Maritime Boundary Agreement

Article 1

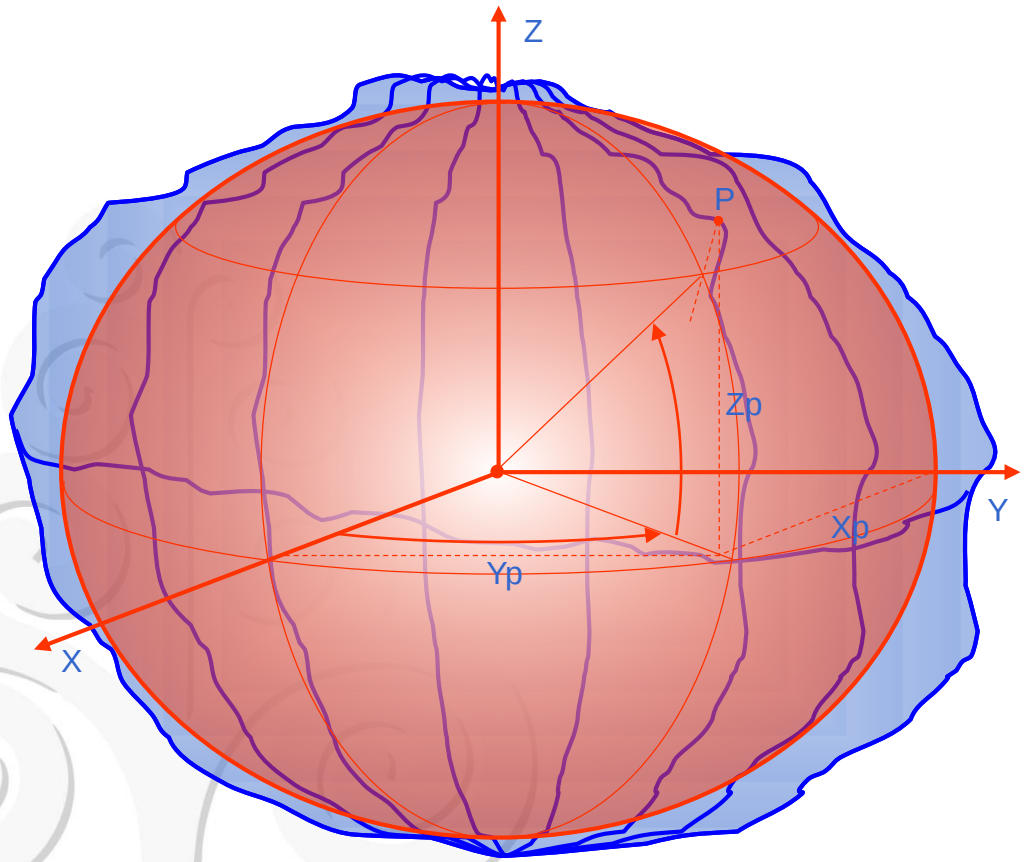
(1) The boundary between the Indonesian an the Vietnamese continental shelves is defined by the straight lines connecting the following points specified by coordinates and in the sequence given below:

Point	Latitude	Longitude
20	06°05'48" N	105°49'12" N
H	06°15'00" N	106°12'00" N
H1	06°15'00" N	106°19'01" N
A4	06°20'59.88" N	106°39'37.67" N
X1	06°50'15" N	109°17'13" N

The boundary line shall thence run straight to the point at the coordinate of latitude 06° 18' 12" N, Longitude 109° 38' 36" E (Point 25)

(2) The straight lines and coordinates of the points specified in paragraph (1) of this Article are Geodetic lines and geographical coordinates computed on the World Geodetic System 1984 Datum (WGS84) and shown on the British Admiralty Chart

Journey of a point from Earth's Surface to that of Ellipsoid



Earth's Surface

Point P on the Earth's surface

Ellipsoid (mathematic model)

Projection of P on Ellipsoid

Latitude of P

Longitude of P

Equator

Meridian)

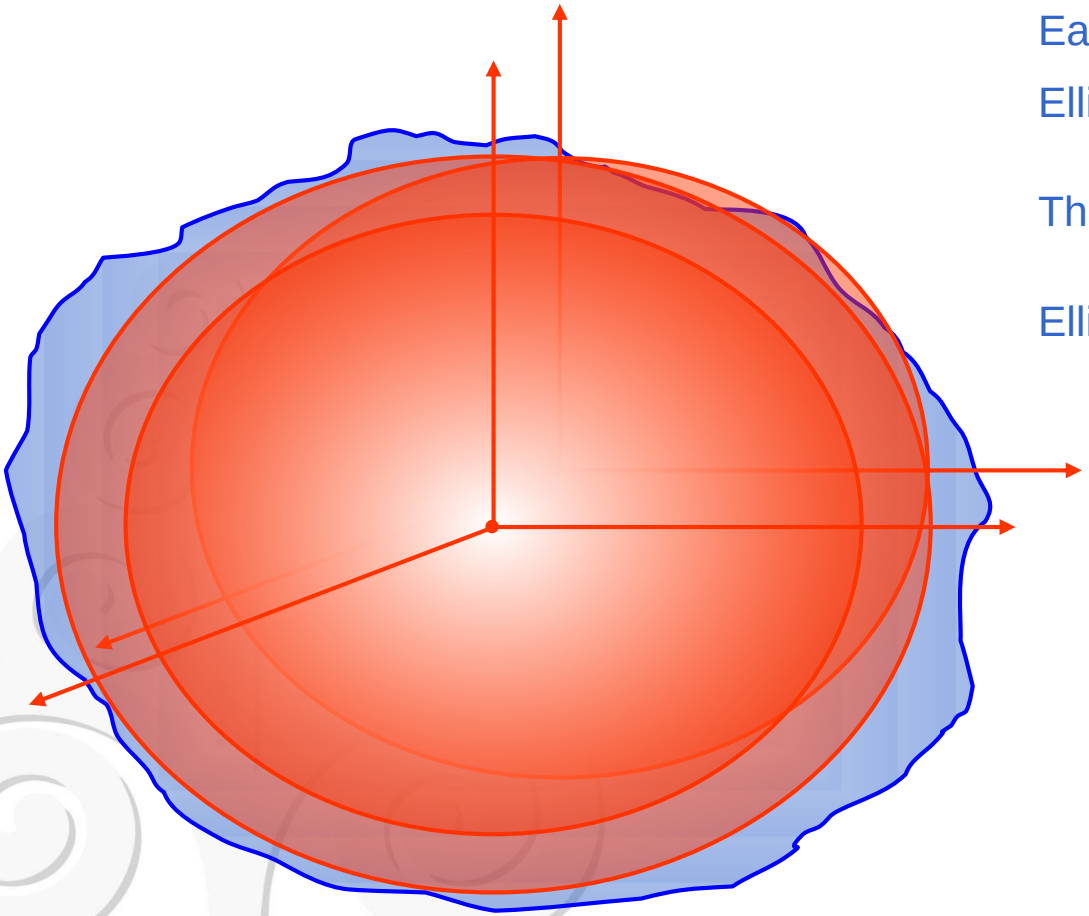
Coordinate of P (Lat, Long)

