

Location: **Shanghai PuDong International Airport (PVG)**
Client: **Shanghai Airport Authority (SAA)**
Projects: **Multiple** (Undertaken jointly by SPS and others or SPS Staff while employed by others)



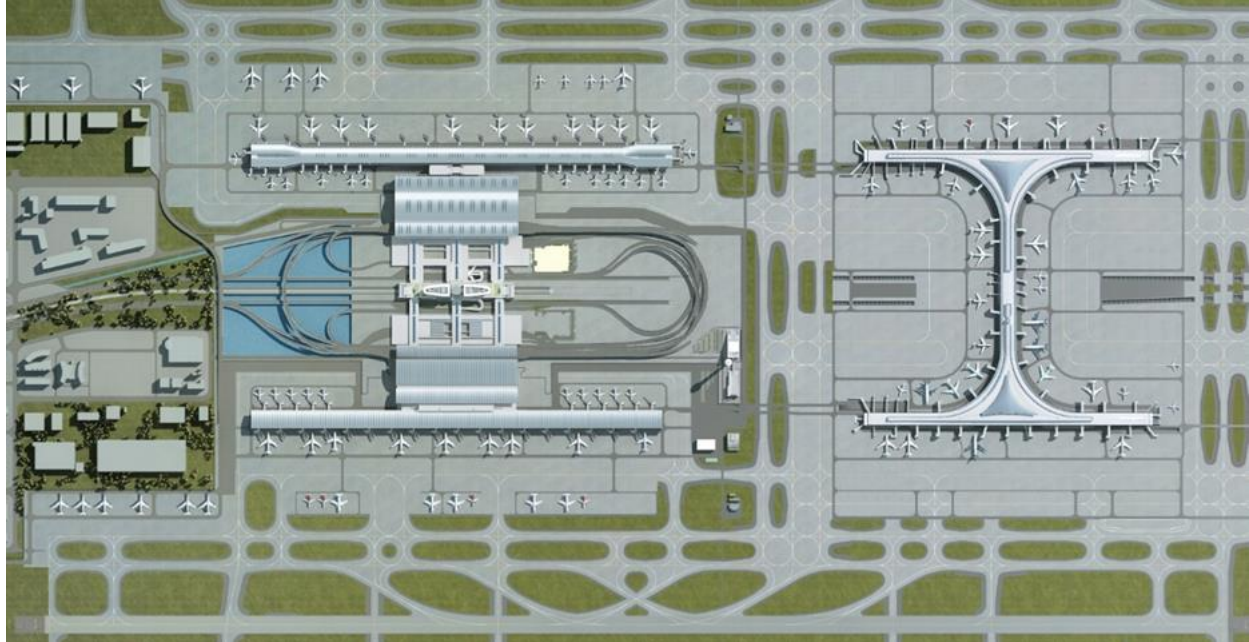
Projects at PVG conducted by SPS:

- Passenger Terminal Passenger Flow Bottleneck Analysis
- T3 Airfield and Airfield Simulation Analysis
- T3 Global Hub Benchmarking Analysis: Relationship Study Between Planning and Operation Efficiency of the World-class Airports
- Participation in SAA Tendered PVG T3 Architecture Design Competition with ECADI

Projects at PVG directed by SPS CEO and executed by SPS staff while with another firm:

- Terminal Area Master Planning
- Airfield Runway System Layout Planning Current/Ulimate
- Winner of T2 Design Competition and provision of terminal design support services including apron layout and airfield planning
- S1-S2 Satellite site configuration and apron/gate and loading bridge layout

Location: **Shanghai, China**
Airport: **Shanghai Pudong International Airport (PVG)**
Client: **Shanghai Airport Authority (SAA)**
Project Title: **PVG Current Resources Bottleneck Evaluation and Solution Study**
Year: **2019**
Key Staff: **Jeff Thomas, Doug Goldberg, Xiang Huang, Feihang Du**



