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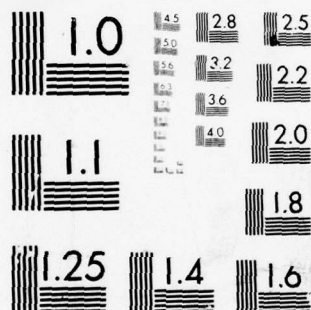
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HEALTH SYSTEMS STATISTICS AND EVALUATION
DIVISION NOTE

HSSEDN 79-3

SCHEDULE FOR THE
AUTOMATIC CART TRANSPORTATION SYSTEM
AT
WILFORD HALL MEDICAL CENTER

February 1979

John J. Crawford, Ph.D.
Roberta G. Carlisle, M.S.

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REFINER
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Approved by
P. W. Blackmon, Division Manager

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9 HEALTH SYSTEMS STATISTICS AND EVALUATION
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I. INTRODUCTION

Wilford Hall Medical Center (WHMC), Lackland Air Force Base, San Antonio, Texas, will implement an Automatic Cart Transportation System (ACTS)* in 1979 to support delivery of food and materiel within the hospital. The system has been designed to meet WHMC's requirements for delivery of food and materiel carts. To coordinate the use of the ACTS, the various hospital services that send and receive carts will utilize a schedule. Such a schedule must satisfy the operating requirements of those hospital services and must use ACTS resources efficiently as well.

This report presents the results of an effort to develop the required schedule. The report provides a possible schedule for daily deliveries, assuming that the same schedule of routine dispatches will be used each day of the week. The schedule includes only routine dispatches that are subject to scheduling, for example, delivery of meal carts. It does not include unpredictable dispatches such as return of soiled surgical case carts.

The body of the report includes three major sections, and there are six annexes. Section II describes the ACTS and its capabilities. Section III describes the way the hospital services involved will use the ACTS. The use of ACTS, as described in Section III, served as a basis for developing the schedule. Section IV describes the schedule and the computer model of the ACTS that was used in its development. Annex A describes the duties of the cart-delivery

*Automatic Cart Transportation System (ACTS) is a registered trademark of ACCO, the American Chain and Cable Company, Inc.

technicians who will receive and dispatch carts in the user areas. Annex B explains the codes that appear in the computer-generated reports and describes the schedules and other kinds of reports that are provided. The remaining annexes contain the schedules and reports.

II. DESCRIPTION OF THE AUTOMATIC CART TRANSPORTATION SYSTEM (ACTS)

Four kinds of elements comprise the ACTS: carts, cart carriers, an overhead rail system, and lifts. The various kinds of hospital materials are loaded on carts for transfer. Cart carriers support these carts as they travel along the overhead rail system and into the lifts. The overhead rail system is located on the basement (B) and sub-basement (S) levels. It links the basement processing areas of Food Service, Medical Materiel (including Processed Supplies, Linen, Bulk Supplies, Medical Equipment, and Decontamination), Pharmacy, and Sterile Supplies with one another and with the lifts. The lifts connect the rail system to the user areas (inpatient nursing units on floors 1 through 9 of the patient tower, clinics on floors B, 1, and 2 of the clinic area, Intensive Care on floor 2, and the Operating Rooms, also on floor 2).

A. Carts and Cart Carriers

The system can employ four kinds of carts: dietary carts, general purpose carts, surgical case carts, and pharmacy carts. Each cart carrier can support one general purpose cart or one pharmacy cart. A carrier can support two dietary carts or two surgical case carts in tandem, or it can support these carts individually. A carrier and its load move through the system in the same way, whether the load is an individual cart or a tandem set of carts. For this reason, we will use the word "cart" to refer to both types of loads in the discussions that follow.

B. Overhead Rail System

The overhead rail system includes two kinds of rails: chain-driven "power-flex rails"* and gravity-driven "free rails." Uniformly spaced pendants pull carriers along the power-flex rails. The power-flex rails transport carriers and carts over major parts of a trip from source to destination. Free rails are used in areas such as loading areas as well as in queues at lifts and transfers from one power-flex rail to another.

C. Lifts

The system includes ten lifts that are designated by the letters A-K, except I. Each lift serves certain floors and has a specific mission. For example, lifts may be designated for use only in returning items from user to processing areas, in transporting a certain kind of cart, and in handling clean items. Table 1 lists the lifts included in the system, shows the floors each lift services, and describes the mission of each lift.

D. Role of Personnel in User and Processing Areas

The ACTS is designed to operate with minimal human assistance. When dispatching carts, personnel in the user and processing areas will be required to code carts manually (using control units in the dispatch area) according to their destinations and to position them properly for transportation by a lift or the rail system. Upon arrival of a cart at its destination, personnel must remove the cart from the rail system or from the position in which it has been left by a lift.

*Power-flex rail is a registered trademark of ACCO, the American Chain and Cable Company, Inc.

TABLE 1
LIFT ACTIVITY AT WHMC

Lift	Floors Serviced		Mission
	Loading	Unloading	
A	S, 1-9	S, B	Soiled return
B	S, 1-9	S, B	Soiled return
C	S, B, 1-9*	S, B, 1-9	Clean dispatch to patient tower; clean dispatch/ return between basement and subbasement
D	S, B, 1-9*	S, B, 1-9	Clean dispatch to patient tower; clean dispatch/ return between basement and subbasement
E	B, 1-9	S, B, 1-9	Clean return from patient tower; backup dispatch from basement in case lifts C and D are overloaded (that is, the queues in front of lifts C and D on the basement level are full)
F	S, B, 1, 2	S, B, 1, 2	Clean dispatch to/from clinics
G	B, 1, 2	S	Soiled return from clinics
H	S, B	S, B	Clean/soiled moving of dietary carts
J	B, 2	B, 2	Clean supply/return between basement and ICU
K	S, B, 2	S, B, 2	Clean supply/return to and from OR; clean supply/return of Pharmacy carts

*Lifts C and D are capable of picking up carts on floors 1-9 but will not be used for this purpose because they could interfere with arriving carts.

On user floors, there is no automatic transportation of carts after their arrival on the floor via a lift. On these floors cart-delivery technicians must manually push the carts between the lift area and the several user areas on the floor.

E. Cart Paths

Each user area is linked to each processing area by a designated sequence of overhead rail segments and lifts. Figures 1 through 4 illustrate the paths linking user areas with Food Service, Medical Materiel areas, Decontamination, and Pharmacy, respectively. For example, Figure 2 shows that clean Medical Materiel carts en route to the clinics from processing areas on the basement travel first via overhead rail on the basement. Next, they descend to the sub-basement via lifts C and D and travel on the rail system to lift F. Lift F takes them to the clinic areas on the basement, first, and second floors.

F. Special Features That Affect Cart Scheduling

There are several special features of the ACTS that can affect the development and proper operation of a cart schedule. These features were incorporated in the computer model of the ACTS that was used to formulate the schedule (see Section IV of this report) and are described in the following list:

- A cart arriving on the rail system at lifts F, G, H, J, or K is recirculated when the queue in front of the lift is full; that is, it continues on the rail system until it can again attempt to enter the queue.
- On the sub-basement level, a cart arriving at lift C is automatically channeled to lift D when the lift C queue is full. If the lift D queue is full, the cart is recirculated.

Figure 1
DIETARY CART FLOW
FROM/TO FOOD SERVICE

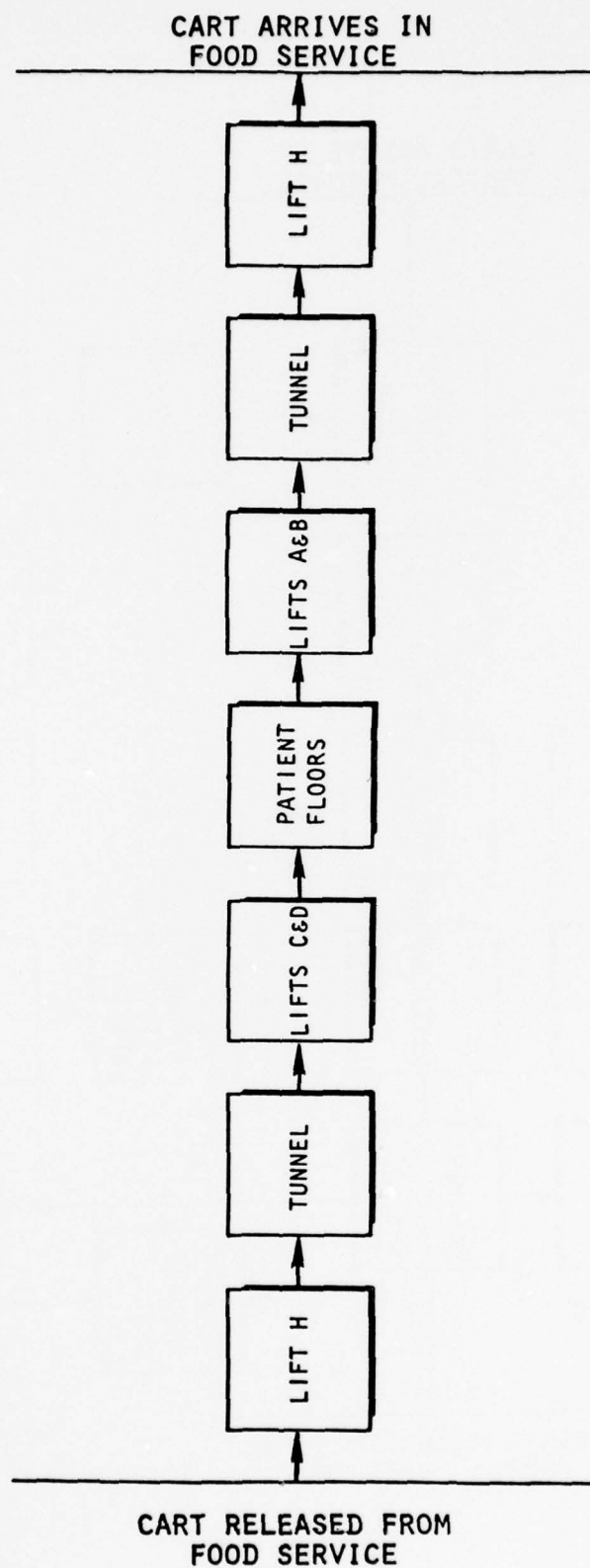


Figure 2
 CLEAN CART FLOW FROM/TO MEDICAL MATERIEL
 (PROCESSED SUPPLIES, LINEN, STERILE SUPPLIES, BULK SUPPLIES, MEDICAL EQUIPMENT)

