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MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

FEBRUARY, 1951

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Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of February 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T.are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the time of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

SIBTE NABI NAQVI,
Director,
Meteorological Service.

KARACHI, Pakistan :

The 3rd February, 1962.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES

Station	Latitude	Longitude	Height in Km.	Station	Latitude	Longitude	Height inKm.
Bogra ..	24° — 51′	89° — 23′	0.03	Jhelum ..	32° — 56′	73° — 44′	0.24
Chhor ..	25° — 31′	69° — 50′	0.01	Karachi (Drigh Road).	24° — 53′	67° — 07′	0.03
Chittagong ..	22° — 21′	91° — 50′	0.02	Khanpur ..	28° — 39′	70° — 41′	0.09
Dacca ..	23° — 47′	90° — 23′	0.01	Lahore ..	31° — 35′	74° — 20′	0.22
Dalbandin ..	28° — 54′	64° — 26′	0.85	Multan ..	30° — 12′	71° — 31′	0.12
Drosh ..	35° — 34′	71° — 47′	1.51	Peshawar ..	34° — 01′	71° — 35′	0.37
Fort Sandaman ..	31° — 21′	69° — 27′	1.42	Quetta (Samungli).	30° — 15′	66° — 53′	1.60
Jacobabad ..	28° — 17′	68° — 29′	0.06				

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T. February, 1951

STATION	Speed in Knots	Number of observations at Surface									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	28	1		1			6	1	2	17
	15-27										
	28-41										
	>41										
Chhor	3-14	28	3	7	2		1	1			14
	15-27										
	28-41										
	>41										
Chittagong ...	3-14	28	2								26
	15-27										
	28-41										
	>41										
Cox's Bazar ...	3-14										
	15-27										
	28-41										
	>41										
Dacca	3-14	28	1	1			1	7	1	1	16
	15-27										
	28-41										
	>41										
Dalbandin ...	3-14	28	1	10	4				1	1	10
	15-27						1				
	28-41										
	>41										
Drosh	3-14	28		1		1					26
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14	28	2		1			3	13	3	6
	15-27										
	28-41										
	>41										
Jacobabad ...	3-14	28	6	1	5	4			2	3	7
	15-27										
	28-41										
	>41										
Jhelum	>14	28					1		3	7	17
	15-27										
	28-41										
	>41										
Karachi ... ... (Drigh Road)	3-14	28	2	3						2	21
	15-27										
	28-41										
	>41										
Khanpur ...	3-14	28	2	5	1			1	1	2	15
	15-27								1		
	28-41										
	>41										
Lahore	3-14	28		1		1			2	4	20
	15-27										
	28-41										
	>41										
Multan	3-14	28	1								27
	15-27										
	28-41										
	>41										
Peshawar ...	3-14	28	1			6	2	6			13
	15-27										
	28-41										
	>41										
Quetta ... ... (Samungli)	3-14	28			2	6	1	2	1	1	12
	15-27				1	1		1			
	28-41										
	>41										

STATION	Speed in Knots	Number of observations at 0.15 Km. above Surface									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	28	3		1	1	1	3	8	3	2
	15-27		1					1	2	2	
	28-41										
	>41										
Chhor	3-14	28	3	5	3	3	2	2			
	15-27			7	3						
	28-41										
	>41										
Chittagong ...	3-14	28	3	10	4	5	1	1		2	1
	15-27		1								
	28-41										
	>41										
Cox's Bazar ...	3-14										
	15-27										
	28-41										
	>41										
Dacca	3-14	28	5		1		4	7	5	1	1
	15-27		3							1	
	28-41										
	>41										
Dalbandin ...	3-14	27	1	3	12			1	2	3	
	15-27			3	2						
	28-41										
	>41										
Drosh	3-14	25		2	4	1		1			16
	15-27			1							
	28-41										
	>41										
Fort Sandaman ...	3-14	28	2	1	2			2	12	7	2
	15-27										
	28-41										
	>41										
Jacobabad ...	3-14	28	5	2	9	2			1	1	1
	15-27		5		1					1	
	28-41										
	>41										
Jhelum	>14	28	7	1		1			1	11	1
	15-27								2	4	
	28-41										
	>41										
Karachi ... ... (Drigh Road)	3-14	28	5	8					1	4	
	15-27		1	5	1					3	
	28-41										
	>41										
Khanpur ...	3-14	28	4	3	4	3	3	1		3	
	15-27		1	3	2				1		
	28-41										
	>41										
Lahore	3-14	28	7	1			1	1	2	8	1
	15-27		1							6	
	28-41										
	>41										
Multan	3-14	28	8	3	2	6	1	2	1	4	1
	15-27		4								
	28-41										
	>41										
Peshawar ...	3-14	27		3	2	5	7	4	2	1	2
	15-27					1					
	28-41										
	>41										
Quetta ... ... (Samungli)	3-14	24		1		9	1	2	4	4	2
	15-27							1			
	28-41										
	>41										

STATION	Speed in Knots	Number of observations at 1.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	28	3	2			2	1	5	8	1
	15-27								5	1	
	28-41										
	>41										
Chhor	3-14	28	8	5	3	1		2	2		
	15-27		1	1						2	
	28-41										
	>41										
Chittagong ...	3-14	25	4	1		1	2	1	6	3	
	15-27		3							1	
	28-41										
	>41										
Cox's Bazar ...	3-14										
	15-27										
	28-41										
	>41										
Dacca	3-14	27	2	2	2			1	9	5	1
	15-27							2	1	2	
	28-41										
	>41										
Dalbandin ...	3-14	27		6	13			1	2	3	2
	15-27										
	28-41										
	>41										
Drosh	3-14										
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14										
	15-27										
	28-41										
	>41										
Jacobabad ...	3-14	28	4	1	1	1	2	5	1	4	4
	15-27				1				1	3	
	28-41										
	>41										
Jhelum	>14	28	5	2	2	2			1	11	
	15-27					1				4	
	28-41										
	>41										
Karachi ... ... (Drigh Road)	3-14	28	1	7	1	2	2	1	3	8	
	15-27		1						1	1	
	28-41										
	>41										
Khanpur ...	3-14	28	4	6	3		2	2	3	3	
	15-27		1		2			1		1	
	28-41										
	>41										
Lahore	3-14	28	5	1	1	1		1	4	8	1
	15-27						1		1	4	
	28-41										
	>41										
Multan	3-14	28	7	3		1	1	5	1	3	1
	15-27		4					2			
	28-41										
	>41										
Peshawar ...	3-14	27	3	1		5	3	3	3	5	3
	15-27									1	
	28-41										
	>41										
Quetta ... ... (Samungli)	3-14										
	15-27										
	28-41										
	>41										

STATION	Speed in Knots	Number of observations at 2.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	23	1	2				1		1	
	15-27							1	4	5	
	28-41								5	1	
	>41								2		
Chhor	3-14	26	5	1	1		1	1	3	5	1
	15-27		1					1	3	1	
	28-41								2		
	>41										
Chittagong ...	3-14	22			1		2		2	3	
	15-27		2						1	10	
	28-41									1	
	>41										
Cox's Bazar ...	3-14										
	15-27										
	28-41										
	>41										
Dacca	3-14	24		1	1				2	2	
	15-27								6	6	
	28-41								3	3	
	>41										
Dalbandin ...	3-14	26	7				1		4	3	
	15-27		1				1	3	2	3	
	28-41							1			
	>41										
Drosh	3-14	25	2	17							6
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14	26	1	2		1	1	6	9	2	1
	15-27							1	1	1	
	28-41										
	>41										
Jacobabad ...	3-14	27	1				1	5	3	7	2
	15-27							3	3	2	
	28-41										
	>41										
Jhelum	>14	27	2		1	3	4	2	2	1	2
	15-27				1	2				6	
	28-41							1			
	>41										
Karachi ... ... (Drigh Road)	3-14	28	2	1	2	1	1		5	5	
	15-27							2	1	4	
	28-41								3		
	>41									1	
Khanpur ...	3-14	27	3	1		1	1	3	5	4	
	15-27								5	4	
	28-41										
	>41										
Lahore	3-14	28				2	2	2	7	4	2
	15-27						2	1	2	4	
	28-41										
	>41										
Multan	3-14	26	2					1	8	4	1
	15-27		1					3	3	2	
	28-41									1	
	>41										
Peshawar ...	3-14	25	7	2			1			7	2
	15-27		2							4	
	28-41										
	>41										
Quetta ... ... (Samungli)	3-14	24	2			3	4	2	1	6	2
	15-27								1	3	
	28-41										
	>41										

TABLE 2.—Observations of Wind by Pilot Balloons at 0300. G.M.T. February 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level										Number of observations at 6.0 Km. above sea level										Number of observations at 7.5 Km. above sea level											
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Speed in Knots	STATION
13	1					1		1		5										1																					3-14	Bogra
							2	3										1									1													15-27	
						1	2	1								1	1																								28-41	
								1									1	1																							>41	
25		2				1	3	2		18						2		1		8											4					1					3-14	Chhor
							11	3								1	6																				3			15-27	
							1	2								2	3	2								2	4													28-14	
																	1										2														>14	
22				1		2	2			12							1	1		5								1			1								1		3-14	Chittagong
							4	6								1	5	2																						15-27	
							4	3									1	1								1	1													28-41	
																										1	1														>41	
17		1				1	3	4		7										4																					3-14	Dacca
							3	4								1	3	1																						15-27	
							1										1	1									1													28-41	
																										1	2														>41	
24		1				1	3	1	2	15		1				2				4											1									3-14	Dalbandin
							5	7									1	1									1										1			15-27	
							1	2								1	3	1									3													28-41	
							1										5																								>41	
22	6	1			3	1			1	17	1		1	1	6	4			1	11		1				7	1	1			2								1		3-14	Drosh
	10													1	1	1											5														15-27	
																											1														28-41	
																																					1				>41	
26			+			1	2	2	1	5							1																								3-14	Fort andaman
						2	7	3					1			1	1																								15-27	
						1		5								1																									28-41	
							1	1																																	>41	
24					1	1	5	3		20							1	1		8											2										3-14	Jacobabad
							5	4							1	1	6										1														15-27	
						1	2	2								1	5	3									6														28-41	
																	1										1										2				>41	
26	1	1		3	1	4	5	2	1	23	1					1	3	2		14											3										3-14	Jhelum
				2	2		1	3							1	1	5	1																				1			15-27	
															1	1	5	1																							28-41	
																																						2			>41	
27				1	1	2	2	2		21						1	1			8											1										3-14	Karachi (Drigh Road)
						1	3	7								1	3	1									1														15-27	
							3	3									8	2									3														28-41	
							1	1								1	2	1									4										1				>41	
26		1				1		5		18					1		2	1		4																					3-14	Khanpur
							9	6									2	2									1														15-27	
						1	1	1									5	1									3														28-41	
						1										1	3																								>41	
25	1			1	2	1	5	3		17					2		2			6					1	1					1										3-14	Lahore
						2	6	3									7																					1			15-27	
							1									1	3	1								1	2														28-41	
																		1								1															>41	
24						1	2	1		9							1			5											1										3-14	Multan
						3	9	4								1	2	1									1														15-27	
						2		2									3										1														28-41	
																	1										3										1				>41	
28	3	3	2		3		2	4		21			1		1	1	1	1	1	18						1					1										3-14	Peshawar
	1		1			2	1	2			2					3	8	1								2	2	2														15-27	
								1										1								1	5														28-41	
																											4	1									1				>41	
23						4		2		8						1																									3-14	Quetta (Samungli)
	1				1	1	3	7								1		2																							15-27	
							2	1								1	1	1																							28-41	
								1										1																							>41	

TABLE 2—Observations of Wind by Pilot Balloons at 0900 G. M. T. February 1951

STATION	Speed in Knots	Number of observations at Surface										Number of observations at 0.15 Km. above Surface										Number of observations at 1.0 Km. above sea level										Number of observations at 2.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knot
Bogra ...	3-14	28			1			3	11	4	9	28	2					1	4	10	4	3	28		1				1	13	5	3	25	1		2				2	2	
	15-27																			4										3	2									7	3	
	28-41																																							6		
	>41																																							2		
Chhor ...	3-14	28	4	8	1			3	3	4	5	27	7	5	1			2	4	2	5	27	4	11	1			2	4	2	2	26	4	2	1		1	3	4	2	
	15-27																	1												1				1					2	2		
	28-41																																							2		
	>41																																									
Chittagong ...	3-14	28	3					7	5		13	28	4				1	10	11	1		28	8	2			2	5	4	3	3	28	1				4		1	2	
	15-27																	1												1				1						6	12	
	28-41																																								1	
	>41																																									
Dacca ...	3-14	28	3		1			4	10	3	7	28	2					7	11	5	1	28	3					4	10	8	1	28	1				1			3	1
	15-27												1						1										2										7	8		
	28-41																																							4	3	
	>41																																									
Dalbandin ...	3-14	28		10	4	1		2	3		8	25		4	11		1	2	1		2	25		4		12		1	3	1	3	23	2	2	1	1	1	4	3	4	
	15-27														1		1	2											1				1						3		
	28-41																																									
	>41																																									
Drosh ...	3-14	28		5	1	1					21	27		13	2			1	1		9											27	8	12				1		1	4
	15-27													1																					1							
	28-41																																									
	>41																																									
Fort Sandaman ...	3-14	28		1		1		4	7	2	10	26	1					5	12	3	1											26	1				3	4	5	4	1
	15-27		1					2					1					2	1																			4	4			
	28-41																																									
	>41																																									
Jacobabad ...	3-14	28	3	1	1	1		1	1	4	16	28	3	3	3	2	3	1	1	4	6	28	1	4	2	2	3	2	1	5	4	26					2	5	7	3	1
	15-27																			2								1		3							1	3		2	
	28-41																																						1		1	
	>41																																									
Jhelum ...	3-14	28	2	2	1	1				11	11	28	1		1	1	2		4	15	3	28	2			3	3	1	4	9	2	27			2	3	2	3	6	2	1
	15-27															1										1	1			2							3		1	2	
	28-41																																									
	>41																																									
Karachi (Drigh Road).	3-14	28	1	7	2	1		5	1	2	9	28	1	6	5	1	1	2	3	3	1	28	2	5	7	1	1		2	7	2	28	3	2	1	1		1	5	5	
	15-27													2	1					2										1									2	1	5	
	28-41																																								1	
	>41																																									
Khanpur ...	3-14	28	4	8	1			3	3		7	28	4	7	5	1		4	2	1	3	27	5	7	3	1		2	3	1		27	1		1			6	3	4	2	
	15-27			1					1										1					1				1	3				1					3	3	2	
	28-41																																								1	
	>41																																									
Lahore ...	3-14	28		1				1	2	13	11	28	3	1			1	2	4	13	4	28	4			1		2	5	9	3	26					2	2	6	6	1
	15-27																										1			1	2							2	2		5	
	28-41																																									
	>41																																									
Multan ...	3-14	28	6	3		3	1	1	1	1	12	28	7	1	1	3	3	3	1	2	4	27	8	1				6	5	2	4	26		1			1	1	10	5	1
	15-27												2					1										1										3	1	2	
	28-41																																						1			
	>41																																									
Peshawar ...	3-14	28	2	6	2	1		1			16	27	4	7	4	2	1		1		8	27	6						1	16	4	27	2	1	2	1	2	1	6	6	1
	15-27																																					1			4	
	28-41																																									
	>41																																									
Quetta (Samungli). ...	3-14	28	1		2	1		4	5	6	5	24	2				1	4	5	7		24	1			1	2	2	6	3	1	20	1			1	1		5	1	
	15-27					1		2	1										3	1						1			3	4								2	3	3	
	28-41																		1																				1	1		
	>41																																									

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T. February 1951

Number of observations at 3.0 Km. above sea level												Number of observations at 4.5 Km. above sea level												Number of observations at 6.0 Km. above sea level												Number of observations at 7.5 Km. above sea level													
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 273-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Speed in Knots	STATION
17	1	1						2																																								3-14	Bogra
							2																																								15-27	
							4	1																																							28-41	
							3	3																																							>41	
24	1					3	3	1	1	14							1			5								1		1																	3-14	Chhor
						2	2	7								1	4																														15-27	
						1	2	1									5	2										3																			28-41	
																	1											1												1							>41	
26							2	2		13							1			5							1				1																	3-14	Chittagong
						1	6	3									1										1																					15-27	
							4	8								2	2	4								1	1																					28-41	
																	3										2																					>41	
25							2	1		11																																						3-14	Dacca
						1	5	2									1	2																					1								15-27	
							7	4								2	1																															28-41	
							2	1									5																															>41	
20	1					1	2	1	1	18						1				8										2																	3-14	Dalbandin
						2	4	6									3	2								1	1											1								15-27	
						1		1								1	7	1									2	1																			28-41	
																	1	2									3																				>41	
24	12	3			4	1			3	22	1		1	2	4	3	1		1	13							1	1		10							1	1	1							3-14	Drosh
	1										1			1	3	3		1			1					2	1										1	1								15-27	
																											2											2								28-41	
																											4	1										5								>41	
23	1					5	1	3		8						2				2																											3-14	Fort Sandaman
						2	1	2									2	1																													15-27	
						2	2	2								1		1										1																			28-41	
							2											1																													>41	
24					1	2	4	2	1	23							1			18										6																	3-14	Jacobabad
						3	6	2								1	4	1									2										1	1								15-27	
						1		1									8	3								1	3	1										1	2								28-41	
						1										1	1	3								2	8	1										1	1								>41	
23	2			3	1	2	7	1	1	21					2	1	1			17										12																	3-14	Jhelum
				2	1		1	1				1			1		7	1								2	2																				15-27	
						1											5	1									5	1										1	2								28-41	
																		1								1	5	1											7	2							>41	
27	1					1	3	2	1	26						1	2			16										6																	3-14	Karachi (Drigh Road).
							6	7									3																														15-27	
						2		2									14	2									1																				28-41	
							2									2	2									1	2											1	5								>41	
26	2					2	4			22							2			6										3																	3-14	Khanpur
						1	6	4								2	4	1									3											1								15-27	
						1	3	1									7	1									3											1								28-41	
						1		1								1	3	1																						1							>41	
25					1	3	6	2		24					1		2			20						1	1			7							1										3-14	Lahore
				1		2	5	4							1	1	10	5								1	4	1									1									15-27	
						1										1		2								3	3	2									1		1	1						28-41	
																	1										4											3								>41	
24							2			17										10										3																	3-14	Multan
						3	11	2								1	5	2									2																				15-27	
						2	3	1									7									1	3											1								28-41	
																	1	1									4											2								>41	
26	1	1	2	1		4	7	4		25			1	1		2	2	4		22							5	1		7							1									3-14	Peshawar
						1	2	2									2											6											1							15-27	
						1										1	1	2										1											6							28-41	
																												1											4							>41	
14								1		5										1																											3-14	Quetta (Samungli)
					1	2	1	2								1	1																														15-27	
		1					3										1									1																					28-41	
							3									1	1																														>41	

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T. February, 1951

STATION	Speed in Knots	Number of observations at Surface										Number of observations at 0.15 Km. above Surface										Number of observations at 1.0 Km. above sea level										Number of observations at 2.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 29.-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	28							2	7	19	28	1				2		6	6	1	28	4	1				2	3	4	1	17			1			1	4	1	
	15-27												1				1		2	8									7	6									7		
	28-41																																						3		
	>41																																								
Chhor ...	3-14																																								
	15-27																																								
	28-41																																								
	>41																																								
Chittagong ...	3-14	28	5								23	27	11	1	4	4	6					27	7	2		2	1	2	3	4	1	20	2			2	1	1	1	3	
	15-27												1										3					1		1			2						2	6	
	28-41																																								
	>41																																								
Dacca ...	3-14	28	3				2	5	1	1	16	23	6			1	1	5	1	1		22	3	1				1	9	3		18		1				1	5	3	
	15-27												2					2	1	2			2							3									4	2	
	28-41																			1																					
	>41																																								
Dalbandin ...	3-14	28	1	9	6			3	3		4	23	1	4	7	1		4				23	1	6	10	1		4				23			1		4	3	4	3	3
	15-27				1		1							2	3			1										1										2	1	1		
	28-41																																						1		
	>41																																								
Drosh ...	3-14	28		2	2	2		1			21	23	1	7	4						11											23	3	12				3			4
	15-27																																	1							
	28-41																																								
	>41																																								
Fort Sandaman	3-14																																								
	15-27																																								
	28-41																																								
	>41																																								
Jacobabad ...	3-14	28	9		2				1	1	12	28	3	4	3				3	4	3	27	1	1	2		7	4	3	5	3	26	2				1	2	9	1	
	15-27		3										4							4										1								1	2	4	4	
	28-41																																								
	>41																																								
Jhelum ...	3-14	28		1		2			2	8	15	26	5	2				1	1	10	2	26	4		1	3	1		2	8	1	26	2		3	2	2	2	3	7	1
	15-27														1	1				3			3					1			2					2				2		
	28-41																																								
	>41																																								
Karachi (Dsigh Road) ...	3-14	28	3	3						4	18	28	4	5	1				2	5		28	4	1	4	2	2	2	6	3	2	28	3		1	1	1	1	4	5	
	15-27													4					3	4									1	1								2	3	4	
	28-41																																						1	2	
	>41																																								
Khanpur ...	3-14	28	2	6	1	1	2	3	1		10	26		9	1	2	2	3	2		1	26		3	4	2	1	4	8	2		26	4					3	5	3	1
	15-27			1					1						1			2	3									1	1									2	3	3	
	28-41																																						1	1	
	>41																																								
Lahore ...	3-14	28	2	1		1		1	2	1	20	28	5	3		2	1	1	3	9		28	4		1		3	1	3	12	2	28	2			1	3	4	3	9	
	15-27												1							3			1							1								1	1	2	1	
	28-41																																						1		
	>41																																								
Multan ...	3-14	28		1	1			2		1	23	28	2	4	7	1	4	3	3	1		28	3	2		1		4	6	2	4	25	2				2	2	7	4	
	15-27												1		1			1									1	2	1	1			1						2	2		
	28-41																																						1		
	>41																																								
Peshawar ...	3-14	28				3	1	5	1	2	16	27	5	1	4	2	3		3	6	3	27	6	3		1		1	4	9	3	26	5			2	1	3	2	7	1
	15-27																																						1	3	
	28-41																																								
	>41																																								
Quetta (Samungli) ...	3-14	28			3	2	2	4	1	3	11																														
	15-27								1																																
	28-41				1																																				
	>41																																								

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T. February, 1951

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level											Number of observations at 6.0 Km. above sea level.											Number of observations at 7.5 Km. above sea level.											Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
4		1				1	1	1																																	3-14 15-27 28-41 > 41	Bogra
																																									3-14 15-27 28-51 > 41	Chhor
12				1		1	2	2 1 5																																	3-14 15-28 28-41 > 41	Chittagong
9						1	2 3 1	2																																	3-14 15-27 28-41 > 41	Dacca
21		1			1	1 3	3 7	4 1																																	3-14 15-27 28-41 > 41	Dalbandin
23	10 2	2			2	3			4	10				1 1	1	4 2	1			1							1															3-14 15-27 28-41 > 41	Drosh
																																									3-14 15-27 28-41 > 41	Fort Sandaman
24					1	1 1 2	4 8 1	2 3 1		4							2	1 1																							3-14 15-27 28-41 > 41	Jacobabad
26	2			4 1	1	5 1	4 4	1 2 1																																	3-14 15-27 28-41 > 41	Jhelum
26	1		1			1 1 1	3 7 3 1	2 1 4		4							1 1 1	1		1							1															3-14 15-27 28-41 > 41	Karachi (Drigh Road)
24						2	3 10 2	3 2 1 1		2							1 1																									3-14 15-27 28-41 > 41	Khanpur
24					2	2 3 1	5 4	3 4																																	3-14 15-27 28-41 > 41	Lahore
19						2 1	1 9 1	1 3 1		1							1																									3-14 15-27 28-41 > 41	Multan
24	2 1		2 1	1		3 2	4 2 1	2 2	1	4						1 1	1 1																									3-14 15-27 28-41 > 41	Peshawar
																																									3-14 15-27 28-41 > 41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low Cloud above ground Level at 03, 09 and 21 G. M. T.
February, 1951

STATIONS	Cloud Amounts in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Bogra*	Trace to 8										28						1				27										28
	6 to 8																														
	7 or 8																														
Chhor ..	Trace to 8	1									27										28										
	6 to 8	1																													
	7 or 8	1																													
Chittagong** ..	Trace to 8					2	2	2	2		20						3	2	1		22					1	1		2		24
	6 to 8					2	2	2																		1	1		1		
	7 or 8					1	1	2																		1			1		
Dacca ..	Trace to 8					2	1		1	1	23							1		1	26			1		2					23
	6 to 8					1																									
	7 or 8																														
Dalbandin ..	Trace to 8						1		3	2	22							1	1	1	25								4		24
	6 to 8						1												1	1									1		
	7 or 8																												1		
Drosh ..	Trace to 8			1		2	2	1	3		19			1			2	3	9	2	11		1		1			1	2		20
	6 to 8			1		2	2	1						1			2	2					1		1						
	7 or 8			1		2	2	1						1			1	2					1		1						
Fort Sandaman*	Trace to 8					2			1		25					4					24										
	6 to 8					2																									
	7 or 8					2																									
Jacobabad †† ..	Trace to 8								1		27									1	26										28
	6 to 8																			1											
	7 or 8																			1											
Jhelum ..	Trace to 8							1	3	1	23							4	4	1	19							4			24
	6 to 8									1								2	1	1								3			
	7 or 8									1								1		1								2			
Karachi .. (Drigh Road)	Trace to 8						2				26							1			27						1				27
	6 to 8																														
	7 or 8																														
Khanpur ..	Trace to 8								1	1	26								1	1	26								1		27
	6 to 8																												1		
	7 or 8																														
Lahore ..	Trace to 8									2	26						1	1		1	25								2	1	25
	6 to 8									1								1													
	7 or 8									1								1													
Multan* ..	Trace to 8										28					1					26										28
	6 to 8																														
	7 or 8																														
Peshawar †† ..	Trace to 8						2		1		24							1	10	2	13							1	3	1	23
	6 to 8																														
	7 or 8																														
Quetta .. (Samungli)	Trace to 8						2	4	1		21				1	3	2		1	2	19					1	1	2		1	23
	6 to 8						2	2	1						1	3	2			1						1	1	2			
	7 or 8						2	2	1							3				1						1	1	2			

* On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
** On 1 day cloud height could neither be measured nor estimated at 09 G.M.T.
†† On 2 days cloud height could neither be measured nor estimated at 09 G.M.T.

