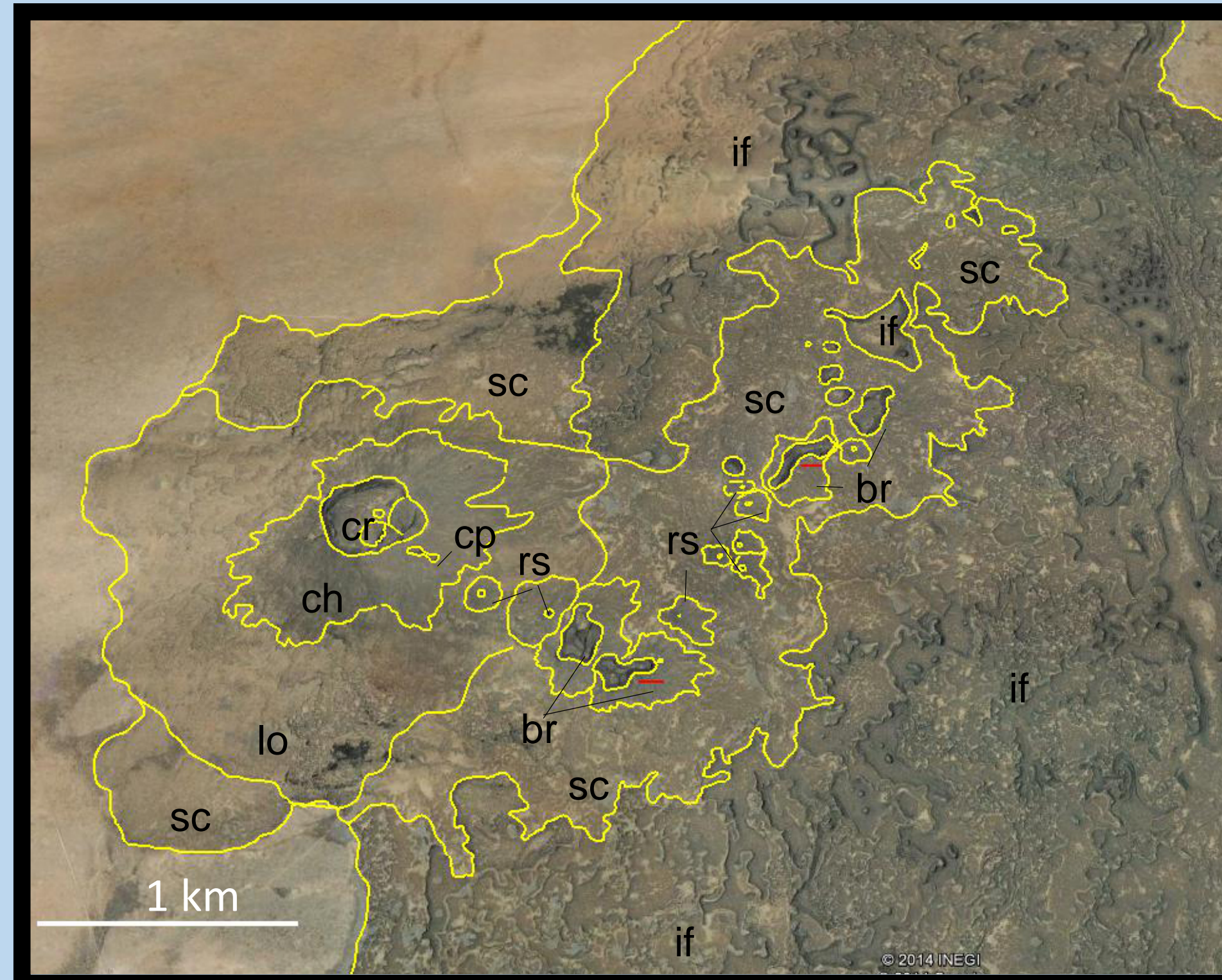


# The Aden Crater Lava Flows, Dona Ana Co., New Mexico

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 SAN MARCOS  