Axis pf X, Y and Z

Coordinate of P(Xp, Yp, Zp)

Arsana, 2019

Geodetic Datum



Earth Cantered Ellipsoid

Ellipsoids vary in sizes

The centre can be shifted

Ellipsoids can also be spined

Arsana, 2019

Journey of a point from Ellipsoid's Surface to a Map

- From curved to flat surface

Reference Ellipsoid

Point P on Ellipsoid's Surface with coordinates of (lat, long)

A cylinder covering the ellipsoid

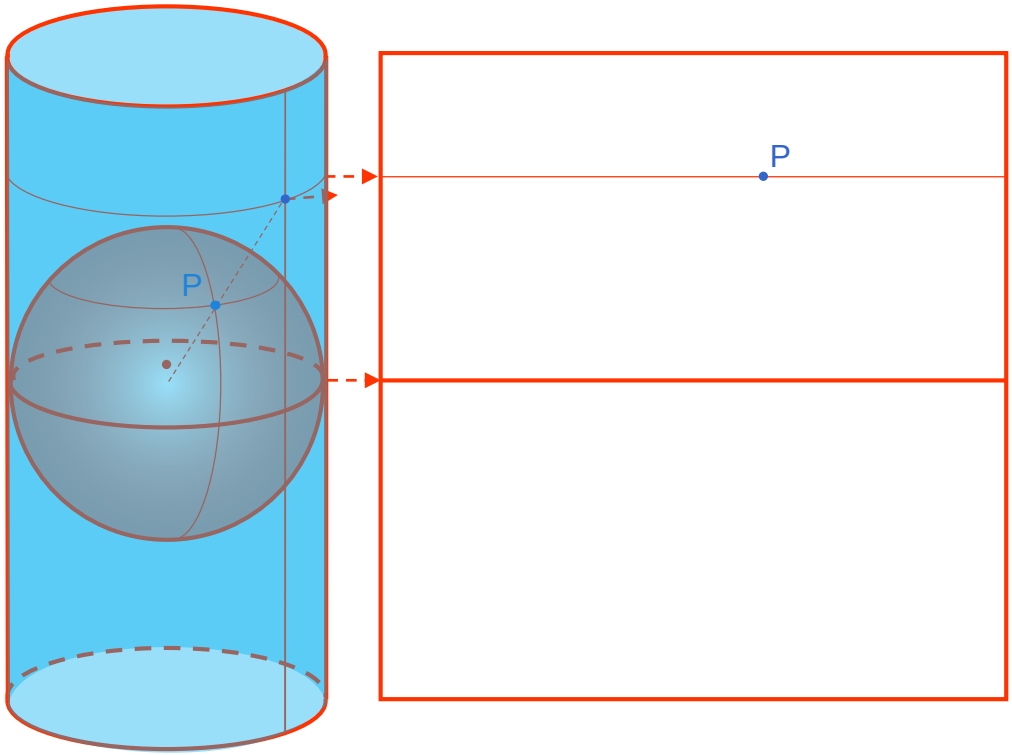
Projection of point P onto the cylinder's surface

The cylinder is unfolded to be the map's surface

Parallel line of P and equator on the map

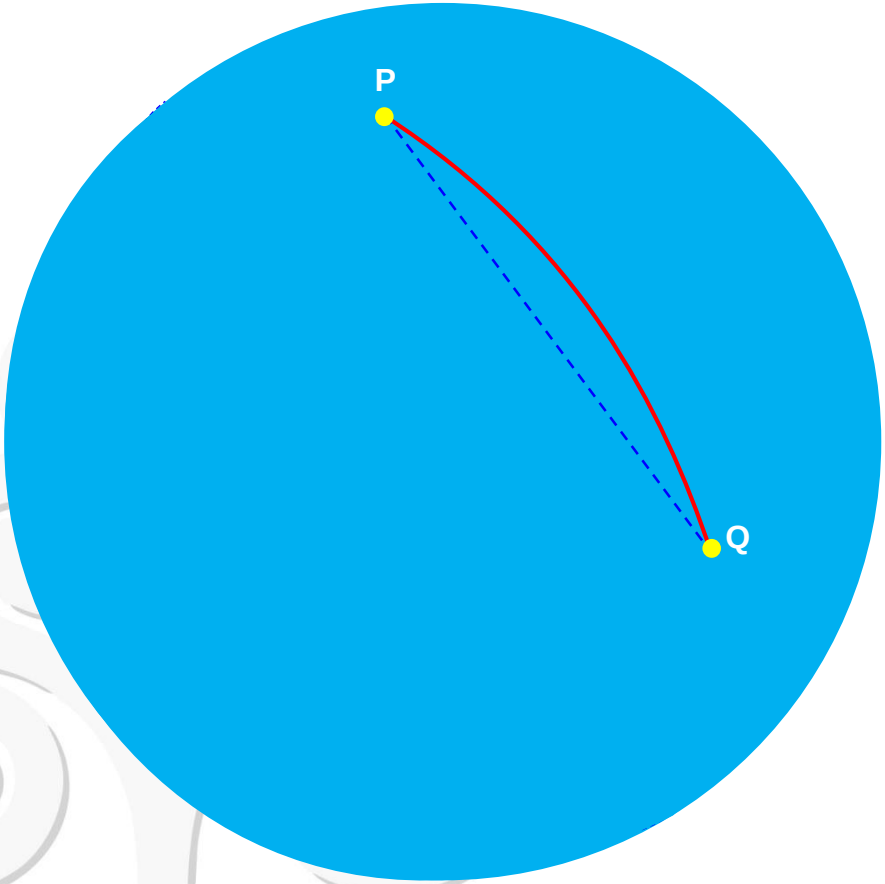
Meridian line of P on the map

Point P on the map!