~~*** On 6 days cloud height could neither be measured nor estimated at 09 G.M.T.~~

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G. M. T. and number of days of fog (Visibility) <100 m.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										No. of days fog
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)	
					17	9	2								4	20	4							1	12	15				
		1			3	1	1	22						1	1	1	3	22												
					7	18	3									23	5							1	13	14				
						18	10									4	20	4		1	1				1	24	1			1
		1		2	6	14	4	1				1	2	3	9	10	2	1				1		3	8	11	4	1		
		1		2	2		9	14							2	5		8	13		3	2				7	16			
				4		23	1							1	3	1	23													
			1	1	6	13	6	1						1	2	17	7	1							2	26				
					2	9	11	6								4	14	6	4						3	25				
						8	15	3	2							6	13	8	1						1	16	11			
		1		4	21	2						1			24	3							1	18	9					
				2	8	18									2	20	6									28				
				1	17	10							1	1	2	23	1								7	21				
					1	6	17	4								7	10	11								28				
				1	1	15	9	2					1	1	3	3	16	4							6	17	5			

Registered No. S-1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

MAY 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of May 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T.are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the time of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

Special observations taken at 0600 hrs. G.M.T. during the month in connection with the Norwesters have been given at the end.

SIBTE NABI NAQVI,
Director,
Meteorological Service.

KARACHI, Pakistan :

The 3rd February, 1962.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES

Station	Latitude	Longitude	Height in Km.	Station	Latitude	Longitude	Height inKm.
Bogra ..	[illegible]	89° — 23′	0.03	Jhelum ..	32°— 56′	73° — 44′	0.24
Chhor ..	25° — 31′	69° — 50′	0.01	Karachi (Drigh Road).	24° — 53′	67° — 07′	0.03
Chittagong ..	[illegible]	91° — 50′	0.02	Khanpur ..	28° — 39′	70° — 41′	0.09
Dacca ..	23° — 47′	90° — 23′	0.01	Lahore ..	31° — 35′	74° — 20′	0.22
Dalbandin ..	28° — 54′	64° — 26′	0.85	Multan ..	30° — 12′	71° — 31′	0.12
Drosh ..	35° — 34′	71° — 47′	1.51	Peshawar ..	34° — 01′	71° — 35′	0.37
Fort Sandaman ..	31° — 21′	69° — 27′	1.42	Quetta (Samungli).	30° — 15′	66° — 53′	1.60
Jacobabad ..	28° — 17′	68° — 29′	0.06				

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—May, 1951

STATIONS	Speed in Knots	Number of observations at Surface											Number of observations at 0.15 Km. above Surface											Number of observations at 1.0 Km. above sea level											Number of observations at 2.0 Km. above sea level										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31		1	4	8	3	1			14	31		1	9	9	3					20			2	4	6	3	1			12		2		1	3	1			
	15-27													1	4		4								1		1	2							1		1	1	2			
	28-41																																													
	>41																																													
Chhor ...	3-14	31				1	3	23	2		2	30				1	3	11	1		1	29			1		5	1	4	2		26		1		2	3	6	9	1	
	15-27																	11	2									8	5	3									1	2	1	
	28-41																																													
	>41																																													
Chittagong ...	3-14	31				12	3	1			15	31	2	1	4	9	6				1	22				1	3	4	3	1	2	11		1			2	3	2		1
	15-27															2	6										6		1										1	1		
	28-41																										1															
	>41																																													
Dacca ...	3-14	31			1	5	7	3			14	30		1	6	4	7				3	23		1	1	4	1	6			2	15	2	1	1		1	2	2		
	15-27		1												2		7										2	4										4	2			
	28-41																										1	1														
	>41																																													
Dalbandin ...	3-14	31	1	2					1	1	26	31	4	7	6	1	1	2	8	1	1	31	2	4	3				3		19	31	6	1	1	2		4	2	5	2
	15-27																																	3		1			1	3			
	28-41																																													
	>41																																													
Drosh ...	3-14	31			1	2					28	30		7	3	2		2			16											30	3	17	2							8
	15-27																																													
	28-41																																													
	>41																																													
Fort Sandaman ...	3-14	31	2				1	4	4	1	19	31	1	3	2	1	2	12	5		5											31	1	2	1	2	5	8	7	5	
	15-27																																													
	28-41																																													
	>41																																													
Jacobabad ...	3-14	31	2		11	5	5	2			6	31		1	8	8	4	4		1		31	2	1	4	2	1	8	3	5	2	31	6		3	2	2	3	3	5	3
	15-27												1		3	1							1			1					1							1	1	2		
	28-41																																													
	>41																																													
Jhelum ...	3-14	31		2	2	1			1	5	20	31	6	1	1	1	2	2		12		31	2	4	2	2			1	8		31	7	1	1	2		1	5	4	2
	15-27														2	1				2			1		3	1			1	5			1				1			1	5	
	28-41																			1																						
	>41																																													
Karachi (Drigh Road).	3-14	31						23	3	1	3	31							14			28	1					1	4	3		23	2					1	5	3	
	15-27							1											16	1									8	5									5	5	
	28-41																													3										1	1	
	>41																																													
Khanpur ...	3-14	31	3	7				12	1	1	6	31		4	1		2	3	1			30	1	1	2			2	4	3		28	2				4	4	7	3	
	15-27			1									3	6		1	1	7	1				3	1	2		1	3	5									1	4	2	
	28-41												1											1					1													
	>41																																													
Lahore ...	3-14	31	3	3		2				1	20	31	11	4	4	3		1		2	1	31	8	1	1	2	3	2		10	1	31	1	1	3		1	2	4	9	2
	15-27			1		1							2		2	1							1		2														1	2	5	
	28-41																																													
	>41																																													
Multan ...	3-14	31	3	5		1		5		2	15	31	3	1	3	1	2	2	3		2	31	2	3	2	1	4	3	1	4	1	30	1	1	2	3	2	5	6	5	
	15-27												4	2			1	2	4	1			1	1	2			2	3	1									1	2		
	28-41																																							1						
	>41																																													
Peshawar ...	3-14	31		4		1				1	25	31	6	4		2	4	4	6	3	2	31	10	2		1	1	2	3	6	4	31	5	2			1	2	2	8	1
	15-27																													2			1						4	4	
	28-41																																							1						
	>41																																													
Quetta (Samungli)	3-14	31				8		1	2	1	19	31		1	2	15	2	3	3	3	2											31	2			4	5	7	5	4	2
	15-27																																						1		1				
	28-41																																													
	>41																																													

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—May, 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level										Number of observations at 6.0 Km. above sea level										Number of observations at 7.5 Km. above sea level										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
9	1	1	1			1	2 1	2		5	1	1	1					2		4		1 1					1	1												3-14 15-27 28-41 >41	Bogra
21	4 1	4 1			1 1	2 1 1	1 2	1 1		14	2 1	2				1	1	3 4		10	1		1				4 1	2 1		6			1				1 2	1	1	3-14 15-27 28-41 >41	Chhor
9	1					2	2 1	2	1	5	1					1		1 1		3	1						2			1								1		3-14 15-27 28-41 >41	Chittagong
13	1 1	2	1			1	3 2 1	1		11		2	1				1 1 1	1 1 3		4			1	1			1	1		1								1		3-14 15-27 28-41 >41	Dacca
28	7 2 1	1	1		1	3	1 4	5 1	1	19	2 4				1	1	1	1 2 1	5 1	13	1 4					1	1 2	2	1 1		6		1			2		1 1		3-14 15-27 28-41 >41	Dalbandin
30	6 13	5				1			5	25	10 6			1	2	2	1	1	1	19	1				2		4 2	1 1	4 3 1		14					2	1 1 1	1 3 1	2 1 1		3-14 15-27 28-41 >41	Drosh
31	3			1	1 1	2 1	3 4	5 5 2	1	28	1					1	2	2 6 1 2	5 4 2 1	20	4					1 1	1	1 2 3 1	1 3 1	1	16	2				1 2	2	1 1 2	3 2		3-14 15-27 28-41 >41	Fort Sandaman
29	4 2	1	1	2	2	4 1 1	4 3	2 2		26	2 3	2	1 1	1			1 2	3 1 3	2 3	18		1	1 1	2				2 3 2 1	2 2	1	5							1 3	1		3-14 15-27 28-41 >41	Jacobabad
31	3 1	2		2	1 2	1	7 3	2 6	1	28	1	2		1 1			2 2 1	2 2 3	4 6	19	3					2	1 1	3 1 1	5 2		6							2 2	1 1		3-14 15-27 28-41 >41	Jhelum
15	4	1			1		1 1	1 3	3	8	1	4						1	2	5	2	1	1	1						1			1							3-14 15-27 28-41 >41	Karachi (Drigh Road)
22	1	1		5		4 1	1 3 1	2 2 1		11	1 2	1 1			1 1		1 1	1 1		2							1	1		1								1		3-14 15-27 28-41 >41	Khanpur
30	3	1	1		1 1	1 1	7 1	5 8		23	3 1						1 1 1	4 2 3	2 3 1	7							1	2	2 1	1	1					1					3-14 15-27 28-41 >41	Lahore
25	2	1		1	1	2 3 1	5 3	4 2		21	2 2	1	1	1			1 1	2 6 1	1 2	9		1			2			1 1	3 1		3						1	1	1		3-14 15-27 28-41 >41	Multan
31	3 1	1		1	3 1	3	1 3	4 7	3	24	2		1		1 1		1 2 1	3 3	5 4	16		1	1				1 1	1 2 2	3 4		4							1	1 1 1		3-14 15-27 28-41 >41	Peshawar
31	3				3	2 2	3 4	6 7 1		23	3	1 1					2 2 1 2	3 1	2 3 2	9	2 1	1	1	2				2			4		1			1		1		1	3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T.—May 1951

Number of observations at Surface

STATIONS	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31		1	8	7	1		1		13
	15-27										
	28-41										
	>41										
Chhor ...	3-14	31	1					16	8		2
	15-27							3	1		
	28-41										
	>41										
Chittagong ...	3-14	31		1			2	10	1		10
	15-27						2	5			
	28-41										
	>41										
Dacca ...	3-14	31			5	8	6	4			8
	15-27										
	28-41										
	>41										
Dalbandin ...	3-14	31	1	1	1	2		4	4	2	16
	15-27										
	28-41										
	>41										
Drosh ...	3-14	31		3				5	1		22
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14	31	1			1	2	7	6	3	10
	15-27							1			
	28-41										
	>41										
Jacobabad ...	3-14	31			1	7	4	3		1	14
	15-27				1						
	28-41										
	>41										
Jhelum ...	3-14	31	2	1	1	4			1	5	17
	15-27										
	28-41										
	>41										
Karachi (Drigh Road).	3-14	31						18	1		
	15-27							11	1		
	28-41										
	>41										
Khanpur ...	3-14	31	1	5	1	2		9	5	4	4
	15-27										
	28-41										
	>41										
Lahore ...	3-14	31	2	2		3	2		4	11	7
	15-27										
	28-41										
	>41										
Multan ...	3-14	31		6	2	2	2	6	1	5	7
	15-27										
	28-41										
	>41										
Peshawar ...	3-14	31	1	12		5	2	1		1	9
	15-27										
	28-41										
	>41										
Quetta (Samungli)	3-14	31		1	1	1		2	8	13	3
	15-27									1	
	28-41										
	>41										

Number of observations at 0.15 Km. above Surface

STATIONS	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31		1	11	9	1				2
	15-27				4	2		1			
	28-41										
	>41										
Chhor ...	3-14	28		1			1	14	2		
	15-27							7	3		
	28-41										
	>41										
Chittagong ...	3-14	22				1	5	9	2		1
	15-27						1	3			
	28-41										
	>41										
Dacca ...	3-14	31			6	9	7	2			1
	15-27				1	1	3				
	28-41						1				
	>41										
Dalbandin ...	3-14	31		3	2	4	1	3	3	2	8
	15-27						1	2	1	1	
	28-41										
	>41										
Drosh ...	3-14	30	3	10	1			7	3		6
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14	30		1	2		1	10	5	4	4
	15-27								1		
	28-41					1		1			
	>41										
Jacobabad ...	3-14	30	2		3	8	9	3		1	3
	15-27				1						
	28-41										
	>41										
Jhelum ...	3-14	31	2	1	2	3	5		4	5	5
	15-27		2				1			1	
	28-41										
	>41										
Karachi (Drigh Road).	3-14	31						5	5		
	15-27							8	12		
	28-41								1		
	>41										
Khanpur ...	3-14	31	3	4	1	1	1	10	5	2	1
	15-27						1	1	1		
	28-41										
	>41										
Lahore ...	3-14	31	3	1		2	4	2	4	11	1
	15-27						1			2	
	28-41										
	>41										
Multan ...	3-14	30	3	4	3	1	3	4	2	3	4
	15-27		1				1	1			
	28-41										
	>41										
Peshawar ...	3-14	31	4	4	14	1	2				2
	15-27		1	1				1			
	28-41		1								
	>41										
Quetta (Samungli)	3-14	31			1		1	3	12	10	2
	15-27						1	1			
	28-41										
	>41										

Number of observations at 1.0 Km. above sea level

STATIONS	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	30		3	6	2	10	5	2		1
	15-27					1					
	28-41										
	>41										
Chhor ...	3-14	28		1		1	1	8	7	1	
	15-27							8	1		
	28-41										
	>41										
Chittagong ...	3-14	16					3	6	6		
	15-27								1		
	28-41										
	>41										
Dacca ...	3-14	31	1		1	2	13	1	2		3
	15-27				1		5	2			
	28-41										
	>41										
Dalbandin ...	3-14	31		3	2	4		2	2	3	11
	15-27					1		2	1		
	28-41										
	>41										
Drosh ...	3-14										
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14										
	15-27										
	28-41										
	>41										
Jacobabad ...	3-14	30		2	2	5	7	5	1	3	4
	15-27						1				
	28-41										
	>41										
Jhelum ...	3-14	31	3	1	2	5	2	2	3	6	6
	15-27		1								
	28-41										
	>41										
Karachi (Drigh Road).	3-14	31	2						4	6	1
	15-27								14	3	
	28-41								1		
	>41										
Khanpur ...	3-14	30		4	2		6	6	7		
	15-27							3	2		
	28-41										
	>41										
Lahore ...	3-14	31	2	2		2	1	3	5	10	
	15-27		1				3			2	
	28-41										
	>41										
Multan ...	3-14	29	4	2	2	2	7	5	3	2	2
	15-27										
	28-41										
	>41										
Peshawar ...	3-14	31	5	3	7	3	1		1	5	5
	15-27									1	
	28-41										
	>41										
Quetta (Samungli)	3-14										
	15-27										
	28-41										
	>41										

Number of observations at 2.0 Km. above sea level

STATIONS	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	19	1	1		1			3	1	
	15-27							3	7		
	28-41							1	1		
	>41										
Chhor ...	3-14	23	1	1		2	1	3	3	3	2
	15-27							3	2	1	
	28-41							1			
	>41										
Chittagong ...	3-14	12	1		2	1			4	1	
	15-27							1	2		
	28-41										
	>41										
Dacca ...	3-14	17			1				1	2	1
	15-27							3	7	1	
	28-41								1		
	>41										
Dalbandin ...	3-14	29	2	5	1		2	2	6	4	2
	15-27							3	1		
	28-41							1			
	>41										
Drosh ...	3-14	30	4	7	1			11			6
	15-27										
	28-41										
	>41										
Fort Sandaman ...	3-14	29		3			1	9	7	4	3
	15-27							1	1		
	28-41										
	>41										
Jacobabad ...	3-14	30	1	1	1	3	2	7	5	2	3
	15-27						1	1	2	1	
	28-41										
	>41										
Jhelum ...	3-14	31	4	1		2	1	1	5	7	4
	15-27					3	1		1	1	
	28-41										
	>41										
Karachi (Drigh Road).	3-14	29	3			1			7	7	
	15-27								9	1	
	28-41								1		
	>41										
Khanpur ...	3-14	26	1	1	1		1	5	6	1	
	15-27				1		1	1	7		
	28-41										
	>41										
Lahore ...	3-14	28	2			2	3	1	7	8	1
	15-27							1		3	
	28-41										
	>41										
Multan ...	3-14	27	1			1	1	7	6	2	
	15-27						1	4	3	1	
	28-41										
	>41										
Peshawar ...	3-14	29	1		2		4	4	9	3	2
	15-27								1	3	
	28-41										
	>41										
Quetta (Samungli)	3-14	31	1		1			4	9	8	2
	15-27							2	1	3	
	28-41										
	>41										

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G.M.T.—May, 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km above sea level										Number of observations at 6.0 Km. above sea level										Number of observations at 7.5 Km. above sea level										Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
15	1	1					2 5 1	3 2		7		1	1				1 1 2	1		3	1	1					1													3-14 15-27 28-41 > 41	Bogra
20	2	1	2	1	2	2 1	3 3	2	1	15	2 1		1	2		1	2 3	2 1		11	1			1			2 2 1	1 2		7	1					1 2 3				3-14 15-27 28-41 > 41	Chhor
10			1		1	1 1	1 2	2 1		4							2	2		2					1		1	1		2						1 1				3-14 15-27 28-41 > 41	Chittagong
14	1						7	2 3 1		5							1 1	3		2							2			1						1				3-14 15-27 28-41 > 41	Dacca
27	2	4		1	1 1	2	7 3	5	1	18	4 2	1			1	1	1 3 1	3	1	11	2 1					1 1	3 2	1		6						1 2	2 1			3-14 15-27 28-41 > 41	Dalbandin
26	5 1	3	1	1	4	7			4	19	4 1	1	1	5	2	2		1	2	15	1					2 1	3	2 5	1	12			1		1 2	4	4			3-14 15-27 28-41 > 41	Drosh
30				1	4 1	6 2	6 3 1	2 2	2	21	1				1	4	5 1	3 4	2	18	2				1	2	5 2 1	2 3		15	1			2	1 1	1 1 2 2	2 2			3-14 15-27 28-41 > 41	Fort Sandaman
29	3	1		1	2	4 2	5 3 1	3 2	2	27	5 1	1	2	1	2	1 1	6 3	2 1 1		21	1 3	2	1	1	1 1	1 3 2 1	1 1	1	1	19	1 2 1			2		2 3 1 4	2 1			3-14 15-27 28-41 > 41	Jacobabad
29	2 1	1	1	1 1	1 1	2 2	7 1	4 4		24	3		1		1	1 4	3 2	5 4		17	1				1	1 1	3 1 3 1	1 2 2		10	1				1	2 1	1 1	1 2		3-14 15-27 28-41 > 41	Jhelum
27	4	3			1	1	3 4	7 3	1	23	2 1	7 1				1	2 4 2	2	1	22	1	5	2	1			6 3	2	2	20	1	1	1 1		1	3 2 5 1	4			3-14 15-27 28-41 > 41	Karachi (Drigh Road).
17	2		1		1	1 2	3 5	2		8	1				1		1 1	2 2		6	1							3 2		6	1 1					2	1 1			3-14 15-27 28-41 > 41	Khanpur
25	1		1			3 2	4 4	6 4		22	2 1					1 1	8 1 1	1 6		16					1	2 1	4 3	4 1		12	1				2	1 1 3	2		1	3-14 15-27 28-41 > 41	Lahore
24	1				2 1	4 3	4 2 1	4 1	1	17	1 1	1 1				2	2 5 3	1		11	1					1	2 2 1	3 1		4						1 2	1			3-14 15-27 28-41 > 41	Multan
28	3				2	7 1	5 1	4 4	1	28	1				2	3 2	11 2	4 3		24	1 1					2 1	7 3	4 4 1		20	1 1				1	3 2 1	2 6 3			3-14 15-27 28-41 > 41	Peshawar
30	1				1 1	4 2 1	11 1	3 2 1	2	23	1	1		3		1 2 1	6 3	2 2 1		17	1 1				1	1	1 2 2	4 3 1		14	1			1	1	1 2	2 3 1 1			3-14 15-27 28-41 > 41	Quetta (Samungli)

TABLE—2. Observations of Wind by Pilot Balloons at 2100 G.M.T.—May, 1951

STATIONS	Speed in Knots	Number of observations at Surface										Number of observations at 0.15 Km. above Surface										Number of observations at 1.0 Km. above sea level										Number of observations at 2.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots
Bogra ...	3-14	31			4	8	1				18	27		1	1	4	3	1				24		1	1	4	5	2	1			8	2	2			1	1			
	15-27														3	6	8									1	3	3											2			
	28-41																																										
	>41																																										
Chhor ...	3-14																																										
	15-27																																										
	28-41																																										
	>41																																										
Chittagong ...	3-14	31				11	1	1			18	30		1	2	10	10	1			1	22				1	1	4	2		1	7			1		1	3	2		
	15-27															2	3										9	3														
	28-41																										1															
	>41																																										
Dacca ...	3-14	31			3	5	6	4			13	30	1		2	5	7	3				25		1		1	4	5		1	1	13	1	1		1	1	3	2	1	1
	15-27																12								1		4	6										1	1			
	28-41																											1											1				
	>41																																										
Dalbandin ...	3-14	31	5	5		1	1	1	3	2	13	29	4	5	4		1	5	1	2	1	29	5	4	2		2	5	1	2	4	29	3	4	2		1	4	3	6	1
	15-27												3	2			1						2	1	1								1						1	2	1	
	28-41																																										
	>41																																										
Drosh ...	3-14	31			1	1	1				28	28		4	2	1		3			17											28	3	11			1	2			11
	15-27			1																																							
	28-41													1																													
	>41																																										
Fort Sandaman	3-14	31	1	3	3	4	3	7	4		6	26		5	2	2	4	7	4													26	4	3				2	3	5	2
	15-27													1					1														1					3	2			
	28-41																																					1					
	>41																																										
Jacobabad ...	3-14	31	2	1	6	2	10	3	4		3	31	1	3	2	3	4	3	3	1		31	2	4		2	7	5	2		1	30	3	2	1	1	2	4	9	2	3
	15-27												1		1	2	3	3	1	1									1	3									1		2		
	28-41																																										
	>41																																										
Jhelum ...	3-14	31		3		1	1	2	1	7	16	31	12	2	1	1	1	3	1	4		31	3		1		4		3	12	2	30	1					4	8	6	
	15-27													1	1	1				3						1				5			1				1	2	2	5	
	28-41																																										
	>41																																										
Karachi (Drigh Road) ...	3-14	31						24	1		4	31						3	9			24							11	1		19		1		2		1	2	4		
	15-27							2										2	16	1									8	2						1			6			
	28-41																													2									2			
	>41																													1									1			
Khanpur ...	3-14	31	1	6		1		6		2	11	28	2	3	1	1		3	2		1	27	2			1	2	6	4	1	1	22	1			1	2	4	5	2	
	15-27			2			1	1					1	3			1	6	1	1			1	1				3	3	1									1	4	2	
	28-41																1		1										1													
	>41																																										
Lahore ...	3-14	31	2	1	1	3				3	21	29	5	1	2	3		1	5	6		29	8	2	1			2	2	9		28	3	1	1		3	2	3	10	
	15-27												4	1									1	1			1			1			1						1	3		
	28-41															1											1															
	>41																																										
Multan ...	3-14	31	1	8		4	1	2		1	14	31	3	1	1	1			4	1	1	31	1	1	3	1	1	7	5	2		25			1		3	4	5		2
	15-27												4	3	2	3		5	1				2	2				2	1	1							3	3	3			
	28-41																1						1	1				1											1			
	>41																																										
Peshawar ...	3-14	31				1		9		1	20	30	6	2	2		1	1	4	10	3	29	5	4		2	1	1	3	8	4	29	3	3		1	2	4	4	6	3
	15-27																		1										1										2			
	28-41																																										
	>41																																										
Quetta (Samungli) ...	3-14	31			4	5	3		6	1	11	29	2	1		3	4	1	7	4	2											29	2	1		2	2		4	10	1
	15-27				1											2			3																			1	3			
	28-41																																						1				
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T.—May, 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level											Number of observations at 6.0 Km. above sea level											Number of observations at 7.5 Km. above sea level												
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observation.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Speed in Knots	STATIONS
								1																																	3-14	Bogra
4	1						2																																		15-27	
																																									28-41	
																																									>41	
																																									3-14	Chhor
																																									15-27	
																																									28-41	
																																									>41	
1																																									3-14	Chittagong
	1																																								15-27	
																																									28-41	
																																									>41	
7	1						1	1																																	3-14	Dacca
	1						1	1																																	15-27	
							1	1																																	28-41	
																																									>41	
19	4	1	1		1	2	3	1	1	1							1																								3-14	Dalbandin
						2		2																																	15-27	
						1																																			28-41	
																																									>41	
28	7	4			3	3		1	8	8	1	1			2	3	1			1								1													3-14	Drosh
	2																																								15-27	
																																									28-41	
																																									>41	
24	1	1				3	3	6		11	1	1	1			1	2		1	3	3	1																			3-14	Fort Sandaman
						3	2	4									2	1																							15-27	
							1											1									1	1													28-41	
																																									>41	
29	5	1	5			4	4	2		3				1				2																							3-14	Jacobabad
	1						4	2																																	15-27	
						1																																			28-41	
																																									>41	
25							5	5	2																																3-14	Jhelum
	1				1	1	2	6																																	15-27	
					1		1																																		28-41	
																																									> 41	
11	3	1					1	2	2	2		1																													3-14	Karachi
	1						1					1																													15-27	(Drigh Road)
																																									28-41	
																																									>41	
10	1				1			2	1																																3-14	Khanpur
						2	1																																		15-27	
							1	1																																	28-41	
																																									>41	
18	1						3	5		1						1																									3-14	Lahore
	1					1	1	6																																	15-27	
																																									28-41	
																																									>41	
18		1		2	1	2	4	3		1							1																								3-14	Multan
						3		1																																	15-27	
							1																																		28-41	
																																									>41	
25	2	1	1			3	5	3	2	4					1		1																								3-14	Peshawar
	1				1	1	1	4									1	1																							15-27	
																																									28-41	
																																									>41	
19					1	1	3	5		3							1	1																							3-14	Quetta
						1	3	4																																	15-27	(Samungli)
								1																																	28-41	
																1																									>41	