 The rising STAR of Texas

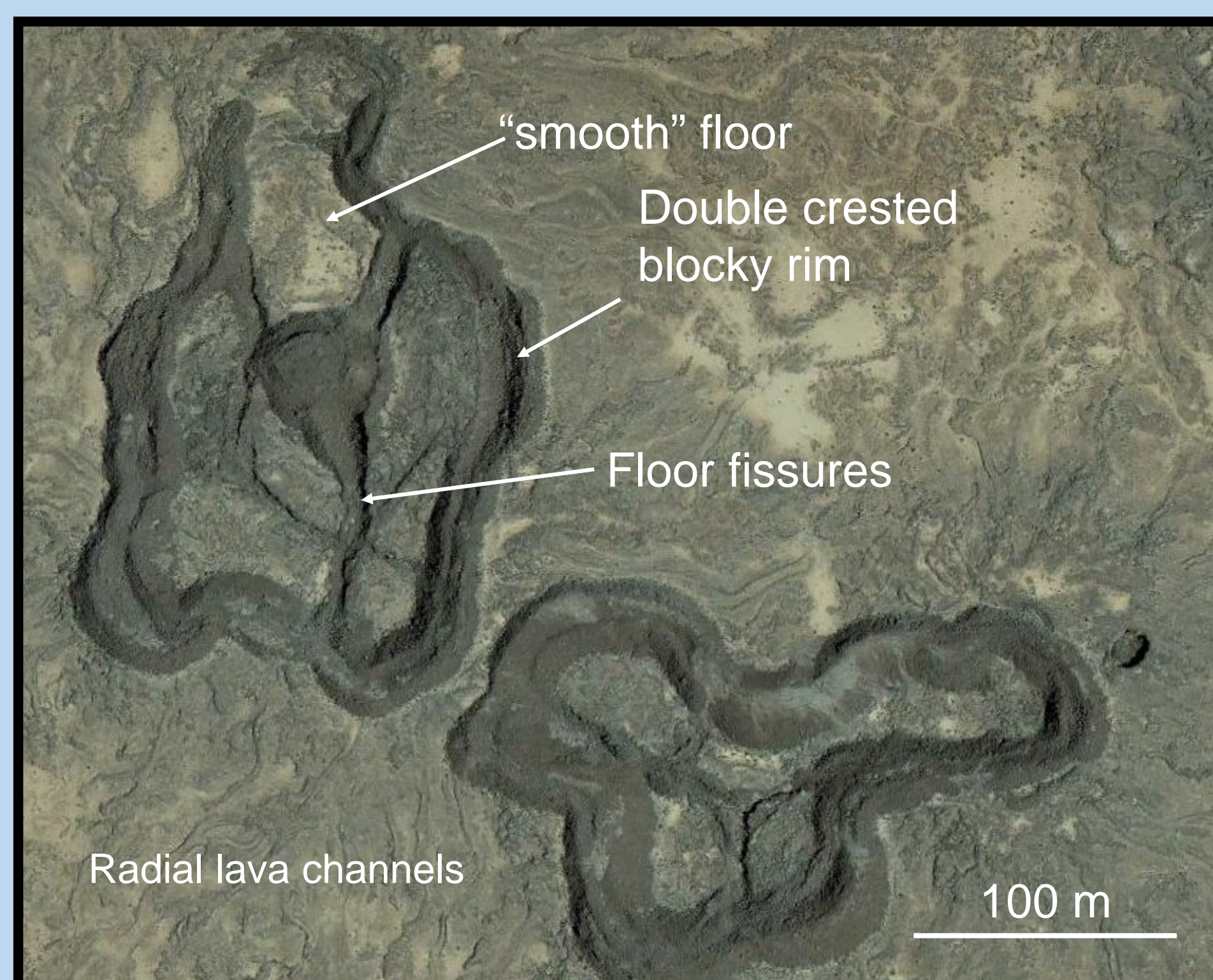
25-28 SEPTEMBER  
**GSA 2016**  
 Denver, Colorado, USA



