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Chapter 4 - Parcel Delivery Routes

Introduction

This chapter outlines the methodology for structuring Parcel Routes.

Assignment

An assignment may consist solely of parcel delivery or a combination of parcel delivery and other duties.

Delivery Area

Parcel Delivery Service is to be provided to all points of delivery receiving letter carrier delivery service.

Each urban area serviced will be divided into parcel delivery loops, as defined, in section: *Establishing the Loop Boundaries* of this Chapter. A number of MSC routes will be assigned to each loop and each route will be required to cover a segment of the loop each day. The segment serviced by each MSC route within the loop may vary somewhat from day to day, based on volumes of parcels available for delivery within the loop.

Under the circumstances specified in Appendix S of the collective agreement, flex part time routes within the loop may be required to deliver parcels in other loops. Additional parcel delivery hours will be assigned as per the provisions of Appendix S.

Overtime

Full time MSC's delivering parcels under the provisions of Appendix S; sub-paragraphs 8.7 f) and g) will be offered the additional work on an Incentive basis. MSC's will be paid the greater of:

1) The number of delivery stops delivered above his/her stop quota times the applicable stop delivery rate for the day times a rate of time and one half; or
2) The overtime actually worked to deliver the additional items.

Part time MSC's delivering parcels under the provisions of Appendix S, sub-paragraphs 8.7 d) and e) will be paid the greater of:

1) The number of delivery stops delivered times the applicable stop delivery rate for the day times a straight time rate of pay; or
2) The additional hours actually worked to deliver the additional items.

Summer Period

Additional Mail Services Couriers may be scheduled to take annual leave during the period specified in Appendix S, paragraph 2.1 (h) of the collective agreement.

Establish the Route Type

In order to accurately establish the route type, a preliminary route boundary will be established by grouping and defining the LDU's to be assigned to the route in Integrated Route Measurement Application (IRMA). Current 038 data (see exhibit 2) will be used to verify the route type. For the purpose of determining the route type, all the possible delivery points within the delivery area will be designated as one of the following point of call types:

1. Apartment (more than 30 suites)
2. Business/Commercial
3. Residential

Route Types

The route type of each route will be determined based on the following criteria:

<table>
<tr><th>IF the commercial points of calls are...</th><th>AND apartment points of call in buildings of <u>more</u> than 30 suites are…</th><th>THEN the route type is…</th></tr>
<tr><td rowspan="3">less than 30%</td><td>less than 30%</td><td>RSD - Residential Single Dwelling</td></tr>
<tr><td rowspan="2">between 30-70%</td><td>RCC - Residential Combination
Core (see note 1)</td></tr>
<tr><td>RC – Residential Combination Non-Core (see note 1)</td></tr>
<tr><td></td><td>more than 70%</td><td>RHR - Residential High Rise</td></tr>
<tr><td>between 30%- 90%</td><td></td><td>RB - Residential Business</td></tr>
<tr><td>more than 90%</td><td></td><td>BUS – Business (see note 2)</td></tr>
</table>

Note 1: *Until such time as point of call information is available in the Address Management System (AMS), local knowledge will be used to distinguish between core and non-core Residential Combination route types.*

Note 2*: When the points of call on one route in a Business route type are predominately Industrial and on another are mostly High Rise, then it may be appropriate to establish two route types for BUS. Local knowledge will be used to distinguish between the two route types.*

The separate rates developed for the activities of sequencing, verification, loading, unloading (as applicable) and the rates for delivery and for carding/safe drop for an individual route type may be applied:

1. to all other routes of the same route type within the same loop; and
2. to routes in other loops that serve comparable areas within the delivery facility.

Where an individual route is not compatible with the rates developed for sequencing, verification, loading, unloading, and for carding/safedropping, and/or the delivery rate for the route type in which it falls, a specific rate will be established for that route only.

Delivery, carding/safedrop and verification rates developed through the sampling exercises outlined in this Chapter may be applied to routes that serve comparable delivery areas in other delivery facilities. In these cases, agreement must be reached between the union observer and the route measurement officer. Where there is no agreement then a sampling exercise must be conducted to develop the required rates in each facility.

Chapter 4 - Parcel Delivery Routes (continued)

Selection of Routes to be Sampled

After classifying each route in the delivery facility (by route type), consult with the union to select the routes to be sampled. The sampling must include at least one route from each route type. The routes sampled must be representative of their route type in the delivery facility. The sampling must be conducted within a similar time frame to which the work is actually performed. Each selected route will be sampled for either a 5 or 10 consecutive day period. Where the local parties determine that a significant anomaly has invalidated a sample day, the local parties will consult on how to make up the day with a replacement sampling on a day of a comparable density.

The purpose of the sampling exercises is to obtain a range of data that includes low, normal and high volume situations. Examine historical volume information for each facility to determine low, normal, and high volume periods.

Note: *High, normal and low volume periods will be determined using volume data from Parcel Delivery Sort and Load (PDSL) and comparing it to the volume base.*

Note: *July, August and December data are <u>not</u> to be used for establishing the Volume Base. Data for delivery rate purposes may be captured during these months.*

The number of routes in a route type to be sampled will be determined based on the number of routes of that type in the facility. Use the following rules to select the number of routes to be studied:

1. Each route type must have a minimum of 10 data points captured during normal volume periods.

   Note*: A data point equals one sampling day on one route. Each data point will appear on a Variable Delivery Rate graph. See section:* ***Variable Delivery Rate Calculation*** *in this Chapter.*

2. Each route type should have 5 data points captured during low volume periods and 5 data points captured during high volume periods. These data points will be captured as time permits. They must be obtained from one or more of the routes from which data was captured during the normal volume period. If this is not possible, other routes may be used after consultation with the local union.

The high and low data points (where available) may be used to extend the delivery rate curve previously established from the normal volume periods. Analysis of the data and agreement by the RMO and the union observer is required prior to including the data in the variable delivery rate calculation,

3. The size of the sample will be such that the total number of data points captured and used will be at least the same as the number of routes of the route type in the delivery facility.

   Example: *An office has a total of 54 routes in the following 5 route types:*

   34 RSD, 12 RHR, 5 BUS, 2 RB, 1 RC

   RSD routes:

   - *By rule 1, we need to have at least 10 data points captured during a normal volume period.*
   - *By rule 2, we need to capture 5 data points from a low volume period and 5 data points from a high volume period.*
   - *To satisfy rule 3, we must have a minimum of 34 data points in total. At least 24 must be captured during a normal volume period.*
   - *In summary, we need to sample either:*
     - *5 routes for 5 days each; or*
     - *3 routes for 10 days each during normal volume periods.*

     and:
     - *1 route for 5 days during a high volume period; and*
     - *1 route for 5 days during a low volume period.*

   RHR routes:

   - *By rule 1, we need to have at least 10 data points captured during a normal volume period.*
   - *By rule 2, we need to capture 5 data points from a low volume period and 5 data points from a high volume period.*
   - *To satisfy rule 3, we must have a minimum of 12 data points in total, of which at least 2 must be captured during a normal volume period. This has no impact since by rule 1, we need to have at least 10.*

– *In summary, we need to sample either:*
  - *2 routes for 5 days each; or*
  - *1 routes for 10 days each during normal volume periods.*

  and:
  - *1 route for 5 days during a high volume period; and*
  - *1 route for 5 days during a low volume period.*

BUS, RB & RC routes:

– *Based on rules 1& 2, we need to sample either:*
  - *2 routes for 5 days each; or*
  - *1 route for 10 days each during normal volume periods.*

  and:
  - *1 route for 5 days during a high volume period; and*
  - *1 route for 5 days during a low volume period.*

– *Rule 3 will not have any effect, as there are too few routes of each type.*

The decision on whether to sample routes for 5 or 10 days is based on the differences within a given route type. In the RSD example above, sample 3 routes for 10 days if the 3 routes give a good representation of the RSD type. Otherwise sample 5 routes for 5 days.

All of the data from a 5 day or 10 day route sampling will be used in the calculation of delivery rates unless the Union observer and the Route Measurement Officer agree to exclude one or more of the data points.

The selection of routes will be based on:

- the routes are representative of their route type;
- experienced knowledgeable MSCs are available and agree to participate.

Note: *when an MSC on a selected route does not agree to participate in the sampling exercise, the local parties will consult on how to staff the route to ensure that the sampling exercise is completed.*

Pickup and Delivery Methods Training for MSC's and Samplers

In the initial implementation of the parcel model, Supervisors, MSC's, union observers and samplers must receive training on the correct delivery methods prior to the start of the sampling study. The training should be based on the "MSC Training Program – Pickup and Delivery Methods" and the accompanying documentation. A qualified MSC Training Program trainer must conduct the training.

In subsequent restructures, MSC's will be trained in correct delivery methods if required. To determine this, accompany the MSC to review actual delivery and pickup practices.

To provide adequate opportunity to practice the correct delivery methods and procedures, training must occur at least 1 month ahead of the scheduled start of sampling.

Supervisors or local training staff must accompany each trained MSC to verify that the correct methods are being followed and that each MSC is ready to participate in the sampling.

It is critical that all MSC's follow the approved methods and procedures during the sampling. Any deviation could result in inaccurate times and this will result in incorrect delivery rates.

The sampler may halt the sampling activity on that route if attempts to correct a problem related to methods and procedures are not successful.