Arsana, 2019

Straight Line on an Ellipsoid



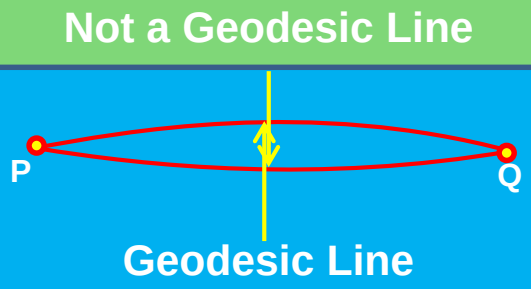
A Great Circle

Geodesic Line:
A line along a Great Circle

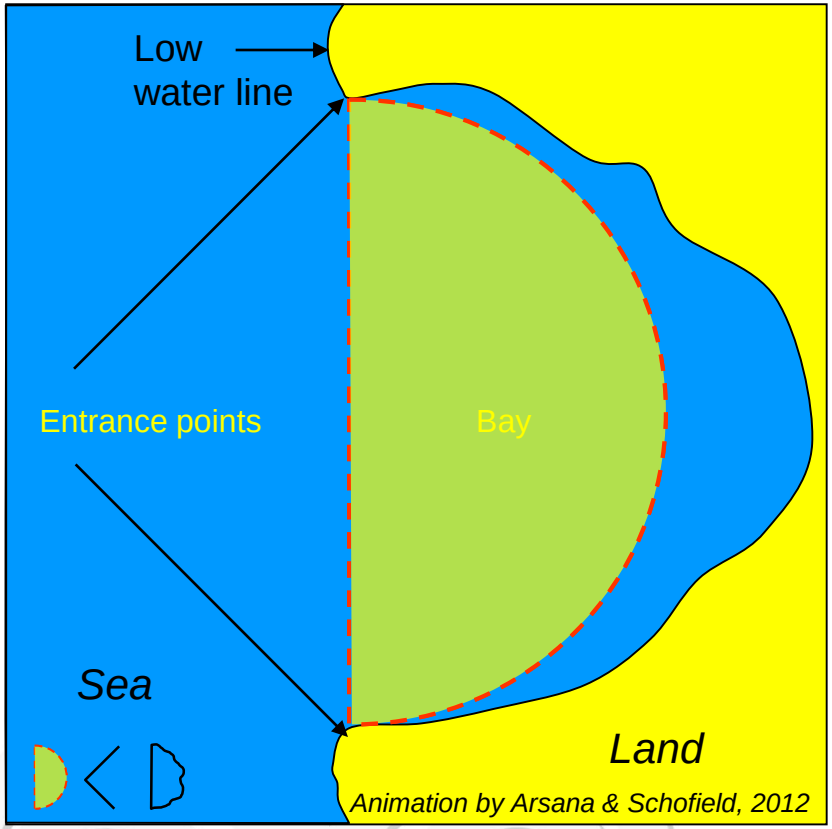
Chord

Distance of PQ according to UNCLOS is the distance along geodesic line

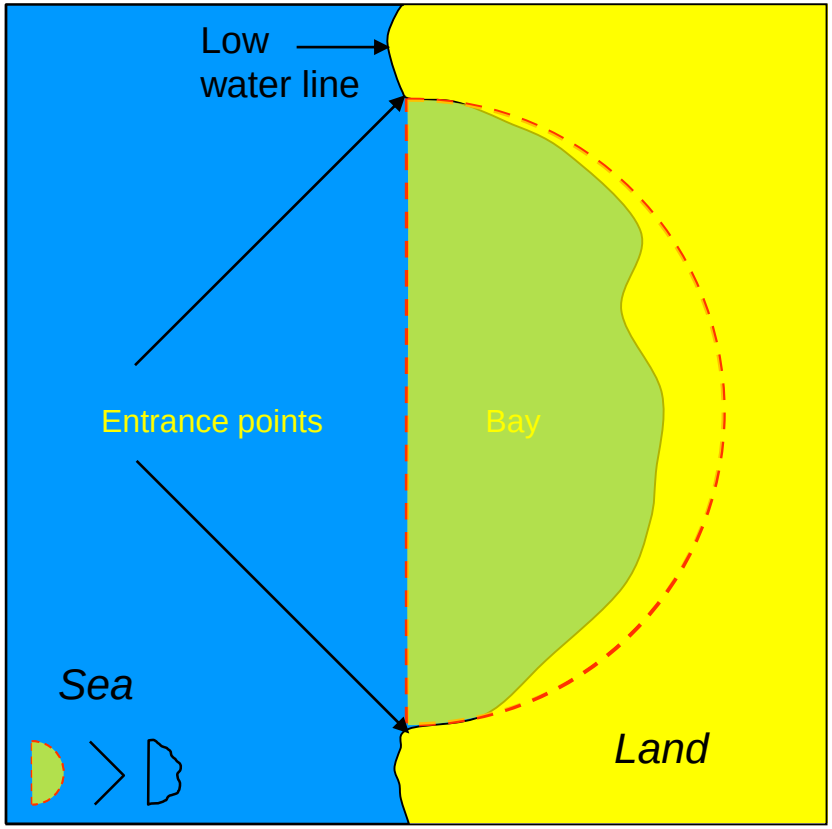
Straight Line on an Ellipsoid



The Juridical Bay

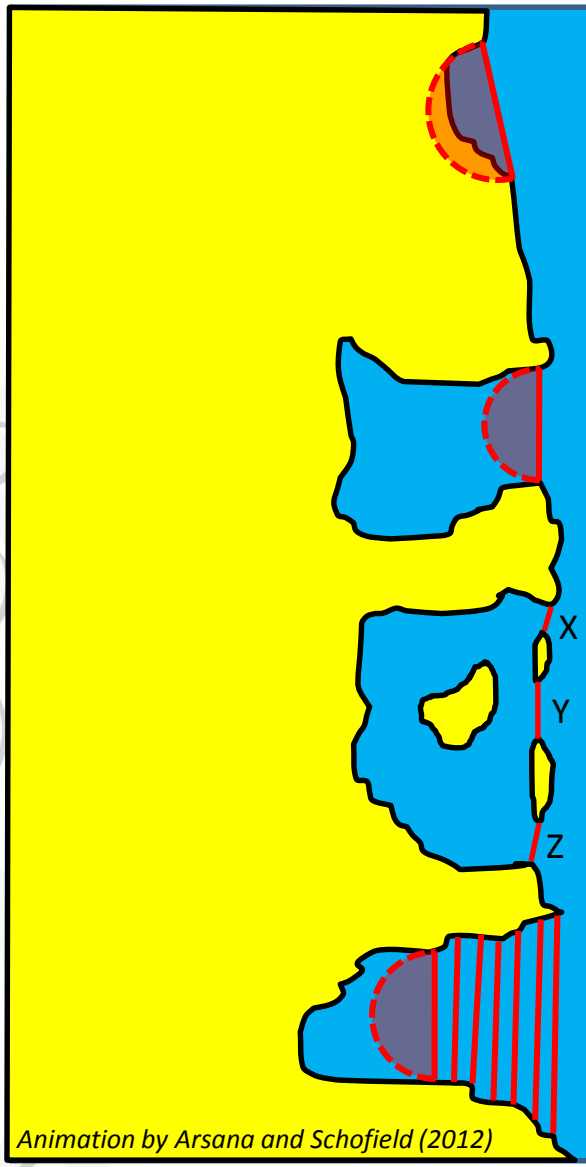


A Juridical Bay



Not a Juridical Bay

Different Bays



Animation by Arsana and Schofield (2012)