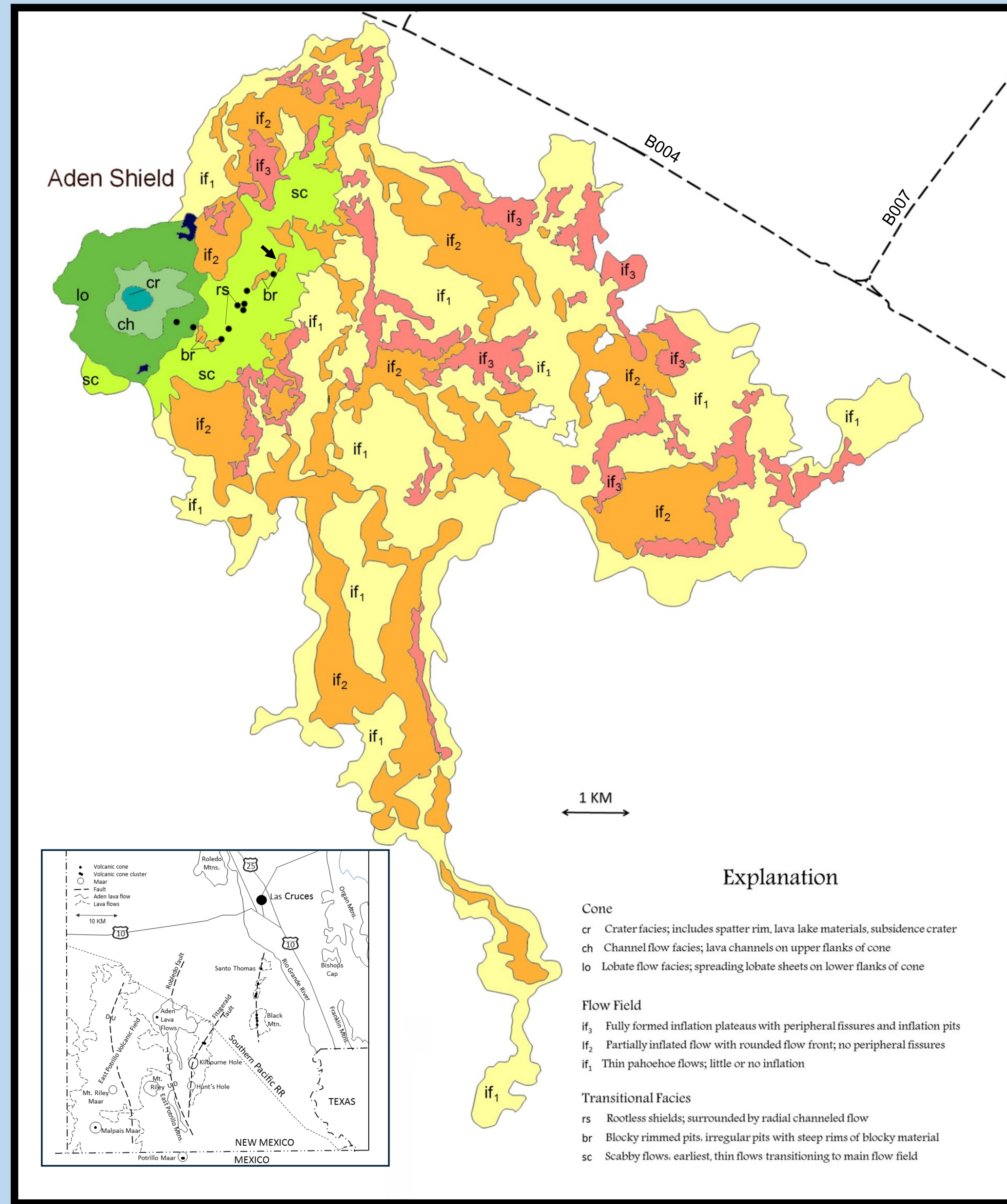
Aden cone consists of lava channels (ch) on upper steeper slope which spread as lobate flows (lo) down slope on the more gentle flank.