The MSC may be required to take additional training or may be excluded from the study altogether, resulting in delays in the completion of the sampling exercise.

Samplers must be trained in the use of the Pocket PC data collection devices and sampling techniques. Classroom training is provided to learn the operation of the Pocket PC sampling application.

In addition, each sampler should get at least one day of on-route practice sampling to get comfortable with the delivery routine on the street. The RMO and the observer will determine the length of the practice period and through consultation will set when the actual sampling exercise will commence. The results from the on-route practice should be reviewed at the end of each day, just like they would be for a regular sampling. Any problems with the results from the on-route practice should be identified and discussed immediately. The data collected during the practice period will not be used for the purpose of delivery rates.

Route Sampling Exercise and Data Collection

The sampler must arrange to have a vehicle equipped with a passenger seat assigned to the sample route(s) for the duration of the sampling exercise. This is to accommodate the sampler, who will accompany the MSC during that period.

During the sampling period, a qualified representative of CUPW may participate as an observer. It is understood that the observer will not interfere with the normal functions of the employee.

Data Collection using the Pocket PC

A parcel **Delivery Stop** is an individual point of call receiving one or more items where a delivery attempt is made. Where there are multiple items for a point of call, count as one stop. Where there are items for more than one point of call in a single building, count each point of call as a separate stop.

A **Vehicle Stop** is a location where the MSC stops the vehicle to make a delivery attempt. There may be multiple delivery stops at a single vehicle stop.

Data will be collected in the Pocket PC devices by delivery activities as follows:

- In-vehicle preparation prior to delivery, including getting the items to be delivered and exiting the vehicle
- Locking the vehicle and walking to the point of delivery
- Making contact with the customer
- Delivering the item
- Returning to the vehicle
- Entering the vehicle and preparing to drive to the next stop
- Driving time between stops
- Any other related activities

During the sampling, capture the number of regular, barcode, signature and funds exchange items and stops, as well as the number of safedrop and carded items and stops in the Pocket PC.

The Pocket PC sampling application has been programmed to collect timestamps at the end of each activity. To capture the time at the end of the activity, simply touch the button corresponding to the activity on the screen of the Pocket PC. A list of these timestamps and corresponding activities will appear on the screen as they are captured.

It is important that the sampler have a clipboard with notepaper along. If anything unusual happens and the sampler is not sure how to record the data, he or she should take notes.

At the end of the day, the sampler and union observer must review the notes and all the timestamps on the device to make sure they haven't missed any, hit additional ones by mistake, or made any other errors. This is also the time to discuss any issues that came up during the study including any work method issues. If required, additions or changes to the sampling data should be made. The RMO and the observer may consult the MSC when clarification is needed.

Once the data on the Pocket PC has been reviewed, download the data and print the Parcel Route Sampling Report (form 33-082-104) and the Detailed Event Report.

The Detailed Event Report shows a detailed breakdown of each activity time captured during the sampling, and should be reviewed together by the RMO in charge of the sampling exercise and the union observer. The 104 form will identify any anomalies in the sample data such as missing timestamps. This will make it easier to locate anomalies in the Detailed Event Report. If errors need to be corrected in the study data, they must be made on the original data collection device.

Upload the corrected data and print another Detailed Event Report. File both the original and corrected copies of the Detailed Event Report along with any notes and save for future reference. Give a copy of the original and amended Reports (Detailed Event Report) to the Union observer.

After the 104 form has been verified and any corrections made, print and provide a copy to the observer.

MSC Workload Structuring System Parcel Route Sampling, form 33-082-104

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M.S.C. Workload Structuring System
Parcel Route Sampling
(daily worksheet)

Systeme d'oranisation de la somme de travail des C.S.P.
echantillonnage des itineraires de livraison des colis
(change quotidienne de travail)

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Depot/Unit Dépot/Unité	Region/Région
D360	Prairies - Praire

Parcel Route No. No. d'itinéraire de colis	Delivery Area (FSA)	Secteur de livraison (RTA)	Date
FT21		S4R	26/11/2004

1 Sequencing of mail and loading of vehicle — Tri séquentiel du courrier et chargement du véhicule — from de 14:38:16 to a 14:39:51 — 1:35 min.

2 Driving time to del. area — Temps pour se rendre au secteur de livraison — from de to a — 0:00 min.

In-route delivery function — Détails de livraisons tout au long de l'itinéraire

Veh. Stop No. No. arrêt Véhicule	FSA LDU / RTA UDL	Delivery Stop No. No. d'arrêt de livraison	Time per Stop From De H	M	S	To A H	M	S	Elapsed Ecoulé M	S	Type of Parcel: No Barcode No Signature (Sans code à barre Sans Signature)	Barcode No Signature (Code à barre Sans Signature)	Signature	Funds Exchange (Échange de fonds)	Sub-del. Stop (arrêt de fonctions auxiliaires)	Carded Annoncé par carte	Safe drop Déposé en Lieu sûr	Commercial Pickup / Ramassage Commercial: Pickup (Scheduled) Ramassage (prévu)	Pickup (On demand) Ramassage (sur demande)	Unschedule Delivery Livraison non-prévu	POC Type Type de PDR
1	S4R2P7	1	9	16	53	9	18	18	1	25	0	1	0	0		0	0				5
2	S4R1A5	2	9	22	50	9	24	28	1	38	0	1	0	0		0	0				5
3	S4R8G6	3	9	26	41	9	28	10	1	29	0	1	0	0		0	0				5
4	S4R2P2	4	9	29	50	9	31	14	1	24	0	1	0	0		0	0				5
5	S4R3V8	5	9	33	36	9	35	5	1	29	1	1	0	0		0	0				1
6	S4R3V9	6	9	35	50	9	38	6	2	16	0	0	1	0	S	1	0				1
7	S4R4H5	7	9	40	22	9	45	30	5	8	0	0	0	1	F	0	0				1
8	S4R4A2	8	9	48	26	9	49	55	1	29	0	1	0	0		0	0				1
9	S4R4A1	9	9	50	26	9	52	21	1	55	1	0	0	0		1	0				1
10	S4R4A8	10	9	54	33	9	56	27	1	54	0	0	1	0	S	0	0				5
11	S4R4C3	11	9	58	18	10	0	13	1	55	1	0	0	0		0	0				8
12	S4R3H5	12	10	1	43	10	4	34	2	51	0	1	0	0		0	0				1
13	S4R3K4	13	10	6	39	10	8	0	1	21	0	1	0	0		0	0				1
14	S4R3K6	14	10	8	45	10	10	5	1	20	1	0	0	0		0	0				1
15	S4R3J3	15	10	10	55	10	12	30	1	35	0	1	0	0		0	0				5
72	S4R0E5	72	13	57	42	13	59	16	1	34	0	2	0	0		0	0				1
73	S4R6C6	73	14	0	49	14	2	31	1	42	0	1	0	0		0	0				1
74	S4R5N3	74	14	3	16	14	6	16	1	44	0	1	0	0		1	0				1
			14	4	50	14	6	6	1	16	Other \ Autre (EXCL.)										
75	S4R3C0		14	11	36	14	18	26	6	50	RPO Visit / Visite COP										5
76	S4R3J0		14	22	17	14	28	29	4	44	RPO Visit / Visite COP										5
			14	22	28	14	23	56	1	28	RMO Request \ Demande du AMF (EXCL.)										
			14	28	30	14	38	10	9	40	DT: Delivery Area to Depot \ TC: Secteur de livraison au dépôt										

Total items Carried	Total des articles annoncé par carte					19		
Total items Safe drop	Total des articles déposés en lieu sûr						0	
Total by Type	Total par type	16	51	7	4			
Total Delivered (All)	Total livré (toutes			78				
Total Delivery stops (All)	Toutes d'arrêts de livraison			74				
Total Pickup stops (All)	Toutes d'arrêts de levée (toutes catégories)					0	0	0

Driving time, between the parcel delivery areas and next function	Temps pour se sendre du secteur de livraison de colis à l'endroit de la prochain tâche	min.	0.00
(Where applicable) driving time, stn./dep. to parcel post terminal	(Le cas échéant) temps pour se rendre de l'installation/du poste/terminus de la poste aux colis	min.	0.00
(Where applicable) driving time, to vehicle storage area	(Le cas échéant) temps pour se rendre au stationnement	min.	0.00
Daily delivery time	Temps quotidien consacré à livraison	min.	271.78
Daily pickup time	Temps quotidien consacré à levée	min.	0.00

POC Categtory Legend / Légende de Catégorie de PDR

Residence	Résidence	1
Residence:Townhouse	Résidence:Maison de ville	2
Apartment: Elevator	Appartement: Ascenceur	3
Apartment: Walkup	Appartement: A pied	4
Business:Storefront/Industrial (BI)	Affaire:Commerce/Industriel (BI)	5
Business:Shopping Mall (BP)	Affaire:Centre d'Achat (BP)	6
Business: Highrise (BH)	Affaire: Habitation Élevé (BH)	7
Business: School	Affaire: École	8
Business: Other	Affaire: Autre	9
RPO	COP	10

Purpose	The Parcel Route Sampling form 33-082-104 is a daily worksheet used to capture the activities of the sampling exercise.

