



***THE NORTH STAR CHRONICLES – a newsletter primarily for the model railway fraternity***

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***Editorial***

Every now and again something which has been right under your nose but been unaware of suddenly pops up. Such is the case with the layout which is featured in this month's newsletter.

***The Waterkloof SAR Layout***

Located in a suburb of Pietermaritzburg and housed in a single garage, this double deck HO SAR layout is set in the years between 1980 and 1990 thus providing an opportunity to run steam, diesel and electric locomotives. Construction of the layout commenced six years ago with each level taking about 3 years to complete.

The layout is the work of Henry van Wyk who has been involved in the hobby for many years and has a number of novel features not least of which are the Operating Instructions. Being operationally orientated, this document is an excellent introduction to the layout.



***What you see upon arrival. Car shares the garage with the layout!***

Note the aluminium strut on top of the gap of the wood plank. The former carries the high line across the garage door gap. Also see the photograph at the end of the article.

***Stations (this is drawn directly from the Operating Instructions)***

The layout has six stations:

***Waterkloof*** The main station, yard and loco servicing facility.

***Aloes*** Here you will find an auto manufacturer and cement plant. There is also a small passenger shelter, but there is no passing siding on the main line.

***East London*** This is the harbour section and has a fuel and oil loading facility, a container depot, grain handling facility and a general freight area.

***Bloemfontein*** This is a passenger facility.

***Power*** Here we find a coal mine and a power station. The coal mine supplies the power station with coal. Due to the mountains in the area a train has to traverse the whole system to get to the Power station.

***Vlakteplaas*** This is a small Karoo town with a grain silo complex, an abattoir and a small passenger station and a steam locomotive servicing facility.



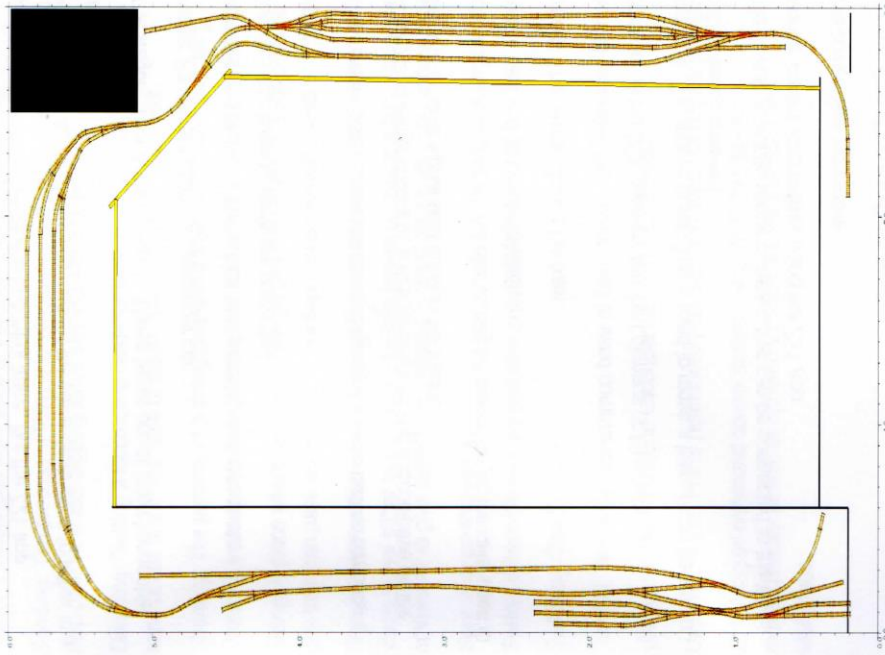
***The view of the layout looking straight ahead from the garage door  
Note the lighthouse on the left which has a rotating light inside it.***



