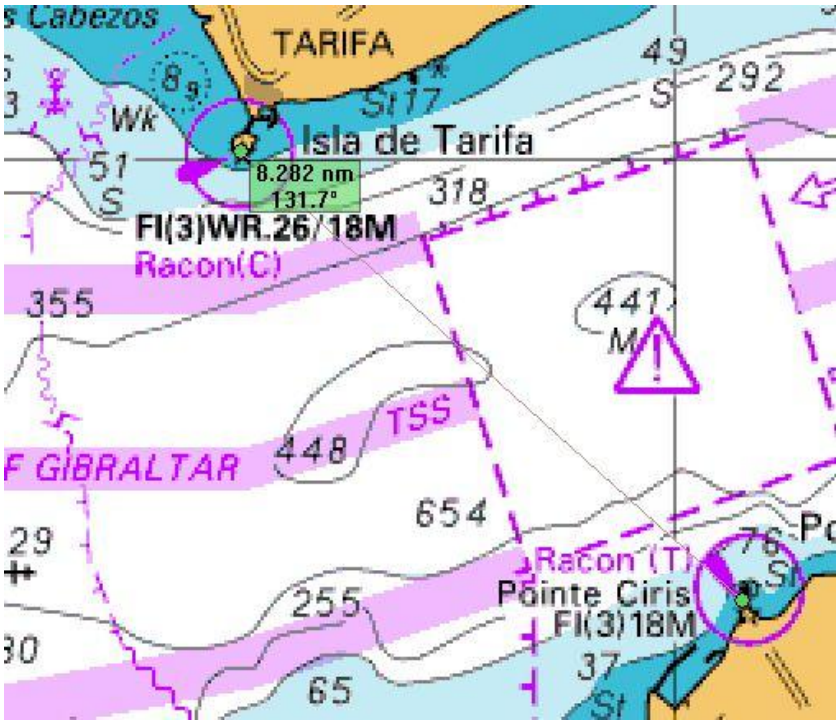
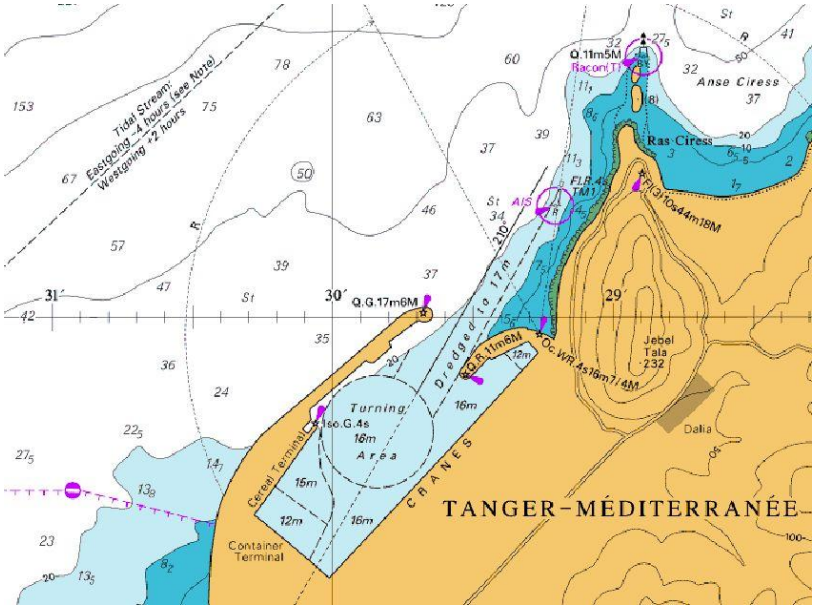
Tarifa to Pointe Ciris – Weather and Current Brief

1. The Route



The overall route (*figure 1.1)* is free of natural navigational dangers, but obviously full of commercial shipping. The pilot of the safety boat will have much more up to date knowledge of this and presumably the necessary tracking gear.

Fig 1.1: overall route, with distance and rhumb line bearing shown on the assumed route (UKHO Chart 91, Cabo de Sao Vicente to the Strait of Gibraltar, June 2009)



The final landfall at Pointe Ciris (*figure 1.2)* looks quite steep and rocky, and there will be very localised tidal races around the headland itself.