Headings The following information is required:

Depot / Function	Name of delivery depot or installation
Region	Name of region
Route No.	Postal installation route number
Delivery Area (Loop)	Loop Name
Date	Date of the sampling

Data Capturing Complete a daily worksheet for each day of the verification (form 33-082-104). The information is entered as described in the table below:

Heading	Information Required
Driving time to delivery area	a) On designated parcel routes, enter the time required to drive from the delivery facility to the delivery area. b) On assignments with a combination of duties, enter the time required to travel from the last function in the previous assignment.
In-route delivery function	Beginning at the first delivery stop, under each column enter the following information: • the vehicle stop number.; • the postal code (FSA LDU); • the delivery stop number. • the time per stop (from and to); • the elapsed time for each delivery (to the nearest five seconds); and • the number of items for each point of delivery made (by parcel type). • sub-delivery stop type; In the appropriate columns, enter the total number of: • items carded; and • items safe dropped. Continue until any "interruption" in the parcel delivery function occurs. ***Note:*** *An "interruption" is defined as any thing that breaks the continuity of the actual parcel delivery function e.g. to begin work on another assignment; rest period; vehicle breakdown; wash-up; traffic tie-ups of five*

	minutes or more; "dead driving", etc. When delivery is interrupted, enter the start and finish times of the interruption. Indicate the reason for the interruption. ***Note 1:*** *The delivery of carded items to a "call for" is a delivery function but will not be considered a delivery stop in the delivery rate calculation.* *For routes using a Portable Data Terminal (PDT) to perform the delivery status scan on the route: the time to complete the scanning activity is included in the delivery time.* *Enter the time to remove undelivered "carded" items from the vehicle and place them in the care of the employee responsible.* ***Note 2: "Dead driving"*** *is the time spent driving between delivery areas that are separated by more than 0.8 km in which no delivery stops are located and is considered as non-delivery time* • For Commercial Pickups and Unscheduled Deliveries: *see Chapter 5 of this manual.*
Driving time between the parcel delivery area and next function.	Enter the time required to drive between the last parcel delivery point and the beginning of the next function. e.g. to the start of the Commercial pickup, Street Letter Box (SLB) route, delivery facility, to the vehicle storage point or any dead driving as described previously.
Driving time, station/depot to parcel delivery facility (where applicable)	Enter the driving time required to return the vehicle to the Delivery Facility.
Daily delivery time	Determine the amount of time spent delivering all delivery stops. To obtain this figure, determine the elapsed time between the start of the first and completion of the last parcel delivery stop <u>in each uninterrupted segment,</u> including travel between stops. Add these times together. Convert the balance to minutes and fractions thereof correct to 2 decimal points, e.g. 95 minutes 15 seconds should read 95.25 minutes.

Detailed Event Report

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M.S.C. Workload Structuring System
Parcel Route Sampling
(event worksheet)

Systeme d'oranisation de la somme de travail des C.S.P.
echantillonnage des itineraires de livraison des colis
(evenements quotidienne)

Depot/Unit Dépot/Unité	Region/Région	Parcel Route No. No. d'itinéraire de colis	Delivery Area (FSA)	Secteur de livraison (RTA)	Date
C308 East Transportation - Parcels	Atlantic - Atlantique	213		M2H	2003-11-25

ID	Time	Clock mins.	Event	Elapsed	Odom.	FSALDU	Civic	Suffix	Comment	Street Name	Property	Reg	Sig	BCNS	$$	AR	Total	NOTES
1	10:22:55	622.92	Out For Delivery									0	0	0	0	0	0	
2	10:23:00	623.00	Start Outside	0.08	0							0	0	0	0	0	0	
3	10:23:59	623.98	Start Veh. & Go	0.98								0	0	0	0	0	0	
4	10:37:01	637.02	Stop Vehicle	13.03	8.8							0	0	0	0	0	0	
5	10:37:28	637.47	Leave Vehicle	0.45								0	0	0	0	0	0	
6	10:37:51	637.85	Arrive @ POC	0.38		M2H2J2	154			APACHE TRAIL	Residence	0	0	0	0	0	0	
7	10:37:56	637.93	Deliver	0.08							No Contact	0	0	1	0	0	1	
8	10:38:09	638.15	Arrive @ Vehicle	0.22								0	0	0	0	0	0	
9	10:38:36	638.60	Start Veh. & Go	0.45								0	0	0	0	0	0	
10	10:38:47	638.78	Stop Vehicle	0.18	8.8							0	0	0	0	0	0	
11	10:39:05	639.08	Leave Vehicle	0.30								0	0	0	0	0	0	
12	10:39:20	639.33	Arrive @ POC	0.25		M2H2J2	150			APACHE TRAIL	Residence	0	0	0	0	0	0	
13	10:39:29	639.48	Deliver	0.15							Contact	1	0	0	0	0	1	
14	10:39:42	639.70	Arrive @ Vehicle	0.22								0	0	0	0	0	0	
16	10:40:01	640.01	Start Veh. & Go	0.32								0	0	0	0	0	0	
17	10:40:42	640.70	Stop Vehicle	0.68	8.9							0	0	0	0	0	0	
18	10:40:51	640.85	Leave Vehicle	0.15								0	0	0	0	0	0	
19	10:41:19	641.32	Arrive @ POC	0.47		M2H2H9	92			APACHE TRAIL	Residence	0	0	0	0	0	0	
20	10:41:25	641.42	Make Contact	0.10								0	0	0	0	0	0	
21	10:41:27	641.45	Deliver	0.03							Contact	1	0	0	0	0	1	
22	10:41:35	641.58	Arrive @ Vehicle	0.13								0	0	0	0	0	0	
23	10:41:39	641.65	Start Veh. & Go	0.07								0	0	0	0	0	0	
24	10:41:46	641.77	Stop Vehicle	0.12	9							0	0	0	0	0	0	
25	10:42:15	642.25	Leave Vehicle	0.48								0	0	0	0	0	0	
26	10:42:22	642.37	Arrive @ POC	0.12		M2H2H7	101			APACHE TRAIL	Residence	0	0	0	0	0	0	
27	10:42:54	642.90	Deliver	0.53							No Contact	1	0	0	0	0	1	
28	10:43:07	643.12	Arrive @ Vehicle	0.22								0	0	0	0	0	0	

PocketSampling Events / Evenements PocketSampling Rte/Itin.: 213 Date 25-Nov-2003 Page: 1

Chapter 4 - Parcel Delivery Routes (continued)

Calculate the Delivery Rate (Stops per Hour)

At the end of the sampling period:

- Print a copy of the Parcel Route Sampling, form 33-082-105.
  - This form summarizes all of the data from the sampling exercise conducted on a route. The daily delivery rate for the sampled route in stops per hour appears on the 105 form as calculated by the Integrated Route Measurement Application (IRMA).
  - The Actual Delivery Time is determined by taking the Daily Delivery Time from each 104 form in the sample and subtracting the total sub-delivery values for all funds collection, signature, barcode stops and the carded and safe drop items attempted that day. The Daily Delivery Time is the time between the start of the first and the finish of the last delivery stops for that day minus all interruptions. The sub-delivery values are described in Chapter 7.
  - The **daily** delivery rate per stop is calculated by dividing the Actual Delivery Time for the day by the number of delivery stops that occurred that day.
  - Calculate the **average** delivery rate for the sample by taking the total of all of the Actual Delivery Times for all the days of the sample and dividing that number by the total number of delivery stops that occurred over all days of the sample.
  - The delivery rate per hour is calculated by dividing the delivery rate per stop into 60 minutes.

Note: *This delivery rate may not be the final Delivery rate, depending on whether or not results from more than one sample route within a route type are blended.*

MSC Workload Structuring System Parcel Route Sampling, form 33-082-105

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M.S.C. Workload Structuring System
Parcel Route Sampling Summary

Système d'organisation de la somme de travail des C.S.P.
Sommaire de l'échantillonnage des itinéraires de livraison des colis

Ending / finissant le: April 8, 2005

Depot/Function Dépôt/Fonction	Region/Région	Parcel Delivery Route No. / Numéro d'itinéraire de colis	Del. Area / Secteur de livraison (Loop) (boucle)	Type of Route / Type d'itinéraire
Centreville	Name/Nom	9	A	RC