PVG operates T1, T2 two terminal buildings and 5 runways currently. The new satellite will be put into operation in 2019. To meet the 120 million annual passenger demand of Pudong Airport in 2025, the Airport Authority has announced that a new T3 terminal and its supporting facilities will be built to meet the operating needs of base airlines and the new terminal is expected to be completed and put into operation in 2025. Before the construction and operation of the T3 terminal, the current T1\T2 terminal and the satellite will serve the passenger traffic volume of PVG. And according to the forecast, the passenger traffic volume will exceed the original design capacity and T1, T2 terminal and satellite terminal are expected to meet the annual passenger demand of 100-110 MAP; considering above situation , the purpose of this project is to evaluate the resources of T1 and T2 terminal buildings, put forward the adjustment plan and renovation plan of facility layout, and study the measures of improving operation management to ensure smooth operation and necessary passenger service quality.

Location: **Shanghai, China**
Airport: **Shanghai Pudong International Airport (PVG)**
Client: **Shanghai Airport Authority (SAA)**
Project Title: **PVG T3 Terminal Airfield Operation Simulation and Airspace Conditions Analysis**
Year: **2019**
Key Staff: **Jeff Thomas, Doug Goldberg, Xiang Huang, Jay Wang**



Based on the terminal area configuration, this effort focuses on the study of the connection between the aprons and the runway-taxiway system (including the planned end around taxiway), the taxi distance, and the operating performance of all the systems in the airfield. The main content of the work efforts is to use the computer simulation software AirTop to simulate and evaluate the operational performance of the designated apron layout plan and provide reliable and persuasive quantitative data to validate whether the recommended plan can meet the forecast demands and to select the most efficient plan. Simulation assumption parameters and analysis results files include simulation animation output of apron operation, etc.

Location: **Shanghai, China**
Airport: **Shanghai Pudong International Airport (PVG)**
Client: **Shanghai Airport Authority (SAA)**
Project Title: **Relationship Study Between Planning and Operation Efficiency of World-class Airports**
Year: **2019**
Key Staff: **Jeff Thomas, Doug Goldberg, Xiang Huang, Feihang Du**



The scale of the facilities and the population served of the hub airport will be at a new level. How to operate large scale facilities will directly affect the quality of passenger service. The development of facilities, first of all, lies in the airport planning, which determines the facility scale, development objectives, processes and design construction and operation of the follow-up projects. Therefore, facility planning will greatly affect future operational efficiency. It will be the key content of this research that how to take the future operation efficiency into account in the airport planning process and how to use the operation data to influence the planning.

Location: **Shanghai, China**
Airport: **Shanghai Pudong International Airport (PVG)**
Client: **Shanghai Airport Authority (SAA)**
Project Title: **PVG Terminal Area Master Planning**
Year: **2004-2008**
Key Staff: **Jeff Thomas, Qianlin Li, Xiang Huang** (while employed by others)



Mr. Thomas, while employed as CEO and China Group Leader/SAA Client Officer of another firm, provided leadership and professional expertise to the SAA in terminal area master planning, terminal programming and planning and concept design for PVG Terminal 2. As leader of the Team that won the T2 International Design Competition, the services provided by SPS staff included defining the overall PVG terminal area master plan and assisted the SAA to prepare for the design and construction of the most efficient Phase II development while preserving flexibility for future long-term growth to serve 80 MAP and beyond. Assignments undertaken by SPS staff included T2 apron/airside layout and operations analysis; assessment of the programming requirements for the Baggage Handling System (BHS); ground transportation center planning; and cargo precinct planning.

Subsequent assignments completed with assistance of other SPS staff previously employed by others, included the facility requirement programming and detailed site planning for Satellites S1 and S2 currently under construction. SPS staff also provided assistance to SAA in tendering for the architectural design and provision of design support services involving apron /gate and loading bridge layout and operational simulation.