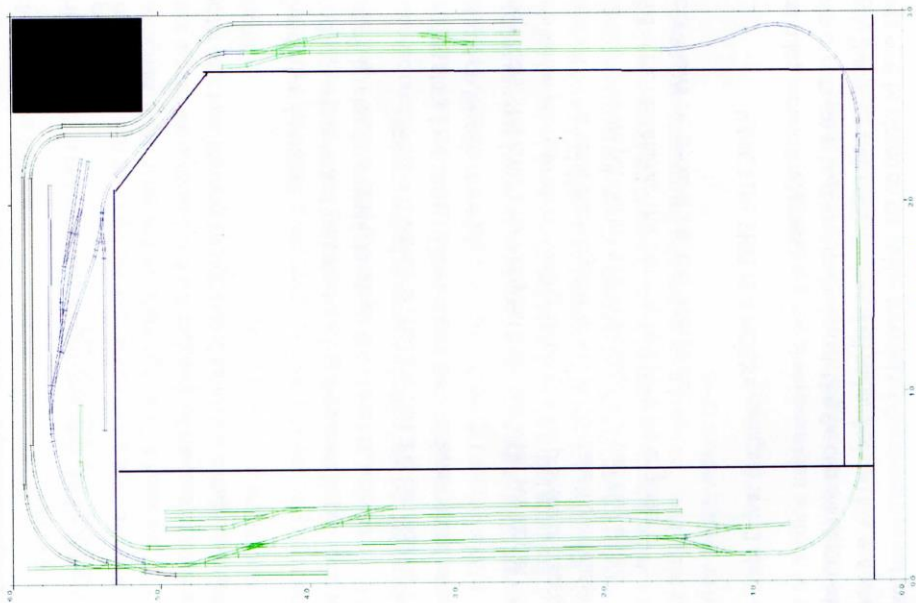
***Waterkloof station with Vlakteplaas, model of a Karoo station above***

**Plan of both levels (ex the Waterkloof Operating Instructions)**

**12.2 Plan of upper level**



**12.1 Plan of Lower level**





### ***Power and Aloes stations***

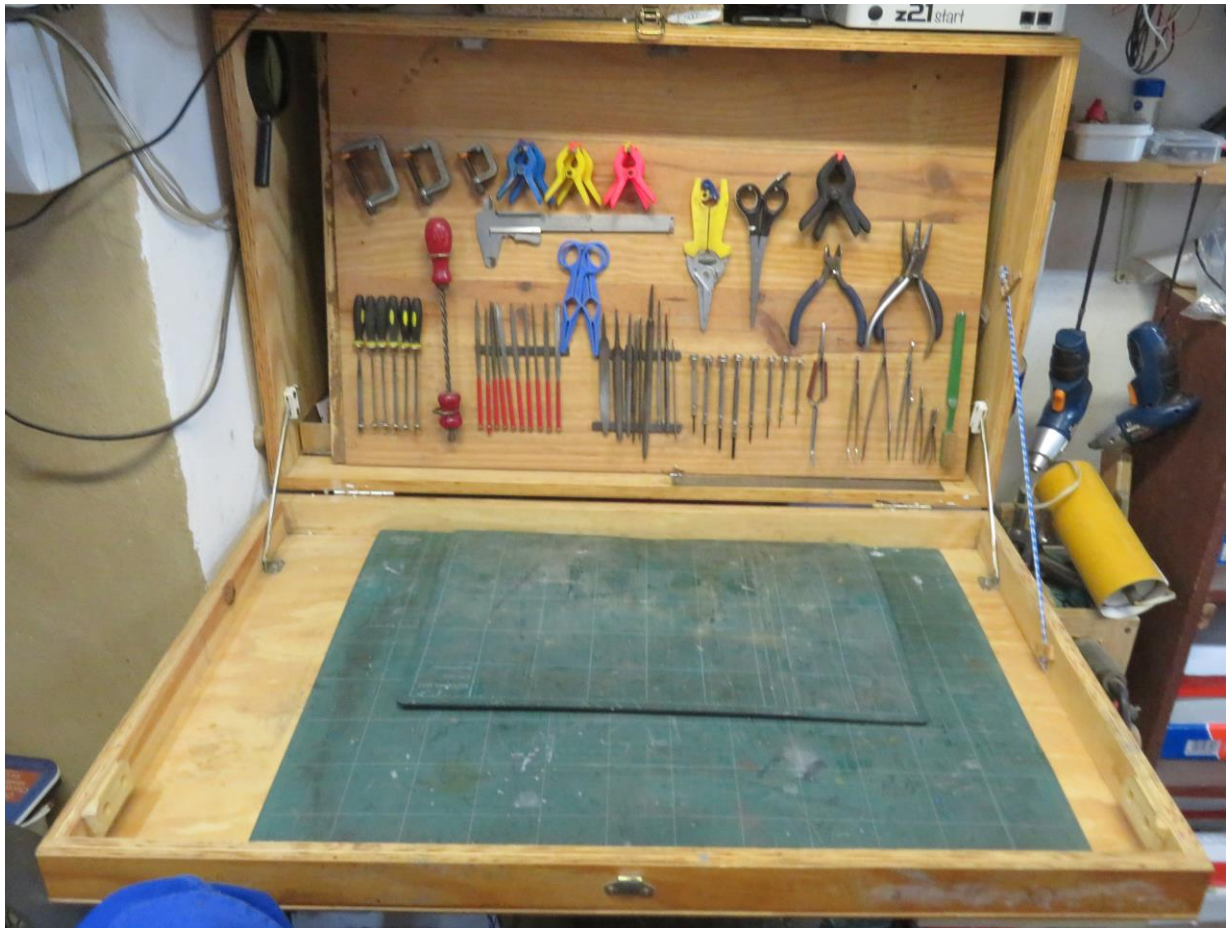
Note the use of a mirror above the former (top right) to give operators sight of the hidden staging yards behind the scenes. This device was last seen in Ron Speight's Layout in Knysna (refer NSC October 2021.)