Item Article	Function	Tâche	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Total	Average Moyenne	Total Value Valeur Totale
1a	No. of stops - No Barcode / No Signature	Nombre d'arrêts - Sans code à barres / Sans signature	28	35	20	35	31	24	33	28	27	21	282	28.20	
b	No. of stops - Barcode / No Signature	Nombre d'arrêts - Code à barres / Sans signature	9	8	4	4	5	3	5	5	7	6	56	5.60	0.71
c	No. of stops - Signature	Nombre d'arrêts - Signature	1	3	10	10	3	2	1	1	4	6	41	4.10	12.56
d	No. of stops - Funds exchange	Nombre d'arrêts - Échange de fonds	1	0	2	2	2	0	1	2	0	0	10	1.00	17.74
e	No. of items - Carded Items	Nombre d'articles - Annoncés par carte	8	4	4	6	9	12	6	9	3	5	66	6.60	36.15
f	No. of items - Safe drop	Nombre d'articles - Déposés en lieu sûr	4	8	4	8	1	3	4	2	7	4	45	4.50	9.53
2	Total time allowance for making personal contact or carding and safe drop Temps total consacré à remettre des objets en main propre, à remplir les cartes d'avis et à déposer en lieu sûr		7.42	4.91	9.70	11.64	9.67	7.86	6.28	9.27	4.44	5.50		Total	76.69
3	Total No. Items delivered (all)	Total des envois livrés (toutes catégories)	39	46	58	51	41	29	40	36	38	33	411		
4	Total No. delivery stops (all)	Total des arrêts de livraison (toutes catégories)	39	43	52	50	37	26	35	35	33	29	379		
5	Total - daily delivery time	Temps total quotidien consacré à la livraison	134.95	145.55	118.74	136.15	140.03	149.02	115.60	141.02	128.35	109.40	1318.81		
6	Actual Delivery Time - The daily delivery time (item 5) minus the total sub-delivery and carding/safedrop time allowance Temps réel de livraison - Temps de livraison quotidien (article 5) moins le temps total des fonctions auxiliaires de livraisons et le temps consacré aux envois annoncés par carte et déposés en lieu sûr (article 2)		127.53	140.64	109.04	124.51	130.36	141.16	109.32	131.75	123.91	103.90	1242.12		
7	Average Delivery Time per stop - (the Actual Delivery Time (line 6) divided by the number of delivery stops (line 4) Temps moyen de livraison par arrêt - (le temps réel de livraison (article 6) moins le nombre d'arrêts de livraison (article 4)		3.27	3.27	2.10	2.49	3.52	5.43	3.12	3.76	3.75	3.58		3.28	minutes
8	Parcel Delivery rate - (60 divided by average delivery time per stop) Taux de livraison de colis - (60 divisé par le temps moyen de livraison par arrêt)		18.35	18.34	28.61	24.10	17.03	11.05	19.21	15.94	15.98	16.75		18.31	stops arrêts
9	Carding/Safe drop rate per item - (the time for carding and safe dropping recorded on line 1e and 1f divided by the average number of items attempted) Taux par article déposé en lieu sûr / annoncé par carte – (le temps des articles annoncés par carte et déposés en lieu sûr inscrit aux articles 1e et 1f divisé par le nombre moyen d'articles de tentative de livraison)		0.13	0.08	0.05	0.10	0.13	0.25	0.10	0.15	0.08	0.11		0.12	minutes
10	Kilometre per stop rate - the total number of kilometers traveled while delivering parcels divided by the number of delivery stops (line 4) Taux de kilomètres par arrêt - le nombre total de kilomètres parcourus pendant la livraison des colis divisé par le nombre d'arrêts de livraison (ligne 4)		18.6	17.3	12.2	13.4	14.9	19.8	16.1	11.4	15.6	12.7	152.0	0.40	km/stop km/arrêt

33-082-105e (4-05)

MSC Workload Structuring System Parcel Route Sampling, form 33-082-105

Purpose

The Parcel Route Sampling form 33-082-105 is a summary sheet used to record the information captured daily during the sampling exercise.

Headings

The following information is required:

Depot / Function	Name of Delivery Depot or installation
Region	Name of Region
Parcel Delivery Route Number.	Postal installation route number
Delivery Area (Loop)	Loop Name
Ending	Date that the sampling ended
Type of Route	Route type (RSD, BUS etc.)

Data Capture

IRMA transfers information collected daily to the 105 form at the end of each day. The information is entered as described in the table below:

Item	Heading	Information Required
1	Number of stops: a) No Barcode / No Signature items b) Barcode / No signature items c) Signature d) Funds exchange Number of items: e) Carded Items f) Safe Drop	*Apply the appropriate sub-delivery time value (see Chapter 7)*
2	Total time allowance for making personal contact or carding and safe drop	Total values from lines 1a through 1f.

MSC Workload Structuring System Parcel Route Sampling, form 33-082-105 (cont.)

3	Total number items delivered (all)	Obtain the *Total Delivered (All)* from the daily worksheet form 104.
4	Total number of delivery stops (all)	Obtain the *Total Delivery stops (All)* from the daily worksheet form 104.
5	Total daily delivery time	Obtain the *Daily Delivery Tim*e from the daily worksheet form 104.
6	Actual Delivery Time	The daily delivery time (line 5) minus the total sub-delivery and carding/safedrop time allowance (line 2)
7	Average delivery time per stop	The Actual Delivery Time (line 6) divided by the number of delivery stops (line 4).
8	Parcel delivery rate	60 divided by average delivery time per stop.
9	Carding and safe drop rate per item	The time for carding and safe dropping recorded on line 1e and 1f divided by the average number of items attempted (line #3). **Note:** Where more than one 105 form has been used in the calculation of the parcel delivery rate, calculate a blended carding and safe drop rate by adding all the time for carding and safe dropping (line # 1e & 1f) on all of the 105 forms contributing to the delivery rate. Divide that total by the total parcel delivery items reported on all of the same 105 forms (Line #3).
10	Kilometer per stop rate	The total number of kilometers traveled while delivering parcels divided by the number of delivery stops (line 4)

		Note: Where more than one 105 form has been used in the calculation of the parcel delivery rate, calculate a blended kilometers per stop rate by adding all of the kilometers driven reported on all of the 105 forms contributing to the delivery rate (Line # 10). Divide that total by the total parcel delivery stops reported on all of the same 105 forms (Line #4).

Calculating the Density Factor

The **Density Factor** is the ratio of the total daily number of delivery stops in the loop during the sampling period to the 12-month (excluding July, August, December) average daily volume base in the same loop (see section entitled: *Volume Base*). Calculate the density factor for each day of the sampling exercise for the loops that include the sampled routes.

The density factor for each day of the sampling exercise is expressed as a percentage of the volume base for the loop. The volume base figure will be 100%.

Daily total stops in a Loop containing sampled route
Divided by x 100% = ***Density Factor***
Daily Volume Base Average Stops in sampled Loop

Example: Density Factor calculation

Daily Average Stops in the Loop (volume base provided by PDSL or other) = 125

Daily Captured Total stops in the Loop (from Pocket PCI or PDSL):
Day 1 = 145
Day 2 = 120
Day 3 = 98
Day 4 = 133

The Density Factor for…
Day 1 is 145/125 = 116%
Day 2 is 120/125 = 96%
Day 3 is 98/125 = 78%
Day 4 is 133/125 = 106%
Etc…

Where No Loops Exist

Where no loops are in place at the time of the sampling exercise, use the FSA of the route being sampled to establish the density factor. Compare the total volume of parcels for the whole FSA on each day of the sampling exercise to the average volume over the previous 12 month period (excluding July, August, and December) for that FSA as though it were a delivery loop.

Variable Delivery Rate calculation

At the end of each sampling day, upload the sampling data into IRMA. Plot on a graph the daily delivery rate (not including sub-delivery values) from line 8 of the 105 form against the density factor for that day of sampling. The average daily volume base figure for the loop containing the sampled route will be considered to be at a 100% density factor.

Data from more than one sampling exercise for the same route type may be blended to calculate a single delivery rate. In such cases, plot the average daily volume base for each of the loops that contain sampled routes on a single graph. The average daily volume base for each of these loops will be considered to be at a 100% density factor. Plot the daily delivery rate data points (expressed in stops per hour) from each of the samples being blended against the density factors for the corresponding sample days (expressed as a percentage). These data points will be plotted relative to the volume base within their respective loops.

Data gathered from different routes within the same route type may either be blended or more than one delivery rate may be developed for that route type. Data may be blended if the results are sufficiently similar and if the RMO and union observer agree. When it is decided that more than one delivery rate is required for a particular route type then the minimum data point requirements shall apply to each.

Once all of the delivery rate data points to be blended are plotted on the graph, fit a straight line using the "Least Squares" methodology and display the formula. IRMA will generate a graph similar to the example below.

Note: *The method of "Least Squares" is a method by which one fits a curve to a data set by selecting a line that minimizes the differences between actual measured points and the value estimated by the line. The line on the graph shows the best fit of the relationship between density and stops per hour.*

The mathematical expression for calculating stops per hour is **S=(A) D + B**.

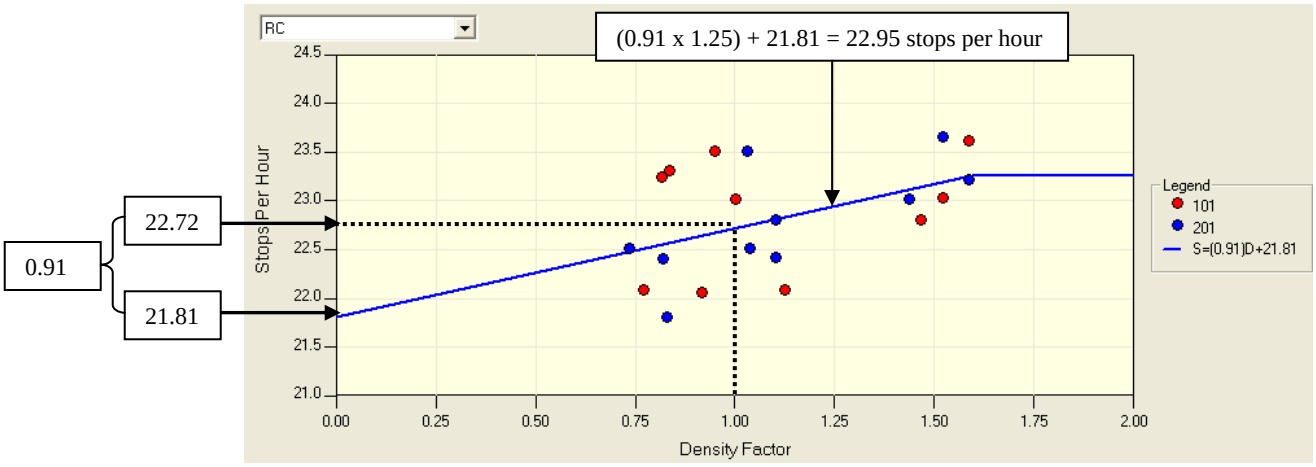
S = Stops per hour
A = Measure of the rise of the slope (expressed in stops per hour)
D = Density Factor expressed as a %
B = Constant, the point where the slope meets the "y" axis in stops per hour

To calculate the stops per hour at a given density level, apply the formula S=(A) D + B.

