SOUTHERN BELLE

For the Amstrad CPC 464, for the Amstrad CPC 664 and CPC 6128

with cassette player and suitable leads

Welcome to the Southern Belle – a realistic simulation of a King Arthur class steam locomotive hauling a passenger train from London to Brighton during the early 1930s.

The task before you is to take a steam locomotive and its train from London (Victoria) to Brighton. You must take the roles of both Fireman and Driver. There are many levels of play and we suggest you read the instructions carefully, then watch the computer demonstration for a few minutes. Study the control settings and then attempt the Training Run. Gradually you will improve your skill and eventually you will be able to take the Southern Belle to Brighton in accordance with the timetable using the coal and water available to the optimum efficiency.

To load the game type CTRL with ENTER (small button), start the tape at the beginning and wait until the main menu appears on the screen. Note that after one minute on the menu screen the computer will automatically select a high speed run showing the whole route. To return to the menu press X.

GETTING STARTED

Selecting The Demonstration

Load the program in the usual way. Press key 0 when the main menu appears and then press the ENTER key when the timetable is displayed. The locomotive will pull slowly away from Victoria Station and accelerate past Battersea Power Station. Observe the use of the various controls and study the readings on the gauges. Press COPY to return to the main menu.

The High Speed Run

If ENTER is pressed when the main menu appears the program executes a High Speed Run along the entire line in about twelve minutes. All the main features along the way including Battersea Power Station, Clapham Junction Station and Clayton Tunnel pass in quick succession. To exit press X.

Starting a Training Run

Press 1 when the main menu appears and 1 again for the locomotive control menu. This will give you control of the Regulator, Cut Off and Brake only. The remainder of the controls will be worked by the computer. Read the schedule displayed and then press ENTER.

With the locomotive standing at Victoria Station open the Cut Off fully by pressing C four times. Half open the Regulator by pressing R twice. After a few moments the locomotive will pull slowly along the platform and out of the station.

Observe your speed display in the top right hand corner of the screen. When you are traveling faster than four miles per hour press R twice more to open the regulator fully. The locomotive will then accelerate more rapidly as it climbs the steep incline away from the station on its way over the River Thames and past Battersea Power Station. If you open the regulator too soon the locomotive driving wheels will slip on the running rails leading to a loss of traction.

To exit from a Training Run press COPY.

Screen Layout

On the left hand side of the screen is the view of the cab, controls and the line ahead. Above this is a red station sign naming the next station or feature that you will encounter. Below is the message area, within which any pertinent information is relayed to you. To the right are three separate sections. The topmost shows the coal and water remaining in the tender and the speed at which you are running. The centre section displays one of three options, a signalling area which shows you a full colour picture of the next signal that you will see, or the gradient and profile for the next 1.25 miles, or the position of the train. Below this is a clock showing the present time to enable you to adhere to the timetable.

THE CONTROL KEYS

Locomotive Control Keys

CONTROL	INCREASE SETTING	DECREASE SETTING
Sound Whistle	W	
Stoke Fire	ENTER	
Regulator	R	CTRL + R
Vacuum Brake	V	CTRL + V
Cut Off	C	CTRL + C
Blower	B	CTRL + B
Injector	I	CTRL + I
Firedoor	F	CTRL + F
Damper	D	CTRL + D

Program Control Keys

FUNCTION	KEY
Toggle between accelerated speed and real-time	A
Toggle between smoke on and off	S
Return to main menu	COPY
Hold, wait for ENTER to restart	H
Toggle between signal and gradient	G
Display position of train	P
Display timetable	T
Acknowledge message	SPACE

Smoke Demonstration Keys

SMOKE LEVEL	KEY
Very light smoke – far too much air	1
Light smoke – too much air	2
Correct smoke	3
Dark smoke – insufficient air	4

MENUS, MESSAGES AND SPEED LIMITS

The Main Menu

LEVEL	SUMMARY
ENTER	High Speed Run – selected automatically after 1 minute
0	Demonstration – non-stop run using first schedule
1	Training Run – identical run and schedule to level 0
2	Easy Run with Speed Limits – non-stop, random schedule
3	Stopping Train and Signalling – stopping schedule
4	Heavy Stopping Train – difficult load and schedule
5	Record Breaking Run – schedule as on 26th July 1903
6	Southern Belle – non-stop run, marked very severely
7	Problem Run – any schedule plus extra problems