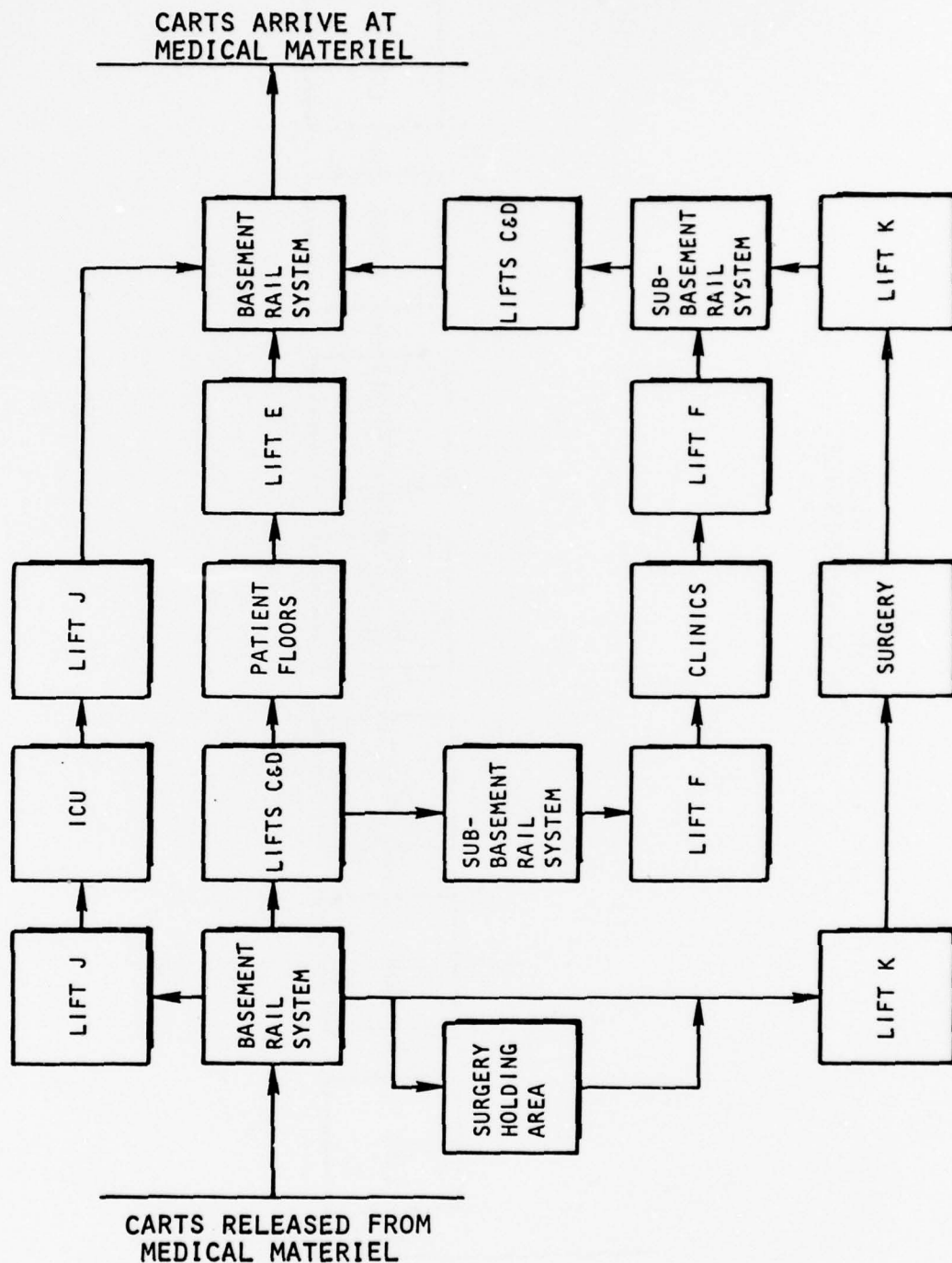


Figure 3
FLOW OF SOILED CARTS
TO DECONTAMINATION IN MEDICAL MATERIEL

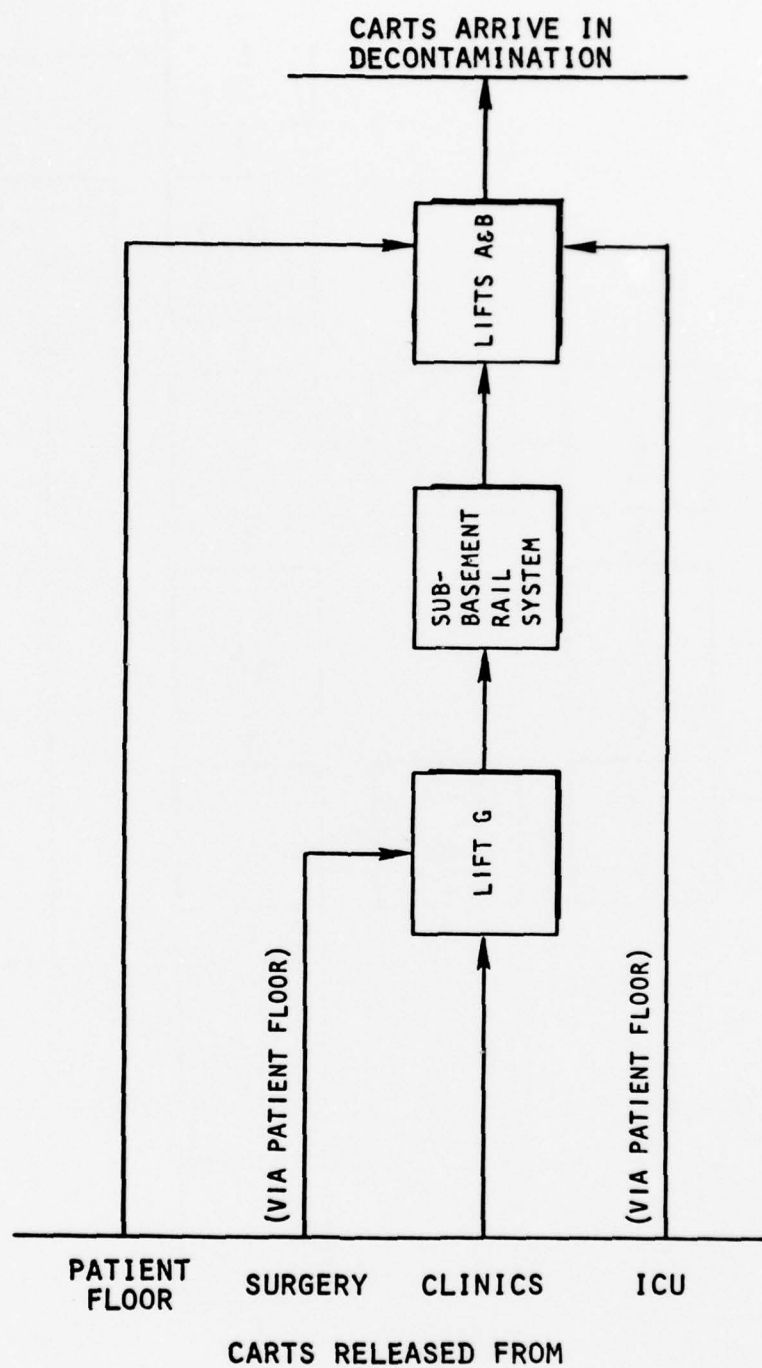
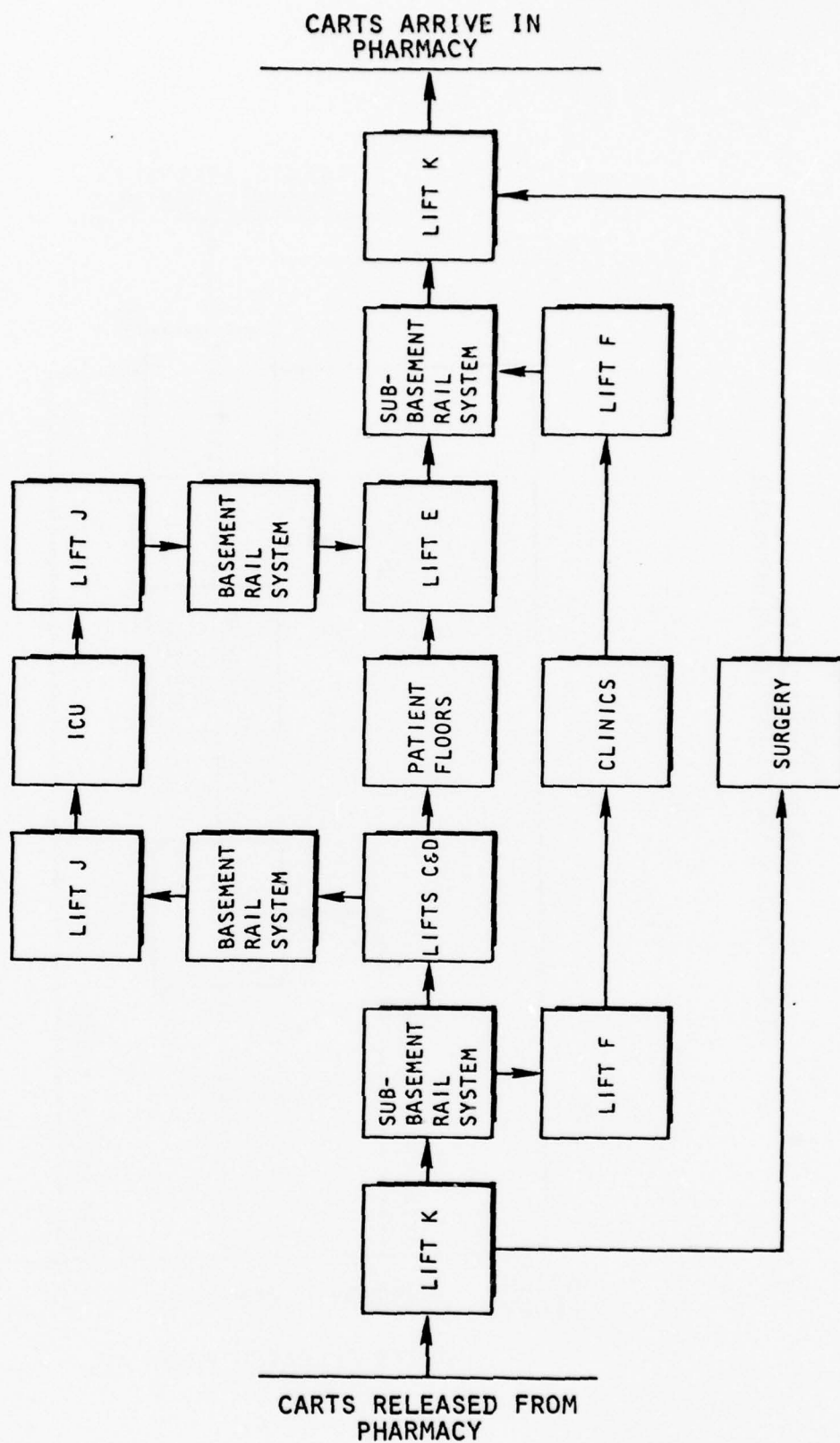


Figure 4
PHARMACY CART FLOW
FROM/TO PHARMACY



- On the sub-basement level, carts enter the queues at lifts A and B in the same way that they enter the queues at lifts C and D on that level.
- On the basement level, a cart arriving at lift C is channeled to lift D if the lift C queue is full. If the lift D queue is full, the cart is sent to the lift E queue. If the lift E queue is full, the cart is recirculated.
- A lift cannot eject a cart on a user floor if it has previously ejected two carts there, which have not been removed from the area immediately in front of the lift. In such a situation, the lift is delayed at that floor until a technician removes at least one of the first two carts, allowing the lift to eject a third cart.
- After a lift ejects a cart, it returns to its designated "home floor." If there is a pending call on the home floor, it is answered. If not, the lift is then available to answer calls on other floors. The home floor for lifts C and D can be switched between the sub-basement and the basement. The home floor of each of the remaining lifts is either the sub-basement or the basement, depending on the lift, and does not change.

III. USE OF THE AUTOMATIC CART TRANSPORTATION SYSTEM

A. Food Service

The Food Service Department will dispatch carts at three different times during the day corresponding to breakfast, dinner, and supper. During each period, meal carts will be dispatched first, followed by carts containing nourishments that are to be served during the period immediately following the meal. During periods where Food Service carts require the use of the main dispatching lifts (0600-0845, 1100-1345, and 1600-1845 hours), lift C will be switched to "dietary mode," meaning that its home floor will be the sub-basement. This will ensure that the Food Service carts do not have to wait for Medical Materiel carts to use lift C. It is not necessary to switch lift D to dietary mode because Food Service does not dispatch carts at a fast enough rate to require lift D.

The Food Service Department has specified the number of dietary carts to be scheduled for delivery to each nursing unit for each meal. This number reflects their assessment of the usual cart requirements of each nursing unit. However, because there will be random fluctuations in the tray requirements for the nursing units, on some days an extra cart may be necessary to accommodate all the trays for a given nursing unit. Ten nourishment carts will be dispatched, one for each of the nine floors in the patient tower and one for the ICU.

The Food Service Department has specified the dispatching sequence for meal carts so that the cart arrivals will satisfy the requirements of the various nursing units.

The Food Service Department has also specified the amount of time the schedule must allow between cart dispatches to provide adequate tray-assembly time. If two different nursing units on the same floor require only one cart each, the carts for the two nursing units will be dispatched together "in tandem," so that they travel as one through the ACTS. This reduces the workload on the system. For example, meal carts for the A and J wings on the fourth floor will be locked in tandem. The tandem carts must be separated by the cart-delivery technician before delivery to the different nursing units.

Meal carts are scheduled to remain on the nursing units for at least 80 minutes after their arrival. The cart-delivery technicians must deliver them to the wards promptly upon their arrival to ensure food palatability. The technicians must also return the carts to the lift area for dispatch according to the schedule. The schedule calls for dispatch of the returning, soiled meal carts in the order in which they were originally dispatched from Food Service and at approximately the same rate (1 every 6 minutes). Nourishment carts will be returned after they are served during a nourishment period.

B. Linen

All linen carts are operated on an exchange basis; meaning that when each cart is in use, a duplicate cart is simultaneously being resupplied in Linen. Items that are needed by a user are removed from the cart when needed; unused items are returned to Linen. Exchange carts are considered clean and do not have to be sent to Decontamination before being resupplied.

Linen will dispatch its carts in the early morning. The rate of dispatch depends on how many carts are loaded before

the dispatching period. If each cart is loaded just before its dispatch, then the dispatch rate will be relatively slow; if all carts are loaded before dispatch, the rate will be considerably faster. We have assumed a dispatch rate of one cart every 2 minutes.

The dispatching sequence is designed to spread out the arrival of carts on the user floors. For the patient tower, carts are generally sent, in turn, to floors 1, 2, 3,...9, 1, 2, 3,... . This will aid in maintaining a uniform workload for the cart-delivery technicians.

C. Processed Supplies

Processed Supplies will operate in a manner similar to Linen in that all of its materiel will be delivered on exchange carts. Processed Supplies will dispatch all of its carts in the early afternoon, using an assumed dispatch rate of one cart every 2 minutes. The dispatching sequence for carts will be similar to that for Linen. The duplicate carts (dispatched the previous day) will be returned from the user areas in the afternoon.

D. Deadheads and Soiled Returns

Deadheads are clean, empty carts that are sent to the user areas. After they arrive at these areas, they are loaded with soiled linen and trash and returned to the Decontamination area. A major question is: How many cartloads of soiled items will WHMC generate each day? We have assumed that the workload will equal the sum of the linen, processed supply, and bulk supply cartloads.

Deadheads will be dispatched in two roughly equal groups in the early morning and at midday. We assume a dispatch rate of one cart every 2 minutes. Soiled returns will arrive in three groups: morning, early afternoon, and late afternoon.

The first two groups correspond to the two groups of dead-heads. The third group of soiled returns comprises carts that were used to carry bulk supplies to Inpatient Radiology, Outpatient Radiology, and Laboratory. The average arrival rate of carts in Decontamination is one cart every 2 minutes.

It is unresolved at this time what will happen to soiled carts after they arrive in Decontamination. There are three primary alternatives:

- After processing each cart, immediately send it back to the user area where it will be kept until it is again needed to carry soiled items to Decontamination. This alternative means that Medical Materiel does not have to store the cart when it is not being used to transport soiled items, but it would have to be stored in the user area.
- After processing each cart, send it to some other area where it is removed and stored until needed. When needed, the carts would have to be placed back on the system. Carts would be available for other uses, if required.
- Remove carts from the system in the Decontamination area and store them until needed. As in the previous case, the carts would have to be remounted when needed. One disadvantage is that the cart washer is the last stop in the Decontamination area. When carts go through the cart washer, they leave Decontamination. Carts that are stored could not be washed prior to storage. When needed, a cart would exit Decontamination through the cart washer.

In this version of the schedule, we have assumed the third alternative to be the case; this is an area where Medical Materiel may wish to consider an alternative method of operation.

E. Bulk Supplies

Bulk Supplies will use the ACTS to send items to Inpatient Radiology, Outpatient Radiology, and the Laboratory. Bulk Supplies will hand-push carts to Pharmacy and Food Service. Bulk Supply carts are operated on a replenishment basis; that is, they will be off-loaded completely at their destination (in contrast with exchange carts). The carts are returned to Decontamination. They may also be used to carry soiled items from the user area to Decontamination.

F. Medical Equipment

Medical Equipment will send items to the various parts of the hospital on an as-needed basis. It will also send deadheads to pick up medical equipment if no other cart is available. Returning carts containing medical equipment will be sent to Decontamination.

The schedule does not include any dispatches from, or arrivals to, Medical Equipment. However, we have built sufficient slack into the schedule for the ACTS to allow Medical Equipment to send and receive carts as necessary.

G. Pharmacy

Pharmacy will send carts to the nursing units, the OR, and ICU three times each day. Each clinic floor will receive one cart daily. These carts will be used to carry exchange patient medication trays that hold a supply of medications for each patient adequate for the period until the next pharmacy cart delivery.

To distribute the Pharmacy workload evenly, we have divided each of the three daily sets of Pharmacy dispatches into two groups—a total of six groups of Pharmacy dispatches.

The six groups of carts are scheduled for dispatch at 0530, 0900, 1200, 1400, 1700, and 1930 hours. Pharmacy carts for the clinic floors will be included in the second group of dispatches that begin leaving the Pharmacy at 0900 hours. Cart-delivery technicians will be on duty in the user areas only between 0600 and 1630 hours. The Pharmacy must therefore provide for handling the carts that arrive at, or are dispatched from, those areas at other times. The carts will stay in the user areas for at least 1/2 hour to allow user personnel to exchange the medication trays. The carts are then returned to the Pharmacy.

Pharmacy will receive bulk supplies manually (without using the ACTS). Soiled items must also be removed from the Pharmacy manually because Pharmacy's only link to the ACTS is lift K, which is a clean lift.

H. Sterile Supplies and Surgery

Sterile Supplies is responsible for preparing surgical case carts that will be used in each of the 20 operating rooms. Since surgical procedures vary in duration, it is not possible to schedule dispatches and arrivals of surgical case carts throughout the day, although we can schedule the dispatching of case carts for the beginning of each day. These carts will be sent from the Surgical Cart Holding Area (SCHA) beginning at 0500 hours.

Sterile Supplies, which is located close to the SCHA, must have case carts ready not only for the first scheduled procedure in each OR but also the second procedure in case the first procedure does not take place. There are two alternatives for handling this:

- Each morning, send 40 surgical case carts to Surgery from the SCHA so that the case carts for the first two scheduled procedures for each OR will be in place before Surgery begins operations.
- Each morning, send only the 20 surgical case carts to Surgery from the SCHA that are needed for the first set of procedures, and use the SCHA as the storage location for the 20 procedures scheduled second. The SCHA will only send 20 single or tandem surgical case carts. Thus, if Sterile Supplies wants to be able to send up individual carts as they are needed, Sterile Supplies must refill the SCHA after dispatching the first 20 carts.

In the schedule presented herein, we have assumed the first alternative to be the case. We have not included the initial filling of the SCHA with the 40 surgical case carts.

I. User Areas

Nursing units, the clinics, and ICU utilize cart-delivery technicians to push carts between the lifts and the various cart users. We have built in 45-minute breaks for these technicians when no carts will arrive or be dispatched. These breaks are approximately between 1015 and 1100 hours for the technicians in the patient tower and ICU, and 1200 and 1245 hours for those in the clinics.

The schedule is designed so that, in general, a linen cart for a given nursing unit or clinic will arrive a short time before a soiled cart from that area is to be returned. This will reduce the number of trips the technician must make to the user arrival/dispatch area. This also occurs with processed supplies and soiled carts in the afternoon. For a detailed description of the duties of the cart-delivery technicians, see Annex A.

According to the information available at this time, the ACTS will not allow pharmacy and dietary carts to arrive at ICU via lift J like other carts from Linen or Processed Supplies. Such carts will arrive via lifts C or D and must be hand-pushed to the ICU.

IV. THE SCHEDULE

A. Objectives

The objectives of the schedule are to

- Minimize transit times of food service carts to ensure that the food is palatable when served to the patient.
- Deliver food service carts during meal periods.
- Deliver all linen carts in the morning.
- Avoid dispatching carts from the basement on lift E (primary lift for clean returns from patient tower and backup lift for clean dispatches to patient tower). That is, avoid creating an excessive dispatch demand on lifts C and D (primary lifts for clean dispatches to the patient tower) that will have to be met by lift E.
- Disperse the utilization of lifts to avoid recirculation of carts.
- Allow at least 20 percent lift idle time in any hour to accommodate unscheduled carts (e.g., carts from Medical Equipment). For lifts A and B, which perform the same functions, and for lifts C and D, which also perform identical functions, this objective will be met if at least one of the two lifts in each pair is 20 percent idle in any hour.
- Avoid overloading the Decontamination area that processes soiled carts returning to Medical Materiel.
- Disperse the arrivals of carts at the user floors to no more than two in any 6-minute interval (Note: if two carts have arrived at a user floor and have not been removed, a third cart cannot unload and the lift stops. It takes about 6 minutes for a technician to push a cart from the lift area to a nursing unit and return).

- Coordinate arrival and dispatch schedules on the patient floors to minimize the number of trips cart-delivery technicians must make between the lifts and the nursing units or clinics.
- Allow at least one 45-minute period for each user floor in which there are no scheduled arrivals or dispatches, thereby providing a lunch break for each cart-delivery technician.

B. Methodology

To formulate the schedule, we developed a computer model of the ACTS that would simulate the operation of the system under alternative cart dispatch schedules. By changing the dispatch times of selected carts, we could determine the effect of each change on the schedule and adjust the schedule to meet its objectives. The model provided the following information:

- Summary of workload between each source and destination
- Dispatch schedules for each source
- Dispatch summary for all sources
- Arrival schedules for each destination
- Arrival summary for all destinations
- Statistics on lift utilization for each lift by time of day
- Statistics on the number of carriers used by the ACTS
- Statistics on the number of carts of each type in use
- Statistics on the rail system queues in front of each lift
- Statistics on cart recirculation

- Logs of when each cart encounters various milestones on its path to a destination
- Logs of when the number of carriers in use changes
- Logs of when the number of each type of cart in use changes
- Logs of when the status of each lift changes
- Logs on when carts enter or leave any of the rail system queues on the sub-basement or basement levels
- Logs of all cart recirculations
- Log of the system operation in chronological order.

The annexes to this report contain all of these except the logs, which are available on request.

C. Model Assumptions

The model is designed to simulate the operation of ACTS as closely as possible. However, in any model, simplifying assumptions must be made to ensure that the costs of developing and operating the model are reasonable. The major assumptions of the ACTS model are listed below. We believe the impact of these assumptions on the results of the study is small.

- Carriers are always available. Carriers must be loaded from a queue onto a lift before the lift can pick up a cart from a user floor. The queue is resupplied by empty carriers traveling through the system that encounter the queue and find a queue position available. In reality, it would be possible, under peak conditions, to exhaust a queue's supply of carriers.
- The delay that occurs when a cart/carrier attempts to begin traveling in a chain-driven rail is constant. In reality, the delay will vary depending on the location of the next available unoccupied pendant.

