	2	1	2				1	5	20	30	4 1	1	1 2	2	1	1	4 1	10	2	29	1 1	1	3	4 1	1		4	8	5	28	1	1	1	4 1	1 1	5	5 1	4	3
Karachi (Drigh Road) Φ = 24° 53′ N λ = 67° 07′ E Hs = 28 metres	6-25 26-50 51-75 > 75	31		6		1		11 1	3 1	1	7	31	1	4	2 1	2	2	6 3	4 4	1 1		31	1	4 1	2 1	2 2		1	8 2	3 3	1	31	1	2	2	– 1	2	4	6 5 3	3 1	1
Khanpur Φ = 28° 39′ N λ = 70° 41′ E Hs = 94 metres	6-25 26-50 51-75 > 75	31	3	8	2		1	3	2		12	31	6	8 1	4			3	2 1	1	5	31	2	4 1	8 1	2	1	4	2 2	1	3	30	2			1	1	3 4	12 1 1	3 1	1
✝ Lahore Φ = 31° 35′ N λ = 74° 20′ E Hs = 224 metres	6-25 26-50 51-75 > 75	31	2	2	2	4			6	5	10	31	5	1	5	2		2	5	6 1 1	3	31	5	1	2	2 1	2	1	3	14		31		1	2		5 3	1 2	7	6 4	
Multan Φ = 30 12′ N λ = 71° 31′ E Hs = 124 metres	6-25 26-50 51-75 > 75	31	6	2	1			3	1	3	15	31	9	3	2	7	3	4	1	4	3	31	2	3	6	4	1	4	4	3	4	31			1	1	2	7 2	6 8	3 1	
Peshawar Φ = 34° 01′ N λ = 71° 35′ E Hs = 368 metres	6-25 26-50 51-75 > 75	31	7	3						3	18	31	11 2	4	4		1	1		1	7	31	8	4	1			1	1	10	6	29	4 1		2	1 1	3	1	7	6 1	2
Samungli (Quetta) Φ = 30° 15′ N λ = 66° 53′ E Hs = 1602 metres	6-25 26-50 51-75 >75	31	4			3 2	2	5 1	6 1	3 2	2	29	1	2	1	2 1	2 1	3 – 1	8 2	2 1	2											29	1	1	1	3 1 1	1	6 2 1	5 1	4	1

✝ On three days cloud heights could neither be measured nor estimated.

✱ On four days cloud heights could neither be measured nor estimated.

✝ Cloud heights were not recorded throughout the month.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3,0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	28							2		1	1 — 8						2	8	4	1	16											Bogra
26-50							2	10	4																			4	26	1		
51-75							1	4	2																							
>75								2			7 or 8										1											
6-25	24		1			1	1	3	5		1 — 8						3	5		1	22											Chittagong
26-50								8	5																			19	12			
51-75																																
> 75											7 or 8										5											
6-25	18	1						1			1 — 8					1	5	4	3		15											Dacca
26-50							1	8	5																		1	16	11	3		
51-75								1	1																							
> 75											7 or 8																					
6-25	24	1				1	5	2	2		1 — 8							1	10		16											Dalbandin
26-50							3	4	4														1	3		5	6	12	4			
51-75							1	1																								
> 75											7 or 8																					
6-25	25	6	4			6	4			4	1 — 8				2	1	1	3	15	2	7											Drosh
26-50							1																				2	3	4	18	4	
51-75																																
> 75											7 or 8				1		1	2	3	1	21											
6-25	27		1			1	7	5	3	3	1 — 8						2	1	4	3	21											Fort Sandeman
26-50							2	2	1																			14	17			
51-75								1																								
> 75							1				7 or 8						1			1	10											
6-25	29					2	4	5	3		1 — 8																					Jacobabad
26-50							6	4	2																		2	7	22			
51-75								3																								
> 75											7 or 8																					
6-25	27	1	1		2	4	4	3	4		1 — 8						1	2	10		18											Jhelum
26-50				2		3	2		1																			1	21	9		
51-75																																
> 75											7 or 8										14											
6-25	27	2				1	2	3			1 — 8					4		5			22											Karachi (Drigh Road)
26-50							3	10	1																		1	6	23	1		
51-75							1	3																								
> 75									1		7 or 8										2											
6-25	28	1					2	4	2	1	1 — 8								5	4	22											Khanpur
26-50							2	14	2																	5	19	7				
51-75																																
> 75											7 or 8										3											
6-25	27	1			1	4	3	5	2		1 — 8								2	2	24											Lahore
26-50						2	1	6	2																			16	12	3		
51-75																																
> 75											7 or 8										8											
6-25	31					2	3	8	-		1 — 8						1	4			26											Multan
26-50							4	12	1																			30	1			
51-75							1																									
> 75											7 or 8										5											
6-25	26	3	1	1	1	2	4	7	3	1	1 — 8						1	7	20		3											Peshawar
26-50						2		1																				5	20	6		
51-75																			1													
> 75											7 or 8																					
6-25	24				1		6	5	2		1 — 8					1	2	4	3	10	11											Samungli (Quetta)
26-50				1		1	4	3	1																		1	12	13	5		
51-75																																
> 75											7 or 8					1	1			2												

STATION	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
ϕ Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	1									1	1		1								1	1								1							1		
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	31	8	1	1	2		2			17	31	9 1	2 3	1	3	3 2	5	1	1		29	8 5	1			2	6 1	1 1	3 1		18	2 2	1				2	1 2	2 6	
ϕ Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 > 75	28		1	1		4	5 1			16	24	1		1 1	1	4 4	2 4	2 1	3		23	2	1			1	4 3	4 4	2 2		17					1	4 7 1	4		
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	8	1			2	1				4	7	1	1	3		1	1				7	1	1	3		1	1				7			1 1			1	3		1
ϕ Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31		1	1	2					27	27		4	1	2	2	2			16										27	4	12	1	1	1	1			7
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres	6-25 26-50 51-75 > 75	31	2	5	3	1	1	1	3 1	2	12	22	2	6 1			1	1	4 1	2	4										22	2 1		2		3	3	2 1	4 2	2
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31	6	2	4	3		2	1	6	7	31	6 3	2	2 1	4	3	2	1	2 2	3	31	2		4	4	3 1	5 1	2 1	1 3	4	30	1 1				2 2	8 5 2	5 2	1 1	
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31	2	1	2	2			2	5 1	16	26	7 1		3 1	3		1	1	5 5 1		27	2	1	3 1	2 1	1		3	11 1	1	26	1		3 1	4	1	6	3	5	2
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31	2			1		6 1	3	9	9	30	3	1		1		1 1	5 5	9 4		30	3	2 1			1	1	7 6 1	3 3	2	28	1 1	2		4 1	1	4	3 5 1	1 2	2
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	22	1	7 3	1	2	3	1	1	1	2	22	2	4 3 1	2	1	1	1	1 2	1	1	21	1	3	2 1	1	1	3 4	1 2 1	1		18	1			1		6 2 1	1 3	3	
✱ Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	3	5	1					2	20	30	3 3 1	4 3	1 1	3		2	2	6 1		30	3 1	4	1 1	2 2	2	1		12 1		29			1		1	8 2	5 1	7 2	2
✱ Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31	5	5	2	2				2	15	29	5 3	1 1	4 4	4 1 1	1 3			1		29	2 1	3 1 1	7		1 1	3 1	3 1	1 1	2	27	1				1	4 3 2	7 3	3	3
✱ Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31	2			1	3	5		1	19	29	7		2	1	3	3	2	6 1	4	29	6	3	1	1	1	2	1	10 1	3	27	7	3		1	5	4	1	4	2
+ Samungli (Quetta) .. Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31		2	2	9 2	1	3 1	4		7	8				1	1	1	5													8				1	1		5 1		

✱ On one day cloud observations could neither be measured nor estimated.

+ On two days cloud observations could neither be measured nor estimated.

ϕ Cloud heights and visibility observations were not recorded throughout the month

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
6-25	1										1 — 8																					Bogra
26-50								1																								
51-75																																
>75											7 or 8																					
6-25	10							2	2	1	1 — 8						4	4		1	22											Chittagong
26-50								2	1																							
51-75									2																		5	26				
>75											7 or 8										1											
6-25	6										1 — 8																					Dacca
26-50								1	1																							
51-75								1	2																							
> 75								1			7 or 8																					
6-25	2						1		1		1 — 8										8											Dalbandin
26-50																																
51-75																										1	1	6				
> 75											7 or 8																					
6-25	26	9	4	1	2	2	1		1	4	1 — 8				3		2	2	4	1	19											Drosh
26-50		1				1																										
51-75																																
> 75											7 or 8										13											
6-25	21		1				2	8	1		1 — 8						1		1	1	28											Fort Sandeman
26-50		1					2	2	4																			28	3			
51-75																																
>75											7 or 8								1	1	11											
6-25	25	1					3	6	2	1	1 — 8																					Jacobabad
26-50							3	6	1																							
51-75							1	1																				36				
> 75											7 or 8																					
6-25	25		1	2	2	5	6	4			1 — 8						1	4	1		25											Jhelum
26-50					1			1	3																1		9	2[illegible]				
51-75											7 or 8								1		9											
> 75																																
6-25	21		2			3		5	1		1 — 8					2	3				26											Karachi (Drigh Road)
26-50		1					3	2																				23	6			
51-75								1																								
> 75								2	1		7 or 8										2											
6-25	11						2	1	2		1 — 8							1	3		18											Khanpur
26-50							3	2	1																	5	11	6				
51-75																																
> 75											7 or 8										3											
6-25	26		1		1	1	6	6	4		1 — 8						1	1	3		25											Lahore
26-50								2	5																			31				
51-75																																
> 75											7 or 8										7											
6-25	18						1	3	1	2	1 — 8							5	1		24											Multan
26-50							2	7	1																		3	26	2			
51-75							1				7 or 8										2											
> 75																																
6-25	25	1	3	4	3	2	3	2	1	3	1 — 8						1	5	7	2	15											Peshawar
26-50					1		1		1																			24	7			
51-75																																
> 75											7 or 8																					
6-25	3										1 — 8					6	2		2	3	16											Samungli (Quetta)
26-50							1	1	1																	2	2	19	7	1		
51-75											7 or 8					2	1				3											
> 75																																

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month April 1950

Supplement to the monthly Weather Report, April 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents, while data for table 4 are obtained from special ascents at 06 G.M.T. during norwester period only. They are classified under four sets of tables according to the times of their commencement Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. The ascents taken during norwester period at about 0600 G.M.T. commencing from 15th March to 15th June at East Pakistan Stations are classified as "forenoon". Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified as "Morning", forenoon," "After-noon", and "Late-night", are 0300, 0600, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—Φ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 5, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 6, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables Nos. 2, 3, 5, 6, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August..... 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
Bogra	6-25	30		1	2	7	2	6	1		11	30			1	7	5	4				27		1	2		1	2	1			14				1		3		2
Φ = 24° 51′ N ...	26-50														1	3	2	4	3							2	3	3	6									3	1
λ = 89° 23′ E ...	51-75																												4	2									2	2
Hs = 27 metres ...	> 75																																							
Chhor	6-25	30	4	5				12			9	30	1	5	1		2	4	5	1		30	4	1	2		1	3	3	2		26	5			3	1	3	4
Φ = 25° 31′ N ...	26-50												2	1	2			5					4	1			1		3	2			1			1	1	4	3
λ = 69° 50′ E ...	51-75																	1											2										
Hs = 7 metres ...	> 75																												2										
Chittagong	6-25	30		1	1	11	2				15	30	1	3		9	15			1	1	28	2		1		1	7	2	4		19	3		1		2	3	5
Φ = 22° 21′ N ...	26-50																						1				7	3										2	3
λ = 91° 50′ E ...	51-75																																							
Hs = 21 metres ...	> 75																																							
Dacca	6-25	29			2	2	3	11	5	1	5	26			2	2	10	3	1	1	1	18	1		1	1	1	1	5	3		6					1	1	1
Φ = 23° 47′ N ...	26-50																4	1	1								2	2	1									2	1
λ = 90° 23′ E ...	51-75																																							
Hs = — ...	>75																																							
Dalbandin	6-25	30	1	5	2			3	2		17	30	1	6	13	1		4		1		30	1	6	13	2	1		4		1	30	6	1	2			2	2	7
Φ = 28° 54′ N ...	26-50														2		2											2					3					3		
λ = 64° 26′ E ...	51-75																																1							
Hs = 855 metres ...	> 75																																							
Drosh ...	6-25	30	1	6	1			2			19	27	2	5	4			1			14											27	3	15	2			1		
Φ = 35° 34′ N ...	26-50			1										1																				1						
λ = 71° 47′ E ...	51-75																																							
Hs = 1512 metres ...	> 75																																							
Fort Sandeman	6-25	30		2				10	4	4	10	28	2	2			1	11	4	4	3											30	4	3			3	4	11	3
Φ = 31° 21′ N ...	26-50																		1																			1		1
λ = 69° 27′ E ...	51-75																																							
Hs = 1420 metres ..	> 75																																							
Jacobabad	6-25	30	9		6	4	1		2	1	4	30	4	2	4	3			2		1	30	2		1		2	1	4	3	1	28	1				4	6	7
Φ = 28° 17′ N ...	26-50		2		1								7		4				1	1			1	1	1	2	1		2	5							2	2	5
λ = 68° 29′ E ...	51-75												1										1							2									1
Hs = 63 metres. ...	> 75																																							
Jhelum	6-25	30	4	2				1	1	11	11	30	5	2	1				9	1		30	6	1	1	2	2	1		7		29	6			1	3	2	4	2
Φ = 32° 56′ N ...	26-50												3					1	7				3	1	1					4			2			1	2			5
λ = 73° 44′ E ...	51-75												1												1															1
Hs = 240 metres ...	> 75																																							
Karachi (Drigh Road)	6-25	30	1	2				6	2	2	15	30	3	4					9	3		30	1	3	2				1	3		23	2	2			2		4	4
Φ = 24° 53′ N ...	26-50									2			1	1					6	1			4						6	5			1		1			3	2
λ = 67° 07′ E ...	51-75																			2									2	1									1	
Hs = 28 metres ...	> 75																						1							1										
Khanpur	6-25	30	3	7	3	2	1		3	3	8	30	1	1	4	1	2		1	3		30	5	2		1	4	2	1	5		29				1	3	9	4
Φ = 28° 39′ N ..	26-50												2	6	1	2	1			4			2	1	2	1			2	1							1	5	4
λ = 70° 41′ E ...	51-75												1																	1										
Hs = 94 metres ...	> 75																													1							1	1		
Lahore	6-25	30	2	3	1					1	23	30	7	2	1	1		1		3	1	30	5	1	1	2	1	1	1	4		29	3			2	1	3	2	3
Φ = 31° 35′ N ...	26-50												2	3	4					5			2		3					7			2			1	3		1	7
λ = 74° 20′ E ...	51-75																									1				1										1
Hs = 224 metres ...	> 75																																							
Multan	6-25	30	5				1			3	21	30	6	3	4			1	2			30	1	4	5	1	3	2		5	1	30	2	1			2		10	6
Φ = 30° 12′ N ..	26-50												3	1	7	1			2				2		1	1		1		2			1			2	1	2	1	1
λ = 71° 31′ E ...	51-75																							1																
Hs = 124 metres ..	> 75																																							
+Peshawar	6-25	30					1	1		1	27	28	3	3	2	2	4	5	3	4	2	28	4	4			2		3	13	2	28	9	1		1	1	1	2	7	1
Φ = 34° 01′ N ...	26-50																																				1	1	1	3
λ = 71° 35′ E ...	51-75																																							
Hs = 368 metres ...	> 75																																							
Samungli (Quetta) ..	6-25	30		2	2	2		2	7	1	14	30	3	1	2	7	2	2	10	1	1											30	3			2	5		5	8	2
Φ = 30° 15′ N ...	26-50																	1																					3	2
λ = 66° 53′ E ...	51-75																																							
Hs = 1602 metres...	> 75																																							

+ On one day cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	9							4	1		1 — 8					4	4	2	2		18											Bogra
6-50							1	2																			4	20	6			
1-75								1																								
> 75											7 or 8					1	3	1	1		6											
6-25	24	2	2				4	5	2		1 — 8										30											Chhor
6-50		1						3	2																		1	1	2	26		
1-75							1		2																							
> 75											7 or 8										1											
6-25	10	1						3	2		1 — 8				1	2	10	5			12											Chittagong
6-50									1																		5	22	3			
1-75									3																							
> 75											7 or 8				1	1		1			3											
6-25	1								1		1 — 8				2	10	4	1			12											Dacca
6-50																												28	1			
1-75																																
> 75											7 or 8				1	4	1	1														
6-25	29	1						7	4		1 — 8								1	1	28											Dalbandin
6-50		1					2		12																	2	5	7	9	4	3	
1-75								1	1																							
> 75											7 or 8										1											
6-25	27	13	2	1		2					1 — 8			1		3	1	1	6	2	16											Drosh
6-50		8					1																				3		27			
1-75																																
> 75											7 or 8			1		1			2	2	10											
6-25	28	1					2	3		1	1 — 8							1	1		28											Fort Sandeman
6-50		4				1	2	5	5																			21	9			
1-75						1			2																							
> 75									1		7 or 8							1	1		4											
6-25	25	2	1			1	3	5	3	1	1 — 8										30											Jacobabad
6-50		1			1		2		5																		2	12	12	4		
1-75																																
> 75											7 or 8																					
6-25	28				1	3		1	7	1	1 — 8							2	5		23											Jhelum
6-50		2			1	2	3	1	6																			6	22	2		
1-75																																
> 75											7 or 8								1		3											
6-25	18	1	1		1	1	3	4	2		1 — 8							1			29											Karachi (Drigh Road)
6-50			1	1				1	2																	1	2	13	14			
1-75																																
> 75											7 or 8										6											
6-25	26						5	7	1	1	1 — 8										30											Khanpur
6-50		1					1	3	5																1	6	17	6				
1-75							1	1																								
> 75											7 or 8																					
6-25	26	1				1	1	1	1		1 — 8										30											Lahore
6-50		3			1	3		5	8																		2	26	2			
1-75									1																							
> 75											7 or 8										2											
6-25	27					1	5	7	1		1 — 8					1		1			28											Multan
6-50					1	1	1	7	3																		4	26				
1-75																																
> 75											7 or 8										2											
6-25	28	2	2	2	1	1	3	2	4	1	1 — 8					2		1	8		18											Peshawar +
6-50		1					2	1	4																			4	18	8		
1-75						1			1																							
> 75											7 or 8										4											
6-25	26					1	1	2	2		1 — 8					1		2	2		25											Samungli (Quetta)
6-50						1	4	2	9																		2	8	14	6		
1-75									4																							
> 75											7 or 8							1														

TABLE—4 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
✱Bogra	6-25	30			2	4	2	6	4	2	9	30			1	4	7	3	3		2	27	1			2	3	5	4		1	12	1					3	3	
Φ = 24° 51′ N ...	26-50								1						1	1		1	5								2	1	8											
λ = 89° 23′ E ...	51-75																		1																				3	
Hs = 27 metres ...	> 75																		1																				2	
+Chittagong	6-25	30				1	4	15	2	2	6	29	1			2	8	4	4		1	24	3			1	9	4	2	1	2	10	1				1	1		1
Φ = 22° 21′ N ...	26-50																4	4		1							2											1	2	3
λ = 91° 50′ E ...	51-75																																							
Hs = 21 metres. ...	> 75																																							
Dacca	6-25	30			1	1	8	8	5	1	5	25				2	7	4	4	2	1	20					4	5	3	1		13	1					2		
Φ = 23° 47′ N ...	26-50						1								1		4										1	4	2										6	1
λ = 90° 23′ E ...	51-75																																							2
Hs = – ...	> 75																																							1

✱ Visibility observations not recorded.

+ Cloud and visibility observations not recorded.

FREQUENCY (FORENOON)

TABLE—5 FREQUENCY OF LOW CLOUD HEIGHTS (FORENOON)

TABLE—6 FREQUENCY OF VISIBILITY (FORENOON)

3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
5						1	1			1 — 8						3	6			21											Bogra
						1	1	1																							
										7 or 8							1			1											
4		1					1			1 — 8																					Chittagong
								2		7 or 8																					
10							2			1 — 8					5	11	2			12							21	9			Dacca
							3																								
							2	1																							
							1	1		7 or 8					2	3															

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
Bogra	6-25	30		2	1			3	5	3	13	29	1	1	2	1	3	4	10	1		27				3	2	2	9		1	20						3	3	1
Φ = 24° 51′ N ...	26-50								2	1									4								1	1	5									2	6	
λ = 89° 23′ E ...	51-75																		2										2										4	
Hs = 27 metres ...	> 75																												1										1	
Chhor	6-25	11		1			1	3	1	2	3	11	1				1	1	2	4	1	11	1				1		4	3		9	1			1	1	3	1	
Φ = 25° 31′ N ...	26-50																		1				1				1										1	1		
λ = 69° 50′ E ...	51-75																																							
Hs = 7 metres ...	> 75																																							
Chittagong	6-25	30					2	18	4	1	4	30		1			4	8	8	1		27	2		1	1	8	2	4	4	2	26	2			1	2	1	3	2
Φ = 22° 21′ N ...	26-50							1									2	4	2								3										3	6	5
λ = 91° 50′ E ...	51-75																																							1
Hs = 21 metres ...	> 75																																							
+ Dacca	6-25	30				3	9	8	2	4	1	24	1		1	2	5	3	3			21					2	7	2	2		17	1					3	1	
Φ = 23° 47′ N ...	26-50					1	1		1							1	6	1	1								3	3	2								1	8		
λ = 90° 23′ E ...	51-75																																						1	
Hs = — ...	> 75																																							
* Dalbandin	6-25	30		3	3	1	3	4	2	2	10	26	1	2	6	2	2	3	4	1	4	26	1	2	6	2	2	5	4	1	4	26	2	1	1	1		5	5	8
Φ = 28° 54′ N ...	26-50								2									1										1										1	1	
λ = 64° 26′ E ...	51-75																																							
Hs = 855 metres ...	> 75																																							
Drosh ...	6-25	30	1	2				3	1		22	27	6	3				4	3		11											27	2	4	1		2	5	3	
Φ = 35° 34′ N ...	26-50							1																													1			
λ = 71° 47′ E ...	51-75																																							
Hs = 1512 metres ...	> 75																																							
Fort Sandeman	6-25	30					2	4	10	5	9	28	1				2	4	8	5	1											28	1		1	1	1	5	8	4
Φ = 31° 21′ N ...	26-50																	3	3																			2	2	1
λ = 69° 27′ E ...	51-75																	1																						
Hs = 1410 metres ..	> 75																																							
Jacobabad	6-25	30	2			2	2	2	1	6	11	30	1		2	4	2	1		6	8	29	3		2	5	2	1	3	5	4	27	2				3	2	8	3
Φ = 28° 17′ N ...	26-50		3							1						1			1	4			1							2			1					2		5
λ = 68° 29′ E ...	51-75																													1										1
Hs = 63 metres. ...	> 75																																							
Jhelum	6-25	30	3			2			2	5	18	29	4		1	2	1	2	7	7	3	29	3	1		2		2	7	9	1	28		1			4	3	2	10
Φ = 32° 56′ N ...	26-50													1		1							1		1	1										1	3			
λ = 73° 44′ E ...	51-75																										1										2			
Hs = 240 metres ...	> 75																																							
Karachi (Drigh Road)	6-25	30		1		5		13	3	2	4	29	2		1		4	7	5	1	1	30	4	2	1			3	5	3	1	29	4	1	1			2	6	4
Φ = 24° 53′ N ...	26-50							2										2	6										5	2			1					1	1	1
λ = 67° 07′ E ...	51-75																												4										3	
Hs = 28 metres ...	> 75																																						1	
Khanpur	6-25	30	2	4	2	1		5	3		12	30	4	5	2		1	8	5	1	3	30	6	3	2		3	3	8	1	2	27	1				1	5	5	5
Φ = 28° 39′ N ...	26-50								1										1									1		1							1	3	3	2
λ = 70° 41′ E ...	51-75																																					1		
Hs = 94 metres ...	> 75																																							
Lahore	6-25	30	3	1		3	1	1	3	9	9	30	1					2	6	12	2	30	4	1			1	2	4	10	1	29	1			1	3	2	7	3
Φ = 31° 35′ N ...	26-50												1		2	1	2			1						3	1			1						1	1		1	7
λ = 74° 20′ E ...	51-75																												1								1			
Hs = 224 metres ...	> 75																																							
Multan	6-25	30	4			1	1	4	2	5	15	30	5	1	1	5	3	3	2	2	5	30	3	2		2	6	4	2	4	4	27				1	1	9	8	5
Φ = 30° 12′ N ..	26-50												2							1			1				1			1								1	1	
λ = 71° 31′ E ...	51-75																																					1		
Hs = 124 metres ...	> 75																																							
Peshawar	6-25	30	7	4		1			2	2	14	28	12	5		3			1		5	28	13	4	1	1				4	2	28		1		3	4	2	4	4
Φ = 34° 01′ N ...	26-50												1							1			1							1								1		5
λ = 71° 35′ E ...	51-75																													1										
Hs = 368 metres ...	> 75																																							
Samungli (Quetta) ...	6-25	30	2				1	3	6	14	1	28	1				1	2	11	6	1											28	1				1	1	11	7
Φ = 30° 15′ N ...	26-50								2	1									4	1																		2	1	3
λ = 66° 53′ E ...	51-75																	1																						
Hs = 1602 metres...	> 75																																							

+ On one day cloud heights could neither be measured nor estimated.