Since the area of the bay is less than the area of the semi-circle, The bay cannot be closed

Since the area of the bay is larger than the area of the semi-circles, The bay can be closed

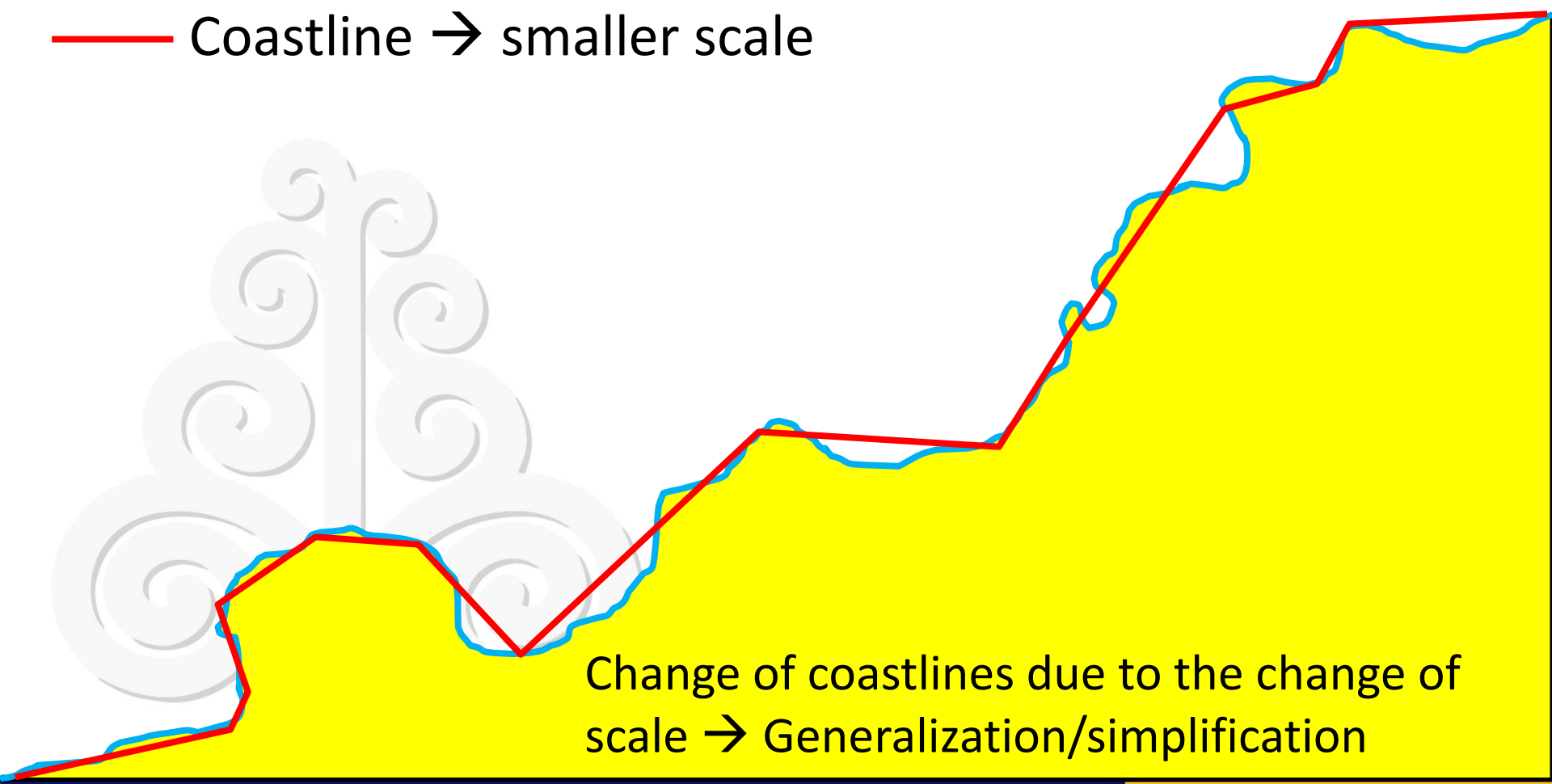
The diameter of the semi-circle equals the total width of mouths X, Y, Z, islands in the bay count as par of the Area of the bay

If the mouth of the bay is wider than 24 nautical miles, a line can be drawn where the bay narrows to 24 nautical miles, provided the semi-circle test is satisfied

