





Dune mobility state	$PA_{GCM}$ value	Description	Calibration examples, southern dunefield
	> 700	Dynamic dune landscape: <ul style="list-style-type: none"> <li>• Bare sharp crests</li> <li>• Bare rippled dune flanks</li> <li>• Sparsely vegetated interdunes with potential for sand transport</li> </ul>	a) 1982-83 dry ENSO event reduced veg. cover (ref 29): monthly $PA_{GCM}$ values range 730 (May 82) - 14155 (Jan 82). Sand transport inc. sparsely veg. interdunes recorded in field, activity status for year calibrates with fully active status for 1982 in ref 16. b) Sept 1986 $PA_{GCM}$ = 4452: 69% area <35% veg. cover, 16% area <14% cover, inc. interdunes (ref 6); fully active dune status in annual index value (ref 16).
	160 - 700	Significant dune activity: <ul style="list-style-type: none"> <li>• Active crests</li> <li>• Limited flank vegetation with evidence of sand transport</li> <li>• Moderate interdune vegetation</li> </ul>	a) Sept 1986 $PA_{GCM}$ = 562: crest and flank activity recorded in field. b) Aug 1992 $PA_{GCM}$ = 668: sand transport recorded on crests and flanks, interdunes veg. and inactive (ref 7). c) Sept 1999 $PA_{GCM}$ = 160: 17-20% veg. cover on crest and flanks where activity and rippling recorded in field.
	70 - 160	Restricted dune activity: <ul style="list-style-type: none"> <li>• Limited activity, restricted to crests</li> <li>• Flanks largely vegetated</li> <li>• Interdunes well vegetated</li> </ul>	a) Aug-Oct 1986 $PA_{GCM}$ = 123-127. 1986: 50% dunes <20% veg. cover (ref 28). 20% cover = crest activity in ref 6 ( $M$ /index) 1986 crest activity in annual $PA$ value (Ref 16). b) Aug-Sept 1995 $PA_{GCM}$ = 71 and 118. Crest only transport on dune crests. c) Sept 1999 $PA_{GCM}$ = 159, crest movement only monitored in field, flanks vegetated. d) Lowest monthly $PA_{GCM}$ value 1996 - 2000 when crest movement monitored = 76.
	0 - 70	Inactive dunes: <ul style="list-style-type: none"> <li>• Comprehensive vegetation cover on all surfaces</li> <li>• Subdued dune forms</li> </ul>	a) July 1993 $PA_{GCM}$ = <1.95% of dune field >14% vegetation cover (ref 9). b) All 1993 and 1994 monthly $PA_{GCM}$ <23; transport absent at monitored sites. c) 2000 Aug-Nov values <15, crests well vegetated, no transport monitored or observed in field.

This figure illustrates the classification of  $PA_{GCM}$  into four classes, and exemplifies the data sources used to achieve this calibration of the index. Calibration utilised  $PA_{GCM}$  values calculated for specific times when field data of actual dune mobility state were available within the period from 1982 to 2000.