* On two days cloud heights could neither be measured nor estimated.

eed mit km./ hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	16						1	1			1 — 8							5	4		21											Bogra
6-50							2	4	1																	1	4	17	7	1		
1-75								4	1																							
>75								2			7 or 8																					
6-25	9						3	3			1 — 8										10											Chhor
6-50							1	2																			1	1	4	24		
1-75																																
> 75											7 or 8																					
6-25	24		1				1	3	3		1 — 8						3	7			20											Chittagong
6-50		1					2	2	2																			4	20	6		
1-75								2	6																							
> 75									1		7 or 8						1				3											
6-25	14							1	1		1 — 8					6	9	2			12											Dacca +
6-50								2	1																			21	9			
1-75								5	2																							
> 75								1	1		7 or 8					2	1															
6-25	24	3				1	1	2	8		1 — 8								9		19											Dalbandin *
6-50								3	4																							
1-75		1							1															1	4	3	1	5	4	5	7	
> 75											7 or 8																					
6-25	27	6				9	7	1	1		1 — 8			1	1	1		1	15	6	5											Drosh
6-50							3																									
1-75																									1		1	1	3	14	10	
> 75											7 or 8			1		1			5	2	18											
6-25	27		1				3	8	5		1 — 8							1	9		20											Fort Sandeman
6-50						1	2	3	3																			21	9			
1-75							1																									
> 75											7 or 8							1	1		5											
6-25	25	1				1	4	5	3		1 — 8										30											Jacobabad
6-50		1					2	2	4																							
1-75							1	1																			3	3	22	1	1	
> 75											7 or 8										2											
6-25	28	2				4	3	5	4		1 — 8							2	11		17											Jhelum
6-50					1	1	2	2	3																			4	23	3		
1-75						1																										
> 75											7 or 8							1			6											
6-25	27	5	1				3	2	5		1 — 8										30											Karachi (Drigh Road)
6-50		1						4	1																							
1-75							1	3																			2	6	21	1		
> 75							1				7 or 8										3											
6-25	24						2	4	1		1 — 8							1	2		27											Khanpur
6-50		1				1	3	8	2																							
1-75							1		1																1	2	26	1				
> 75											7 or 8																					
6-25	27					3	5	4	2		1 — 8								1	1	28											Lahore
6-50		1				1	1	2	7																		1	11	16	2		
1-75							1																									
> 75											7 or 8										3											
6-25	26						5	4	2		1 — 8							1	1		28											Multan
6-50							5	6	1																							
1-75							1		1																	1	3	26				
> 75								1			7 or 8																					
6-25	28	2	1		2	2	5	5	2	2	1 — 8					1	1	1	22	1	4											Peshawar
6-50						1		1	4																			4	18	8		
1-75									1																							
> 75											7 or 8										6											
6-25	26		1				2	5	3	1	1 — 8					1		2	6	2	19											Samungli (Quetta)
6-50							3	6	4																		3	7	16	4		
1-75									1																							
> 75											7 or 8																					

TABLE—10 WIND FREQUENCY

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
✻ Bogra	6-25	30		1	5	1	4	4		4	10	29	1	3	1		1	1	1			25	3			1	2		2	1		8						1		
Φ = 24° 51′ N ...	26-50													1	2	3	7		5	3						1	2	2	5	3									5	
λ = 89° 23′ E ...	51-75					1																						1	1	1									2	
Hs = 27 metres ...	> 75																																							
Chittagong	6-25	30		1		7	5	1			16	29	2		1	3	11					26	2			1	1	4	1	1	14			1				2	4
Φ = 22° 21′ N ...	26-50													1		4	6	1					2				9	5				1						2	3
λ = 91° 50′ E ...	51-75																																			1				
Hs = 21 metres ...	> 75																																							
✻ Dacca	6-25	29			1	5	3	10			10	21				1	1	2	6	2		10		1			1	1		2	6						2	1	1
Φ = 23° 47′ N ...	26-50																	4	3	2								3		1								1	1
λ = 90° 23′ E ...	51-75																											1												
Hs = — ...	> 75																																							
† Drosh ...	6-25	30		2	2	3	1	2			20	27	1	8	5	1	1	1			10										27	2	14	1			2		
Φ = 35° 34′ N ...	26-50																																							
λ = 71° 47′ E ...	51-75																																							
Hs = 1512 metres ...	> 75																																							
Fort Sandeman	6-25	30	2	2			2	8	5	5	6	23	1		1		2	6	7	4	1										23	2				1	2	9	5
Φ = 31° 21′ N ...	26-50																	1																				2	1
λ = 69° 27′ E ...	51-75																																							
Hs = 1410 metres ...	>75																																							
Jacobabad	6-25	30	6	1	4	1	1	1	2	4	8	30	2		1	2	1	6	1	2	2	30	1	1		1	1	6	3	3	1	27				1	3	8	5
Φ = 28° 17′ N ...	26-50		1							1			4		3				1	3								2		11							2	3	2
λ = 68° 29′ E ...	51-75												2																								1		1
Hs = 63 metres ...	> 75																																							
Jhelum	6-25	30	4	2	1	1		1	2	11	8	27	7	3	3	1				7		27	4	1	2	3		1		6	1	27	1	1		2	3	2	2	4
Φ = 32° 56′ N ...	26-50												2							4			1		1					7			1			1	1	1	4
λ = 73° 44′ E ...	51-75																																							1
Hs = 230 metres ...	> 75																																							
Karachi (Drigh Road)	6-25	30	2					6	4	7	9	30	1	1				1	2	6		30			1			1	4		2	28	3	1		1	3	2	5	2
Φ = 24° 53′ N ...	26-50								1	1									13	5			1						7	3			1					1	2	3
λ = 67° 07′ E ...	51-75																			1									6	2									3	
Hs = 28 metres ...	> 75																												3										1	
Khanpur	6-25	30		9	2	2		4	4		9	30	1	2	4	2	3	5	1	1		30		2	2	4	2	5	6		1	28	1			1	6	5	5
Φ = 28° 39′ N ...	26-50													4	2	1			2	2					1			2	2	3							4	3	2
λ = 70° 31′ E ...	51-75																																					1		
Hs = 94 metres ...	> 75																																							
+ Lahore	6-25	30	2	5		2				1	20	30	5	3	4					5		30	6	1	1	1		1	1	9		30	1	1		1	4	10	3
Φ = 31° 35′ N ...	26-50												3	3	1	1			1	3			1		1	2				6			1			1	2	1	6
λ = 74° 20′ E ...	51-75												1																											
Hs = 224 metres ...	> 75																																							
+ Multan	6-25	30	4	3	2	1	1			1	17	29	2	1	6	3		2	1		2	28	1	1	1	2		8	1	1	6	23				1	4	5	4
Φ = 30° 12′ N ...	26-50		1										3	1	3	1				2			1	1	1					1							4	3	2
λ = 71° 31′ E ...	51-75												1		1											1		1		1										
Hs = 124 metres ...	> 75																																							
Peshawar	6-25	30	1	1		1	3	3		1	20	29	4	3		1	1	2	3	7	5	29	4	3	1		1	3		7	7	29	2	1	3	2	3	3	8
Φ = 34° 01′ N ...	26-50												1							2			1							2					1	2				2
λ = 71° 35′ E ...	51-75																																							
Hs = 368 metres ...	> 75																																							
Samungli (Quetta) ...	6-25	30			4	3	1	2	5	7	6	26	1		1	1	2	3	8	6												25	2		2		2	7	2
Φ = 30° 15′ N ...	26-50								2										2	2																	1	3	5
λ = 66° 53′ E ...	51-75																																					1		
Hs = 1602 metres ...	> 75																																							

+ On one day cloud heights could neither be measured nor estimated.

✻ Cloud and visibility observations not recorded.

† Vigibility observations not recorded.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	4							1	1		1 — 8																					Bogra ✳
26-50								1																								
51-75								1																								
>75											7 or 8																					
6-25	7						1	2			1 — 8					1	11	2	1		15											Chittagong
26-50									4																		1	28	1			
51-75																																
>75											7 or 8						2	1			4											
6-25											1 — 8																					Dacca ✳
26-50	3						1		1																							
51-75									1																							
> 75											7 or 8																					
6-25	27	7	8	1	1	2	3			5	1 — 8				1	2		1	6	4	16											Drosh ✝
26-50																																
51-75																																
> 75											7 or 8				1	2			2	2	11											
6-25	23					1	1	3	8		1 — 8							2	2	1	25											Fort Sandeman
26-50						1	2	3	3																							
51-75								1																				29	1			
> 75											7 or 8							2	2		7											
6-25	14				2		3		6		1 — 8										30											Jacobabad
26-50						1			2																							
51-75																												30				
>75											7 or 8										1											
6-25	26	4			1	1	2	4	2	1	1 — 8							4			26											Jhelum
26-50						2	3	1	4																							
51-75					1																						7	23				
> 75											7 or 8							3			4											
6-25	17	1	1			1	2	2	3	1	1 — 8										30											Karachi (Drigh Road)
26-50		1				1		1	3																							
51-75																											2	26	2			
> 75											7 or 8																					
6-25	15	1			1		2	3			1 — 8								2		28											Khanpur
26-50							3	1	1																							
51-75							1	1	1																	5	17	8				
> 75											7 or 8										2											
6-25	25	2		1	1		2	5	3		1 — 8								2		27											Lahore ✚
26-50		2					2	5	1																							
51-75						1																					30					
> 75											7 or 8										3											
6-25	17	2					1	2	4		1 — 8						1				28											Multan ✚
26-50							2	4	1																							
51-75									1																		4	25	1			
> 75											7 or 8										2											
6-25	26	2	1		1	1	1	8	6		1 — 8					1		5	8	1	15											Peshawar
26-50					1	1	2		1																							
51-75									1																			20				
> 75											7 or 8										6											
6-25	16	1			1		2	2	1		1 — 8				1		1	1	2	3	22											Samungli (Quetta)
26-50					1		2	2	1																							
51-75									3																		3	20	6	1		
> 75											7 or 8				1		1	1			3											

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month May 1950

Supplement to the monthly Weather Report, May 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents, while data for table 4 are obtained from special ascents at 06 G.M.T. during norwester period only. They are classified under four sets of tables according to the times of their commencement Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. The ascents taken during norwester period at about 0600 G.M.T. commencing from 15th March to 15th June at East Pakistan Stations are classified as "forenoon". Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified as "Morning", "forenoon," "After-noon", and "Late-night", are 0300, 0600, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—φ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 5, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 6, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables Nos. 2, 3, 5, 6, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August..... 1955

S. N. NAQVI,

Director,

Meteorological Service, Karachi.

(Price Annas)

TABLE—1 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	31		4	7	9		1			10	31		1 2	10 1	10 1	3	1			2	25		1	2	5 2	3 3 1	4 2 1			1	14				2	3	5 1	2 1		
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	31					6	22			3	29					4 3	8 11	3			25				1	1	3 5 1	6 4	3 1		21	2	3		1	2 1	4 1 1	2 2	1	1
Chittagong Φ = 22° 21′ N .. λ = 91° 50′ E .. Hs = 21 metres ..	6-25 26-50 51-75 > 75	31				7	3	4			17	28			3	14	8 2	1				24		1		3	4 5	7 3			1	20						6	6	7 1	
†Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	25			4	4	7	4		1	5	25		1	5	6	7 3	1		1	1	11				2	5 1	2			1	7						3	3	1	
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31	1	4					6		20	31	1	6	7 1	1		2 1	4 3	2	3											31	3 8		3		1	1	2 4	6 1	2
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31			1						24	31		6	3	2					20											31	4	18	3			1			5
+Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1420 metres ..	6-25 26-50 51-75 > 75	31					1	11	1	1	17	29		1	2	2	1	14	4		5											29	2	2	1	1	1	7 1	10 2	2	
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31	7	2	4	3	6	1	1	5	2	31	3	3	2 1	6	4 2	1 1	1	3 3	1	29	2 3	1	1 1		4	2	4 1	5 5		26	4 2		1 1	1	1	4	3 1	6 1	1
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31		2		1			3	10	15	31	9	1	1 1	1 1	1		1	5 7	3	31	5 2	5 1		1 3	1	1	1	5 5	1	31	3 1			1 1	3 1	2 1	3	9 4 1	1
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 26 metres ...	6-25 26-50 51-75 > 75	31				1		11 1	9 2	1	6	31				1	1	4	10 11 2	1	1	24	1 3						2 7	1 8 1 1		14	1 1	1	1				3	2 3 2	
++Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31	2	10		1	1	13	1	1	2	30	3 4	2 2	1		3	3 7 1	1 1	2		30	4	2 1	2 1	1 1		1 2	3 7 1	2 1	1	28	3	1	2	1		4 2	4 2	5 3 1	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	2	3 1	3	2				2	18	31	6 2	2 2 1	3 3	4	2	2	1	1 2		31	7	1 1	2	3 1	3 1	3	1	6 2		30	4 1	1	2		1 1	4	3	9 2	2
++Multan Φ = 30° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31	7	2		2	2	3		3	12	31	8 4	3	1	1 3	1 3	1 2	2	1 1		30	2	4 3 1	1 1	2	2 1	3 1	1 2	1 4 1		25	3 1	2 1		1		5 1	4 2	3 2	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31		1		4	1				25	31	5	6	6 1	3	2	1	1	3	3	31	7 1	3	1 1			1	1	12 2	2	31	9					1	4	10 4 1	
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31	1		1	6			3		20	31	2	2	2	4	2	3	5 1	5	5											31	2	1		1 1	3	2	4 5	5 2	

※ On one day cloud heights could neither be measured nor estimated.

++ On three days cloud heights could neither be measured nor estimated.

† Cloud heights and visibility observations were not recorded throughout the month

Speed limit (km./hr.)	3.0 km a.s.l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
6-25	14			1		1	3	2	1		1 — 8					6	4	10	2		9											Bogra
26-50							2	2	1																							
51-75								1																			1	22	7	1		
> 75											7 or 8					3	2	4			14											
6-25	18	3	1	1	1		1	2	2		1 — 8				1	5	1				24											Chhor
26-50			1	1				2																								
51-75							2																		1		1	4	3	22		
> 75						1					7 or 8				1	4	1				6											
6-25	16						2	6	2		1 — 8					4	11	6			10											Chittagong
26-50		1						2	3																							
51-75																										1	2	17	11			
> 75											7 or 8					1	5	1			9											
6-25	6				1	1		1			1 — 8																					Dacca
26-50									3																							
51-75																																
> 75											7 or 8																					
6-25	31		1		1		1	4	1		1 — 8										31											Dalbandin
26-50		3					2	7	8																							
51-75		1							1																	2	9	4	9	5	2	
> 75		1									7 or 8																					
6-25	31	10	4	1		1	1			2	1 — 8						2	7	4	1	17											Drosh
26-50		12																														
51-75																													16	15		
> 75											7 or 8										9											
6-25	29	2				1	1	3	4	1	1 — 8								1		29											Fort Sandeman *
26-50		1					1	4	9																							
51-75								1	1																	1	2	25	3			
> 75											7 or 8										4											
6-25	25	2	1			1	3	5	3	1	1 — 8										31											Jacobabad
26-50		1			1		2		5																							
51-75																									1		11	13	4	2		
> 75											7 or 8										1											
6-25	31	1		2	1	1	2	2	6	5	1 — 8							3	6		22											Jhelum
26-50		2	1				1	2	4																							
51-75									1																	3	2	5	21			
> 75											7 or 8										4											
6-25	9	1	1					1	1		1 — 8				1	12	2	2			14											Karachi (Drigh Road)
26-50		1	1			1		1	1																							
51-75																											3	23	5			
> 75											7 or 8					5	1				6											
6-25	18	2			2	1	1	5	1		1 — 8									1	27											Khanpur ++
26-50								3	3																							
51-75																							1	1	5	11	10	3				
> 75											7 or 8																					
6-25	28	3				1	2	3	7	1	1 — 8										31											Lahore
26-50		1					2	3	4																							
51-75									1																		6	24	1			
> 75											7 or 8										2											
6-25	22	2		1			2	7	1		1 — 8									1	27											Multan ++
26-50		1			1		1	5	1																							
51-75																								1	1	1	10	17	1			
> 75											7 or 8																					
6-25	31	7	1				2	6	8		1 — 8								11	4	16											Peshawar
26-50		1					1	2	3																							
51-75																												1	21	9		
> 75											7 or 8										5											
6-25	31					2	5	4	5		1 — 8								2	1	28											Samungli (Quetta)
26-50		1				1		2	8																		4	11	15	1		
51-75								1	1																							
> 75									1		7 or 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
*Bogra	6-25	31			4	5	5				17	31		1	7	11	6	1			2	27			3	8	7	3		1	1	13	1		1		1	1	5		
Φ = 24° 51′ N ...	26-50														2	1										2	1	1										1	3		
λ = 89° 23′ E ...	51-75																																								
Hs = 27 metres ...	> 75																																								
*Chittagong	6-25	31				1	2	20			8	26					5	12	2		1	22	1		1	1	8	8		1	2	13					1	2	3	5	1
Φ = 22° 21′ N ...	26-50																3	3															1								
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
*Dacca	6-25	24	1		1	4	12	3			3	23	1		1	2	10	3				22		1	2		11	4	1			11					1	3	6	1	
Φ = 23° 47′ N ...	26-50															1	5										3														
λ = 90° 23′ E ...	51-75																																								
Hs = ...	> 75																																								

* Cloud heights and visibility observations were not recorded throughout the month.

Speed limits (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	D	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	10							2	3		1 — 8																					Bogra *
26-50							1	4																								
51-75																																
>75											7 or 8																					
6-25	8							2	4		1 — 8																					Chittagong *
26-50									2																							
51-75																																
> 75											7 or 8																					
6-25	9						1	2		1	1 — 8																					Dacca *
26-50								3	2																							
51-75																																
> 75											7 or 8																					

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
✻ Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	31			5	11	1		1		13	30		2	10	8 1	6 1		1		1	29			2	9 2	8 3	3		1	1	21			1	1	1	3 1	7 4	2	
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	31					1	22	2		6	29					3 1	11 6	7 1			28					6 2	7 5	5	2	1	25		2	1	1	3 1	4 1 1	5 1	2 1	2
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ..	6-25 26-50 51-75 > 75	31				1	1	23	4		2	29				1	1 3	14 5	4 1			25	1				6 2	8 2	5	1		22	1		1	1		4 1	5 1	5 1	2
✝ Dacca Φ = 23° 47′ N .. λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	24				6	8	5	1		4	24			1	3 3	7 4	5	1			23		1		2	11 3	3 1	1		1	13				1		2 1	6 3		
✻ Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31		1		2	3	8 1	3 1	3	9	26	1	1	2	3	3 1	4 1	5 1	1 1	2											27	6		1		2	3	7 1	6 1	
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31	1	4		1		3	1		21	30	2	4	1			4	4		15											30	3	10		1	1	8			7
✝✝ Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1400 metres ..	6-25 26-50 51-75 > 75	31			1			6	6 1	1	16	30	2	2			1	9 2	6 3	2	3											30	2	1	1	1	2	3 2	5 4	5	4
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31	4 1		3		2	3	4	1	13	31	6 2	2	2 1		4	5 1	2	5 1		30	3		4	2 1	2	2	8	6 1	1	27	2 1		2	2	1	4	6 1	4 4	
Jhelum Φ = 32° 56′ N λ = 73° 44′ E .. Hs = 240 metres	6-25 26-50 51-75 > 75	31		1	4	1	1		1	3	20	31	1	1	6 1	4	4	4	4	4 1	1	31	2	2	3	4	1	7	2 1	8	1	29	1	1	2	1 1	4	1	8	6 2	2
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31				1	2	16 5	4 1	2		31					3	6 3 1	9 7 2			31	2	2			2	1	1 10	8 5		29	6 1	2		1			4 4 1	4 3 2	1
✝✝ Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31	4	3 1	1	2	2	9 1	3	2	3	31	6	3	1 1	1	1 1	9 2	3 1	1	1	28	3	3	2	2	1	6 1	6 1	1	2	21	2		1		1	9 1	3 1	1 1	1
✻ Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31		1	1	4	1	1	1	5 1	16	30	4	1	2 1	3 1	4	2	6	4	2	30	4		2 1	3 1	1	3	2	8 1	4	26	3		1	1	2	5	6 1	6 1	
✝✝ Multan Φ = 30° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31	4	4			4	5	3	4	7	30	5 2	5	1	1	5	1 1	3	3 1	2	30	5	2 1		3	6	3 1	3	4	2	25		3		1	3 2	4 1	2 1	6 1	1
✝✝ Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31	1 2	11	2						15	31	2 3	13	8 2	1	1				1	30	4 1	6	6 1	4	2			3	3	31	1		1	1	6 1	1	8 1	8 1	2
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31	1			4	1	2	8 3	9 1	2	30			1	1	1	1	8 5 2	8 3												30	1	1		1		2	3 6 1	9 4	2

✻ On two days cloud heights could neither be measured nor estimated.

✝✝ On three days cloud heights could neither be measured nor estimated.

✝✝ On nine days cloud heights could neither be measured nor estimated.