Coastline Length and Scale

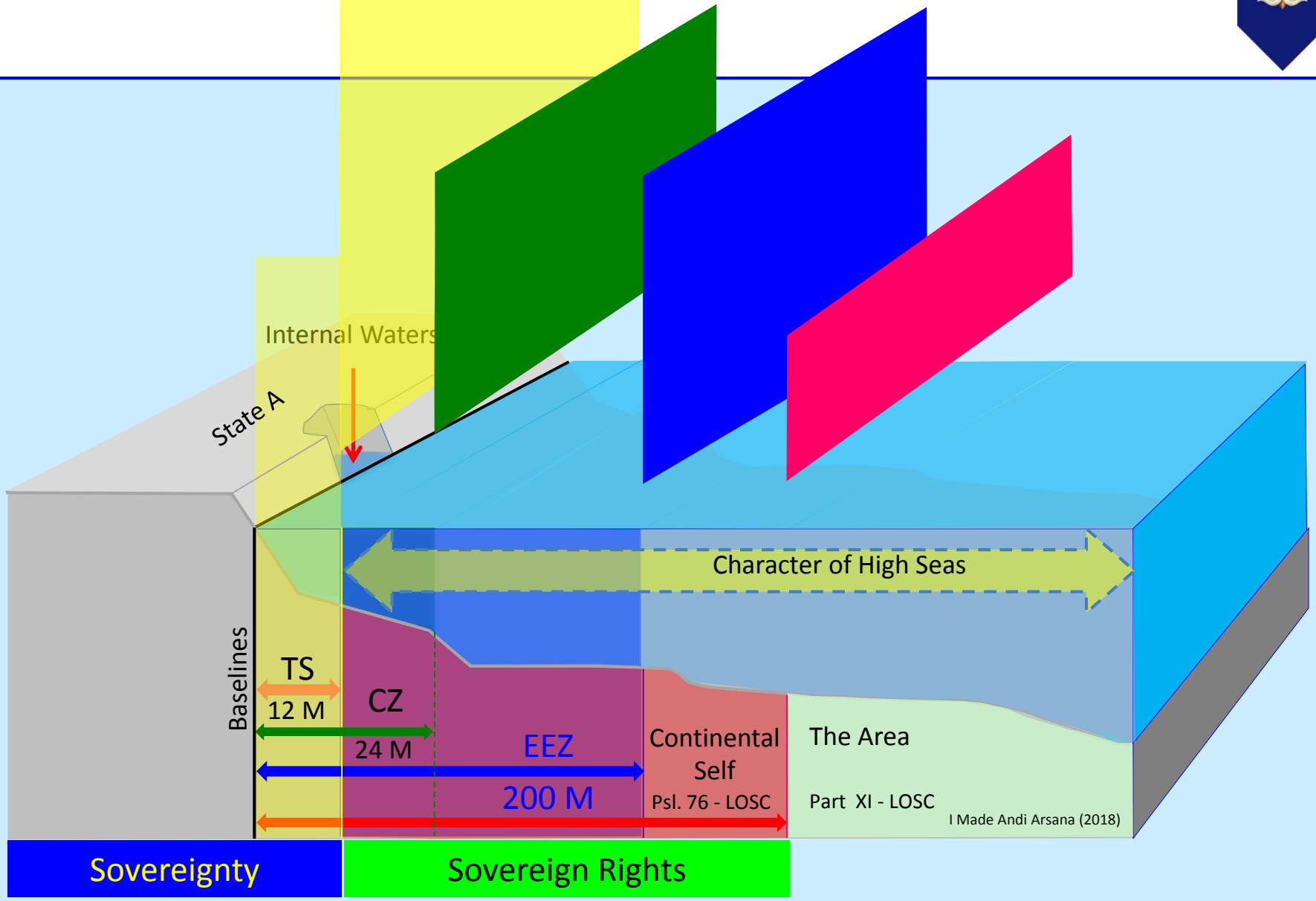
Coastline → Large scale

Coastline → smaller scale

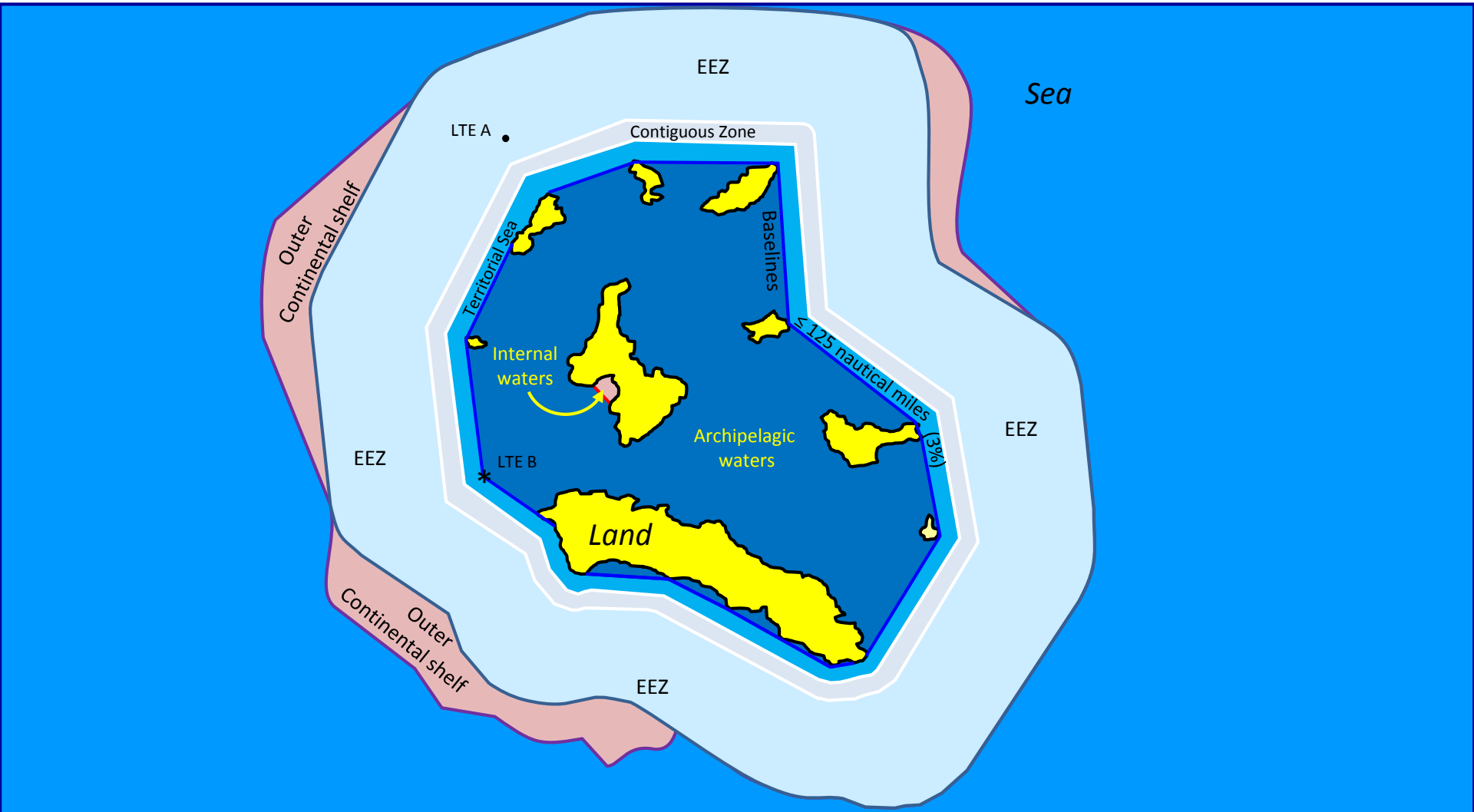