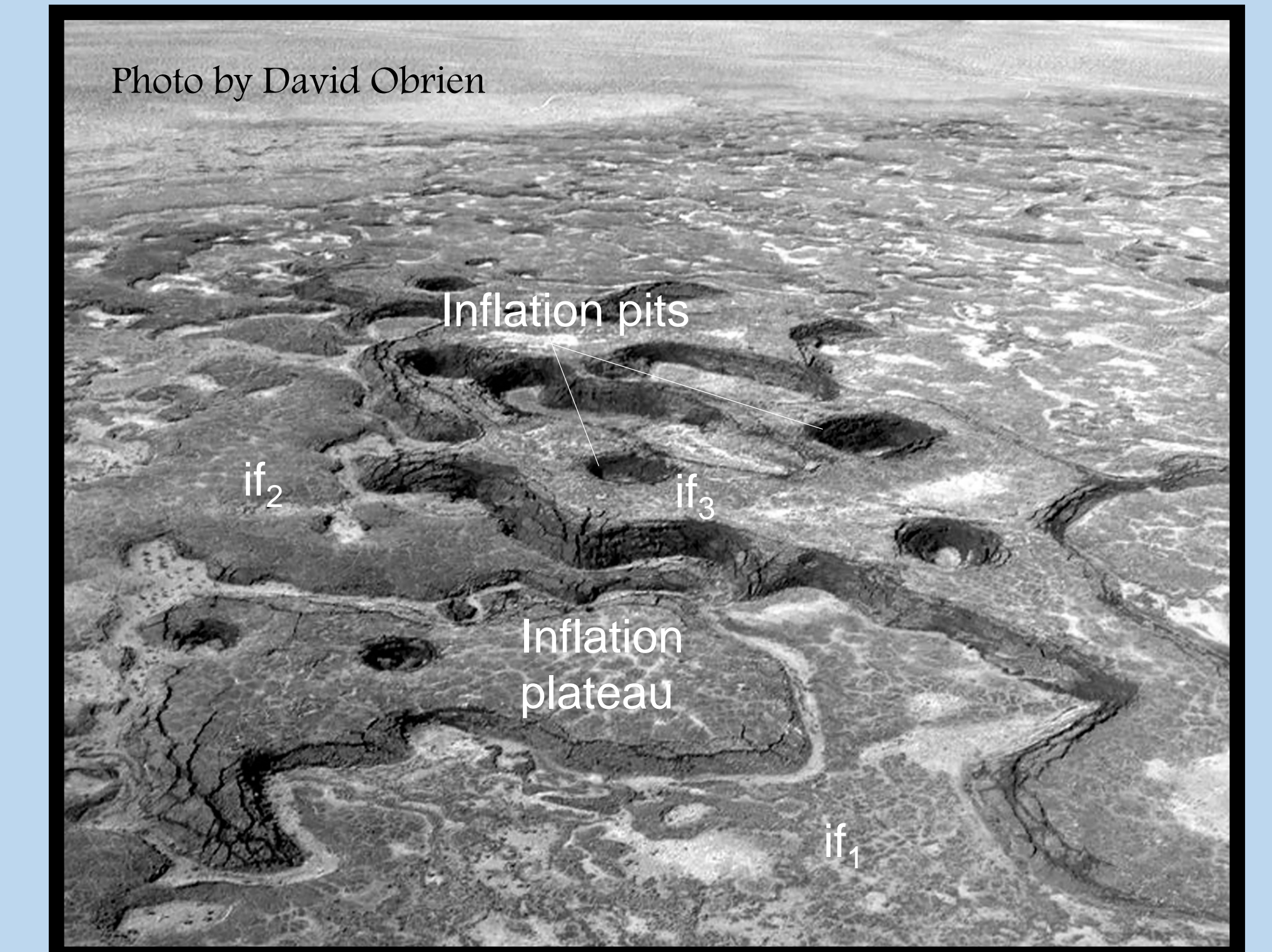
Rootless shields (black dots) occur as small tumuli broke the lava crust and flowed away in all directions.