TABLE 3.—Frequency of Observations of Base of low cloud above ground level at 03, 09, and 21 G. M. T.
May, 1951

STATIONS	Cloud Amounts in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
* Bogra .. ***	Trace to 8					9	7	3	1	4	6					1	6	10	7	3	4					3	2	1	1	1	22
	6 to 8					5	4	1		2							2	1								2					
	7 or 8					5	2	1		1																					
Chhor ..	Trace to 8			2	3	9					17							1			30										
	6 to 8																														
	7 or 8																														
Chittagong ..	Trace to 8					5	7	14	2		3					2	11	12			6					4	6	6	1		14
	6 to 8					2	2	4	1							1	1									3	5	1	1		
	7 or 8					2	2	2	1								1									2	4	1	1		
Dacca ..	Trace to 8					13	8	4	1	1	4					1	13	9	5	2	1					6	6	2		2	15
	6 to 8						5									1	6	2	3							3	1				
	7 or 8						2									1	3	1	2							2	1				
Dalbandin ..	Trace to 8								3	1	27							1	9	2	19								10		21
	6 to 8								1										1	1									4		
	7 or 8								1										1	1									1		
Drosh ...	Trace to 8						2		10		19					1	3	2	13	10	2			2				1	6		22
	6 to 8						2		2							1	3	1	5					2				1			
	7 or 8						2		2							1	2	1	2					2				1			
◁ Fort Sandaman	Trace to 8								1	3	24						4		2	6	7						5			3	16
	6 to 8									2							2			1							4				
	7 or 8									1										1							4				
⌐ **																															
Jacobabad ..	Trace to 8									2	29									4	27								1	3	27
	6 to 8																														
	7 or 8																														
Jhelum ..	Trace to 8							1	3	1	26							1	13	1	16							4	6	2	19
	6 to 8																			1								3	1	2	
	7 or 8																			1								2	1	1	
Karachi .. (Drigh Road)	Trace to 8				1	15	4	1	1		9					2	5	5	1		18				1	11	2				17
	6 to 8				1	1	2											1							1	2	1				
	7 or 8				1	1	1																		1	2	1				
*2 Khanpur ... ‡	Trace to 8										31								1		29								3		26
	6 to 8																														
	7 or 8																														
Lahore ..	Trace to 8								1		30								6	1	24						1	2	3	2	23
	6 to 8																		2								1	1		1	
	7 or 8																											1			
Multan ... ***	Trace to 8						1	1	1		28									1	30					1	1	2	3		23
	6 to 8																												1		
	7 or 8																												1		
*1*2 Peshawar ..	Trace to 8							3	7	1	19							12	18									6	7	1	17
	6 to 8								1									1													
	7 or 8																														
Quetta .. (Samungli)	Trace to 8								1	3	27							2	1	19	9						1		3	1	26
	6 to 8																	1	1	1											
	7 or 8																	1													

*1—On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
◁—On 3 days cloud heights could neither be measured nor estimated at 03 G.M.T.
*2—On 1 day cloud heights could neither be measured nor estimated at 09 G.M.T.
⌐—On 12 days cloud heights could neither be measured nor estimated at 09 G.M.T.
**—On 7 days cloud heights could neither be measured nor estimated at 21 G.M.T.
‡—On 2 days cloud heights could neither be measured nor estimated at 21 G.M.T
***—On 1 day cloud heights could neither be measured nor estimated at 21 G.M.T.

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G. M. T. and number of days of fog (Visibility) <100 m. May 1951

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										STATIONS	No. of days of fog
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	> 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	> 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-100 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	> 50000 m. (50 Kms.)		
					4	18	9								4	15	12								17	14				Bogra	
							13	18					2	2	9	5	6	7												Chhor	
					1	26	4								3	21	7						1		3	27				Chittagong	
					1	18	9	3								9	17	5							3	27	1			Dacca	
			1	19	7	4							2	16	7	6						1	3	17	6	4				Dalbandin	
				1	2	1	6	21							1	1	6	7	16			2		1		10	18			Drosh	
				3	3	19	4		2				3	2	1	20	3	1	1					2	7	22				Fort Sandaman	
			1	1	1	19	9							1	4	14	12									29	2			Jacobabad	
					2	10	12	7							3	9	17	2							4	27				Jhelum	
					1	27	3								2	18	11									30	1			Karachi (Drigh Road)	
	1		4	4	21	1							5	8	11	7					1	3	4	9	9	5				Khanpur	
					7	23	1								7	12	12								3	27	1			Lahore	
			1	1	12	15	2							1	7	22	1							2	6	23				Multan	
						6	12	13							2	5	16	8								31				Peshawar	
					1	16	12	2							2	12	14	3							5	17	9			Quetta (Samungli)	

Special Observations of Wind by Pilot Balloons at 06 Hours G. M. T.—May, 1951

STATIONS	Speed in Knots	Number of observations at Surface											Number of observations at 0.15 Km. above Surface											Number of observations at 1.0 Km. above sea level											Number of observations at 2.0 Km. above sea level										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots
Bogra ...	3-14	31	2	8	5	3	2				11	31		2	13	9	4					27			6	10	6	1			2	7		1	1			1	1	1	
	15-27															1	2										2							1					1	1		
	28-41																																										
	>41																																										
Chittagong ...	3-14	31		2		2	3	8			9	27		2	1	1	13	4	3		2	20		1		1	5	6	2			5						1	1	1	
	15-27						2	5										1									5												2		
	28-41																																										
	>41																																										
Dacca ...	3-14	31			4	6	6	4			10	31	1	2	5	8	5	1			3	26		1	1	3	6	4			2	8					1	2	2		
	15-27						1								1		4								1		6	2											2	1		
	28-41																1																										
	>41																																										

Table of the Frequency of Observations of Base of Low Cloud above Ground Level at 06 Hours G. M. T. May, 1951

STATIONS	Cloud Amount in Octas	Number of observations of Base of Low Cloud above ground level at 06 Hours G. M. T. represented by code figures.									
		0	1	2	3	4	5	6	7	8	9
Bogra ..	Trace to 8										
	6 to 8										
	7 or 8										
Chittagong ..	Trace to 8						17	6	1	1	6
	6 to 8						4			1	5
	7 or 8						3			1	3
Dacca ..	Trace to 8						17	10	1		3
	6 to 8						9	5	1		15
	7 or 8						5		1		9

Special Observations of Wind by Pilot Balloons at 06 Hours G. M. T.—May 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level											Number of observations at 6.0 Km. above sea level											Number of observations at 7.5 Km. above sea level											Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
																																									3-14 15-27 28-41 > 41	Bogra
3						1	1	1																																	3-14 15-27 28-41 > 41	Chittagong
3						1	1 1			2							1 1																								3-14 15-27 28-41 > 41	Dacca

Table of the Frequency of Observations of Horizontal Visibility at 06 G.M.T. May, 1951

Number of observations between the following limits at 06 hours G.M.T.

Less than 50 m.	50—200 m.	200—500 m.	500—1,000 m.	1,000—2,000 m.	2,000—4,000 m.	4,000—10,000 m.	10,000—20,000 m.	20,000—50,000 m.	More than 50 Km.	No. of days of Fog	STATIONS
					1	17	13				Bogra
					2	22	7				Chittagong
						11	14	6			Dacca

Registered No. S 1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

AUGUST 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of August, 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T. are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the times of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud.

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

SIBTE NABI NAQVI.
Director,
Meteorological Services
Karachi.

KARACHI, Pakistan :

The 3rd February, 1962.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES

Station	Latitude N	Longitude E	Heights.	Station	Latitude N	Longitude E	Heights.
Bogra ..	24° — 51′	89° — 23′	0.03 Km.	Jacobabad ..	28° — 17′	68° — 29′	0.06 Km.
Chhor ..	25° — 31′	69° — 50′	0.01 Km.	Jhelum ..	32° — 56′	73° — 44′	0.24 Km.
Chittagong ..	22° — 21′	91° — 50′	0.02 Km.	Karachi (Drigh Road)	24° — 53′	67° — 07′	0.03 Km.
Cox's Bazar ..	21° — 26′	91° — 58′	0.08 Km.	Khanpur ..	28° — 39′	70° — 41′	0.09 Km.
Dacca ..	23° — 47′	90° — 23′	0.01 Km.	Lahore ..	31° — 35′	74° — 20′	0.22 Km.
Dalbandin ..	28° — 54′	64° — 26′	0.85 Km.	Multan ..	30° — 12′	71° — 31′	0.12 Km.
Drosh ..	35° — 34′	71° — 47′	1.51 Km.	Peshawar ..	34° — 01′	71° — 35′	0.37 Km.
Fort Sandaman ..	31° — 21′	69° — 27′	1.42 Km.	Quetta (Samungli)	30° — 15′	66° — 53′	1.60 Km.

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T. August, 1951

STATION	Speed in Knots	Number of observations at Surface											Number of observations at 0.15 Km. above Surface											Number of observations at 1.0 Km. above sea level											Number of observations at 2.0 Km. above sea level										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	31			5	8	2	2			14	26		1	5	8	6	2				19			1	6			2			6			1	1	1		1	1	1	
	15-27															3		1							3	3			2														
	28-41																									1																	
	>41																																										
Chhor	3-14	31		1			1	18			2	30		1			1	7	1			23				1		1	2	1	1	17	1	2	1	1		1	2	1	
	15-27							9									7	13								1		1	7	4			1	2		1	1		2	1		
	28-41																												5														
	>41																												1														
Chittagong ...	3-14	31			3	10	3				15	27			2	13	8				1	17			1	1	2	1				8	1		1		1		1		1	1
	15-27															2	1									3	7								1	1	1						
	28-41																									2																	
	>41																																										
Cox's Bazar ...	3-14	31			1	13	14	1			2	21		1		11	5					20				4	7	1			1	12			2	1	4	1	1			
	15-27															2	2									3	2	2								1	1	1					
	28-41																																										
	>41																																										
Dacca	3-14	31			2	11	1	4			13	29			2	13	3	1				16		1		7	3				1	6			2	3						
	15-27														2	5	1	2							1	2											1						
	28-41																									1																	
	>41																																										
Dalbandin ...	3-14	31				1	1	4	5	3	17	31	1	4	2	1	1	5	14		2	31	1	3	1	1	1	3	15		6	31	9		2	2	1	2	4	4	2
	15-27																		1																					3	2		
	28-41																																										
	>41																																										
Drosh	3-14	31		1				6			24	31		2	1			17	1		10											31	1	2			2	14			12
	15-27																																										
	28-41																																										
	>41																																										
Fort Sandaman ...	3-14	31	8	4	1			4	3	1	10	31	6	9	2		1	5	3	1	4											31	7	5	2	1		4	4	3	5
	15-27																																										
	28-41																																										
	>41																																										
Jacobabad ...	3-14	31	1		8	10	8	2		2		31		1	4	13	8	2		2		31	2	2	3	3	5	4	1	3	6	31	8	2	1	1		1	4	9	2
	15-27														1										1					1				1							2	
	28-41																																										
	>41																																										
Jhelum	3-14	31		2	2	2			1	1	23	27	4		6	8	1			2	4	27	2	1	3	5	2	2	3	3	3	26	3	2			1	1	3	10	1
	15-27													1					1				1					1		1					1	1				1		
	28-41																																										
	>41																																										
Karachi ... ... (Drigh Road)	3-14	31						15	10	2	2	31						2	12			16		1	1				4			7	2	1					1		
	15-27							1	1									2	15										9				1	1						1		
	28-41																																										
	>41																												1														
Khanpur ...	3-14	31		2		1	2	20	1		5	31	1	2		1	6	7	1			31	3	3		1	2	5	8	2		27	3	4		3		4	4	3	1
	15-27																7	6										4	3				1	1			1		1	1		
	28-41																																										
	>41																																										
Lahore	3-14	31		2		6		3		1	19	31	2	1	2	8	4	2	5		1	31	1	1	1	5	3	3	7	3	1	28	2	2	1	4	1	1	7	5	
	15-27														1	2		2	1							2	1		2	1							1			1	3	
	28-41																																										
	>41																																										
Multan	3-14	31	1	3		3	6	12			6	31	1	1	3	1	4	5	2	1		31	2	5	1	5	4	2	2	1		28	4	2	5	2	1	4	5	2	1
	15-27												1				5	6	1				1				1	6	1				1							1		
	28-41																																										
	>41																																										
Peshawar ...	3-14	31	4	2		1				6	18	31	8	3		2	1	1	3	9	3	31	7	3	1				2	10	7	31	6	2	2	1	3	3	6	5	2
	15-27												1																	1												
	28-41																																										
	>41																																										
Quetta ... ... (Samungli)	3-14	31				9	1				21	31	1	1	2	14		2	2	6	3											31	1	1	2	4	2	8	6	5	1
	15-27																																			1						
	28-41																																										
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T. August, 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level											Number of observations at 6.0 Km. above sea level											Number of observations at 7.5 Km. above sea level											Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
4				2		1	1			2				1		1																									3-14 15-27 28-41 >41	Bogra
14	2 1	1 1 2	1 1	1	1	2	1			7	1 3	1	1 1							6	2	1	1	1	1	1				1	1										3-14 15-27 28-41 >41	Chhor
5			2 1	1 1						4			1 1	1	1					2			1	1																		3-14 15-27 28-41 >41	Chittagong
7			4		2	1				4		1	1	1			1			2			1 1																			3-14 15-27 28-41 >41	Cox's Bazar
2			1	1																																						3-14 15-27 28-41 >41	Dacca
31	8	1			1	2	6 1	7 3	2	25	1	1	1	1 2		2 1	4 1	6 3 1	1	16	1	1	1 1	1 1	1	3 1	1	3 1		11	1 1	1		1	1	2 1	1	2			3-14 15-27 28-41 >41	Dalbandia
30	5 1	1			13	2			8	28	12 6	3			1	1	1	1	3	22	1	1	1		1	1 2	5	8 1	1	15						1 3 1	3 5	2			3-14 15-27 28-41 >41	Drosh
30	4	1	1			1	4 2 1	5 9	2	28	7	1	1 1		1	4 3	6 1	1 2		19	1	2	1		2	4 1	6	2		13	1		2	1	1	2 3 1					3-14 15-27 28-41 >41	Fortsandaman
31	8	4 3	3	1	1	3	3	3	2	26	1	4 3	3 1 1	3	2	2	1	5		12	2	1 1		1			2 2	2 1		1						1					3-14 15-27 28-41 >41	Jacobabad
25	7	2	1 1			2	1 2	4 3	3	18	4			1	1		2	3 4 1	2	11	1		1		2	3 1	1	1 1		6	1	1			1	2	1				3-14 15-27 28-41 >41	Jhelum
4	2 1			1						1			1							1		1								1							1					3-14 15-27 28-41 >41	Karachi (Drigh Road)
21	5 1	1 2	1	2	1	2	2 1	2 1		12	2 3	1 1	1	2		1			1	7	1	3					1 1	1		2						1 1					3-14 15-27 28-41 >41	Khanpur
24	6	3		3		1	2 1	6 2		17	3	1			1		1	6 3	2	13				1	1		2 1	2 4	2	7	1				2		1	1 1		1	3-14 15-27 28-41 >41	Lahore
23	6 3	1	2		1	3	1 1	3 1	1	20	2 3	5 2	1	2	1	1	1 1	1		11	1	1		3	1	1	3	1		5					1	1		1		1	3-14 15-27 28-41 >41	Multan
28	2	2				2 1	5 1	12	3	24	4					1	3 5	5 6		16	2					1	2 3	3 5		3						1	1		1	3-14 15-27 28-41 >41	Peshawar
31		1	1	1	1	3 1	9 3	8 3		25	1	1 1	1	2 1	2 1	4 3	2 1	4 1		16	1	1	2	3 1	1	2	1 2	1 1		4	1	1					2				3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T. August, 1951

STATION	Speed in Knots	Number of observations at Surface										Number of observations at 0.15 Km. above Surface										Number of observations at 1.0 Km. above sea level										Number of observations at 2.0 Km. above sea level									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knot
Bogra ...	3-14	31			4	8		2		1	16	30			10	9	2	4	1			23			4	5	1		4		1	9			1	2			2	1	
	15-27														1	3									1	6	1								2	1					
	28-41																																										
	>41																																										
Chhor ...	3-14	31		1				19	1			31			1		1	11	1			26				1	2	3		1		10	2	3	1	1	1		1		
	15-27							10									1	15						1	1		1	14						1							
	28-41																	1										2														
	>41																																										
Chittagong ...	3-14	31				5	8	14	1		3	26				1	4	7	1			15				3	4				1	9			2	3		1			1
	15-27																8	5								1	5	1								2					
	28-41																																										
	>41																																										
Cox's Bazar ...	3-14	31				6	21	3				18				1	3	2				16			1	2	4	1				10		1	1	2	3				
	15-27						1									1	9	2								3	2	2								2	1				
	28-41																										1															
	>41																																										
Dacca ...	3-14	31			1	14	2	5		1	8	30			3	16	4	2				25	1		1	11	1	1	1			10			2	5	2				
	15-27												1		1	1	1	1							1	4	1	2								1					
	28-41																									1																
	>41																																										
Dalbandin ...	3-14	31		1	1	1	2	11	5	2	8	31			3	1	3	8	9		2	31			3	1	3	7	10		4	30			1		4	3	7	4	4
	15-27																		4										3										6	1		
	28-41																		1																							
	>41																																										
Drosh ...	3-14	31						26			5	31				1		20	6	1	2											31					3	24			1
	15-27																	1																				3			
	28-41																																										
	>41																																										
Fort Sandeman ...	3-14	31	2	2		2		3	2	3	17	31	2	4	2			5	6	3	8											31	1	5	1	2	5	7	2	1	7
	15-27															1																										
	28-41																																										
	>41																																										
Jacobabad ...	3-14	31			3	8	8				12	31	2		2	11	14	1				31	1	2	6	3	9	2	2	1	5	31	9	5	1	2	1		5	3	1
	15-27														1																		3		1							
	28-41																																										
	>41																																										
Jhelum ...	3-14	31		3		5			1	1	21	31	2	3	1	8	6	4	1	1	5	30	3		3	6	7	3	2	2	2	27	1	1	3		2	2	5	9	3
	15-27																								1	1															1	
	28-41																																										
	>41																																										
Karachi (Drigh Road).	3-14	31					1	6	5		1	31					1	2	3			20	1	1	1	1			1	3		9	2	1					1	1	
	15-27							18										10	9										11					2							
	28-41																	1	5										1					1							
	>41																																										
Khanpur ...	3-14	31	1	4			2	14	2	1	7	31	2	2	1		7	13	2	1	1	31		2	2	6	10	7			2	27	1	3	6	3	1	6	2	2	
	15-27												1					1									1	1					1			1						
	28-41																																										
	>41																																										
Lahore ...	3-14	31		2	2	3			3	2	19	29	1	4	8	4	2	1	3	4	2	31	2		5	8	3	3	5	2	2	28	2	4	1	2	2	1	6	5	1
	15-27																								1											1				1	2	
	28-41																																										
	>41																																										
Multan ...	3-14	31	1	4	1	2	1	17			4	31		6		3	8	7	1		1	31	2	1	3	4	9	5		1	1	27	2	1	5	2	5	4		1	2
	15-27							1							1			3	1								3	1	1					1	1	1	1					
	28-41																																										
	>41																																										
Peshawar ...	3-14	31	1	14	5	2					8	31		18	8	3					1	31	3	7	7	7	2				5	27	3			1	5	8	3	2	3
	15-27					1											1																					1	1			
	28-41																																										
	>41																																										
Quetta (Samungli). ...	3-14	31			1	1	7	6	4	10	2	31	1					2	12	11	4											31						3	10	14	2
	15-27																		1																					2		
	28-41																																										
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T. August, 1951.