Change of coastlines due to the change of scale → Generalization/simplification

Maritime Zones based on UNCLOS

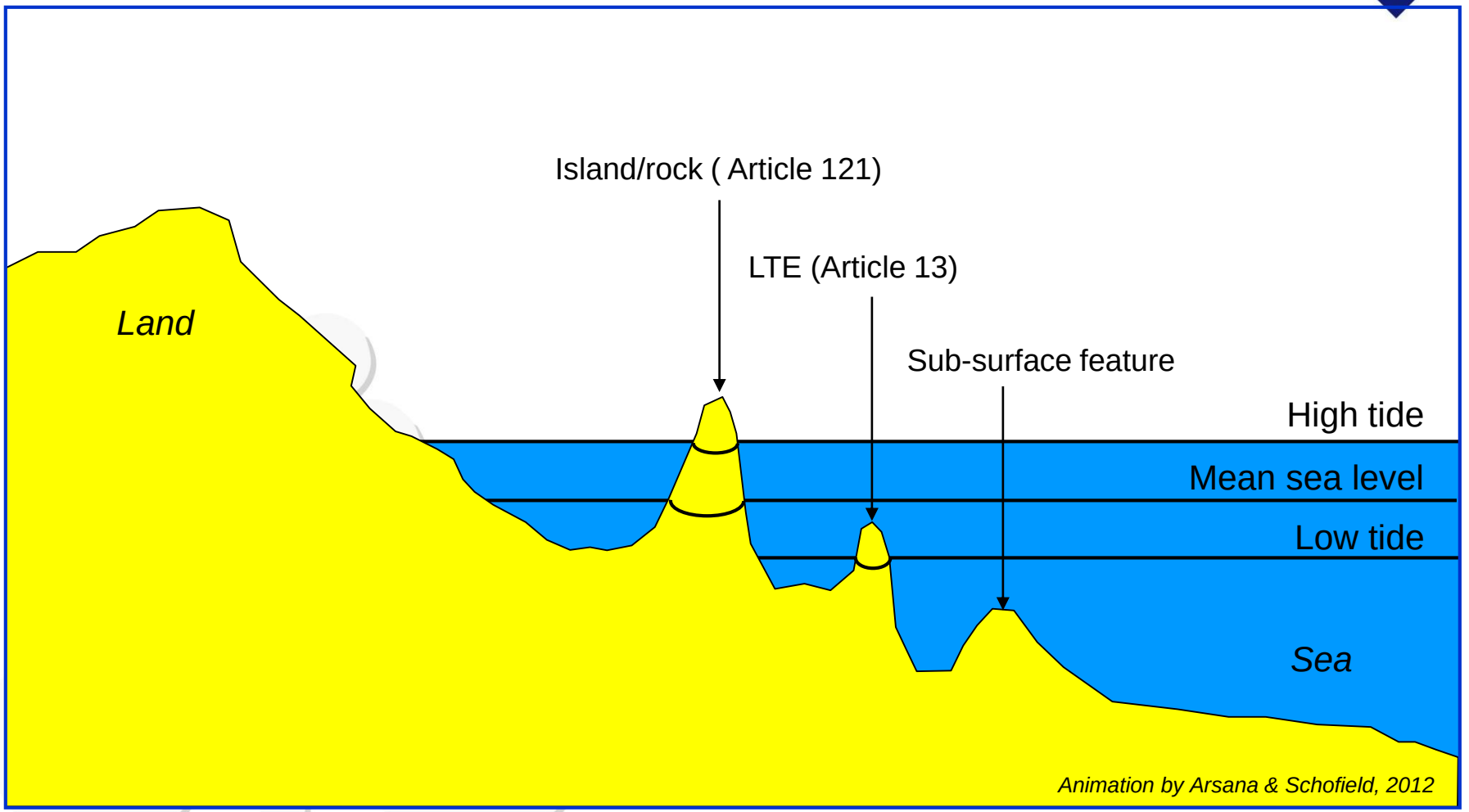


An Archipelagic State's maritime zones pursuant to UNCLOS

