



# The Definition of the Israeli Coast lines

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FIG Working Week 2008, Stockholm, Sweden, 14-19 June 2008



# The Purposes of the Definitions

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- ❖ **A reference for the law of protection of the coastal environment.**
- ❖ **A reference for the limit of the land cadastre and the beginning of a maritime cadastre.**
- ❖ **A reference for definition of the Israeli maritime zones.**

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**This paper will concentrate on  
the first purpose.**

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## The Israeli coast line along the Mediterranean Sea



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## The 2004 Law of Protection of the Coastal Environment:

The coast line – 0.75m above the zero of leveling as defined by the Director of Surveys.

The protected coastal environment – The area between a line 300m from the coast line land wards and a line 1 mile sea wards or a line of depth of 30m – the farer between them.

Limits of construction – Construction prohibited up to 100m from the coast line.

Construction limited up to 300m from the coast line.

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## The predefinition of the level of the coastline:

The recommendation of the professional committee:

- recent mean sea level	0.25m
- seasonal fluctuations and seasonal storms	0.75m
- anticipated rise of sea level due to warming of the Earth	0.50m
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	1.50m

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## The Definition of the Committee of the Knesset:

**0.75m above the zero of leveling.**

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## The technical plan:

### Field Survey:

- Use of existing or construct reference points along the coastline at distances up to 40 m between each other.
- Use of RTK with reference to Active Permanent Stations.
- Field measurements of 3 heights 0.75, 1.00, 1.25.

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**The Decision to measure 3 heights was taken in order to monitor a stable reference of the coast line.**

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## Problems faced during the field survey:

- A few pilot projects showed that the sand on the coast is not stable and the 0.75 line is not always measured at the same places, while the 1.00 line is stable in most of the places and the 1.25 line is always stable.

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- Part of the places were not physically accessible because of installations. The coastline at these locations was defined using photogrammetric methods.
- GPS measurements were not possible along a few kilometers due to reception problems.  
This section was measured by use of traditional methods.

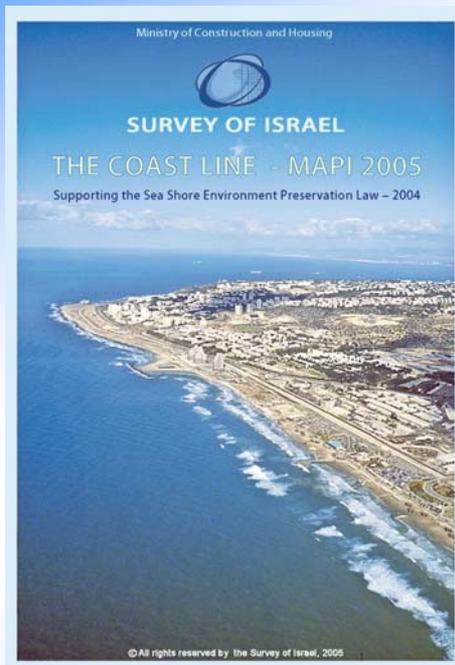
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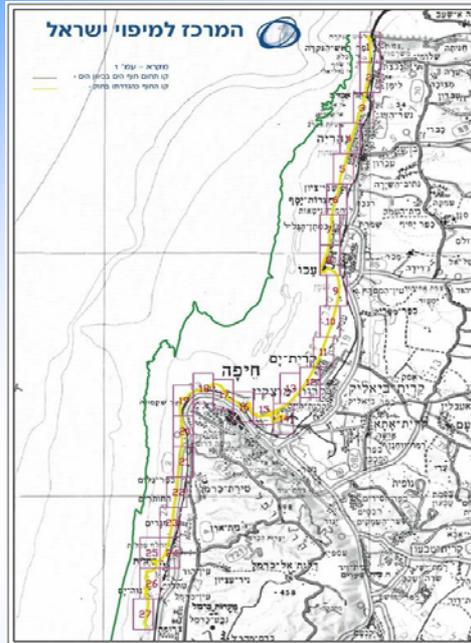
## The Results:

- ✦ All the coast line measurements were integrated into one file of coordinates.
- ✦ The official coast line was published in the Official Records by the Director General of the Survey of Israel.
- ✦ An official Atlas was published by the Survey of Israel including the file of coordinates and orthophoto maps.
- ✦ The recommendation of the DG of the Survey of Israel is to change the reference level of the coast line along the Mediterranean Sea in the future to 1.25m.

