



VANCOUVER INTERNATIONAL AIRPORT

Vancouver, Canada

Baggage Handling System 2000 - 2010

System Throughput	60 bags / minute
Transport Conveyors	1100 meters approx
Baggage Make Up	4 Pallet Carousele fed by Automatic Sortation Loop
Baggage Reclaim	4 Inclined Dispenser Carousels with remote feed conveyors
Hold Baggage Screening	5 CT machines for Level 3 screening
Controls	GlideControl (PLC), GlideView (SCADA) & GlideSort (SAC)

During the year 2000 after an international tendering process, Glidepath was awarded four major contracts with Vancouver Airport Authority. The contracts were for the Domestic Terminal North Outbound System, the Transborder Outbound System, International Inbound System and for GlideSort - sortation allocation software integration.

Following the successful completion of these projects, Glidepath was also awarded contracts for the Domestic Terminal South Outbound System, International Outbound Laterals, Satellite Cruise Ship Check-in System, Domestic Terminal Check-in Conveyors and further control system upgrades.

The completed system comprises of 52 check-in positions, arranged into four check-in islands. Each position has a Glidepath DCC scale conveyor followed by a combined tag and induction conveyor. The check-ins are grouped in pairs. These induct bags onto four collector conveyors, which decline through penetrations in the check-in level floor slab, and route bags into an automated Glidepath sortation system in the bag hall. Pusher diverters sort baggage to any one of 6 lateral conveyors (piers), which are designated to particular flights for loading.

The system is an Automated Sortation System using Bar Code Scanners located in the bag hall, which read the bag tags and sort them to their destination lateral. The baggage is only 'tracked' once it passes through the scanner.

The bar code scanner is located as close to the laterals as possible, to reduce tracking error between the scanner and the unload point. The system has a capacity to sort and process 60 bags a minute.

There are two main levels of control in the baggage handling system.

1.The Low Level Control System tracks the bag along each conveyor via photo eyes and constantly updates the computer model. The bag passes through the bag tag scanner to confirm the bag with its flight number. The bag is then diverted to its destination lateral.

2.The Glidepath control system interfaces with Vancouver Airport High Level Controls which receive the BSM (baggage source message) from the airport system. This data is time-stamped and matches the acceptance of bags into the check-in system with its flight data. This then defines which lateral the bag is to be delivered to and passes this information to the low-level control system.

PLC's (Programmable Logic Controllers), as well as a device net and distributed control are used for overall control and operation functionality of the conveyors from the 'check-in' area on level three to the baggage 'make-up' area on level two of the terminal.



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