Number of observations at 3.0 Km. above sea level

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14 15-27 28-41 >41	3			1 1 1						
Chhor	3-14 15-27 28-41 >41	10	3	1 1	1	1	1			1	1
Chittagong	3-14 15-27 28-41 >41	6				3 1		1		1	
Cox's Bazar	3-14 15-27 28-41 >41	5	1		1	1 1	1				
Dacca	3-14 15-27 28-41 >41	7			4	2 1					
Dalbandin	3-14 15-27 28-41 >41	29	2 1	1	2	2		1 1	4 3	8 1 1	2
Drosh	3-14 15-27 28-41 >41	31					19	11		1	
Fort Sandaman	3-14 15-27 28-41 >41	30	3 1	2	2	3	4 1	3 1	5	3	2
Jacobabad	3-14 15-27 28-41 >41	30	8 1	5	1 3	2		4	2	4	
Jhelum	3-14 15-27 28-41 >41	23		1	1	1		1	3 1	10 2	3
Karachi (Drigh Road).	3-14 15-27 28-41 >41	7	4	1	1				1		
Khanpur	3-14 15-27 28-41 >41	24	7 1	3 2	1	3 1	2	1	2		1
Lahore	3-14 15-27 28-41 >41	21	2	3	1		1		3 1	6 2	2
Multan	3-14 15-27 28-41 >41	22	3	5 1	2	1	3 1		4	1	1
Peshawar	3-14 15-27 28-41 >41	25	4				1	3 2	5 2	4 4	
Quetta (Samungli)	3-14 15-27 28-41 >41	30	3		1		1	9	9 1	2 1	3

Number of observations at 4.5 Km. above sea level

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14 15-27 28-41 >41	1		1							
Chhor	3-14 15-27 28-41 >41	8	1 2	1			1		3		
Chittagong	3-14 15-27 28-41 >41	1							1		
Cox's Bazar	3-14 15-27 28-41 >41	2		1					1		
Dacca	3-14 15-27 28-41 >41	4			2	1 1					
Dalbandin	3-14 15-27 28-41 >41	23	3 1	2 1	1		2 1	1	4 3	1 2	1
Drosh	3-14 15-27 28-41 >41	28	3	2	1	6	9	1	1		5
Fort Sandaman	3-14 15-27 28-41 >41	26	2			4	1	7 3 1	2	3 1 1	1
Jacobabad	3-14 15-27 28-41 >41	26	2 3	1	1 1	1	3	2 3	5 1	3	
Jhelum	3-14 15-27 28-41 >41	20	3 1					3		6 5	2
Karachi (Drigh Road).	3-14 15-27 28-41 >41	5	1 1	1					1	1	
Khanpur	3-14 15-27 28-41 >41	18	3 1	4 1	2	2		1 2	1	1	
Lahore	3-14 15-27 28-41 >41	12		1				1	2 2	2 4	
Multan	3-14 15-27 28-41 >41	13	2 1	1	1	1	1	1 1	1	1 2	
Peshawar	3-14 15-27 28-41 >41	24	3					2 1	7 4	4 3	
Quetta (Samungli)	3-14 15-27 28-41 >41	28	2 3	1	1	3	5	3 1	5 2	1	1

Number of observations at 6.0 Km. above sea level

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14 15-27 28-41 >41										
Chhor	3-14 15-27 28-41 >41	6	3		1			1	1		
Chittagong	3-14 15-27 28-41 >41										
Cox's Bazar	3-14 15-27 28-41 >41	1		1							
Dacca	3-14 15-27 28-41 >41	2			1	1					
Dalbandin	3-14 15-27 28-41 >41	14	1 1		1	1	2	1 2	2	1 2	
Drosh	3-14 15-27 28-41 >41	22	1	1		1	1	2 1	10	4 1	
Fort Sandaman	3-14 15-27 28-41 >41	15			1	2		3 1	2 4	1 1	
Jacobabad	3-14 15-27 28-41 >41	22	2	1 1	1	1	1	2 1	2 3	4 3	
Jhelum	3-14 15-27 28-41 >41	17						1 1	5 5 2	1 1	1
Karachi (Drigh Road).	3-14 15-27 28-41 >41	5	1		1				1	2	
Khanpur	3-14 15-27 28-41 >41	14	1	1	1		2	1 1	1 3	1 1	1
Lahore	3-14 15-27 28-41 >41	9	1					1 1	1 1 2	1 1	
Multan	3-14 15-27 28-41 >41	8	1	1			2	2	1	1	
Peshawar	3-14 15-27 28-41 >41	22	2					1	6 9	3 1	
Quetta (Samungli)	3-14 15-27 28-41 >41	18	1 1	1		1		2	4 3 1	3	1

Number of observations at 7.5 Km. above sea level

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14 15-27 28-41 >41										
Chhor	3-14 15-27 28-41 >41	3	1		1			1			
Chittagong	3-14 15-27 28-41 >41										
Cox's Bazar	3-14 15-27 28-41 >41										
Dacca	3-14 15-27 28-41 >41										
Dalbandin	3-14 15-27 28-41 >41	4		1					1	1 1	
Drosh	3-14 15-27 28-41 >41	14	1					2	2 5 2	1 1	
Fort Sandaman	3-14 15-27 28-41 >41	10				2		1	1 2 1	1 1	1
Jacobabad	3-14 15-27 28-41 >41	17	2	1	1	2		1	1 1 2	3 3	
Jhelum	3-14 15-27 28-41 >41	11			1		1 1	1 2 1	1 2		1
Karachi (Drigh Road).	3-14 15-27 28-41 >41	4	1		1	1			1		
Khanpur	3-14 15-27 28-41 >41	7		1			1	1 1	3		
Lahore	3-14 15-27 28-41 >41	6		1				1	1 1 1	1	
Multan	3-14 15-27 28-41 >41	3			1			1	1		
Peshawar	3-14 15-27 28-41 >41	19	1		1			2 2	7 4	1 1	
Quetta (Samungli)	3-14 15-27 28-41 >41	15		1	1		2	3 1	4 1	1 1	

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T. August, 1951

STATION	Speed in Knots	Number of observations at Surface											Number of observations at 0.15 Km. above Surface											Number of observations at 1.0 Km. above sea level											Number of observations at 2.0 Km. above sea level										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31			5	3	1	2			20	29			3	11	5	1				22				4	7	2		1		8			2	2	2		1		
	15-27														3	1	3	2								4		2	1							1					
	28-41																									1															
	>41																																								
Chhor ...	3-14																																								
	15-27																																								
	28-41																																								
	>41																																								
Chittagong ...	3-14	31				12	2	1			16	17				11	1					13					2					4				1	1	1			
	15-27															4	1									2	7	1									1				
	28-41																									1															
	>41																																								
Cox's Bazar ...	3-14	31				12	16					9				2	1	1				9					5					2					1	1			
	15-27						2	1								4	1									1	1	2													
	28-41																																								
	>41																																								
Dacca ...	3-14	31				10	4	1			16	27			1	8	10	1				22				4	9	3				3				1		1	1		
	15-27															4	2	1								2	1	2													
	28-41																											1													
	>41																																								
Dalbandin ...	3-14	31	1	4	1		1	4	4	1	14	29	4	2	2	2	1	1	7	6	1	29	3	2	3	2	1	2	7	6	2	29	7	1	4	2			7	4	
	15-27						1						1		1			1					1										1							2	
	28-41																																							1	
	>41																																								
Drosh ...	3-14	31		1				16			14	31		1	1		4	21	1		2											31		1			3	20			7
	15-27																	1																							
	28-41																																								
	>41																																								
Fort Sandaman	3-14	31	3	4	1	2	1	5	2		10	28		4	2	2	2	7	2	2	3	28	1	2			2	13	1	4	3	27					3	9	7	3	
	15-27			3									2	1				1										1		1			1						2	2		
	28-41																																								
	>41																																								
Jacobabad ...	3-14	31	2	1	2	4	18			1	3	31	2	1	1	4	11	1	1	1		31		1		3	8	11	5		2	30	1	5	3	1		5	6	3	6
	15-27														1		8								1																
	28-41																																								
	>41																																								
Jhelum ...	3-14	31	1		1	3		1	1	1	23	31	2	1	3	10	3	1	3	3	3	31	1	1	3	9	5	5	1	3		26	2	1	1	1	2	2	7	7	2
	15-27														1	1									1	1				1					1						
	28-41																																								
	>41																																								
Karachi (Drigh Road) ...	3-14	31						19	7	1	1	31	1					2	9	1		17	1				1			2		7	1	1	2					1	1
	15-27							2	1									2	16				1						8						1						
	28-41																												4												
	>41																																								
Khanpur ...	3-14	31		3		2	7	11			8	31		1		5	6	5				31		2	1		6	7	1		2	27	8	2	3	3	3	4	3		
	15-27													2	1		7	4							1	1	2	8					1								
	28-41																																								
	>41																																								
Lahore ..	3-14	31		3		3	1				24	30	1	1	5	5	4	3		3		29	4		2	2	4	5	4	1	3	29	5		1	2	1	2	6	6	3
	15-27													1	1	2	1	3								1	1	2											2		
	28-41																																								
	>41																																								
Multan ...	3-14	31		3	1	9	5	5			8	31	1		3	2	4	4				31			1	3	5	1			3	19	2	2	1	1	1	3	4	3	
	15-27														3	2	4	7								1	2	13											2		
	28-41																1											2													
	>41																																								
Peshawar ...	3-14	31	6				3	1		4	15	31	6	3	1	1	2	4	3	8	1	31	4	5	1	2	2	2	6	4	2	31	1	1	3	2	6	8	3		1
	15-27			1	1									1	1										1		2								1			1	4			
	28-41																																								
	>41																																								
Quetta (Samungli) ...	3-14	31		1	1	8		3			13	28				3	3	12	5	2	1											28				1	2	8	10	2	
	15-27				1	3										1																				2		2	1		
	28-41					1										1																									
	>41																																								

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T. August, 1951

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
6				2 1	2		1																																3-14 15-27 28-41 > 41	Bogra
																																							3-14 15-27 28-41 > 41	Chhor
1							1																																3-14 15-27 28-41 > 41	Chittagong
1					1					1			1																										3-14 15-27 28-41 > 41	Cox's Bazar
																																							3-14 15-27 28-41 > 41	Dacca
19		1	1	1	1		8 1 1	3	2	2					1		1																						3-14 15-27 28-41 > 41	Dalbandin
31	1	2	1		13 1		8		5	7	5 1				1																								3-14 15-27 28-41 > 41	Drosh
8	1	1 2					1	2 1																															3-14 15-27 28-41 > 41	Fort Sandaman
27	6 1	2 3	1		1	1	1	9	2																														3-14 15-27 28-41 > 41	Jacobabad
19	3 2		1 1		1	2	1 1	5 2																															3-14 15-27 28-41 > 41	Jhelum
5	2	1 1	1							1	1																												3-14 15-27 28-41 > 41	Karachi (Drigh Road)
19	4 2	1 1	4	1	1		2	3		3	1	1	1																										3-14 15-27 28-41 > 41	Khanpur
22	4	1		2	2		1	9 1	2	1							1																						3-14 15-27 28-41 > 41	Lahore
17	3 3	1 1	4			1 1	2	1		2		1	1							1				1															3-14 15-27 28-41 > 41	Multan
27	2		2	2	3 1	5	6	4	2	10	2					1	1 2	4																					3-14 15-27 28-41 > 41	Peshawar
23				1	3 1	3	11 2	1 1																															3-14 15-27 28-41 > 41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low Cloud above ground Level at 03, 09, and 21 G. M. T.
August, 1951

STATIONS	Cloud Amounts in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations witn cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Bogra *1 *3 ..	Trace to 8			1		9	9	7	2	2						9	5	12	4	1						5	10	5	3	1	6
	6 to 8					1	5	1		1	8					4	1	5	2		12					3	2	1			
	7 or 8						3				3					1		1	1		3					1					
Chhor ..	Trace to 8				1		16	2			12						4	6	11		10										
	6 to 8				1		6				18						1	1			12										
	7 or 8				1		3				11						1				6										
Chittagong ..	Trace to 8					15	8	5			3					7	16	7	1							9	10	5			7
	6 to 8					8	4	2			14					4	10	3			17					9	4				
	7 or 8					8	2	1			11					4	6				10					9	3				
Cox's Bazar ..	Trace to 8					10	15	4			2					11	10	8			2					11	17	2			1
	6 to 8						5	3			8					3	4	2			9					5	11				
	7 or 8						2	1			3					1	2	1			4					3	7				
Dacca ..	Trace to 8				1	15	14	1						1	1	2	23	4								12	17	1	1		
	6 to 8				1	8	7				16				1	2	11	1			15					6	3		1		
	7 or 8					5	2				7						5				5					2	1				
Dalbandin £ ..	Trace to 8										31										31										29
	6 to 8																														
	7 or 8																														
Drosh *3 ..	Trace to 8						3	6	2	1	19						1	4	23	3								1	6	3	20
	6 to 8							1	1		6								1		8								1		
	7 or 8							1			2								1		7										
Fort Sandaman ✓2	Trace to 8						1		1	1	28								5	17	9								3	4	21
	6 to 8										1								3	2	6								1		
	7 or 8																			1	1								1		
Jacobabad ..	Trace to 8								1		30									6	25								2	1	28
	6 to 8																														
	7 or 8																														
Jhelum ..	Trace to 8						2	5	4		20						3	2	16	3	7						1	3	9	1	17
	6 to 8							1	1		13						3			1	9						1				
	7 or 8							1			10						2			1	8						1				
Karachi (Drigh Road) ..	Trace to 8					15	12				4					4	20	4		1	2					12	14	2			3
	6 to 8					8	8				20					2	16	2		1	21					5	10	1			
	7 or 8					5	6				17					1	7			1	18					5	6	1			
Khanpur ..	Trace to 8					1		1	2	4	23						2	1	4	2	22							1	1	4	25
	6 to 8								1		7						1	1		1	6									2	
	7 or 8								1		6						1				6									1	
Lahore ..	Trace to 8						2	1	9	1	18							2	21	1	7						1		9	1	20
	6 to 8						1		1	1	14							1			9						1				
	7 or 8						1				13							1			7						1				
Multan ..	Trace to 8					1	1		3	1	25						1	2	2	7	19					1	1	1	1	1	26
	6 to 8						1		1		5									1	8										
	7 or 8																			1	5										
Peshawar *1 ..	Trace to 8						1	3	9	5	12						2	16	7	1	5							11	6		14
	6 to 8									2	5						1	1			4										
	7 or 8									1	4						1	1			4										
Quetta (Samungli) @ .. ✓1 ✓2	Trace to 8										25							3	10	2	13								1		27
	6 to 8																	1	1												
	7 or 8																														

* 1 On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
* 3 On 1 day cloud height could neither be measured nor estimated at 21 G.M.T.
£ On 2 days cloud height could neither be measured nor estimated at 21 G.M.T.
✓1 On 3 days cloud height could neither be measured nor estimated at 09 G.M.T.
✓2 On 3 day cloud height could neither be measured nor estimated at 21 „ .
@ On 6 days cloud height could neither be measured nor estimated at 03 G.M.T.

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G.M.T. and Number of days of fog (Visibility) < 100 m. August, 1951.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										No. of days of fog	STATIONS
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)		
						15	14	2							1	9	16	5													Bogra
						7	24								5	5	20	1													Chhor
					5	25	1								5	25	1								10	11					Chittagong
			2	7	6	12	3	1						11	5	13	2														Cox's Bazar
						12	10	9								3	11	12	5						1	25	2				Dacca
				11	8	8	4						1	13	6	7	4					2		13	6	7	3				Dalbandin
						2	6	11	12							2	3	17	9						1	2	27	1			Drosh
			1	3	5	20	2						1		8	20	2							3	8	20					Fort Sandaman
					1	27	2	1							1	13	17									31					Jacobabad
				1	2	14	6	8								7	14	8	2												Jhelum
					1	28	2									23	7	1								31					Karachi
			1	15	8	7							3	7	14	7															Khanpur
					4	26	1								1	20	10														Lahore
					11	18	2						1	1	10	16	3								8	23					Multan
						12	15	4					1		4	6	16	4							1	30					Peshawar
					2	12	17								3	9	19							1	5	12	13				Samungli

Registered No. S-1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

SEPTEMBER 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of September 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T.are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the times of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

KARACHI, Pakistan :

The 3rd February, 1962.

SIBTE NABI NAQVI.
Director,
Meteorological Service.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES.

Station	Latitude N	Longitude E	Height in Km. a.s.l.	Station	Latitude N	Longitude E	Height inKm. a.s.l.
Bogra ..	24° — 51′	89° — 23′	0.03	Jacobabad ..	28° — 17′	68° — 29′	0.06
Chhor ..	25° — 31′	69° — 50′	0.01	Jhelum ..	32°— 56′	73° — 44′	0.24
Chittagong ..	22° — 21′	91° — 50′	0.02	Karachi (Drigh Road).	24° — 53′	67° — 07′	0.03
Cox's Bazar ..	21° — 26′	91° — 58′	0.03	Khanpur ..	28° — 39′	70° — 41′	0.09
Dacca ..	23° — 47′	90° — 23′	0.01	Lahore ..	31° — 35′	74° — 20′	0.22
Dalbandin ..	28° — 54′	64° — 26′	0.85	Multan ..	30° — 12′	71° — 31′	0.12
Drosh ..	35° — 34′	71° — 47′	1.51	Peshawar ..	34° — 01′	71° — 35′	0.37
Fort Sandaman ..	31° — 21′	69° — 27′	1.42	Quetta (Samungli).	30° — 15′	66° — 53′	1.60

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—September, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ..	3-14	30			1	3		3			23	30	3	2	5	3	2	7	3	1	3	23	3	4	2	1	1	1	1	1	3	16	1	3	4			2			2
	15-27															1									1	1			3					1					1			
	28-41																												1													
	>41																																									
Chhor ...	3-14	30	1	1			7	20	1			30		1	1		3	5	4			29			1	1	1	5	3	1		25	2		1	2	5	1	1		1
	15-27																5	11										7							1	6	4					
	28-41																																				1					
	>41																																									
Chittagong ...	3-14	30	1	1	1	5	1				21	29		6	5	11	4	1			1	24	7	3	1	1	1	2		1	1	17	1	6	3	2	1		1		2
	15-27												1										1			1	3									1	1					
	28-41																										2															
	>41																																									
Cox's Bazar ...	3-14	30		1	1	8	5	1		2	12	26	3	3	1	3	5		1	1	4	26	8	1	1		3	2		1	4	16	4	4	3	2		1	1		
	15-27															4		1								4	2									1	1					
	28-41																																									
	>41																																									
Dacca ...	3-14	30				5	1	4	1		19	29	2		6	4	2	3	2	4	1	20	2	4	2		1	1	1	2	3	16	1		6	2	1		2		1
	15-27															2		3						1		1		1	1					1		2						
	28-41																																									
	>41																																									
Dalbandin ...	3-14	30	1	5					1	2	21	30	3	8	7	3		1	6	1	1	30		7	5	2			4	1	11	30	5	3	4	2	2	2	2	4	1
	15-27																																	3								
	28-41																																									
	>41																																									
Drosh ...	3-14	30									30	30			2	2		3			23											30	4	11				3			12
	15-27																																									
	28-41																																									
	>41																																									
Fort Sandeman ...	3-14	30		2	3	1	1	3			20	30		4	3		3	9	4		7											30	7	6			8	2	4	3
	15-27																																									
	28-41																																									
	>41																																									
Jacobabad ...	3-14	30			4	7	8	5			6	30		2	1	11	5	3	2		1	30	1	1	2	1	6	10			5	30	3			1	1	9	7	7	2
	15-27														1		1	3										4														
	28-41																																									
	>41																																									
Jhelum ...	3-14	30			1						29	30	5	2	9	8		1		3		30			1	18	4	1	1	1	2	30	1			1	1	2	4	17	3
	15-27															2									2															1	
	28-41																																									
	>41																																									
Karachi (Drigh Road).	3-14	30						2	17	3	8	30							16			24	1					3	8	3		17	2	5	1	2	3	1		1	
	15-27													1					10	3								1	7	1					1		1				
	28-41																																									
	>41																																									
Khanpur ...	3-14	30	2					18	4		6	30			1			2	1	1		30		1					4	2		28	1				5	6	11	1	
	15-27													1			1	12	10					1					16	5								1	2	1	
	28-41																	1												1												
	>41																																									
Lahore ...	3-14	30				5	2	3			19	30				6	13	6	2		1	30				5	5	8	8	1		30	5	3	1		1	3	3	10	2
	15-27							1									1	1								1			2									1		1	
	28-41																																									
	>41																																									
Multan ...	3-14	30			1	3	1	18	1		6	30				2	2	4	1	1		30			2		3	7	8	1		30		3	1	1	1	8	8	3	2
	15-27														1	2	3	11							2			5									1	2			
	28-41																	3										2													
	>41																																									
Peshawar ...	3-14	30								1	29	30	9		1		1	1	2	14	2	30	9	1	1					10	5	30	3	1		1	3	5	4	8	3
	15-27																						1							3										2	
	28-41																																									
	>41																																									
Quetta (Samungli)	3-14	30			3	6					21	30		2	2	10	2	1	2	1	10											30	1		1	3	3	9	6	2	4
	15-27																																					1				
	28-41																																									
	>41																																									

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—September, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
12		1	6	1		1	1 1		1	12		1	5 1	1		1	1 1		1	5		2	1 1		1					3	1						1		1	3-14 15-27 28-41 >41	Bogra
24	1	3 2 1	3 1	3 4	2 1	2	1			24	1 1	2 8	2 5 1	3 1						20	3 1	2 1	1 3	1 1	1	3 1		2		15	3	1	2	1	1	1 1	3	2		3-14 15-27 28-41 >41	Chhor
15	1		6	1	2		2	1	2	12	1	2	5 1	1		1	1			6		1 1	1 1				1		1	1							1			3-14 13-27 28-41 >41	Chittagong
13		3	3 1	1 1	1	3				8		1	1	2 1		1	1 1			5		1	1 1		1			1		2			1						1	3-14 15-27 28-41 >41	Cox's Bazar
11		1 1	4 2	1		1			1	8		2 1	2	2			1			5		1				1	1 1	1		4					1	2	1		3-14 15-27 28-41 >41	Dacca
30	5 2 1	4		1	4	2	2	2 6	1	25	4 4	3		1	2	1		4 4	2	20	3 6	5	1	1	2		1	1		16	5 1				1 2	2	3 2		3-14 15-27 28-41 >41	Dalbandin
30	9 5	2				3			11	29	13 7	4		1			3	1		27	1 2	1			1	3	3 2 1	3 4	6	23	1				2 5	1 8 1	1 2 2		3-14 15-27 28-41 >41	Drosh
29	2		1				3	11 12		26	3	1	1	2	2	4	6 1	3 2	1	14	1		1		2	1	3 1	2 1	2	7	1				1	2 1	2		3-14 15-27 28-41 >41	Fort Sandaman
30	7 1	3	3	2		2	1 1	7	3	29	2 1	5 2 1	8 3	1		1 1	1	3		12	3 1	1 1	2				2	1	1											3-14 15-27 28-41 >41	Jacobabad
30	5				1	1	2	12 8	1	29	6 2 1					1	4 1	6 8		20	2 3 1				1 1		9	2 1		8	2				1 1	1 1	1	1	3-14 15-27 28-41 >41	Jhelum
17	3 1	4 1	5 2		1					14	2 1	1 2 1	3	2 1	1					7		1	1		1	1		2	1	4	1			1	1	1	1		3-14 15-27 28-41 >41	Karachi (Drigh Road)
23	1	3	2	3	3		4	5	2	14	1	4 5	3	1						8	1					3 1		3		3						1 1	1		3-14 15-27 28-41 >41	Khanpur
30	7 5	2 1				1 2	2	8 1	1	28	8 4	1	1		1	1	2	8 2		20	4 2				1 2	2	1 1	2 4	1	12	1				1	2 3	1 2	1	1	3-14 15-27 28-41 >41	Lahore
30	2			1		3 2	8 1	10 1	2	28	6 3	7 4	2		3			2	1	23	2 1	1 2				2 4	3 1	3 4		10	2				1	2	1 1 1	1 1	3-14 15-27 28-41 >41	Multan
30	3				3	6	8 1	5 4		27	2 1	1				1	7 3	6 5 1		16	7	1					2 1	3 2		3		1						1 1	3-14 15-27 28-41 >41	Peshawar
30	1					3	9 1	14 2		29	2	1	4	1	1	2 1	3 2	5 6	1	18	3 3		1		1	1	4 2	2 1		2				1		1			3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T.—September 1951.

STATIONS	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	30			2	2		2			24	28	1	1	11	4	1	3	2	1	2	28	1	1	3	3	1	2	1	1	5	17			2	1			3		3
	15-27																	1	1						2	1		3							3	1	1		1	1		
	28-41																											1								1						
	>41																																									
Chhor ...	3-14	30		2				20	3			30	1	1				14	3			29	1	1		1	4	6	1			25	1	2		5	9		1	1	1
	15-27							5									1	9									4	11					1		1	2					
	28-41																	1																				1			
	>41																																									
Chittagong ...	3-14	30	1	1		3	4	4	5	2	10	29	1	1	1	1	3	2	8	5		23	5	5		1	1	1	2	1	2	16		2	2	3		3	2		1
	15-27												1			1	2	2	1				1				2	1							1	1	1					
	28-41																									1																
	>41																																									
Cox's Bazar ...	3-14	30			2	3	8	3	8	2	4	24	2	1		1	1	3	8	4		23	2	3			1	2	3	4	3	18	2	3	4	1	1	1	2		3
	15-27															1	2										5										1					
	28-41																1																									
	>41																																									
Dacca ...	3-14	30	1		1	2	3	4	1		18	29	1	2	4	3	2	3	2	3	4	25	3	2		3		3	2	3	3	16			5		1	3		2	2
	15-27															2		2	1					1		2	1	2							1				2		
	28-41																																									
	>41																																									
Dalbandin ...	3-14	30	1	4		1	2	3		1	18	30	1	4	2	4	1	6	4	1	6	30	1	4	2	3	1	5	1	1	12	30	5	3	1	1	5	6	4	2	1
	15-27																	1																						2	
	28-41																																									
	>41																																									
Drosh ...	3-14	30		2				11			17	30		3				20	3		4											30	1	2		4	2	17			3
	15-27																																					1				
	28-41																																									
	>41																																									
Fort Sandaman ...	3-14	30	1				1	2	4	3	19	30	2	1			1	4	5	7	10											30	2	1	1		2	6	6	3	8
	15-27																																					1				
	28-41																																									
	>41																																									
Jacobabad ...	3-14	30		1		4	11	3	1		10	30		1		3	16	5	1	1	3	30	3	1		1	8	8	3		4	30	3	4		1	5	5	5	5	2
	15-27																											2														
	28-41																																									
	>41																																									
Jhelum ...	3-14	30				2	2	1			25	30	1			5	11	4			9	30	1			7	14	2	2	1	3	30	6		1	1	1		5	15	1
	15-27																																									
	28-41																																									
	>41																																									
Kurachi (Drigh Road).	3-14	30		1				12	4	1		30		1				2	3	1		30	3					5	7	3	1	22	4	2	4	1	3	1	1		1
	15-27							11	1									9	12										8	2			1				1	1		2	
	28-41																	1	1										1													
	>41																																									
Khanpur ...	3-14	30	1				1	15	8	1	2	30	2				1	14	3	1		30		2			4	11	2	1		27		1		2	3	9	3	2	1
	15-27							2									1	5	3									7	2					1			1	1	2	1		
	28-41																											1														
	>41																																									
Lahore ...	3-14	30	1		1		1	1	4	1	21	30	2	1	4	1	4	1	7	6	4	30	1		5	3	4	7	5	3	2	30	3	1	1		2	6	5	10	1
	15-27																																							1		
	28-41																																									
	>41																																									
Multan ...	3-14	30		1	1	1	1	20	1	1	3	30			2	2	3	16	2	1		29		2	2	2	3	11	3	2		27		1		1	3	8	6	2	1
	15-27							1							1		1	1									2	1	1					1					4			
	28-41																	1																								
	>41																																									
Peshawar ...	3-14	30	1	12	10	5					2	30		12	10	1	1				5	30	1	2	5	6	4				12	30	2			1		10	10	5	
	15-27													1																							1		1			
	28-41																																									
	>41																																									
Quetta (Samungli)	3-14	30	2		1			3	3	11	10	30	1				1	4	6	13	1											30	5					3	12	6	2
	15-27																		1	3																			1	1		
	28-41																																									
	>41																																									

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G.M.T.—September, 1951.