✝ Cloud heights and visibility observations were not recorded throughout the month.

ed hit n./ f.)	3.0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION
-25	15	1					1	3	2		1 — 8					1	6	9	5	3	5											Bogra *
-50							1	6																				10	20	1		
-75								1																								
75											70 or 8							2		1	6											
-25	22	3	3	1		2		6		2	1 — 8								1		30											Chhor
-50				1				2	1																							
-75							1																		2		3	3	2	21		
75											70 or 8																					
-25	21	2					2	5	4		1 — 8					3	8	6	1		13											Chittagong
-50		2					1	1	4																		1	15	15			
-75																																
75											70 or 8						3	1			12											
-25	11				1						1 — 8																					Dacca
-50								5	4																							
-75									1																							
75											70 or 8																					
-25	26	2					3	2	5	2	1 — 8								4		25											Dalbandin
-50						1	1	2	6															2	1	3	6	9	4	5	1	
-75									2																							
75											70 or 8																					
-25	30	10	4			6	4		1	4	1 — 8							3	12	9	7											Drosh
-50							1																					1	1	12	17	
-75																																
75											70 or 8								2	1	10											
-25	30	1				2	6	9	1	2	1 — 8									6	22											Fort Sandeman *
-50						1	3	5																		1	1	25	4			
-75																																
75											70 or 8																					
-25	26	1		1		2	2	4	5	2	1 — 8										31											Jacobabad
-50		2				1		2	3																1		5	12	11		2	
-75		1																														
75											70 or 8																					
-25	28	2		1	1	2	8	5	6	1	1 — 8							3	7		21											Jhelum
-50									2																	3	1	7	17	3		
-75																																
75											70 or 8										2											
-25	28	5		1	3			3			1 — 8					4	2	3	1		21											Karachi (Drigh Road)
-50		2	3				1	2	2																		4	24	3			
-75								3	3																							
75											70 or 8																					
-25	16	1				1	2	2	4		1 — 8							2	1		19											Khanpur * *
-50							3	2	1															3	10	7	5	5	1			
-75																																
75											70 or 8																					
-25	24	3				3		4	6	1	1 — 8								2	1	26											Lahore *
-50							2	3	2															1			7	10	12	1		
-75																																
75											70 or 8										3											
-25	23						3	5	4	1	1 — 8										28											Multan + +
-50		1				1	5	3																1	2		7	19	2			
-75																																
75											70 or 8																					
-25	31	3	2		1	3	2	5	2	1	1 — 8							3	21	1	3											Peshawar + +
-50						2	2	5	3																			3	26	2		
-75																																
75											70 or 8								1		6											
-25	29	2		1		1	5	2	3		1 — 8							2	7	3	19											Samungli (Quetta)
-50								6	8																		2	12	14	3		
-75																																
75								1			70 or 8							1			1											

TABLE—10 WIND FREQUENCY

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
* Bogra	6-25	31		3	2	10	1	1			14	30	1	1	2	4	6	2				27				7	3	5	1			14			2			3	3	2	1
Φ = 24° 51′ N ...	26-50														1	11	2										6	1										2	1		
λ = 89° 23′ E ...	51-75																										3	1													
Hs = 27 metres ...	> 75																																								
Chittagong	6-25	31		1	1	10	2	1			16	26		1	1	6	8	1	1			22	1				2	6	2	1		13	1			1		4	6		
Φ = 22° 21′ N ...	26-50															4	4									1	6	2										1		
λ = 91° 50′ E ...	51-75																										1														
Hs = 21 metres ...	> 75																																								
✕ Dacca	6-25	20		1		7	7	1			4	17	1		1		4	2				12		1			3	2			6				1	1		1	1	
Φ = 23° 47′ N ...	26-50															1	5	3									2	3	1									2		
λ = 90° 23′ E ..	51-75																																								
Hs = — ..	> 75																																								
✕ Drosh ...	6-25	31		5	1	4		3			18	31		4	5	1	1	3			17										31	4	10				5	1		1
Φ = 35° 34′ N ...	26-50																																					1			
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	>75																																								
Fort Sandeman	6-25	31	1	6	1	1		7	3		12	24	3	4	2	2	1	4	4	2	1										24	2		1		2	3	4	7	
Φ = 31° 21′ N ...	26-50																			1												1						2	1		
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ..	> 75																																								
Jacobabad	6-25	31	1	2	4	1	10	5	4	1	1	31			1	1	4	8		3		30		1		1	2	10	2	1	2	28	2	1		1		5	7	8	
Φ = 28° 17′ N ...	26-50								1	1					2		2	4	1	4					1			1	5								1	1	1	
λ = 68° 29′ E ...	51-75																	1											1												
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31	5	4				2	1	10	8	29	7	5	3	2	1		2	5		29	1	3	1	3	3	1	5	5	1	29	3				2	4	8	8	
Φ = 32° 56′ N ...	26-50												2							1					1	1				4			1					1		2	
λ = 73° 44′ E ...	51-75									1										1																					
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31				1		19	2	2	5	30				1		1	9	2		27						1	2			18	1		1	1			4		
Φ = 24° 53′ N ...	26-50							1		1									15									1	11										7		2
λ = 67° 07′ E ...	51-75																		2										9										1		1
Hs = 28 metres ...	> 75																												2	1											
✕✕✕ Khanpur	6-25	31		4	1	1		10	2	3	4	28	1	3	2	2		2	2			28				1		7	2	1		24				1	1	8	4	3	
Φ = 28° 39′ N ...	26-50		1					2	1	1				1				6	4	3				1	1			7	4									4	2		
λ = 70° 41′ E ...	51-75			1														1	1				1							1											
Hs = 94 metres ...	> 75																																								
✕✕ Lahore	6-25	31	4	3		2	2			1	18	30	2	1	1	2	2	2	1	5		30	4	3	1	3		2	1	6		29	2	1				3	6	8	
Φ = 31° 35′ N ...	26-50			1									3	3	2	3	1	1	1				1		1	3		1		3			1					1	3	4	
λ = 74° 20′ E ...	51-75																												1												
Hs = 224 metres ...	> 75																																								
✕✕✕✕ Multan	6-25	31	3		3	1	3	2		1	17	29		3	3	1	4	2	1	2		28		1	1	1	1	5	2	2	2	24	1		1	1	1	4	6	1	
Φ = 30° 12′ N ..	26-50		1										2		1		3	4						1		1		5	1				1	1				6	1		
λ = 71° 31′ E ...	51-75															1		1						2				2													
Hs = 124 metres ...	> 75																	1										1													
Peshawar	6-25	31					3	3	1	1	21	31	5	2	2	2	1	1	6	6	5	31	5	3	1		1	1	3	9	4	31	3	2	1	1		5	7	5	
Φ = 34° 01′ N ...	26-50							1		1										1									1	3									1	3	
λ = 71° 35′ E ...	51-75																																							1	
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31		1	3	5	2	5	1	5	7	29	3		2	1		4	5	8	1											29	2			1	1	2	5	6	
Φ = 30° 15′ N ...	26-50				1				1								2	1	1															1			1	1	4	3	
λ = 66° 53′ E ...	51-75																		1																						
Hs = 1602 metres...	> 75																																								

* On one day cloud heights could neither be measured nor estimated.

✕✕ On two days cloud heights could neither be measured nor estimated.

✕✕✕ On three days cloud heights could neither be measured nor estimated.

✕✕✕✕ On four days cloud heights could neither be measured nor estimated.

✕ Cloud and visibility observations not recorded.

∴ Visibility observations not recorded throughout the month.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	10							1	2	1	1 — 8					2	11	9			8											Bogra *
26-50									2																	1	13	16	1			
51-75									4																							
>75											7 or 8					1	1				8											
6-25	6							2		1	1 — 8					2	14	5			10											Chittagong
26-50								2	1																	3	2	25	1			
51-75																																
>75											7 or 8					1	5	1			9											
6-25	4							1	1		1 — 8																					Dacca ×
26-50									2																							
51-75																																
> 75											7 or 8																					
6-25	29	8	6			4	5		1	4	1 — 8							2	4	1	24											Drosh
26-50			1																													
51-75																																
> 75											7 or 8							2	1	1	9											
6-25	22	1			1		2	4	4		1 — 8								5		26											Fort Sandeman
26-50						1	1	2	3																							
51-75								1																			2	29				
> 75											7 or 8								5		6											
6-25	16	2					7	3	2		1 — 8										31											Jacobabad
26-50								1	1																							
51-75																								1			2	28				
>75											7 or 8										1											
6-25	28		1		1	2	2	3	7	1	1 — 8							2	3		26											Jhelum
26-50		2					1	3	5																2		1	28				
51-75																																
> 75											7 or 8										3											
6-25	6							1		2	1 — 8			1		5	2	1			18											Karachi (Drigh Road)
26-50		2								1																	2	28	1			
51-75																																
> 75											7 or 8					1					2											
6-25	16	4					2	5	1		1 — 8							1		1	26											Khanpur ×××
26-50							1	2	1														2	2	3	14	8	2				
51-75																																
> 75											7 or 8										1											
6-25	25	4				1	1	4			1 — 8						2	1			26											Lahore ++
26-50		2						6	5																		5	24	1			
51-75								1	1																							
> 75											7 or 8										2											
6-25	16	2	1				4	3			1 — 8							1			26											Multan ✗
26-50							2	4																1	3		4	23				
51-75																																
> 75											7 or 8										2											
6-25	30	1		1	1	1	5	6	5		1 — 8							4	12		15											Peshawar
26-50								4	5																							
51-75									1																			26	5			
> 75											7 or 8										6											
6-25	21					1		5	1		1 — 8						1	1	3	1	25											Samungli (Quetta)
26-50							2	3	7																							
51-75		1						1																			7	22	2			
> 75											7 or 8							1	1		2											

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month June 1950

Supplement to the monthly Weather Report, June 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents, while data for table 4 are obtained from special ascents at 06 G.M.T. during norwester period only. They are classified under four sets of tables according to the times of their commencement Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. The ascents taken during norwester period at about 0600 G.M.T. commencing from 15th March to 15th June at East Pakistan Stations are classified as "forenoon". Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified as "Morning", "forenoon," "After-noon", and "Late-night", are 0300, 0600, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—ϕ= Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 5, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 6, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables Nos. 2, 3, 5, 6, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August 1955

S. N. NAQVI,

Director,

Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	30		1	7	8	2				12	25		2	6	9	7 1					19			2 1	2 4	5 1	2	1		1	9			1 1	1	1	2	2 1	
†Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	30					3	27				30					3 5	1 19 2				22					1	4	1 5 2 7	1 1		11			1	1	1 1	1 4	1	1
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	30		1		22	2				5	26		1	2	9 5	4 5					21		1			2	10 5	1 1	1		10				1	2 3 1	1 1	1	
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	29		1	1	13 1	5	4	2		2	20		1	2	4 4	5 1	1 1			1	11			1	1 1	1 3	3 1				4				1	1	1	1	
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30	1		1				2		26	30	5	2	5	1	2	1	10	3	1										30	5 3	2 1	3	2		1	5	4 2	
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	30		2		1					27	29	2	3	2	1		2			19										29	5	10	1			1			
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1420 metres ..	6-25 26-50 51-75 > 75	30		1		2		5			22	30		5	2		1	10	4		8										30	3	1	1	1	1	3 1	7	8	
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	30			14	7	4	1		1	3	30			11 1	11	4 1			1	1	30	4	1		2	1 2	5	6	5 2	2	30	5					2	10	10 2	
Jhelum Φ = 32° 56′ N .. λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30	1		4	3	1		2		19	30	5	3	3 3	8 3 1	1		1	2		30	3 1	3	2	6 3 1	5 1			3		29	2	1	1	1	3	1	5 1	9 1	
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30					2	23 3	1 1			30					1	4 7	8 10			17	1					1	2 9 3	1		1	1								
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30	2	1		1	2	18 2			4	29	1 1			1 1	3 3	4 14 1				28					2	4 9 2 1	9	1		16	1				2	4	6 2	1	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30	1		3	7		5	1		13	30	2 1	5	2 2	5 1	3 1	2 1	1 3		1	30	1 1			3 2	3 2	3 1	9 3	2		28	3		1	1	2	1	5 2	9 2	
*Multan Φ = 30° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30	1	1	1	2	10	11			4	30	1	2		2	5 13	2 4		1		30	1	1 1		1	4 1	7 4 1	4 4	1		21					3	5 2	4 1	3	
†Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30			1	2				2	25	30	9 1	1	4	1	4		2	6 1	1	30	7 3	3	1		1		3	9 2	1	30	3			1	1	2	4 4	4 9 1	
†Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30			6	7				1	16	30	1	1	4	10	1	3	5		5										30	1		2	3	2	7	7	6	

† On one day cloud heights could neither be measured nor estimated.

* On three days cloud heights could neither be measured nor estimated.

† On five days cloud heights could neither be measured nor estimated.

ed nit h./ r.)	3.0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
25	8					1		2	1		1 — 8				1	13	6	5	1	1	3											Bogra
50					2			1	1																	1	1	21	6	1		
-75																																
75											7 or 8					5	2				21											
-25	6			1			1		1		1 — 8					1	6				18											Chhor
-50			1				1		1																							
-75																											2	14	9	5		
75											7 or 8					1	2				6											
-25	6			1		1		2			1 — 8					7	14	1	1	1	6											Chittagong
-50						2																										
-75																											2	19	9			
75											7 or 8					4	4				21											
-25	2						1				1 — 8					1	15	3	1		9											Dacca
-50																																
-75																											1	18	10	1		
75					1						7 or 8					1	6		1													
-25	30	2	2		1	1	2	6	5	1	1 — 8								1	1	28											Dalbandin
-50		3							5																							
-75								1	1																1	2	9	6	7	5		
75											7 or 8																					
-25	29	13				2				1	1 — 8							1	1	1	27											Drosh
-50		13																														
-75																													3	26	1	
75											7 or 8										2											
-25	30	6	3				1	1	9		1 — 8								1	1	28											Fort Sandeman
-50		2					1	3	4																	1	6	16	7			
-75																																
75											7 or 8																					
-25	27	7	1	2	1			1	7	3	1 — 8										30											Jacobabad
-50		1						1	3																							
-75																											7	21	2			
75											7 or 8										1											
-25	22	2	1		1		2	5	10		1 — 8							2			28											Jhelum
-50									1																							
-75																										7	12	5	6			
75											7 or 8										3											
-25											1 — 8					10	14	4			2											Karachi (Drigh Road)
-50																																
-75																											3	27				
75											7 or 8					2	8	2			17											
-25	10		1		1		2	1	2		1 — 8									1	29											Khanpur
-50					1			2																								
-75																							1	1	9	16	3					
75											7 or 8										2											
-25	23	4						9	5	1	1 — 8										30											Lahore
-50		1						1	2																							
-75																										4	18	8				
75											7 or 8										1											
-25	12	1	1		1		1	3	3		1 — 8										27											Multan
-50							1	1																	1	3	20	6				
-75																																
75											7 or 8																					
-25	29	3				1	2	5	3	2	1 — 8								4		25											Peshawar
-50							2	3	7																							
-75									1																		5	15	10			
75											7 or 8										1											
-25	29						2	2	11	2	1 — 8										29											Samungli (Quetta)
-50								5	7																							
-75																										1	1	14	13	1		
75											7 or 8																					

TABLE– 4 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
+ Bogra	6-25	15		1	2	4		1			7	13		1	3	4	2	1				9			1	2	6				4				1			1	
Φ = 24° 51′ N ...	26-50															1																				1			
λ = 89° 23′ E ...	51-75														1																								
Hs = 27 metres. ..	> 75																																						
+ Chittagong	6-25	15				4	4	4			3	15			2	1	1	1	1		1	6				1	2		1										
Φ = 22° 21′ N ...	26-50															1	6										1												
λ = 91° 50′ E ...	51-75																1										1												
Hs = 21 metres. ...	> 75																																						
+ Dacca	6-25	15		1		7	3	2			1	9			1	1	1	1			1	6		1	1		2				3			1	1		1		
Φ = 23° 47′ N ..	26-50					1										1	3										1	1											
λ = 90° 23′ E ...	51-75																																						
Hs = – ..	> 75																																						

+ Cloud and visibility observations were not recorded throughout the month.

FREQUENCY (FORENOON)

TABLE—5 FREQUENCY OF LOW CLOUD HEIGHTS (FORENOON)

TABLE—6 FREQUENCY OF VISIBILITY (FORENOON)

peed mit (m./ hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	2			1					1		1 — 8																					Bogra +
6-50																																
1-75																																
>75											7 OF 8																					
6-25											1 — 8																					Chittagong +
6-50																																
1-75																																
> 75											7 OF 8																					
6-25	2						1				1 — 8																					Dacca +
6-50					1																											
1-75																																
> 75											7 OF 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	30		2	4	9		2			13	27		1	7 3	8 2	1	1 1	1		2	23	1		1 1	4 5 1	5 1		1	1	2	11			1	3		2 2	3		
+Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	30					1	28 1				26					2 1	5 16 2				16			1		3	5 4 1	1 1			13	1	1		2	2 1	1	1	2	2
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	30				7	5	11	1	1	5	25			1	2 3	4 9	4 1	1			17				1 3	3 2 3	1 2	1		1	6			1	2	1		2		
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	30			3	11 1	10	1			4	21	1	1	1 1	3 5	5 4					15		2	1	1 4	3 1 1	1		1		6				1 2	1	1	1		
†Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30	1 2		4	1	3	1	6	1 1	10	28	1 2 1	1	5		3	1 1	5 2	1	5											28	1	1	1	2 1 1	2	4	6 1	3	5
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512, metres ...	6-25 26-50 51-75 > 75	30						13		1	16	30	3	2		1		11	3		10											30	2	5				11 2	2		8
+Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ..	6-25 26-50 51-75 > 75	30	2	1	1		3	2	9	4	8	30	1 1	3	1 1		2	4	9	7	1											29	4				2	7 1	4	6	5
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	30	1		1	4	10				14	30	2		1	5 2	11 1	1	1	1	5	29	3 1	2	1	3	7		4	6 1	1	29	6 2	2			2 1	1	1 1	10 2	1
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30			2	2	1	3		2	20	30	1 1	1	3	8 1	4	9			2	30	1	1	2	9 1	5	2	2	4	3	28	4		2	3	2	1	9	6	1
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30						16 12	1	1		30						7 13 3	2 3 2			24	1 1					2 2	1 10 1	1 5		12	2	1			1		2	1 4	1
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30		1			3	16 7			3	29					6 1	10 7 2 1			2	25					6 2	7 5 3	1		1	11					2	6 1	1 1		
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30		3		2	1	8	2	3	11	30	3	5 1	1	2	2	5 1	6	2	2	30		2	1	3	3	9	4	4	4	28	3 1			1	1	5	9	5	3
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30		1		1	5	18	1		4	30		1		3	5 1	10 8	1		1	30		2		1	15 3	4 1	1 1	1	1	24	2	2	1	3	4 2	4 1	2		3
‡Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30	3	11	2	1					13	30	2 2	16	7	1					2	29	8 1	4	2	3	2			2	7	30	1		1	1	2	6	10	8	1
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30	1					2	9 2	13	3	30			1			3 2	3 4	13 3	1											30	3			1		3	7 6	7 3	

+ On one day cloud heights could neither be measured nor estimated.

† On two days cloud heights could neither be measured nor estimated.

‡ On five days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	7			1	1		1	2	1		1 — 8				1	3	14	12														Bogra
26-50								1																			2	17	11			
51-75																																
>75											7 or 8					1	1	2			23											
6-25	11	2	1	2	2		2	2			1 — 8					1	1	1	1		25											Chhor +
26-50																									4	1	10	7	3	5		
51-75																																
> 75											7 or 8										1											
6-25	2				1				1		1 — 8					10	15	4	1													Chittagong
26-50																											4	15	11			
51-75																																
> 75											7 or 8					4	2				19											
6-25	4						1		1		1 — 8					3	10	9	1		7											Dacca
26-50					2																					1	1	11	15	2		
51-75																																
> 75											7 or 8					2	2	2	1													
6-25	28	3		1		2	5	4	7	1	1 — 8								1	2	25											Dalbandin
26-50		1				1		1	1														1	1	5	3	4	4	6	6		
51-75									1																							
> 75											7 or 8																					
6-25	30	7	1	1		12	3		1	5	1 — 8								10	11	9											Drosh
26-50																													2	11	17	
51-75																																
> 75											7 or 8										1											
6-25	29	2	1			3	5	7	3	4	1 — 8								1	6	22											Fort Sandeman +
26-50							2		2																		3	21	6			
51-75																																
> 75											7 or 8																					
6-25	27	7	1	1			1	5	5	1	1 — 8										30											Jacobabad
26-50		1						1	4																	1	3	14	12			
51-75																																
> 75											7 or 8																					
6-25	26	3	2		1			9	9		1 — 8							1	6		23											Jhelum
26-50								1	1																	7	9	8	6			
51-75																																
> 75											7 or 8																					
6-25	11	2	2					1	2	1	1 — 8					4	8	8			10											Karachi (Drigh Road)
26-50									3																		11	19				
51-75																																
> 75											7 or 8						3	4			7											
6-25	9				1		1	3	3		1 — 8							1	1	1	27											Khanpur
26-50								1															1	3	12	10	4					
51-75																																
> 75											7 or 8																					
6-25	24	4						6	11	1	1 — 8						1	1	1	2	25											Lahore
26-5								1	1																	3	12	10	5			
51-75																																
> 75											7 or 8																					
6-25	17		1	1	2	2	4	2	3	1	1 — 8										30											Multan
26-50								1																			24	6				
51-75																																
>75											7 or 8																					
6-25	29	1					2	13	5		1 — 8							4	13		8											Peshawar
26-50		1					2	5																			6	17	7			
51-75																																
> 75											7 or 8																					
6-25	30	1			1	1	4	10	5	2	1 — 8									8	22											Samungli (Quetta)
26-50								2	3																		4	6	8	12		
51-75									1																							
> 75											7 or 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
*Bogra	6-25	30		1	5	8			1		15	23			5	5	3		1			18			1	2	2				6			2			1	2	
Φ = 24° 51′ N ...	26-50														2	4	2	1								3	6	2	1							1				
λ = 89° 23′ E ...	51-75																								1														
Hs = 27 metres ...	> 75																																						
Chittagong	6-25	30		2		18	1				9	21		2		7	3					14			2			1	1			3				1			1
Φ = 22° 21′ N ...	26-50															6	2									2	7										1		
λ = 91° 50′ E ...	51-75																1									1													
Hs = 21 metres ...	> 75																																						
Dacca	6-25	28			3	8	6				9	16			2	1	1	1				9										4					2		
Φ = 23° 47′ N ...	26-50					2									1	4	6									2	5	1										1	
λ = 90° 23′ E ...	51-75																									1									1				
Hs = — ...	> 75																																						
♦Dalbandin	6-25	30	4	1	2		1		2	5	15	29	7	4	2	2	1		2	7	1											28	4	5	3	1		1	2	2
Φ = 28° 54′ N ...	26-50												1						1	1													2	1				1	2	2
λ = 64° 26′ E ...	51-75																																1							2
Hs = 855 metres ...	> 75																																						
†Drosh ...	6-25	30		2		4		1			23	29		3	2	2		8			14										29	5	8		1		6	1	
Φ = 35° 34′ N ...	26-50																																						
λ = 71° 47′ E ...	51-75																																						
Hs = 1512 metres ...	> 75																																						
Fort Sandeman	6-25	30	1	4	1	4	1	4	1	1	13	29	4	4	2	2	1	6	1	1	6										29	1	3		3	2	8	3	3
Φ = 31° 21′ N ...	26-50															2																			1			1		
λ = 69° 27′ E ...	51-75																																			1				
Hs = 1410 metres ..	> 75																																						
Jacobabad	6-25	30			2	15	7	3				30					2	2				29				1	3	12	3			20			1	1	5	7	4
Φ = 28° 17′ N ...	26-50				1		1	1							2	1	21	2								1	1	7	1										1
λ = 68° 29′ E ...	51-75																																						
Hs = 63 metres. ...	> 75																																						
Jhelum	6-25	30	5	1	3	3	1		1	3	13	30	1	5	4	1		5		4	2	30		1	2	3	4	4	2	4	4	30	2	1	1		4	2	5	6
Φ = 32° 56′ N ...	26-50												2			5		1							1	1	1	1	2								1	2	2	2
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																						
Karachi (Drigh Road)	6-25	30						26	2			30					1	5	9			18						2	4			7	2				1		2	1
Φ = 24° 53′ N ...	26-50							2										8	7									1	7	1									1	
λ = 67° 07′ E ...	51-75																												3											
Hs = 28 metres ...	> 75																																						
+Khanpur	6-25	30	1	2		1	2	18			4	28		1	2			3			1	25				1	2	2		1		11	1			1	5	4	
Φ = 28° 39′ N ...	26-50							2						1		1	3	11						1			2	7	1										
λ = 70° 41′ E ...	51-75																	4									1	5	1										
Hs = 94 metres ...	> 75																	1										1											
Lahore	6-25	30		3	2	3	2	3	2		15	30	3			1	2	4	1	1	1	30	2	2	3		2	7	5		1	28	4	1			4	5	5	2
Φ = 31° 35′ N ...	26-50													2	2	3	1	4	4				1	1	1				5				1					3	3	
λ = 74° 20′ E ...	51-75													1																										
Hs = 224 metres ...	> 75																																						
*Multan	6-25	30			5		9	8	2		5	27			2	1	1	2	1	1		25	1			2	1	2	2		2	16	2				5	3	1	2
Φ = 30° 12′ N ...	26-50				1									1		2	1	5	1					1			1	8									3			
λ = 71° 31′ E ...	51-75																2	7										3	1											
Hs = 124 metres ...	> 75																											1												
*Peshawar	6-25	30	2	1		3	1	2	1	3	17	30	4	5	3			1	4	9	2	30	3	1	2		3	5	2	4	6	30		3	1	1	3	9	5	2	1
Φ = 34° 01′ N ...	26-50																1	1										1	1	2									3	1	
λ = 71° 35′ E ...	51-75																																						1		
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	30		1	3	1		3	4	4	14	30	1					8	10	8	1											29	1			1		1	14	7
Φ = 30° 15′ N ...	26-50														1			1																					3	1
λ = 66° 53′ E ...	51-75																																						1		
Hs = 1602 metres...	> 75																																								
Samungli (Quetta) ...	6-25																																								
Φ = 30° 15′ N	26-50																																								
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.