To calculate the stops per hour in the example below:

When the density factor is 125%, then D = 1.25. The measure of the slope is 0.91, which is the rise of the slope (the measured relationship between density and stops per hour). The constant is 21.81, which in the graph below is where the line meets the "y" (stops per hour) axis. Then the stops per hour (as per the formula) are: (0.91 x 1.25) + 21.81 = 22.95 stops per hour.

Variable Delivery Rate Graph
Example:



End the variable delivery rate graph at the point of the maximum density observed in the sampling exercise. Do not calculate delivery rates beyond this density level. At the low end of the density curve extend the line until it meets the "Y" axis (stops per hour).

Application of Variable Rates

The results of the variable rate calculation for a route type will be displayed in a line graph format, and also in a table format. The rates for each route type, or for a grouping of routes within a route type, in stops per hour, will be listed in numerical form at 10% density factor intervals in the table. (see example below)

Variable Delivery Rate Table Example:

S = (0.91) D + 21.81

Delivery Rate (Stops /hour)	21.81	22.36	22.45	22.54	22.63	22.72	22.81	22.90	22.99	23.08	23.18	23.27	23.27
Density Factor	0%	60%	70%	80%	90%	100%	110%	120%	130%	140%	150%	160%	170%

Calculate the rates per hour that will be applied to each route of each route type in the loop at equivalent density factor levels for the loop using the graph and table resulting from the variable rate calculation for the applicable route type.

Determine the average daily volume base of the loops that will be implemented in the restructuring process. Set the average volume base at a 100% density factor for these loops. Apply the procedure above to determine appropriate delivery rates for each route type within the loops.

To determine the route type, use the average delivery area for the applicable day of the week or grouping of days of the week. Apply the appropriate delivery rate for that route type.

Sub-delivery Values

To calculate the time allowed for subsidiary items for each route, obtain the volume data collected from Parcel Delivery Sort and Load (PDSL). Average the volume data by stop for each LDU for the previous 12 month volume base period excluding July, August and December. Determine the sub-delivery time to be structured into each route by multiplying the sub-delivery volume by the appropriate sub-delivery time value for each route/stop type. (*refer to Chapter 7*) Where more than one sub-delivery activity occurs at a stop, assign the stop the activity with the highest value.

Example: *Take the average number of stops by type (Barcode, Funds exchange, signature and all stops with sub-delivery values) and multiply by the appropriate sub-delivery time value. If there is a funds collection item at a stop, it is assumed to include the barcode and signature times. If there is one funds collection item and one barcode item, the stop will be considered a single funds collection stop (Refer to Chapter 7).*

Carding and Safe Drop Time

To determine the Carding/Safedrop values to be structured into a route, use the rate calculated on line 9 of the 105 form for the route type to which the route being structured belongs. Multiply this rate by the total number of delivery items assigned to the route.

Calculate the total sub-delivery time structured into each route by adding the sub-delivery time for barcode, signature and funds exchange items and the carding and safe drop time for the route as determined above. The total is the sub-delivery time structured into the route. Enter this total on line #8 of the 106 form.

Where the volume profile *(see section: Delivery Profile)* dictates a different structure for different days of the week, apply the above procedure for each day of the week or group of days of the week that is structured separately.

Combined Sub-delivery Rate per Stop

Divide the total sub-delivery time structured into the route by the average number of stops structured to that route (Line 14 of the106 form). This is the combined sub-delivery rate per stop for the route.

Add this combined sub-delivery rate to the variable delivery rates (line 16 of the 106 form). These combined delivery rates will be applied when calculating daily workload assigned by the PDSL system at various volume levels within the loop.

Volume Base

The Volume Base is the number of delivery stops available for delivery for each loop during the previous 12 month period excluding July, August and December. This defined period is called the **Volume Base Period**. The volume base period will end on the last day of the parcel sampling exercise. Where no parcel sampling exercise is conducted then this period is as close as possible to the start of the building of routes in IRMA.

The average daily parcel volume base is the average daily volume of stops available for delivery per day. Divide the total stops available for delivery of the volume base period by the number of working days.

The average weekly parcel volume base is the average weekly volume of delivery stops during the volume base period. Calculate the total weekly volume base by multiplying the average daily volume base by five (5 working days).

An average volume base may be calculated for each day of the week during the volume base period e.g. for Monday divide all stops available for delivery for all Mondays by the number of Mondays.

Collect the volume data by using Parcel Delivery Sort and Load (PDSL). Volume data will be recorded by stop and product attributes sub-delivery type.

The volume base is used to:

- determine the number of parcel delivery stops to be structured into all routes;
- determine the number of sub-delivery stops; and
- calculate the variable delivery rates.

For each FSA/LDU the average daily number of stops and items will be calculated with the breakdown into stops by sub-delivery categories.

The volume of **Unscheduled Deliveries** must be recorded separately *(see Chapter 5)*. Unscheduled deliveries are time sensitive delivery items that are not available to be dispatched with loop parcel drivers.

In addition the number of stops and items with a noon delivery commitment must be recorded.

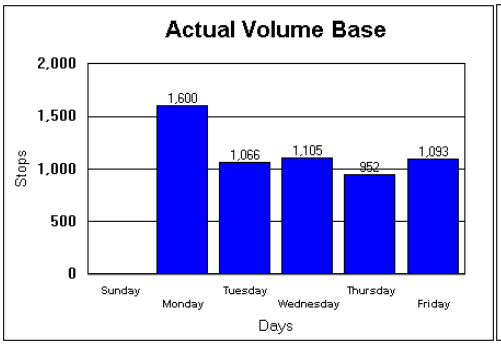
When volumes for a single point of call warrant shuttle delivery, discuss the issue with the Mail Processing Operations so they can sort large volume receivers separately. Parcels for large volume receivers will be removed from the volume base. When warranted, these parcels will be delivered by shuttle route.

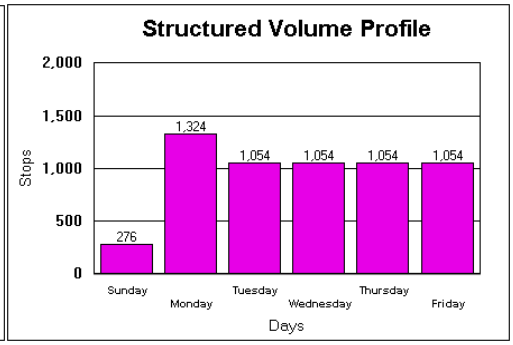
Volume Profile Calculate the average volumes available for delivery for each day of the week (Monday, Tuesday, Wednesday, etc.) If the average daily volume for some days of the week is sufficiently similar, those days may be grouped together for structuring purposes. The route may be structured for the same amount of delivery time on those days.

If adjustments are required to the processing strategy then corresponding adjustments should be made to the delivery profile.

As explained in the following example:

Graph 1 Graph 2





Any parcels delivered on Saturday and/or Sunday will be added to the Monday total volume for the purposes of the volume profile until it is determined whether or not weekend delivery is required.

Non-Delivery Driving Time

Establish driving times for the drives listed below for each route where they are required.

- To the parcel area
- To the Retail Postal Outlet (RPO)
- To the next Parcel Area
- To & From Lunch (when applicable)
- To next RPO (when applicable)
- To Next Function
- To the Delivery Depot
- And any other drive time required

Estimate the time using the .0007 min. per foot standard from the Table of Application Values. Plot the points in the mapping software, measure the distance and multiply by the standard. When measuring distances to or from delivery areas use the middle geographical point in the first or last sequence number (group of LDU's) as applicable. Where there is a specific address or single LDU use that point.

In situations where the .0007 standard does not produce an accurate result (e.g. high traffic, highway driving or high density situations, etc.) a driving rate per foot may be developed from the data collected from the sampling exercise, or from new data collected from the data collected for that purpose. Use a sufficiently large sample of driving time data.

Where an alternate driving time per foot rate is developed, the local parties will determine how the rate will be developed in the consultation process. Where the parties do not agree on the sampling methodology or how the results are to be applied, verify and use the driving times for the affected routes through a one day on street verification. Such verifications must be done during the time in which the work is normally done.

In some cases, driving time to another function may appear on the form relating to that function (e.g. on the 103 form when a Street Letter Box Collection follows, or on the 108 form when a Commercial Pickup follows.)

Record non-delivery driving time on line #7 of the 106 form unless it appears on a 103 or 108 form relating to the route.