- Carts can be processed in the processing areas and used in the user areas in accordance with the schedule. The model does not simulate what happens to a cart when it is being processed or used. For example, it is assumed that when a dietary cart arrives on a floor, it will be returned from the nursing unit to the lift area in time to meet the schedule.

D. Discussion of Results

This section presents some important results of simulating ACTS operation using the selected dispatch schedule. The annexes to this report contain the computer output on which the discussions in this section are based.

1. Cart Transit Times

Only in the case of dietary carts is cart transit time a matter of major importance. For other kinds of carts, our only real concern with respect to transit time is to avoid long, unexpected delays that can disrupt the work of those who receive carts in user areas.

With lift C operating in dietary mode during meal hours, meal carts arriving at lift C on the sub-basement level have prompt access to the lift. Their transit times are unaffected by competition for the lift with carts from Medical Materiel, which is located on the basement level. With the current dispatch schedule, meal cart transit times are consistently between 20 and 22 minutes, which is close to the minimum that can be expected for the routes they must travel.

Carts that are dispatched from Medical Materiel are occasionally subject to two effects that can alter their transit times. The first is that when lift C is in dietary mode, carts that use lift C from the sub-basement (dispatched Food Service carts, dispatched Pharmacy carts, and carts returning from the clinics to Linen or Processed Supplies)

receive priority over carts being loaded onto lift C from the basement. Carts in the lift C queue on the basement level will wait until there are no pending calls for lift C on the sub-basement level. This wait could potentially be a long time, but the rate of carts arriving at lift C on the sub-basement level during meal hours is usually small enough to keep the wait short.

A second effect on Medical Materiel carts is due to the way the ACTS queues carts. The system will not allow carts to use lift D until the lift C queue is filled. If the first of two successive carts fills the lift C queue, the second cart is channeled to lift D, where it is usually loaded with little waiting. The second cart will likely arrive at its destination before the first cart.

2. Lift Utilization

Several objectives of the schedule are concerned with lift utilization. One of those objectives is to avoid using lift E to dispatch carts from the basement. The queue statistics for the basement-level lift E queue (see Annex D) show that the objective was met.

Another objective is to avoid recirculating carts. A review of all the queue statistics in Annex D reveals that no cart was recirculated.

The third objective that concerns lift utilization is to allow at least 20 percent lift idle time in any hour to accommodate unscheduled carts. The lift idle times exceed considerably the 20 percent hourly minimum required to meet this objective* (see the Lift Utilization Summary in Annex C).

* Recall that only one of lifts A and B and one of lifts C and D must be 20 percent idle to meet the objective.

Several lifts, however, (C/D, E, H) approach the minimum, and one (K) is idle less than 20 percent of the time over time periods of less than an hour.

3. Workload in User Areas

Several schedule objectives are concerned with the work of personnel who must receive and dispatch carts in user areas. The intent of those objectives is to allow a single individual to accomplish all the tasks required at any given time.

Except for the arrival of early morning pharmacy carts and the arrival and return of evening dietary and pharmacy carts, all arrivals and dispatches in user areas are scheduled between 0600 and 1630 hours. The schedule provides a 45-minute lunch break (no arrivals or dispatches scheduled) in each user area.

The schedule attempts to allow no more than two arrivals within 6 minutes at any user area. Six minutes is the estimated time required to deliver a cart and return, while two is the maximum number of carts ejected from a lift that can accumulate before the lift is delayed. This objective was almost entirely met, with a few exceptions. These cases occur almost entirely in the basement and first floor clinic areas. Since these cases are very infrequent, it should be possible for cart-delivery personnel to schedule their trips from the lift area to accommodate them.

Arrivals of Linen and Processed Supplies carts on the floors of the patient tower have been scheduled in coordination with dispatches of soiled carts to Decontamination. This will permit cart-delivery personnel to pick up the soiled carts for dispatch when they deliver the Linen and

Processed Supplies carts. Any additional coordination of tasks must be accomplished by the personnel involved within the constraints of their dispatch and arrival schedules and the space available for temporary storage of carts in transit.

4. Cart Utilization

The following paragraphs discuss the utilization of each kind of cart associated with the current schedule. The discussion is based on results in Annex C, "Carrier/Cart Summary"; Annex E, "Dispatch Schedules"; and Annex F, "Arrival Schedules."

The schedule allows approximately 3 hours to process each returning dietary cart before it is needed for the next meal. Thus, Food Service should be able to recycle its carts for each meal. Therefore, the number of dietary carts needed by Food Service to accommodate its daily workload is the number of carts needed for any one meal, which is 55 (although the maximum out at any one time is 45). On days when tray patient census is high, the number of dietary carts needed could be slightly greater.

The maximum number of Pharmacy carts in use at any time is 20. Pharmacy carts are dispatched in six sequences. The rates at which one sequence of carts is returned and the next is dispatched allow approximately 50 minutes to process a given cart between the dispatch sequences. If 50 minutes is sufficient to permit use of the same carts for two successive dispatch sequences, only 20 Pharmacy carts will be needed; otherwise, 34 Pharmacy carts are needed.

The general-purpose cart utilization shown in the "Carrier/Cart Summary" (Annex C) includes only scheduled utilization. Carts counted as being in use are the following carts outside the Decontamination area:

- Linen exchange carts and their duplicates
- Processed Supplies carts and their duplicates
- Dispatched Bulk Supplies carts
- Dispatched deadheads.

The maximum number of such carts in use at a given time is 354. Other kinds of cart use not reflected in the "Carrier/Cart Summary" are unscheduled dispatches (such as Medical Equipment dispatches) and carts used for manual deliveries (such as bulk supplies delivered to the Pharmacy). In addition, carts that are not in use may actually be unavailable for use because they are being processed in the Decontamination area.

Utilization of surgical case carts is predominantly unscheduled and therefore not treated in this report. The use of surgical case carts shown in the "Carrier/Cart Summary" represents scheduled delivery of 20 carts to be used in the first and second scheduled procedures for each operating room.

E. Schedule Revisions

The schedule that we have selected is designed to meet the objectives presented in Section IV.A. An important feature of the schedule is the ease and speed with which it can be modified to accommodate user needs at WHMC.

A limitation of the schedule is that it is based on system performance and workload data that, although they are the best available information at this time, may be subject to change when the system is implemented. After the system is implemented and is operational for 30 days, we will conduct an on-site review. This will involve review of the workload and performance data as well as the schedule itself. We will then revise the schedule as necessary.

ANNEX A

DUTIES OF CART-DELIVERY TECHNICIANS

1. General

Cart-delivery technicians will be responsible for prompt and accurate transfer of carts between the appropriate lifts and the wards or clinics in their assigned area. They will remove arriving carts from the area in front of the lift where the carts are released, and they will place returning carts in the proper position to be picked up by the appropriate lift. They will also code the returning carts for the proper destination by means of control units in the dispatch area.

2. Cart Arrivals

- Carts to be delivered to inpatient wards on floors 1 through 9 (except the ICU) will arrive via lifts C and D.
- Dietary and Pharmacy carts destined for the ICU (floor 2) will arrive via lifts C and D; all other ICU carts will arrive via lift J.
- Carts will arrive in the clinic areas (floors B, 1, and 2) via lift F.
- Cart-delivery technicians will remove carts promptly from the position in which the lift releases them. If two carts are allowed to accumulate in front of a lift, the lift will be stalled when it attempts to eject a third cart. Operation of the lift cannot resume until at least one of the carts is removed.

3. Cart Dispatches

- Cart-delivery technicians will code returning carts for the proper destination.
- Cart-delivery technicians will position returning carts for pickup by the appropriate lift and initiate a call for the lift.

- Clean carts being returned from inpatient wards on floors 1 through 9 (except the ICU) will be dispatched via lift E.
 - Pharmacy carts being returned from ICU (floor 2) will be dispatched via lift E; all other clean returns from ICU will use lift J.
 - Clean carts being returned from the clinic areas (floors B, 1, and 2) will be dispatched via lift F.
 - Soiled carts being returned from inpatient wards on floors 1 through 9 (including the ICU) will be dispatched via lifts A and B. Lift A will be used unless a cart is already in position at lift A for pickup. In that case lift B will be used.
 - Soiled carts being returned from the clinic areas (floors B, 1, and 2) will be dispatched via lift G.
4. Cart Transfer Between Lifts and Wards/Clinics
- Cart-delivery technicians must plan their absences from the lift area for transferring carts between the lifts and the wards or clinics, so that they are able to remove arriving carts promptly and avoid stalling the lifts. The cart schedule allows a minimum of 6 minutes for these absences (except in the basement and first floor clinic areas where the minimum is 5 minutes and 4 minutes, respectively). The time available, however, is usually well above the minimum.
 - Cart-delivery technicians must separate dietary carts that arrive in tandem destined for different wings. The arrival schedules in Annex F indicate these carts

by giving two wing identifiers separated by a slash (e.g., A/J) in the column headed "Wing." The two tandem carts will be marked to indicate their separate destinations.

- Cart-delivery technicians must transfer all arriving carts to their destinations promptly. This is particularly important for dietary carts to ensure food palatability.
- Cart-delivery technicians must transfer all carts from the wards or clinics to the lift area for dispatch according to the schedule.

5. Duty Hours

- Cart-delivery technicians will be on duty in their assigned areas between 0600 hours and 1630 hours.
- Each cart-delivery technician is allowed one 45-minute break each day. In each user area, there is a period when no dispatches or arrivals are scheduled. Cart-delivery technicians' breaks will be scheduled during these periods. The hours when these periods occur are:

1200 - 1245 Clinic Areas

1015 - 1100 Inpatient Areas (including the ICU).

ANNEX B

HOW TO READ THE OUTPUT

1. Codes

Each source or destination of carts has been assigned a three-character identifying code. The first letter of the code identifies the floor where the source/destination is located. Table B-1 shows the codes used in this schedule.

TABLE B-1

SOURCE AND DESTINATION CODES

<u>Source/Destination</u>	<u>Identifying Code</u>
<u>Processing Areas</u>	
- Food Service	BFS
- Linen	BLN
- Processed Supplies	BPS
- Decontamination	BDE
- Bulk Supplies	BBS
- Medical Equipment	BME
- Pharmacy	BPH
- Sterile Supplies	BSS
- Surgical Cart Holding Area	BCH
<u>User Areas</u>	
- 1st Floor Patient Tower	1PT
- 2nd Floor Patient Tower	2PT
- 3rd Floor Patient Tower	3PT
- 4th Floor Patient Tower	4PT
- 5th Floor Patient Tower	5PT
- 6th Floor Patient Tower	6PT

TABLE B-1 (Continued)
SOURCE AND DESTINATION CODES

<u>Source/Destination</u>	<u>Identifying Code</u>
<u>User Areas</u>	
- 7th Floor Patient Tower	7PT
- 8th Floor Patient Tower	8PT
- 9th Floor Patient Tower	9PT
- Basement Clinics	BCL
- 1st Floor Clinics	1CL
- 2nd Floor Clinics	2CL
- Surgery	2OR
- Intensive Care	2IC

2. Types of Reports

The following is an explanation of the types of computer printouts provided in the schedule:

- Workload Summary--A matrix showing the number of carts that are scheduled to be dispatched from each source to each destination during a day.
- Dispatch Summary--A matrix showing the number of carts dispatched from each source by time of day.
- Arrival Summary--A matrix showing the number of carts arriving at each destination by time of day.
- Lift Utilization Summary--A matrix showing, by time of day, the fraction of time each lift is busy and the number of carts moved by each lift. A lift is considered busy if it was moving to pick up a cart, moving to return to its home floor, or is carrying a cart.
- Carrier/Cart Summary--A matrix showing the number of carriers that are actively carrying carts and the number of each type of those carts that are actually in use. The report provides the average, minimum, and maximum for carriers and carts by time of day.

- Queue Statistics--A matrix showing, by time of day, the average and maximum number of carts in a given lift queue. The report also shows how many carts were recirculated and the distribution of the number of carts in the queue (i.e., the percentage of time with 0, 1, 2, etc., carts in the queue).
- Dispatch Schedule--A list for a given source in chronological order showing the times each cart is to be dispatched, the destination of the cart, the wing the cart is going to/from (see Table B-2), and the projected arrival time of the cart. Carts that are actually tandem pairs of carts are identified with a "*" immediately to the right of the wing.
- Arrival Schedule--A list for a given destination showing the times each cart is scheduled to arrive, the source of the cart, the wing the cart is going to/from (see Table B-2), and the time the cart was dispatched from its source. Carts that are actually tandem sets of carts are identified with a "*" immediately to the right of the wing.

TABLE B-2

WING CODES

<u>Code</u>	<u>Explanation</u>
A	Nursing Unit A
B	Nursing Unit B
J	Nursing Unit J
T	Nursing Unit T
FL	Shared by Entire Floor
ORT	Orthopedic Clinic
MED	Medicine Clinic
SUR	Surgery Clinic
CAR	Cardiology Clinic
RAD	Radiology
ALL	Allergy Clinic

TABLE B-2 (Continued)

WING CODES

<u>Code</u>	<u>Explanation</u>
OBG	Obstetrics/Gynecology Clinic
PED	Pediatrics Clinic
LAB	Laboratory
EME	Emergency

ANNEX C

SCHEDULE SUMMARIES

This annex contains a daily work summary, dispatch summary, arrival summary, lift utilization summary, and carrier/cart summary. The content and format of these reports and codes used are explained in Annex B.

WORKLOAD SUMMARY

FROM\TO	BFS	BLN	BPS	BDE	BME	BBS	BCH	BSS	BPH	BCL	1CL	2CL	1PT	2PT	3PT	4PT	5PT	6PT	7PT	8PT	9PT	20R	21C	TOT	
BFS	0	1	0	1	0	0	0	0	0	0	0	0	0	6	9	12	9	12	15	15	9	9	0	6	104
BLN	1	0	0	0	0	0	0	0	0	8	10	1	2	4	6	4	6	6	6	6	6	4	2	2	68
BPS	0	0	0	0	0	0	0	0	0	8	10	7	6	4	6	4	6	6	6	6	4	0	2	75	
BDE	1	0	0	0	0	16	0	0	0	16	20	8	8	8	12	8	12	12	12	12	8	2	4	159	
BME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BBS	0	0	0	0	0	0	0	0	0	5	0	6	5	0	0	0	0	0	0	0	0	0	0	16	
BCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	
BSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BPH	0	0	0	0	0	0	0	0	0	1	1	1	3	6	12	9	12	12	12	12	9	3	3	96	
BCL	0	8	8	21	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	38	
1CL	0	10	10	20	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	41	
2CL	0	1	7	14	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
1PT	6	2	6	13	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
2PT	9	4	4	8	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
3PT	12	6	6	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
4PT	9	4	4	8	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
5PT	12	6	6	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
6PT	15	6	6	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	51	
7PT	15	6	6	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	51	
8PT	9	6	6	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
9PT	9	4	4	8	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
20R	0	2	0	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
21C	6	2	2	4	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
TOT	104	68	75	159	0	16	0	0	96	38	41	23	30	31	48	34	48	51	51	45	34	27	17	1036	

DISPATCH SUMMARY
TIME 500-2200

TIME	BFS	BLN	BPS	BDE	BME	BBS	BCH	BSS	BPH	BCL	ICL	2CL	1PT	2PT	3PT	4PT	5PT	6PT	7PT	8PT	9PT	20R	21C	TOT
500- 515	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
515- 530	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
530- 545	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
545- 600	3	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
600- 615	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
615- 630	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
630- 645	2	0	0	8	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	0	0	18
645- 700	2	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	15
700- 715	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
715- 730	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
730- 745	2	8	0	8	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	21
745- 800	3	7	0	7	0	0	0	0	0	0	0	0	1	2	2	1	1	1	1	1	0	0	0	27
800- 815	5	8	0	8	0	0	0	0	0	0	0	0	1	1	1	1	2	2	2	0	0	0	0	31
815- 830	6	7	0	7	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	3	2	0	30
830- 845	0	8	0	8	0	0	0	0	0	0	0	0	0	0	2	1	1	1	1	1	1	0	1	26
845- 900	0	7	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	1	2	2	1	1	0	18
900- 915	1	8	0	0	0	0	0	0	8	1	1	0	1	2	2	1	2	2	2	3	2	0	0	36
915- 930	0	7	0	0	0	0	0	0	7	1	3	1	1	1	1	1	2	2	2	1	0	0	1	30
930- 945	0	8	0	0	0	0	0	8	0	3	3	0	1	0	1	1	1	1	2	2	1	1	1	40
945-1000	0	0	0	0	0	7	0	0	0	3	3	0	0	0	1	1	1	1	2	2	1	0	0	21
1000-1015	0	0	0	0	0	1	0	0	0	2	2	0	0	1	2	3	1	2	2	1	1	0	1	17
1015-1030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	1	13
1030-1045	1	0	0	0	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	1	0	8
1045-1100	3	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	1	1	10
1100-1115	2	0	0	8	0	0	0	0	0	2	2	0	1	1	1	1	1	1	1	1	0	0	0	22
1115-1130	3	0	0	7	0	0	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	1	1	17
1130-1145	2	0	0	8	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	0	0	15
1145-1200	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
1200-1215	3	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
1215-1230	3	0	0	7	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
1230-1245	2	0	8	8	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1	1	1	0	0	21
1245-1300	3	0	7	7	0	0	0	0	0	0	0	0	1	2	2	1	1	1	1	1	0	0	0	27

