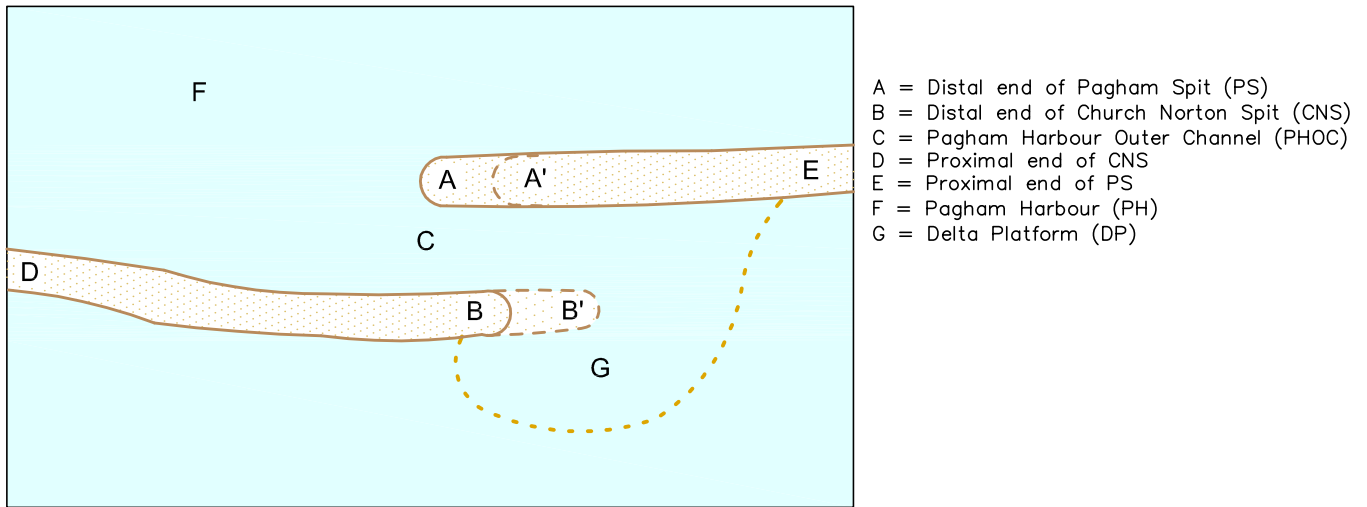


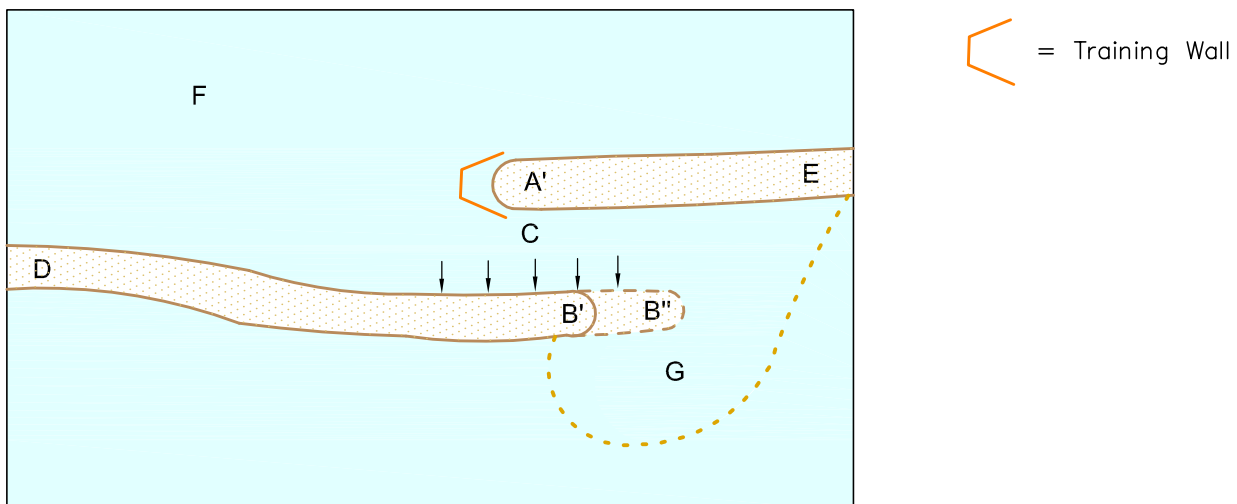
I - Twin Shingle Spit Behaviour (no human intervention)



Notes:

1. Alongshore movement of beach and nearshore sediments from D to B on CNS move B to B' over the delta platform G, together with a recession of PS from A to A'.
2. Provided the tidal capacity of PH remains unchanged, then the movements in 1. above, will continue until basic context conditions change (e.g. sediment inputs reduce or PHOC (C) starts to move outside the limits of PH (F)).