### ***Features***

Before moving on to the Waterkloof layouts operating Instructions, some of the less obvious features are described. The first of these is concealed behind the box lid below.



So what lies there?



The answer is Henry's fold down work bench!  
But wait, there is more, as a famous advert of yore used to say!



Now that is clever, an idea that many of us who are short of space could copy.

## **Controllers**

This is a DCC operated system. At the heart of it are several components set out below.



**Lokmaus 2**



**Fleischmann MultiMaus**

These controllers are connected to their power sources which sit on top of the workbench/toolbox above. (Refer photo at bottom of page 4.) The power sources comprise a Roco Z21 and a Fleischmann MultiMaus. There is a lot of flexibility regarding the selection of a loco but they are just variations on the standard DCC theme.

One clever such variation is used in conjunction with the Z21 app (cell phone, tablet, laptop or desk top operated) Instead of selecting a loco via a number (i.e. its address) each loco is identified and selected via a photograph which you tap on to select it.

## **Decoders**

These are a mixture of Roco, NCE, Digitrax, Lenz, and ANE. Econami sound is fitted to one of the diesels.

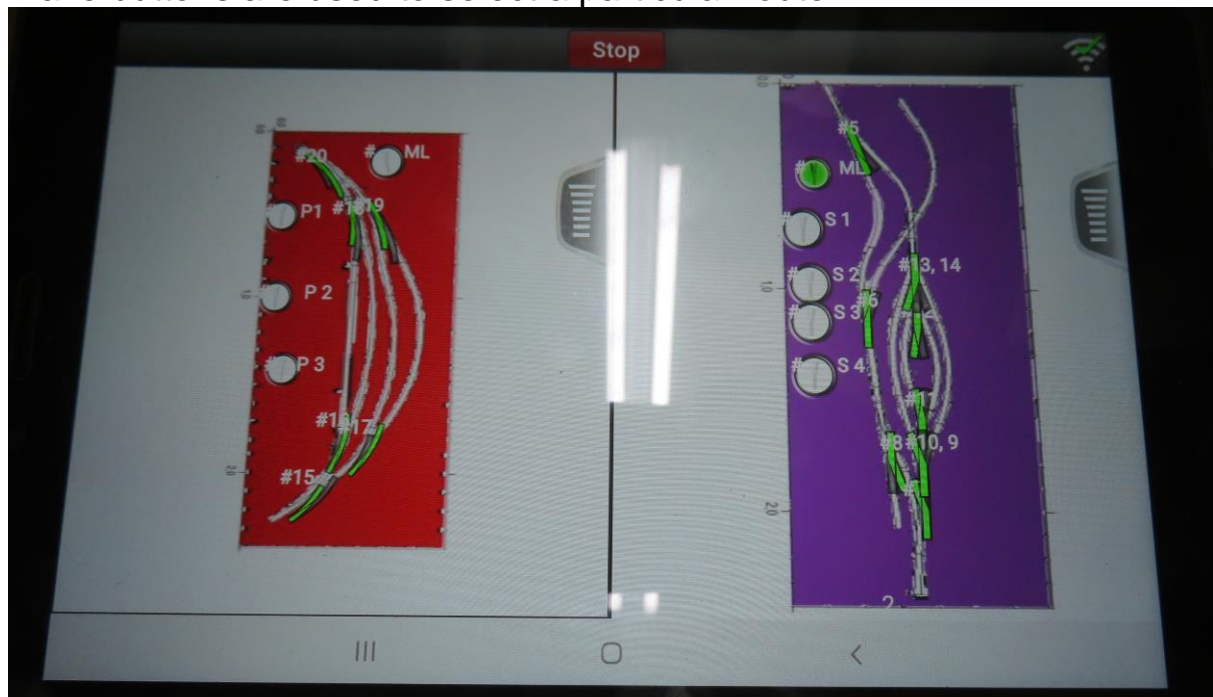
## **Control Panels**

As the Operating Instructions say, these are mounted like drawers so they can be stored out of the way when not in use. Points/turnouts (the latter is used in the Operating Instructions so will be used here) at each station are controlled from the control panel except for Bloemfontein and Power and the two spur tracks at the latter where the dispatcher fulfils the control function.



### **Aloes control panel**

Control panels are mounted like drawers so that they can be stored away when the layout is not in use, shows the tracks diagram. Push to make buttons are used to select a particular route.



### **Electronic control panel on a tablet for Bloemfontein and Power Stations**

Routes are selected by tapping on the relevant icon.

time	sequence	Vlakteplaas	L/R/T/B	Done
08:00				
08:02				
08:04	1	Coal Empty runs through		
08:06			L	
08:08	2	suburban arrives		
08:10	3	Suburban departs	L	
08:12			R	
08:14				
08:16	4	Orange Express meets and Xs Transkaroo		