ARRIVAL SUMMARY
TIME 500-2200

TIME	BFS	BLN	BPS	RDE	BME	BBS	BCH	BSS	BPH	BCL	ICL	2CL	1PT	2PT	3PT	4PT	5PT	6PT	7PT	8PT	9PT	20R	21C	TOT
500- 515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9
515- 530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11
530- 545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
545- 600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	0	0	8
600- 615	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	1	1	1	0	0	1	0	9
615- 630	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	1	1	1	1	1	0	0	10
630- 645	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	1	2	2	1	1	0	0	0	13
645- 700	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	2	1	2	2	1	0	0	17
700- 715	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	1	2	1	1	2	0	1	13
715- 730	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	2	1	1	1	1	0	0	10
730- 745	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	2	2	2	0	1	11
745- 800	2	0	0	7	0	0	0	0	0	2	2	0	1	0	2	1	2	1	1	1	0	1	0	23
800- 815	3	0	0	7	0	0	0	0	0	2	3	1	1	1	2	1	1	2	2	1	0	1	1	29
815- 830	2	0	0	7	0	0	0	0	0	2	3	0	0	0	0	1	2	3	2	1	1	0	0	24
830- 845	4	0	0	8	0	7	0	0	0	2	2	0	1	1	2	1	2	1	3	1	0	0	1	36
845- 900	2	0	0	7	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	0	0	28
900- 915	2	2	0	8	0	2	0	0	0	3	3	1	0	1	1	1	1	1	1	1	1	0	1	20
915- 930	3	7	0	4	0	0	0	0	0	2	4	1	1	0	1	1	1	1	0	0	0	1	2	31
930- 945	3	8	0	6	0	0	0	0	0	3	1	1	3	0	0	0	0	1	1	1	1	0	0	30
945-1000	2	7	0	9	0	0	0	0	0	3	1	1	1	3	0	0	0	0	1	1	1	0	0	30
1000-1015	3	8	0	5	0	0	0	0	0	5	3	2	1	0	0	0	0	0	0	0	0	0	0	27
1015-1030	5	7	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	16
1030-1045	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
1045-1100	0	9	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	9
1100-1115	0	7	0	0	0	0	0	0	3	0	0	0	0	1	2	1	2	1	1	1	0	0	0	13
1115-1130	0	7	0	0	0	0	0	0	6	0	0	0	0	1	2	1	1	1	1	1	0	0	0	23
1130-1145	0	0	0	0	0	0	0	0	9	0	0	0	0	1	1	2	2	2	1	1	0	0	0	20
1145-1200	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	1	2	2	1	0	0	11
1200-1215	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	1	1	2	2	1	2	0	11
1215-1230	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	2	2	2	2	2	0	0	15
1230-1245	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	3	2	2	3	1	0	0	19
1245-1300	2	0	0	7	0	0	0	0	0	1	0	0	1	1	2	1	2	2	2	1	2	0	2	25

LIFT UTILIZATION SUMMARY
TIME: 500 TO 2200

TIME	LIFTS											
	A	B	C	D	E	F	G	H	J	K		
	#	%	#	%	#	%	#	%	#	%	#	%
500- 515	0	0.	0	0.	0	0.	0	0.	0	0.	10	81.2
515- 530	0	0.	0	0.	0	0.	0	0.	0	0.	10	87.7
530- 545	0	0.	2	12.4	0	0.	0	0.	0	0.	8	58.3
545- 600	0	0.	7	76.7	0	0.	0	0.	0	0.	6	47.4
600- 615	0	0.	10	85.3	0	0.	0	0.	0	0.	0	0.
615- 630	0	0.	9	88.0	0	0.	0	0.	0	0.	0	0.
630- 645	0	0.	10	92.4	8	78.2	0	0.	0	0.	4	24.8
645- 700	0	0.	10	97.8	6	64.0	0	0.	0	0.	7	58.3
700- 715	0	0.	10	98.9	0	0.	0	0.	0	0.	3	22.7
715- 730	0	0.	10	96.0	0	0.	0	0.	0	0.	0	0.
730- 745	3	26.4	10	100.0	1	7.1	0	0.	2	14.7	1	8.7
745- 800	10	88.7	11	100.0	5	35.6	0	0.	5	34.7	0	0.
800- 815	10	94.9	11	100.0	5	36.4	0	0.	8	55.6	1	8.4
815- 830	9	100.0	11	100.0	5	41.3	0	0.	8	57.6	0	0.
830- 845	11	100.0	11	100.0	4	31.6	0	0.	4	27.6	0	0.
845- 900	9	100.0	10	100.0	1	13.3	0	0.	2	13.8	0	0.
900- 915	10	100.0	8	67.8	0	0.	8	66.9	3	20.4	1	8.7
915- 930	6	49.6	12	99.6	0	0.	7	64.0	3	21.1	0	0.
930- 945	10	76.8	11	84.9	0	0.	8	73.1	3	20.7	1	8.7
945-1000	10	71.6	11	94.6	7	48.9	7	71.1	2	13.8	0	0.
1000-1015	12	100.0	6	45.0	0	0.	8	72.7	3	20.7	0	0.
1015-1030	2	28.1	1	6.1	0	0.	6	59.3	5	34.4	1	8.9
1030-1045	0	0.	6	37.2	0	0.	0	0.	6	41.6	0	0.
1045-1100	0	0.	6	49.1	0	0.	0	0.	3	21.3	1	8.9
1100-1115	0	0.	11	81.6	0	0.	8	71.8	2	14.2	0	0.
1115-1130	0	0.	12	100.0	0	0.	3	31.1	3	20.9	0	0.
1130-1145	0	0.	10	98.9	0	0.	5	53.3	2	14.7	0	0.
1145-1200	0	0.	10	95.8	0	0.	0	0.	2	14.2	0	0.
1200-1215	0	0.	10	99.6	0	0.	0	0.	3	21.3	0	0.
1215-1230	0	0.	11	100.0	5	45.3	0	0.	3	20.9	0	0.

CARRIER/CART SUMMARIES
TIME: 500-2200

TIME	CARRIERS W/ CARTS			DIETARY CARTS			SURGICAL CARTS			GENL PURP CARTS			PHARMACY CARTS		
	AVE	MIN	MAX	AVE	MIN	MAX	AVE	MIN	MAX	AVE	MIN	MAX	AVE	MIN	MAX
500-600	5.3	0	10	.9	0	6	40.0	40	40	284.0	284	284	4.0	0	14
600-700	11.4	8	16	15.3	6	24	40.0	40	40	299.5	284	314	12.1	3	14
700-800	15.2	9	28	34.7	24	42	40.0	40	40	328.7	314	339	.2	0	3
800-900	25.8	12	35	40.7	34	45	40.0	40	40	337.5	332	339	0.	0	0
900-1000	30.1	12	43	23.9	14	34	40.0	40	40	319.4	305	332	13.7	0	20
1000-1100	16.1	10	31	6.2	0	14	40.0	40	40	300.5	300	305	20.0	20	20
1100-1200	16.0	8	26	15.3	6	24	40.0	40	40	315.5	300	330	9.7	0	20
1200-1300	18.6	9	24	34.6	24	42	40.0	40	40	344.7	330	354	11.0	0	14
1300-1400	25.7	8	39	40.5	34	45	40.0	40	40	349.6	338	354	5.3	0	14
1400-1500	23.0	8	32	23.4	14	34	40.0	40	40	324.4	311	338	12.5	0	17
1500-1600	22.9	17	28	6.1	0	14	40.0	40	40	298.3	286	311	8.5	0	17
1600-1700	11.5	4	18	15.3	6	24	40.0	40	40	284.1	284	286	0.	0	0
1700-1800	8.2	4	12	34.6	24	42	40.0	40	40	284.0	284	284	11.0	0	14
1800-1900	9.9	6	14	40.5	34	45	40.0	40	40	284.0	284	284	12.1	3	14
1900-2000	5.8	3	11	23.4	14	34	40.0	40	40	284.0	284	284	4.2	0	15
2000-2100	6.8	3	10	5.0	0	14	40.0	40	40	284.0	284	284	13.9	4	17
2100-2200	.3	0	4	0.	0	0	40.0	40	40	284.0	284	284	.3	0	4
500-2200	14.9	0	43	21.2	0	45	40.0	40	40	306.2	284	354	8.1	0	20

ANNEX D

QUEUE STATISTICS

This annex contains summary statistics on the major lift queues on the sub-basement and basement levels. The content and format of these reports are explained in Annex B.

QUEUE STATISTICS

LIFT: A

FLOOR: S

QUEUE CAPACITY: 2

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH		
	AVE	MAX		0	1	2
500- 600	0.	0	0	100.00	0.	0.
600- 700	0.	0	0	100.00	0.	0.
700- 800	0.	0	0	100.00	0.	0.
800- 900	0.	0	0	100.00	0.	0.
900-1000	.28	2	0	72.92	26.42	.67
1000-1100	.10	1	0	89.56	10.44	0.
1100-1200	0.	0	0	100.00	0.	0.
1200-1300	0.	0	0	100.00	0.	0.
1300-1400	0.	0	0	100.00	0.	0.
1400-1500	.24	1	0	75.92	24.08	0.
1500-1600	.60	2	0	48.94	41.92	9.14
1600-1700	.02	1	0	98.25	1.75	0.
1700-1800	0.	0	0	100.00	0.	0.
1800-1900	0.	0	0	100.00	0.	0.
1900-2000	0.	0	0	100.00	0.	0.
2000-2100	0.	0	0	100.00	0.	0.
2100-2200	0.	0	0	100.00	0.	0.
500-2200	.07	2	0	93.27	6.15	.58

QUEUE STATISTICS

LIFT: B

FLOOR: S

QUEUE CAPACITY: 2

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH		
	AVE	MAX		0	1	2
500- 600	0.	0	0	100.00	0.	0.
600- 700	0.	0	0	100.00	0.	0.
700- 800	0.	0	0	100.00	0.	0.
800- 900	0.	0	0	100.00	0.	0.
900-1000	0.	0	0	100.00	0.	0.
1000-1100	0.	0	0	100.00	0.	0.
1100-1200	0.	0	0	100.00	0.	0.
1200-1300	0.	0	0	100.00	0.	0.
1300-1400	0.	0	0	100.00	0.	0.
1400-1500	0.	0	0	100.00	0.	0.
1500-1600	.01	1	0	98.81	1.19	0.
1600-1700	0.	0	0	100.00	0.	0.
1700-1800	0.	0	0	100.00	0.	0.
1800-1900	0.	0	0	100.00	0.	0.
1900-2000	0.	0	0	100.00	0.	0.
2000-2100	0.	0	0	100.00	0.	0.
2100-2200	0.	0	0	100.00	0.	0.
500-2200	.00	1	0	99.93	.07	0.

QUEUE STATISTICS

LIFT: C

FLOOR: S

QUEUE CAPACITY: 4

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH				
	AVE	MAX		0	1	2	3	4
500- 600	.16	1	0	84.33	15.67	0.	0.	0.
600- 700	.33	2	0	67.92	30.81	1.28	0.	0.
700- 800	.24	1	0	75.56	24.44	0.	0.	0.
800- 900	.44	2	0	57.50	41.47	1.03	0.	0.
900-1000	.39	2	0	61.25	38.06	.69	0.	0.
1000-1100	.22	2	0	78.94	20.11	.94	0.	0.
1100-1200	.49	2	0	59.14	33.17	7.69	0.	0.
1200-1300	.70	2	0	43.11	44.17	12.72	0.	0.
1300-1400	.37	2	0	63.44	36.53	.03	0.	0.
1400-1500	.40	1	0	59.61	40.39	0.	0.	0.
1500-1600	.02	1	0	98.42	1.58	0.	0.	0.
1600-1700	.68	2	0	42.81	46.42	10.78	0.	0.
1700-1800	.58	2	0	51.47	39.39	9.14	0.	0.
1800-1900	.24	1	0	76.25	23.75	0.	0.	0.
1900-2000	.14	1	0	85.75	14.25	0.	0.	0.
2000-2100	.11	1	0	88.92	11.08	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.	0.
500-2200	.32	2	0	70.26	27.13	2.61	0.	0.

QUEUE STATISTICS

LIFT: D

FLOOR: S

QUEUE CAPACITY: 4

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH				
	AVE	MAX		0	1	2	3	4
500- 600	0.	0	0	100.00	0.	0.	0.	0.
600- 700	0.	0	0	100.00	0.	0.	0.	0.
700- 800	0.	0	0	100.00	0.	0.	0.	0.
800- 900	0.	0	0	100.00	0.	0.	0.	0.
900-1000	0.	0	0	100.00	0.	0.	0.	0.
1000-1100	0.	0	0	100.00	0.	0.	0.	0.
1100-1200	0.	0	0	100.00	0.	0.	0.	0.
1200-1300	0.	0	0	100.00	0.	0.	0.	0.
1300-1400	0.	0	0	100.00	0.	0.	0.	0.
1400-1500	0.	0	0	100.00	0.	0.	0.	0.
1500-1600	0.	0	0	100.00	0.	0.	0.	0.
1600-1700	0.	0	0	100.00	0.	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.	0.
1800-1900	0.	0	0	100.00	0.	0.	0.	0.
1900-2000	0.	0	0	100.00	0.	0.	0.	0.
2000-2100	0.	0	0	100.00	0.	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.	0.
500-2200	0.	0	0	100.00	0.	0.	0.	0.

QUEUE STATISTICS

LIFT: F

FLOOR: S

QUEUE CAPACITY: 3

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH			
	AVE	MAX		0	1	2	3
500- 600	0.	0	0	100.00	0.	0.	0.
600- 700	0.	0	0	100.00	0.	0.	0.
700- 800	.04	2	0	95.89	3.78	.33	0.
800- 900	.14	2	0	86.06	13.61	.33	0.
900-1000	.21	2	0	79.89	19.06	1.06	0.
1000-1100	.23	2	0	81.03	15.19	3.78	0.
1100-1200	0.	0	0	100.00	0.	0.	0.
1200-1300	.01	1	0	99.22	.78	0.	0.
1300-1400	.24	1	0	76.39	23.61	0.	0.
1400-1500	.16	2	0	84.89	14.22	.89	0.
1500-1600	.15	2	0	86.61	12.11	1.28	0.
1600-1700	0.	0	0	100.00	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.
1800-1900	0.	0	0	100.00	0.	0.	0.
1900-2000	0.	0	0	100.00	0.	0.	0.
2000-2100	0.	0	0	100.00	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.
500-2200	.07	2	0	93.53	6.02	.45	0.

QUEUE STATISTICS
 LIFT: K
 FLOOR: S
 QUEUE CAPACITY: 6
 TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH						
	AVE	MAX		0	1	2	3	4	5	6
500-600	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
600-700	.22	1	0	78.31	21.69	0.	0.	0.	0.	0.
700-800	.05	1	0	94.86	5.14	0.	0.	0.	0.	0.
800-900	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
900-1000	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1000-1100	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1100-1200	.37	2	0	63.64	35.58	.78	0.	0.	0.	0.
1200-1300	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1300-1400	.27	1	0	73.17	26.83	0.	0.	0.	0.	0.
1400-1500	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1500-1600	.32	2	0	68.28	31.17	.56	0.	0.	0.	0.
1600-1700	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.	0.	0.	0.
1800-1900	.22	1	0	78.31	21.69	0.	0.	0.	0.	0.
1900-2000	.05	1	0	94.86	5.14	0.	0.	0.	0.	0.
2000-2100	.26	1	0	74.39	25.61	0.	0.	0.	0.	0.
2100-2200	.06	1	0	94.25	5.75	0.	0.	0.	0.	0.
500-2200	.11	2	0	89.42	10.51	.08	0.	0.	0.	0.

QUEUE STATISTICS

LIFT: C

FLOOR: B

QUEUE CAPACITY: 3

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH			
	AVE	MAX		0	1	2	3
500- 600	0.	0	0	100.00	0.	0.	0.
600- 700	.48	2	0	53.39	45.44	1.17	0.
700- 800	1.40	3	0	17.83	44.83	16.67	20.67
800- 900	2.32	3	0	1.28	11.72	40.67	46.33
900-1000	1.04	3	0	40.17	29.89	16.06	13.89
1000-1100	.07	1	0	93.33	6.67	0.	0.
1100-1200	.85	3	0	35.67	45.00	17.94	1.39
1200-1300	2.19	3	0	8.06	19.67	17.28	55.00
1300-1400	2.30	3	0	3.78	11.94	35.00	49.28
1400-1500	1.18	3	0	26.22	40.28	22.50	11.00
1500-1600	.04	1	0	95.56	4.44	0.	0.
1600-1700	0.	0	0	100.00	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.
1800-1900	0.	0	0	100.00	0.	0.	0.
1900-2000	0.	0	0	100.00	0.	0.	0.
2000-2100	0.	0	0	100.00	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.
500-2200	.70	3	0	63.25	15.29	9.84	11.62

QUEUE STATISTICS

LIFT: D

FLOOR: B

QUEUE CAPACITY: 3

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH			
	AVE	MAX		0	1	2	3
500- 600	0.	0	0	100.00	0.	0.	0.
600- 700	0.	0	0	100.00	0.	0.	0.
700- 800	.05	1	0	95.17	4.83	0.	0.
800- 900	.16	2	0	85.39	13.39	1.22	0.
900-1000	.07	1	0	93.06	6.94	0.	0.
1000-1100	0.	0	0	100.00	0.	0.	0.
1100-1200	0.	0	0	100.00	0.	0.	0.
1200-1300	.23	2	0	78.89	19.00	2.11	0.
1300-1400	.19	2	0	81.78	17.33	.89	0.
1400-1500	.02	1	0	98.44	1.56	0.	0.
1500-1600	0.	0	0	100.00	0.	0.	0.
1600-1700	0.	0	0	100.00	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.
1800-1900	0.	0	0	100.00	0.	0.	0.
1900-2000	0.	0	0	100.00	0.	0.	0.
2000-2100	0.	0	0	100.00	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.
500-2200	.04	2	0	96.04	3.71	.25	0.