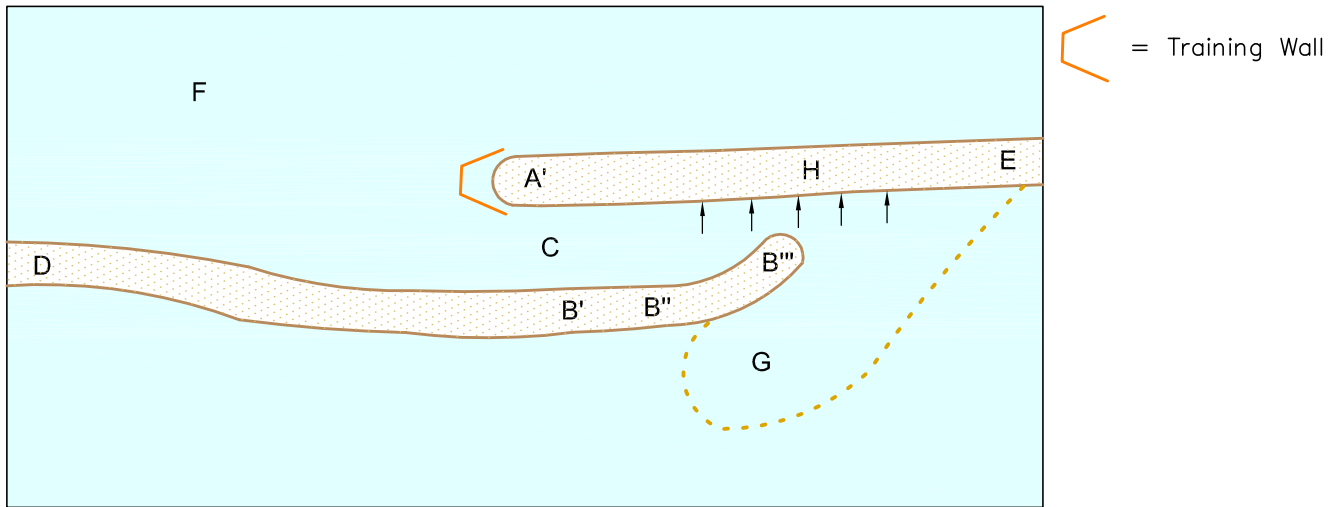
II - Twin Shingle Spit with Inner Spit Fixed in Location



Notes:

1. A' now fixed, but B' still moves to B'' extending the length of channel C.
2. As spit overlap (B'' over A') increases, the on-offshore ebb tide flow momentum from F is converted along B' B'' into increased water level reducing the on-offshore ebb tide flow momentum to zero at B'' where water level increases reach a maximum

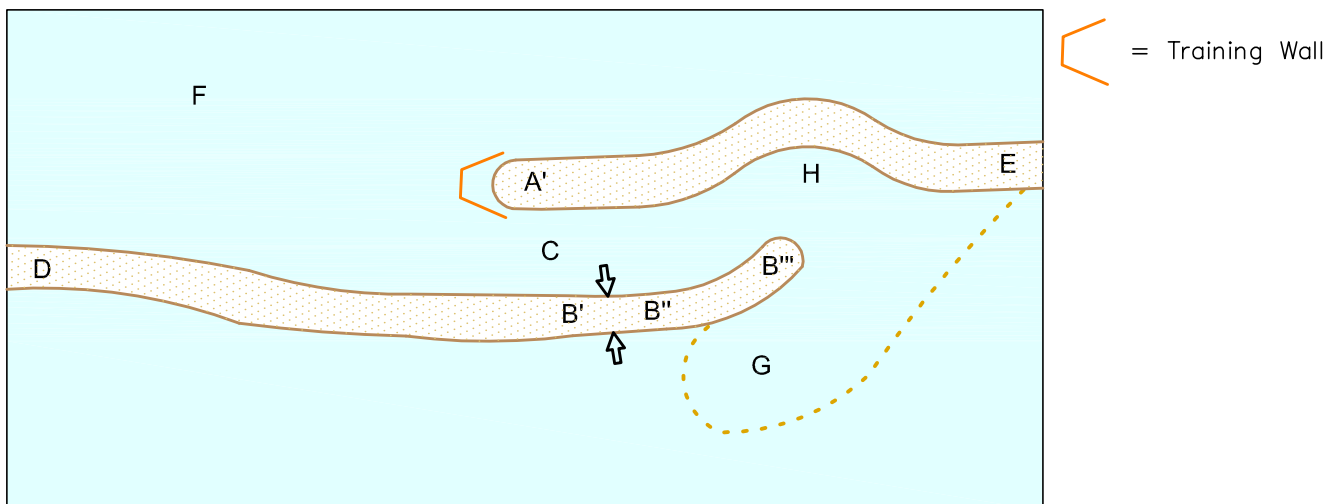
III- Outer Spit Reorientation due to fixity of Inner Spit



Notes:

1. Conversion of ebb tide flow momentum from F to increased water levels along B' to B'' now drives a redirected momentum towards H as shown by the arrows. This causes erosion of Pagham Spit and initiates meander development along C. The redirected tidal momentum results in a change to the alignment of CN Spit development from B'' to B'''.
2. The distance between A' and B' (width of channel C) dictates the distance between A' and H. H was located along Pagham Beach in front of the houses there in 2015 – H was located opposite the sluices to Pagham lagoon in 2021 because the distance between A' and B' was reduced from that applying in 2015. Pagham Spit recesses along H to create the meander in C as shown in IV below.

IV - PHOC (C) Meander Development causing Outer Spit Vulnerability to Breaching



Notes:

1. Flood tide momentum combines with ebb tide momentum along C to weaken the spit between B' and B'' making it vulnerable to initial lowering by waves and enlargement to become fully tidal by tide ebb momentum from F.