Activities before and after delivery and/or pickup

Pre and post activities that take place before and after delivery or pickup activities (e.g. obtain keys, perform safety check, etc.). The following is a list of the various activities:

- Obtain Keys
- Walk to Vehicle
- Vehicle Safety Check
- Vehicle to Dock (where applicable)
- Verify load
- Dock to Parking
- Walk to dispatch
- Dock Portable Data Terminal (PDT)
- Dispose Keys
- Or any other activity required

Vehicle Safety Check

Apply the vehicle safety inspection time allowance specified in article 33.23 of the CUPW Collective agreement in each situation when a different vehicle is utilized. The time captured during the sampling exercise will be for information only. The captured time may be used when additional time allowance is required as with vehicles equipped with air brakes.

Obtain Keys, Walk to Vehicle, etc.

Local timings will be done within each parcel delivery facility to determine accurate average times to obtain keys (equipment, paperwork, etc.), walk to and from the vehicle, for moving vehicles to and from docks (where applicable), walking within facilities, docking PDT's, disposing of vehicles and keys, and any other activities that are performed by MSC's that are not specifically described in this Manual.

Timings to determine each of these local time values will be done for 5 consecutive days during the time of day in which the activity is normally performed. A sufficiently large sample size will be used. If there is a significant variation in the conditions under which some routes perform these activities, the routes will be grouped and 5 day samplings will be done for each grouping. Should the averaged results not produce an accurate evaluation of time required to perform an activity on a particular route, a sampling will be done for that route.

Record these activities using the appropriate screen on the Pocket PC.

Sequencing, Verification, Loading and Unloading Assessment

Sequencing (where applicable), load verification, loading (where applicable) and unloading rates per item must be developed in and applied to routes working out of each parcel facility according to the procedures that follow.

Select routes that are representative of each route type at each installation and ensure that the work is performed by an experienced employee familiar with the work methods being sampled.

The sampling exercises for each of these activities will be conducted for 5 consecutive days. Where the route chosen is being sampled for ten (10) days, IRMA will use the last five days on each route selected to determine the average time. Where the local parties determine that a significant anomaly has invalidated a sample day, they will consult on how to replace the missing data.

***Note**: The obtaining of equipment or materials necessary to perform any of the functions being sampled will be part of the sampling of that function. E.g. obtaining parcel racks for sequencing is part of the sequence function.*

Sequencing

Normally, the sequencing and loading of parcels will be performed by employees working in Parcel Support assignments. When it is not operationally feasible to have this work performed by the Parcel Support employees, this work will be structured into MSC assignments. In these situations, determine the time allowed for this work according to the following process.

Select a route that is representative of each route type at each installation where parcels will be sequenced and/or loaded by MSC's, and ensure that the work is performed by an experienced employee familiar with best practices and the delivery area.

Sequencing is the time required to obtain items for delivery, to obtain any equipment required to sequence them, and to place items into delivery order. Divide the total time required to sequence the parcels by the number of delivery items sequenced.

To determine the amount of time to be assigned to each route that is assigned sequencing duties, multiply the number of items for the route by the applicable sequencing rate.

Verification

Verification occurs after the sequencing of the load. It involves a cursory check of the delivery order of the load and verifying the funds collection and noon committed items against a manifest. In the case of funds collection items, the amount to be collected that is recorded on a manifest or written or electronically recorded must be verified against what is written on the item itself.

Verification can occur when parcels are sequenced and loaded by Parcel Support clerks, or when one MSC sequences items for another. When an MSC sequences his/her own parcels, the verification will be included in the sequencing activity for evaluation purposes.

Where an MSC sequences items for another route only the time taken to verify the delivery order of his/her own delivery items is to be recorded along with the number of items verified and the number of stops being delivered.

The verification rate per item by route type is determined by dividing the total time required for verification by these routes during the sampling period by the number of items to be delivered by the sampled routes. For the purpose of this calculation, group the data by sampled route type.

Determine the amount of time structured to the route by multiplying the number of items assigned to the route by the applicable verification rate.

Loading

Where MSC's load parcels as part of their structured duties, this work is normally performed after the sequencing. Loading involves moving the items to the vehicle, loading them on the vehicle, securing racks in the vehicle if required, and obtaining and disposing of any equipment required for loading.

Determine the loading rate per item by taking the total time required for the loading activity of all route types sampled and dividing it by the total number of delivery items loaded by all routes in the sample.

To structure parcel loading time into each route that requires it, multiply the number of delivery items by the rate.

Note: *The time to perform the "out for delivery" scanning is not to be included in the loading rate per item calculation. When sampling for the loading time instruct the MSC to perform all the loading activities prior to performing the "out for delivery" scan. Capture the "out for delivery" time separately.*

Where MSC's do the "out for delivery" scan, the MSC will be given the time value for the fixed portion of the scanning from Chapter 7 of this Manual. From the average daily volume base obtain the average number of bar coded items assigned to the route and multiply that figure by the variable "out for delivery" scan in *Chapter 7 of this Manual*. Add the result to the fixed "out for delivery scan" value.

This total forms part of the values on line #8 of the 106 form - Assessed value - non-delivery driving, fueling value & sub-delivery functions.

Unloading of Parcel

At the "Call for" RPO

The time to remove carded items from the vehicle and place them in the care of the retail operator will not be considered a delivery stop in the delivery rate calculation. The time spent performing this activity is recorded during the parcel sampling exercise along with the number of "call for" delivery locations where the activity was timed.

To determine the average RPO unloading time, divide the total time required for unloading at RPO's for a particular route type by the number of timed locations.

When structuring each route of a route type, multiply the number of "call for" locations structured into the route by the average unloading time per RPO for that route type.

Note: *For routes using a PDT on the route to perform the "retail stop": include the time to complete the scanning in unloading time.*

At the Unloading Facility

The unload time of any undelivered items/mail and equipment must be captured during each day of the parcel sampling exercise. To determine the unload time, divide the total unloading time by the number of sample days and apply that average time to each route delivering parcels out of that facility.

To calculate the average time to unload, combine the data from all route types sampled.

Note: *Record unloading as part of the activity that it is associated with. For example, time for unloading of mail from RPO and street letter box collections should appear on the 103 form and be evaluated with that activity. Time for unloading of mail from Commercial pickups should appear on the 108 form and be evaluated with that activity.*

Use the Pocket PC to perform the sampling exercises described above. The captured data will be summarized on the Parcel Route Sampling Form (33-082-109) for each individual route sampled.

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CANADA POSTES / POST CANADA

M.S.C. Workload Structuring System
Parcel Route Sampling

Système d'organisation de la somme de travail des C.S.P.
échantillonnage des itinéraires de livraison des colis

Ending finissant le: April 8, 2005

Depot/Function Dépôt/Fonction	Region/Région	Parcel Delivery Route No. Numéro d'itin. de c	Del. Area (Loop) Secteur de livraison (boucle)	Type of Route Type d'itinéraire
Centreville	Name	9	A	RC

Item Article	Function	Tâche	Monday Lundi	Tuesday Mardi	Wednesday Mercredi	Thursday Jeudi	Friday Vendredi	Total	Average Moyenne	
1	Time - To obtain keys / walk to vehicle	Temps - pour obtenir clés et marcher au véhicule	2.50	1.90	2.10	2.00	2.00	10.50	2.10	
2	Time - To dispose keys and walk to dispatch	Temps - pour remettre les clés et marcher au secteur de distribution.	2.00	1.90	2.20	1.80	2.10	10.00	2.00	
3	Time - To sequence parcels	Temps - pour effectuer le tri séquentiel des colis	29.00	34.00	22.00	19.00	27.00	131.00	26.20	
4	Time - To verify delivery sequence	Temps - pour vérifier l'ordre de la livraison	10.00	11.00	8.00	9.00	12.00	50.00	10.00	
5	Time - To load vehicle	Temps - pour charger le véhicule	2.00	2.00	2.00	2.00	2.00	10.00	2.00	
6	Time - To unload vehicle at "call for" location	Temps - pour décharger le véhicule au comptoir de service de remise.	4.00	3.50	4.00	3.00	3.00	17.50	3.50	
	Time - To unload vehicle at unload location	Temps - pour décharger le véhicule à l'emplacement de déchargement	4.00	3.50	4.00	3.00	3.00	17.50	3.50	
7	Total No. Items sequenced	Total des articles triés séquentiellement.	42	51	42	55	47	237		
8	Total No. items sequenced and loaded	Nombre total des articles ayant fait l'objet d'un tri séquentiel et chargés.	39	50	41	50	44	224		
9	Total number of "Call For" locations	Nombre de comptoirs de service de remise.	11	16	9	8	12	56		
10	Total number of unload Facility	Nombre d'installations de déchargement.	11	16	9	8	12	56		
11	Sequence Rate per item - (the total amount of time to sequence the items divided by the total number of items sequenced)	Taux de tri séquentiel par article - (le temps total pour effectuer le tri séquentiel des articles divisé par le nombre total d'articles ayant fait l'objet d'un tri séquentiel)						0.55	minutes	minutes
12	Verification rate per item - (the total amount of time to verify the items loaded divided by the total number of items loaded)	Taux de vérification par article - (le temps total pour vérifier les articles chargés divisé par le nombre total d'articles chargés)						0.22	minutes	minutes
13	Load rate per item - (the total amount of time to load the items divided by the total number of items loaded)	Taux de chargement par article - (le temps total pour charger les articles divisé par le nombre total d'articles chargés)						0.04	minutes	minutes
14	Unload rate per "call for location" - (the total amount of time to unload carded items divided by the total number "call for" locations.)	Taux de déchargement par point de remise au comptoir de service de remise - (le temps total pour décharger les articles annoncés par carte divisé par le nombre total de comptoir de service de remise)						0.31	minutes per stop	minutes par arrêt
15	Unload rate per "unload facility" - (the total amount of time to unload undelivered items/mail and equipment divided by the total number of unload facilities.)	Taux de déchargement par installation de déchargement - (le temps total pour décharger les articles ou équipements non livrés divisé par le nombre total d'installations de déchargement)						0.31	minutes per stop	minutes par arrêt

33-082-109 (04-05)

MSC Workload Structuring System Parcel Route Sampling, form 33-082-109

Purpose

The Parcel Route Sampling form 33-082-109 is a summary sheet used to record the information captured daily during the sampling exercise.