QUEUE STATISTICS

LIFT: E

FLOOR: B

QUEUE CAPACITY: 3

TIME: 500-2200

TIME	CARTS IN QUEUE		RECIR	DISTRIBUTION OF QUEUE LENGTH			
	AVE	MAX		0	1	2	3
500- 600	0.	0	0	100.00	0.	0.	0.
600- 700	0.	0	0	100.00	0.	0.	0.
700- 800	0.	0	0	100.00	0.	0.	0.
800- 900	0.	0	0	100.00	0.	0.	0.
900-1000	0.	0	0	100.00	0.	0.	0.
1000-1100	0.	0	0	100.00	0.	0.	0.
1100-1200	0.	0	0	100.00	0.	0.	0.
1200-1300	0.	0	0	100.00	0.	0.	0.
1300-1400	0.	0	0	100.00	0.	0.	0.
1400-1500	0.	0	0	100.00	0.	0.	0.
1500-1600	0.	0	0	100.00	0.	0.	0.
1600-1700	0.	0	0	100.00	0.	0.	0.
1700-1800	0.	0	0	100.00	0.	0.	0.
1800-1900	0.	0	0	100.00	0.	0.	0.
1900-2000	0.	0	0	100.00	0.	0.	0.
2000-2100	0.	0	0	100.00	0.	0.	0.
2100-2200	0.	0	0	100.00	0.	0.	0.
500-2200	0.	0	0	100.00	0.	0.	0.

ANNEX E

DISPATCH SCHEDULES

This annex contains the dispatch schedules for each cart source. The content and format of these reports and codes used are explained in Annex B.

DISPATCH SCHEDULE

SOURCE: BFS

TIME PERIOD: 500 TO 900

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
545	4PT	A/J*	606
551	2PT	B*	612
557	4PT	T*	618
603	2PT	T*	624
610	3PT	B/J*	630
617	5PT	A/B*	638
623	6PT	A*	644
629	7PT	A*	651
634	8PT	A/B*	655
642	9PT	A/B*	703
648	2IC	---*	709
656	3PT	A*	716
702	5PT	T*	723
707	6PT	B*	728
712	7PT	B*	733
717	8PT	T/J*	738
723	9PT	J*	744
729	3PT	T*	751
735	5PT	J*	756
741	6PT	T*	802
747	7PT	T*	809
753	1PT	T*	814
759	6PT	J*	821
805	7PT	J*	826
808	1PT	FL	830
810	2IC	---	831
812	2PT	FL	833
814	3PT	FL	836
816	4PT	FL	837
818	5PT	FL	840
820	6PT	FL	842
822	7PT	FL	843
824	8PT	FL	845
826	9PT	FL	848

TOTAL CARTS DURING PERIOD 34

DISPATCH SCHEDULE

SOURCE: BFS

TIME PERIOD: 900 TO 1400

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
914	BDE	---	954
1042	BLN	---	1115
1045	4PT	A/J*	1106
1051	2PT	B*	1113
1057	4PT	T*	1118
1103	2PT	T*	1125
1110	3PT	B/J*	1131
1117	5PT	A/B*	1138
1123	6PT	A*	1144
1129	7PT	A*	1150
1134	8PT	A/B*	1155
1142	9PT	A/B*	1203
1148	2IC	---*	1209
1156	3PT	A*	1217
1202	5PT	T*	1223
1207	6PT	B*	1229
1212	7PT	B*	1234
1217	8PT	T/J*	1239
1223	9PT	J*	1245
1229	3PT	T*	1250
1235	5PT	J*	1256
1241	6PT	T*	1302
1247	7PT	T*	1308
1253	1PT	T*	1314
1259	6PT	J*	1320
1305	7PT	J*	1326
1308	1PT	FL	1329
1310	2IC	---	1332
1312	2PT	FL	1333
1314	3PT	FL	1335
1316	4PT	FL	1337
1318	5PT	FL	1339
1320	6PT	FL	1341
1322	7PT	FL	1343
1324	8PT	FL	1345
1326	9PT	FL	1347

TOTAL CARTS DURING PERIOD 36

DISPATCH SCHEDULE

SOURCE: BFS

TIME PERIOD: 1400 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
1545	4PT	A/J*	1606
1551	2PT	B*	1612
1557	4PT	T*	1618
1603	2PT	T*	1624
1610	3PT	B/J*	1630
1617	5PT	A/B*	1639
1623	6PT	A*	1644
1629	7PT	A*	1650
1634	8PT	A/B*	1655
1642	9PT	A/B*	1703
1648	2IC	---*	1708
1656	3PT	A*	1717
1702	5PT	T*	1723
1707	6PT	B*	1729
1712	7PT	B*	1733
1717	8PT	T/J*	1739
1723	9PT	J*	1744
1729	3PT	T*	1749
1735	5PT	J*	1756
1741	6PT	T*	1802
1747	7PT	T*	1808
1753	1PT	T*	1813
1759	6PT	J*	1820
1805	7PT	J*	1826
1808	1PT	FL	1828
1810	2IC	---	1830
1812	2PT	FL	1832
1814	3PT	FL	1835
1816	4PT	FL	1837
1818	5PT	FL	1839
1820	6PT	FL	1841
1822	7PT	FL	1843
1824	8PT	FL	1845
1826	9PT	FL	1847

TOTAL CARTS DURING PERIOD 34

DISPATCH SCHEDULE

SOURCE: BLN

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
730	1PT	T	740
732	2PT	T	743
734	3PT	T	746
736	4PT	T	748
738	5PT	T	749
740	6PT	T	752
742	7PT	T	755
744	8PT	T	758
746	1PT	T	759
748	2PT	T	800
750	3PT	T	803
752	4PT	T	804
754	5PT	T	806
756	6PT	T	807
758	7PT	T	810
800	8PT	T	812
802	3PT	J	811
804	4PT	J	816
806	5PT	J	817
808	6PT	J	820
810	7PT	J	823
812	8PT	J	824
814	9PT	J	823
816	5PT	J	828
818	6PT	J	827
820	7PT	J	834
822	8PT	J	839
824	9PT	J	846
826	3PT	A	835
828	4PT	A	850
830	5PT	A	839
832	6PT	A	851
834	7PT	A	843
836	8PT	A	845
838	9PT	A	853
840	3PT	A	849
842	2PT	B	854
844	3PT	B	855
846	5PT	B	857
848	6PT	B	858
850	7PT	B	900
852	8PT	B	901
854	9PT	B	903
856	2PT	B	905
858	1CL	PED	918
900	BCL	ORT	920

902	1CL	PED	922
904	2IC	---	909
906	BCL	ORT	926
908	1CL	MED	930
910	2OR	---	918
912	1CL	MED	932
914	2CL	LAB	936
916	BCL	SUR	940
918	1CL	CAR	941
920	BFS	---	1007
922	BCL	SUR	943
924	1CL	CAR	944
926	2OR	---	934
928	BCL	EME	948
930	1CL	OBG	950
932	2IC	---	937
934	BCL	EME	956
936	1CL	OBG	1005
938	BCL	RAD	1007
940	1CL	ALL	1008
942	BCL	RAD	1002
944	1CL	ALL	1004

TOTAL CARTS DURING PERIOD 68

DISPATCH SCHEDULE

SOURCE: BPS

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
1230	1PT	T	1240
1232	2PT	T	1243
1234	3PT	T	1244
1236	4PT	T	1245
1238	5PT	T	1252
1240	6PT	T	1249
1242	7PT	T	1251
1244	8PT	T	1257
1246	1PT	T	1255
1248	2PT	T	1300
1250	3PT	T	1259
1252	4PT	T	1305
1254	5PT	T	1303
1256	6PT	T	1305
1258	7PT	T	1311
1300	8PT	T	1309
1302	1PT	RAD	1311
1304	3PT	J	1317
1306	4PT	J	1315
1308	5PT	J	1317
1310	6PT	J	1323
1312	7PT	J	1321
1314	8PT	J	1323
1316	9PT	J	1330
1318	1PT	RAD	1327
1320	5PT	J	1329
1322	6PT	J	1331
1324	7PT	J	1334
1326	8PT	J	1335
1328	9PT	J	1349
1330	1PT	RAD	1340
1332	3PT	A	1350
1334	4PT	A	1343
1336	5PT	A	1352
1338	6PT	A	1347
1340	7PT	A	1349
1342	8PT	A	1353
1344	9PT	A	1355
1346	3PT	A	1356
1348	1PT	RAD	1357
1350	2PT	B	1359
1352	3PT	B	1401
1354	5PT	B	1403
1356	6PT	B	1405
1358	7PT	B	1407
1400	8PT	B	1409

1402	9PT	B	1411
1404	2PT	B	1414
1406	BCL	ORT	1428
1408	1CL	MED	1430
1410	2IC	---	1415
1412	BCL	ORT	1434
1414	1CL	MED	1438
1416	2IC	---	1421
1418	BCL	SUR	1442
1420	1CL	CAR	1443
1422	2CL	LAB	1444
1424	BCL	SUR	1448
1426	1CL	CAR	1450
1428	2CL	LAB	1456
1430	BCL	EME	1459
1432	1CL	OBG	1500
1434	2CL	LAB	1454
1436	BCL	EME	1501
1438	1CL	OBG	1458
1440	2CL	LAB	1503
1442	BCL	RAD	1504
1444	1CL	ALL	1505
1446	2CL	LAB	1506
1448	1CL	PED	1508
1450	2CL	LAB	1510
1452	BCL	RAD	1512
1454	1CL	ALL	1514
1456	2CL	LAB	1516
1458	1CL	PED	1518

TOTAL CARTS DURING PERIOD 75

DISPATCH SCHEDULE

SOURCE: BDE

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
600	1PT	T	611
602	2PT	T	613
604	3PT	T	615
606	4PT	T	617
608	5PT	T	620
610	6PT	T	621
612	7PT	T	623
614	8PT	T	626
616	1PT	T	627
618	2PT	T	629
620	3PT	T	632
622	4PT	T	633
624	5PT	T	635
626	6PT	T	637
628	7PT	T	640
630	8PT	T	642
632	3PT	J	643
634	4PT	J	646
636	5PT	J	647
638	6PT	J	649
640	7PT	J	652
642	8PT	J	654
644	9PT	J	657
646	5PT	J	659
648	6PT	J	700
650	7PT	J	702
652	8PT	J	705
654	9PT	J	706
656	3PT	A	708
658	4PT	A	710
700	5PT	A	712
702	6PT	A	713
704	7PT	A	715
706	8PT	A	718
708	9PT	A	720
710	3PT	A	721
712	2PT	B	724
714	3PT	B	725
716	5PT	B	727
718	6PT	B	730
720	7PT	B	731
722	8PT	B	735
724	9PT	B	736
726	2PT	B	739
728	1CL	PED	753
730	BCL	ORT	752

732	1CL	PED	759
734	2IC	---	739
736	BCL	ORT	758
738	1CL	MED	805
740	2OR	---	748
742	1CL	MED	804
744	2CL	LAB	806
746	BCL	SUR	808
748	1CL	CAR	810
750	BFS	---	837
752	BCL	SUR	814
754	1CL	CAR	816
756	2OR	---	804
758	BCL	EME	824
800	1CL	OBG	823
802	2IC	---	807
804	BCL	EME	829
806	1CL	OBG	828
808	BCL	RAD	830
810	1CL	ALL	838
812	BCL	RAD	835
814	1CL	ALL	843
816	BBS	---	832
818	BBS	---	834
820	BBS	---	836
822	BBS	---	838
824	BBS	---	840
826	BBS	---	842
828	BBS	---	844
830	BBS	---	846
832	BBS	---	848
834	BBS	---	850
836	BBS	---	852
838	BBS	---	854
840	BBS	---	856
842	BBS	---	858
844	BBS	---	900
846	BBS	---	902
1100	1PT	T	1111
1102	2PT	T	1115
1104	3PT	T	1119
1106	4PT	T	1120
1108	5PT	T	1122
1110	6PT	T	1123
1112	7PT	T	1126
1114	8PT	T	1128
1116	1PT	T	1129
1118	2PT	T	1130
1120	3PT	T	1133
1122	4PT	T	1134
1124	5PT	T	1135
1126	6PT	T	1137
1128	7PT	T	1140
1130	8PT	T	1142

1132	1PT	RAD	1143
1134	3PT	J	1146
1136	4PT	J	1147
1138	5PT	J	1149
1140	6PT	J	1152
1142	7PT	J	1154
1144	8PT	J	1157
1146	9PT	J	1158
1148	1PT	RAD	1200
1150	5PT	J	1201
1152	6PT	J	1204
1154	7PT	J	1206
1156	8PT	J	1207
1158	9PT	J	1210
1200	1PT	RAD	1212
1202	3PT	A	1213
1204	4PT	A	1242
1206	5PT	A	1243
1208	6PT	A	1246
1210	7PT	A	1221
1212	8PT	A	1223
1214	9PT	A	1225
1216	3PT	A	1227
1218	1PT	RAD	1229
1220	2PT	B	1231
1222	3PT	B	1233
1224	5PT	B	1235
1226	6PT	B	1237
1228	7PT	B	1239
1230	8PT	B	1241
1232	9PT	B	1248
1234	2PT	B	1251
1236	BCL	ORT	1258
1238	1CL	MED	1305
1240	2IC	---	1245
1242	BCL	ORT	1306
1244	1CL	MED	1310
1246	2IC	---	1251
1248	BCL	SUR	1312
1250	1CL	CAR	1315
1252	2CL	LAB	1317
1254	BCL	SUR	1318
1256	1CL	CAR	1321
1258	2CL	LAB	1323
1300	BCL	EME	1325
1302	1CL	OBG	1327
1304	2CL	LAB	1329
1306	BCL	EME	1330
1308	1CL	OBG	1333
1310	2CL	LAB	1335
1312	BCL	RAD	1336
1314	1CL	ALL	1339
1316	2CL	LAB	1345
1318	1CL	PED	1347

1320	2CL	LAB	1351
1322	BCL	RAD	1344
1324	1CL	ALL	1355
1326	2CL	LAB	1349
1328	1CL	PED	1350

TOTAL CARTS DURING PERIOD 159

DISPATCH SCHEDULE

SOURCE: BBS

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
930	1PT	RAD	942
932	BCL	RAD	959
934	2CL	LAB	957
936	1PT	RAD	947
938	BCL	RAD	1000
940	2CL	LAB	1003
942	1PT	RAD	954
944	BCL	RAD	1009
946	2CL	LAB	1010
948	1PT	RAD	959
950	BCL	RAD	1013
952	2CL	LAB	1015
954	1PT	RAD	1005
956	BCL	RAD	1019
958	2CL	LAB	1022
1000	2CL	LAB	1023

TOTAL CARTS DURING PERIOD 16

DISPATCH SCHEDULE

SOURCE: BCH

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
500	2OR	---*	503
501	2OR	---*	504
502	2OR	---*	506
503	2OR	---*	507
504	2OR	---*	508
505	2OR	---*	516
506	2OR	---*	510
507	2OR	---*	511
508	2OR	---*	512
509	2OR	---*	520
510	2OR	---*	513
511	2OR	---*	515
512	2OR	---*	526
513	2OR	---*	517
514	2OR	---*	525
515	2OR	---*	518
516	2OR	---*	523
517	2OR	---*	521
518	2OR	---*	522
519	2OR	---*	529

TOTAL CARTS DURING PERIOD 20

DISPATCH SCHEDULE

SOURCE: BPH

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
530	7PT	A	543
532	8PT	A	545
534	9PT	A	547
536	3PT	A	549
538	4PT	A	551
540	5PT	A	553
542	6PT	A	555
544	7PT	B	557
546	8PT	B	559
548	9PT	B	601
550	2PT	B	603
552	3PT	B	605
554	5PT	B	608
556	6PT	B	609
900	1PT	T	913
902	2PT	T	916
904	3PT	T	918
906	4PT	T	919
908	5PT	T	922
910	6PT	T	923
912	7PT	T	926
914	8PT	T	927
916	BCL	FL	923
918	1CL	FL	927
920	2CL	FL	928
922	2IC	---	935
924	2OR	---	925
926	3PT	J	940
928	4PT	J	941
930	5PT	J	944
932	6PT	J	946
934	7PT	J	949
936	8PT	J	950
938	9PT	J	952
1200	7PT	A	1214
1202	8PT	A	1216
1204	9PT	A	1219
1206	3PT	A	1220
1208	4PT	A	1222
1210	5PT	A	1224
1212	6PT	A	1226
1214	7PT	B	1227
1216	8PT	B	1230
1218	9PT	B	1232
1220	2PT	B	1235
1222	3PT	B	1236