Number of observations at 3.0 Km. above sea level.

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	12			2				5		2
	15-27				3						
	28-41										
	> 41										
Chhor	3-14	23	4	2	4	5	1	1			
	15-27			1	3	2					
	28-41										
	> 41										
Chittagong	3-14	10	1	2	3		1		3		
	15-27										
	28-41										
	> 41										
Cox's Bazar	3-14	14	1	2	3		1	2	3	1	1
	15-27										
	28-41										
	> 41										
Dacca	3-14	10		2	4	2		1			
	15-27			1							
	28-41										
	> 41										
Dalbandin	3-14	28	3	3		2	4	1	4	3	2
	15-27		2						1	3	
	28-41										
	> 41										
Drosh	3-14	30	3				11	5		3	7
	15-27						1				
	28-41										
	> 41										
Fort Sandaman	3-14	30	2				4	8	9	5	1
	15-27							1			
	28-41										
	> 41										
Jacobabad	3-14	30	7	4	1	1	2	1	1	5	5
	15-27			2	1						
	28-41										
	> 41										
Jhelum	3-14	30	4					2	5	16	
	15-27		1							2	
	28-41										
	> 41										
Karachi (Drigh Road).	3-14	19	1	6	3		1	1			
	15-27		3	1	2	1					
	28-41										
	> 41										
Khanpur	3-14	26	1	3	3	2	2	7	1	3	2
	15-27		2								
	28-41										
	> 41										
Lahore	3-14	30	5	2	1			1	4	12	
	15-27		1						1	3	
	28-41										
	> 41										
Multan	3-14	27		2				8	6	9	1
	15-27							1			
	28-41										
	> 41										
Peshawar	3-14	29		1				3	11	7	
	15-27								3	4	
	28-41										
	> 41										
Quetta (Samungli)	3-14	30		1				7	11	8	
	15-27								2	1	
	28-41										
	> 41										

Number of observations at 4.5 Km. above sea level.

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	6			1	1			3		1
	15-27										
	28-41										
	> 41										
Chhor	3-14	18	1	1		1	3		1	1	
	15-27		1	1	5	1				1	
	28-41							1			
	> 41										
Chittagong	3-14	6		1	1				1		
	15-27				2				1		
	28-41										
	> 41										
Cox's Bazar	3-14	7	1		1	1		2	2		
	15-27										
	28-41										
	> 41										
Dacca	3-14	9		3	2		1	1			
	15-27								2		
	28-41										
	> 41										
Dalbandin	3-14	27	7	4	1	2	1	1	1		1
	15-27		4	1					1	2	
	28-41									1	
	> 41										
Drosh	3-14	28	4			1	11	2	2	4	4
	15-27										
	28-41										
	> 41										
Fort Sandaman	3-14	28	1			2	5	7	6	4	
	15-27						1	1	1		
	28-41										
	> 41										
Jacobabad	3-14	30	3	9	5	2	2	1	2	2	1
	15-27				2					1	
	28-41										
	> 41										
Jhelum	3-14	30	4				1		6	8	1
	15-27								2	8	
	28-41										
	> 41										
Karachi (Drigh Road).	3-14	18	3	1	3	2				1	1
	15-27			[illegible]	3	1					
	28-41										
	> 41										
Khanpur	3-14	25	4	4	3	2	3	1	3	2	1
	15-27			2							
	28-41										
	> 41										
Lahore	3-14	26	3	4					2	10	
	15-27		1						1	5	
	28-41										
	> 41										
Multan	3-14	25	6	5			2	3	2	3	1
	15-27									3	
	28-41										
	> 41										
Peshawar	3-14	28	1						14	6	1
	15-27							2	2	2	
	28-41										
	> 41										
Quetta (Samungli)	3-14	30	4	1		4	2	2	3	3	1
	15-27		1						5	4	
	28-41										
	> 41										

Number of observations at 6.0 Km. above sea level.

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	4				1		1	1		1
	15-27										
	28-41										
	> 41										
Chhor	3-14	17	2	1	3			3	3	2	
	15-27		1		1		1				
	28-41										
	> 41										
Chittagong	3-14	2							1		
	15-27		1								
	28-41										
	> 41										
Cox's Bazar	3-14	6	1	1	1				1		
	15-27							1	1		
	28-41										
	> 41										
Dacca	3-14	2			1						
	15-27			1							
	28-41										
	> 41										
Dalbandin	3-14	22	3	5	1	1			1	3	1
	15-27		3					2	1	1	
	28-41										
	> 41										
Drosh	3-14	22	3				3	3	3	4	1
	15-27		2					1		2	
	28-41										
	> 41										
Fort Sandaman	3-14	17					1	3	2	3	
	15-27				1			2		4	
	28-41									1	
	> 41										
Jacobabad	3-14	30	2	3	2	1	1	1	7	3	1
	15-27		3	1			2		2	1	
	28-41										
	> 41										
Jhelum	3-14	27	2	1				2	2	5	1
	15-27						1	4	3	5	
	28-41									1	
	> 41										
Karachi (Drigh Road).	3-14	18	3	3	1		2	3	2	2	
	15-27				1						
	28-41			1							
	> 41										
Khanpur	3-14	22	3	1				2	3	4	
	15-27		1					4	2	2	
	28-41										
	> 41										
Lahore	3-14	22	2	1			2	2	2	2	
	15-27		2					2	1	4	
	28-41							1	1		
	> 41										
Multan	3-14	22	4					5	1	5	1
	15-27		1					2	1	2	
	28-41										
	> 41										
Peshawar	3-14	27	1	1				1	6	3	
	15-27							1	8	4	
	28-41							1		1	
	> 41										
Quetta (Samungli)	3-14	28	2	1	1	1		1	2	8	1
	15-27		1				1	2	3	3	
	28-41								1		
	> 41										

Number of observations at 7.5 Km. above sea level.

STATION	Speed in Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	2						1	1		
	15-27										
	28-41										
	> 41										
Chhor	3-14	13		2			1	1	3		
	15-27			1			2		3		
	28-41										
	> 41										
Chittagong	3-14										
	15-27										
	28-41										
	> 41										
Cox's Bazar	3-14	2							1		
	15-27								1		
	28-41										
	> 41										
Dacca	3-14	1						1			
	15-27										
	28-41										
	> 41										
Dalbandin	3-14	20	3				1	1	3	2	
	15-27			1				2	4	1	
	28-41								1	1	
	> 41										
Drosh	3-14	19	1				1		1	5	
	15-27							2	2	2	
	28-41							1	1	3	
	> 41										
Fort Sandaman	3-14	12						1	4	1	
	15-27							2	1	1	
	28-41		1							1	
	> 41										
Jacobabad	3-14	26	2	1		1		1	4	2	1
	15-27		4					1	6	2	
	28-41							1			
	> 41										
Jhelum	3-14	13								1	
	15-27		1	1				3			
	28-41							2	2	3	
	> 41										
Karachi (Drigh Road).	3-14	17	3					2	3	3	2
	15-27		1	1				1		1	
	28-41										
	> 41										
Khanpur	3-14	14	1	1				1	3		
	15-27							3	3	1	
	28-41		1								
	> 41										
Lahore	3-14	18	1				1			1	
	15-27		2					4	2	2	
	28-41							1	2	1	
	> 41								1		
Multan	3-14	8	2						1		
	15-27								2	2	
	28-41										
	> 41									1	
Peshawar	3-14	24							1	1	
	15-27							1	7	3	
	28-41							4	3	3	
	> 41									1	
Quetta (Samungli)	3-14	25	2			1			2	4	
	15-27			1				1	4	3	
	28-41							2	2	2	
	> 41							1			

TABLE—2. Observations of Wind by Pilot Balloons at 2100 G.M.T.—September, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots
Bogra ...	3-14	30		1	1	2		3			23	28	2	3		7	3	1	1	2	3	26	1	1	2		4	1		4	4	11		1	5	1	1		1		2
	15-27														2			4								1	2	1	2												
	28-41																								1			1	1												
	>41																																								
Chhor ...	3-14																																								
	15-27																																								
	28-41																																								
	>41																																								
Chittagong ...	3-14	30		1		12				1	16	25		3	4	9	5				1	20	2	1			2	2	2	1	3	10	1		2		3	1	1		2
	15-27															2				1			1				2	1													
	28-41																										3														
	>41																																								
Cox's Bazar ..	3-14	30		2	5	11	2		1		8	21		1		7	2	1		3	2	20	4	1		2	1	2	2		3	12	1	1		2	1	3			3
	15-27						1									2	1	1		1							3	2									1					
	28-41																																								
	>41																																								
Dacca ...	3-14	30			1	2	3	3			21	25		2	1	4	3		3	2	3	20	2	2			2	1	2	2	5	14	2	3	1	2		1	1	1	1
	15-27																3	4									3	1									2				
	28-41																																								
	>41																																								
Dalbandin ...	3-14	30	2	2	1	1		1	1	1	21	30	8	4	6		1	1	4	3	2	30	7	3	5		1	2	3	2	6	30	6	3	4			3	1	7	3
	15-27														1										1								2							1	
	28-41																																								
	>41																																								
Drosh ...	3-14	30				1		4			25	30			1		2	18			9											30	1	3			1	20			5
	15-27																																								
	28-41																																								
	>41																																								
Fort Sandaman	3-14	30	2	4	4	1	2	3	2	2	10	30	3	10		2	1	8		5	1											30	3	2	2		3	7	5	4	3
	15-27																																					1			
	28-41																																								
	>41																																								
Jacobabad ...	3-14	30			2	5	17	4			2	30		1		1	6	1				30			1	2	7	14	2			30		1	2	4	3	5	7	4	4
	15-27														1	1	14	4	1								1	3													
	28-41																																								
	>41																																								
Jhelum ...	3-14	30	1			1				1	27	30	3	2	4	12	1	2		3	1	30	1		1	7	2	6	4	6	1	30	3	1		1	1	2	7	13	
	15-27												1			1								1			1									1				1	
	28-41																																								
	>41																																								
Karachi (Drigh Road) ...	3-14	30						10	13	2	5	30						1	13	2		27	1					5	12		1	16	2	1	5	3	1	1	1	1	
	15-27												1						12	1								1	6	1					1						
	28-41																																								
	>41																																								
Khanpur ...	3-14	30	1					16			11	29					1	6	3			29		1	1		2	3	2			23	4	1	1	1	5	3	3	4	
	15-27							2						2			4	7	4								1	19										1			
	28-41																1	1																							
	>41																																								
Lahore ...	3-14	30		1	3	4	2				20	30			7	6	6	1	4		1	30	2			3	6	8	5	2	3	29	7	1			1	1	11	3	3
	15-27													1		2	2												1										1		
	28-41																																								
	>41																																								
Multan ...	3-14	30		1	1	2	4	12			9	30			1	2	2	3	1	1		30		1		2		4	1	1	1	25		2		1	1	9	5	2	
	15-27							1									3	7	1									15										4	1		
	28-41														1			8										5													
	>41																																								
Peshawar ...	3-14	30				1	2	1		3	23	30	5	4		2		2	4	12	1	30	3	2	1		1	3	5	9	5	30			1	3	5	10	3	5	2
	15-27																													1							1				
	28-41																																								
	>41																																								
Quetta (Samungli) ...	3-14	30			4	12				1	13	30	1	1	1	6	4	3	9	3	1											30	1	1		1	3	5	7	6	2
	15-27																			1																	1		1	2	
	28-41																																								
	>41																																								

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T.—September, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations	N 338-12	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
6			3 1	1				1																																3-14 15-27 28-41 >41	Bogra
																																								3-14 15-27 28-41 >41	Chhor
2				1	1																																			3-14 15-27 28-41 >41	Chittagong
7	1	1		2			2		1																															3-14 15-27 28-41 >41	Cox's Bazar
6		2	1			1		1	1																															3-14 15-27 28-41 >41	Dacca
24	2	1	1	1	2	2	5	4 1	5	4		1			1		1	1																						3-14 15-27 28-41 >41	Dalbandin
29	2	3		3	9	7			5	4	2						1	1																						3-14 15-27 28-41 >41	Drosh
28	1		1 1			4 4	7 3	2 5		7						1	1	3	2																					3-14 15-27 28-41 >41	Fort Sandaman
28	6 1		3	1	1 1	2	1	8 2	2	7	1 1	1 2	1		1					1				1																3-14 15-27 28-41 > 41	Jacobabad
29	4 1		1	1	2		3	13 2	2																															3-14 15-27 28-41 >41	Jhelom
12	1	3 5	1	1			1			5		1 1 1	1				1			1							1			1							1			3-14 15-27 28-41 >41	Karachi (Drigh Road)
17	5 1	2	1	1 2		1		2	2																															3-14 15-27 28-41 >41	Khanpur
28	9	1			1	1	4 2	9 1		2								2																						3-14 15-27 28-41 >41	Lahore
21	3		1	1	2	3	3	6 1	1	1	1																													3-14 15-27 28-41 > 41	Multan
30	2			1	5	4 5	3 2	5 1	2	4	1						1 1	1																						3-14 15-27 28-41 >41	Peshawar
27	1		1	1		4 1	5 2	8 3 1																																3-14 15-27 26-41 >41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low cloud above ground level at 03, 09, and 21 G. M. T. September, 1951.

STATIONS	Cloud Amounts in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
*1 Bogra .. *3	Trace to 8					5	7	7	3		7					1	11	9	6	2	1			1	1	2	7	2	2	2	12
	6 to 8					4			1		5							5			5			1			3				
	7 or 8					3					3							1			1										
Chhor ..	Trace to 8						9				21							7	10		13										
	6 to 8						2				2								1		1										
	7 or 8										1																				
Chittagong ..	Trace to 8					3	9	8	2	1	7					1	9	11	3	2	4					5	9	6	2	2	6
	6 to 8					3	4	3	1		11					1	3	2		1	7					4	4	1			
	7 or 8					2	2	1			5						1	1			2					4	4	1			
Coxs Bazar @ ⅄ .. *3	Trace to 8					3	14	6		1	1					3	20	2	1	1						4	16	3	1		5
	6 to 8					1	7	3			11						5		1		6					3	4	1	1		
	7 or 8					1	5	1			7						1		1		2					3	3	1			
Dacca ..	Trace to 8					15	9	2	2		2					4	20	4			2					14	7	2			7
	6 to 8					9		1	1		20					3	4	1			8					8					
	7 or 8					3			1		4					1					2					3					
Dalbandin ..	Trace to 8										30								2		28										30
	6 to 8																														
	7 or 8																														
Drosh ...	Trace to 8							1	1	1	27							3	24	2	1						1		7		22
	6 to 8										1							1	1		3						1				
	7 or 8										1							1			2						1				
*1 Fort Sandaman *3	Trace to 8										29								4	15	11									1	28
	6 to 8																														
	7 or 8																														
Jacobabad ..	Trace to 8																														
	6 to 8																														
	7 or 8																														
Jhelum ..	Trace to 8									1	29							1	20		9								2		28
	6 to 8										1																				
	7 or 8																														
Karachi .. (Drigh Road)	Trace to 8					5	17				8						13	9			8					3	12	3			12
	6 to 8					2	9				11						3	3			7					2	4	3			
	7 or 8						6				9						3	2			5					1	3	3			
Khanpur ..	Trace to 8									1	29										30										30
	6 to 8																														
	7 or 8																														
Lahore ..	Trace to 8								1		29								10	1	19										30
	6 to 8																				1										
	7 or 8																														
Multan ..	Trace to 8										30						1				29										30
	6 to 8																														
	7 or 8																														
*2 Peshawar ..	Trace to 8							1	1		28							8	15		6							2	3		25
	6 to 8								1		2								1		2										
	7 or 8										1										1										
Quetta *2 .. (Samungli)	Trace to 8										30							5	2	4	18							1			29
	6 to 8																														
	7 or 8																														

*1—On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
*2—On 1 day cloud heights could neither be measured nor estimated at 09 G.M.T.
*3—On 1 day cloud heights could neither be measured nor estimated at 21 G.M.T.
⅄—On 3 days cloud heights could neither be measured nor estimated at 09 G.M.T.
@—On 5 days cloud heights could neither be measured nor estimated at 03 G.M.T.

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G. M. T. and number of days of fog (Visibility) <100 m. September, 1951.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										STATIONS	No. of days of fog
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	∧ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	∧ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	∧ 50000 m. (50 Kms.)		
						10	17	3							2	4	17	7												Bogra	
							28	2					1		2	2	18	7												Chhor	
					2	19	9									22	8						1		6	23				Chittagong	
				4	8	5	10	3							4	9	7	5	5											Cox's Bazar	
						10	13	6	1							4	15	8	3						2	15				Dacca *	
				7	1	13	8	1					1	6	2	11	9	1						7	1	11	10	1		Dalbandin	
								3	27							1	5	4	20											Drosh	
			1	6	7	13	3							5	8	14	3							1	7	22				Fort Sandaman	
						18	9	3								1	25	4								23	7			Jacobabad	
					3	15	10	2								11	18	1												Jhelum	
						18	10	2								14	14	2								30				Karachi (Drigh Road)	
				2	17	11								6	12	12														Khanpur	
					1	29										24	6													Lahore	
					9	21								1	11	18									8	22				Multan	
					3	15	10	2							11	11	7	1							4	26				Peshawar	
						6	23	1								4	15	11						3	15	12				Quetta (Samungli)	

*—On 13 days visibility observations could not be recorded at 21 hrs. G.M.T.

Registered No. S-1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

OCTOBER 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of October, 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T. are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the times of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud.

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

SIBTE NABI NAQVI.
Director,
Meteorological Services.
Karachi.

KARACHI, Pakistan :

The 3rd February, 1962.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES

Station	Latitude N	Longitude E	Heights.	Station	Latitude N	Longitude E	Heights.
Bogra ..	24° — 51′	89° — 23′	0.03 Km.	Jacobabad ..	28° — 17′	68° — 29′	0.06 Km.
Chhor ..	25° — 31′	69° — 50′	0.01 Km.	Jhelum ..	32° — 56′	73° — 44′	0.24 Km.
Chittagong ..	22° — 21′	91° — 50′	0.02 Km.	Karachi (Drigh Road)	24° — 53′	67° — 07′	0.03 Km.
Cox's Bazar ..	21° — 26′	91° — 58′	0.01 Km.	Khanpur ..	28° — 39′	70° — 41′	0.09 Km.
Dacca ..	23° — 47′	90° — 23′	0.01 Km.	Lahore ..	31° — 35′	74° — 20′	0.22 Km.
Dalbandin ..	28° — 54′	64° — 26′	0.85 Km.	Multan ..	30° — 12′	71° — 31′	0.12 Km.
Drosh ..	35° — 34′	71° — 47′	1.51 Km.	Peshawar ..	34° — 01′	71° — 35′	0.37 Km.
Fort Sandaman ..	31° — 21′	69° — 27′	1.42 Km.	Quetta (Samungli)	30° — 15′	66° — 53′	1.60 Km.

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T. October, 1951.

STATION	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra	3-14	31	1		6			1	1		22	27	3	1	9	8	1	1		1	2	21	1	3	3	1		4	3	2	2	15		2	5	1			1	2	1
	15-27																1								1			1											3		
	28-41																																										
	>41																																										
Chhor	3-14	31					5	11			13	31	2	4	1		3	8	1	2		30	3	1	1	3	1	2	5	1		28	2	3	1	3	4	3	3	2	
	15-27							2										10					1				2	7	3							1	1	3	1		
	28-41																																				1					
	>41																																										
Chittagong ...	3-14	31	1	2		3	1			1	23	28	2	11	3	7	3		1		1	26	7	2	2	3	1	1	1	1	4	22	4	1		3	5	2	2	2	
	15-27																										4								1			2				
	28-41																																										
	>41																																										
Cox's Bazar ...	3-14	31	3		1	4	6				17	26	5	7		8	1		1		3	27	5	2	2	7	1	2			2	25	2	3	2	4	3	3	1	1	1
	15-27														1								2			1	2		1								2	2		1		
	28-41																																										
	>41																																										
Dacca	3-14	31	1		3		2	1	2		22	28	1	2	6	5	5	5			2	24	3	2	2	3	1	2	3	1	3	20	2	1	1	3	3	1	1	5	2
	15-27													1				1								1		1	1							1						
	28-41																																										
	>41																																										
Dalbandin ...	3-14	31		1					2	1	27	31	2	10	2	2		2	6		6	31	2	6	1			1	3		18	31	6	1		2	5	4	2	1	3
	15-27																	1																4				1				
	28-41																																	1									
	>41																																										
Drosh	3-14	31		1							30	30	1	5	6	3	1	1			13											30	5	17	1						7
	15-27																																										
	28-41																																										
	>41																																										
Fort Sandaman ...	3-14	31			1	1	2	2	4		21	31			1	1		14	4	4	7											31	3	2			1	8	10	5	2
	15-27																																										
	28-41																																										
	>41																																										
Jacobabad ...	3-14	31	1	1	4	8	5	3	1	4	4	31	1	2	3	6	8	3	2	3		31	1	2		1	4	7	2	3	7	31	2	4	1	2	2	8	2	4	2
	15-27												1		1					1			1					1		2							1				1	
	28-41																																										
	>41																																										
Jhelum	3-14	31								2	29	31	9	4	4	4	2			5	2	31	1	3	2	5	4	1	2	10	3	31	2		1		1		4	16	1
	15-27																			1																				6	
	28-41																																										
	>41																																										
Karachi ... ... (Drigh Road)	3-14	31						3	10	3	15	31	2	1		1	2		6	6		27	1				1	5	6	3		24	2	1	2	2	4	4	4	3	
	15-27																		10	3									5	6							1		1		
	28-41																																										
	>41																																										
Khanpur ...	3-14	31		1				13			17	31			2	1	2	7	3	2		31				1	2	5	3	2	1	31	1			3	3	4	7	3	2
	15-27												1				1	12						1				5	10	1			1				1	1	1	3	2	
	28-41																																										
	>41																																										
Lahore	3-14	31	1	1		3					26	31	2		3	7	7	2	3	4	1	31	1	1		4	4	2	6	2	5	31	2	1		2			8	12	2
	15-27												1	1										1					2	3				1							3	
	28-41																																										
	>41																																										
Multan	3-14	31		1		3	1	4		2	20	31	1	1	1	3	6	6	3	2		31	1	3	1	2	6	6	3	1	2	29	5		3	1	3	8	3	5	
	15-27												1			4	1	2									2	1	2	1			1									
	28-41																																										
	>41																																										
Peshawar ...	3-14	31				1	1	3		1	25	31	3		1	2	1	5	2	9	7	31	12	2		2			3	9	2	30	2			2	1	3	5	4	5
	15-27																			1											1							1		2		
	28-41																																										
	>41																																										
Quetta ... ... (Samungli)	3-14	31				5					26	31			2	13	3	3	2	6	2											31	1			5	3	3	3	10	5
	15-27																																				1					
	28-41																																										
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T. October, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.											Number of observations at 6.0 Km. above sea level.											Number of observations at 7.5 Km. above sea level.											Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
12			3 1		3	1	1	2	1	8			1		1	1 1	2	1	1	5				1			2 1	1		3		1 1 1									3-14 15-27 28-41 >41	Bogra
25	1	2 2	5	1	2 4	1 2	1	3	1	22	1	4 4	2 1	2	2	3		1 1	1	21	4 2	2	3		2 1	3		4		13	1 1 2					1 2	3 1	2		3-14 15-27 28-41 >41	Chhor
21	1		2 1	4	4 1	2	3	3		17	1		1	2	3 1	1	7		1	12					1	5 1	2 1	2		7						1 1	2	3		3-14 15-27 28-41 >41	Chittagong
17	1		3	3 1	4	1		1	3	15	1		2		1 1	1	3	4	2	13	3			1	2	2	2 1	1 1		10	1				1		2 1	2 2	1	3-14 15-27 28-41 >41	Cox's Bazar
20				2	2 2	3	3	2 1	5	14		1	2			5	3 1	1 1		11		2				2	2 2 1	1 1		5							1	2 2		3-14 15-27 28-41 >41	Dacca
31	7 4 1			1 1	4 1	5	2	2	3	24	5 1	3		1	1	2 2 1	3 3	1 1		18	1 2 1					1 1	3 7	1 1		11						3	1 3	3		3-14 15-27 28-41 >41	Dalbandin
28	8 7	6							7	27	7 4	4	2	2	2	3	1	1	1	23	1				1	3 1	3 4	4 5 1		7							4 1 1	1		3-14 15-27 28-41 >41	Drosh
31	1 4	1		1		1 1	3 1	8 6	1	29	1 1		1 1	2	1	4 1	5 4	1 5 1	1	14					1		3 4 3	1 2		6							4	1 1		3-14 15-27 28-41 >41	Fort Sandaman
31	6 1	3	2	3	1	3	2	5 2	3	28	3 1 1	1	3	1	2 1	1 1	4 4	4	1	11					1	2	4	2 2												3-14 15-27 28-41 >41	Jacobabad
31	4			1		1	3 1	17 3	1	30	3 2					3	2 3	5 11	1	26	1					1 1 1	3 4 1	1 11 2		12						1	3 2 1	2 1 1		3-14 15-27 28-41 >41	Jhelum
21	1	1 2	2	3 2	3 1		2	4		16	2	2 1	2 2	1	1	2 1		1	1	11	1 2			2		1	2	1 2		6							3 1	1	1	3-14 15-27 28-41 >41	Karachi (Drigh Road)
30	4	4 1	2 2	2	4	1	3 1	2 2		23		4	1	1	2	2	1 3	6 3		17	1 1	1				3	1 4 1	2 3		5							1 2 1	1		3-14 15-27 28-41 >41	Khanpur
31	3 2	1					5 1	16 1		31	1 2 1					3	4 2	7 10 1		23	2					2 1	2 3 3	4 4 2		9	2 1					1 1	3	1		3-14 15-27 28-41 >41	Lahore
29	4 1	2 1		1	3	3	3 1	6	2	26	3	1 1			1	3	8 2 1	5 2	1	20						2	3 6	2 7		4							2	1 1		3-14 15-27 28-41 >41	Multan
30	1 1			2	1 1	4	4 2	6 6	2	30		1			1 1	6 1	10 1	5 4		25					2	1 3	3 8 1	3 4		4							1	2 1		3-14 15-27 28-41 >41	Peshawar
31	3 1				4 1	4	2	7 7 1	1	27	1 1		1		2 1	2	5 4 2	4 4		12						3	2 4 1	1	1	1							1			3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T. October, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knot
Bogra ...	3-14 15-27 28-41 > 41	31		2	1	3				2	23	29	3	5	5	2 1	1	2	3	1	6	22	2	1	3	1	1	1	6	1	6	17		1	1	1	2	4	3 2	2	1
Chhor ...	3-14 15-27 28-41 > 41	31	1				1	17 3	1	1	7	31	4				3	13 4	6		1	30	3	1	1		3 2	6 5	4 2	1	1	30	4	1 1	1	1	4 1	5 4 1	3 1		3
Chittagong ...	3-14 15-27 28-41 > 41	31	2			1	3	6	3	1	15	27	1 1	1			2 1	8	5	8		26	5	2			5 2	3	1	2	6	25	1	1		7	4 2	3	3	4	
Cox's Bazar ...	3-14 15-27 28-41 > 41	31	4			2	8	4	5	4	4	27	1			1 1	5 1	4	3 1	9 1		27	5 1			3 1	5 1	4	1	2	4	24	3	2	1 1	4 1	3 2	1	2	4	
Dacca ...	3-14 15-27 28-41 > 41	31		1		2	2	1			25	29	3	4	5		5 1	3	1	2	5	27	2	2		1 1	1	5 1	6	2	6	20			1	3	4	2	2 1	5 2	
Dalbandin ...	3-14 15-27 28-41 > 41	31		1	1		1	2		1	25	31	1	2	2	3	4	3	3	1	12	31		1	3		2	2	3	1	19	31	6	1	1		5	8	1	4	5
Drosh ...	3-14 15-27 28-41 > 41	31		2	1			1			27	30	2	6				10			12											30	3	6 1	1			10			9
Fort Sandaman ...	3-14 15-27 28-41 > 41	31	1				1	5	7	2	15	31	1				1	4	13	7 1	4											31	1				3	5 1	14	1 1	5
Jacobabad ...	3-14 15-27 28-41 > 41	31			2		6	3	6	3	11	31	1		3		6	4	8	3	6	31	1	1	1	1	3	5 1	5	6	7	31	2	3	3	3	1	5 1	4	5 1	3
Jhelum ...	3-14 15-27 28-41 > 41	31				2	1			1	27	31		1	2	7	3	3	1	3	11	31		1	1	5	7	3	3	8	3	30	3				1	1	6	17 2	
Karachi (Drigh Road).	3-14 15-27 28-41 > 41	31						1	10 7	7 2	4	31					1	7 2	6 11 1	2	1	30		1			2	6	7 3	3 6	2	30	3	1		3 1	5	5 1	7	3 1	
Khanpur ...	3-14 15-27 28-41 > 41	31	2					12	5	3	9	31	1 1	1			1	9 3	6 1	3	5	31	2		1	2	2	8 3	10 1	1	1	31	1	1		3	2	8 1	8 2	4	1
Lahore ...	3-14 15-27 28-41 > 41	31		2	1				4	7	17	31	2	2	2	1	4	1	3	12	4	31	1			5	1	5	6	6 1	6	31					1 1	4	6	16 3	
Multan ...	3-14 15-27 28-41 > 41	31	2	5	1	1		6	1	1	14	31	4	3	1		8	4 1	1	2	7	31	3	3	1	4	7	3 1	3	3	3	30	1	1	1	1	4	6 1	11	3	1
Peshawar ...	3-14 15-27 28-41 > 41	31		6	8	1				1 1	14	31	1	13 1	9	2				1	4	31	4 1	4	2	3	2			2 1	12	31				1	2	9	12 3	4	
Quetta (Samungli). ...	3-14 15-27 28-41 > 41	31	1			1	2	2	6 1	12 1	5	31	1			1 2	1	2	6	13 3	2											31	1			1	2 1	1	8 1	12 2	2