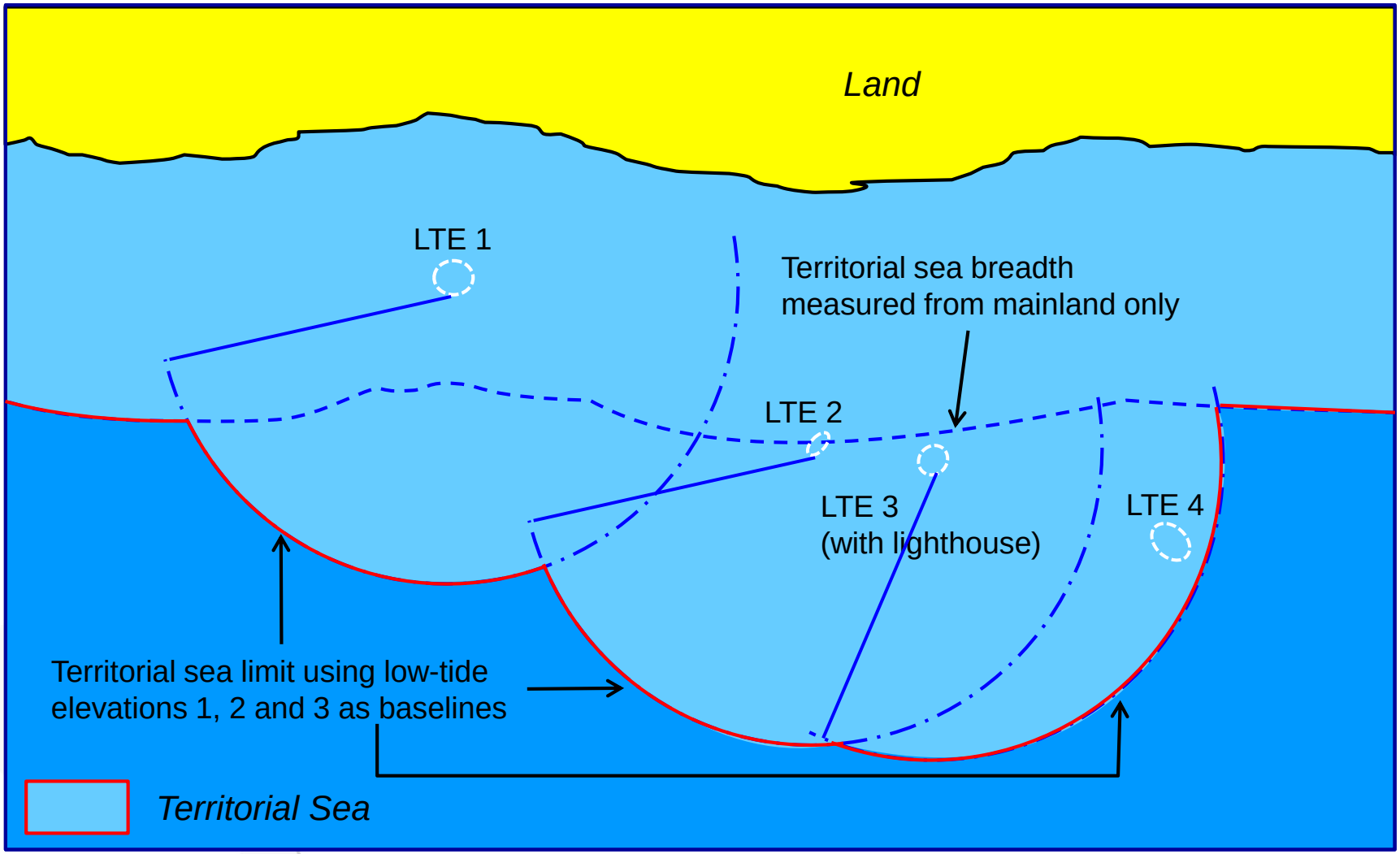


Animation by Arsana & Schofield, 2012

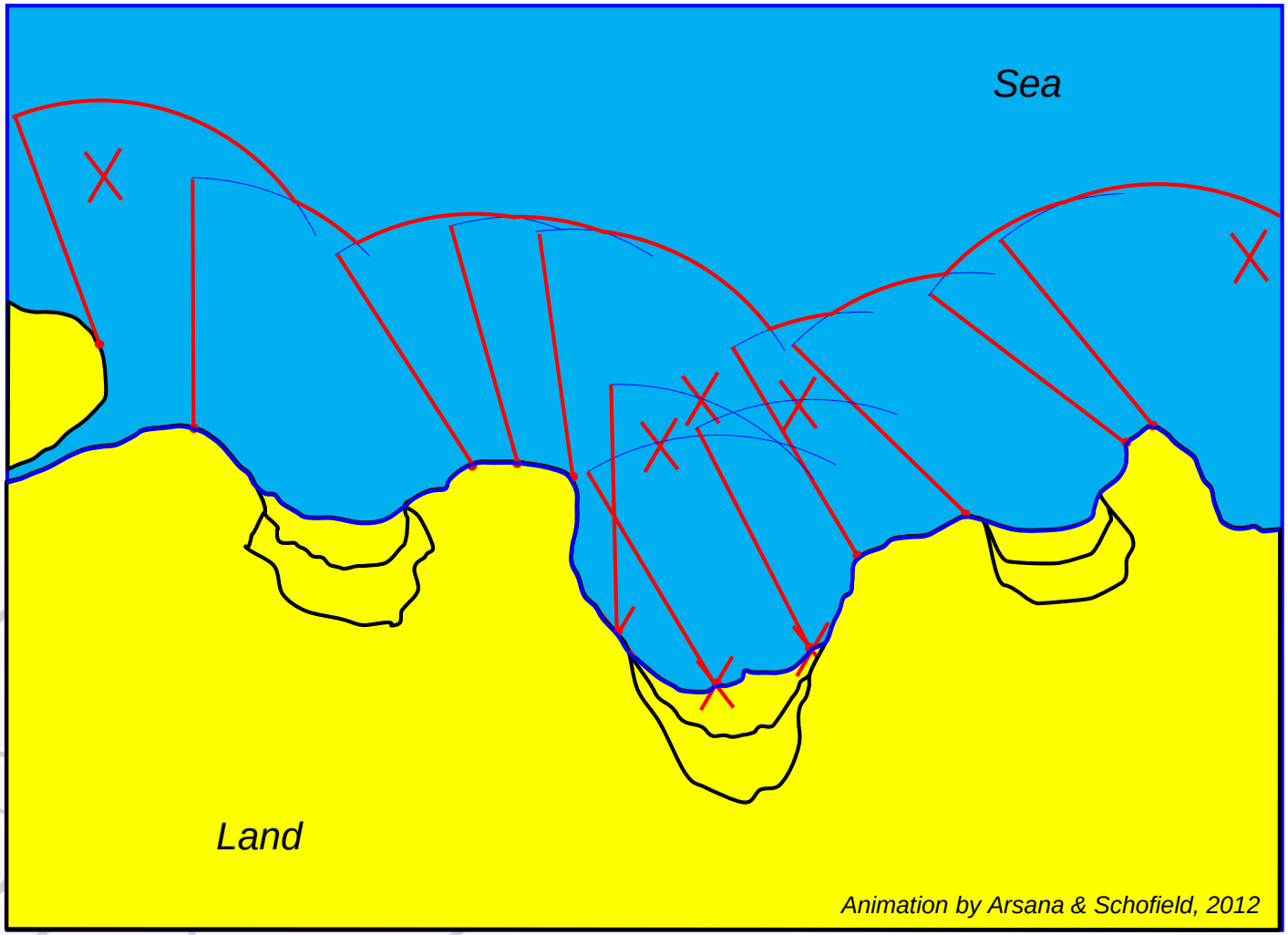
Definition of islands and low-tide elevations