♦ On two days cloud heights could neither be measured nor estimated.

* On two days cloud heights and one day visibility observations were not recorded.

† Visibility observations were not recorded throughout the month.

♦ Cloud and visibility observations were not recorded throughout the month.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	N	NE	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	1				1						1 — 8					9	9	7	2		1					2	16	11				Bogra
26-50																																
51-75																																
>75											7 or 8																					
6-25	1						1				1 — 8					9	10	4			7											Chittagong
26-50																										1	11	18				
51-75																																
>75											7 or 8					5	1				16											
6-25	2							1			1 — 8					1	8	5														Dacca
26-50							1														14						1	13				
51-75																																
> 75											7 or 8						2	1														
6-25	22	1	4	1			1	5	3		1 — 8																					Dalbandin
26-50		1	1						2																							
51-75		1						1																								
> 75		1									7 or 8																					
6-25	29	13	1			4	4		1	4	1 — 8							1	4	1	24											Drosh
26-50		2																														
51-75																																
> 75											7 or 8										2											
6-25	28					2	9	4	5	1	1 — 8										30											Fort Sandeman
26-50						1	1	1	4																			30				
51-75																																
> 75											7 or 8										1											
6-25	11	1		1			1	2	6		1 — 8										30											Jacobabad
26-50																										1	3	26				
51-75																																
>75											7 or 8																					
6-25	28	5	1			1	1	5	7	1	1 — 8							1	1		28											Jhelum
26-50							1	1	3																		7	23				
51-75																																
> 75											7 or 8										3											
6-25	4	2					1			1	1 — 8					15	7	1			7											Karachi (Drigh Road)
26-50																											2	28				
51-75											7 or 8					5	2				9											
> 75																																
6-25	7						2	2			1 — 8							1			28											Khanpur
26-50							2		1															2	13	12	3					
51-75											7 or 8																					
> 75																																
6-25	23	8					2	3	5		1 — 8								1		29											Lahore
26-50		2						1	2															N	O	T	R	E	C	O	R	D
51-75											7 or 8										1											
> 75																																
6-25	8							4	1		1 — 8										28											Multan
26-50		1					1	1																	3	1	14	12				
51-75											7 or 8																					
> 75																																
6-25	30	2					1	8	4		1 — 8							2	1		25											Peshawar
26-50					1	2	2	6	2																		3	25	2			
51-75								1	1		7 or 8										2											
> 75																																
6-25	23						1	2	8		1 — 8								1		29											Samungli (Quetta)
26-50		1					1	4	6																		3	25	2			
51-75											7 or 8																					
> 75																																

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month July 1950

Supplement to the monthly Weather Report, July 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—Φ= Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan
The August 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	31			14	9	1				7	30			8	8	6					13			1		3				4					1				
Φ = 24° 51′ N ...	26-50														4	3	1								1	4	2	1						1			1			
λ = 89° 23′ E ...	51-75																								1									1						
Hs = 27 metres ...	> 75																																								
+ Chhor	6-25	31	1		1		3	21	2		3	31	1	1	3		2	8				23	1	3			1	5				13		2	5	1		1		
Φ = 25° 31′ N ...	26-50																3	12							1			5	1					2	1					
λ = 69° 50′ E ...	51-75																	1						1				2	2					1						
Hs = 7 metres ...	> 75																											1												
Chittagong	6-25	31			1	18		1			11	22			2	14	3					19					3	1			11			2	1	1			
Φ = 22° 21′ N ...	26-50															3									3		9							2	5				
λ = 91° 50′ E ...	51-75																								1		2													
Hs = 21 metres ...	> 75																																							
✱ Dacca	6-25	30			5	17	5				3	27			1	12	5					14				2	3	1			1								
Φ = 23° 47′ N ...	26-50														2	5	1									3	4												
λ = 90° 23′ E ...	51-75														1											1									1					
Hs = — ...	>75																																							
# Dalbandin	6-25	31				2	3	3	6	1	16	22		1		2	2	2	6	2	2	22	1	1		1	3	1	8		5	21	3	1	2		1	2	4	4	2
Φ = 28° 54′ N ...	26-50																1	1	3									1	1						1			1			
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	31						11			20	31					1	21	1		8											31				2	15			14
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Fort Sandeman	6-25	31	2	8	3		1				17	30	4	14	3	1	1	1	1	2	3											30	2	12	2	1		3			10
Φ = 31° 21′ N ...	26-50																																								
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ...	> 75																																								
Jacobabad	6-25	31	3	1	4	6	9	1	1	2	4	31	4	1	3	9	8	1	2	1	1	31	1	2	11	1	5	5	4		2	30	4	7	3	1		5	2	4	4
Φ = 28° 17′ N ...	26-50																1																								
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres ...	> 75																																								
Jhelum	6-25	31		1	4	7					19	30	2	3	6	11				2	2	30		2	3	15	4				1	21			4	2	4	3	2	3	1
Φ = 32° 56′ N ...	26-50														3	1									1	3	1												2	
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31						20	4		2	30	1			1		1	5			19		1	1		1		3			8		1	1	1				1	
Φ = 24° 53′ N ...	26-50							5										3	18				1						6	3			1	3						
λ = 67° 07′ E ...	51-75																		1										3											
Hs = 28 metres ...	> 75																																								
+ Khanpur	6-25	31		4	2		6	15			4	31	1	4	3		7	10				31	1	5	2		1	5	6		1	27	5	7			1	2	4	1	2
Φ = 28° 39′ N ...	26-50													1			1	4						4			1	1	4				1	3							
λ = 70° 41′ E ...	51-75																																	1							
Hs = 94 metres ...	> 75																																								
Lahore	6-25	31		1	2	10	1		1		16	31	1	1	2	13	2	2	2	1	2	30		1	3	5	9	1	3	1	2	25	3	2	3	4	2	1	2	2	3
Φ = 31° 35′ N ...	26-50													1	1	3										1	2						1		1	1					
λ = 74° 20′ E ...	51-75																								1		1														
Hs = 224 metres ...	> 75																																								
Multan	6-25	31	1	3	4	6	3	4			10	31	2	3	3	8	8	1				31		7	3	4	4	6	3			27	5	10	2		1	2	2	2	1
Φ = 30° 12′ N ..	26-50																2	2		1						1	1	2					1	1							
λ = 71° 31′ E ...	51-75																1																								
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	31	8	2					2	3	16	31	11	3	2			1	3	8	1	30	6	6	1			1	4	6	5	25			2	3	2	7	5	1	5
Φ = 34° 01′ N ...	26-50												1	1											1																
λ = 71° 35′ E ..	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31			4	13	4	1			9	31	1		4	14		1	3	3	4											31		1	2	12	1	10	1	3	
Φ = 30° 15′ N ...	26-50															1																				1					
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres ...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.
✱ On two days cloud heights could neither be measured nor estimated.
On seven days cloud heights could neither be measured nor estimated.

FREQUENCY (MORNING)

TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING)

TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

Speed limit (km./hr.)	3.0 km. a. s. l. D	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
6-25	2					1					1 — 8				1	15	13				2											Bogra
26-50																																
51-75				1																							1	24	6			
> 75											7 or 8					5	3				23											
6-25	13		3	2					1		1 — 8				1	4	7	3	3	1	11											Chhor +
26-50		1	2	3																							1	5	16	9		
51-75			1																													
> 75											7 or 8				1	2	4	1														
6-25	7				1	3	1				1 — 8						9	9	7		6											Chittagong
26-50					1	1																					7	17	6	1		
51-75																																
> 75											7 or 8						7	1			18											
6-25											1 — 8				5	17	5		1													Dacca ※
26-50																											1	20	6	3		
51-75																																
> 75											7 or 8				3	6	2		1													
6-25	15	5	1	1				2	2	2	1 — 8								1	1	22											Dalbandin ✠
26-50				1					1															7	7	17						
51-75																																
> 75											7 or 8										3											
6-25	31	4	3			12	7		1	4	1 — 8							1	21	7	2											Drosh
26-50																												3	20	8		
51-75																																
> 75											7 or 8										1											
6-25	29	2	5	1	1	2	1	6	6		1 — 8							1	1	4	25											Fort Sandeman
26-50		1	1						3																		1	30				
51-75																																
> 75											7 or 8								1		2											
6-25	27	6	5	2					5	1	1 — 8						1			1	29						1	25	5			Jacobabad
26-50		3	2		1				2																							
51-75																																
> 75											7 or 8																					
6-25	18	5	1	3	2			1	5	1	1 — 8						3	6	12		10											Jhelum
26-50																											1	8	11	11		
51-75																																
> 75											7 or 8						1				12											
6-25	4			1				1			1 — 8					6	19	1			5											Karachi (Drigh Road)
26-50			2																								1	30				
51-75																																
> 75											7 or 8					2	7				19											
6-25	21	7	3	5				1	2		1 — 8							3	2	2	23											Khanpur +
26-50			1					1																	4	9	7	11				
51-75			1																													
> 75											7 or 8																					
6-25	23	8	4	2	3	1		1	1	1	1 — 8					1	3	9	5	3	10											Lahore
26-50		1						1																			2	23	6			
51-75																		1			11											
> 75											7 or 8																					
6-25	25	8	7	1				3	2	2	1 — 8						2	1		2	26											Multan
26-50			2																							1	7	22	1			
51-75																				1	3											
> 75											7 or 8																					
6-25	22	2		1	1	4	2	3	6		1 — 8					1		11	11	3	5											Peshawar
26-50							1		2																		2	17	10	2		
51-75																			1	1	12											
> 75											7 or 8																					
6-25	29	4	1	2		1	3	4	4		1 — 8							2	3		26											Samungli (Quetta)
26-50								8	1																		11	19	1			
51-75								1										1			3											
> 75											7 or 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.								
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW
Bogra	6-25	31			7	11	3				10	31		1	9	9	4					29			2	7	3					12				5	2			
Φ = 24° 51′ N ...	26-50														2	5	1								4	11	2								1	2	1			
λ = 89° 23′ E ...	51-75																																		1					
Hs = 27 metres ...	> 75																																							
Chhor	6-25	31		1	1			22	5		2	31	1		1		1	9	1			24	1	1	1	2	4	4	2			10		2	1			1		
Φ = 25° 31′ N ...	26-50													1				13	2					1			1	4	2				2	3	1					
λ = 69° 50′ E ...	51-75																	2										1												
Hs = 7 metres ...	> 75																																							
Chittagong	6-25	31				7	10	11			3	26				4	11	4				16					4					6					1	1		
Φ = 22° 21′ N ...	26-50															1	6									2	8	1									4			
λ = 91° 50′ E ...	51-75																										1													
Hs = 21 metres ..	> 75																																							
Dacca	6-25	31			3	19	6	2			1	28			1	13	6					16			3	2					3				1	2			
Φ = 23° 47′ N ...	26-50															5	3								5	5													
λ = 90° 23′ E ...	51-75																																							
Hs = — ...	> 75																																							
# Dalbandin	6-25	31		1	2			6	7		7	18		1	1	1	3	4	5		1	18		1	1	1	4	4	6		1	18		1	1	1	2	7	5	1
Φ = 28° 54′ N ...	26-50						2	2	2								1		1																					
λ = 64° 26′ E ...	51-75																																							
Hs = 855 metres ...	> 75																																							
Drosh ...	6-25	31						25			5	31						25	2		2											31					3	24		
Φ = 35° 34′ N ...	26-50							1										2																				2		
λ = 71° 47′ E ...	51-75																																							
Hs = 1512 metres ...	> 75																																							
Fort Sandeman	6-25	30	4	2					3	5	16	30	6	3	1				5	9	6											30	4	5	2	2	3	2	2	3
Φ = 31° 21′ N ..	26-50																																	1						
λ = 69° 27′ E ...	51-75																																							
Hs = 1410 metres ..	> 75																																							
Jacobabad	6-25	31		1	3	5	15		1		6	31		1	6	12	10	1				31		1	10	6	12	1			1	30	5	9	3	2	2		2	1	4
Φ = 28° 17′ N ...	26-50																1																1		1					
λ = 68° 29′ E ...	51-75																																							
Hs = 63 metres. ...	> 75																																							
Jhelum	6-25	31	1	3	2	9	3	1			12	29	1	2	2	12	3	3			2	28		1	2	11	3	4	1		3	23	1	1	3	4	4	2	3	4	1
Φ = 32° 56′ N ...	26-50														1	3										3														
λ = 73° 44′ E ...	51-75																																							
Hs = 240 metres ...	> 75																																							
Karachi (Drigh Road)	6-25	31					1	20				29					1	5	2			20	1	1	1		1		3	1		6	1	1					1		
Φ = 24° 53′ N ...	26-50							9	1									11	6										10					1						
λ = 67° 07′ E ...	51-75																	1	2										2					1						
Hs = 28 metres ...	> 75																		1																					
Khanpur	6-25	31		8		2	5	9	2	1	3	30	1	4	1	4	6	7	2		1	29		4	2	2	6	7	3		1	20	3	4	1	1		4	1	1	1
Φ = 28° 39′ N ...	26-50					1							1	1			2							3		1								2	2						
λ = 70° 41′ E ...	51-75																																							
Hs = 94 metres ...	> 75																																							
Lahore	6-25	31		5	6	5		1			13	30		2	6	7	1	5			3	30	1	2	5	11	5	1	1		2	21	2	1	6	1	1		4	2	1
Φ = 31° 35′ N ...	26-50													1	3	2										2							1								
λ = 74° 20′ E ...	51-75																																							
Hs = 224 metres ...	> 75																																							
Multan	6-25	31		5	2	5	1	4	3		11	31	2	4	3	5	6		4		2	30	1	5	4	4	8	1			3	21		3	5	5	2		1	1	
Φ = 30° 12′ N ...	26-50															2		2									3							1			1			
λ = 71° 31′ E ...	51-75																1																	1						
Hs = 124 metres ...	> 75																																							
+ Peshawar	6-25	31	2	14	1					1	11	30		18	4	1					4	30		6	8	5	4			6	29		2		2	4	7	8	4	1
Φ = 34° 01′ N ...	26-50			1			1							2		1									1											1				
λ = 71° 35′ E ...	51-75																																							
Hs = 368 metres ...	> 75																																							
Samungli (Quetta) ...	6-25	31	1		2	4	5		7	7	5	30	1		2	4	2	3	3	10	3											30	5		3	1			3	8	6
Φ = 30° 15′ N ...	26-50																		1	1																1	1			1	
λ = 66° 53′ E ...	51-75																																							
Hs = 1602 metres...	> 75																																							

+ On one day cloud heights could neither be measured nor estimated.

On twelve days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	1	92	93	94	95	96	97	98	99	
6-25	6			1	1		1				1 — 8					3	18	10														Bogra
26-50				1	2																							15	16			
51-75																																
>75											7 or 8					1	5	1			21											
6-25	6		1	1							1 — 8					1	7	5	11		7											Chhor
26-50		1	1	2																							3	4	15	9		
51-75																																
> 75											7 or 8					1	1	4	2													
6-25	2					1					1 — 8						9	15	7													Chittagong
26-50						1																				1	2	19	9			
51-75																																
> 75											7 or 8						3	2	1		22											
6-25	2				1						1 — 8				4	18	8	1														Dacca
26-50					1																							15	11	5		
51-75																																
> 75											7 or 8				1	6	1															
6-25	15	2	3	1		1	1	2	3	2	1 — 8								2		17											Dalbandin #
26-50																							1	11	3	10	6					
51-75																																
> 75											7 or 8										1											
6-25	31	2				13	7	3		6	1 — 8							2	26	3												Drosh
26-50																												2	3	22	4	
51-75																																
> 75											7 or 8									3												
6-25	25	2	6	2	5	4	1	1	3	1	1 — 8							4	11	5	11											Fort Sandeman
26-50																											1	30				
51-75																																
> 75											7 or 8							1	2	2	5											
6-25	26	7	6	4					4		1 — 8								5	3	23											Jacobabad
26-50		3	2																									21	7	3		
51-75																																
> 75											7 or 8								1		1											
6-25	19	2		5	1	3			5	1	1 — 8							12	16	1	2											Jhelum
26-50		1						1																		1	1	5	10	14		
51-75																																
> 75											7 or 8							2	2		9											
6-25	4	1									1 — 8				1	5	15	7	1		2											Karachi (Drigh Road)
26-50		1		2																						1	1	29				
51-75																																
> 75											7 or 8				1	2	6	3			20											
6-25	13	4	3	3					2		1 — 8						1	6	10	3	11											Khanpur
26-50		1																				1		1	4	6	10	9				
51-75																																
> 75											7 or 8						1		1		10											
6-25	16	3	3	4	2		1	1	4		1 — 8						10	9	6	4	2											Lahore
26-5																											3	21	7			
51-75																																
> 75											7 or 8						1				19											
6-25	17	5	3	2						2	1 — 8					3	6	6	5	1	10											Multan
26-50		1	2		1																					1	7	23				
51-75			1																													
> 75											7 or 8										4											
6-25	28	1		1		1	2	6	13	1	1 — 8				1			7	22													Peshawar +
26-50									3																	1	2	13	14	1		
51-75																																
> 75											7 or 8										5											
6-25	27	1	1	1	1		4	3	12	3	1 — 8					1		2	13	6	9											Samungli (Quetta)
26-50									1																		15	16				
51-75																																
> 75											7 or 8					1			1		2											

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	31			12	6	1				11	27			1	14	4					20			1	3	2				3					1				
Φ = 24° 51′ N ...	26-50				1										2	3	3								1	4	6	2						1		1					
λ = 89° 23′ E ...	51-75																								1																
Hs = 27 metres. ...	> 75																																								
Chittagong	6-25	31				17					14	16				8	3					11				1					4					1				
Φ = 22° 21′ N ...	26-50															4	1										10									2	1				
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
‡Dacca	6-25	27			2	11	9				5	22				7	8					16				2	3				8				1	1	1			
Φ = 23° 47′ N ...	26-50														1	2	4									2	9									4					
λ = 90° 23′ E ...	51-75																																								
Hs = — ...	> 75																																								
‡Dalbandin	6-25	31	2			2	1	2	6	3	10	19	4				2	3	2	2	1	19	4				2	3	2	2	17	3	3				2	6	1	
Φ = 28° 54′ N ...	26-50					2	2		1				1					2		2			1					2		2							1	1		
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
‡Drosh ...	6-25	31						28			3	30				1	1	28													30					4	26			
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Fort Sandeman	6-25	11		1	1	1		2			6	11	1	1	2	2		4			1										11			1		3	6			1
Φ = 31° 21′ N ...	26-50																																								
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ..	> 75																																								
Jacobabad	6-25	31	1		3	4	15	1	2	1	4	30		1	5	2	5	2	2	2	1	31		2	2	3	8	6	6		2	27	1	4	5	2	2	1	2	2	6
Φ = 28° 17′ N ...	26-50																9	1							2									2							
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31	1		4	10	1				15	31	1	2	3	11	4	2				31			2	12	8	2		1	30	2	1	1	6	6	4	4	1	4
Φ = 32° 56′ N ...	26-50														4	4										4	1		1							1					
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31						15	2		4	31	1						6			24		1	1			2	6		11			4	1					
Φ = 24° 53′ N ...	26-50							10										7	17				1						7	3		3	2	1						
λ = 67° 07′ E ...	51-75																												2	1											
Hs = 28 metres ...	> 75																																								
‡Khanpur	6-25	31		3	1	3	5	10	1		5	28	1	2	1	4	1	2	1			28		1	4	2	3	3	2		2	26	3	3	1	2	3	3	1	1	2
Φ = 28° 39′ N ...	26-50		1	1				1						1	2		7	4	2						3	1	1	5	1					3				3	1		
λ = 70° 41′ E ...	51-75																																								
Hs = 94 metres ...	> 75																																								
‡Lahore	6-25	31		3	3	9					16	31			4	6	4	1				31			1	11	5		2		30	4	1	4	5	3	2	5	1	3
Φ = 31° 35′ N ...	26-50														5	7	2	2								8	2		1						2						
λ = 74° 20′ E ...	51-75																										1														
Hs = 224 metres ...	> 75																																								
Multan	6-25	31	1		7	5	3	1			13	31		1	4	3	5	1	2			31		1	5	2	7	5	2		25	4	2	1	1	4	5	1	3	1
Φ = 30° 12′ N ..	26-50					1								1	2	4	6	1							2		2	4				2		1						
λ = 71° 31′ E ...	51-75																	1										1													
Hs = 124 metres ...	> 75																																								
+Peshawar	6-25	31	8	2						5	16	31	11	4	2	1	2		1	8	1	31	1	2	2	6	10	1	2	1	5	26			2	1	9	10	2		2
Φ = 34° 01′ N ...	26-50													1													1														
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31		1	4	12	3	1	2	1	1	27				3	4	4	1	3												26		3	4	6	1	1	3		1
Φ = 30° 15′ N ...	26-50					5	1										7	3	1																1	4	1			1	
λ = 66° 53′ E ...	51-75																1																								
Hs = 1602 metres...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.

‡ On two days cloud heights could neither be measured nor estimated.

‡ On five days cloud heights could neither be measured nor estimated, and visibility observations not recorded throughout the month.

‡ On eight days cloud heights could neither be measured nor estimated.

‡ Visibility observations were not recorded throughout the month.

Speed limit (km./hr.)	3·0 km. a. s. l. n	N	NE	E	SE	S	SW	W	NW	C	Amount of low clouds	No. of observations with Code figures 0	1	2	3	4	5	6	7	8	9	No. of observations with Code figures 90	91	92	93	94	95	96	97	98	99	STATION.
6-25											1 — 8					8	16	4	1		2											Bogra
26-50																											10	21				
51-75																																
>75											7 or 8					4	2				11											
6-25	1						1				1 — 8					1	10	12	1		7											Chittagong
26-50																										1	13	17				
51-75																																
>75											7 or 8					1	8	3			18											
6-25	4				1		1				1 — 8				3	13	8		1		1											Dacca
26-50				1		1																										
51-75																																
> 75											7 or 8																					
6-25	12	2	1			1	1	3	2	1	1 — 8								2		21											Dalbandin
26-50							1																3	5	8	13	2					
51-75																																
> 75											7 or 8										1											
6-25	30		1		2	19	3	2		2	1 — 8								14	5	12											Drosh
26-50							1																									
51-75																																
> 75											7 or 8										1											
6-25	11		1			2	3	2		2	1 — 8										11											Fort Sandeman
26-50							1																					11				
51-75																																
>75											7 or 8										2											
6-25	15	2	2	2				1	2	2	1 — 8						3		1	1	26											Jacobabad
26-50		2	1						1																			29	2			
51-75																																
> 75											7 or 8						2				2											
6-25	25	5		3	3		2	5	2	3	1 — 8							6	10	1	14											Jhelum
26-50						1			1																		1	30				
51-75																																
> 75											7 or 8								1		4											
6-25	6										1 — 8					7	12	3	1		8											Karachi (Drigh Road)
26-50		1	2	3																								31				
51-75																																
> 75											7 or 8					1	8	1			20											
6-25	21	1	6	4		1			1		1 — 8							1	1	1	26											Khanpur
26-50		2	5				1															2			2	6	11	10				
51-75																																
> 75											7 or 8																					
6-25	25	2	5	2	4	1		2	5	1	1 — 8						2	11	2	1	15											Lahore
26-50		1			1				1																							
51-75																																
> 75											7 or 8										6											
6-25	17	5	2	1		1	1	1	1	1	1 — 8						1	2	2		26											Multan
26-50		1	2	1																							7	24				
51-75																																
> 75											7 or 8										2											
6-25	22		1			2	9	1	4	2	1 — 8							9	12	3	6											Peshawar
26-50							2		1																		3	28				
51-75																																
> 75											7 or 8									1	6											
6-25	16			3			3	4	1		1 — 8					1		2	7		21											Samungli (Quetta)
26-50		1		1					1																	1	18	11	1			
51-75								1	1																							
> 75											7 or 8								2		5											

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month August 1950

Supplement to the monthly Weather Report, August 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—Φ= Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August 1955

S. N. NAQVI,

Director,

Meteorological Service, Karachi.