Speed Limits

LIMIT	WHERE LIMIT APPLIES
40 mph	Victoria to Clapham Junction
45 mph	Balham Junction (Curve after Balham)
60 mph	Streatham Common for ½ mile
45 mph	Windmill Bridge Junction (¼ mile past Selhurst)
50 mph	Far end of Redhill Tunnel to Earlswood

Error Messages

MESSAGE	MEANING
NO WATER, FUSIBLE PLUGS GONE	Water level in the boiler too low
BOILER OVERFILL, CYLINDER DAMAGE	Water level in the boiler too high
OVERRAN STOP SIGNAL	Passing a stop signal in the down position
UNSAFE REVERSING	Allowing the train to run backwards
BLOWBACK, CREW INCAPACITATED	Failure to ensure that the blower is on when the regulator is shut or when in a tunnel
TRAIN DERAILED	Excessive violation of speed limit
CRASHED INTO BRIGHTON STATION	Hit buffers at too high a speed
POOR STOP AT	Failure to stop within 60ft of the end of the platform
SHORT STOP AT	Failure to wait for one minute at a station
ROUGH STOP AT	Using vacuum brake level three or above when the train comes to a halt at a station
NO STOP AT	Failure to stop at a scheduled stopping station
NO WHISTLE AT	Failure to sound the whistle before starting off, or before a tunnel or before permanent way working
EM BRAKE AT	Using emergency brake
SPEEDING AT	Failure to observe the speed limit

THE MAIN MENU IN DETAIL

Option 0 Computer Demonstration Run

This run demonstrates the various techniques required to drive the locomotive with the computer running all controls on a non-stop run to Brighton. You are advised to study the various settings used to help you learn correct driving methods.

Option 1 Training Run

A practice session for the novice driver/fireman to the same schedule as the computer demonstration. You are expected to observe the drivers notices and adhere to the timetable shown initially. You may halt the run at any time to refer to the timetable again. A short beep is sounded to assist you when the computer records a time for the final assessment.

When arriving at Brighton you must bring the train to a halt as near to the far end of the platform as possible. Hitting the buffers will result in the loss of safety marks and doing so at anything above a walking pace will result in a crash.

At the end of the run your performance is assessed with regard to economy, safety and timekeeping. A result of 70% overall is considered to be a pass. The economy assessment is based upon the stocks of coal (measured in hundreds of pounds) and water (measured in hundreds of gallons) left in the tender. The timetable is shown or it can be replaced by a page of significant events.

Option 2 Easy timetable with speed limits

A train on a non-stop schedule to Brighton. Speed limits, including any additional limits in the drivers notices must be observed otherwise safety marks will be lost and the train may derail.

Option 3 Stopping train and signalling

As option 2 but you must also obey all signals and make the stops required on your timetable.

The purpose of signals is to divide the line into sections so that trains on the same line run at an adequate distance from each other. There are two types of signal used on this line, stop (red with a square end) and distant (yellow with a notched end). Each has two positions, up for clear and down (horizontal) for stop or caution. Stop signals may come singly or in groups.

You must not pass a stop signal in the down (stop) position. To give warning of the condition of the stop signal a distant signal is placed a suitable distance before it. It will be down (caution) if the stop signal to which it refers is down ie at the stop position.

As an additional warning so that you have the maximum time to react the state of the next signal to be passed is reproduced separately in the signal section at the right of the screen (if selected).

The stations at which you are scheduled to stop are shown in capital letters on the timetable. You must attempt to stop within 60ft of the far end of the platform without excessive braking when coming to a halt. Should you pass the end of the platform before coming to a halt a beep will sound and a "no-stop" error will be recorded against your time.

You must arrive at the station in good time to allow at least one minute for your passengers to embark and disembark. The whistle will sound, if it is under computer control, one minute after your arrival or you may use the second hand on the clock. The times recorded for the assessment are the times at which the train comes to a COMPLETE halt and the time it first moves thereafter. The timetable gives the required departure time.

