COMMUNICATIONS AND AUTOMATION MASTER PLAN

The purpose of this Master plan is to define and describe the terms and concepts of the "Monitor/Control" applications at Intercontinental Airport.

DEFINITIONS:

Monitor

Receive electronic data from a remote sensor that signifies a change in the operational or "normal" status of a particular piece of equipment.

Control

The ability to monitor as described above, but additionally to send electronic data to a remote sensor or intelligent control panel and override or reprogram the instructions that are operating a particular piece of equipment (i.e., heating, air conditioning, lift stations, etc.).

Electronic Data

Either a continuous (on-line) or occasional (timed) transmission of digital or analog information with the appropriate communication protocol between two different vendors' equipment (i.e., STRATUS host computer and GOULD sensors).

Intelligent Control Panel

A "smart" panel equipped with a computer chip that has the capability to direct a system to maintain certain limits often based on a time clock (i.e., opening and closing valves to increase or decrease air flow based on preset time periods).

Sensor

A device that transmits analog or digital information concerning the status of a mechanical/electrical device (i.e., electronic motor controlling an esoellator would be "on" or "off").

With these basic nontechnical definitions, we can further describe the use of these elements in a Facility Management Program. A Facility Management Program has five (5) basic parts.

1. Data Base - All the electronic data received and transmitted at the host computer should be recorded in a data base. By building a historic record of the operation's information, we can better manage our environment and maximize labor efficiency.

2. Graphic Screens - In order to assist the operators to know the status of particular systems, the host computer program should graphically depict all elements on a computer terminal in color. This screen should be words, symbols, and actual readings received from the electronic data.

3. Procedural Instructions - When a problem occurs, the host computer program should direct the operator to take the necessary action to resolve the problem. It should be real-time procedure indicating the time and date each instruction was initiated and completed. This audit trail should be available for future reference.

4. Connectivity - The host computer program must communicate with each separate vendor system. It must be able to override or change the program in an intelligent control panel from the host computer screen.

5. Information Aids - A powerful, high-level report writer and user-defined screen designer are required. Also, the capability to download historic data to a PC is required.

The host computer will be located in the ComCenter, Terminal A. It will be a STRATUS XA2000, Model 110, with a VOS operating system. The selected Facility Management Program must run the STRATUS. Each of the selected vendors installing automated system in the Terminals must interface with the Facility Management Program.

The automated systems planned for the Intercontinental Airport will either be controlled or monitored from the Terminal A, Communications Center, and/or Central Plant. The Aviation Department is finalizing the selection of a new central mainframe.

The following matrix outlines the automated systems being installed in the terminals. The "Monitor" column indicates the systems from which we would receive computerized data at a central point (ComCenter, Central Plant). The "Control" column indicates the systems to which we would transmit override commands to accomplish changes.

	AUTOMATED SYSTEM	MONITOR		CONTROL	
		Local	Remote	Local	Remote
1.	Doors/AOA and FIS (Locked, Unlocked, Ajar Conditions)	FIS/DOA	ComCenter	FIS/DOA	
2.	Gates/Vehicles		ComCenter		ComCenter
3.	Fire Alarm (Fuel Spill Panic Button)		ComCenter		
4.	Parking and Building		ComCenter		ComCenter
5.	Hold-up Alarm		ComCenter		
6.	Sterile Area CCTV	FIS	ComCenter	FIS	
7.	HVAC/Equipment Status (Including Dewatering and Lift Station).		Central Plant & ComCenter		Central Plant & ComCenter
8.	Apron Lighting (Inside lighting will be controlled by sone/motion).		Airline		ComCenter
9.	Elev/Esc/Mov. Walk (Voice & Mechanical Condition).		ComCenter		
10.	Gate Occupancy CCTV		ComCenter		ComCenter
11.	400 HZ (Teledine)		ComCenter		ComCenter
12.	Jet Bridge		ComCenter		
13.	P.C. Air		ComCenter		
14.	Fuel Pits	*****Allied's Responsibility*****			
17.	Paging		ComCenter	Airline	ComCenter

	AUTOMATED SYSTEM	MONITOR		CONTROL	
		Local	Remote	Local	Remote
18.	Electronic Signs Ticketing, Departure Gates, & Baggage Claim		ComCenter		ComCenter
19.	FIDS		ComCenter		ComCenter
20.	Gate Scheduling		ComCenter		ComCenter
21.	Reservation & Ticketing Terminals			Airline	
22.	Monitor/Control Software				ComCenter