1224	5PT	B	1237
1226	6PT	B	1240
1400	1PT	T	1413
1402	2PT	T	1415
1404	3PT	T	1418
1406	4PT	T	1420
1408	5PT	T	1421
1410	6PT	T	1424
1412	7PT	T	1425
1414	8PT	T	1428
1416	2IC	---	1429
1418	2OR	---	1419
1420	3PT	J	1434
1422	4PT	J	1435
1424	5PT	J	1438
1426	6PT	J	1440
1428	7PT	J	1442
1430	8PT	J	1444
1432	9PT	J	1446
1700	7PT	A	1713
1702	8PT	A	1715
1704	9PT	A	1718
1706	3PT	A	1720
1708	4PT	A	1721
1710	5PT	A	1724
1712	6PT	A	1725
1714	7PT	B	1727
1716	8PT	B	1730
1718	9PT	B	1732
1720	2PT	B	1735
1722	3PT	B	1736
1724	5PT	B	1737
1726	6PT	B	1740
1930	1PT	T	1943
1932	2PT	T	1945
1934	3PT	T	1947
1936	4PT	T	1949
1938	5PT	T	1951
1940	6PT	T	1953
1942	7PT	T	1955
1944	8PT	T	1957
1946	2IC	---	1959
1948	2OR	---	1949
1950	3PT	J	2003
1952	4PT	J	2005
1954	5PT	J	2007
1956	6PT	J	2009
1958	7PT	J	2011
2000	8PT	J	2013
2002	9PT	J	2015

TOTAL CARTS DURING PERIOD 96

DISPATCH SCHEDULE

SOURCE: BCL

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
912	BDE	ORT	925
920	BDE	ORT	933
930	BDE	SUR	943
934	BDE	SUR	948
940	BDE	EME	953
946	BDE	EME	959
950	BDE	RAD	1003
954	BDE	RAD	1008
1022	BLN	ORT	1045
1028	BLN	ORT	1048
1038	BLN	SUR	1059
1044	BLN	SUR	1104
1050	BLN	EME	1110
1056	BLN	EME	1116
1100	BLN	RAD	1120
1104	BLN	RAD	1125
1116	BPH	FL	1130
1415	BDE	ORT	1428
1421	BDE	ORT	1434
1427	BDE	SUR	1440
1433	BDE	SUR	1446
1439	BDE	EME	1452
1445	BDE	EME	1458
1451	BDE	RAD	1505
1501	BDE	RAD	1517
1522	BDE	RAD	1535
1528	BDE	RAD	1541
1534	BDE	RAD	1547
1540	BDE	RAD	1553
1546	BDE	RAD	1559
1550	BPS	ORT	1607
1556	BPS	ORT	1613
1602	BPS	SUR	1619
1608	BPS	SUR	1625
1614	BPS	EME	1631
1620	BPS	EME	1637
1626	BPS	RAD	1643
1636	BPS	RAD	1654

TOTAL CARTS DURING PERIOD 38

DISPATCH SCHEDULE

SOURCE: 1CL

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
910	BDE	PED	923
916	BDE	PED	929
922	BDE	MED	935
926	BDE	MED	940
932	BDE	CAR	946
936	BDE	CAR	949
942	BDE	OBG	955
948	BDE	OBG	1001
952	BDE	ALL	1006
956	BDE	ALL	1010
1020	BLN	PED	1041
1024	BLN	PED	1046
1030	BLN	MED	1051
1034	BLN	MED	1055
1040	BLN	CAR	1101
1046	BLN	CAR	1107
1052	BLN	OBG	1113
1058	BLN	OBG	1119
1102	BLN	ALL	1123
1106	BLN	ALL	1128
1118	BPH	FL	1132
1417	BDE	MED	1430
1423	BDE	MED	1436
1429	BDE	CAR	1442
1435	BDE	CAR	1448
1441	BDE	OBG	1454
1447	BDE	OBG	1500
1453	BDE	ALL	1507
1457	BDE	PED	1512
1503	BDE	ALL	1520
1507	BDE	PED	1520
1552	BPS	MED	1609
1558	BPS	MED	1615
1604	BPS	CAR	1621
1610	BPS	CAR	1627
1616	BPS	OBG	1633
1622	BPS	OBG	1639
1628	BPS	ALL	1645
1632	BPS	PED	1649
1638	BPS	ALL	1655
1642	BPS	PED	1700

TOTAL CARTS DURING PERIOD 41

DISPATCH SCHEDULE

SOURCE: 2CL

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
928	BDE	LAB	941
1036	BLN	LAB	1057
1120	BPH	FL	1134
1431	BDE	LAB	1445
1437	BDE	LAB	1451
1443	BDE	LAB	1457
1449	BDE	LAB	1503
1455	BDE	LAB	1510
1459	BDE	LAB	1515
1505	BDE	LAB	1524
1524	BDE	LAB	1538
1530	BDE	LAB	1544
1536	BDE	LAB	1550
1542	BDE	LAB	1556
1548	BDE	LAB	1602
1550	BDE	LAB	1604
1606	BPS	LAB	1623
1612	BPS	LAB	1629
1618	BPS	LAB	1635
1624	BPS	LAB	1641
1630	BPS	LAB	1647
1634	BPS	LAB	1652
1640	BPS	LAB	1659

TOTAL CARTS DURING PERIOD 23

DISPATCH SCHEDULE

SOURCE: IPT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
745	BDE	T	747
801	BDE	T	804
900	BLN	T	912
916	BLN	T	928
936	BFS	T*	956
1000	BFS	FL	1020
1100	BPH	T	1109
1245	BDE	T	1246
1301	BDE	T	1303
1317	BDE	RAD	1318
1333	BDE	RAD	1334
1345	BDE	RAD	1346
1401	BDE	RAD	1403
1420	BPS	T	1428
1436	BFS	T*	1455
1436	BPS	T	1444
1452	BPS	RAD	1500
1500	BFS	FL	1519
1500	BPH	T	1509
1508	BPS	RAD	1521
1520	BPS	RAD	1537
1520	BDE	RAD	1522
1526	BDE	RAD	1527
1532	BDE	RAD	1533
1536	BPS	RAD	1554
1538	BDE	RAD	1539
1544	BDE	RAD	1545
1936	BFS	T*	1955
2000	BFS	FL	2019
2025	BPH	T	2034

TOTAL CARTS DURING PERIOD 30

DISPATCH SCHEDULE

SOURCE: 2PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
650	BPH	B	659
736	BFS	B*	755
747	BDE	T	749
748	BFS	T*	807
803	BDE	T	805
857	BDE	B	900
902	BLN	T	914
911	BDE	B	914
918	BLN	T	930
1004	BFS	FL	1024
1012	BLN	B	1024
1026	BLN	B	1038
1102	BPH	T	1111
1236	BFS	B*	1255
1247	BDE	T	1248
1248	BFS	T*	1307
1303	BDE	T	1304
1320	BPH	B	1329
1405	BDE	B	1406
1419	BDE	B	1421
1422	BPS	T	1430
1438	BPS	T	1446
1502	BPH	T	1513
1504	BFS	FL	1523
1540	BPS	B	1558
1554	BPS	B	1609
1736	BFS	B*	1755
1748	BFS	T*	1807
1850	BPH	B	1859
2004	BFS	FL	2023
2027	BPH	T	2036

TOTAL CARTS DURING PERIOD 31

DISPATCH SCHEDULE

SOURCE: 3PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
636	BPH	A	645
652	BPH	B	701
749	BDE	T	751
754	BFS	R/J*	813
805	BDE	T	807
817	BDE	J	819
836	BFS	A*	856
841	BDE	A	844
855	BDE	A	859
859	BDE	B	902
904	BLN	T	916
912	BFS	T*	933
920	BLN	T	932
932	BLN	J	944
956	BLN	A	1008
1006	BFS	FL	1026
1010	BLN	A	1022
1014	BLN	B	1026
1104	BPH	T	1113
1126	BPH	J	1135
1249	BDE	T	1251
1254	BFS	B/J*	1313
1305	BDE	T	1307
1306	BPH	A	1315
1319	BDE	J	1321
1322	BPH	B	1331
1336	BFS	A*	1355
1347	BDE	A	1349
1403	BDE	A	1405
1407	BDE	B	1409
1412	BFS	T*	1431
1424	BPS	T	1432
1440	BPS	T	1448
1454	BPS	J	1502
1504	BPH	T	1516
1506	BFS	FL	1526
1520	BPH	J	1536
1522	BPS	A	1544
1538	BPS	A	1557
1542	BPS	B	1605
1754	BFS	B/J*	1813
1836	BFS	A*	1855
1836	BPH	A	1845
1852	BPH	B	1901
1912	BFS	T*	1931
2006	BFS	FL	2025

2029
2045

BPH
BPH

T
J

2038
2054

TOTAL CARTS DURING PERIOD 48

DISPATCH SCHEDULE

SOURCE: 4PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
638	BPH	A	647
730	BFS	A/J*	749
742	BFS	T*	801
751	BDE	T	753
807	BDE	T	810
819	BDE	J	822
843	BDE	A	847
906	BLN	T	918
922	BLN	T	934
934	BLN	J	946
958	BLN	A	1010
1008	BFS	FL	1029
1106	BPH	T	1115
1128	BPH	J	1137
1230	BFS	A/J*	1249
1242	BFS	T*	1301
1251	BDE	T	1253
1307	BDE	T	1309
1308	BPH	A	1317
1321	BDE	J	1323
1349	BDE	A	1351
1426	BPS	T	1434
1442	BPS	T	1450
1456	BPS	J	1504
1506	BPH	T	1520
1508	BFS	FL	1528
1522	BPH	J	1539
1524	BPS	A	1547
1730	BFS	A/J*	1749
1742	BFS	T*	1801
1838	BPH	A	1847
2008	BFS	FL	2027
2031	BPH	T	2040
2047	BPH	J	2056

TOTAL CARTS DURING PERIOD 34

DISPATCH SCHEDULE

SOURCE: 5PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
640	BPH	A	649
654	BPH	B	703
753	BDE	T	755
800	BFS	A/B*	820
809	BDE	T	811
821	BDE	J	824
831	BDE	J	835
842	BFS	T*	902
845	BDE	A	848
901	BDE	B	905
908	BLN	T	920
918	BFS	J*	937
924	BLN	T	936
936	BLN	J	948
946	BLN	J	958
1000	BLN	A	1012
1010	BFS	FL	1030
1016	BLN	B	1028
1108	BPH	T	1117
1130	BPH	J	1139
1253	BDE	T	1255
1300	BFS	A/B*	1319
1309	BDE	T	1311
1310	BPH	A	1319
1323	BDE	J	1325
1324	BPH	B	1333
1335	BDE	J	1337
1342	BFS	T*	1401
1351	BDE	A	1353
1409	BDE	B	1411
1418	BFS	J*	1437
1428	BPS	T	1436
1444	BPS	T	1452
1458	BPS	J	1506
1508	BPH	T	1521
1510	BFS	FL	1530
1510	BPS	J	1525
1524	BPH	J	1540
1526	BPS	A	1550
1544	BPS	B	1601
1800	BFS	A/B*	1819
1840	BPH	A	1849
1842	BFS	T*	1901
1854	BPH	B	1903
1918	BFS	J*	1937
2010	BFS	FL	2029

2033
2049

BPH
BPH

T
J

2042
2058

TOTAL CARTS DURING PERIOD 48

DISPATCH SCHEDULE

SOURCE: 6PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
642	BPH	A	651
656	BPH	B	705
755	BDE	T	758
806	BFS	A*	825
811	BDE	T	813
823	BDE	J	825
833	BDE	J	836
847	BDE	A	850
848	BFS	B*	908
903	BDE	B	906
910	BLN	T	922
924	BFS	T*	944
926	BLN	T	938
938	BLN	J	950
942	BFS	J*	1002
948	BLN	J	1000
1002	BLN	A	1014
1012	BFS	FL	1032
1018	BLN	B	1030
1110	BPH	T	1119
1132	BPH	J	1141
1255	BDE	T	1257
1306	BFS	A*	1325
1311	BDE	T	1313
1312	BPH	A	1321
1325	BDE	J	1327
1326	BPH	B	1335
1337	BDE	J	1339
1348	BFS	B*	1407
1353	BDE	A	1355
1411	BDE	B	1413
1424	BFS	T*	1443
1430	BPS	T	1438
1442	BFS	J*	1501
1446	BPS	T	1454
1500	BPS	J	1509
1510	BPH	T	1523
1512	BFS	FL	1533
1512	BPS	J	1528
1526	BPH	J	1542
1528	BPS	A	1551
1546	BPS	B	1602
1806	BFS	A*	1825
1842	BPH	A	1851
1848	BFS	B*	1907
1856	BPH	B	1905

1924	BFS	T*	1943
1942	BFS	J*	2001
2012	BFS	FL	2031
2035	BPH	T	2045
2051	BPH	J	2100

TOTAL CARTS DURING PERIOD 51

DISPATCH SCHEDULE

SOURCE: 7PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
630	BPH	A	639
644	BPH	B	653
757	BDE	T	759
812	BFS	A*	832
813	BDE	T	816
825	BDE	J	828
835	BDE	J	838
849	BDE	A	853
854	BFS	B*	915
905	BDE	B	908
912	BLN	T	924
928	BLN	T	940
930	BFS	T*	949
940	BLN	J	952
948	BFS	J*	1008
950	BLN	J	1002
1004	BLN	A	1016
1014	BFS	FL	1033
1020	BLN	B	1032
1112	BPH	T	1121
1134	BPH	J	1143
1257	BDE	T	1259
1300	BPH	A	1309
1312	BFS	A*	1331
1313	BDE	T	1315
1314	BPH	B	1323
1327	BDE	J	1329
1339	BDE	J	1341
1354	BFS	B*	1413
1355	BDE	A	1357
1413	BDE	B	1415
1430	BFS	T*	1449
1432	BPS	T	1440
1448	BFS	J*	1507
1448	BPS	T	1456
1502	BPS	J	1511
1512	BPH	T	1525
1514	BFS	FL	1535
1514	BPS	J	1530
1528	BPH	J	1544
1530	BPS	A	1553
1548	BPS	B	1604
1812	BFS	A*	1831
1830	BPH	A	1839
1844	BPH	B	1853
1854	BFS	B*	1913

1930	BFS	T*	1949
1948	BFS	J*	2007
2014	BFS	FL	2033
2037	BPH	T	2046
2053	BPH	J	2102

TOTAL CARTS DURING PERIOD 51

DISPATCH SCHEDULE

SOURCE: 8PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
632	BPH	A	641
646	BPH	B	655
759	BDE	T	801
815	BDE	T	818
818	BFS	A/B*	838
827	BDE	J	830
837	BDE	J	841
851	BDE	A	854
900	BFS	T/J*	920
907	BDE	B	911
914	BLN	T	926
930	BLN	T	942
942	BLN	J	954
952	BLN	J	1004
1006	BLN	A	1018
1016	BFS	FL	1035
1022	BLN	B	1034
1114	BPH	T	1123
1136	BPH	J	1145
1259	BDE	T	1301
1302	BPH	A	1311
1315	BDE	T	1317
1316	BPH	B	1325
1318	BFS	A/B*	1337
1329	BDE	J	1331
1341	BDE	J	1343
1357	BDE	A	1359
1400	BFS	T/J*	1419
1415	BDE	B	1417
1434	BPS	T	1442
1450	BPS	T	1458
1504	BPS	J	1514
1514	BPH	T	1528
1516	BFS	FL	1538
1516	BPS	J	1534
1530	BPH	J	1546
1532	BPS	A	1555
1550	BPS	B	1607
1818	BFS	A/B*	1837
1832	BPH	A	1841
1846	BPH	B	1855
1900	BFS	T/J*	1919
2016	BFS	FL	2035
2039	BPH	T	2048
2055	BPH	J	2104

TOTAL CARTS DURING PERIOD 45

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ANALYTIC SERVICES INC ARLINGTON VA
SCHEDULE FOR THE AUTOMATIC CART TRANSPORTATION SYSTEM AT WILFOR--ETC(U)
FEB 79 J H CRAWFORD, R G CARLISLE
ANSER-HSSEDN-79-3

F/G 6/12

F49620-77-C-0025

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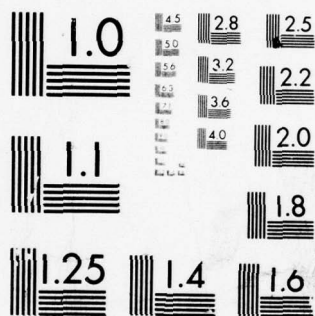


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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

DISPATCH SCHEDULE

SOURCE: 9PT

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
634	BPH	A	644
648	BPH	B	658
824	BFS	A/B*	844
829	BDE	J	832
839	BDE	J	842
853	BDE	A	856
906	BFS	J*	927
909	BDE	B	913
944	BLN	J	956
954	BLN	J	1006
1008	BLN	A	1020
1018	BFS	FL	1037
1024	BLN	B	1036
1138	BPH	J	1148
1304	BPH	A	1314
1318	BPH	B	1328
1324	BFS	A/B*	1343
1331	BDE	J	1333
1343	BDE	J	1345
1359	BDE	A	1401
1406	BFS	J*	1425
1417	BDE	B	1419
1506	BPS	J	1517
1518	BFS	FL	1540
1518	BPS	J	1533
1532	BPH	J	1549
1534	BPS	A	1559
1552	BPS	B	1608
1824	BFS	A/B*	1843
1834	BPH	A	1844
1848	BPH	B	1858
1906	BFS	J*	1925
2018	BFS	FL	2037
2057	BPH	J	2107

TOTAL CARTS DURING PERIOD 34

DISPATCH SCHEDULE

SOURCE: 20R

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
924	BDE	---	936
938	BDE	---	951
1032	BLN	---	1057
1048	BLN	---	1113
1124	BPH	---	1125
1518	BPH	---	1519
2043	BPH	---	2044

TOTAL CARTS DURING PERIOD 7

DISPATCH SCHEDULE

SOURCE: 2IC

TIME PERIOD: 500 TO 2200

DISPATCH TIME	DESTINATION	WING	ARRIVAL TIME
830	BFS	----*	850
918	BDE	---	921
944	BDE	---	947
1002	BFS	---	1022
1026	BLN	---	1046
1054	BLN	---	1114
1122	BPH	---	1131
1330	BFS	----*	1349
1419	BDE	---	1421
1425	BDE	---	1427
1502	BFS	---	1521
1516	BPH	---	1532
1554	BPS	---	1610
1600	BPS	---	1616
1830	BFS	----*	1849
2002	BFS	---	2021
2041	BPH	---	2050

TOTAL CARTS DURING PERIOD 17

ANNEX F

ARRIVAL SCHEDULES

This annex contains the arrival schedules for each cart destination. The content and format of these reports and codes used are explained in Annex B.