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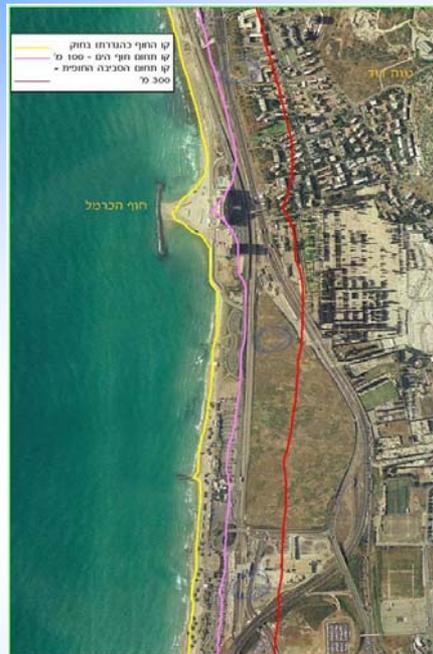


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## The coast line along the Gulf of Eilat on the Red Sea

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**In October 2007 the Knesset added an amendment to the law of protection of the coastal environment defining the coast line along the Red Sea at a level of 0.75m above the zero datum of leveling, the same as along the Mediterranean Sea in spite of the fact that the sea level at Eilat is around 0.20m above the mean sea level of the Mediterranean Sea.  
On the other hand, the sea is much less stormy at the head of the Gulf of Eilat.**

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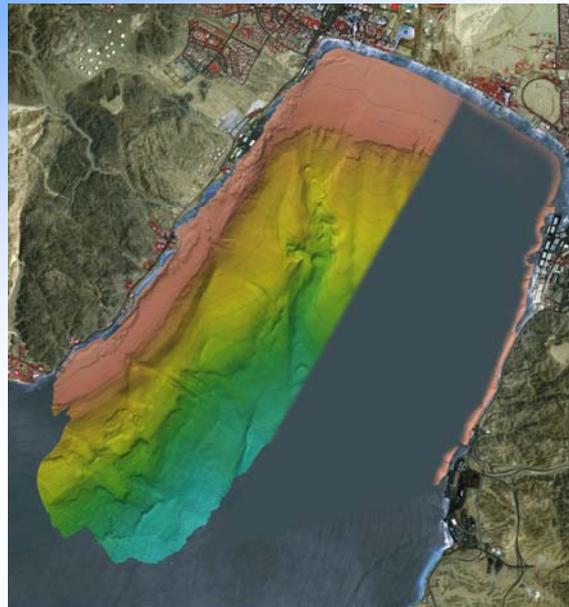
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**The coastal environment was defined as the area between a line 100m from the coast line landwards and the maritime boundary line between Israel and Jordan.**

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### The Israeli coast line along the Red Sea



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**RTK measurements referring to the APN stations were used for field survey with no reception problems.**

**Photogrammetric methods were used for inaccessible areas.**

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## **The coast line around the Sea of Galilee**

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**In April 2008 the Knesset added an amendment to the law of protection of the coastal environment with regard to the Sea of Galilee defining a level of -208.80 as the reference datum for the coast line.**

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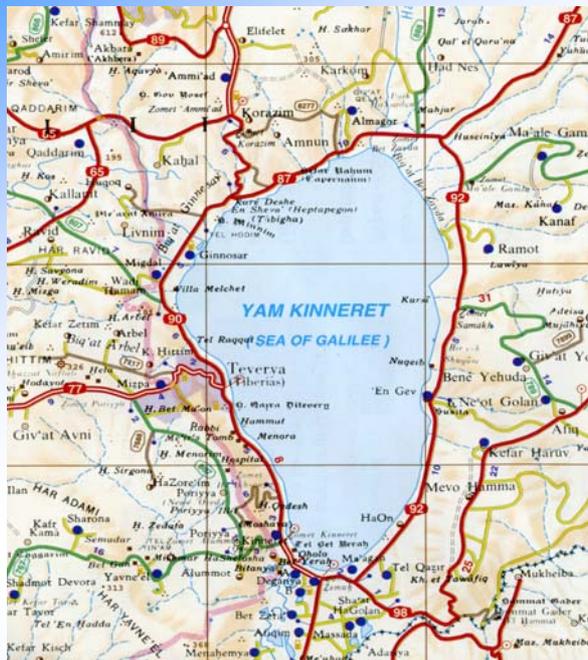


**This is a task to be accomplished by the Survey of Israel within one year.**

**Following a few dry years the current level of the sea is lower than -212. This will make the field survey easier due to the work on dry land.**

**On the other hand, the many private fenced coasts will be obstacles with regard to accessibility.**

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## The coast line for the limit of the land Cadastre

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**This line should be a stable line that will limit the land blocks and parcels seawards and be a reference line for a maritime cadastre.**

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**This line should be defined by base lines connecting base points along the coast, taking into account islands between the northern point along the Israeli coast of the Mediterranean Sea on the boundary between Israel and Lebanon and the southern point along the same coast on the boundary of the Gaza Strip.**

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