(Price Annas)

OCT 25 1961
WEATHER BUREAU

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	31			6	7					18	26			4 4	8	6	3			1	9			2 1		4	2				4			1			1	2		
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	31						29	1		1	30					1 3	9 16 1				15	1					1 4 2 2	1 4			9		1	1 1	2			1	1	1	1
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	31				14	2				15	21			2	15 2	2					17				3 1	6 3	2 1			1	8				2	5	1			
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	30			3	8	7	4			8	21			1	2 5	11	2				11			1	2	3 1	2 2				4				1	1	1	1		
+ Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31		1			1	3	5		21	30		1	2	1	3	7	10 3	1	2											30	3	3	2		1	2	4 6	6 2	1
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31						5			26	31						18			13											31		1			3	14			13
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ..	6-25 26-50 51-75 > 75	31	3	6	2		1	1			18	31	5	12	1			2	2		9											31	3	9	2		1	4 1	2		9
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31		1	5	13	8				4	31		2	3	17	8		1			30	1	1	4	1	4	2	1	4	12	30	2	4				1	7 2	14	
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31	1	3	1	5				2	19	29	2	4 2	7	6 1		1	1	3	2	29	1	2	4	9	4	1	1	3	4	26	2	1	3	2	3		8 2	3 1	1
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31						27 1	2		1	31						1	6 23 1			10							7 1	2		2		1	1						
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31					5	23 1			2	31		1			6 10	7 7				30		1			6	11 3	5	3	1	29		4		2	2	1	6 3	5 2	4
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31		1	3	4	1				22	30		1	4	6	5	10	3		1	28			2	1	2	5	14	1	3	27	3	2			1	2	8	9	2
Multan Φ = 31° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31		1		3	13	8			6	28		1		3 1	14 3	2 4				27		1		1	9 1	7 5	1	1	1	27	2	3		2	5	2	8	2	3
+ Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31	4	1			1			4	21	29	10		1		1	4	1	10	2	28	8	2				2	2	12	2	26	1	1	1	1	4	2 1	8 1	4	2
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31				11	3	2	1		14	31		1	4	13 1	3	1	3	2	3											31	1			4	3	8 1	5 1	2	6

+ On one day cloud heights could neither be measured nor estimated.

FREQUENCY (MORNING)

TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING)

TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	2						1				1 — 8					17	10	2	1	1												Bogra
26-50				1																												
51-75																											3	20	8			
>75											70r 8					5	3				28											
6-25	5		1	1					1		1 — 8			1		9	13	3	2		3											Chhor
26-50			2																													
51-75																												1	18	12		
> 75											70r 8			1		7	9	2	1													
6-25	6			1	1	2	1			1	1 — 8					8	10	4	2		7											Chittagong
26-50																																
51-75																											6	20	5			
> 75											70r 8					1					25											
6-25	2					1	1				1 — 8			1	4	19	5	1														Dacca
26-50																																
51-75																											4	19	6	1		
> 75											70r 8			1	2	6	2				11											
6-25	29	1	3	1		1	1	3	6	3	1 — 8										30											Dalbandin +
26-50		1						6	3																							
51-75																								1	4	15	7	4				
> 75											70r 8										1											
6-25	31	5	3	1		11	4			6	1 — 8							4	18		9											Drosh
26-50		1																														
51-75																													9	21	1	
> 75											70r 8										3											
6-25	31	4	1			1		6	2	1	1 — 8								1	1	29											Fort Sandeman
26-50								2	12																							
51-75									2																		8	23				
> 75											70r 8								1		30											
6-25	29	7	2			1	1	2	8	1	1 — 8						1				30											Jacobabad
26-50		1	2					1	3																							
51-75																												27	4			
> 75											70r 8						1				3											
6-25	25	4	1	1	2	1			8	2	1 — 8						1	7	4	3	16											Jhelum
26-50		1						1	4																							
51-75																										1	1	5	19	5		
> 75											70r 8						1				10											
6-25	1										1 — 8					6	24			1												Karachi (Drigh Road)
26-50		1																														
51-75																												31				
> 75											70r 8					5	20			1	3											
6-25	27	5	4					4	5	1	1 — 8						2	1	1	3	24											Khanpur
26-50		2						2	4																							
51-75																									1	8	14	8				
> 75											70r 8						1				1											
6-25	24	4	2			1	1	3	10	1	1 — 8				1	1	4	3	2	3	17											Lahore
26-50			1					1																								
51-75																										1	1	29				
> 75											70r 8						1				10											
6-25	26	2	3	3			1	6	5	2	1 — 8					2	1	2			26											Multan
26-50								1	3																							
51-75																											2	29				
> 75											70r 8										3											
6-25	23	2	1	1			1	4	11		1 — 8				2	1	1	9	11	2	4											Peshawar +
26-50								1	2																		2	19	8	2		
51-75																		1	1		6											
> 75											70r 8																					
6-25	31	1					6	7	4	1	1 — 8										31											Samungli (Quetta)
26-50			1					7	3																		10	16	5			
51-75								1																								
> 75											70r 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+ Bogra	6-25	31			6	7	3	2	1		12	28		1	6	8	7	4				22				2	6	4	2	1		11			1	1	1	4	1		
Φ = 24° 51′ N ...	26-50															1									1	5									1	2					
λ = 89° 23′ E ...	51-75																									1															
Hs = 27 metres ...	> 75																																								
Chhor	6-25	31					2	27	2			31					1	7	1			21		1			2	3			7		2					5		
Φ = 25° 31′ N ...	26-50																2	19	1								3	11													
λ = 69° 50′ E ...	51-75																											1													
Hs = 7 metres ...	> 75																																								
Chittagong	6-25	31				6	5	14			6	25				2	7	6				15				1	1	7				8				1	2	4			
Φ = 22° 21′ N ...	26-50															1	7	2									4	2									1				
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
Dacca	6-25	31			1	11	10	3			6	22			1	7	13					16				4	1	4	1			6			1			2			
Φ = 23° 47′ N ...	26-50															1										2	1	2								1			2		
λ = 90° 23′ E ...	51-75																										1														
Hs = — ...	>75																																								
* Dalbandin	6-25	31		2	3			4	10		7	24		2	3	1	2	4	3	2	2											24	2	1		2	2	1	4	3	3
Φ = 28° 54′ N ...	26-50							3	2										4	1																		2	4		
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	31						26	1		3	31		1				26	4													31					3	26			1
Φ = 35° 34′ N ...	26-50			1																														1							
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Fort Sandeman	6-25	31	3	2	3	1	1		4	1	16	30	5	3	2		1		4	5	10											30	7	1	1	1	1	2	3	3	11
Φ = 31° 21′ N ...	26-50																																								
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ..	> 75																																								
Jacobabad	6-25	31	1			5	14		1		10	31	1		1	20	8		1			31	1	1	3	7	12	3	1	2	1	31	10	3	3			2	3	7	
Φ = 28° 17′ N ...	26-50																																							3	
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31			1	4	1		1		24	31	1	1	2	13	6	1	1	1	5	31	1	2		14	6	3	2		2	29	1			2	1	3	6	10	4
Φ = 32° 56′ N ...	26-50																									1										1		1			
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31						18				31						5	4			11	1		1				1			7						1	2	2	
Φ = 24° 53′ N ...	26-50							13										10	11										5	2				2							
λ = 67° 07′ E ...	51-75																		1										1												
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	31		1			11	16	1		2	31		1			17	9				31				1	19	6	1			28	3	1	1	1	3	2	5	6	3
Φ = 28° 39′ N ...	26-50																2	2						1			2	1						1						2	
λ = 70° 41′ E ...	51-75																																								
Hs = 94 metres ...	> 75																																								
Lahore	6-25	31			1	3	3	2	1	1	20	30	1		4	2	5	4	3	2	9	30	1			4	6	5	12	1	10	23	1	1			2	7	5	3	4
Φ = 31° 35′ N ...	26-50																									1															
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres ...	> 75																																								
Multan	6-25	31			2	1	4	20	1		3	29		1	1	2	7	11	2	1		28		1		4	13	3	1		2	23				3	7	6	4		1
Φ = 30° 12′ N ..	26-50																1	3									3	1									2				
λ = 71° 31′ E ...	51-75																																								
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	31	2	12	2	1					14	31	2	17	5	3				1	3	31		4	18	3	2				4	25	1			2	2	10	8		2
Φ = 34° 01′ N ...	26-50																																								
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31	2	2		2		7	8	6	4	31				1	1	3	7	10	2											31	2			1		1	12	6	4
Φ = 30° 15′ N ...	26-50																1	4	1	1																		2	2		
λ = 66° 53′ E ...	51-75																																							1	
Hs = 1602 metres...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.

* On five days cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	7		1				2	1		1	1 — 8					5	16	7		1	1											Bogra +
26-50				1	1																						1	12	18			
51-75																																
> 75											7 or 8					3	4				26											
6-25	7	1	1		1			1	2		1 — 8					1	4	14	5		7											Chhor
26-50			1																									1	11	19		
51-75																																
> 75											7 or 8						2	3	1													
6-25	4					2	2				1 — 8					13	8	7	1		2											Chittagong
26-50																											6	17	8			
51-75																																
> 75											7 or 8					4	2				27											
6-25	5						2	2			1 — 8			2	2	16	11															Dacca
26-50					1																						2	16	9	4		
51-75																																
> 75											7 or 8			1	1	3					5											
6-25	21	1	3				1	5	2	2	1 — 8									1	25											Dalbandin *
26-50		1					2	3	1													1		4	5	14	3	4				
51-75																																
> 75											7 or 8																					
6-25	31	1				19	8	1		2	1 — 8							4	26		1											Drosh
26-50																														22	9	
51-75																																
> 75											7 or 8										3											
6-25	30	2	2	1	1	3	1	5	6	6	1 — 8								3	9	19											Fort Sandeman
26-50								1	2																	8	5	23				
51-75																																
> 75											7 or 8																					
6-25	31	10	4		1		2	6	1	1	1 — 8								3	1	27											Jacobabad
26-50		2		1					3																			19	11	1		
51-75																																
> 75											7 or 8																					
6-25	26	3	1	2	2		1	5	10	1	1 — 8							7	19		5											Jhelum
26-50									1																		1	2	15	13		
51-75																																
> 75											7 or 8										7											
6-25	5	1				3					1 — 8					2	25	2			2											Karachi (Drigh Road)
26-50			1																									31				
51-75																																
> 75											7 or 8					1	17				22											
6-25	24	6	4	1		1	2	3	6		1 — 8							2	5	4	20											Khanpur
26-50				1																						9	15	7				
51-75																																
> 75											7 or 8							1	1		2											
6-25	18	1	1			2		5	7		1 — 8					1	3	8	13	2	4											Lahore
26-50		2																								1		20	10			
51-75																																
> 75											7 or 8										6											
6-25	22	6	2	1	1	1		4	5	2	1 — 8					2	5	3	2		19											Multan
26-50																											2	29				
51-75																																
> 75											7 or 8																					
6-25	23						2	7	2	3	1 — 8						1	21	9													Peshawar
26-50								7	2																		3	16	11	1		
51-75																																
> 75											7 or 8										2											
6-25	29	1				1	3	7	6	3	1 — 8								11	4	16											Samungli (Quetta)
26-50							1	2	2																	1	10	12	8			
51-75							2		1																							
> 75											7 or 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		Tn	N	NE	E	SE	S	SW	W	NW	C	Tn	N	NE	E	SE	S	SW	W	NW	C	Tn	N	NE	E	SE	S	SW	W	NW	C	Tn	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	31			7	8	1	1			14	22			4	5	5	2				15				5	3	2				7			2	1	1	2			
Φ = 24° 51′ N ...	26-50														2	2	2								1	1	1	1							1						
λ = 89° 23′ E ...	51-75																										1														
Hs = 27 metres ...	> 75																																								
Chittagong	6-25	31				15	1				15	19				10	6				1	13				1	7	2	2			8				1	2	3	1		1
Φ = 22° 21′ N ...	26-50															2										1															
λ = 91° 50′ E ..	51-75																																								
Hs = 21 metres ...	> 75																																								
# Dacca	6-25	26				7	5	1			13	17			1	3	7	2				13				1	4	4				7				1	2	2			
Φ = 23° 47′ N ...	26-50																								1		2	1									1	1			
λ = 90° 23 E ...	51-75																																								
Hs = — ...	> 75																																								
* Dalbandin	6-25	31	2		1			4	5	2	16	22	1	1	1	2		2	7	5	2											22	1	2	2			1	4	7	1
Φ = 28° 54′ N ...	26-50						1						1																									1		3	
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres	> 75																																								
Drosh ...	6-25	31						20			11	31						27			4										31		1			9	17			4
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	>75																																								
Jacobabad	6-25	31			1	7	19			2	1	31		1		9	12		1	2		31				3	7	15	2	1	3	31	3	2	1	3	4	7	6	4	
Φ = 28° 17′ N ...	26-50															1	5																							1	
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31		2	3	3	1			1	21	28	1	1	3	14	3		1		3	28			1	8	8	3	1	3		24	1		1	3		3	7	5	3
Φ = 32° 56′ N ...	26-50															2									1	2	1												1		
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31						23	1			31						1	7			14							3			2	1								
Φ = 24° 53′ N ...	26-50							7										4	18									1	6	1									1		
λ = 67° 07′ E ...	51-75																		1										3												
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	31		1		1	1	21	1		2	30						6	1		1	30		1		1		10	8		1	29	4	5	2	1		5	4	5	1
Φ = 28° 39′ N ...	26-50							4							1	1	5	15						1				4	4									1		1	
λ = 70° 41′ E ...	51-75																																								
Hs = 94 metres ...	> 75																																								
Lahore	6-25	31			3	6					22	31			2	6	5	9	1	1	2	31		1		2	4	11	9		2	30	4		1	1	2	2	9	9	2
Φ = 31° 35′ N ...	26-50															3	2										1	1													
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres ...	> 75																																								
Multan	6-25	31	1		1	7	7	3			12	28	1			4	6	4	1			28	1				7	6				27	4	1		2	3	4	6	3	1
Φ = 30° 12′ N ..	26-50																10	2									4	9									1	2			
λ = 71° 31′ E ...	51-75																											1													
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	31	5	3				1		6	16	31	9	7			1			13	1	31	1	1	3	3	5	3	3	5	6	27		2	2	2	4	11	1		1
Φ = 34° 04′ N ...	26-50																								1													4			
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
+ Samungli (Quetta) ...	6-25	30			3	9		5	3	3	6	29				2	1	4	11	2	1											29			2	4	2		13	1	
Φ = 30° 15′ N ...	26-50					1										3	1	1	2														1			1			4		
λ = 66° 53′ E ...	51-75															1																						1			
Hs = 1602 metres ...	> 75																																								

+ On one day cloud and visibility observations were not recorded.

* On four days cloud heights could neither be measured nor estimated and visibility observations were not recorded throughout the month.

Cloud and visibility observations were not recorded throughout the month.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	4			1	1		1				1 — 8			1		10	13	5			2											Bogra
26-50							1																									
51-75																											13	18				
>75											7 or 8			1		2					19											
6-25	5				1	1		2			1 — 8					10	11	1			9											Chittagong
26-50						1																										
51-75																										2	11	18				
>75											7 or 8					8	4				17											
6-25	6				2	1	2				1 — 8																					Dacca
26-50							1																									
51-75																																
> 75											7 or 8																					
6-25	21	2	1	1			4	2	3	3	1 — 8										27											Dalbandin
26-50								1	4																							
51-75																																
> 75											7 or 8																					
6-25	31	2	2	1	1	19	2		1	3	1 — 8							1	19		11											Drosh
26-50																												3	28			
51-75																																
> 75											7 or 8										5											
6-25	22	4	4	1			1	2	9	1	1 — 8								1		30											Jacobabad.
26-50																												30	1			
51-75																																
>75											7 or 8								1		2											
6-25	20	3			3		1		10	1	1 — 8							5	16	2	8											Jhelum
26-50									2																							
51-75																										1	3	27				
> 75											7 or 8								2		8											
6-25	1										1 — 8					5	24	1			1											Karachi (Drigh Road)
26-50		1																										31				
51-75																																
> 75											7 or 8					2	21	1			28											
6-25	17	6	2			1	1		6		1 — 8						1	4	3	3	20											Khanpur
26-50								1																	3	12	13	3				
51-75																																
> 75											7 or 8							1			1											
6-25	25	7	1		1	1	1	3	10	1	1 — 8						2	8	2	2	17											Lahore
26-50																											2	28	1			
51-75																																
> 75											7 or 8										7											
6-25	23		3	1	1			3	8	1	1 — 8					1	2	1			27											Multan
26-50		1	1					2	2																			31				
51-75																																
> 75											7 or 8										1											
6-25	21	2		1		1	1	5	7	1	1 — 8						1	16	5	1	8											Peshawar
26-50								1	2																		1	28	2			
51-75																																
> 75											7 or 8																					
6-25	16							5	5	2	1 — 8							1	1		28											Samungli (Quetta)
26-50							2	1																		2	7	19	2			
51-75							1																									
> 75											7 or 8																					

Registered No. S--1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month September 1950

Supplement to the monthly Weather Report, September 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—Φ= Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The. August..... 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

TABLE—1 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+Bogra	6-25	30	1		1	5	1	5		1	16	29	2	1	3	5	3	7	4		3	20		2	1	2	1	4	2	4	1	16			2	2		5	4		1
Φ = 24° 51′ N ...	26-50															1										1										2					
λ = 89° 23′ E ...	51-75																									2															
Hs = 27 metres ...	> 75																																								
Chhor	6-25	30	1				1	20			8	30	1	1			5	9	4		1	29	1	2	1		4	5	1			26	3	3	3	3	2	4		1	
Φ = 25° 31′ N ...	26-50																3	6					2	1			5	6					2	2	1		1				
λ = 69° 50′ E ...	51-75																						1															1			
Hs = 7 metres ...	> 75																																								
Chittagong	6-25	30		1		4					25	30	1	3	5	16	3				2	29	2	1	2		6	2	1		5	20	1	1	2	1	4	3	4		
Φ = 22° 21′ N ...	26-50																						1		1		5							1		1	2				
λ = 91° 50′ E ...	51-75																									3															
Hs = 21 metres ...	> 75																																								
Dacca	6-25	30				7	2	3		1	17	30	2	1	1	9	3	7	1	3	2	25	3	2		4	5	2	1	1	3	16		2		1	1	5		1	1
Φ = 23° 47′ N ...	26-50															1									1	2	1							1		2	1				
λ = 90° 23′ E ...	51-75																																			1					
Hs = — ...	>75																																								
Dalbandin	6-25	30	1	3							26	30		9	7	1		1	6	1	3	30		9	7	1		1	6	1	3	30	6	5	4	2	2		3	3	4
Φ = 28° 54′ N ...	26-50													2										2																1	
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	30		1	1						28	30		3			1	7			19											30		9			1	10			10
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Fort Sandeman	6-25	30	2	4				2	2	2	18	30	1	8	2			9	3	2	5											30	6	3			2	3	6	6	3
Φ = 31° 21′ N ...	26-50																																					1			
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ..	> 75																																								
Jacobabad	6-25	30		1	9	6	8				6	30		1	10	7	9	2			1	30	3	1	4	6	4	4	2	1	5	30	9	1	1		-	2	3	9	4
Φ = 28° 17′ N ...	26-50																																1								
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres ...	> 75																																								
Jhelum	6-25	30	1	1	1	1				3	23	29	3	4	4	4		1	4	6	2	29	4	1	3	6	6			6	1	27	2	2	2	2		3	6	6	2
Φ = 32° 56′ N ...	26-50													1											2										1				1		
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	30	1					9	17	1	2	30							14	3		26	3	3					8	2		16	6	2	2			1		3	
Φ = 24° 53′ N ...	26-50																		12	1								1	6	3			1							1	
λ = 67° 07′ E ...	51-75																																								
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	30	2	8		1		14	1	1	3	30	1	5	3	1	1	3	1	1		29	3	3				2	6		2	29	1	1		1	2	4	7	1	2
Φ = 28° 39′ N ...	26-50												1	2				9	2					4				3	5				3	2					1	4	
λ = 70° 41′ E ...	51-75																						1																		
Hs = 94 metres ...	>75																																								
Lahore	6-25	30		4		2		1			23	28	2	6	3	4	1	2	1	4	3	28	3	1	1	4	3	6	2	6	1	25	2	3	3		1	1	2	8	
Φ = 31° 35′ N ...	26-50												1		1															1			1			1			2	1	
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres	> 75																																								
Multan	6-25	30	2		1	5	1	6			15	29	3	4	3	1	5	1			1	27	1	3	1	1	1	8	1		1	27	5			1	1	4	8	3	
Φ = 30° 12′ N ..	26-50													2	1	1	3	4					2			2		5	1				1	1					2	1	
λ = 71° 31′ E ...	51-75																																								
Hs = 124 metres ...	> 75																																								
✻Peshawar	6-25	30	1					1		3	25	30	7	1	1	1		4	3	11	2	30	8	4		2		1	3	8	4	30	7	1	1	1	3	4	1	6	5
Φ = 34° 01′ N ...	26-50																																1								
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	30			1	4		2	1	1	21	30	1			9	3	2		5	10											30	3		1	3	1	6	4	5	7
Φ = 30° 15′ N ...	26-50																																								
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

+ On one day cloud observations could neither be measured nor estimated.

✻ On two days cloud observations could neither be measured nor estimated.