ARRIVAL SCHEDULE
 DESTINATION BFS
 TIME PERIOD: 500 TO 1100

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
749	4PT	A/J*	730
755	2PT	B*	736
801	4PT	T*	742
807	2PT	T*	748
813	3PT	B/J*	754
820	5PT	A/B*	800
825	6PT	A*	806
832	7PT	A*	812
837	BDE	---	750
838	8PT	A/B*	818
844	9PT	A/B*	824
850	2IC	---*	830
856	3PT	A*	836
902	5PT	T*	842
908	6PT	B*	848
915	7PT	B*	854
920	8PT	T/J*	900
927	9PT	J*	906
933	3PT	T*	912
937	5PT	J*	918
944	6PT	T*	924
949	7PT	T*	930
956	1PT	T*	936
1002	6PT	J*	942
1007	BLN	---	920
1008	7PT	J*	948
1020	1PT	FL	1000
1022	2IC	---	1002
1024	2PT	FL	1004
1026	3PT	FL	1006
1029	4PT	FL	1008
1030	5PT	FL	1010
1032	6PT	FL	1012
1033	7PT	FL	1014
1035	8PT	FL	1016
1037	9PT	FL	1018

TOTAL CARTS DURING PERIOD 36

ARRIVAL SCHEDULE
 DESTINATION BFS
 TIME PERIOD: 1100 TO 1600

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
1249	4PT	A/J*	1230
1255	2PT	B*	1236
1301	4PT	T*	1242
1307	2PT	T*	1248
1313	3PT	B/J*	1254
1319	5PT	A/B*	1300
1325	6PT	A*	1306
1331	7PT	A*	1312
1337	8PT	A/B*	1318
1343	9PT	A/B*	1324
1349	2IC	---*	1330
1355	3PT	A*	1336
1401	5PT	T*	1342
1407	6PT	B*	1348
1413	7PT	B*	1354
1419	8PT	T/J*	1400
1425	9PT	J*	1406
1431	3PT	T*	1412
1437	5PT	J*	1418
1443	6PT	T*	1424
1449	7PT	T*	1430
1455	1PT	T*	1436
1501	6PT	J*	1442
1507	7PT	J*	1448
1519	1PT	FL	1500
1521	2IC	---	1502
1523	2PT	FL	1504
1526	3PT	FL	1506
1528	4PT	FL	1508
1530	5PT	FL	1510
1533	6PT	FL	1512
1535	7PT	FL	1514
1538	8PT	FL	1516
1540	9PT	FL	1518

TOTAL CARTS DURING PERIOD 34

ARRIVAL SCHEDULE
 DESTINATION BFS
 TIME PERIOD: 1600 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
1749	4PT	A/J*	1730
1755	2PT	B*	1736
1801	4PT	T*	1742
1807	2PT	T*	1748
1813	3PT	B/J*	1754
1819	5PT	A/B*	1800
1825	6PT	A*	1806
1831	7PT	A*	1812
1837	8PT	A/B*	1818
1843	9PT	A/B*	1824
1849	2IC	---*	1830
1855	3PT	A*	1836
1901	5PT	T*	1842
1907	6PT	B*	1848
1913	7PT	B*	1854
1919	8PT	T/J*	1900
1925	9PT	J*	1906
1931	3PT	T*	1912
1937	5PT	J*	1918
1943	6PT	T*	1924
1949	7PT	T*	1930
1955	1PT	T*	1936
2001	6PT	J*	1942
2007	7PT	J*	1948
2019	1PT	FL	2000
2021	2IC	---	2002
2023	2PT	FL	2004
2025	3PT	FL	2006
2027	4PT	FL	2008
2029	5PT	FL	2010
2031	6PT	FL	2012
2033	7PT	FL	2014
2035	8PT	FL	2016
2037	9PT	FL	2018

TOTAL CARTS DURING PERIOD 34

ARRIVAL SCHEDULE
 DESTINATION BLN
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
912	1PT	T	900
914	2PT	T	902
916	3PT	T	904
918	4PT	T	906
920	5PT	T	908
922	6PT	T	910
924	7PT	T	912
926	8PT	T	914
928	1PT	T	916
930	2PT	T	918
932	3PT	T	920
934	4PT	T	922
936	5PT	T	924
938	6PT	T	926
940	7PT	T	928
942	8PT	T	930
944	3PT	J	932
946	4PT	J	934
948	5PT	J	936
950	6PT	J	938
952	7PT	J	940
954	8PT	J	942
956	9PT	J	944
958	5PT	J	946
1000	6PT	J	948
1002	7PT	J	950
1004	8PT	J	952
1006	9PT	J	954
1008	3PT	A	956
1010	4PT	A	958
1012	5PT	A	1000
1014	6PT	A	1002
1016	7PT	A	1004
1018	8PT	A	1006
1020	9PT	A	1008
1022	3PT	A	1010
1024	2PT	B	1012
1026	3PT	B	1014
1028	5PT	B	1016
1030	6PT	B	1018
1032	7PT	B	1020
1034	8PT	B	1022
1036	9PT	B	1024
1038	2PT	B	1026
1041	1CL	PED	1020
1045	BCL	ORT	1022

1046	1CL	PED	1024
1046	2IC	---	1026
1048	BCL	ORT	1028
1051	1CL	MED	1030
1055	1CL	MED	1034
1057	2OR	---	1032
1057	2CL	LAB	1036
1059	BCL	SUR	1038
1101	1CL	CAR	1040
1104	BCL	SUR	1044
1107	1CL	CAR	1046
1110	BCL	EME	1050
1113	2OR	---	1048
1113	1CL	OBG	1052
1114	2IC	---	1054
1115	BFS	---	1042
1116	BCL	EME	1056
1119	1CL	OBG	1058
1120	BCL	RAD	1100
1123	1CL	ALL	1102
1125	BCL	RAD	1104
1128	1CL	ALL	1106

TOTAL CARTS DURING PERIOD 68

ARRIVAL SCHEDULE
 DESTINATION BPS
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
1428	1PT	T	1420
1430	2PT	T	1422
1432	3PT	T	1424
1434	4PT	T	1426
1436	5PT	T	1428
1438	6PT	T	1430
1440	7PT	T	1432
1442	8PT	T	1434
1444	1PT	T	1436
1446	2PT	T	1438
1448	3PT	T	1440
1450	4PT	T	1442
1452	5PT	T	1444
1454	6PT	T	1446
1456	7PT	T	1448
1458	8PT	T	1450
1500	1PT	RAD	1452
1502	3PT	J	1454
1504	4PT	J	1456
1506	5PT	J	1458
1509	6PT	J	1500
1511	7PT	J	1502
1514	8PT	J	1504
1517	9PT	J	1506
1521	1PT	RAD	1508
1525	5PT	J	1510
1528	6PT	J	1512
1530	7PT	J	1514
1533	9PT	J	1518
1534	8PT	J	1516
1537	1PT	RAD	1520
1544	3PT	A	1522
1547	4PT	A	1524
1550	5PT	A	1526
1551	6PT	A	1528
1553	7PT	A	1530
1554	1PT	RAD	1536
1555	8PT	A	1532
1557	3PT	A	1538
1558	2PT	B	1540
1559	9PT	A	1534
1601	5PT	B	1544
1602	6PT	B	1546
1604	7PT	B	1548
1605	3PT	B	1542
1607	8PT	B	1550

1607	BCL	ORT	1550
1608	9PT	B	1552
1609	1CL	MED	1552
1609	2PT	B	1554
1610	2IC	---	1554
1613	BCL	ORT	1556
1615	1CL	MED	1558
1616	2IC	---	1600
1619	BCL	SUR	1602
1621	1CL	CAR	1604
1623	2CL	LAB	1606
1625	BCL	SUR	1608
1627	1CL	CAR	1610
1629	2CL	LAB	1612
1631	BCL	EME	1614
1633	1CL	OBG	1616
1635	2CL	LAB	1618
1637	BCL	EME	1620
1639	1CL	OBG	1622
1641	2CL	LAB	1624
1643	BCL	RAD	1626
1645	1CL	ALL	1628
1647	2CL	LAB	1630
1649	1CL	PED	1632
1652	2CL	LAB	1634
1654	BCL	RAD	1636
1655	1CL	ALL	1638
1659	2CL	LAB	1640
1700	1CL	PED	1642

TOTAL CARTS DURING PERIOD 75

ARRIVAL SCHEDULE
 DESTINATION BDE
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
747	1PT	T	745
749	2PT	T	747
751	3PT	T	749
753	4PT	T	751
755	5PT	T	753
758	6PT	T	755
759	7PT	T	757
801	8PT	T	759
804	1PT	T	801
805	2PT	T	803
807	3PT	T	805
810	4PT	T	807
811	5PT	T	809
813	6PT	T	811
816	7PT	T	813
818	8PT	T	815
819	3PT	J	817
822	4PT	J	819
824	5PT	J	821
825	6PT	J	823
828	7PT	J	825
830	8PT	J	827
832	9PT	J	829
835	5PT	J	831
836	6PT	J	833
838	7PT	J	835
841	8PT	J	837
842	9PT	J	839
844	3PT	A	841
847	4PT	A	843
848	5PT	A	845
850	6PT	A	847
853	7PT	A	849
854	8PT	A	851
856	9PT	A	853
859	3PT	A	855
900	2PT	B	857
902	3PT	B	859
905	5PT	B	901
906	6PT	B	903
908	7PT	B	905
911	8PT	B	907
913	9PT	B	909
914	2PT	B	911
921	2IC	---	918
923	1CL	PED	910

925	BCL	ORT	912
929	1CL	PED	916
933	BCL	ORT	920
935	1CL	MED	922
936	2OR	---	924
940	1CL	MED	926
941	2CL	LAB	928
943	BCL	SUR	930
946	1CL	CAR	932
947	2IC	---	944
948	BCL	SUR	934
949	1CL	CAR	936
951	2OR	---	938
953	BCL	EME	940
954	BFS	---	914
955	1CL	OBG	942
959	BCL	EME	946
1001	1CL	OBG	948
1003	BCL	RAD	950
1006	1CL	ALL	952
1008	BCL	RAD	954
1010	1CL	ALL	956
1246	1PT	T	1245
1248	2PT	T	1247
1251	3PT	T	1249
1253	4PT	T	1251
1255	5PT	T	1253
1257	6PT	T	1255
1259	7PT	T	1257
1301	8PT	T	1259
1303	1PT	T	1301
1304	2PT	T	1303
1307	3PT	T	1305
1309	4PT	T	1307
1311	5PT	T	1309
1313	6PT	T	1311
1315	7PT	T	1313
1317	8PT	T	1315
1318	1PT	RAD	1317
1321	3PT	J	1319
1323	4PT	J	1321
1325	5PT	J	1323
1327	6PT	J	1325
1329	7PT	J	1327
1331	8PT	J	1329
1333	9PT	J	1331
1334	1PT	RAD	1333
1337	5PT	J	1335
1339	6PT	J	1337
1341	7PT	J	1339
1343	8PT	J	1341
1345	9PT	J	1343
1346	1PT	RAD	1345
1349	3PT	A	1347

1351	4PT	A	1349
1353	5PT	A	1351
1355	6PT	A	1353
1357	7PT	A	1355
1359	8PT	A	1357
1401	9PT	A	1359
1403	1PT	RAD	1401
1405	3PT	A	1403
1406	2PT	B	1405
1409	3PT	B	1407
1411	5PT	B	1409
1413	6PT	B	1411
1415	7PT	B	1413
1417	8PT	B	1415
1419	9PT	B	1417
1421	2IC	---	1419
1421	2PT	B	1419
1427	2IC	---	1425
1428	BCL	ORT	1415
1430	1CL	MED	1417
1434	BCL	ORT	1421
1436	1CL	MED	1423
1440	BCL	SUR	1427
1442	1CL	CAR	1429
1445	2CL	LAB	1431
1446	BCL	SUR	1433
1448	1CL	CAR	1435
1451	2CL	LAB	1437
1452	BCL	EME	1439
1454	1CL	OBG	1441
1457	2CL	LAB	1443
1458	BCL	EME	1445
1500	1CL	OBG	1447
1503	2CL	LAB	1449
1505	BCL	RAD	1451
1507	1CL	ALL	1453
1510	2CL	LAB	1455
1512	1CL	PED	1457
1515	2CL	LAB	1459
1517	BCL	RAD	1501
1520	1CL	ALL	1503
1520	1CL	PED	1507
1522	1PT	RAD	1520
1524	2CL	LAB	1505
1527	1PT	RAD	1526
1533	1PT	RAD	1532
1535	BCL	RAD	1522
1538	2CL	LAB	1524
1539	1PT	RAD	1538
1541	BCL	RAD	1528
1544	2CL	LAB	1530
1545	1PT	RAD	1544
1547	BCL	RAD	1534
1550	2CL	LAB	1536

1553	BCL	RAD	1540
1556	2CL	LAB	1542
1559	BCL	RAD	1546
1602	2CL	LAB	1548
1604	2CL	LAB	1550

TOTAL CARTS DURING PERIOD 159

ARRIVAL SCHEDULE
 DESTINATION BBS
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
832	BDE	---	816
834	BDE	---	818
836	BDE	---	820
838	BDE	---	822
840	BDE	---	824
842	BDE	---	826
844	BDE	---	828
846	BDE	---	830
848	BDE	---	832
850	BDE	---	834
852	BDE	---	836
854	BDE	---	838
856	BDE	---	840
858	BDE	---	842
900	BDE	---	844
902	BDE	---	846

TOTAL CARTS DURING PERIOD 16

ARRIVAL SCHEDULE
 DESTINATION BPH
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
639	7PT	A	630
641	8PT	A	632
644	9PT	A	634
645	3PT	A	636
647	4PT	A	638
649	5PT	A	640
651	6PT	A	642
653	7PT	B	644
655	8PT	B	646
658	9PT	B	648
659	2PT	B	650
701	3PT	B	652
703	5PT	B	654
705	6PT	B	656
1109	1PT	T	1100
1111	2PT	T	1102
1113	3PT	T	1104
1115	4PT	T	1106
1117	5PT	T	1108
1119	6PT	T	1110
1121	7PT	T	1112
1123	8PT	T	1114
1125	20R	---	1124
1130	BCL	FL	1116
1131	21C	---	1122
1132	1CL	FL	1118
1134	2CL	FL	1120
1135	3PT	J	1126
1137	4PT	J	1128
1139	5PT	J	1130
1141	6PT	J	1132
1143	7PT	J	1134
1145	8PT	J	1136
1148	9PT	J	1138
1309	7PT	A	1300
1311	8PT	A	1302
1314	9PT	A	1304
1315	3PT	A	1306
1317	4PT	A	1308
1319	5PT	A	1310
1321	6PT	A	1312
1323	7PT	B	1314
1325	8PT	B	1316
1328	9PT	B	1318
1329	2PT	B	1320
1331	3PT	B	1322

1333	5PT	B	1324
1335	6PT	B	1326
1509	1PT	T	1500
1513	2PT	T	1502
1516	3PT	T	1504
1519	20R	---	1518
1520	4PT	T	1506
1521	5PT	T	1508
1523	6PT	T	1510
1525	7PT	T	1512
1528	8PT	T	1514
1532	2IC	---	1516
1536	3PT	J	1520
1539	4PT	J	1522
1540	5PT	J	1524
1542	6PT	J	1526
1544	7PT	J	1528
1546	8PT	J	1530
1549	9PT	J	1532
1839	7PT	A	1830
1841	8PT	A	1832
1844	9PT	A	1834
1845	3PT	A	1836
1847	4PT	A	1838
1849	5PT	A	1840
1851	6PT	A	1842
1853	7PT	B	1844
1855	8PT	B	1846
1858	9PT	B	1848
1859	2PT	B	1850
1901	3PT	B	1852
1903	5PT	B	1854
1905	6PT	B	1856
2034	1PT	T	2025
2036	2PT	T	2027
2038	3PT	T	2029
2040	4PT	T	2031
2042	5PT	T	2033
2044	20R	---	2043
2045	6PT	T	2035
2046	7PT	T	2037
2048	8PT	T	2039
2050	2IC	---	2041
2054	3PT	J	2045
2056	4PT	J	2047
2058	5PT	J	2049
2100	6PT	J	2051
2102	7PT	J	2053
2104	8PT	J	2055
2107	9PT	J	2057