Fig 1.2: detail of Pointe Ciris (UKHO chart 1912, Approaches to Tanger Mediterranee, July 2009)

2. Tides and Currents

Your pilot should have all this information – for background, however, here is the US National Geospatial-Intelligence Agency's sailing directions (National Geospatial-Intelligence Agency, 2010). The sections particularly relevant to your swim are red.

In the middle of the strait, the E current commences at about the time of HW at Gibraltar and the W current about 6 hours later. As the shores are approached on either side, the times at which these currents commence becomes progressively earlier. In the central area of the W part of the strait, the current attains a rate of 1 knot S of Cabo Trafalgar and 1.7 knots S of Punta Camarinal (36°05'N., 5°48'W.). In the central and narrower area of the E part of the strait between Isla de Tarifa (36°00'N., 5°37'W.) and Europa Point (36°06'N., 5°21'W.), the currents attain rates up to 2 knots in each direction. Rates increase from the central areas towards the shores on both sides of the strait and currents attain rates up to 3 knots in each direction inshore. In the central area, the currents set in the direction of the axis of the strait, but near the land they generally follow the direction of the coast.

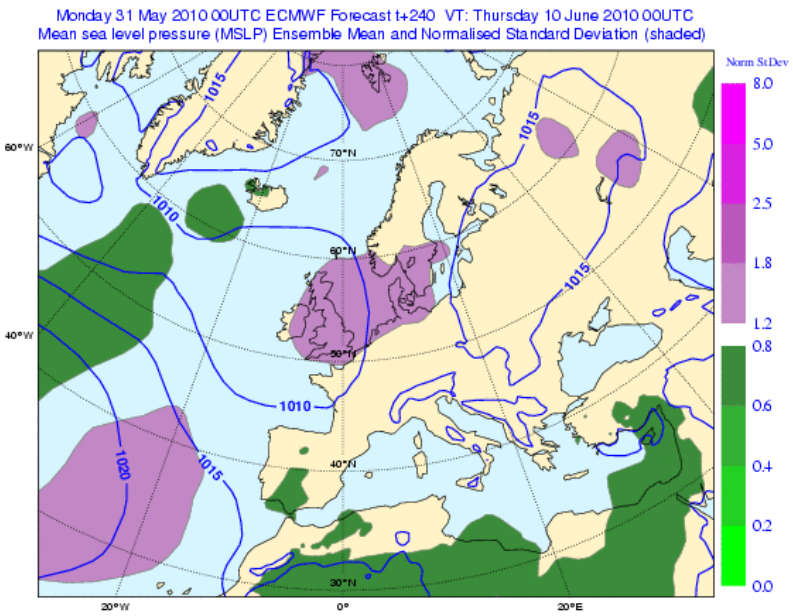
Tidal races or overfalls may occur in the deep water within the strait. Tidal races also occur off most of the salient points and eddies form in the bays between them. On the N side of the strait, a tidal race, known as Riza del Cabo, extends SW from Cabo Trafalgar to Bajo Aceitera, 1.8 miles SW. This race is always present, whatever the state of tide, and its strength depends on whether it is springs or neaps. It is reported to be the most violent race within the strait. During heavy weather and when the tidal current is running strongly, this race may extend as far SW as Banco del Hoyo. During the strongest period of the tidal current, a race of considerable violence forms over and in the vicinity of Bajo de Los Cabezos (36°01'N., 5°42'W.). In heavy weather, it may extend entirely across the strait. Comparatively smaller races also occur off Isla de Tarifa, Punta de Cala Arenas (36°03'N., 5°27'W.), close E of La Perla, and Europa Point. On the S side of the strait, strong tidal races occur off Cap Spartel and 4 miles E of Pointe Judios. Overfalls, resembling breakers, occur N of Tanger (35°47'N., 5°48'W.). Small races occur off Pointe Ciris (35°55'N., 5°29'W.) and all the other salient points located E of Punta Almina (35°54'N., 5°17'W.). During the strongest period of the tidal current in each direction, the most violent races occur off the coast and over the banks between Pointe Malabata (35°49'N., 5°45'W.) and Hejar Lesfar (3.2 miles ENE).