FREQUENCY (MORNING) — TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING) — TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	11			1	3		1	3	3		1 — 8					6	10	5	2	1	5											Bogra +
26-50																												17	10	3		
51-75																																
> 75											7 or 8					2	1				18											
6-25	24	3	6	3		1	1	1		1	1 — 8					1	1	1	2		25											Chhor
26-50		2	4	2																							2	1	11	16		
51-75																																
> 75											7 or 8					1					1											
6-25	16		1	1	2	3	4	2	1		1 — 8					2	6	11	1	1	9											Chittagong
26-50				1		1																					1	20	8	1		
51-75																																
> 75											7 or 8					2		1			11											
6-25	12	1		1	1		4	1	1		1 — 8					14	13	1			2											Dacca
26-50					2																							15	10	4	1	
51-75					1																											
> 75											7 or 8																					
6-25	30	3	2	1	1	3	2	3	4	2	1 — 8										30											Dalbandin
26-50		3						2	3																	9	8	7	6			
51-75									1																							
> 75											7 or 8																					
6-25	29	15	1			6	2		1	3	1 — 8							2	5	1	22											Drosh
26-50		1																											1	8	21	
51-75																																
> 75											7 or 8							1		1	5											
6-25	29	4					3	3	5		1 — 8						1			2	27											Fort Sandeman
26-50		1			1		1	3	8																	5	9	14	2		
51-75																																
> 75											7 or 8																					
6-25	30	6	7	2			3	1	4	3	1 — 8									1	29											Jacobabad
26-50		3					1																				1	27	2		
51-75																																
> 75											7 or 8																					
6-25	25	1	3	1	1	2	1	4	9		1 — 8						3	2	3	4	18											Jhelum
26-50							1		2																		2	2	10	15	1	
51-75																																
> 75											7 or 8						2				6											
6-25	10	2	2	3							1 — 8					3	16	1			10											Karachi (Drigh Road)
26-30		1	2																									29	1			
51-75																																
> 75											7 or 8					1	1				5											
6-25	25	1	3	1		5	1	2	3	2	1 — 8								2		28											Khanpur
26-50		2	1		1				2														1			9	12	8				
51-75		1																														
> 75											7 or 8										3											
6-25	23	6	1	3	1			1	7	1	1 — 8					1	1	3	3		22											Lahore
26-50			1						1																	1	3	25	1			
51-75					1																											
> 75											7 or 8						1	1			7											
6-25	27	5	1	1		4	1	3	5	2	1 — 8					3	1	1	1		24											Multan
26-50		3					1		1																			30				
51-75																																
> 75											7 or 8					1					3											
6-25	30	5	1	1	1		2	3	9	5	1 — 8							4	9		5											Peshawar *
26-50		1							2																		1	7	15	7		
51-75																																
> 75											7 or 8																					
6-25	30				1		4	8	11	2	1 — 8										30											Samungli (Quetta)
26-50								2	2																	4		12	12	2		
51-75																																
> 75											7 or 8																					

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	30		1	2	4	1	5	1		16	29	1	2	2 1	4 1	6	6	1	1	4	25	1		2 1	1 2	6	7	3	1	1	15		1	1 1	3 1	1	3 1	2	1	
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	30	1		1		1	23	1		3	30		1	1	1	4	16 5	1			30	3 1	1	1	2	3 1	5 9	1	2	1	24	1 4	3	3	1 1	4	5		1	1
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	30				2	2	14	1	2	9	30	1			2	5 1	11 2	4	4		27	3	1		2 1 1	7 1 1	5	1	2	2	15		1 1	1	4 1	2	4	1		
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	30	1			8	3	5	1	2	10	30	1	1	1	5 2	8	6	2	2	2	24	3	1	1	2 2 2	5 1	5		1	1	14			1	2 2	1	3 1	2	2	
※Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30	2	1	3	2	2	3 2	1 2	1	11	26	2	2	3	3	2	5	2	1	6	26	2	2	3	2	3	5	2	1	6	25	4	2	1	1	1	6	4	2	4
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	30		2				13	6		9	30		2			1	14 1	7		5											30		2				21 2	1		4
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ...	6-25 26-50 51-75 > 75	30	3					4	5	6	12	30	5	1			1	6	6	7	4											30	3	2	1	1	1	7	6	3	6
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres ...	6-25 26-50 51-75 > 75	30				3	5			2	20	30	1	2		12	8			2	5	30	1	2	3	1	7	1		4	11	30	4 1	3 1	3	3	1	1	6	5	2
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30	2	2	3	2	1			1	19	29	2	1	4 3	5	2	2	1	3	6	29		2	2 3	4 1	2	1	1	8	5	28	5	2	3 1	1			7	5 3	1
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30						23 4	2	1		30						9 8	5 7	1		29	5	3	1				7 4	6 3		24	6	4 3	3 1				3	2	2
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30	1 1	7 1			1	11	1		7	29	3	3 4			1	11	3 1	2	1	29		5 3			2	12 1	2	1	3	27	2 2	3 1	1	1	6	5	3 1	2	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30		6	1	1			1	1	20	27	3	4	7	1	2	2	2	5	1	26	3	3	2	2	4 1	4		3 1	3	22	5		1	2			3 3	8	
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30	5	5		2		6		4	8	30	2	8 2	1	2	1	4 1	4	2	3	29	3 2	5 1	1	2	5	7 1		2		26	4	1 1	1	1	2	6 1	4	1 1	3
+Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30	2	8 1	2	1					16	30	1	7	15	2			1		4	30	1	4	9 1	5	2				8	30			2		2	4	6 1	8 1	6
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30	4	1	1			3	6	6	9	30	1					6	7 1	11 2	2											30					1	4 1	5	17 1	1

+ On one day cloud heights could neither be measured nor estimated.

※ On four days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	12	2			2		1	5	1		1 — 8					1	17	10	1	1												Bogra
26-50				1																								8	21	1		
51-75																																
>75											7 or 8						1				21											
6-25	22	2	4	5	2	4		1		1	1 — 8						1	16	6		7											Chhor
26-50			2																								1	2	7	20		
51-75			1																													
> 75											7 or 8						1				1											
6-25	11		1	3	1		3	2			1 — 8						10	16	3	1												Chittagong
26-50					1																							14	15	1		
51-75																																
> 75											7 or 8						1	3			12											
6-25	10	1			1		3	3			1 — 8					5	21	3		1												Dacca
26-50				1	1																							6	15	5	4	
51-75																																
> 75											7 or 8						3	1			4											
6-25	25	6			2	2		5	2	2	1 — 8										26											Dalbandin ✱
26-50								4	2															4	1	7	6	7	5			
51-75																																
> 75											7 or 8																					
6-25	30	2				9	13	2	1	2	1 — 8							2	28													Drosh
26-50						1																							3	17	10	
51-75																																
> 75											7 or 8								2		5											
6-25	30	5	1	1		2	6	6		4	1 — 8								2	3	25											Fort Sandeman
26-50						1	1	1	2																	3	8	19				
51-75																																
> 75											7 or 8																					
6-25	30	7	3	3	1		3	3	5	2	1 — 8								1	8	21											Jacobabad
26-50		2	1																								1	13	16			
51-75																																
> 75											7 or 8																					
6-25	26	4	2	1	2		1	7	7		1 — 8							1	18	4	7											Jhelum
26-50			1						1																		1	1	15	13		
51-75																																
> 75											7 or 8									1	5											
6-25	21	2	6	1	1				2	1	1 — 8						12	9	1		8											Karachi (Drigh Road)
26-50		1	3	1				1	1																		2	25	3			
51-75		1																														
> 75											7 or 8						2	1			3											
6-25	21	2	2	1	2	3	4	3		1	1 — 8							1	15	4	10											Khanpur
26-50		1							1															1	1	6	12	10				
51-75			1																													
> 75											7 or 8										1											
6-25	20	2			1			4	8		1 — 8					2	4	3	8	1	12											Lahore
26-5						1		2	2																			17	13			
51-75																																
> 75											7 or 8					1	1				7											
6-25	23	5			1	2	1	6	2	3	1 — 8					1	4	8	3		14											Multan
26-50		1						1	1																			29	1			
51-75																																
> 75											7 or 8																					
6-25	28	2		1	1		3	9	7	3	1 — 8							13	14		2											Peshawar ✚
26-50								1	1																			14	14	2		
51-75																																
> 75											7 or 8										1											
6-25	30				1	1	4	9	10	1	1 — 8								4		26											Samungli (Quetta)
26-50		1					1	2																			1	6	17	6		
51-75																																
> 75											7 or 8																					

TABLE—10 WIND FREQUENCY

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
✱ Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 75	30	1	1	4	2	1	3			18	27	1	2	1 3	4 1	6 1	5 1	1	1		26	1	2	1 1 1	2	5 1	5 2	1	3	1	14			2	2 1		4 1	3	1	
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	30				3	1				26	25	1		1	13 1	4		1	2	2	24	3	1		3	8 3	4	1	1		13			1		4 3	4			1
✱ Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	30				3	2	4			21	23	3			2 1	5	8 1	1	1	1	22	3 1			1 1	4 2	4 1	3	2		15	1	1	1	1	4	5		1	1
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30	2	5	2	1			4	1	15	28	2	6	10 2				4	2 1	1	28	2	6	10 2				4	2 1	1	28	5 2	5	7	1	1		4	2	1
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	30		1		2		8			19	30		2		1	2	15			10										30		3			4	14			9
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	30			9	6	8	1	1		5	30			7 2	6 2	4 3	2 2	1		1	29			3 1	2	12	9	1		1	28	3	2	2	1	5	1 1	2	6	5
Jhelum Φ = 32° 56′ N λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30	2	1	1	2			1	4	19	29	2	2	4	6 1		5	1	5	3	29	1 1	1	2 1	4 1	4 1	5	4	1 2	1	26	3	1	2	1 1	1	1 1	3	9 1	2
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30						17	9	2	2	30						2	12 14	1 1		27					2	2 1	6 14	2		15	3 1	3 1	3					3 1	
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30	2	9 1	1		2	10	1	1	3	29	1 2	4 2	3	1	3	3 6	2 1		1	29	1 1 1	5 2				5 8	4	1	1	26	2 1	3 1	1.	3	1	5	6	2	1
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30		4	1	1			1		23	28	1	1	4 1	6 2	3	1 1	4 1	1	2	26	1	1	1	4 1	3	4	2 1	6	2	24	3	1	3		1		6	9	1
+ Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30	4		5	6	4	1		1	9	27	3 1		2 5	3	3 6	1 1	2			27	2	3 2	1	1	7 2	3 5 1				21	2 3	1			2	3 5 1	2 1	1	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30	5	1	1	1			1	2	19	30	6 1	1 1	1		2	4	5	6	3	30	2	1		4	4	3	4	5 1	6	29	1	1		1	4	10 1	2 1	4	4
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30	1	1	1	3		7 1	4	1	11	30					2	9 1	14 1	2	1											30	1					1	21 3	3 1	

+ On one day cloud heights could neither be measured nor estimated.

✱ On two days cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	3		1					1			1 — 8					7	10	2	3		6						8	22				Bogra ✱
26-50				1																												
51-75																																
>75											70r 8					1					7											
6-25	9			1	1	3	2	1			1 — 8					1	10	13			6											Chittagong
26-50						1																										
51-75																											5	22	3			
>75											70r 8					1	2				11											
6-25	9		1		1	2	3	1		1	1 — 8					9	14	2	1		2											Dacca ✱
26-50																																
51-75																											4	26				
> 75											70r 8					3					3											
6-25	24	2		2	2		1	8	6		1 — 8										30											Dalbandin
26-50		1							1																							
51-75		1																							2	10	8	4	6			
>75											70r 8																					
6-25	30	4	4	1		14	3			3	1 — 8							1	10	1	18											Drosh
26-50						1																										
51-75																												6	24			
> 75											70r 8																					
6-25	25	9	6	1	1				5		1 — 8								1		29											Jacobabad
26-50		3																														
51-75																											1	29				
> 75											70r 8																					
6-25	25	2	1	1		1	1	3	9	1	1 — 8						1	2	4	1	22											Jhelum
26-50		1				1		1	2																							
51-75					1																						3	26	1			
> 75											70r 8						1	1			5											
6-25	12	1							1		1 — 8					2	15	2			11											Karachi (Drigh Road)
26-50		4	5						1																							
51-75																												30				
> 75											70r 8					1	3	1			7											
6-25	15	2	2	1	1	1	1	1	3	1	1 — 8								4	1	25											Khanpur
26-50			1				1																		2	12	8	8				
51-75																																
> 75											70r 8																					
6-25	17	6	1	1				2	6		1 — 8					2	1	2	2		23											Lahore
26-50							1																			1	2	27				
51-75																																
> 75											70r 8					1					7											
6-25	17	3	1	1		1		2	2		1 — 8					3	1	1	1		23											Multan ✚
26-50		1	1					2	1															1			2	27				
51-75			1				1																									
> 75											70r 8					1					3											
6-25	28	3	1		2	3	3	9	5	1	1 — 8							9	5		16											Peshawar
26-50							1																				1	26	3			
51-75																																
> 75											70r 8																					
6-25	18						3	3	7	1	1 — 8										30											Samungli (Quetta)
26-50								1	3																	1	3	22	4			
51-75																																
> 75											70r 8																					

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month October 1950

Supplement to the monthly Weather Report, October 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—ϕ = Latitude of the Station; λ = Longitude of the Station: Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level: C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud = 7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan
The August..... 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
†Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	31	2	3	2		1	1			22	27	7	4	5	1	1	3	1	2	3	22	7	4	2		3		2	2 1	1	21	3	3	3	3 1	1	1	2 1	2	1
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	31			1		3	14	1		12	31	1	2	1		5	7 3	5 2	4	1	30		1	1	3	2 1	10 5	2 2	1	2	29		4	5	9	4 1	2	3	1	
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	31		1							30	30	1	13 1	6	3	3			1	2	26	3	3	4	2 1	3 1		1	4	4	20		1	1	8 2	4 1	1	1		1
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	31		3	2	3					23	28	5	2	9	2	3		1	2	4	26	5	2	3	1	3	1	3	4	4	21	1	2	5	2 1	4	4	1	1	
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31	1	8					1		21	31		7 1	9	2		2	6	3	1	31		7 1	9	2		2	6	3	1	31	9 5	2	2			2	3	7	1
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31									31	31		1				1			29											31	4	12				1	1		12
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ..	6-25 26-50 51-75 > 75	31	1					4			26	31	1	3			1	13 1		2	10											31	3	2		1		3	10	6	6
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31	3		8	3	3		1	1	12	31	3	2	6 1	7	4	3	1	1	3	31	5		2	1	2	11	2	1	7	31	5	2		1	2	5	10	2	4
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31								1	30	31	6	3		2			1	9	10	31	1			1	1	1	5	15 1	6	30	1	1	1		1	1	4	20 1	
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31	2					4	2		23	31	4	1				4	9 7	4 2		28	1				3	4 2	7 4	5	2	26	8	4 1	3	1	1	2	1	4	1
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31		2				4	4		21	31		2 1	1	4	4	5 5	6	3		31	1	1	1			8	9 8	2	1	31				1		11 1	10 2	4 2	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	1	1		1					28	31	3	3 1	1	5	3		6	7	2	31	4 1	1 1		1			3	14	6	31	5	1		1	1	1	3 2	15 1	1
Multan Φ = 30° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31		1	2	8	2				18	31	3	2	1	6 6	7 3	3				31	2 1	2	3	1 1	8	4 4	4	1		31		2				6 2	11 2	8	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31						1			30	31	7	2	1		1	1	2	11	6	31	18	1		1			2	6	3	31	5	2	1		2	2	4	8 1 2	4
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31		1	3	5			1		21	30			2	8 1	6	1		1	11											31	1 1		1	6	4	1	9	3	5

† On two days cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	20	2	3	2		1	4		2	2	1 — 8		1	1		10	5		3	1	8						1	12	18			Bogra +
26-50					1		1	2																								
51-75																																
> 75											7 or 8		1	1		3					15											
6-25	29	6	11	3	2	3					1 — 8			2		4					25											Chhor
26-50			4																					1				4	8	18		
51-75																																
> 75											7 or 8			1		1					2											
6-25	14	1		1	5	3	2			1	1 — 8					3	3	8	5	3	9											Chittagong
26-50							1																									
51-75																											3	16	11	1		
> 75											7 or 8					1	1				12											
6-25	17			1	2	2	5	1		3	1 — 8				1	7	13	2	1	1	6											Dacca
26-50							1	2																				17	13	1		
51-75																																
> 75											7 or 8					4					13											
6-25	31	7	1			1		2	6	1	1 — 8										31											Dalbandin
26-50		9							3																1	5	2	8	6	8	1	
51-75									1																							
> 75											7 or 8																					
6-25	30	17	2			5	2			2	1 — 8								3	1	27											Drosh
26-50		3																												30	1	
51-75																																
> 75											7 or 8																					
6-25	31	7	1			2	1	3	9	1	1 — 8										31											Fort Sandeman
26-50		1	1	1				1	3																		4	27				
51-75																																
> 75											7 or 8																					
6-25	31	9	3	2		2	2	3	5	4	1 — 8										31											Jacobabad
26-50		1																										31				
51-75																																
> 75											7 or 8																					
6-25	31	3	1		1		1	4	15	4	1 — 8										31											Jhelum
26-50								2																								
51-75																											3	12	14	2		
> 75											7 or 8																					
6-25	24	4	8			1		2	1		1 — 8					6	6	2			17											Karachi (Drigh Road)
26-50			7	1																					1		2	25	2	1		
51-75																																
> 75											7 or 8					1	1				2											
6-25	31	2	3	2	1	1	2	5	9	2	1 — 8										31											Khanpur
26-50				1			1		1																	6	17	6	1	1		
51-75								1																								
> 75											7 or 8																					
6-25	31	2	3		1			2	12	2	1 — 8										31											Lahore
26-50		3					1		5																	1	9	19	2			
51-75																																
> 75											7 or 8																					
6-25	31	4		1	2	2	4	8	9		1 — 8										31											Multan
26-50		1																										31				
51-75																																
> 75											7 or 8																					
6-25	31	4	2			2	4	4	9		1 — 8								1		30											Peshawar
26-50								2	3																			13	15	3		
51-75									1																							
> 75											7 or 8																					
6-25	31	8			1		1	10	4	1	1 — 8										31											Samungli (Quetta)
26-50		1		1	1				3																			8	16	7		
51-75																																
> 75											7 or 8																					

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+Bogra	6-25	31		5	1			2		1	22	29	6	7	4	2	1	4		1	4	26	5	5	5	1	1	3	2	1	2	22	1	2	5	1		6	3		3
Φ = 24° 51′ N ...	26-50																							1															1		
λ = 89° 23′ E ...	51-75																																								
Hs = 27 metres ...	> 75																																								
Chhor	6-25	31						16	12		2	31		1				14	12			31	3	1	1	2	3	5	4		2	30	2	2	9	4	3	1	4	2	1
Φ = 25° 31′ N ...	26-50							1										1	2								2	7	1									2			
λ = 69° 50′ E ...	51-75																	1																							
Hs = 7 metres ...	> 75																																								
Chittagong	6-25	31	1					5	1	2	22	30	3	1	2	1	2	3	7	8	2	26	6	3			4	3	3	2	3	19	2			4	3	2	1	4	1
Φ = 22° 21′ N ...	26-50																	1									2									1	1				
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
Dacca	6-25	31	1		3	2	1	2	2		20	27	4	2	4	1	2	1	4	5	4	26	4	2	2	1	1	4	3	3	5	19		1	2	2	3	2	1	3	2
Φ = 23° 47′ N ...	26-50																										1										1		2		
λ = 90° 23′ E ...	51-75																																								
Hs = — ...	>75																																								
Dalbandin	6-25	31		3	6	2	1	4	1		14	31		4	10	2		6		1	7	31		4	10	2		6		1	7	31	7	4	2	1		2	3	7	5
Φ = 28° 54′ N ...	26-50																		1										1												
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	31						7			24	31	1	4	1			14	1		10											31	1	5	1		2	13			7
Φ = 35° 34′ N ...	26-50																																					2			
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Fort Sandeman	6-25	31	1				1	3	7	6	13	31	1				2	9	9	3	7											31		1			3	10	3	6	8
Φ = 31° 21′ N ...	26-50																																								
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ...	> 75																																								
Jacobabad	6-25	31		1	1		4		1	1	23	31	1	2	1		5	2	3	2	15	31	2	1	5	2	4	7	3	2	5	31	1	2		2	4	11	2	5	4
Φ = 28° 17′ N ...	26-50																																								
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31		1			1				29	31		1		4	8	5		3	10	31		1		2	5	1	4	14	3	31	1		2		1	2	9	15	1
Φ = 32° 56′ N ...	26-50																													1											
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31				1		23	2	3	1	31					2	10	7	2	1	31		1	3			3	10	5	3	31	5	6	1	1	1	3	5	7	1
Φ = 24° 53′ N ...	26-50							1										2	6									4	1					1							
λ = 67° 07′ E ...	51-75																	1											1												
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	31		4				5	10	3	9	31	1	4				6	11	3	2	30	2	2	1		3	10	6			31					3	12	9	1	3
Φ = 28° 39′ N ...	26-50												1					2	1									2	4									2	1		
λ = 70° 41′ E ...	51-75																																								
Hs = 94 metres ...	> 75																																								
Lahore	6-25	31	1	1						5	24	31	4	2		3	1		5	11	5	31	1	3		1	1	4	5	11	5	31	3	1			2	2	8	13	1
Φ = 31° 35′ N ...	26-50																																							1	
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres ...	> 75																																								
Multan	6-25	31	1	3	1		3	5	1	1	16	31	3	2	2	1	6	8			8	31	2		4	5	7	7	3	1		31	1	1	1		4	11	5	2	2
Φ = 30° 12′ N ...	26-50																	1									1	1										3	1		
λ = 71° 31′ E ...	51-75																																								
Hs = 124 metres ...	> 75																																								
*Peshawar	6-25	31	1	5	1	2					22	31	2	16	10	1					2	31	4	6	5	3	1		1	1	10	31					3	6	12	7	1
Φ = 34° 01′ N ...	26-50																																						1	1	
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31						5	7	12	7	31	1					3	12	13	1											31	1					2	11	15	1
Φ = 30° 15′ N ...	26-50																		1																				1		
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.

* On two days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	15		1	1	1	1	2	2	2	1	1 — 8					5	11	6	1	3	4											Bogra +
26-50								3	1																		2	8	21			
51-75																																
>75											7 or 8						1				9											
6-25	29	2	6	6	6	2		1	4	1	1 — 8							3	2		26											Chhor
26-50				1																							1	1	4	25		
51-75																																
> 75											7 or 8																					
6-25	16			1	2	2	1	2	2		1 — 8					1	9	12	6	1	2											Chittagong
26-50					1	2	1	4	1																		2	16	13			
51-75																																
> 75											7 or 8					1	2				13											
6-25	18			2	1	4	1	3	2	2	1 — 8			1		6	20	3			1											Dacca
26-50							3																					5	21	5		
51-75																																
> 75											7 or 8					2	1				19											
6-25	31	6	2				2	2	10	1	1 — 8								1	1	29											Dalbandin
26-50		3							5																1	3	4	7	8	8		
51-75																																
> 75											7 or 8																					
6-25	31	5				6	13		1	5	1 — 8								21	6	4											Drosh
26-50						1																							3	19	9	
51-75																																
> 75											7 or 8																					
6-25	31	3	1		1	1	11	3	7	1	1 — 8										31											Fort Sandeman
26-50		1					1	1																			5	26				
51-75																																
> 75											7 or 8																					
6-25	31	3	3		1	5	5	5	5	3	1 — 8										31											Jacobabad
26-50							1																					6	25			
51-75																																
> 75											7 or 8																					
6-25	31	3	1		1		3	12	9	1	1 — 8								10	2	19											Jhelum
26-50									1																		1	1	25	4		
51-75																																
> 75											7 or 8																					
6-25	31	6	9	2			2	2	4	2	1 — 8							11			20											Karachi (Drigh Road)
26-50			3	1																								24	4	3		
51-75																																
> 75											7 or 8																					
6-25	31		1		4	5	4	10	4	1	1 — 8										31											Khanpur
26-50							2																			4	14	13				
51-75																																
> 75											7 or 8																					
6-25	31	4	1	1			2	5	15	1	1 — 8										31											Lahore
26-5							1	1																								
51-75																																
> 75											7 or 8																					
6-25	31		1			3	10	7	8		1 — 8										31											Multan
26-50							1																					30	1			
51-75							1																									
> 75											7 or 8																					
6-25	31	1	2				6	9	5		1 — 8							5	12		12											Peshawar ✻
26-50		1						5	1																			26	5			
51-75								1																								
>75											7 or 8																					
6-25	31	1	2			3	1	11	9	2	1 — 8								4		27											Samungli (Quetta)
26-50								1	1																			3	19	9		
51-75																																
> 75											7 or 8																					

TABLE—10 WIND FREQUENCY

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+ Bogra	6-25	31	1	3	1	1			1		24	24	5	2	2	3	2	2	1	2	2	23	4		1	1	2	2	3	3	7	16	2		3	3	1		2	2	1
Φ = 24° 51′ N ...	26-50												2							1																1		1		
λ = 89° 23′ E ...	51-75																																								
Hs = 27 metres ...	> 75																																								
Chittagong	6-25	31				1					30	28	3	4	2	7	3	2	1	3	1	25	5	3		3	3	3	3	4		20		2	1	3	7		1	1	2
Φ = 22° 21′ N ...	26-50															1	1									1										2	1				
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
Dacca	6-25	31	1	2	1	1	1	2			23	28	6	1	1	4	3	3	2	6		28	4		1	2	5	3	4	4	4	19			1	1	2	4	4	2	3
Φ = 23° 47′ N ...	26-50																	2										1								1				1		
λ = 90° 23′ E ...	51-75																																								
Hs = — ...	>75																																								
Dalbandin	6-25	31		5	3			1		2	19	29	2	5	9	1	1	1	2	2	2	29	2	5	9	1	1	1	2	2	2	28	5	2	1	1	3	3	4	4	2
Φ = 28° 54′ N ...	26-50									1					3					1					3					1			2						1		
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	31				1		1			29	31		2	1		4	10			14											31		1	1		3	14	1		11
Φ = 35° 34′ N ...	26-50																																								
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	> 75																																								
Jacobabad	6-25	31		1	2	3	2	2	2		19	31	1	3	1	3	5	6	4	2	5	31				4	2	16	4		4	30	1	1	2			8	11	2	4
Φ = 28° 17′ N ...	26-50														1													1												1	
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	31	3	2	1				1		23	30	4	3	2	3	1	1	3	7	5	30	1				1	2	12	12	2	30	3			2		1	1	17	2
Φ = 32° 56′ N ...	26-50												1																											4	
λ = 73° 44′ E ...	51-75		1																																						
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	31						5	5	2	19	31					1	1	12	9		29			1	1	6	5	4	2	1	27	1	9	3		1		3	6	2
Φ = 24° 53′ N ...	26-50																		5	3								1	8					2							
λ = 67° 07′ E ...	51-75																																								
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	31		3				1	4		23	31	2	8	1		2	5	5	2		31	1	2		1	3	12	5	2	2	31	2	1		1	3	8	8	5	2
Φ = 28° 39′ N ...	26-50																	1	4									1	2									1			
λ = 70° 41′ E ...	51-75													1																											
Hs = 94 metres ...	> 75																																								
Lahore	6-25	31		2							29	31	2	3	4	2		4	5	5	6	31	9	1	1	3			3	13	1	31	7			1			6	14	1
Φ = 31° 35′ N ...	26-50																																1							1	
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres ...	> 75																																								
Multan	6-25	31			2	7	2				20	31	1		4	3	3	5	1			31		1	2	3	4	9		1	2	31	1			1	1	5	7	2	
Φ = 30° 12′ N ...	26-50														3	6	3	2									1	7										9	5		
λ = 71° 31′ E ...	51-75																										1														
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	31					2	3		2	24	31	11	2			1	1	2	11	3	31	4	3	4	2		2	1	2	13	31	1	1		3	5	10	6	2	1
Φ = 34° 01′ N ...	26-50																																							2	
λ = 71° 35′ E ...	51-75																																								
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	31		4	2	6		6	3	2	8	30		1	1	1	2	7	9	5	3											30		1			3	14	8	2
Φ = 30° 15′ N ...	26-50																	1																				1	1		
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

+ On two days cloud heights could neither be measured nor estimated.