TOTAL CARTS DURING PERIOD 96

ARRIVAL SCHEDULE
 DESTINATION BCL
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
752	BDE	ORT	730
758	BDE	ORT	736
808	BDE	SUR	746
814	BDE	SUR	752
824	BDE	EME	758
829	BDE	EME	804
830	BDE	RAD	808
835	BDE	RAD	812
920	BLN	ORT	900
923	BPH	FL	916
926	BLN	ORT	906
940	BLN	SUR	916
943	BLN	SUR	922
948	BLN	EME	928
956	BLN	EME	934
959	BBS	RAD	932
1000	BBS	RAD	938
1002	BLN	RAD	942
1007	BLN	RAD	938
1009	BBS	RAD	944
1013	BBS	RAD	950
1019	BBS	RAD	956
1258	BDE	ORT	1236
1306	BDE	ORT	1242
1312	BDE	SUR	1248
1318	BDE	SUR	1254
1325	BDE	EME	1300
1330	BDE	EME	1306
1336	BDE	RAD	1312
1344	BDE	RAD	1322
1428	BPS	ORT	1406
1434	BPS	ORT	1412
1442	BPS	SUR	1418
1448	BPS	SUR	1424
1459	BPS	EME	1430
1501	BPS	EME	1436
1504	BPS	RAD	1442
1512	BPS	RAD	1452

TOTAL CARTS DURING PERIOD 38

ARRIVAL SCHEDULE
 DESTINATION ICL
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
753	BDE	PED	728
759	BDE	PED	732
804	BDE	MED	742
805	BDE	MED	738
810	BDE	CAR	748
816	BDE	CAR	754
823	BDE	OBG	800
828	BDE	OBG	806
838	BDE	ALL	810
843	BDE	ALL	814
918	BLN	PED	858
922	BLN	PED	902
927	BPH	FL	918
930	BLN	MED	908
932	BLN	MED	912
941	BLN	CAR	918
944	BLN	CAR	924
950	BLN	OBG	930
1004	BLN	ALL	944
1005	BLN	OBG	936
1008	BLN	ALL	940
1305	BDE	MED	1238
1310	BDE	MED	1244
1315	BDE	CAR	1250
1321	BDE	CAR	1256
1327	BDE	OBG	1302
1333	BDE	OBG	1308
1339	BDE	ALL	1314
1347	BDE	PED	1318
1350	BDE	PED	1328
1355	BDE	ALL	1324
1430	BPS	MED	1408
1438	BPS	MED	1414
1443	BPS	CAR	1420
1450	BPS	CAR	1426
1458	BPS	OBG	1438
1500	BPS	OBG	1432
1505	BPS	ALL	1444
1508	BPS	PED	1448
1514	BPS	ALL	1454
1518	BPS	PED	1458

TOTAL CARTS DURING PERIOD 41

ARRIVAL SCHEDULE
 DESTINATION 2CL
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
806	BDE	LAB	744
928	BPH	FL	920
936	BLN	LAB	914
957	BBS	LAB	934
1003	BBS	LAB	940
1010	BBS	LAB	946
1015	BBS	LAB	952
1022	BBS	LAB	958
1023	BBS	LAB	1000
1317	BDE	LAB	1252
1323	BDE	LAB	1258
1329	BDE	LAB	1304
1335	BDE	LAB	1310
1345	BDE	LAB	1316
1349	BDE	LAB	1326
1351	BDE	LAB	1320
1444	BPS	LAB	1422
1454	BPS	LAB	1434
1456	BPS	LAB	1428
1503	BPS	LAB	1440
1506	BPS	LAB	1446
1510	BPS	LAB	1450
1516	BPS	LAB	1456

TOTAL CARTS DURING PERIOD 23

ARRIVAL SCHEDULE
 DESTINATION IPT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
611	BDE	T	600
627	BDE	T	616
740	BLN	T	730
759	BLN	T	746
814	BFS	T*	753
830	BFS	FL	808
913	BPH	T	900
942	BBS	RAD	930
947	BBS	RAD	936
954	BBS	RAD	942
959	BBS	RAD	948
1005	BBS	RAD	954
1111	BDE	T	1100
1129	BDE	T	1116
1143	BDE	RAD	1132
1200	BDE	RAD	1148
1212	BDE	RAD	1200
1229	BDE	RAD	1218
1240	BPS	T	1230
1255	BPS	T	1246
1311	BPS	RAD	1302
1314	BFS	T*	1253
1327	BPS	RAD	1318
1329	BFS	FL	1308
1340	BPS	RAD	1330
1357	BPS	RAD	1348
1413	BPH	T	1400
1813	BFS	T*	1753
1828	BFS	FL	1808
1943	BPH	T	1930

TOTAL CARTS DURING PERIOD 30

ARRIVAL SCHEDULE
 DESTINATION 2PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
603	BPH	B	550
612	BFS	B*	551
613	BDE	T	602
624	BFS	T*	603
629	BDE	T	618
724	BDE	B	712
739	BDE	B	726
743	BLN	T	732
800	BLN	T	748
833	BFS	FL	812
854	BLN	B	842
905	BLN	B	856
916	BPH	T	902
1113	BFS	B*	1051
1115	BDE	T	1102
1125	BFS	T*	1103
1130	BDE	T	1118
1231	BDE	B	1220
1235	BPH	B	1220
1243	BPS	T	1232
1251	BDE	B	1234
1300	BPS	T	1248
1333	BFS	FL	1312
1359	BPS	B	1350
1414	BPS	B	1404
1415	BPH	T	1402
1612	BFS	B*	1551
1624	BFS	T*	1603
1735	BPH	B	1720
1832	BFS	FL	1812
1945	BPH	T	1932

TOTAL CARTS DURING PERIOD 31

ARRIVAL SCHEDULE
 DESTINATION 3PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
549	BPH	A	536
605	BPH	B	552
615	BDE	T	604
630	BFS	B/J*	610
632	BDE	T	620
643	BDE	J	632
708	BDE	A	656
716	BFS	A*	656
721	BDE	A	710
725	BDE	B	714
746	BLN	T	734
751	BFS	T*	729
803	BLN	T	750
811	BLN	J	802
835	BLN	A	826
836	BFS	FL	814
849	BLN	A	840
855	BLN	B	844
918	BPH	T	904
940	BPH	J	926
1119	BDE	T	1104
1131	BFS	B/J*	1110
1133	BDE	T	1120
1146	BDE	J	1134
1213	BDE	A	1202
1217	BFS	A*	1156
1220	BPH	A	1206
1227	BDE	A	1216
1233	BDE	B	1222
1236	BPH	B	1222
1244	BPS	T	1234
1250	BFS	T*	1229
1259	BPS	T	1250
1317	BPS	J	1304
1335	BFS	FL	1314
1350	BPS	A	1332
1356	BPS	A	1346
1401	BPS	B	1352
1418	BPH	T	1404
1434	BPH	J	1420
1630	BFS	B/J*	1610
1717	BFS	A*	1656
1720	BPH	A	1706
1736	BPH	B	1722
1749	BFS	T*	1729
1835	BFS	FL	1814

1947
2003

BPH
BPH

T
J

1934
1950

TOTAL CARTS DURING PERIOD 48

ARRIVAL SCHEDULE
 DESTINATION 4PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
551	BPH	A	538
606	BFS	A/J*	545
617	BDE	T	606
618	BFS	T*	557
633	BDE	T	622
646	BDE	J	634
710	BDE	A	658
748	BLN	T	736
804	BLN	T	752
816	BLN	J	804
837	BFS	FL	816
850	BLN	A	828
919	BPH	T	906
941	BPH	J	928
1106	BFS	A/J*	1045
1118	BFS	T*	1057
1120	BDE	T	1106
1134	BDE	T	1122
1147	BDE	J	1136
1222	BPH	A	1208
1242	BDE	A	1204
1245	BPS	T	1236
1305	BPS	T	1252
1315	BPS	J	1306
1337	BFS	FL	1316
1343	BPS	A	1334
1420	BPH	T	1406
1435	BPH	J	1422
1606	BFS	A/J*	1545
1618	BFS	T*	1557
1721	BPH	A	1708
1837	BFS	FL	1816
1949	BPH	T	1936
2005	BPH	J	1952

TOTAL CARTS DURING PERIOD 34

ARRIVAL SCHEDULE
 DESTINATION 5PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
553	BPH	A	540
608	BPH	B	554
620	BDE	T	608
635	BDE	T	624
638	BFS	A/B*	617
647	BDE	J	636
659	BDE	J	646
712	BDE	A	700
723	BFS	T*	702
727	BDE	B	716
749	BLN	T	738
756	BFS	J*	735
806	BLN	T	754
817	BLN	J	806
828	BLN	J	816
839	BLN	A	830
840	BFS	FL	818
857	BLN	B	846
922	BPH	T	908
944	BPH	J	930
1122	BDE	T	1108
1135	BDE	T	1124
1138	BFS	A/B*	1117
1149	BDE	J	1138
1201	BDE	J	1150
1223	BFS	T*	1202
1224	BPH	A	1210
1235	BDE	B	1224
1237	BPH	B	1224
1243	BDE	A	1206
1252	BPS	T	1238
1256	BFS	J*	1235
1303	BPS	T	1254
1317	BPS	J	1308
1329	BPS	J	1320
1339	BFS	FL	1318
1352	BPS	A	1336
1403	BPS	B	1354
1421	BPH	T	1408
1438	BPH	J	1424
1639	BFS	A/B*	1617
1723	BFS	T*	1702
1724	BPH	A	1710
1737	BPH	B	1724
1756	BFS	J*	1735
1839	BFS	FL	1818

1951
2007

BPH
BPH

T
J

1938
1954

TOTAL CARTS DURING PERIOD 48

ARRIVAL SCHEDULE
 DESTINATION 6PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
555	BPH	A	542
609	BPH	B	556
621	BDE	T	610
637	BDE	T	626
644	BFS	A*	623
649	BDE	J	638
700	BDE	J	648
713	BDE	A	702
728	BFS	B*	707
730	BDE	B	718
752	BLN	T	740
802	BFS	T*	741
807	BLN	T	756
820	BLN	J	808
821	BFS	J*	759
827	BLN	J	818
842	BFS	FL	820
851	BLN	A	832
858	BLN	B	848
923	BPH	T	910
946	BPH	J	932
1123	BDE	T	1110
1137	BDE	T	1126
1144	BFS	A*	1123
1152	BDE	J	1140
1204	BDE	J	1152
1226	BPH	A	1212
1229	BFS	B*	1207
1237	BDE	B	1226
1240	BPH	B	1226
1246	BDE	A	1208
1249	BPS	T	1240
1302	BFS	T*	1241
1305	BPS	T	1256
1320	BFS	J*	1259
1323	BPS	J	1310
1331	BPS	J	1322
1341	BFS	FL	1320
1347	BPS	A	1338
1405	BPS	B	1356
1424	BPH	T	1410
1440	BPH	J	1426
1644	BFS	A*	1623
1725	BPH	A	1712
1729	BFS	B*	1707
1740	BPH	B	1726

1802	BFS	T*	1741
1820	BFS	J*	1759
1841	BFS	FL	1820
1953	BPH	T	1940
2009	BPH	J	1956

TOTAL CARTS DURING PERIOD 51

ARRIVAL SCHEDULE
 DESTINATION 7PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
543	BPH	A	530
557	BPH	B	544
623	BDE	T	612
640	BDE	T	628
651	BFS	A*	629
652	BDE	J	640
702	BDE	J	650
715	BDE	A	704
731	BDE	B	720
733	BFS	B*	712
755	BLN	T	742
809	BFS	T*	747
810	BLN	T	758
823	BLN	J	810
826	BFS	J*	805
834	BLN	J	820
843	BLN	A	834
843	BFS	FL	822
900	BLN	B	850
926	BPH	T	912
949	BPH	J	934
1126	BDE	T	1112
1140	BDE	T	1128
1150	BFS	A*	1129
1154	BDE	J	1142
1206	BDE	J	1154
1214	BPH	A	1200
1221	BDE	A	1210
1227	BPH	B	1214
1234	BFS	B*	1212
1239	BDE	B	1228
1251	BPS	T	1242
1308	BFS	T*	1247
1311	BPS	T	1258
1321	BPS	J	1312
1326	BFS	J*	1305
1334	BPS	J	1324
1343	BFS	FL	1322
1349	BPS	A	1340
1407	BPS	B	1358
1425	BPH	T	1412
1442	BPH	J	1428
1650	BFS	A*	1629
1713	BPH	A	1700
1727	BPH	B	1714
1733	BFS	B*	1712

1808	BFS	T*	1747
1826	BFS	J*	1805
1843	BFS	FL	1822
1955	BPH	T	1942
2011	BPH	J	1958

TOTAL CARTS DURING PERIOD 51

ARRIVAL SCHEDULE
 DESTINATION 8PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
545	BPH	A	532
559	BPH	B	546
626	BDE	T	614
642	BDE	T	630
654	BDE	J	642
655	BFS	A/B*	634
705	BDE	J	652
718	BDE	A	706
735	BDE	B	722
738	BFS	T/J*	717
758	BLN	T	744
812	BLN	T	800
824	BLN	J	812
839	BLN	J	822
845	BFS	FL	824
845	BLN	A	836
901	BLN	B	852
927	BPH	T	914
950	BPH	J	936
1128	BDE	T	1114
1142	BDE	T	1130
1155	BFS	A/B*	1134
1157	BDE	J	1144
1207	BDE	J	1156
1216	BPH	A	1202
1223	BDE	A	1212
1230	BPH	B	1216
1239	BFS	T/J*	1217
1241	BDE	B	1230
1257	BPS	T	1244
1309	BPS	T	1300
1323	BPS	J	1314
1335	BPS	J	1326
1345	BFS	FL	1324
1353	BPS	A	1342
1409	BPS	B	1400
1428	BPH	T	1414
1444	BPH	J	1430
1655	BFS	A/B*	1634
1715	BPH	A	1702
1730	BPH	B	1716
1739	BFS	T/J*	1717
1845	BFS	FL	1824
1957	BPH	T	1944
2013	BPH	J	2000

TOTAL CARTS DURING PERIOD 45

ARRIVAL SCHEDULE
 DESTINATION 9PT
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
547	BPH	A	534
601	BPH	B	548
657	BDE	J	644
703	BFS	A/B*	642
706	BDE	J	654
720	BDE	A	708
736	BDE	B	724
744	BFS	J*	723
823	BLN	J	814
846	BLN	J	824
848	BFS	FL	826
853	BLN	A	838
903	BLN	B	854
952	BPH	J	938
1158	BDE	J	1146
1203	BFS	A/B*	1142
1210	BDE	J	1158
1219	BPH	A	1204
1225	BDE	A	1214
1232	BPH	B	1218
1245	BFS	J*	1223
1248	BDE	B	1232
1330	BPS	J	1316
1347	BFS	FL	1326
1349	BPS	J	1328
1355	BPS	A	1344
1411	BPS	B	1402
1446	BPH	J	1432
1703	BFS	A/B*	1642
1718	BPH	A	1704
1732	BPH	B	1718
1744	BFS	J*	1723
1847	BFS	FL	1826
2015	BPH	J	2002

TOTAL CARTS DURING PERIOD 34

ARRIVAL SCHEDULE
 DESTINATION 20R
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
503	BCH	---*	500
504	BCH	---*	501
506	BCH	---*	502
507	BCH	---*	503
508	BCH	---*	504
510	BCH	---*	506
511	BCH	---*	507
512	BCH	---*	508
513	BCH	---*	510
515	BCH	---*	511
516	BCH	---*	505
517	BCH	---*	513
518	BCH	---*	515
520	BCH	---*	509
521	BCH	---*	517
522	BCH	---*	518
523	BCH	---*	516
525	BCH	---*	514
526	BCH	---*	512
529	BCH	---*	519
748	BDE	---	740
804	BDE	---	756
918	BLN	---	910
925	BPH	---	924
934	BLN	---	926
1419	BPH	---	1418
1949	BPH	---	1948

TOTAL CARTS DURING PERIOD 27

ARRIVAL SCHEDULE
 DESTINATION 21C
 TIME PERIOD: 500 TO 2200

ARRIVAL TIME	SOURCE	WING	DISPATCH TIME
709	BFS	---*	648
739	BDE	---	734
807	BDE	---	802
831	BFS	---	810
909	BLN	---	904
935	BPH	---	922
937	BLN	---	932
1209	BFS	---*	1148
1245	BDE	---	1240
1251	BDE	---	1246
1332	BFS	---	1310
1415	BPS	---	1410
1421	BPS	---	1416
1429	BPH	---	1416
1708	BFS	---*	1648
1830	BFS	---	1810
1959	BPH	---	1946

TOTAL CARTS DURING PERIOD 17

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20. ABSTRACT (Continued)

are adequate to meet user requirements with some excess capacity. The report presents schedules of cart dispatches and arrivals as well as workload summaries and statistics on utilization of system resources.

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