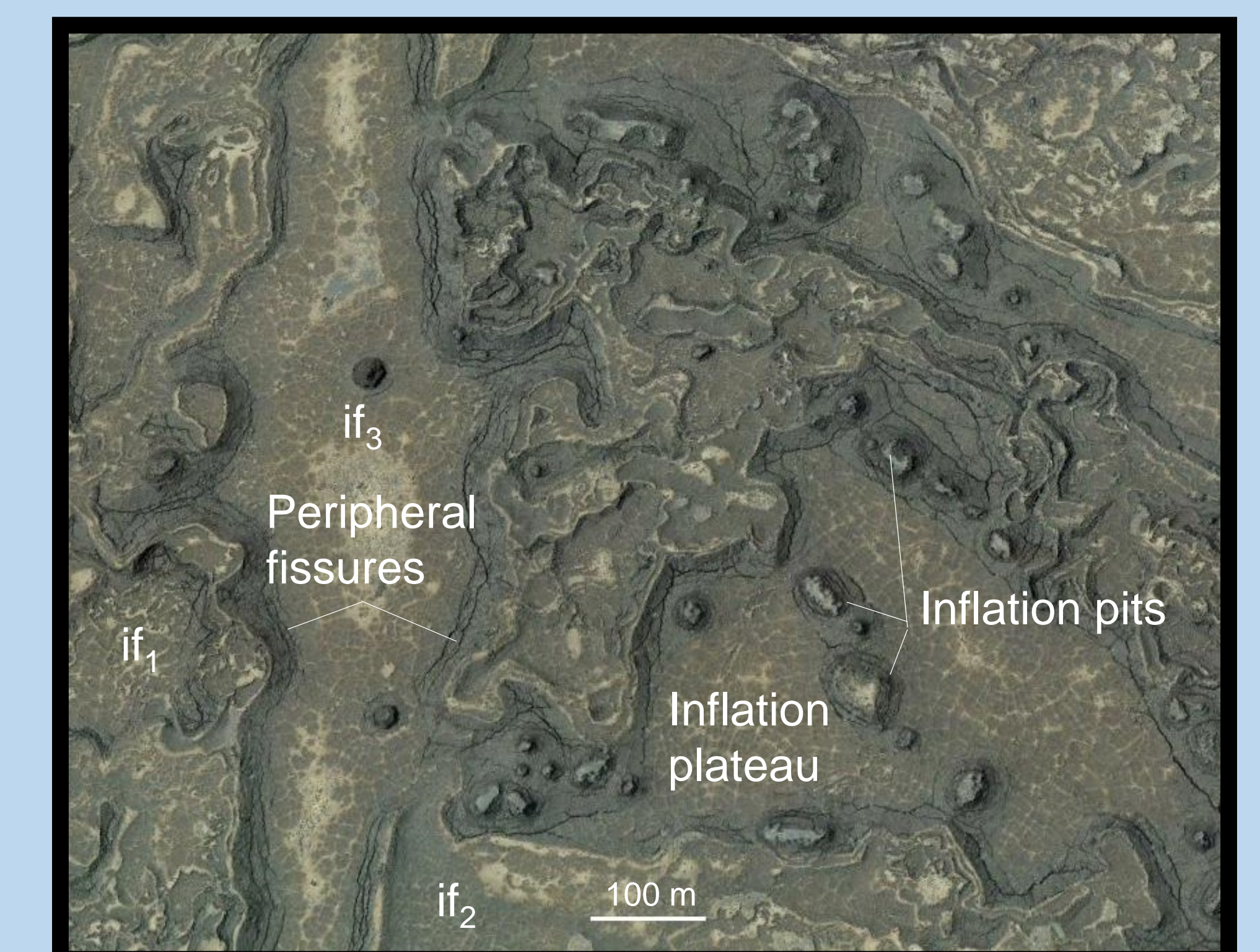
Early inflation plateaus collapsed to form blocky rimmed pits (br) as fluid lavas escaped the interior of the broad tumuli.



