

throughout that period. There were two occasions at Ahmedabad when cloud base and visibility were below limits simultaneously, but they were of short duration of about one hour each, while the corresponding spells at Santacruz were of seven and nine hours' duration. Except for these occasions visibility was never bad either at Poona or at Ahmedabad during the minima conditions at Santacruz.

On 26 per cent of the occasions at Poona and 21 per cent at Ahmedabad, the cloud base was below 800 ft when conditions were below minima at Santacruz. Taking the duration of the spells at the three stations, it was for 25 per cent of the time at Poona and 19 per cent at Ahmedabad. Only on about 9 per cent of the occasions was the cloud base low at both Poona and Ahmedabad when below minima conditions

were prevailing at Santacruz. In cases of bad weather at Santacruz of duration less than twelve hours, Ahmedabad has slightly less chance of being affected by low clouds than Poona.

Occurrences of bad weather at Santacruz of duration more than twelve hours are tabulated in Table 2. There were 22 such occasions, one spell lasting as much as 89 hours, during 14-18 July 1948, in association with strong monsoon conditions along Konkan. In these cases only cloud base was affected either at Ahmedabad or Poona and visibility was always more than 1000 yards. The deterioration of cloud base at either place lasted mostly for much shorter periods than at Santacruz. Hence the duration of low cloud base at Ahmedabad and Poona for each spell at Santacruz is also given in Table 2.

TABLE 2

SANTACRUZ		Number of hours in each occasion when Ahmedabad or Poona had below minima conditions						No. of occasions when cloud base was below 800 ft simultaneously at Poona and Ahmedabad
Duration of spells when cloud base was below 800 ft and visibility below 1000 yds (over 12 hrs)	No. of spells	POONA			AHMEDABAD			
		Cloud base below 800 ft	Visibility below 1000 yds	Cloud base and visibility both below minima	Cloud base below 800 ft	Visibility below 1000 yds	Cloud base and visibility both below minima	
13	2	13	—	—	13	—	—	1
		8	—	—	0	—	—	—
14	2	0	—	—	0	—	—	—
		0	—	—	0	—	—	—
15	1	0	—	—	0	—	—	—
16	2	4	—	—	0	—	—	—
		0	—	—	0	—	—	—
17	1	17	—	—	0	—	—	—
18	0	—	—	—	—	—	—	—
19	1	4	—	—	0	—	—	—
20	0	—	—	—	—	—	—	—
21	2	9	—	—	8	—	—	1
		0	—	—	0	—	—	—
22	1	0	—	—	0	—	—	—
		5	—	—	0	—	—	—
		18	—	—	0	—	—	—
23	5	23	—	—	0	—	—	—
		0	—	—	0	—	—	—
		0	—	—	5	—	—	—
24	0	—	—	—	—	—	—	—
30	2	12	—	—	0	—	—	—
		23	—	—	0	—	—	—
32	1	7	—	—	1	—	—	1
41	1	11	—	—	0	—	—	—
89	1	1	—	—	0	—	—	—

In these cases Ahmedabad is definitely less liable to have low clouds than Poona. There were three cases when cloud base was low both at Ahmedabad and Poona simultaneously while Santacruz was having a spell of bad weather.

Taking all cases, there were 22 occasions when both Ahmedabad and Poona had low clouds while Santacruz was experiencing bad weather. On 8 of these occasions, a monsoon depression was moving across Madhya Pradesh; on 2 occasions there was a shallow monsoon depression moving into Rajasthan or north Gujarat, while in another case there was a trough over Gujarat and strong monsoon along Konkan. In 6 cases there was a depression over Madhya Pradesh with another (which had formed earlier) further to the west. In yet another case depressions were forming simultaneously in the Bay off Circars coast and in the Arabian Sea off Kathiawar coast. Three spells were associated with cyclonic storms in the Arabian Sea, and one with a cyclonic storm in Bay striking coast near Balasore with strong monsoon conditions in Konkan.

The following conclusions may be drawn from the above analysis:

- (i) Visibility is almost always good at Ahmedabad and Poona, while below minima conditions prevail at Santacruz.
- (ii) On such occasions cloud base may be simultaneously low at both Ahmedabad and Poona for 10 per cent of the occasions.
- (iii) During the rest 90 per cent of the occasions either Ahmedabad or Poona is free from low clouds and serves as an alternate to Santacruz.
- (iv) Ahmedabad is a somewhat better alternate for Santacruz than Poona, being less liable to low clouds by 5 per cent.

V. BALASUBRAMANIAM

*Regional Meteorological Centre,
Colaba, Bombay
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