

THE HIGH-SPEED RAILWAY FROM MURCIA TO ALMERÍA

I am a member of the Friends of Almería Railways, ASAFAL. The Society organises visits to various places of railway interest. Usually I cannot go to these as I am not in Spain at the time. However, this time (November 2010) I was able to go on a most interesting visit. This was to see the work in progress on the new high-speed railway line being constructed between Almería and Murcia in south-east Spain. The map shows the proposed route of the line as at October 2010.

Key.

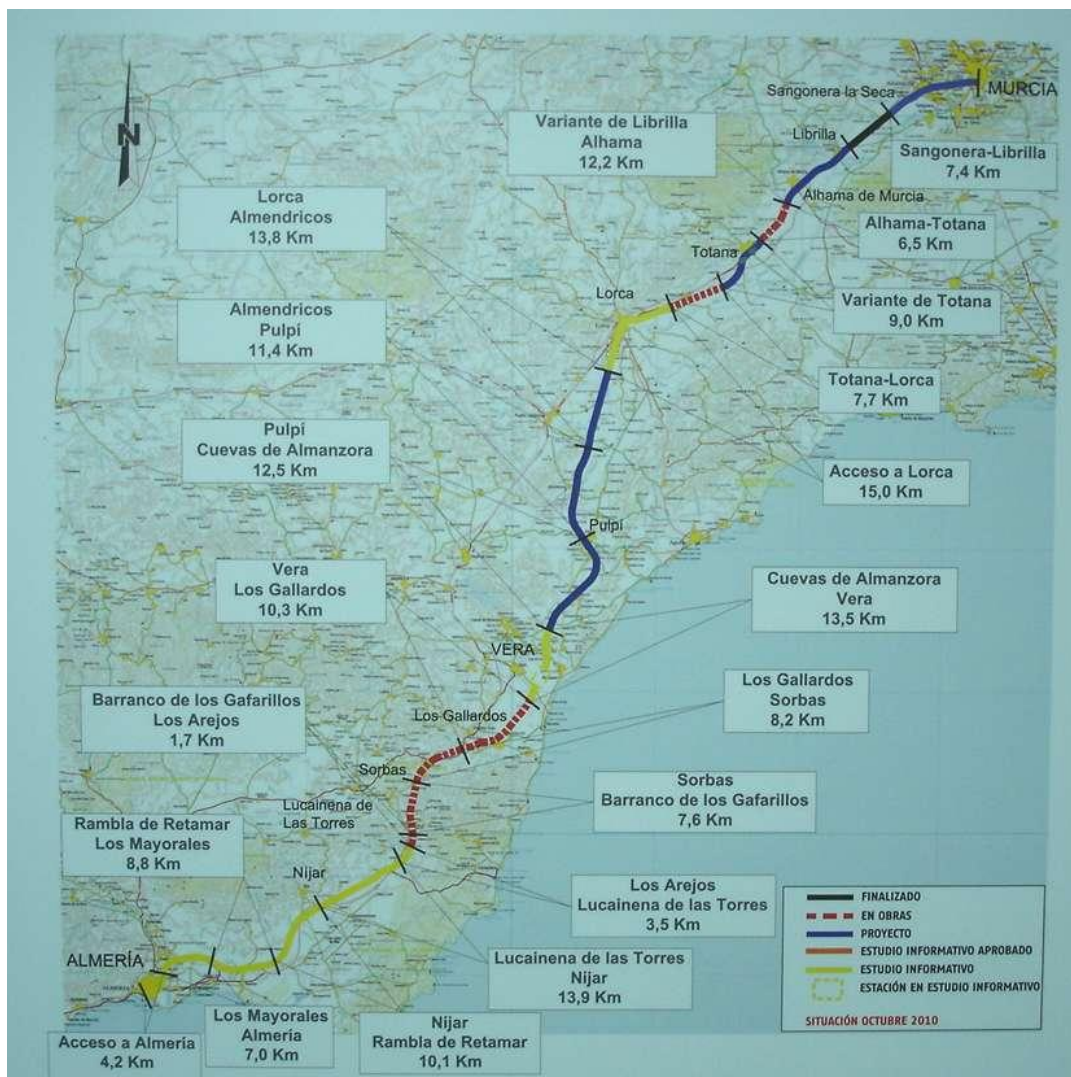
Black lines = work completed

Blue lines = projected line

Red solid lines = consultation study approved

Yellow lines = under consultation

Red dotted lines = under construction

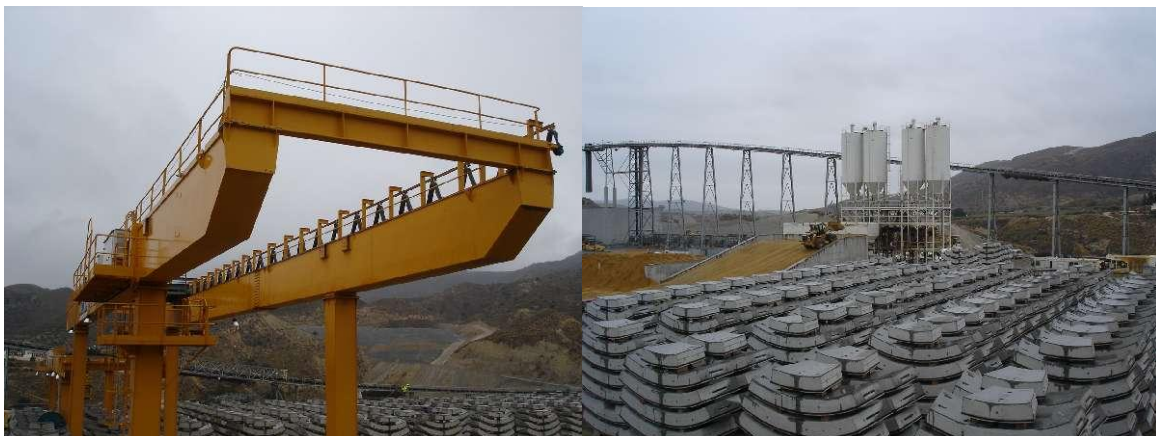


When completed the time from Almería to Madrid will be drastically cut and Almería's rail isolation from the capital finally removed. There will be two intermediate stations, Lorca and Vera.

I wonder what the builders of the GSSR with their picks and shovels would have made of it all.



The visit concentrated on the "under construction" section. We first went to the main construction site at the village of Herrerias. Here we were issued with hard hats and yellow reflective jackets with "ADIF" (administrador de infraestructuras ferroviarias), on them. ADIF is the construction company in charge of the project. We then moved to a room with large panels explaining each section. Using these, the director of works, Diego Martinez Sanchez gave a detailed explanation of the work being carried out.



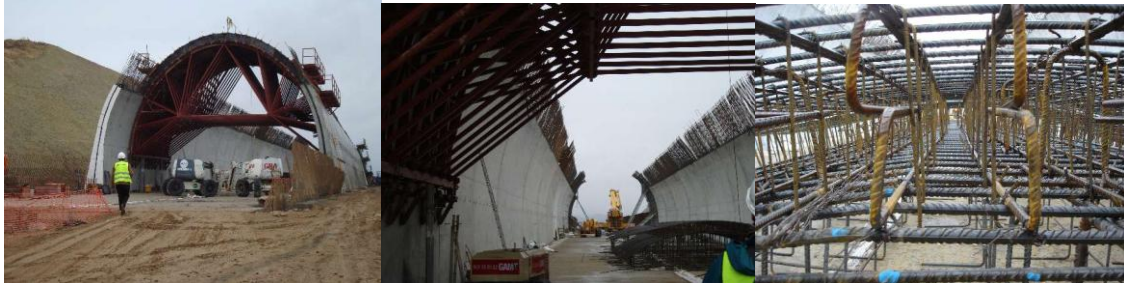
After this we went outside. Unfortunately it was raining and did so all day. This did not spoil the day but we all got very muddy! From a balcony we could see the opening of the Sorbas tunnel, which we would visit later. We could also see various cranes and bulldozers moving stuff around. In front were hundreds of concrete shapes that were destined to form the completed tunnel. We could not see the tunnel boring machine as this was deep inside the tunnel.



Back on the coach, we travelled a few miles to the part constructed bridge over the river Jauto. This is an interesting project. A semi-circular supporting arch has been built and the actual bridge will be supported by the arch.

Back to the coach, this was getting muddier by the minute! I bet the coach company cursed us when the coach got back to the