08:18	5	Transkaroo meets and Xs Orange Express	L	
08:20			R	
08:22				
08:24				
08:26				
08:28	6	Coal Full runs through		
08:30			R	
08:32	7	Mixed Vkp exchange empties for loads vice versa		
08:34			T	
08:36				
08:38	8	suburban Stops		
08:40			Wait	
08:42				
08:44				
08:46				
08:48				
08:50	9	Mixed 2 Pwr runs through		
08:52			L	
08:54				
08:56				
08:58				
09:00				
09:02				
09:04				
09:06				
09:08				
09:10				
09:12				
09:14				
09:16				
09:18				
09:20	10	Blue train runs through		
09:22			R	
09:24				
09:26				
09:28				
09:30				
09:32				
09:34				
09:36				
09:38				
09:40				
09:42				
09:44				
09:46		Suburban departs		
09:48	11	Milk Train arrives, drops off coal, passengers on/off	R	
09:50	12	Milk train departs for Waterkloof		
09:52			L	
09:54				
09:56				
09:58				
10:00				

**Each station has a timetable with instructions. Above is for Vlakteplaas**



**How right of way access is controlled**



**Locos at sanding station. Note signals in background. Entire layout contains integrated fully operational electric and semaphore signalling system.**



### **Class 16DA**

Diesel and electric motive power is a mixture of upgraded Lima, Athearn, Frateschi, Atlas and Kato.

Steam locos include DJH kits, scratch built and kit bashes. A 15F is powered by a Bachman Spectrum 44 tonner chassis concealed in the tender. A class 25 Condenser was built from a Bowser 4-8-4 Northern kit and a class 26 Red Devil is awaiting completion on another 4-8-4 chassis. A class 16E is being built on a Lima 4-6-2 chassis.



***The layout is full of quirky detail. Above photo features a lady waiting for business! Another example shows a drug deal being negotiated.***



***Layout ready for bed! Section over garage door lifted. Mine host at front.***

I am grateful to Henry for sharing his layout which is well worth a visit. Those who would like to visit and perhaps participate in an operating session should contact Henry via email at [modeltraindoc@gmail.com](mailto:modeltraindoc@gmail.com) or cell phone 079 832 1759. Those who cannot visit but wish to have further sight of the layout can look it up on You Tube at: <https://www.youtube.com/channel/UCbphsjMu4C-6oHGMxBIqCuw> or Henry's website: [sartrains.weebly.com](http://sartrains.weebly.com)  
The end.