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T. October, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.											Number of observations at 6.0 Km. above sea level.											Number of observations at 7.5 Km. above sea level.											Speed in Knots	STATION
Total No. of observations	N	NE	E	SE	S	SW	W	NW	0-2 Knots.	Total No. of observations	N	NE	E	SE	S	SW	W	NW	0-2 Knots.	Total No. of observations	N	NE	E	SE	S	SW	W	NW	0-2 Knots.	Total No. of observations	N	NE	E	SE	S	SW	W	NW	0-2 Knots.		
338-22										338-22										338-22									338-22												
23-67										23-67										23-67									23-67												
68-112										68-112										68-112									68-112												
113-157										113-157										113-157									113-157												
158-202										158-202										158-202									158-202												
203-247										203-247										203-247									203-247												
248-292										248-292										248-292									248-292												
293-337										293-337										293-337									293-337												
0-2 Knots.										0-2 Knots.										0-2 Knots.									0-2 Knots.												
13			1	1	1	3	3	3 1		7							2 3		2	2							2			1							1				3-14 15-27 28-41 >41	Bogra
28	2	2 1	5 2	2 1	2 1	5 1	3	1	2	24	2	3	3 4	2	3	1	1	5		22	4 2	1	1 1		1 2	1	2 1	3 2	1	17	2 1	1			1	1 1	3 3	4			3-14 15-27 28-41 >41	Chhor
21			1	2	4 1	1 1	3 1	5	2	16					2	2	2	6	1 3		9	1	1	1				2 1	2 1		6				1		1	1	2			3-14 15-27 28-41 >41	Chittagong
21	2		1 1	3 1	1	3	2	4 2	1	18	1	1	2	2	1	2	3	3 2	1	13	2	1			1	1	1	2 2	3		10			1		1	1 1	2 3			3-14 15-27 28-41 >41	Cox's Bazar
17				1 1	3	4	3 2	1 1	1	12			2	1		1	3 2	2 1		7	1			1	1	1	1 1	1		5		1		1		1	2				3-14 15-27 28-41 >41	Dacca
31	3 3 1	2	1	4	3 1	6	2	2 1	2	28	2 1			1	2 3	6 2	1 3	4 2	1	28	1 1				1	4 7	4 4 2	3 1		23		1				2 1	8 4 1	3 3			3-14 15-27 28-41 >41	Dalbandin
30	5 2				6	9 1	1	2	4	29	2	1	1	4 1	11 3	2	1	2	1	27		1			1	4 1 2	5 4	3 4 2		12		1				1	3 1 1	2 1 2			3-14 15-27 28-41 >41	Drosh
31	1		1		3 1	3 1	9	9 1		28				1	3	3 2	6 7 1	1 4		21						1 1 1	1 8 5	3 1		14						1	3 3 3 1	3			3-14 15-27 28-41 >41	Fort Sandaman
31	3		2	2	4	5	6 1	5	3	31			2	1	2 2	7	5 2	8 1	1	30	2 1			2		1 4 1	7 5	3 3 1		27		1				1 2 1	4 6 2 1	2 5 2			3-14 15-27 28-41 >41	Jacobabad
30	1					2	4 2	14 4	2	29						1 1	5 5	9 7		28						1 2	2 7 4	6 5 1		22						1	4 8 3	3 2 1			3-14 15-27 28-41 >41	Jhelum
30	2 1	2 1	3 1	2 1	1 2	3 1	2	2 1	1	30	4 2	3	1 2	1	4 1	2 2	1 1	4	1	30	4 2 1	1	1	1 1	1	4 2	2 4	5 1		29	1 1 2			1 2		2 2 1	5 5	1 5	1		3-14 15-27 28-41 >41	Karachi (Drigh Road).
30	2		2	3	5	5	8 1	3 2	1	29	3		1		1	4 1	4 3	5 7		24		1 1			1	1 2 1	3 5 1	4 3	1	13						1 1 1 1	1 1 1 1	3 3			3-14 15-27 28-41 >41	Khanpur
31	2					1	2 1	3	14 8	31	1			1	2		1	3 5	5 12 1	30	2 1					1 2	3 4 5	1 8 3		23						1 1	1 2 7 2	1 3 4	1	1	3-14 15-27 28-41 >41	Lahore
30	2	2		1	3 1	2 3	10 2	3	1	28				1		1	3 1	10 10	2	26	1					1 3 1	1 10 4	1 4		15	1					1	4 4 1	2 1	1		3-14 15-27 28-41 >41	Multan
31					3	10 2	6 4	3 3		29	1				1 1	3 2	5 8	3 2 1		29	1					6	2 11 2	3 3 1		27						1 1 3	7 6 3	2 3 1			3-14 15-27 28-41 >41	Peshawar
30				3	4	2	4	13 3 1		29		1			4 2	4	3 3	7 3 2		26					2	2 3 1	6 4	4 2 1 1		19						1	1 3 8 1	2 3 1			3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T. Ootcber, 1951.

STATION	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31		2	2	2		1			24	28		1	5	9	2	3			4	23	2	1	1	4	2	6		2	3	13	1		1	2	2		3	2	1
	15-27														1	1	1	1								1		1												1	
	28-41																																								
	>41																																								
Chhor ...	3-14																																								
	15-27																																								
	28-41																																								
	>41																																								
Chittagong ...	3-14	30		2		6	1				21	23	2	7	2	8	1	1	1	1		22	4	3		2	4	1	2	2	1	12					5	2	3	1	1
	15-27																									1	2														
	28-41																																								
	>41																																								
Cox's Bazar ...	3-14	31	2		3	2	4	2	1		17	24	6		2	5	2			5		24	7	1		1	3			2	4	20	3	2	1	3	5	1		1	
	15-27														2	1		1					1			3	1		1				1			3					
	28-41																																								
	>41																																								
Dacca ...	3-14	31			1	1		1			28	27	2	1	2	4	7	3	2		4	27	1	1		2	5	3	8	1	4	23	1			1	2	4	3	5	3
	15-27	1																2										1	1							1				3	
	28-41																																								
	>41																																								
Dalbandin ...	3-14	31	3	1		1		1	4	2	19	31	2	6	1	2	1	1	6	6	1	31	3	6	1	2	1	2	6	6	1	31	5		1		7	4	3	4	4
	15-27												1	1				2	1					1				1	1				1				1			1	
	28-41																																								
	>41																																								
Drosh ...	3-14	31		1	3	1	2	1			23	31	1	5			3	6	1		14											31	3	9		1	1	4		1	12
	15-27													1																											
	28-41																																								
	>41																																								
Port Sandaman	3-14	31		1	4	1	4	4	1		16	30	2	4		1	4	11	6	1	1											30	3		1		2	5	3	12	2
	15-27																																					2			
	28-41																																								
	>41																																								
Jacobabad ...	3-14	31	1		1	3	10	4	3	1	8	31			2	2	8	6	4	2	2	31				2	5	16	1	3	1	31	4	3	1		6	7	3	3	2
	15-27															1	1	3									1	1			1										1	
	28-41																																								
	>41																																								
Jhelum ...	3-14	31		1		1			2		27	31	2	1	11	4	1		3	6	3	31	1		1	5	2	3	5	9	2	31	2				2	1	8	13	2
	15-27																									1				2											3	
	28-41																																								
	>41																																								
Karachi (Drigh Road) ...	3-14	31						5	9	5	12	31					1	3	10	3		27					3	2	13	2	2	25	2	2	3	2	2	5	2	3	
	15-27																		8	6									2	1			1			1			1		
	28-41																																								
	>41																																								
Khanpur ...	3-14	31				1		5	1	1	23	31		3	3	1	3	5	3	1	1	31				1	4	3	8	3		29	2	1	2	2	2	5	6	2	3
	15-27																	6	4										5	5								1		2	1	
	28-41																		1											2												
	> 41																																								
Lahore ..	3-14	31		2	1						28	31	1	2	5	4	2	5	4	3	1	31	1			2	3	1	8	8	6	31	4	1				1	8	12	2
	15-27														2				1	1					1					1			1							1	
	28-41																																								
	>41																																								
Multan ...	3-14	31		1		5	2	4			19	31			4	3	6	5	1	3		31	1			3	6	9	3			29	1	1	1	1		11	8	2	
	15-27													1		1	2	5										9						1					1	1	
	28-41																																								
	>41																																								
Peshawar ...	3-14	31				1	4	4			22	31	7	2		1	1	3	6	7	4	31	6	2	3	4	1	2	3	6	3	31	1			2	2	9	8	1	1
	15-27																											1									1			2		
	28-41																																								
	>41																																								
Quetta (Samungli) ...	3-14	31			3	7	1	1	1		15	29	4	2		3	1	6	7	4	1											29	1		1	1		1	10	8	4
	15-27				1	2										1																				1			1		
	28-41																																								
	>41																																								

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T.-October, 1951

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
7			1				3	3																																3-14 15-27 28-41 > 41	Bogra
																																								3-14 15-27 28-41 > 41	Chhor
7	1				4		1		1																															3-14 15-27 28-41 > 41	Chittagong
11		1	1	1	3	1	2	1	1	1								1																						3-14 15-27 28-41 > 41	Cox's Bazar
15			2		2	2 1	3	1 1	1	2				1			1																							3-14 15-27 28-41 > 41	Dacca
28	4 1 1			2	4 1	3 1	6	4 1		7	1		1			1	3 1																							3-14 15-27 28-41 > 41	Dalhousie
31	8 2	3		2	6	4	1	1	4	8	1				1	3	1	1	1																					3-14 15-27 28-41 > 41	Dposh
30			1			4 2	2 2	10 8	1	8	2				1		3 1	1																						3-14 15-27 28-41 > 41	Fort Sandaman
30	9 1	2		1	2	5	2	7 1		11	3				1		3	3 1		2	1						1													3-14 15-27 28-41 > 41	Jacobabad
31	2 1	1				1	4 1	16 4	1																															3-14 15-27 28-41 > 41	Jhelum
21	2 2	3 1	5		1	1	1 1		4	4	1	1					1		1	1							1													3-14 15-27 28-41 > 41	Karachi (Drigh Road)
23	4 2	2	3	1	2		4 1	4																																3-14 15-27 28-41 > 41	Khanpur
31	4		2			1	3 1	14 5	1	19	1 1			1			2 1	1 2	2 6	2																				3-14 15-27 28-41 > 41	Lahore
25	8 1	1			1	1	5	6 1	1	1									1																					3-14 15-27 28-41 > 41	Multan
31	1				4 1	6	7 2 1	4 5		3							1	1 1																						3-14 15-27 28-41 > 41	Peshawar
28			1	2		6	5 1	7 3	1	3						1	1	1																						3-14 15-27 28-41 > 41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low Cloud above ground Level at 03 09 and 21 G. M. T. October, 1951.

STATIONS	Cloud Amounts in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Bogra *2 √1 .. @	Trace to 8					9	8	5	2		4					5	10	7	6	2	8					6	2	2	2	2	12
	6 to 8					2	3				5					2	3	2		1	3					2		1	1		
	7 or 8					1	2				3					1		1		1						1					
Chhor ..	Trace to 8					3	5				23							2	1		28										
	6 to 8					2					2																				
	7 or 8					1					1																				
Chittagong √2 ..	Trace to 8			1		5	4	13			8					5	2	17	5		2					5	5	8	2		8
	6 to 8			1		3	1	2			7					5	1	3	1		10					4	2	3	1		
	7 or 8			1		3					4					4	1				5					4	2				
Cox's Bazar *3 ..	Trace to 8					1	20	7	1		2						15	11	3	1	1					1	14	6			9
	6 to 8						2		1		3						3	1			4					1	2	1			
	7 or 8						1				1						1				1					1					
Dacca *1 ..	Trace to 8					8	17	1			4					4	21	5		1						6	5	4	1		15
	6 to 8					7	5				12					3	6	6	1		10					4			1		
	7 or 8					3	2				5					2	2		1		5					1					
Dalbandin ..	Trace to 8									2	29								5		26								2		29
	6 to 8																														
	7 or 8																														
Drosh ..	Trace to 8					1	2				28			1				1	13	10	6							1	7		23
	6 to 8					1	2				7			1							6							1	2		
	7 or 8					1	1				5			1							2							1	2		
Fort Sandaman *3	Trace to 8								1		30								2	15	14										30
	6 to 8										1								1		2										
	7 or 8										1																				
Jacobabad ..	Trace to 8										31										31										31
	6 to 8										1																				
	7 or 8										1																				
Jhelum ..	Trace to 8									2	29							1	9		21								2		29
	6 to 8										1										2										
	7 or 8										1										1										
Karachi (Drigh Road) ..	Trace to 8			2		10	6	1			12						4	1			26					5	6				20
	6 to 8			2		4					7						1				2					1	1				
	7 or 8			2							2										1						1				
Khanpur ..	Trace to 8									2	29										31							1			30
	6 to 8																														
	7 or 8																														
Lahore ..	Trace to 8										31								2	1	28										31
	6 to 8																														
	7 or 8																														
Multan ..	Trace to 8										31									1	30										31
	6 to 8																				1										
	7 or 8																														
Peshawar ..	Trace to 8							1	2		28							6	22		3							2	2		27
	6 to 8										1										2										
	7 or 8																				1										
Quetta (Samungli) ..	Trace to 8								1	1	29							1	4	6	20							1	2		28
	6 to 8																	1	1		2							1			
	7 or 8																		1		1							1			

* 1 On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
* 2 On 1 day cloud height could neither be measured nor estimated at 09 G.M.T.
* 3 On 1 day cloud height could neither be measured nor estimated at 21 G.M.T.

√1 On 3 days cloud height could neither be measured nor estimated at 03 G.M.T.
√2 On 3 days cloud height could neither be measured nor estimated at 21 G.M.T.
@ On 5 days cloud height could neither be measured nor estimated at 21 G.M.T.

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G.M.T. and Number of days of fog (Visibility) < 100 m. October, 1951.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										No. of days of fog	STATIONS
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	>50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	>50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	>50000 m. (50 Kms.)		
					1	17	13								1	12	15	3													Bogra
						4	26	1						2	1	2	14	12													Chhor
				2	4	21	4							3	2	18	8				3			3	3	22					Chittagong
				3	3	14	8	3						3	2	6	16	4													Cox's Bazar
					1	5	17	8								3	14	6	8												Dacca
				2	3	12	8	6						1	4	11	8	7						2	4	10	8	7			Dalbandin
					3			7	21				1				2	3	25												Drosh
				1	5	17	7	1							5	17	8	1								30	1				Fort Sandeman
						21	9	1							1	6	22	2								26	5				Jacobabad
					8	19	1	2	1							12	17	1	1												Jhelum
						21	6	2	2					1	2	7	15	3	3						3	27	1				Karachi (Drigh Road)
				3	16	12								2	16	13															Khanpur
					9	22									4	21	6														Lahore
				2	10	19								2	2	27									6	25					Multan
					2	14	12	3							2	21	6	2								31					Peshawar
						6	23	2							1	7	15	8							1	21	9				Quetta (Samungli)

Registered No. S-1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

NOVEMBER 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of November 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T.are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the times of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

SIBTE NABI NAQVI.
Director,
Meteorological Service.

KARACHI, Pakistan :

The 3rd February, 1962.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES.

Station	Latitude N	Longitude E	Height in Km. a.s.l.	Station	Latitude N	Longitude E	Height inKm. a.s.l.
Bogra ..	24° — 51′	89° — 23′	0.03	Jacobabad ..	28° — 17′	68° — 29′	0.06
Chhor ..	25° — 31′	69° — 50′	0.01	Jhelum ..	32° — 56′	73° — 44′	0.24
Chittagong ..	22° — 21′	91° — 50′	0.02	Karachi (Drigh Road).	24° — 53′	67° — 07′	0.03
Cox's Bazar ..	21° — 26′	91° — 58′	0.01	Khanpur ..	28° — 39′	70° — 41′	0.09
Dacca ..	23° — 47′	90° — 23′	0.01	Lahore ..	31° — 35′	74° — 20′	0.22
Dalbandin ..	28° — 54′	64° — 26′	0.85	Multan ..	30° — 12′	71° — 31′	0.12
Drosh ..	35° — 34′	71° — 47′	1.51	Peshawar ..	34° — 01′	71° — 35′	0.37
Fort Sandaman ..	31° — 21′	69° — 27′	1.42	Quetta (Samungli).	30° — 15′	66° — 53′	1.60

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—November, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	30	1	1		1				1	26	28	9	4	8	2	1			3	1	27	3	5	5		1	1	2	7	2	25	2	4	3		1		2	3	4
	15-27																						1										1		1				2	2	
	28-41																																										
	>41																																										
Chhor ...	3-14	30	2	8				3			17	28	1	6	6	2	2		2	2		28	5	2	2	1	1	5	2	2	3	26	5		1	1	6	2		3	1
	15-27													3	2			2					2	1					2							1	1	1	4	1			
	28-41																																										
	>41																																										
Chittagong ...	3-14	30		6							24	30	6	19	3						2	29	6	3	3	5	5	1	1	3	1	25	2		1	7	4	3	5	1	
	15-27																						1															2				
	28-41																																										
	>41																																										
Cox's Bazar ...	3-14	30	5	9	2						14	29	11	8	2	4				1	1	28	6	3		2	10	1	1	2	2	28			2		5	8	4	2	1
	15-27												1	1												1										1		2	2		1	
	28-41																																										
	>41																																										
Dacca ...	3-14	30		1	1				1	1	26	30	5	7	5	1			2	2	8	30	9	3	5	3	1	1	1	4	3	26	7	2	1		3	2	3	4	
	15-27																																			1				1	2		
	28-41																																										
	>41																																										
Dalbandin ...	3-14	30	1		8						21	30		9	14	1		1			1	30	1	9	16	1					3	30	5	8	2	1	2		1	4	1
	15-27												1		3																		2	2			1	1				
	28-41																																										
	>41																																										
Drosh ...	3-14	30									30	30	2	4	4			3			17											30	3	20	1		1				5
	15-27																																										
	28-41																																										
	>41																																										
Port Sandaman ...	3-14	30		1		1	2	2	4		20	30		6			1	12	6	2	3											30	3	4			1	5	9	2	3
	15-27																																					1	1	1		
	28-41																																										
	>41																																										
Jacobabad ...	3-14	30	1	1	6	2	2	3	1	1	13	30	3	3	5	3	2	3	2	4	4	30	4	3	3	1	3	7	1	4	3	30	4	5			1	6	2	7	2
	15-27														1													1									2		1		
	28-41																																										
	>41																																										
Jhelum ...	3-14	30								1	29	29	7	2	5	1				11	3	29		1		5		1	4	14	2	29	4	2	3	3	1	2	2	6	
	15-27																							1						1						1			1	4	
	28-41																																										
	>41																																										
Karachi (Drigh Road).	3-14	30	1	3					1		25	30	8	5	1				3	4		29	1	5	4			5	5	3	1	29		2	4	5	1	6	2	2	1
	15-27													7					2					1	2			1	1						2		2	1	1		
	28-41																																										
	>41																																										
Khanpur ...	3-14	30	1	1				4		1	22	30	1	2	5	2	3	4	2			29	2	3		1	1	6	4	3	2	29	2	4	2	2	2	1	7	1	1
	15-27			1									2	3			1	2	3					1			1	2	3					1				5		1	
	28-41																																										
	>41																																										
Lahore ...	3-14	30		1		2			1	2	24	30		2	3	4		1	6	8	3	29	1	2	1	2	2	2	3	11		28	4			2	1	8	6	1
	15-27															2			1				2			2			2	1				1		1			1	2	
	28-41																																										
	>41																																										
Multan ...	3-14	30	1			1	1				27	28	2	2			7	7	3	2	1	28	4	3		1	2	7		4	1	26	3	3	1	1		5	5	3	
	15-27												1				3								1		1	4					1					2		1	
	28-41																																										
	>41																																										
Peshawar ...	3-14	30				1	3	2	1		23	30	3	3	1	2	2	5	3	3	8	30	9	1	1	2	1	2	1	7	6	29	5	1	2	2	1	1	1	7	3
	15-27																																	1						1	3	
	28-41																																										
	>41																																										
Quetta (Samungli)	3-14	30	1			2		1	1		25	30	1	1	2	8	2	1	2	2	11											30	5	1		3	4	1	3	6	6
	15-27																																	1								
	28-41																																										
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—November, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
24	2		1			1 2	4 7	6 1		13					1	1 1	1 8	1		7	1					1	1 3	1		1							1			3-14 15-27 28-41 >41	Bogra
27		2		1 1	2 4 1	4 3	4	3	2	24	1			1	2	5 3 1	1 6	1 3		19					1	3 1	1 4 3	1 2 2 1		11	1						4 4	1 1		3-14 15-27 28-41 >41	Chhor
24	1	1	1	1	3	2 3	4 6	1 1		15						2	3 5 3	2		6						1	1 2	1 1		2							1	1		3-14 15-27 28-41 >41	Chittagong
27			1	2	1 1	6 1	8 6	1		18					1	1	1 7 2 1	1 4		14							5 2 2	1 3 1		4							2	2		3-14 15-27 28-41 >41	Cox's Bazar
24					1 1	4 1	2 5 2	3 4	1	16				1		1	1 4 6	2 1		12		1				1	3 1 2	2 2		5							1 1	1 2		3-14 15-27 28-41 >41	Dacca
30	6 1	3 1	2	1	1	3 1	2 1	5 2	1	26	1	1 1	2	1	1 2	1 2	5 5 2	2		20	1	1	1		1	1 1 3	1 6 3	1		8						1 1	1 3 1	1		3-14 15-27 28-41 >41	Dalbandin
30	14 8	2			2 1	2			1	25	5 3	1		1	7 2	3		1 1	1	21	1			1	1	2 1	1 3 4	3 3 2		9					1		4 2	1 1		3-14 15-27 28-41 >41	Drosh
30	5 2	1		1	1	1 1	8 2	4 2 1	1	25				1	2	3 2	3 4 1	2 6 1		16						1 1	1 5 2	1 2 3		4							1 1	2		3-14 15-27 28-41 >41	Fort Sandaman
30	3	5	5	1	2	1	5 1	6 1		26	3	1	1 1	1	1	4 2	2 5 2	1 1 1		5						1	2	2												3-14 15-27 28-41 >41	Jacobabad
29	1	1	1	2 2	1	3	3	9 5	1	28	1 1			1	2 1	1	8 6	7		21	1					1	9 5	1 3	1	8						1	4 2	1		3-14 15-27 28-41 >41	Jhelum
27	2		1	4 1	1	6 1 2	1 2	3 2	1	21						2 6 2 1	2 1	2 3 1	1	11	1			1		1	1 6	1		4						2 1 1				3-14 15-27 28-41 >41	Karachi (Drigh Road)
28	3	4 1	3		3	4 1	4 3	1 1		25		2			1	1 1 2	2 8 1	1 4 1	1	23	1					1 2 1 1	1 4 4 3	2 2 1		7							2 2 1	1 1		3-14 15-27 28-41 >41	Khanpur
28	2	1	2	1	1		6 2	7 6		28	1 4				1 1	1 2	6 4	5 3		20					1	1	3 3 4	1 4 1 1	1	3	1								1		3-14 15-27 28-41 >41	Lahore
23	2					3 1 1	7 5	2 2		12	1					1	3 6	1		1	1																			3-14 15-27 28-41 >41	Multan
28	2		4	2	1 1	4	1 1 1	5 3 2	1	28	1 1		1	3	1	2 3	6 5 1	1 3		19	1				2 1	2 1	2 4 3	1 2		2						1	1			3-14 15-27 28-41 >41	Peshawar
30	3 2	2	1	1	1	3	4	8 4 1		20	1	1	1			2 1 1	3 6 1	2 1		1							1			1							1			3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T.—November 1951.