3 Thursday	**4 Friday**	**5 Sat**	**6 Sunday**	**7 Monday**	**8 Tuesday**	**9 Wed**
0027 0.27	0124 0.30	0235 0.32	0351 0.30	0452 0.27	0542 0.22	0015 0.74
0711 0.71	0803 0.67	0905 0.65	1012 0.64	1114 0.66	1209 0.69	0626 0.17
1247 0.25	1345 0.29	1458 0.31	1611 0.31	1711 0.28	1801 0.23	1256 0.72
1939 0.74	2033 0.71	2132 0.69	2232 0.69	2327 0.71		1843 0.19
	half moon		**neaps**			
10 Thurs	**11 Friday**	**12 Sat**	**13 Sunday**	**14 Monday**		
0100 0.78	0143 0.82	0228 0.86	0315 0.89	0403 0.91		
0707 0.12	0748 0.08	0828 0.04	0911 0.02	0953 0.02		
1339 0.77	1424 0.81	1509 0.85	1556 0.89	1642 0.92		
1922 0.14	2003 0.11	2045 0.08	2129 0.07	2214 0.08		
		new moon		**springs**		

Table 2.1: Gibraltar tide tables. Times are in British Summer Time – subtract 1 hour for UT (Proudman Oceanographic Laboratory, 2010)

3. The Weather

In a similar manner to the winds up the east coast of South Africa, the wind through the Gibraltar Straits has two main modes – out (the Levante, or Levanter for the uncouth English) or in (the Poniente). The crucial point is the location of the N Atlantic high – if it's solidly over the Azores, then the Straits will be to the south of it, giving easterlies there, and if it's pushed down with a ridge going towards Morocco then westerlies will go through. The two best medium range forecast agencies (the European Centre for Medium range Weather Forecasts - ECMWF - and the US Navy) give differing views for the middle of your swim window (*figures 3.1 and 3.2).*



This is not what you need to hear. However, the forecast situation is quite unstable over the next few days, up to Friday June 4th. By then the situation will start to stabilise, and it will become clear which the correct option is. That should then stay for most of your window.

Fig 3.1: ECMWF ensemble forecast for 10th June 1010, 00Z (http://www.ecmwf.int/products/forecasts/)

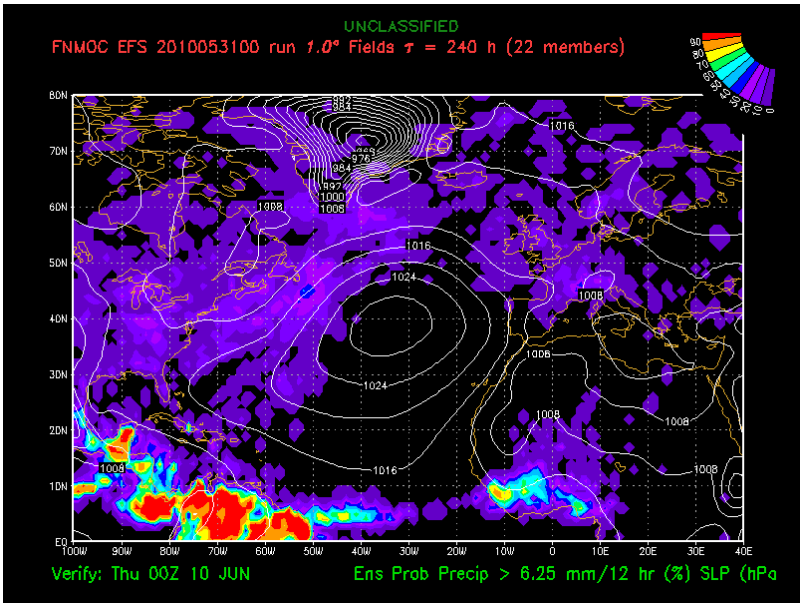


Fig 3.2: US Navy ensemble forecast for 10th June 1010, 00Z (https://www.fnmoc.navy.mil/efs/no_atl_prob_precip_all.html)