(LATE NIGHT)

TABLE—11 FREQUENCY OF LOW CLOUD HEIGHTS (LATE NIGHT)

TABLE—12 FREQUENCY OF VISIBILITY (LATE NIGHT)

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	8	1		2	1	1		1		1	1 — 8					4	8	4			13											Bogra +
26-50							1																			1	17	12	1			
51-75																																
>75											7 or 8										14											
6-25	15		1	2	3	3	1	2		2	1 — 8					1	5	7	6		12											Chittagong
26-50									1																1		6	23	1			
51-75																																
>75											7 or 8					1	3	1			9											
6-25	13			1	3	1	1	2	1	1	1 — 8				1	6	11	3	1		9											Dacca
26-50							1	1																				29	2			
51-75								1																								
> 75											7 or 8					3	1		1		14											
6-25	27	5	1	2		1	1	4	4	2	1 — 8										31											Dalbandin
26-50		3							4																3	3	3	7	5	10		
51-75																																
> 75											7 or 8																					
6-25	31	2	2	1	1	17	4			3	1 — 8								3	1	27											Drosh
26-50		1																										3	28			
51-75																																
> 75											7 or 8																					
6-25	24	9	1				2	1	9	2	1 — 8										31											Jacobabad
26-50																												31				
51-75																																
> 75											7 or 8																					
6-25	30	5	1		1	1		6	9		1 — 8								1		30											Jhelum
26-50		2			1				4																	1	1	28	1			
51-75																																
>75											7 or 8																					
6-25	26	4	4						2		1 — 8					5	2	2			22											Karachi (Drigh Road)
26-50		6	7						1																			30	1			
51-75		1	1																													
> 75											7 or 8					1	1															
6-25	23	2	4	1		1	3	2	8	1	1 — 8										31											Khanpur
26-50			1																						9	11	10	1				
51-75																																
> 75											7 or 8																					
6-25	29	6				1		6	6	1	1 — 8										31											Lahore
26-50		2						2	5																		1	30				
51-75																																
> 75											7 or 8																					
6-25	28	2				1	4	7	7	1	1 — 8									1	30											Multan
26-50		1						4	1																			31				
51-75																																
> 75											7 or 8																					
6-25	31	1				3	6	6	5	3	1 — 8							2	1		28											Peshawar
26-50								1	5																			31				
51-75																																
> 75									1		7 or 8																					
6-25	23	1						8	8		1 — 8										31											Samungli (Quetta)
26-50								2	4																			28	3			
51-75																																
> 75											7 or 8																					

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month November 1950

Supplement to the monthly Weather Report, November 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.M.T.

The symbols used in the tables of wind frequency have the following meaning:—ϕ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level; C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1.000 m.	1,000 to 2.000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+ Bogra	6-25	30	2	1	1			1	3	1	21	29	10	3	3	1		1	4	4	1	28	6	3	4	1	1	2	2	6	2	27	4	2	1	1			5	6	2
Φ = 24° 51′ N ...	26-50												1							1			1															4	2	
λ = 89° 23′ E ...	51-75																																								
Hs = 27 metres ...	> 75																																								
Chhor	6-25	28	1	1	2			1	1		22	28	4	4	9	1	2	2	1	2	2	28	2	1	2	4	4	3	1	5	4	28	3	5	2	5	2	2		5	3
Φ = 25° 31′ N ...	26-50														1								1					1											1		
λ = 69° 50′ E ...	51-75																																								
Hs = 7 metres ...	> 75																																								
Chittagong	6-25	30		2							28	28	5	13	3			1		1	2	25	3	2	1	1	7			4	2	24	2	1			2	2	7	4	1
Φ = 22° 21′ N ...	26-50												2		1								5										2				1	2			
λ = 91° 50′ E ...	51-75																																								
Hs = 21 metres ...	> 75																																								
Dacca	6-25	30	4	1				1		2	22	28	10	2	4	2		2	3	2	1	27	9	5	4	1	1		2	3	1	25						6	2	8	1
Φ = 23° 47′ N ...	26-50												2										1																4	4	
λ = 90° 23′ E ...	51-75																																								
Hs = — ...	>75																																								
Dalbandin	6-25	30		14	1	1					14	30		10	15							30		12	17							30	7	4		1	1	1	3	6	1
Φ = 28° 54′ N ...	26-50													2	3										1								4	1				1			
λ = 64° 26′ E ...	51-75																																								
Hs = 855 metres ...	> 75																																								
Drosh ...	6-25	30		1							29	30	1	11	1	3		1			13											30	2	20	2			2			3
Φ = 35° 34′ N ...	26-50																																	1							
λ = 71° 47′ E ...	51-75																																								
Hs = 1512 metres ...	>75																																								
Fort Sandeman	6-25	30	1					2	4		23	30					13	12	1	4												30	1	1			1	8	11	5	2
Φ = 31° 21′ N ...	26-50																																						1		
λ = 69° 27′ E ...	51-75																																								
Hs = 1410 metres ..	> 75																																								
Jacobabad	6-25	30	2		7	1		1	1	4	13	30	1	2	5	4	1	1	3	5	5	30	1		1	3	1	5	2	10	4	30	6	2			2	2	7	9	1
Φ = 28° 17′ N ...	26-50		1										2							1			1							2									1		
λ = 68° 29′ E ...	51-75																																								
Hs = 63 metres. ...	> 75																																								
Jhelum	6-25	30	1							3	26	30	6	2	1				1	12	5	30	3			5		1	2	14	2	30	1	1	3		1	4	3	11	4
Φ = 32° 56′ N ...	26-50																		1	2										3						1				1	
λ = 73° 44′ E ...	51-75																																								
Hs = 240 metres ...	> 75																																								
Karachi (Drigh Road)	6-25	30	8	2							20	30	4	8	1				2	11		30	2	6	4			3	10	2	1	30	2	12	4	1		1	3	4	1
Φ = 24° 53′ N ...	26-50												1	3										1					1				1						1		
λ = 67° 07′ E ...	51-75																																								
Hs = 28 metres ...	> 75																																								
Khanpur	6-25	30	1	3	1	1	1	5	2		16	30	1	2	3	5	5	6	1			30	5	3	2	1		3	9	4		30	4	1				3	7	10	
Φ = 28° 39′ N ...	26-50												2			1		1	2	1				1				1	1				1						4		
λ = 70° 41′ E ...	51-75																																								
Hs = 94 metres ...	> 75																																								
Lahore	6-25	30								1	29	30	6	1	1	1			3	8	2	30	8		1	1	2	2	3	7	2	30	2	2		2		1	6	10	2
Φ = 31° 35′ N ...	26-50												1			1	1		1	4										4			1			2				2	
λ = 74° 20′ E ...	51-75																																								
Hs = 224 metres ...	> 75																																								
Multan	6-25	30									30	30	5	1		6	7	2	2		2	30	5	2		1	4	4	4	2	4	30	5			2		4	8	7	2
Φ = 30° 12′ N ...	26-50												1	1		1	1			1				1				1		2			1						1		
λ = 71° 31′ E ...	51-75																																								
Hs = 124 metres ...	> 75																																								
Peshawar	6-25	30	1			1	2	4			22	30	4	1	2	1	1	1	4	4	10	30	6	2	1		1	1	3	10	5	30	6	2		1	2		1	5	2
Φ = 34° 01′ N ...	26-50															1				1			1																8		
λ = 71° 35′ E ...	51-75																																						1		
Hs = 368 metres ...	> 75																																								
Samungli (Quetta) ...	6-25	30			3	2			2	1	22	30	2		1	7	1	2	4	1	11											30	5	1				2	8	10	3
Φ = 30° 15′ N ...	26-50																		1																				1		
λ = 66° 53′ E ...	51-75																																								
Hs = 1602 metres...	> 75																																								

+ On one day cloud heights could neither be measured nor estimated.

FREQUENCY (MORNING)

TABLE—2 FREQUENCY OF LOW CLOUD HEIGHTS (MORNING)

TABLE—3 FREQUENCY OF VISIBILITY (MORNING)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	D	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	24						2	4	1		1 — 8					2	3			1	23											Bogra +
26-50								11	1																		7	13	10			
51 75								4	1																							
> 75											7 or 8						1				5											
6-25	28	6	5		1	1	3	4	2	2	1 — 8										28											Chhor
26-50								3	1																				1	29		
51-75																																
> 75											7 or 8																					
6-25	23		1			1	2	4	3	1	1 — 8					4	1	3			22											Chittagong
26-50							2	7	1																		3	15	12			
51-75									1																							
> 75											7 or 8						1	1			7											
6-25	23			1			2	6		1	1 — 8			2	1	1		2	1	1	22											Dacca
26-50								7	1																		1	18	11			
51-75								4	1																							
> 75											7 or 8			1						1	8											
6-25	30	8	2		1		2	1	6		1 — 8										30											Dalbandin
26-50		2						1	6																	5	5	3	17			
51-75									1																							
> 75											7 or 8																					
6-25	30	7	2				2			2	1 — 8				1		1	1	2	1	24											Drosh
26-50		14					3																		1				2	27		
51-75																																
> 75											7 or 8										4											
6-25	30	8	1	1	2	1		2	1		1 — 8										30											Fort Sandeman
26-50		3						4	5																			30				
51-75									1																							
> 75									1		7 or 8																					
6-25	29	1	2	1		1	1	9	6	1	1 — 8										30											Jacobabad
26-50			1	1			1	3	1																		6	18	5	1		
51-75																																
> 75											7 or 8																					
6-25	30	2			1	1	2	5	10	2	1 — 8								2		28											Jhelum
26-50		1		1	2		1	2																			2	16	12			
51-75																																
> 75											7 or 8																					
6-25	30	5	2	1		1	2	4	5		1 — 8					2	2				26											Karachi (Drigh Road)
26-50			2				1	7																				15	9	4	2	
51-75																																
> 75											7 or 8										1											
6-25	30	2	1	2	1		1	5	7	1	1 — 8										30											Khanpur
26-50		2	1				1	5	1																	3	22	5				
51-75																																
> 75											7 or 8																					
6-25	30	2	2	1	3		2	4	11		1 — 8										30											Lahore
26-50				1				2	2																	5	17	8				
51-75																																
> 75											7 or 8										1											
6-25	29	3	4		1		1	6	4	1	1 — 8										30											Multan
26-50							1	6	2																		16	14				
51-75																																
> 75											7 or 8																					
6-25	30	7	1		1	2	1	4	6	2	1 — 8								2		28											Peshawar
26-50									6																			4	26			
51-75																																
> 75											7 or 8										1											
6-25	30	6	2	1	2	1		1	3		1 — 8							1	1		28											Samungli (Quetta)
26-50		1						3	9																		1	7	17	5		
51-75									1																							
> 75											7 or 8																					

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	30	3		1		1			1	24	29	7	3	1	1	2		3	7	5	28	5	1	2	2	2	1	5	6	4	26	1	1	1	1		1	4 6	5 6	
Chhôr Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	28	2					5	10	1	10	28	1 1	2				4	13	1	6	28	4	3	1	3	2	3	4	2	6	28	1	5	5 1	2	2	1	5 1	3	2
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	30	4							1	25	29	11	1	2		1	1	5	4	4	27	12 1	1	2		4			2	5	26	1 1	1			1	6	10	5	1
+Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	30	5		1		1	1	1	2	19	27	8		2	1	1		3	7	5	27	9		1	1	1	1	3	9	2	26	2					2	5 3	4 6 1	3
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30		9	14	2					5	30		1	21 3				1		4	30		1	22 3						4	30	6 4	2			2	1 1	2 1	6	5
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	30		9		1		1			19	30	1	13 1	3	1			1		10											30	9	10 1	2		3	1	1		3
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ...	6-25 26-50 51-75 > 75	30	1					2	12		15	30	1					5	17	4	3											30	4 1					8 1	9 1	5	1
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	30	1	1	2		1		3	3	19	30		3	3		1		6	6 1	10	29	3		3		5	5	2	4 1	6	29	6 2		1	1	1	5 1	6	5	1
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30							2	3	25	30	2			1	2	4	6	6 1	8	30	1			3	1	3	6	13	3	30	1	1	1	1 1	2 1	4	6 1	8 1	2
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30		3		2		7		3	15	30	1	4	4	3		5 1	4	2	6	29	1	7	2			2	6	6	5	29	4	5 1	5		1	2	6 1	3	1
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30	3	3			1	6	4		13	30	4	5		1	1	5	7	3	4	30	1	5			1	7	8 1	3	4	30	1 2		1	1	2	4	12 2	3 1	1
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30	1		1	1			11	6	10	30				1	1		8	11	9	30	1			1	2	1	9	12 1	3	30	4	1		2 1	2 1	2	7 1	8	1
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30	3		1	1	1	2	2	1	19	30	5	2		2	6	4	4	3	4	30	3 1	2	1	1	6	6 1	1	4	4	30	3	1	1		2	5 1	11 1	4	1
*Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30	1	3						2	24	30	4	9	6	1				2 1	7	30	3	1					1	11 1	13	30	4	1			3	2	8 1	6 1	4
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30				2	2	1	1	15 1	8	30					1	2	12 1	10 1	3											30	5	1			1	2	9	10	2

+ On one day cloud heights could neither be measured nor estimated.

* On two days cloud heights could neither be measured nor estimated.

FREQUENCY (AFTERNOON)

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	D	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	25	1						6	1		1 — 8					4	4		5		16											Bogra +
26-50								8	1																		1	5	24			
51-75								3	4																							
>75				1							7 or 8								1		4											
6-25	27	5	1	2	1		4	3	3	2	1 — 8								1		27											Chhor
26-50								5	1																					30		
51-75																																
> 75											7 or 8																					
6-25	25				1		1	8	1	1	1 — 8					1	3	8	4		14											Chittagong
26-50								8	4																			14	16			
51-75									1																							
> 75											7 or 8						1				5											
6-25	23						1	5			1 — 8			1			6	8			14											Dacca +
26-50							1	8	7																		1	6	13	9	1	
51-75									1																							
> 75											7 or 8			1			1				6											
6-25	30	4	2			1	3	1	6	1	1 — 8										30					6	2	5	17			Dalbandin
26-50		3	1		1		1	1	4																							
51-75		1																														
> 75											7 or 8																					
6-25	29	13	3			1	4		1	4	1 — 8							1	12		17							1	4	10	15	Drosh
26-50						3																										
51-75																																
> 75											7 or 8							1	1		7											
6-25	30	2	1		1	4	1	3	3		1 — 8										30											Fort Sandeman
26-50			1				2	3	8																			30				
51-75									1																							
> 75											7 or 8																					
6-25	29	4	1	2		2	2	7	4	2	1 — 8										30											Jacobabad
26-50								4	1																1			4	21	4		
51-75																																
> 75											7 or 8																					
6-25	30	2		1	2	3	4	5	4	3	1 — 8								4		26											Jhelum
26-50					1	1	2		2																			3	25	2		
51-75																																
> 75											7 or 8										2											
6-25	29	5	1			1	2	9	5		1 — 8						1	1			28											Karachi (Drigh Road)
26-50								3	3																			7	12	5	6	
51-75																																
> 75											7 or 8																					
6-25	30		1	2	1	4	3	4	4		1 — 8										30						25	5				Khanpur
26-50							3	6	2																							
51-75																																
> 75											7 or 8																					
6-25	30	2	1	1	2		4	6	6	3	1 — 8										30											Lahore
26-5					1		1	1	2																			2	28			
51-75																																
> 75											7 or 8																					
6-25	30	1	1	1	2		1	8	3	2	1 — 8										30											Multan
26-50			1				3	6	1																		2	28				
51-75																																
> 75											7 or 8																					
6-25	30	3	3	2		2	7	4	6		1 — 8							2	6		20											Peshawar *
26-50							1	1	1																		1	19	9	1		
51-75																					2											
> 75											7 or 8																					
6-25	29	2	3		3	1		3	4	1	1 — 8								2		28											Samungli (Quetta)
26-50		2						1	9																			3	16	10	1	
51-75																																
> 75											7 or 8																					

TABLE—10 WIND FREQUENCY

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
+ Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	29	1	2				1	2	5	18	27	5 2	4	1				1 1	7 4	2	25	4	2	2				2	11 3	1	22	1	2	1	1	1	1	4 3	4 2 1	1
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 >75	30	5	4							21	27	7 8 1	6 1	2					1	1	26	7 6	3 2	1	1	1		1	2	2	19	3 1	1	1		1 1	1 2	1	4 1	2
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 > 75	30	2							4	24	27	2 4	3	1		1	1	4	5 4	2	26	11 1	2			1	2	2	5	2	21	1				1	4	7 1	3 2 1	1
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	30		11	5						14	28		9	11 5				1		2	28		9	13 3				1		2	28	8 3	2	1		1	2	1 1	7	2
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	30				1		1			28	28		7	3		1	2			15											28		18			1 1	1			7
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres ...	6-25 26-50 51-75 > 75	30	11			1		3	2	2	11	30	5 5	1		1		2	7	5	4	30	1		1			6	8	7 1	6	29	2 1	2			3	1	6 1	12	1
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	30		3						4	23	30	9	1	4	2			3 1	10		30	1 1	1		1	2		1	16 2	5	30	6		2	1	3	3	3 1	6	5
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	30	7	2					1	4	16	30	8	5 1				1	3 3	9		30	1	6	5	1	2	6	5	2	2	29	6 1	5 5	3		3		1 1	2 1	1
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	30		5	2	1		5	3		14	30	1	4 2	5		1	6	6 3	1	1	30	3 1	1				8	8 1	4	4	29	5 1				1	7	7 1	6 1	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	30								1	29	28	1	1	4 1	6 2	3	1 1	4 1	1	2	30	5	1			1	2	3	14 1	3	30				3	2	2	7 1	11 1	3
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	30				1		2			27	30	2		3	6 1	5	2 4	2	1	4	30	1 1		1		3 1	9 2	7 1	2 1	1	30	1 2	2		1		5 1	11 2	4 1	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	30			1		2	10	1	2	14	30	8		1		1		3	6	11	30	2	4	2		3		1	6 3	9	30	6 1	3	1		4	3	3 1	6	2
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	30			4	4			2	8	12	18		1				2	8	5	2											18		1			1	2	8	6	

+ On one day cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	12						1	2			1 — 8					1	3	1			23											Bogra +
26-50								4	2																	1	16	12				
51-75								1	1																							
>75								1			7 or 8										2											
6-25	10	2					1		3		1 — 8						3	3	1		23											Chittagong
26-50								1	2																		5	25				
51-75								1																								
>75											7 or 8						2	1			5											
6-25	12						2	3	1		1 — 8			2			2	2	1		23											Dacca
26-50								4	1																	1		28	1			
51-75								1																								
> 75											7 or 8			1				1	1		7											
6-25	27	4	1	1		2		4	1		1 — 8										30											Dalbandin
26-50		3	1					4	6																1	3	6	5	15			
51-75																																
> 75											7 or 8																					
6-25	28	13	1	1		4	3			3	1 — 8				1				4		25											Drosh
26-50		2				1																				2		1	24	3		
51-75																																
> 75											7 or 8										3											
6-25	25	6	1	1	1	1		3	8	1	1 — 8										30											Jacobabad
26-50								2	1																			30				
51-75																																
>75											7 or 8																					
6-25	30	2		2		2	3	4	10	3	1 — 8										30											Jhelum
26-50					2	1		1																				30				
51-75																																
> 75											7 or 8																					
6-25	28	2	3		1		1	7	5	1	1 — 8										30											Karachi (Drigh Road)
26-50			2					4	2																			21	9			
51-75																																
> 75											7 or 8																					
6-25	24	3	3	1			3	3	3	1	1 — 8										30											Khanpur
26-50		1				1		3	2																	18	9	3				
51-75																																
> 75											7 or 8																					
6-25	29	3	1	1	2		3	7	6	2	1 — 8										30											Lahore
26-50							2	1	1																		1	29				
51-75																																
> 75											7 or 8																					
6-25	26	8	1					5	3	1	1 — 8										30											Multan
26-50		1	1				2	2	2																		7	23				
51-75																																
> 75											7 or 8																					
6-25	30	3	1	3	1	2	4	5	5	1	1 — 8							1	1		28											Peshawar
26-50		1				1		2	1																			29	1			
51-75																																
> 75											7 or 8										1											
6-25	11	1				1	1	1	2		1 — 8										30											Samungli (Quetta)
26-50					1			1	3																			27	2	1		
51-75																																
> 75											7 or 8																					

Registered No. S—1453

GOVERNMENT OF PAKISTAN

METEOROLOGICAL DEPARTMENT

MONTHLY FREQUENCY TABLES

of

Horizontal Visibility, Height of Base of Low Cloud and Surface and Upper Winds at Pilot Balloon Stations.

Month December, 1950

Supplement to the monthly Weather Report, December 1950

Tables of wind Frequency:—Data for tables 1, 7 and 10 are obtained from routine Pilot Balloon ascents. They are classified under three sets of tables according to the times of their commencement. Ascents in day light starting before 0300 hrs. G.M.T. have been classified under "morning", some of these ascents begin about 10—15 minutes before sunrise; thus the actual time of ascent will be different at different stations. Ascents taken at about 0900 hours G. M. T. are classified as "afternoon". Night ascents which start at about 2100 hours G.M.T. are classified as "late night". The most frequent times of commencement of the ascents which have been classified at "Morning", "After-noon", and "Late-night", are 0300, 0900 and 2100 hours G.MT.