Option 4 Heavy Stopping Train

A heavily laden train with consequent loss of performance. All the constraints of option 3 apply.

Option 5 Record Run

On 26th July 1903 the record for a non-stop steam train from London to Brighton was set at 48 minutes 41 seconds. A schedule is supplied to enable you to equal or better that record. All normal speed limits apply.

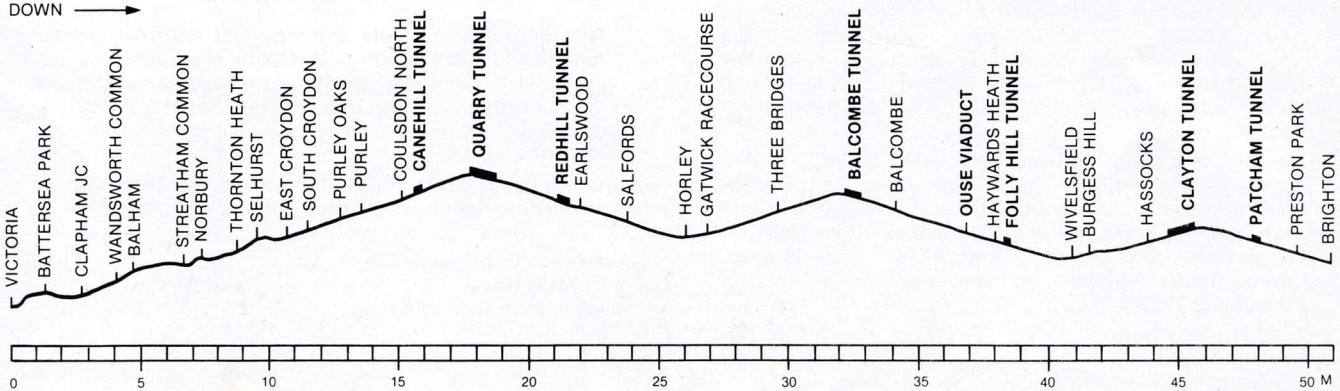
Option 6 Southern Belle

This is the world famous pride of the Southern Railway Pullman non-stop train. Any deviations from the timetable are viewed with distaste by the railway management and made apparent in the assessment.

Option 7 Problem Run

You will be presented with any timetable. All constraints apply plus other problems which will hinder your progress to Brighton.

VICTORIA — BRIGHTON (VIA QUARRY)



ROUTE & M.P. MILEAGE

HISTORICAL NOTES

The London and Brighton Railway company received permission to construct its line in 1837. The line was devised by Sir John Rennie and joined with the line of the London and Croydon Railway at Norwood. This gave a complete route from London Bridge Station to Brighton. In 1846 the two main route owners merged to form the London, Brighton and South Coast Railway (LB&SCR). The company's desire for its own West London Terminus was satisfied with the opening of Victoria Station in 1860, extending the line from a previous terminus at Pimlico.

In 1875 the first examples of "Pullman" luxury coaches were introduced by the company, culminating in an all Pullman non-stop London to Brighton train called the "Southern Belle". It first ran in 1908 and continued until 1972 (running under the name "Brighton Belle" from 1934).

In 1923 the many railway companies of Britain were grouped together into four large ones, the LB&SCR becoming part of the Southern Railway. In 1926 the Southern Railway gave the job of pulling the "Southern Belle" to its powerful and imposing "King Arthur" class locomotives. These continued until the line was electrified in December 1932.

Today the elegance of the "Southern Belle" has disappeared but the many architectural and engineering features of the line remain.

CHECKLIST

The instructions supplied with this program consist of:

(1) this sheet;

(2) a leaflet entitled HOW A STEAM LOCOMOTIVE WORKS;

(3) an order form

If items (2) or (3) are missing please return this sheet as proof of purchase to the address below together with your name and address and they will be promptly replaced.

Hewson Consultants Ltd.
Hewson House
56B Milton Trading Estate
Milton
Abingdon
Oxon OX14 4RX