STATIONS	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14 15-27 28-41 > 41	30	5		1					1	23	30	11	2	5				2	3	7	28	4	3	2	1		2	4	7	5	24	1	1	2	2	1	1	6	3 3	4
Chhor ...	3-14 15-27 28-41 > 41	30	7	4	1			8	3	1	6	29	5	5				3 1	7 1	4	3	29	3	9			4	7 1	1	2	2	29	2	1	2 1	1	2 1	5 5 1	4 1	2	1
Chittagong ...	3-14 15-27 28-41 > 41	30	2				1	1	7	2	17	30	3	4			1	3	11	7	1	29	7	3	1	1	9	2		2	4	23		1	1	2	6 1	4 2	3 1	2	
Cox's Bazar ...	3-14 15-27 28-41 > 41	30	4	1					7	12	6	29	4			2		3	6	12 2		29	2	6	5	5	5 1	1 1	1	1	1	29	1		1	3 1	5	7 2	6 1	2	
Dacca ...	3-14 15-27 28-41 > 41	30								2	28	30	7	5	2		2	1		6	7	29	8	4	2		1	2		4	8	27	2		1		3	3 1	3 3	6 2	3
Dalbandin ...	3-14 15-27 28-41 > 41	30		7	8	2			1		12	30		2 1	20 1		1	1	1		3	30		3	16		1		1		9	30	8	9 1	1		2	3 1	1	2 1	1
Drosh ...	3-14 15-27 28-41 > 41	30		3				2			25	30	2	13				4 1	1		9											30	7	9 1				5 1			7
Fort Sandaman ...	3-14 15-27 28-41 > 41	30	3					2	6	1	18	29	3					7	9	5	5											29	1	2			2	9	9	3	3
Jacobabad ...	3-14 15-27 28-41 > 41	30	1		1	1	2	1	3	3	18	30	2		2	1	3	2	5	3	12	30	6	2	2	1	7	2	3	4	3	30	5 1		4	1	1	5 1	1	5	6
Jhelum ...	3-14 15-27 28-41 > 41	30	1			4				5	20	29			2	6	1	3	7	5	5	30		1		4	1 1	1	8	10	4	29	1		1	2 1	4 1	2	4 1	6 4	2
Karachi (Drigh Road).	3-14 15-27 28-41 > 41	30		4 2	3		1	9	3	1	7	30		2 2	4 1	1	2	2 4	7 1	1	3	30	1	2 1	5 2		1	3 1	6	2 1	5	30	1	3	1 1	3 1	2 3	4 3	5 1	1	1
Khanpur ...	3-14 15-27 28-41 > 41	30	2	5				8 1	2	1	11	30	4	2	2			8 2	2		10	30	2 1	1	3	2	2	12 1	4	1	1	29	2	2	2		3 1	6 2	4 1	5	1
Lahore ...	3-14 15-27 28-41 > 41	30		1	1	3	1		2	6	16	30	1	3	2	3 1	1		2	13	4	30			3	4		3	8	11	1	28	3 1			2	2	3 1	5 1	7 1	2
Multan ...	3-14 15-27 28-41 > 41	30	1	2			2	5	1	2	17	30	5		2	1	4	7	1	3	7	29	4 1	1			8 1	5 2	2	4	1	27	4	2	2	1	1 1	6 2	2 1	4 1	
Peshawar ...	3-14 15-27 28-41 > 41	30	3							1	26	29	3	8	10	3	1			1	3	29	6	1	3	1	3	2	2	6	5	29	2		2	1	4 1	1	7 3	6 2	
Quetta (Samungli)	3-14 15-27 28-41 > 41	30			1			1	3 1	15	9	30						1	8	19	2											30	1			1	3	4	4 1	15 1	

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G.M.T.—November, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.											Number of observations at 6.0 Km. above sea level.											Number of observations at 7.5 Km. above sea level.											Speed in Knots	STATION
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
19	1 1				2	1	2 4	4 3 1		9							1 1 6	1																								3-14 15-27 28-41 > 41	Bogra
27	2	1	1	3 1	3	2 2 2	1 3	3 2	1	24			1			2 5	4 5 2	1 3 1		21	1					4 1 1	1 8 1	1 1 1 1		13						1 1	1 7 1	1 1		3-14 15-27 28-41 > 41	Chhor
18		1		1	3	1 1	4 5	2		12						2	4 1	3 1	1	4							2 1	1		2							1 1			3-14 15-27 28-41 > 41	Chittagong
25	1		1		1	6 1	9 3	2 1		18	1					2	1 10 2	1 1		9						1	2 2	3 1		1								1		3-14 15-27 28-41 > 41	Cox's Bazar
24					2	1 3 1	2 9	5	1	17						1	3 7 5	1		5							1 3	1		1							1			3-14 15-27 28-41 > 41	Dacca
29	3 1	9	2	1	3	4 1	2	1 1 1		28	1 1	1	1		1	3 3 1	4 3 1 1	2 3 2		23		2				2 2	3 7 2 1	2 2		14	1					1 2	2 5 2	1		3-14 15-27 28-41 > 41	Dalbandin
29	8 2	5			5	4 1			4	27		4		5 1	4 1	5 2	1	2 1	1	22	1	1			1	1 2	8	2 2 3	1	11						1	3 2 1	1 1 1		3-14 15-27 28-41 > 41	Drosh
29		1		2	4	5	6 3	3 4	1	25	1				1	2 1	8 4 1	5 2		22	1					1 1	6 3 2 2	2 3 1		10						1	3 3	1 1 1		3-14 15-27 28-41 >41	Fort Sandaman
30	1	3	1	4	1	3	7 1 1	3 3	2	30		1 1			1	2 3 1	3 8 1	3 2 2	2	30	2					3 1 3	2 11 2	1 2 2	1	22						4 3	1 7 1	2 3 1		3-14 15-27 28-41 > 41	Jacobabad
29	2	1	2	1	4 1	4	3	5 5	1	26	1 2			1	1	1 1 1	8 6	4		25						1	7 9 2	4 2		23						1	2 6 8	2 4		3-14 15-27 28-41 > 41	Jhelum
30	2	2	1	2 1	2	5 2 1	3 3	3 2	1	27	1				2	2 7 1	4 4 1 1	2 1 1		25	2					1 7 2 1	1 5 1	2 2 1		25	1					1 3 3	1 5 4 1	2 2 2		3-14 15-27 28-41 > 41	Karachi (Drigh Road).
29		2		2	2 1	1 2	8 2 1	5 3		28		1			1	2 1 1	6 6 2 1	2 1 4		21	1					1 2	2 1 4 1	5 1 3		11						1	1 3 2	2 2		3-14 15-27 28-41 > 41	Khanpur
28	2 2			2 1	1	1 2	7 1	6 2	1	28	1	1	1		1	2 1 1	2 7 2	2 6 1		27		2				1 1 1	6 7 3	3 2 1		20						1 1	4 8	1 4 1		3-14 15-27 28-41 > 41	Lahore
27	1	3		1	1	6 2 1	3 3	6		24	2					3 2	5 6	2 3 1		19	1				1	1	6 5	1 1 2 1		8	1						2 2	2 1		3-14 15-27 28-41 > 41	Multan
29	1		1	1	3 1	2 1	7 5	3 3	1	29			1		3	1 2	6 8 1	2 5		26						1 2 1	9 4 1	2 5 1		25						1 2	1 7 7	1 3 3		3-14 15-27 28-41 > 41	Peshawar
30	4		1	1	4 1	3	2 2	6 5	1	28	1	1			1	5 1 2 1	4 5 1	4 1 2		27		1				1 2 1	8 7 1	1 1 3 1		18						1 1	3 2 6	1 2 2		3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE—2. Observations of Wind by Pilot Balloons at 2100 G.M.T.—November, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots
Bogra ...	3-14	30	2	4							24	30	11	8	1	2	1		1	6		29	11	2	1		1	1	3	6	4	19	2	2	1		1		5	4	2
	15-27																																						1	1		
	28-41																																									
	>41																																									
Chhor ...	3-14																																									
	15-27																																									
	28-41																																									
	>41																																									
Chittagong ...	3-14	30	3	4							23	29	10	8	4				1		2	28	5		3	2	4	3		4	4	20		2		1	5	4	1	1	
	15-27												4										3														3	1		2	
	28-41																																									
	>41																																									
Cox's Bazar ..	3-14	30	5	10	2		1				12	29	12	4	2	1			1	2	1	28	8			2	5	2	3	3	2	24	1			2	2	4	3	3	1
	15-27												5	1									2							1			1			1	1	3	2			
	28-41																																									
	>41																																									
Dacca ...	3-14	30	1				1			2	26	30	12	5	2		1	3		4	2	29	9	2		2	1		2	7	5	22	3		1			3	5	4	1
	15-27																			1								1										2	3		
	28-41																																									
	>41																																									
Dalbandin ...	3-14	30	2	7	1					1	19	30	1	8	6	2	1	1	2	1	2	30		9	6	2	1	2	1	1	5	30	3	11	4	1		5	1	2	2
	15-27													3	3									1	2													1			
	28-41																																									
	>41																																									
Drosh ...	3-14	30				1					29	29	2	6	3	1		2	1		14											29	5	15			1	2			6
	15-27																																									
	28-41																																									
	>41																																									
Fort Sandaman	3-14	30		1	6	1	1	1			20	30	2	6	1	1	3	9	2	1	5											30	2	1	1	1		9	12	1	1
	15-27																																							2		
	28-41																																									
	>41																																									
Jacobabad ...	3-14	30	1	1	2	5		2		1	17	30	3	3	3	4	2	4	2	3	4	30	1		2	2	2	9	4	2	6	30	1	3	1		3	4	2	9	4
	15-27		1										1		1											1				1								2		1	
	28-41																																									
	>41																																									
Jhelum ...	3-14	30			1				1	2	26	30	4	4	2	3			1	13	3	30	2		2	2	2	2	3	14		28	3				5	2	6	8	2
	15-27																									2				1										2		
	28-41																																									
	>41																																									
Karachi (Drigh Road) ...	3-14	30	6	3							20	30	3	3				1	7	6		30	1	5	3	1	2	5	5	1	3	29	2	2	4	6	3	4	2	2	
	15-27			1									2	6					2						1		1			1						1		1	1	1		
	28-41																																									
	>41																																									
Khanpur ...	3-14	30	3	1		1		1	1		23	30		3	1		4	7	4		1	30	2	3			2	7	7	3	2	30	4	5		1	2	4	2	3	
	15-27												3	2				1	3	1								1	2	1			2				1	3	2	1	
	28-41																																									
	>41																																									
Lahore ...	3-14	30		1	1	1	1				26	30	3	1	4	2			6	6	1	30	3	1	1	4	2		4	9	2	30	1	1	1	2	2	2	5	11	
	15-27													1	1	1	1		3							1			2	1										5	
	28-41																																									
	>41																																									
Multan ...	3-14	30					2	2			26	30	5	3			4	9	2	1		30	2	2		1	3	7	7	1	1	29	8	1			3	5	5	1	1
	15-27													1			1	4					1				2	3					1					1	2	1	
	28-41																																									
	>41																																									
Peshawar ...	3-14	30				2		7			21	28	5	1	2	1	1	2	2	5	9	28	5	3	1	1		1		5	12	27	1	2	2	3	2	3	2	6	2
	15-27																																							4		
	28-41																																									
	>41																																									
Quetta (Samungli) ...	3-14	30			3	6	1	3			17	23	2	3	1	3	3		6	4	1											23	2	2		1		2	6	7	2
	15-27																																					1				
	28-41																																									
	>41																																									

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T.—November, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W. 248-292	NW 293-337	0-2 Knots		
9			1			1	2 3	1 1																																3-14 15-27 28-41 >41	Bogra
																																								3-14 15-27 28-41 >41	Chhor
13			1		1 1	6	1 3																																	3-14 15-27 28-41 >41	Chittagong
15				1 1	1	4 1	2 4	1		3							1	2																						3-14 15-27 28-41 >41	Cox's Bazar
10						1	1 4 1	2 1																																3-14 15-27 28-41 >41	Dacca
26	2 1	5	4	1		4	3 1 1	4		5		1		1			2 1																							3-14 15-27 28-41 >41	Dalbandin
29	11 3	5			1	3	1		5	13	1		1	1	2 1	1	5	1																						3-14 15-27 28-41 >41	Drosh
30	3 1	1	1		2	5	5 1	9 2																																3-14 15-27 28-41 >41	Fort Sandaman
28	7 1	2	1	1	2	3	3 2	5	1	5						1	1 2	1		1								1												3-14 15-27 28-41 > 41	Jacobabad
27	1			1	3	1 1	7	8 4	1																															3-14 15-27 28-41 >41	Jhelum
28	1	1	4 1	1	2 1	5 4 1	1 2	1 2	1	5						1 1	2 1			2							1 1			1						1					3-14 15-27 28-41 >41	Karachi (Drigh Road)
30	4	2		1	1	2 4	3 2	8 1	2	2							2																							3-14 15-27 28-41 >41	Khanpur
30	2			1	2	3 1	5 3	6 6	1	26	2 1				2	3 2	2 4 1	6 2	1																					3-14 15-27 28-41 >41	Lahore
29	7 1	1 1			1	2 2	4 2	5 2	1	1	1																													3-14 15-27 28-41 >41	Multan
27	1 1		1	1	4	4	2 1 1	5 3 1	2	4						2	2																							3-14 15-27 28-41 >41	Peshawar
14	1 1		1		1	3 1	2	3 1																																3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low cloud above ground level at 03, 09, and 21 G. M. T. November, 1951.

STATIONS	Cloud Amount in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
*3 Bogra ..	Trace to 8			1		2	3	1		6	17					1	3	5	12	3	6					1	1		1	1	25
	6 to 8						1				1					1			1		2					1					
	7 or 8						1				1					1					1										
Chhor ..	Trace to 8		1			2	1			1	25						1	1	1		27										
	6 to 8										5										4										
	7 or 8										4										4										
*Chittagong ..	Trace to 8						2	3		1	24						3	12	3	2	10						2	4	3		21
	6 to 8						1	1			2							2	1		3							1	1		
	7 or 8						1				1							2	1		3							1	1		
Cox's Bazar ..	Trace to 8						9	2	1	2	16						8	4	1		17						4	4			22
	6 to 8																1				1										
	7 or 8																1				1										
Dacca *1 ..	Trace to 8					2	3	2	1		21					1	19	1			9						6	1			23
	6 to 8															1	2				3							1			
	7 or 8															1					1										
Dalbandin *2 ..	Trace to 8								2		25								2		27										30
	6 to 8										3										1										
	7 or 8																														
Drosh ...	Trace to 8				1		1	1	1	1	25						2	2	1	5	20			1					2		27
	6 to 8										9						1	1			9			1							
	7 or 8										8						1	1			8			1							
Fort Sandaman *2	Trace to 8										30									4	25										30
	6 to 8										5										2										
	7 or 8										3										2										
Jacobabad A[1] ..	Trace to 8							1			18																				
	6 to 8																														
	7 or 8																														
Jhelum ..	Trace to 8							1			29							1	2		27							1	2	1	26
	6 to 8							1			7							1			7							1	1		
	7 or 8							1			5							1			4							1	1		
Karachi (Drigh Road) ..	Trace to 8					1	1			1	27						1	3			26						1				29
	6 to 8									1	6										5										
	7 or 8									1	3																				
Khanpur ..	Trace to 8								1		29										30									1	29
	6 to 8								1		5										5										
	7 or 8								1		3										2										
Lahore —	Trace to 8							2			28							2	3		25								1		29
	6 to 8										5							1			5										
	7 or 8										5							1			4										
*2 Multan ..	Trace to 8									1	29									2	27										30
	6 to 8										3										5										
	7 or 8										1										1										
Peshawar ..	Trace to 8							1	2		27					1		1	11		17						2	1			27
	6 to 8										4										4										
	7 or 8										3										1										
Quetta @ A[2] .. (Samungli)	Trace to 8							1	1		16									2	17									1	29
	6 to 8																														
	7 or 8																														

*1—On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.
*2—On 1 day cloud heights could neither be measured nor estimated at 09 G.M.T.
*3—On 1 day cloud heights could neither be measured nor estimated at 21 G.M.T.
Δ—On 2 days cloud heights could neither be measured nor estimated at 03 G.M.T.
A1—On 11 days cloud heights colud neither be measured nor estimated at 03 G.M.T.
A2—On11 days cloud heights colud neither be measured nor estimated at 09 G.M.T.
@—On 12 days cloud heights could neither be measured nor estimated at 03 G.M.T.

TABLE 4.–Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G. M. T. and number of days of fog (Visibility) <100 m. November 1951.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										STATIONS	No. of days of fog
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	Λ 50000 m. (50 Kms.)		
					4	10	15	1							1	6	21	2												Bogra	
			2			4	23	1								3	20	7												Chhor	
					1	24	5								1	28	1								3	27				Chittagong	
				1		15	7	7							1	4	18	7												Cox's Bazar	
					1	14	9	5	1							3	12	7	8							4	1			Dacca	
				3	8	13	6							4	8	12	6							2	8	13	7			Dalbandin	
						1	2	15	12						1	1	2	7	19											Drosh	
					2	22	6								2	21	7								2	28				Fort Sandaman	
			1	3	1	17	6	2							1	5	21	3								27	2	1		Jacobabad	
					5	18	6	1							1	9	18	1	1											Jhelum	
					2	15	7	5	1						3	6	12	7	2											Karachi (Drigh Road)	
			1	3	8	18							1	2	6	21														Khanpur	
				2	12	16									2	24	4													Lahore	
1	1	2		1	13	12							1		4	24	1								7	22	1			Multan	
						13	16	1								18	12									30				Peshawar	
					1	7	22								1	3	20	6							4	25	1			Quetta (Samungli)	

Registered No. S-1453

MONTHLY FREQUENCY TABLES

Horizontal Visibility, Height of Base of Low Cloud & Surface & Upper Winds at Pilot Balloon Stations in Pakistan

DECEMBER 1951

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PAKISTAN METEOROLOGICAL DEPARTMENT

Karachi

1962

Monthly frequency tables of surface and upper winds, height of base of low clouds and horizontal visibility have been compiled from the data of Pilot Balloon Stations functioning during the month of December, 1951. The data have been given under the following four tables :—

Table 1 : Particulars of the stations, *i.e.*, latitude, longitude and height above mean sea level are given in this table.

Table 2 : Wind frequencies for surface, 0.15 km. above surface, 1.0, 2.0, 3.0, 4.5, 6.0 and 7.5 km. above mean sea level from observations made at 0300, 0900 and 2100 hours G.M.T. are given in this table.

Table 3 : This table furnishes the frequencies of heights of base of low cloud observed at or near the times of Pilot Balloon observations. The code figures have the following meanings :—

Code figure	0	1	2	3	4	5	6	7	8	9
Cloud height	Less than 50 m.	50 to 99 m.	100 to 199 m.	200 to 299 m.	300 to 599 m.	600 to 999 m.	1000 to 1499 m.	1500 to 1999 m.	2000 to 2500 m.	No low cloud.

Table 4 : The frequencies of horizontal visibility given in this table have been prepared from the observations made at or near the times of pilot balloon observations.

KARACHI, Pakistan :

The 3rd February, 1962.

SIBTE NABI NAQVI.
Director Meteorological Services.
Karachi.

TABLE 1.—PARTICULARS OF STATIONS APPEARING IN TABLES

Station	Latitude N	Longitude E	Heights, a.s.l.	Station	Latitude N	Longitude E	Heights, a.s.l.
Bogra ..	24° — 51′	89° — 23′	0.03 Km.	Jacobabad ..	28° — 17′	68° — 29′	0.06 Km.
Chhor ..	25° — 31′	69° — 50′	0.01 Km.	Jhelum ..	32° — 56′	73° — 44′	0.24 Km.
Chittagong ..	22° — 21′	91° — 50′	0.02 Km.	Karachi (Drigh Road)	24° — 53′	67° — 07′	0.03 Km.
Cox's Bazar ..	21° — 26′	91° — 58′	0.01 Km.	Khanpur ..	28° — 39′	70° — 41′	0.09 Km.
Dacca ..	23° — 47′	90° — 23′	0.01 Km.	Lahore ..	31° — 35′	74° — 20′	0.22 Km.
Dalbandin ..	28° — 54′	64° — 26′	0.85 Km.	Multan ..	30° — 12′	71° — 31′	0.12 Km.
Drosh ..	35° — 34′	71° — 47′	1.51 Km.	Peshawar ..	34° — 01′	71° — 35′	0.37 Km.
Fort Sandaman ..	31° — 21′	69° — 27′	1.42 Km.	Quetta (Samungli)	30° — 15′	66° — 53′	1.60 Km.