The symbols used in the tables of wind frequency have the following meaning:—ϕ = Latitude of the Station; λ = Longitude of the Station; Hs=Height of the anemometer head (i.e. the height to which the values of surface wind relates) above mean sea level: C= the number of observations when the speed of wind is 5 km/hr. or less and n= number of observations.

Tables of Frequency of Heights of base of low clouds: Tables 2, 8 and 11 are based on observations made at the hours of Pilot balloon flights or within half an hour of the same. Heights which are either measured or estimated are given.

In the first row of these tables, for amount of low cloud, 1 to 8, the number under code figure 9 gives occasions when there was no low cloud, and in the second row for amount of low cloud=7 or 8, the number under this code figure gives all occasions when the total amount of cloud (whether low, medium or high) was 7 or 8.

Tables of Frequency of Horizontal Visibility:—Data for tables 3, 9 and 12 are obtained from observations near the times of pilot balloon ascents.

The code figures used in the tables 2, 3, 8, 9, 11 and 12 have the following meaning:—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 meter	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1,000 to 1,499m.	1,500 to 1,999m.	2,000 to 2,500m.	No Low cloud / Total amount of cloud =7 or 8
Code figure	90	91	92	93	94	95	96	97	98	99
Visibility	Less than 50 meter	50 to 200 m.	200 to 500 m.	500 to 1,000 m.	1,000 to 2,000 m.	2,000 to 4,000 m.	4,000 to 10,000m.	10,000 to 20,000m.	20,000 to 50,000m.	Greater than 50,000m.

KARACHI, Pakistan

The August..... 1955

S. N. NAQVI,
Director,
Meteorological Service, Karachi.

(Price Annas)

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	31	2	2	3	1			1	4	18	31	7	6	2	1	3	1		6	3
Φ = 24° 51′ N ...	26-50												1							1	
λ = 89° 23′ E ...	51-75																				
Hs = 27 metres ...	> 75																				
Chhor	6-25	29		16							13	29		8	9	1					1
Φ = 25° 31′ N ...	26-50													4	6						
λ = 69° 50′ E ...	51-75																				
Hs = 7 metres ...	> 75																				
Chittagong	6-25	31	1	2							28	31	12	18						1	
Φ = 22° 21′ N ...	26-50																				
λ = 91° 50′ E ...	51-75																				
Hs = 21 metres ...	> 75																				
Dacca	6-25	31	1	1			1			1	27	31	11	5	1	1		3	3	2	3
Φ = 23° 47′ N ...	26-50												2								
λ = 90° 23′ E ...	51-75																				
Hs = — ...	>75																				
Dalbandin	6-25	31		12	2						17	31		10	16	1		1			1
Φ = 28° 54′ N ...	26-50													1	1						
λ = 64° 26′ E ...	51-75																				
Hs = 855 metres ...	> 75																				
Drosh ...	6-25	31		2	1						28	31		10	6	2					13
Φ = 35° 34′ N ...	26-50																				
λ = 71° 47′ E ...	51-75																				
Hs = 1512 metres ...	> 75																				
Fort Sandeman	6-25	31					1	10	2		18	31					2	18	6	1	4
Φ = 31° 21′ N ...	26-50																				
λ = 69° 27′ E ...	51-75																				
Hs = 1410 metres ..	> 75																				
Jacobabad	6-25	31	4	1	3	2		1		3	17	31	4	4	4	3				8	5
Φ = 28° 17′ N ...	26-50																			3	
λ = 68° 29′ E ...	51-75																				
Hs = 63 metres. ...	> 75																				
Jhelum	6-25	31								1	30	31	5	2	2					20	
Φ = 32° 56′ N ...	26-50																			2	
λ = 73° 44′ E ...	51-75																				
Hs = 240 metres ...	> 75																				
Karachi (Drigh Road)	6-25	31	10	3						2	16	31	5	15	3					1	
Φ = 24° 53′ N ...	26-50												1	6							
λ = 67° 07′ E ...	51-75																				
Hs = 28 metres ...	> 75																				
Khanpur	6-25	31		3			1	3			24	31	1	4	6	5	5	4		1	2
Φ = 28° 39′ N ...	26-50																	2	1		
λ = 70° 41′ E ...	51-75																				
Hs = 94 metres ...	> 75																				
Lahore	6-25	31				1					30	31	7	1	2		1	2	2	13	2
Φ = 31° 35′ N ...	26-50																			1	
λ = 74° 20′ E ...	51-75																				
Hs = 224 metres ...	> 75																				
Multan	6-25	31									31	31	3	4		5	3	7	4	2	3
Φ = 30° 12′ N ..	26-50																				
λ = 71° 31′ E ...	51-75																				
Hs = 124 metres ...	> 75																				
+ Peshawar	6-25	31					2	12			17	31	1		1	5	5	2	4		13
Φ = 34° 01′ N ...	26-50																				
λ = 71° 35′ E ...	51-75																				
Hs = 368 metres ...	> 75																				
Samungli (Quetta) ...	6-25	31			1	1		2	1		26	30		1	3	6	3		4	8	5
Φ = 30° 15′ N ...	26-50																				
λ = 66° 53′ E ...	51-75																				
Hs = 1602 metres...	> 75																				

STATION.	Speed limit (km./hr.)	1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	C	n	N	NE	E	SE	S	SW	W	NW	C
Bogra	6-25	31	4	2	1	2	1	4	5	4	6	28	1	1	1	3			3	1	1
Φ = 24° 51′ N ...	26-50		1							1									7	5	
λ = 89° 23′ E ...	51-75																		1	4	
Hs = 27 metres ...	> 75																				
Chhor	6-25	29	10	7					1	5	1	29	8	2				4	5	4	2
Φ = 25° 31′ N ...	26-50		1	4									3							1	
λ = 69° 50′ E ...	51-75																				
Hs = 7 metres ...	> 75																				
Chittagong	6-25	31	14	4		1	3	1	1	1	4	31	1				1	4	5	7	
Φ = 22° 21′ N ...	26-50		1	1									2			1		2	1	7	
λ = 91° 50′ E ...	51-75																				
Hs = 21 metres ...	> 75																				
Dacca	6-25	31	6	2		1	2	2	4	8	4	29	1				1		4	5	
Φ = 23° 47′ N ...	26-50			1						1									5	8	
λ = 90° 23′ E ...	51-75																		1	4	
Hs = — ...	>75																				
Dalbandin	6-25	31		9	17			1			4	31	8	1			1	6	1	7	
Φ = 28° 54′ N ...	26-50												5							2	
λ = 64° 26′ E ...	51-75																				
Hs = 855 metres ...	> 75																				
Drosh ...	6-25											31	1	25	1						
Φ = 35° 34′ N ...	26-50													4							
λ = 71° 47′ E ...	51-75																				
Hs = 1512 metres ...	> 75																				
Fort Sandeman	6-25											31	2	1			1	12	11	1	2
Φ = 31° 21′ N ...	26-50																			1	
λ = 69° 27′ E ...	51-75																				
Hs = 1410 metres ..	> 75																				
Jacobabad	6-25	31	8	1			1	3	4	6	4	31	4	1		1	1	1	9	12	2
Φ = 28° 17′ N ...	26-50		2							2											
λ = 68° 29′ E ...	51-75																				
Hs = 63 metres. ...	> 75																				
Jhelum	6-25	31	7	2	1	3	1		3	8	1	31	2	1	4	7	1		1	4	6
Φ = 32° 56′ N ...	26-50									5						4					
λ = 73° 44′ E ...	51-75														1						
Hs = 240 metres ...	> 75																				
Karachi (Drigh Road)	6-25	31	9	7	1	1	1		1	8	2	31	8	3	3	2	1	2	4	3	
Φ = 24° 53′ N ...	26-50			1									1	1				1	1	1	
λ = 67° 07′ E ...	51-75																				
Hs = 28 metres ...	> 75																				
Khanpur	6-25	31	6	1		1		3	8	6	4	31	8	4	2		1	3		7	4
Φ = 28° 39′ N ...	26-50								2										1	1	
λ = 70° 41′ E ...	51-75																				
Hs = 94 metres ...	> 75																				
Lahore	6-25	31	3		3	1	1	1	4	14	2	31	2	1	2	5	4	2	2	7	3
Φ = 31° 35′ N ...	26-50									2					1				1	1	
λ = 74° 20′ E ...	51-75																				
Hs = 224 metres ...	> 75																				
Multan	6-25	31	6	2		2	2	2	6	3	7	31	5	3	3	1	1	2	3	7	3
Φ = 30° 12′ N ..	26-50							1												3	
λ = 71° 31′ E ...	51-75																				
Hs = 124 metres ...	> 75																				
+ Peshawar	6-25	31	7	2	2	5	1	1	2	6	3	31	10	3	3		1		1	6	
Φ = 34° 01′ N ...	26-50									2			1						1	4	
λ = 71° 35′ E ...	51-75																		1		
Hs = 368 metres ...	> 75																				
Samungli (Quetta) ...	6-25											30	1		1	2	3	3	5	10	5
Φ = 30° 15′ N ...	26-50																				
λ = 66° 53′ E ...	51-75																				
Hs = 1602 metres...	> 75																				

+ On one day cloud heights could neither be measured nor estimated.

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	26							3			1 — 8					1	1	1			28											Bogra
26-50			1					6	2																	1	4	23	3			
51-75								5	6																							
> 75								2	1		7 or 8										1											
6-25	29						1	4	4		1 — 8										31											Chhor
26-50							2	14	2																					31		
51-75								2																								
> 75											7 or 8										3											
6-25	28							3	2		1 — 8							2	1		28											Chittagong
26-50		1					3	8	6																		7	20	4			
51-75		1						1	3																							
> 75											7 or 8										1											
6-25	28						1	3			1 — 8							1	1		29											Dacca
26-50								8	3																2	1	1	18	9			
51-75								4	7																							
> 75								1	1		7 or 8								1		1											
6-25	31						3	4	4		1 — 8									2	29											Dalbandin
26-50		1					2		15																		3	7	21			
51-75									2																							
> 75											7 or 8										1											
6-25	31	13	4	1					1		1 — 8								5	3	23											Drosh
26-50		12																											5	26		
51-75																																
> 75											7 or 8									1	7											
6-25	31	2			1	1	2	7	7		1 — 8								1		30											Fort Sandeman
26-50					1		2	3	4																			25	5	1		
51-75									1																							
> 75											7 or 8										1											
6-25	31	1				1	5	9	5	1	1 — 8									1	30											Jacobabad
26-50		1					1	1	6																		9	12	6	4		
51-75																																
> 75											7 or 8										1											
6-25	30	1	1	2	5	5	1	1	3	2	1 — 8										31											Jhelum
26-50				1	6			1	1																		13	17	1			
51-75																																
> 75											7 or 8										3											
6-25	31	1	1				2	6	3		1 — 8								1		30											Karachi (Drigh Road)
26-50							2	10	5																			2	18	6	5	
51-75								1																								
> 75											7 or 8										7											
6-25	31	1	1			1	2	9	8		1 — 8										31											Khanpur
26-50							2	4	1																	17	14					
51-75								1	1																							
> 75											7 or 8										1											
6-25	31	1	3	1	2	7	1	6	1	1	1 — 8										31											Lahore
26-50					1	2	2	2	1																1	12	14	4				
51-75																																
> 75											7 or 8										4											
6-25	30	2	1			2	7	7	5		1 — 8										31											Multan
26-50								5	1																	1	23	7				
51-75																																
> 75											7 or 8										1											
6-25	31	4	9	2	1	1	4		2	2	1 — 8								1		29											Peshawar +
26-50			2	1					1																			10	19	2		
51-75									1																							
> 75									1		7 or 8																					
6-25	30					2	3	5	6		1 — 8						1			1	29											Samungli (Quetta)
26-50		1				1	1	2	9																			8	22	1		
51-75																																
> 75											7 or 8																					

TABLE—7 WIND

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2·0 km. a. s. l.									
		n	N	NE	E	SE	S	SW	W	NW	c	n	N	NE	E	SE	S	SW	W	NW	c	n	N	NE	E	SE	S	SW	W	NW	c	n	N	NE	E	SE	S	SW	W	NW	c
Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	31		1		1		1	4	5	19	31	5	1		1	3	2	7	6	6	30	2	1	1	1	1	3	12	4	5	30	1	1			1	1	4 5 3 1	4 3 5	1
Chhor Φ = 25° 31′ N ... λ = 69° 50′ E ... Hs = 7 metres ...	6-25 26-50 51-75 > 75	30	17	8						2	3	29	12 1	11 1						1	3	29	6	15 2						5	1	30	6	1	1		1	5 2	2 4	8	
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 > 75	31	3	1				1	3	3	20	30	10	2	1			1	7	7	2	30	15 1	4		1	1	3	1		4	30		1			1 1	3 2	4 1	6 10 1	
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 >75	31	3	2				2	2	5	17	31	4	1				6	5	13	2	31	5	1			1	1	9	10	4	30	1					3	2 5	6 8 5	
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 > 75	31		7	15	1					8	31		2	25 1	1					2	31		2	25 1						3	31	5 2				4	2	3	14 1	
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31		5	1						25	31	2	10 1	5			2			11											31	11	13 2					1			4
Fort Sandeman Φ = 31° 21′ N ... λ = 69° 27′ E ... Hs = 1410 metres ..	6-25 26-50 51-75 > 75	31						4	6	4	17	31	1	1				5	10 1	3 1	9											31	2				1	9	7 1	6	5
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres. ...	6-25 26-50 51-75 > 75	31	4							7	20	31	5						5	13 1	7	31	6 1	1	3		1	4	2	8	5	31	3	2		1	1	6	7	8 1	2
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31							1	5	25	31	1	1	1	1	2	2	4	13	6	31	1			4	4		3	12 1	6	31			1	9 5	3	3	5	2 1	2
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31		9	1	1			1	3	16	31	2	10	2 1	4	2	1	1	5	3	31	8	14 1	1		1		1	4	1	31	6 2	1			2	2	8 1	4 3	2
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31		3	2		3	4			19	31	2	5	2		5	8 1	1	1	6	31	6	4	1		1	4	11	1	3	31			1		1	8	8 2	8	3
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	1						5	6	19	30	1						8	10 1	10	31			2	1	2		7	11 2	6	31	3			2 2	7 1	1	8	5 1	1
Multan Φ = 30° 12′ N .. λ = 71° 31′ E ... Hs = 124 metres ...	6-25 26-50 51-75 > 75	31	2	3		1	3	6	1	1	14	31	2	4		2	7	3	5	1	7	31	4	4		5	2	6	1	3	6	31	2	1		2		12	8	3 2	1
+Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ...	6-25 26-50 51-75 > 75	31		3	1	1				1	23	31		4	7	4				1	15	31	3	3	3				2	14	6	31	6		4	2		4	4 1	8	2
Samungli (Quetta) ... Φ = 30° 15′ N ... λ = 66° 53′ E ... Hs = 1602 metres...	6-25 26-50 51-75 > 75	31			1			3	3	20	4	31			1			4	10 2	12	2											31				2	1	5	10 1	11 1	

+ On three days cloud heights could neither be measured nor estimated.

TABLE—8 FREQUENCY OF LOW CLOUD HEIGHTS (AFTERNOON)

TABLE—9 FREQUENCY OF VISIBILITY (AFTERNOON)

Speed limit (km./hr.)	3.0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
6-25	28					1		1	2		1 — 8						4	2	3	1	21											Bogra
26-50								8	3																			11	20			
51-75								9																								
> 75								4			7 or 8										1											
6-25	29					1	1	5	3		1 — 8										31											Chhor
26-50			1				2	11	2																					31		
51-75								3																								
> 75											7 or 8										5											
6-25	30							1	3		1 — 8							1	2	1	27											Chittagong
26-50						1	1	12	10																		1	16	14			
51-75									2																							
> 75											7 or 8							1			1											
6-25	29	1					1	2			1 — 8						5	6		1	19											Dacca
26-50							1	8	3																			5	23	2		
51-75								7	6																							
> 75											7 or 8										1											
6-25	29	1				2	3	3	4		1 — 8								3	1	27											Dalbandin
26-50		3						1	12																	1	1	7	22			
51-75																																
> 75											7 or 8										3											
6-25	30	16	2			1	2		1	5	1 — 8							1	14		16											Drosh
26-50		3																									1	1	6	15	8	
51-75																																
> 75											7 or 8							1	1		12											
6-25	31	2	1	1		2	4	3	11		1 — 8								1		30											Fort Sandeman
26-50							1	2	4																			23	3	5		
51-75																																
> 75											7 or 8																					
6-25	31	1					5	8	6		1 — 8										31											Jacobabad
26-50							3	3	5																			6	16	9		
51-75																																
> 75											7 or 8										1											
6-25	31			1	4	8	2	6	1	2	1 — 8										31											Jhelum
26-50					4	2																						4	24	3		
51-75					1																											
> 75											7 or 8										3											
6-25	31						2	6	2		1 — 8						2	3			26											Karachi (Drigh Road)
26-50							3	8	7																				18	10	3	
51-75								2	1																							
> 75											7 or 8										5											
6-25	31						2	13	6		1 — 8										31											Khanpur
26-50							4	3	3																	1	29	1				
51-75																																
> 75											7 or 8										2											
6-25	31	1	1		1	7	3	6	3	1	1 — 8										31											Lahore
26-5					2	2	2	1	1																		1	10	20			
51-75																																
> 75											7 or 8										2											
6-25	31	1					7	9	7		1 — 8										31											Multan
26-50							2	3	2																		1	30				
51-75																																
> 75											7 or 8										1											
6-25	31	1	5	3	3	3	2	3	6	2	1 — 8								11		17											Peshawar +
26-50								2	1																		7	17	7			
51-75																																
> 75											7 or 8																					
6-25	30	1					5	4	5	1	1 — 8							1	2	2	26											Samungli (Quetta)
26-50							1	2	10																			1	25	5		
51-75									1																							
> 75											7 or 8																					

STATION.	Speed limit (km./hr.)	Surface										0·15 km. above Surface										1·0 km. a. s. l.										2.0 km. a. s. l.									
		D	N	NE	E	SE	S	SW	W	NW	C	D	N	NE	E	SE	S	SW	W	NW	C	D	N	NE	E	SE	S	SW	W	NW	C	D	N	NE	E	SE	S	SW	W	NW	C
+Bogra Φ = 24° 51′ N ... λ = 89° 23′ E ... Hs = 27 metres ...	6-25 26-50 51-75 > 75	30		2			1		2	6	19	30	4	2	1	3	3		1	7 8	1	30	4	6				4	8	7 1		24		2	1		1	1 1	1 8 3	2 2 1	1
Chittagong Φ = 22° 21′ N ... λ = 91° 50′ E ... Hs = 21 metres ...	6-25 26-50 51-75 >75	31	12								19	31	13 7	7						3	1	31	15 5	4			1	1		2 2	1	28	1 3		1	1	2	3 2	2	6 7	
Dacca Φ = 23° 47′ N ... λ = 90° 23′ E ... Hs = — ...	6-25 26-50 51-75 > 75	31	2							3	26	28	8 2	2		1	2	2 1	1	7 2		28	7	2	1			2	4	8 3	1	24	1					2	4 4 2	3 3 4	1
Dalbandin Φ = 28° 54′ N ... λ = 64° 26′ E ... Hs = 855 metres ...	6-25 26-50 51-75 >75	31		11	6				1		13	31	1	11	17	2						31	1	10	17	2					1	31	4 3	1				7	6	7 1	2
Drosh ... Φ = 35° 34′ N ... λ = 71° 47′ E ... Hs = 1512 metres ...	6-25 26-50 51-75 > 75	31		2		3					26	30		12	3		1				14											30	5	16 1	1						7
Jacobabad Φ = 28° 17′ N ... λ = 68° 29′ E ... Hs = 63 metres ...	6-25 26-50 51-75 > 75	31	2	1	1				1	3	23	31	6	3	2 1				6	6 1	6	31	7	1	1	3	4	3	2	2 1	7	31	5	2			1	3	9 1	9 1	
Jhelum Φ = 32° 56′ N ... λ = 73° 44′ E ... Hs = 240 metres ...	6-25 26-50 51-75 > 75	31							1		30	31	4					1	2	23	1	31	8		1	2	1		1 1	9 2	6	31	3	3		9 4	3	2	1	2 1	3
Karachi (Drigh Road) Φ = 24° 53′ N ... λ = 67° 07′ E ... Hs = 28 metres ...	6-25 26-50 51-75 > 75	31	10	6						1	14	31	7	12 2	2					5	3	31	3 1	8	3	1	1	2	4	4 1	3	31	6	7 1				3	6 1	5 2	
Khanpur Φ = 28° 39′ N ... λ = 70° 41′ E ... Hs = 94 metres ...	6-25 26-50 51-75 > 75	31	3	2			1	3			22	31	1	6 2	6	1	4	4	4		3	31	1	1	4	1	2	9	6	2	5	31	12				1	2	10 1	5	
Lahore Φ = 31° 35′ N ... λ = 74° 20′ E ... Hs = 224 metres ...	6-25 26-50 51-75 > 75	31	1								30	31	2		1			1	8	15 1	3	31	6	3	2	1	1	5	2	8 2	1	31	3 1			4	4	2	6 1	7	3
Multan Φ = 30° 12′ N ... λ = 71° 31′ E ... Hs = 124 metres ..	6-25 26-50 51-75 > 75	31					1				30	31	2		1	1 1	6	8 1	5	2	4	30	5	3		2	1	9	4	3	2	30	5 1					1	7	13 3	
Peshawar Φ = 34° 01′ N ... λ = 71° 35′ E ... Hs = 368 metres ..	6-25 26-50 51-75 > 75	31					1	17			13	31	6	1	3	1	1	2	2		7	31	6	2	2		1	1		6	13	31	9 1	5	2 1	1		2	1	7 2	

+ On one day pilot balloon ascents was not taken.

Sp.	3·0 km. a. s. l.										Amount of low clouds	No. of observations with Code figures										No. of observations with Code figures										STATION.
	n	N	NE	E	SE	S	SW	W	NW	C		0	1	2	3	4	5	6	7	8	9	90	91	92	93	94	95	96	97	98	99	
	17					1		2	1		1 — 8										30											Bogra +
								7	1																2		15	12	1			
								4																								
								1			7 or 8										1											
6-25	17					1	1	2	1		1 — 8										31											Chittagong
26-50							2	5	3																							
51-75					1			1																		1	10	20				
> 75											7 or 8																					
6-25	10						1				1 — 8								1		30											Dacca
26-50								4																								
51-75								2	3													1				1	2	26	1			
> 75											7 or 8										1											
6-25	29	2					1	5	3		1 — 8								2		29											Dalbandin
26-50		2					1	6	8																		1	7	23			
51-75									1																							
> 75											7 or 8																					
6-25	30	11	5	1		3				6	1 — 8			1					5		24											Drosh
26-50		4																														
51-75																								1			1	10	19			
> 75											7 or 8			1					1		5											
							2	6	10	1	1 — 8										31											Jacobabad
							2	6	1																			28	3			
											7 or 8																					
	31		3	3	2	7	1	5	2		1 — 8										31											Jhelum
					4	3			1																							
											7 or 8																	31				
	31		2			1		4	6		1 — 8										31											Karachi (Drigh Road)
							2	12	1																							
								3			7 or 8										1							19	12			
6-25	30	1					2	8	7		1 — 8										31											Khanpur
26-50							2	7	3																							
51-75																										26	5					
> 75											7 or 8																					
6-25	31		1		1	5	5	6	5	2	1 — 8										31											Lahore
26-50					1	3		2																								
51-75																											7	24				
> 75											7 or 8										2											
6-25	29	3				3	1	10	4		1 — 8										31											Multan
26-50		2					1	4	1																							
51-75																									1		13	17				
> 75											7 or 8																					
6-25	31	4	7	2	3	1	1	4	4	2	1 — 8										31											Peshawar
26-50				1					1																							
51-75																											2	28	1			
> 75								1			7 or 8																					