depot! We made our way to a narrow road near Garrucha, to what was described as “an artificial tunnel”. The construction was of the type known in the days when they built the London underground network as “cut and cover”. The reason for ADIF doing this was that the ground over the tunnel was needed for the passage of animals. It will be 275m long. It seemed to me to be an expensive way of doing things but I guess they knew what they were at.



Finally, we went back to Herrerias and the mouth of the Sorbas tunnel. This is a 7km twin tunnel going from near Sorbas to the Barranco de Gafarillos, under the mountains. We paddled our way to the entrance where a huge fan was blowing hot air out of the tunnel.



Wet, muddy and bedraggled, made our way back to the construction village where we were treated to very welcome drinks and snacks.

So ended a very enjoyable and informative visit. My thanks to ASAFAL and ADIF.

Don Gaunt

Technical data.

General.

Although stated as a high-speed line, the Murcia to Almería link will only run at a speed of 110 km/h on open sections and 80 km/h in tunnels. ADIF have claimed completion within 3 years. Perhaps they will, but there seems an awful lot left, particularly given that some of the track way has not yet been fully agreed.

The Sorbas tunnel .

I understood from the talk by Sr Sanchez that a short section of the tunnel near Gafarillos will have to be dug without the tunnel borer due to the unstable terrain, see bullets below.

- The budget for the tunnel is just over €250 million.
- Most of the tunnel is straight, but there are three slight bends.
- There is an average slope down towards Almería of 12.5%.
- Most of the tunnel towards Almería is through conglomerate, marl and sand.
- The last km or so is more complicated and a borer cannot be used.
- It consists of gypsum, anhydrites, dolomites, and fault lines
- At the far mouth are black shales and insertions of quartzite
- The borer is of the “double shield” type.
- This means it can excavate and line the tunnel at the same time.
- The machine is by Herrenknecht a multinational. See the internet for details.
- 19 linking tunnels will also be built.

Section from the Sorbas tunnel to Los Gallardos

This 8km section does not require any tunnels but the terrain is like that faced by the builders of the Linares line between Almería and Guadix. That is to say, virtually no flat land at all so that the section comprises of bridges, embankments or cuttings. There will be six viaducts of which the most impressive will be over the river Jauto, see picture above. This will be 120 metres long. The longest will be over the Rambla Almocaizar at 534 metres.