Headings

The following information is required:

Depot / Function	Name of Depot or Delivery Facility
Region	Name of Region
Parcel Delivery Route No.	Postal installation route number
Delivery Area (Loop)	Loop Name
Ending	Date that the sampling ended
Type of Route	Route type (RSD, BUS, etc.)

Data Capture

Information collected daily should be transferred to the summary sheet (33-082-109) at the end of each tour of duty. The following guidelines are intended to assist in this transfer:

Item	Heading	Information Required
1	Time – To obtain keys / walk to vehicle	Obtain daily time from parcel sampling application (Pocket PC)
2	Time – To dispose and walk to dispatch	Obtain daily time from parcel sampling application (Pocket PC)
3	Time - To sequence parcels	Obtain daily time from parcel sampling application (Pocket PC). *Used only when MSC's has to sequence own parcels.*
4	Time – To verify delivery sequence	Obtain daily time from parcel sampling application (Pocket PC). *Used only in a pre-loaded delivery route.*
5	Time – To load vehicle	Obtain daily time from parcel sampling application (Pocket PC). *Used only when MSC has to load own parcels.*

6 a)	Time – To unload vehicle at "call for" RPO	Obtain daily time from parcel sampling application (Pocket PC). Includes the time to unload carded items at "call for" locations.
6 b)	Time – to unload vehicle at unload location	Obtain daily time from parcel sampling application (Pocket PC) to unload undelivered items and/or equipment at the delivery facility.
7	Total number of items sequenced	Obtain daily time from parcel sampling application (Pocket PC). *Used only when MSC has to sequence own parcels.*
8	Total number of items sequenced and loaded	Obtain daily from parcel sampling application (Pocket PC). *Used only when MSC has to sequence and loads own parcels.*
9	Number of "call for" locations	Obtain daily from parcel sampling application (Pocket PC). Daily number of "call for" locations.
10	Number of unload facilities	Obtain daily from parcel sampling application (Pocket PC). Daily number of unload facilities.
11	Sequence rate per item	The total amount of time to sequence the items divided by the total number of items sequenced. *Used only when MSC has to sequence own parcels.*
12	Verification rate per item	The total amount of time to verify the items loaded divided by the total number of items loaded. *Used only in a pre-loaded delivery route.*

MSC Workload Structuring System Parcel Route Sampling, form 33-082-109 (cont.)

13	Load rate per item	The total amount of time to load the items divided by the total number of items loaded. *Used only when MSC has to load parcels.*
14	Unload rate per "call for" location	The total amount of time to unload carded items divided by the total number "call for" locations.
15	Unload rate per unload facility	The total amount of time to unload undelivered items/mail and equipment divided by the total number of unload facilities.

Sequencing, Verification, Loading and Unloading Assessment

The sequencing, verification, loading and unloading rates for each route being assessed are calculated in IRMA. At the conclusion of the exercise print the Parcel Route Sampling Form (33-082-109). Provide a copy to the union observer.

Where several routes of the same route type are sampled, blend the results to obtain the average time for that route type. Where the average time is not blended by route type but an average of all route types is used, average the results from all the route types.

Calculate time values for each of these activities by route type:

- Sequencing
- Verification
- Unloading – "call for" RPO

Calculate time values for each of these activities using data from all route types:

- Loading
- Unloading – Unload Facility

Establishing the Loop Boundaries

A loop is a pre-determined geographic delivery area. A delivery pattern for the loop is designed using sequence numbers, which are assigned to a delivery stop, an LDU or group of LDU's. The establishment of a loop sets the basis for the sortation plan and the number of delivery routes required. The loop concept is the basis for the Parcel Delivery Sort and Load system (PDSL) that will allocate parcel stops to each route daily. The main steps to complete loop design are the following:

Determine size of loop

Use the current structure to estimate the workload of the afternoon portion, factoring in any known changes that may result in gains or losses of time. To determine the size of the loop, the following information is required for the entire geographic area of the delivery facility:

- Estimate the work content in minutes for PM Pickups;
- Estimate the work content in minutes for SLB/RPO clearances;
- Determine the number of delivery stops to be structured;
- Estimate the work content in minutes required for parcel delivery; and
- Perform a calculation to determine the estimated number of stops for each loop.
- Estimate the number of full-time tours required
- Determine the number of "Flex" part-time tours required. There may be one part-time MSC designated as a "Flex" in each delivery loop or combination of loops.

A ratio of 1 Flex part-time route for 7 full-time parcel delivery routes will be used when calculating the number of "Flex" part-time tours. When applying the 7:1 ratio if the result of the calculation of "Flex" part-time yields any fraction less than zero point twenty-five (0.25) it will be rounded down any fraction of a "Flex" part-time route greater than or equal to zero point twenty (0.25) will be rounded up."

While building the loop, considerations must be given to the following:

- "Call-for" boundaries;
- Natural boundaries, such as highways, rivers, hydro boundaries; and
- Volume and density

Structuring of Routes

Determine the afternoon work content that will be structured into delivery routes in each loop. Such work includes volumes of unscheduled deliveries, number of scheduled pickups, average number of on-demand pickups *(see Chapter 5)* and number of RPO clearances and of PM SLB clearances *(see Chapter 3).*

When structuring parcel delivery and pickup routes, start by structuring the Commercial pickup portions of these routes, using *Chapter 5 of this Manual*, and the Street Letter Box collection and RPO clearances portions of these routes according to *Chapter 3 of this Manual*. These structured pieces of work may form a PM portion of a full time route or a part time route.

Routes in a loop must include enough PM work (commercial pickups, late deliveries, and/or RPO & SLB clearances) to maximize the number of Full Time routes. Full time routes may be assigned PM work in the geographic area of another loop where there is insufficient PM work within the boundaries of the delivery loop. Prior to combining this work, ensure that the resulting routes are operationally feasible and practicable.

A balance of PM work and AM work must be maintained to maximize the number of full time routes. Where the PM portion exceeds the available AM portion then part time PM Commercial pickups or SLB/RPO clearance routes will need to be created. When the AM work exceeds the PM work within the loop and in loops that are accessible to the original loop, and there is not sufficient work available to create an additional full time route in the loop, then part time routes may be created. These routes may include weekend delivery or be on regular workdays depending on the delivery profile.

Additional Part Time routes may be required for the following reasons:

- Weekend Parcel Delivery
- Weekend SLB & RPO Clearances
- Weekend Commercial Pickups
- Too many PM Pickups & Deliveries (in a short window) for the number of FT Delivery Parcel Routes.
- Too many PM SLB & RPO clearances for the number of FT Delivery Parcel Routes.

Any Commercial pickup or SLB clearance part time route scheduled for weekday work must be structured for a minimum of 20 hours of work per week. In the case of full time routes, the parcel delivery portion of the route will be added to the pickup portion of the route. Some adjustments may be

Structuring of Routes (cont.)

required to balance the work to the daily scheduled hours for each route.

Where there are committed deliveries (example: noon-committed) not available for the regularly scheduled loop routes, structure this work as described in Chapter 5 of this manual. Where this work can be combined with other MSC work, then combine these portions to create full-time routes. Prior to combining this work, ensure that the resulting routes are operationally feasible and practicable.

Volume Profile

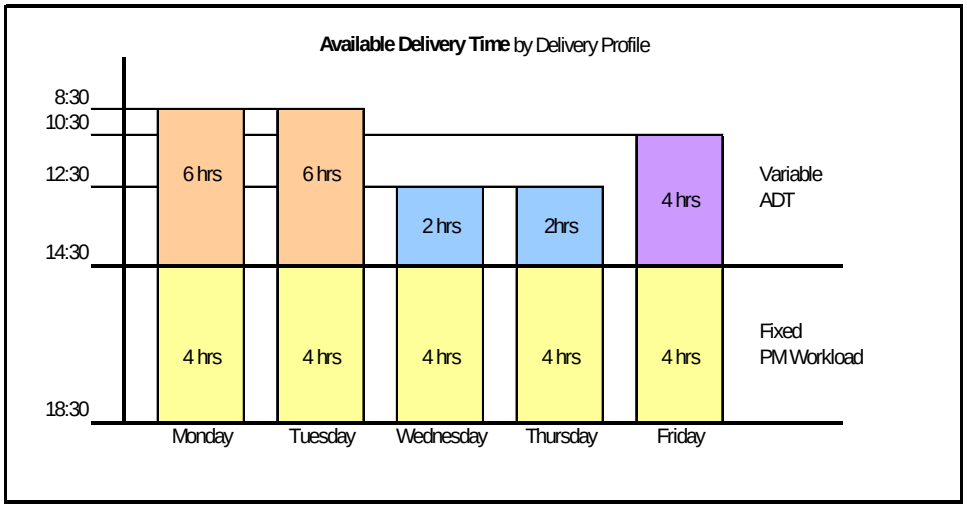
The volume profile is based on the volume base data. It is the basis for determining the staffing level required on each day of the week. Divide the volume base into delivery stops available for delivery on each of Monday, Tuesday, Wednesday, Thursday, and Friday. If the number of stops for some days of the week is sufficiently similar, those days may be structured in an identical manner. Otherwise, some days of the week may be separated from the others and structured separately.