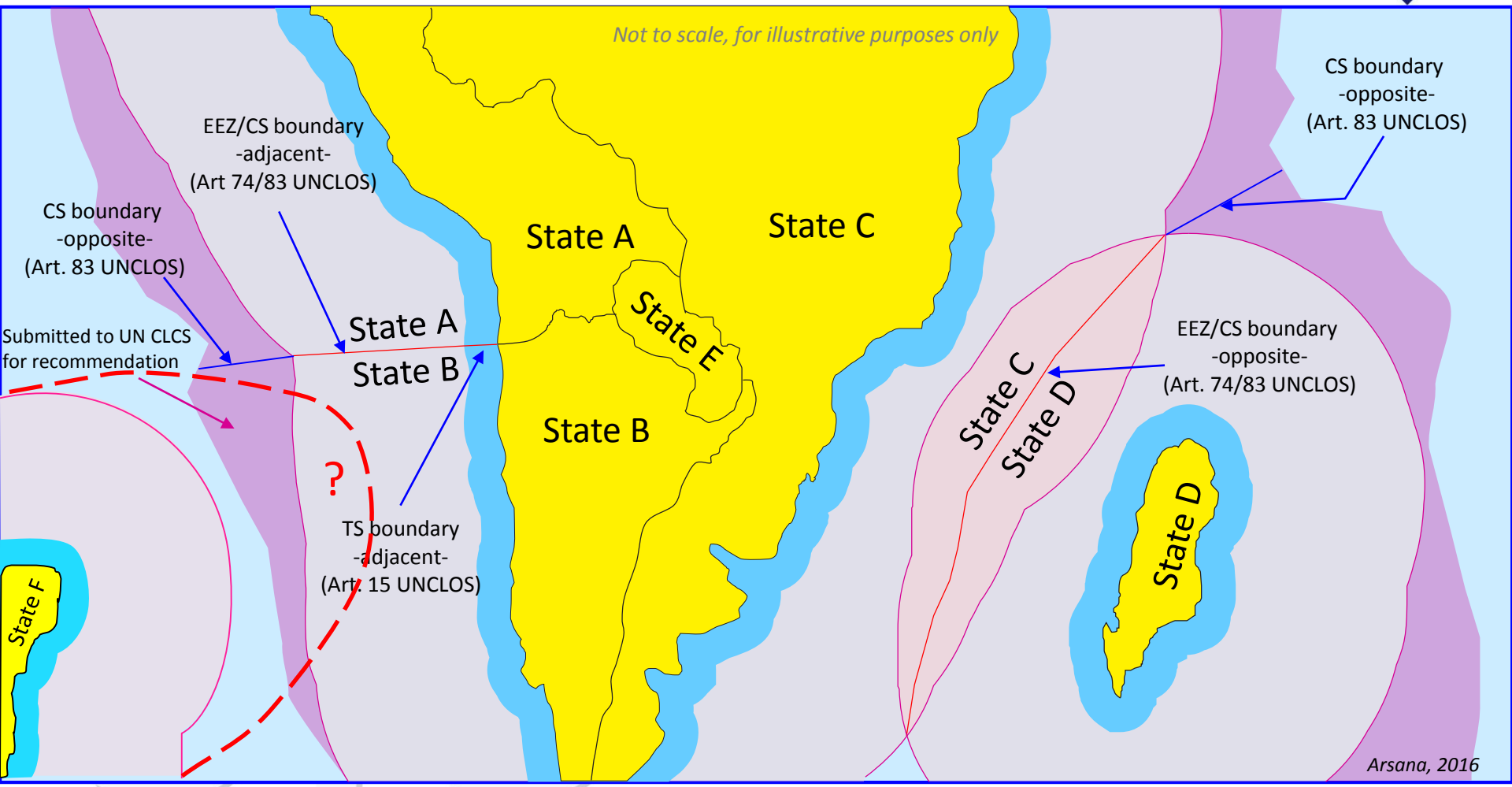
Low-tide elevations and the generation of maritime zones



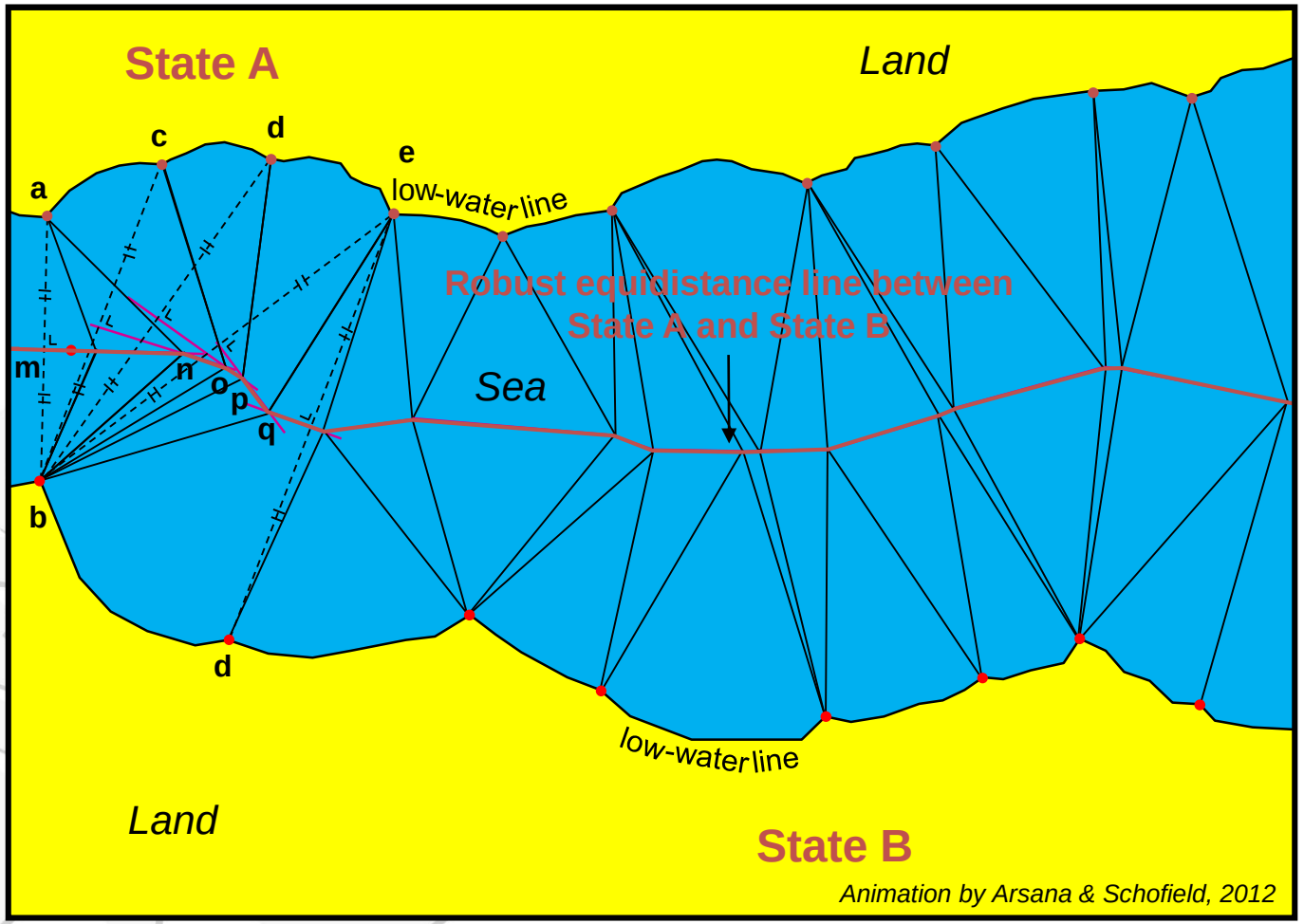
Uneven Impacts - Baselines, basepoints and maritime limits



Principles & Methods of Maritime Boundary Delimitation



The construction of the equidistance line between two opposite States



The construction of equidistance line between two adjacent States