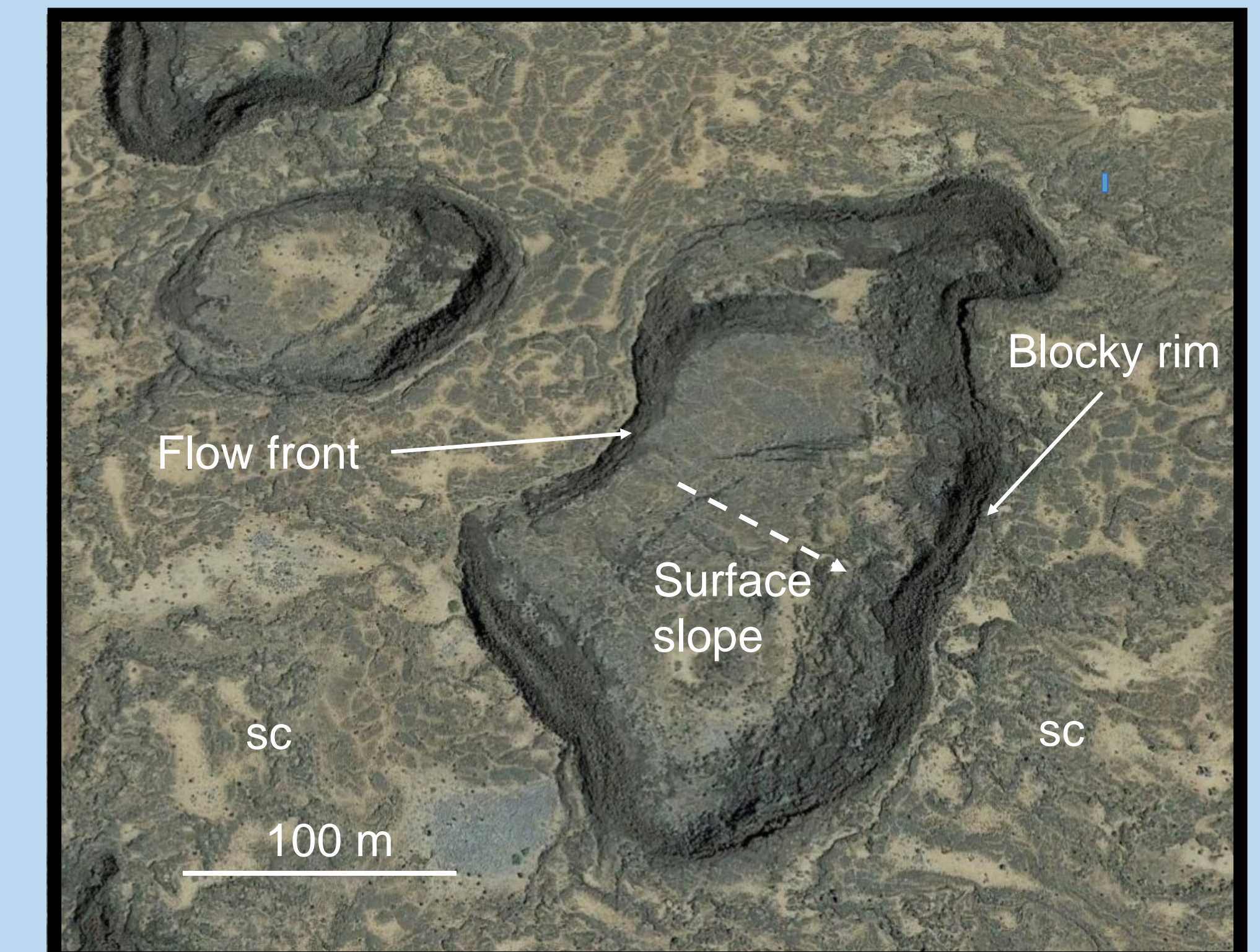
Aden lavas are mapped as facies dependent on rheology of the basalt and slope of the surface. The low shield cone displays lava channels and tubes on the steeper, upper portion of the cone and lobate flows on the lower, lesser slopes. The flow distal flow field is composed of varying degrees of inflated flows.



Oblique view of Aden lava field showing the various stages of development of the inflation plateau facies (if<sub>1-3</sub>).



Inflation pits on inflation plateau (if) form where flow was not present at time of inflation. Rectilinear fractures by stretching crust.



Partially collapsed inflation plateau (see arrow on facies map) exhibits flow front on west flank and blocky rim of east flank.