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G. M. T.—December, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations.	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14	31	2	3						1	25	31	10	7	6	1	1	1		2	1	31	3	5	7	4		2	1	5	1	30	4	6	4	3	3	2		3	
	15-27												1							1			1			1				1									1	1		
	28-41																																										
	>41																																										
Chhor ...	3-14	31	1	10	2					1	17	30		9	11				1	2	1	30	4	11	1	3			2	3	4	31	4	4	3	3		5	5	1	
	15-27													2	4								1							1					1				1	2	2		
	28-41																																										
	>41																																										
Chittagong ...	3-14	31	2	1	1						27	31	8	12	8				1		1	31	7	5	3	6	6			1		29	1	2	3	1	2	2	1	4	
	15-27													1										2		1							1			2	1	4	1	1	2	
	28-41																																										
	>41																																										
Cox's Bazar ...	3-14	31	2	10	5						14	31	9	14	4	2						29	4	2	2	3	6	1	1	1	2	26	3	1	3		2	3	1	3	1
	15-27												2										2	1		4											4	1	2			
	28-41																																										
	>41																																										
Dacca ...	3-14	31	1	2					1	1	26	31	5	10	3		1	1	3	3	1	31	7	6	5	2	1	2	1	3	1	31	1	4	2	1	6	5	1	3	
	15-27												1	1	1					1				1	1					1					1	1		1	1	1	2	
	28-41																																										
	>41																																										
Dalbandin ...	3-14	31		6							25	31		14	9	3	2	1	1			31		9	7		1	1			12	31	5		1		1	6	3	5	3
	15-27														1										1								1				2	3	1			
	28-41																																										
	>41																																										
Drosh ...	3-14	31									31	30	1	5	2	1	1	2	1		17											30	3	22	1			1			3
	15-27																																										
	28-41																																										
	>41																																										
Fort Sandaman ...	3-14	31					2	1	1		27	31	2	2	1			12	7	6	1											31	4	1	3	1	1	9	4	6	2
	15-27																																										
	28-41																																										
	>41																																										
Jacobabad ...	3-14	31			5	3	1		1	2	18	31	2	1	13	2			1	2	7	31	5	2		3	1	6	4	5	5	31	1	4	3		3	5	5	6	3
	15-27		1										2		1																								1			
	28-41																																										
	>41																																										
Jhelum ...	3-14	31								3	28	31	10						1	16	2	31	3		1	2		1	2	15	4	30	6	1	1	2	2	1	3	10	1
	15-27																		1	1										3						1			1	1		
	28-41																																										
	>41																																										
Karachi (Drigh Road).	3-14	31	7	5							19	31	7	8	1				1	3	2	31	2	6	3		1	1	7	4	6	31		3	2	1	4	4	5	3	3
	15-27												1	8										1									1					1	2	2		
	28-41																																										
	>41																																										
Khanpur ...	3-14	31	1	6		1					23	31	1	5	10	9	4		1			31	6	6	1	1	2	2	7	2	3	31	1	4	1	1	1	6	5	7	4
	15-27												1										1																	1		
	28-41																																										
	>41																																										
Lahore ...	3-14	31								1	30	31	4	2	3			2	6	11	3	31	6						5	18	1	31	5	1		2	2		5	13	1
	15-27																													1										2		
	28-41																																										
	>41																																										
Multan ...	3-14	31									31	31	3	2	2	4	13	4			2	31		6	3	2	3	7	3	2	5	31	3	4	1	1		6	7	3	5
	15-27													1																										1		
	28-41																																										
	>41																																										
Peshawar ...	3-14	31					1		1		29	30	3	1	1	1	3	4	3	4	10	30	11			1		3	3	5	7	30	7		1		1	1	1	11	3
	15-27																																				1				5	
	28-41																																										
	>41																																										
Quetta (Samungli)	3-14	31			1	5					25	31		3	2	11	2	3	4	1	5											31	2		1	6	5	2	3	5	7
	15-27																																										
	28-41																																										
	>41																																										

TABLE 2.—Observations of Wind by Pilot Balloons at 0300 G.M.T.—December, 1951

Number of observations at 3.0 Km. above sea level											Number of observations at 4.5 Km. above sea level										Number of observations at 6.0 Km. above sea level										Number of observations at 7.5 Km. above sea level										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
27		2	2	1	3	2 2	6 1 3	4 1		18	3		1	1			2 8 2	1		7							1 2	3 1		1									1	3-14 15-27 28-41 > 41	Bogra
31	2	2		2	3	2 3	7 1 1	7 1		29					1	4 1 1	3 7 2 1	5 4		26						3 1	1 5 7 2	1 3 3		15						2	2 5 4	2		3-14 15-27 28-41 > 41	Chhor
25		1	2	1	2 1	3 5	1 3 2	2 1 1		17	1	1			1	2 1	1 4 3	2	1	9						2	1 2	2 2		1										3-14 15-27 28-41 > 41	Chittagong
24	2	2	2			4 3	4 5 1	1		14		2				1 1	2 2 1	1 2 1	1	6	1						1 2	1 1		2							1	1		3-14 15-27 28-41 > 41	Cox's Bazar
30	1	2	2 1		2 1	2 3	5 4 3	1 2 1		23	2				1	1 1	7 3 2	3 2 1		15						1	1 2 4 1	1 3 1 1		6							1 1 1	1 2		3-14 15-27 28-41 > 41	Dacca
30	1		1			4 6 1	8	4 4 1		23				1	1	1 1 1	2 10 3 1	1 1		15			1			1	1 8 2	1 1		2							1	1		3-14 15-27 28-41 > 41	Dalbandin
28	8 15 2	2		1						26	2 3 1	3	1	7	3 1	3	1		1	17	1			2	2 2	1 3 4	1 1		7	1				1	2 1	1 1			3-14 15-27 28-41 > 41	Drosh
31	2	1		1	1 1	6 1	5 1	7 3 1 1		27	1					1 6 1	1 7 2 1	1 3 2 1		12						2	1 2 4	2 1		3							1 2			3-14 15-27 28-41 > 41	Fort Sandeman
31	1		1	1	4	3 2 1	8 4	3 1 2		29					1	1 4 1 1	1 10 3 1	3 1 2		3						1 1	1													3-14 15-27 28-41 > 41	Jacobabad
30	2 1		2	1 1	3 1	1 1	3	10	4	29					2 1	3 5 1	3 4	4 5	1	19					1	2 2	1 4 2	3 4		8					1	3 2	1	1		3-14 15-27 28-41 > 41	Jhelum
31	1		2	1	2	4 4 1	7 1 1	5 1 1		25					1	1 1	1 7 4 3	4 3		13							2 5 4	1 1		3							1 1	1		3-14 15-27 28-41 > 41	Karachi (Drigh Road)
31	2	2		1		3 3	6 9	3 1	1	29					1	1 1	2 9 5 2	6 2		23						1 1	1 1 9 4	1 5		3						1		2		3-14 15-27 28-41 > 41	Khanpur
31	3				2	4	7	11 3	1	31	1 1				1	5 2 1	5 4 1	4 3 2	1	16						1 1	3 5 1	3 2		1							1			3-14 15-27 28-41 > 41	Lahore
31	2	1 2	1		2	4 2 1	2 5	5 1	3	23						1	10 2	5 3 1 1		10							2 4 1	1 1 1												3-14 15-27 28-41 > 41	Multan
30	9	1	1	3	2	2	1	5 2	4	28	3			1	1	4 3 1	5 1	2 4	3	22		1				2 1 1	3 4 4	2 2 2		4					1	2 1			3-14 15-27 28-41 > 41	Peshawar
29	2		1 1	1	4 1	4 2	5	3 4	1	21		1		1	1	1 1 2	5 6	2 1		3						1	1	1												3-14 15-27 28-41 > 41	Quetta (Samungli)

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G. M. T.—December 1951.

STATIONS	Speed in Knots	Number of observations at Surface.										Number of observations at 0.15 Km. above Surface.										Number of observations at 1.0 Km. above sea level.										Number of observations at 2.0 Km. above sea level.									
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.
Bogra ...	3-14 15-27 28-41 >41	31	3	2					1	2	23	31	7	4	4	1	1	1	2	5	6	31	4	3	4 1	3 1		4	2	5 1	3	29	1	2	6	4	2	6	2 3 1	1	
Chhor ...	3-14 15-27 28-41 >41	31	9	6			1		2	3	10	30	8	8 1			1	1	3	2	6	30	4	11 1	2	1	1	2	1	4	3	31		2 1	1	3	3	6 1	8 2	3	
Chittagong ...	3-14 15-27 28-41 >41	31	1	1	1	1		3	2	3	19	31	2 2	3	2		1	4	8	5 1	3	30	8 1	5	2	3	6	2	1	1	1	28		3 1	2	2 3	1 2	2 3	1 1	3 4	
Cox's Bazar ...	3-14 15-27 28-41 >41	31	6	2	1	1		1	8	7	5	30	7	2	2	2		1	4	9 1	2	30	7 1	5	1	9 3 1	2				1	26	2	1	1 1	2 1	1 4	3 1	2 2	2 1	2
Dacca ...	3-14 15-27 28-41 >41	31	4					1		4	22	31	9	4	2	1	1	1	2	7	4	31	4	6	1	4	1	1	1	9 1	3	30	1	3	1 1	1 1	2 1	4 4	2 2	3 3	1
Dalbandin ...	3-14 15-27 28-41 >41	31		7	2		1	1	1		19	31		5	13		1	5	1		6	31		3	8		1	3	1		15	31	3	1	4		4 2	6 2	2	5 1	1
Drosh ...	3-14 15-27 28-41 >41	31		5	1	1		1			23	30	2	12	1	1		3	1		10											30	10 1	12	2			2			3
Fort Sandaman ...	3-14 15-27 28-41 >41	31	1					10	4	1	15	31	2					6	16	2	5											31	1	1			2	8	10	5	4
Jacobabad ...	3-14 15-27 28-41 >41	31	1		2	2				1 1	24	31	1		3	3	1	1	5	6 1	10	31	4	1	2	3	3	4	2	3 1	8	31	3	1	2	4	3 1	10	4	1 1	1
Jhelum ...	3-14 15-27 28-41 >41	31							1	4	26	31			2		1		8	5	15	31	1	1		2	1	1	8	10 1	6	31				2	2 1	4 1	8	9	4 1
Karachi (Drigh Road).	3-14 15-27 28-41 >41	31	1	7				4	1	1	17	31	1	10 2		2	1	3	5	3	4	31	4	8	4	1	1		7	4	2	31	3	2	1	1	6	2	7 3	1 2	3
Khanpur ...	3-14 15-27 28-41 >41	31	4	4	2	2		4			15	31	4	4	4	2	3	6	1		7	31	1	7	3	2	1	4	6	1	6	31	2	1	1		5 1	6 1	8 2	1 1	2
Lahore ...	3-14 15-27 28-41 >41	31		1					2	5	23	31		1	1			1	10	13	5	31	2	1			1		6	17 2	2	31	2			1	3	3 1	7	11 2	1
Multan ...	3-14 15-27 28-41 >41	31		5			2	4			20	30	1	2	2	2	6	7		2	8	31	2	2	5	2	5	8 1	2		4	31		2	1		4 1	7 1	7 3	2	3
Peshawar ...	3-14 15-27 28-41 >41	31				1					30	31		8	6	5	1				11	31	3	1	3		1			13	10	31	1		2		6 1	3	5	8 1	4
Quetta (Samungli)	3-14 15-27 28-41 >41	31	1	1		1			5	11	12	31				1		3	7	13	7											31				3	8	5	7 1	4	3

TABLE 2.—Observations of Wind by Pilot Balloons at 0900 G.M.T.—December, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.		
28	1		1	4	3	3	3 7 2 2	1 1		15			1				1 5 6	2		8	1						3 1	1 2		1							1			3-14 15-27 28-41 > 41	Bogra
31	2				1 1	3 1 2	12 3 2	1 1	2	30	1					3 1 1	2 9 3 2	3 3 1	1	24						2 1	2 3 9 4	3		8								2 5	4 1		3-14 15-27 28-41 > 41	Chhor
23		2	2 1		3 1	3	1 3 2	3 2		18	2	1			1	1 1	1 4 4 1	1 1		5				1				3 1		2				1					1	3-14 15-27 28-41 > 41	Chittagong
25			2 1	1	2	6 3	1 5 1	1 2		18	1					1 2	2 5 2	1 1 3		9						2	1 1 4	1		5							2 3			3-14 15-27 28-41 > 41	Cox's Bazar
23		1	2	1	1	3 3	3 3 4	2		18	1		1		1	1	6 4 1	3		7							1 1	1 3 1		1							1			3-14 15-27 28-41 > 41	Dacca
30	2				1 1	8 3	4 3 1	4 3		27	1					2 3	2 11 3 3	1 1		20						1 1	4 7 4	3		12							2 3 5	2		3-14 15-27 28-41 > 41	Dalbandin
29	16 1	2			1	5	1	1	2	25	1 2	1	1	7	7 1	5				17	1					1 4 2	1 3 1	1 2 1		13						2 1 1	1 3 2	2 1		3-14 15-27 28-41 > 41	Drosh
31		1			2	6 5	6 3	3 3 1	1	28					1	1 2 1 1	6 8 3	1 2 1 1		11						2	3 4	1 1		7							1	1 1		3-14 15-27 28-41 > 41	Fort Sandaman
31	1					7 4	8 4 1	3 2 5		30	1				1	3 2	2 10 3 3	2 3		28						2 2	4 13 3	1 2 1		22						2	1 3 11	4 1		3-14 15-27 28-41 > 41	Jacobabad
30			1	3	3	5 2	7	9		29	1				2	4 3 1	2 8 1	1 4 1	1	25				1		1 2	6 7 1	1 2 4		19						1 2	1 4 5	1 5		3-14 15-27 28-41 > 41	Jhelum
31	3				6	3 2 1	6 2 2	5 1		31					1	2 1 1	3 9 4 4	3 2 1		31	1					2 2	1 3 9 8	2 3		31						3	2 4 17	2 2 1		3-14 15-27 28-41 > 41	Karachi (Drigh Road).
31	2				1	1 5	9 11 1	1		31					1	2 2 1	1 8 5 4	1 3 3		29						1 3 2	1 1 8 9	1 3		16						3	3 6	1 3		3-14 15-27 28-41 > 41	Khanpur
31	2			1	1	6 1 1	7 2	8 2		31	1				1	1 6 1	1 11 2 1	4 2		28						1 1 1 1	2 8 5	3 5 1		19						1 1	1 3 8	2 3		3-14 15-27 28-41 > 41	Lahore
31	2				1	5 4	9 6	3 1		27	1					5 1	1 8 6 1	3 1		22						1 2 1	2 7 4	1 4		4						1	2	1		3-14 15-27 28-41 > 41	Multan
31	2				3	9 4	5	5 1	2	30		1				4 5 1	3 10	2 3	1	25	1					1 4 1 1	1 4 7 1	2 2		21					1	1 2	1 4 4 1	2 3 1		3-14 15-27 28-41 > 41	Peshawar
31	1				2	12 2 1	6 2	3 2		24					1	1	2 9 5 2	1 2 1		19						2	2 8 5	1 1		16						1 1	1 2 9	1 1		3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE—2. Observations of Wind by Pilot Balloons at 2100 G.M.T.—December, 1951.

STATIONS	Speed in Knots	Number of observations at Surface.											Number of observations at 0.15 Km. above Surface.											Number of observations at 1.0 Km. above sea level.											Number of observations at 2.0 Km. above sea level.										
		Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots
Bogra ...	3-14	31	9	4		1					17	31	9	7	2			1		6	1	30	6	3	7			1		8	2	10	1	2	3		2	1	1		
	15-27												3	1						1				1				1	1													
	28-41																																									
	>41																																									
Chhor ...	3-14						N	IL								N	IL									N	IL									N	IL				
	15-27																																									
	28-41																																									
	>41																																									
Chittagong ...	3-14	31	1	8	1					1	20	30	7	14	3	1				4		30	8	3	4	5	3			2	2	24	1	1	2	1	2	4	1	2	1
	15-27												1												1	1				1							1	1	2	2	3		
	28-41																																									
	>41																																									
Cox's Bazar ..	3-14	31	2	10	8						11	30	15	5	2					2		30	9	2	1	5	4	2	1	1		23		1	1	3	1	4	2	4	1
	15-27												5										3			2											2		2	1		
	28-41																																				1					
	>41																																									
Dacca ...	3-14	31		2							29	31	9	5	1			1	1	3	2	31	5	6	6	2		1	3	6		25	1	4	1	2	3	4		1	
	15-27												4	3				1		1			1				1							1	1		1	1	2	3		
	28-41																																									
	>41																																									
Dalbandin ...	3-14	31		5	2	1		1		2	20	30		3	9	4	4	2	2	1	1	30		3	10	4	3	2	2	1	3	30	3	1	2	1	4	13	2	1	1
	15-27														4										2													1		1		
	28-41																																									
	>41																																									
Drosh ...	3-14	31		1							30	29		9	4			1			15											29	2	20				2			5
	15-27																																									
	28-41																																									
	>41																																									
Fort Sandaman	3-14	6			1						5	6		3	1			2														6	1	1				3			1
	15-27																																									
	28-41																																									
	>41																																									
Jacobabad ...	3-14	31	5	2	4						20	31	5	5	6	1			1	2	10	31	2		1	3	4	8	2	3	8	31	3	1				9	6	6	4
	15-27												1																									1		1	
	28-41																																									
	>41																																									
Jhelum ...	3-14	31								3	28	31	9	3			1	1		14	3	31	6	1		4			3	13	4	31	2	2	2		2	3	4	13	3
	15-27																																									
	28-41																																									
	>41																																									
Karachi (Drigh Road) ...	3-14	31	7	4							20	31	8	5			1		5	6		31	2	4	6	2	1	1	7	2	4	31	1	4	3	2	3	5	1	4	2
	15-27													5						1				1	1								1						3	1		
	28-41																																									
	>41																																									
Khanpur ...	3-14	31	1	7				1		1	21	31		5	9	3	1	5	2	1	2	31	3	2	1	2	3	8	5	2	5	31	4	1				7	9	5	1
	15-27												1	1		1																						1	3		
	28-41																																									
	>41																																									
Lahore ...	3-14	31									31	31	2	1	2	1		1	6	13	4	31	6	1		1			3	16	4	31	6					2	6	9	7
	15-27																			1																			1		
	28-41																																									
	>41																																									
Multan ...	3-14	31				1					30	31	2	2	5	6	7	4	1			31	4	1		1	6	12		2	4	29	5	1	1	2	1	5	5	4	1
	15-27															2	1	1										1					1					2	1		
	28-41																																									
	>41																																									
Peshawar ...	3-14	31					1	6	1		23	31	5	2	1		1	1	4	2	14	31	6	4		1		3	1	6	10	31	6			1	2	1	3	13	4
	15-27																			1																				1		
	28-41																																									
	>41																																									
Quetta (Samungli) ...	3-14	31		1	2	6			1	2	19																														
	15-27																																									
	28-41																																									
	>41																																									

TABLE 2.—Observations of Wind by Pilot Balloons at 2100 G. M. T.—December, 1951.

Number of observations at 3.0 Km. above sea level.											Number of observations at 4.5 Km. above sea level.										Number of observations at 6.0 Km. above sea level.										Number of observations at 7.5 Km. above sea level.										Speed in Knots	STATIONS
Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots.	Total No. of observations	N 338-22	NE 23-67	E 68-112	SE 113-157	S 158-202	SW 203-247	W 248-292	NW 293-337	0-2 Knots		
2						1		1																																3-14 15-27 28-41 >41	Bogra
				N	IL									N	IL									N	IL									N	IL					3-14 15-27 28-41 >41	Chhor
18		1		1 1		3 1	1 5	2 2	1																															3-14 15-27 28-41 >41	Chittagong
15	2			1 1	1	1	1 5	2	1																															3-14 15-27 28-41 >41	Cox's Bazar
11			1	1		3 1	1 1	1 1	1																															3-14 15-27 28-41 >41	Dacca
29				1	1	4 3	7 5	3 3 1	1	4							3	1																						3-14 15-27 28-41 >41	Dalbandin
29	12 3	4			4	3			3	11				1	3 1	5		1		1						1														3-14 15-27 28-41 >41	Drosh
6	1				1	1	1	1 1																																3-14 15-27 28-41 >41	Fort Sandaman
30	2		1	1		4 2 1	6 2	7 3	1	2							1	1																							3-14 15-27 28-41 > 41	Jacobabad
31	1	1	2	1	2	5 1	7 1	6 1	3																															3-14 15-27 28-41 >41	Jhelum
29	2	2	2	1	3 1	2 2 1	7 2	3 1		4						1 1	2																							3-14 15-27 28-41 >41	Karachi (Drigh Road)
31	2	2				1 3 1	7 4 1	8 2		4						1	1 1																							3-14 15-27 28-41 >41	Khanpur
31	1 1		1	1	1 1	3 3	5 1	10 1	2	20	2 1				1	1 1 1	5 1	5 1 1																						3-14 15-27 28-41 >41	Lahore
25	4	1				1 2	5 4	7 1		3						1	1	1																						3-14 15-27 28-41 >41	Multan
31	4	1	2	1	1	4 2	4	6 3	3	9						1 2 1	1	1 3																						3-14 15-27 28-41 >41	Peshawar
																																								3-14 15-27 28-41 >41	Quetta (Samungli)

TABLE 3.—Frequency of Observations of Base of low cloud above ground level at 03, 09, and 21 G. M. T.

December, 1951.

STATIONS	Cloud Amount in Octas	No. of observations with cloud base represented by code figures at 03 G.M.T.										No. of observations with cloud base represented by code figures at 09 G.M.T.										No. of observations with cloud base represented by code figures at 21 G.M.T.									
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
*1 Bogra ..	Trace to 8							2	1	4	23						1	5	1	2	22							1	1	1	28
	6 to 8																			1	1										
	7 or 8																			1	1										
Chhor ..	Trace to 8										31							1			30					NIL					
	6 to 8																														
	7 or 8																														
Chittagong ..	Trace to 8						1	2	3	1	24						1	8	4	1	17							2	3		26
	6 to 8								1		1						1		1		2										
	7 or 8																														
Cox's Bazar ..	Trace to 8						9	3	2	1	16						7	5	1	3	15						2	4	2	1	22
	6 to 8						2		1	1	4						3			2	5							1	1		
	7 or 8						1		1		2						2			2	4								1		
Dacca *2 ..	Trace to 8						3	2		1	25						7	5	2		16						2	1		1	27
	6 to 8						1				1																				
	7 or 8																														
Dalbandin Δ ..	Trace to 8							1	1	1	11							1	2	1	10				1				1	2	16
	6 to 8							1			7							1		1	6				1						
	7 or 8																														
Drosh ...	Trace to 8				1		2	1	2		25				1	2	2		3	3	20		1					1	2		27
	6 to 8				1		1	1			13				1	1	1		2		15		1					1			
	7 or 8				1		1	1			7				1	1	1		1		13		1					1			
X Fort Sandaman	Trace to 8							1	2	5	23							1	2	5	23										6
	6 to 8									1	6										7										
	7 or 8									1	3										5										
Jacobabad ..	Trace to 8					NIL										NIL										NIL					
	6 to 8																														
	7 or 8																														
Jhelum ..	Trace to 8							1	1	1	28								3	1	27							1	1	1	28
	6 to 8									1	13									1	9										
	7 or 8									1	9									1	7										
Karachi (Drigh Road) ..	Trace to 8						1	1			29						1	4			26										31
	6 to 8																														
	7 or 8																														
Khanpur ..	Trace to 8										31										31										31
	6 to 8										1										3										
	7 or 8																				2										
Lahore ..	Trace to 8										31										31										31
	6 to 8										3										3										
	7 or 8										3										2										
Multan ..	Trace to 8										31										31										31
	6 to 8										1																				
	7 or 8																														
Peshawar ..	Trace to 8							2	1		28							3	9		19							1	2		28
	6 to 8										7										8										
	7 or 8										4										6										
Quetta (Samungli) ..	Trace to 8							3	2	1	25								5	2	24							1	3	1	26
	6 to 8							2			5								3		3								1		
	7 or 8							2			4								2		5								1		

*1—On 1 day cloud height could neither be measured nor estimated at 03 G.M.T.

*2—On 1 day cloud heights could neither be measured nor estimated at 09 G.M.T.

**—On 11 days cloud heights could neither be measured nor estimated at 21 G.M.T.

Δ—On 17 days cloud heights could neither be measured nor estimated at 03 and 09 G.M.T.

X—On 25 days cloud heights could neither be measured nor estimated at 21 G.M.T.

TABLE 4.—Frequency of Observations of Horizontal Visibility at 03, 09, and 21 G. M. T. and number of days of fog (Visibility) <100 m. December, 1951.

No. of observations between the following limits at 03 G.M.T.										No. of observations between the following limits at 09 G.M.T.										No. of observations between the following limits at 21 G.M.T.										STATIONS	No. of days of fog
Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)	Less than 50 m.	50-200 m.	200-500 m.	500-1000 m.	1000-2000 m.	2000-4000 m.	4000-10000 m.	10000-20000 m.	20000-50000 m.	≥ 50000 m. (50 Kms.)		
				2	13	12	4								3	11	14	3												Bogra	
						1	30										30	1												Chhor	
				1	3	23	4								2	16	13					1	1		4	24				Chittagong	
					5	21	5								2	17	12													Cox's Bazar	
					1	12	17	1								1	10	13	7											Dacca	
					5	23	3							1	3	22	5							1	3	25	2			Dalbandin	
				1	2		2	11	15					1	2		4	10	14											Drosh	
						21	10									21	6	4								6				* Fort Sandaman	
				1	2	18	10									4	19	8								19	12			Jacobabad	
				2	8	18	3									9	19	3												Jhelum	
		1				8	14	8								4	15	8	4							30	1			Karachi (Drigh Road)	
				7	10	14									1	30														Khanpur	
				22	6	3								1	3	27														Lahore	
				3	17	11										31							1	1	1	27	1			Multan	
					3	23	5							1	9	15	6								3	28				Peshawar	
					1	7	23									8	20	3							6	25				Quetta (Samungli)	

* On 25 occasions visibility observations were not recorded at 21 G.M.T.

observation recorded.