If Monday volumes are significantly higher than other days of the week, this difference may be reduced by scheduling parcel delivery on Saturday and/ or Sunday, and structuring parcel delivery into those routes.

Part time routes working only Saturday and Sunday must be structured for 16 hours per week.

The workweek for full-time MSC's delivering parcels within a loop consists of forty (40) hours spread over five (5) days. MSC's will have a fixed schedule, but the scheduled hours of work may differ from one day of the workweek to the next. The fixed scheduled hours of work must not be less than six (6) nor more than ten (10) hours per day. The minimum scheduled hours for the flex part-time are not less than 20 hours per week.

When a route has different scheduled hours on different days of the week, the available delivery time (ADT) for parcel delivery will vary from day to day, based on the volume profile. Generally, the PM portion of a route will have a relatively fixed finish time. The starting time may vary from day to day depending on the requirements of the volume profile within the week.



Available Delivery Time

To determine the average daily workload of delivery stops to be assigned to each parcel route, establish the average daily time available for deliveries. The available delivery time will be referred to as the ADT. Where there are different structures on different days, calculate the ADT for each day or group of days. To establish the ADT, add up all of the non parcel delivery work (time allowances and time values) credited to the route:

a) The total evaluated time of the commercial pickup or street letter box clearance portion of the route from the form 108 or 103;
b) Time to drive to and from the delivery area and any required driving time between functions;
c) Daily allowance – Meal period, rest periods, wash-up, order book & official communications, travel allowance for routes with meal on route;
d) Time to obtain keys, walk to the vehicle, perform the safety check, move the vehicle to the dock (where applicable), walk to dispatch area, dock the PDT, dispose of the vehicle and keys, and any other required MSC function;
e) Time unload carded and returned items;
f) The time to sequence parcels and load parcels where the MSC is structured to do this work;
g) Time to verify the load;
h) Time values from Chapter 7 of this Manual for delivering bar coded, funds collection and signature items and for carding and safe dropping parcels;
i) Time values for performing the "out for delivery" scan where the MSC is structured to do this work;
j) Total time for performing shuttle work from the 101 form and/or relay delivery from the 103 form where such work is structured into the route;
k) Time for performing any other MSC duties that are structured into the route.

To determine the ADT for a full time or a part time route:

A. Add the totals (as applicable to each route) of ***a)*** through ***k)*** above.
B. Subtract A) from the total structured hours assigned to the route for the day *(see section: Delivery Profile*).
C. The difference is the ADT.

For part time routes that on any given day may be structured for less than 8 hours a day but will deliver parcels, add *a)* through *k)* above, as applicable to the route.

For Flex Part time routes, add *a)* through *k)* above and subtract that figure from structured hours.

Structured Daily Workload

To establish the daily workload of delivery stops:

- Divide the available delivery time by 60 minutes to determine the amount of time available for delivery (expressed in hours).
- Multiply the delivery rate per hour for the applicable route type by the amount of available delivery time.

Note: *To determine the route type, use the delivery area that the MSC will be assigned on the average day within the grouping of days that are being structured together.*

Structuring Routes Within a Loop

When doing the route restructure for a loop, a "Flex point" must be determined in each loop. The Flex Point is the point (sequence number) on the Flex part-time route that is the entry or exit point when work is transferred to and from other loops. The Flex part-time route must be restructured to include the sequence number with the "flex point". The flex point allows for non-delivery driving time when the Flex part time routes drive between loops.

Restructure the Full Time Routes: assign Sequence numbers to routes based on the average day, starting with the lowest sequence number (nearest from the facility) and working toward the highest sequence number (farthest the facility). Assign the volumes associated with sequence numbers to each route in succession until the ADT of each route has been filled. Once you approach the "flex point" build the Flex part-time route, allocate the route approximately 4 hours of time. The scheduled hours may vary daily to balance the work. The Flex route must be structured to a minimum of 20 hours per week. This time will be adjusted once the stops in the loop have been fully allocated.

The "flex point" should fall approximately half way within the average assigned delivery volume of the flex part time route.

When structuring the total volume of delivery stops in the average weekly volume base for the facility will be equal to the total structured stops assigned to all routes on all days of the week.

Exhibit 1 – 038 Form

Canada Post Corporation — Inventory of Points of Delivery (038) — Postal Code : **N3B 1V3**

Post Office : ELMIRA
Installation : MAIN
Route # : 4
Del. Seq: 0520
Street Name : FLAMINGO DR
Address Range : 3 to 35
CMB/GMB/OTHER [] Site : N/A
Clearance [] Location : N/A
Compartments : N/A

DELIVERY PATTERN Single Side [X] Criss Cross [ ] U Pattern [ ]
DISTANCES Single Street Distance [1522] ft. Distance on Foot [1522] ft. Mail Mobile [ ] ft.
TERRAIN Flat [1522] ft. Gentle Slope [ ] ft. Comments []
Steep Up [ ] ft. Steep Down [ ] ft.
Over 50% Steep ? [ ] NWP (-10 feet) [-90] Terrain Value [5.30]

From Street : CEDARWAXWING

VARIABLE

Street Name / Comments	Civic #	POC Type	AM	NWP	Consumer Choice	Dist MM	Dist On Foot Ft In	Stairs	Doors	MM Stops	Panel	Elev. Time	Receptacles R	M	K	Tot K
	3-	R	N	1	1	0'	60' 1"	6	0	0	0	0.00	1	0	0	0
	5-	R	N	1	1	0'	66' 11"	6	0	0	0	0.00	1	0	0	0
	7-	R	N	1	1	0'	58' 6"	6	0	0	0	0.00	1	0	0	0
	9-	R	N	1	1	0'	68' 5"	6	0	0	0	0.00	1	0	0	0
	11-	R	N	1	1	0'	55' 9"	6	0	0	0	0.00	1	0	0	0
	13-	R	N	1	1	0'	59' 10"	6	0	0	0	0.00	1	0	0	0
	15-	R	N	1	1	0'	52' 9"	6	0	0	0	0.00	1	0	0	0
CHURCH	19-	C	Y	1	1	0'	452' 8"	0	1	0	0	0.00	0	1	0	0
	35-	A	N	0	30	0'	0' 0"	0	0	0	0	0.00	0	0	30	30
TOTAL PHYSICAL CHARACTERISTICS..........>				8	38	0'	874' 11"	42	1	0	0		7	1	30	30
DISTANCE ON FOOT ADJUSTMENTS																
NWP (+5.7 FT. PER NWP)............>							45' 7"									
RECEPTACLES (-2.5 FT PER R & M).....>							-20' 00"									
DOORS (+5.0 FT. PER OCCURENCE)......>							5' 0"									
TOTAL ADJUSTED DISTANCE ON FOOT.........>							905' 6"									
TOTAL MINUTES CREDITED..................>						0.00	3.35	0.34	0.09	0.00	0.00	0.00	0.47	0.03	3.83	

NON VARIABLE

Civic #	NWP	Dist MM	Dist On Foot	Stairs	Doors	MM Stops	Panel	Elev. Time	Separation
3-	0	0'	0' 0"	0	0	0	0	0.00	0.5
5-	0	0'	0' 0"	0	0	0	0	0.00	0.5
7-	0	0'	0' 0"	0	0	0	0	0.00	0.5
9-	0	0'	0' 0"	0	0	0	0	0.00	0.5
11-	0	0'	0' 0"	0	0	0	0	0.00	0.5
13-	0	0'	0' 0"	0	0	0	0	0.00	0.5
15-	0	0'	0' 0"	0	0	0	0	0.00	0.5
19-	0	0'	0' 0"	0	0	0	0	0.00	1.0
35-	1	0'	220' 5"	4	1	0	6	0.00	15.0
TOTAL PHYSICAL CHARACTERISTICS	1	0'	220' 5"	4	1	0	6		19.5
NWP			5' 8"						
RECEPTACLES									
DOORS			5' 0"						
TOTAL ADJUSTED DISTANCE ON FOOT			231' 1"						
TOTAL MINUTES CREDITED		0.00	0.86	0.03	0.09	0.00	1.56	0.00	

N3B1V3 # 4

To Street : ORIOLE

TOTAL ADJUSTED VARIABLE **8.11**
TOTAL ADJUSTED NON VARIABLE **7.84**

Printed On : 2003-09-02
Last Updated On : 2002-07-11

HOUSEHOLDER	ACTUAL	C-CHOICE
HOUSES:	[7]	[7]
APARTMENTS:	[30]	[30]
BUSINESSES:	[1]	[1]
TOTAL:	[38]	[38]

ELECTORAL BOUNDARIES
CIVIC:
PROVINCIAL:
FEDERAL:

Point of Call Types:

1. A - Apartment (more than 30 suites)
2. C - Business/Commercial
3. R - Residential

Page 1 of 1