



April 12, 2019

Mr. Brian J. Wagner
President
National Association of Postal Supervisors
1727 King Street, Suite 400
Alexandria, VA 22314-2753

Dear Brian:

As a matter of general interest, the Postal Service plans to conduct a field evaluation of several devices under consideration to replace the current Mobile Delivery Device (MDD).

The evaluation is tentatively scheduled to begin May 13, and run for approximately one month at the following sites:

<u>Area</u>	<u>District</u>	<u>Office and ZIP Code</u>
Capital Metro	Northern Virginia	Fairfax Main Post Office - 22030
Great Lakes	Greater Indiana	Southport - 46227
Western	Central Plains	Northwest - 68134
Southern	South Florida	Greenacres Branch - 33467
Pacific	Sierra Coastal	Santa Clarita Main Office - 91355

The process will include obtaining feedback from letter carriers, which will include completion of a questionnaire each week for each type of device used. Participating carriers will also complete a final ranking questionnaire at the conclusion of the evaluation period. This feedback will be used when we consider the selection of a replacement device.

Enclosed are the copies of the following:

- Field Evaluation Test Plan
- Field Evaluation Questionnaire
- Field Evaluation Final Ranking

Please contact Bruce Nicholson at extension 7773 if you have any questions concerning this matter.

Sincerely,

Alan S. Moore
Manager
Labor Relations Policies and Programs

Enclosures



Mobile Delivery Device - Technology Refresh Phase 1 (MDD-TR PH1)

Field Evaluation Test Plan

Note: The USPS reserves the right to modify this test plan, as needed.

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1.0 General

1.1 Introduction

The purpose of this field test is to allow USPS mail carriers (end user) to work with each device and provide their feedback on durability, reliability, functionality, ease of use, and their general preference. There will be four devices (two from each Supplier).

1.2 Evaluation Objective

The objective of this evaluation is to let carriers use the devices in daily and Sunday Delivery operation and provide their feedback via a questionnaire. Each carrier selected for this evaluation will use one of the devices for one week (On-Street). After each week of usage, the carrier will complete a questionnaire with the help of onsite test director. We will also be conducting an evaluation with Sunday Delivery operation. Each Sunday Delivery person will use each of the devices for one weekend and complete a questionnaire.

2.0 Test Planning

2.1 Evaluation Site

The USPS has planned the following evaluation sites:

Area	District	Description
Capital Metro	Northern Virginia	22030 - Fairfax Main Post Office
Great Lakes	Greater Indiana	46227 - Southport
Western	Central Plains	68134 - Northwest
Southern	South Florida	33467 - Greenacres Branch
Pacific	Sierra Coastal	91355 - Santa Clarita Main Office

2.2 Evaluation Period

Start: May 13, 2019

End: Sunday, June 16, 2019

2.3 Prerequisite Activities

USPS Engineering Systems must provide all equipment, logistics, and support. The Office of Delivery, Strategy and Planning must support site-related items.

- A. Identification of Carrier's participating in MDD-TR Field Evaluation at each site;
- B. Equipment list for each site;
- C. Site network requirement evaluation;
- D. Site Prep;
- E. Develop training material (Hardware and Software);
- F. Equipment shipment and installation;
- G. Network connectivity and cellular service activation;
- H. MDD Sunday Delivery Software load;

- I. Equipment configuration; and
- J. Questionnaire.

2.4 Onsite Support

The USPS Engineering Systems Test and Evaluation group must provide personnel for onsite support. The onsite team must do the following:

- A. Become familiar with all four devices;
- B. Learn how to configure and setup MDD system;
- C. Train the carrier on how to use the equipment;
- D. Answer questions (first tier helpdesk);
- E. Work with USPS Engineering team to address device;
- F. Ensure carriers complete questionnaire; and
- G. Conduct data collection.

2.5 Evaluation Team

- A. Carriers selected for MDD Evaluation - End user;
- B. Onsite USPS Test Director - Data Collection and Field Support; and
- C. Engineering System Delivery & Mobile Technology - Technical Support.

3.0 Evaluation Description

3.1 Carrier Evaluation

- A. Each carrier taking part in this evaluation will be assigned a MDD Device;
- B. Carriers are to utilize the new MDDs as they would using the legacy MDD in their operation ;
- C. Upon return to office, Carrier must cradle the device;
- D. At the end of the week, Carrier must complete the questionnaire;
- E. The following week, Carrier will be assigned a different MDD and will follow steps B-D;
- F. This process will continue until Carrier has used each of the devices on for one week; and
- G. Participate in final device review.

3.2 Evaluation Devices

Device	Device	Device	Device
			
Zebra TC 57	Honeywell CT 60	Zebra TC 77	Honeywell CN 85

3.3 Device Evaluation Distribution Plan

Below is the current plan for On-Street device evaluation

- A. Four MDD Models;
- B. Five of each MDDs per site;
- C. Twenty Carriers for evaluation per table below:

Device Assignment Schedule - "On-Street" Evaluation

		1st Week	2nd Week	3rd Week	4th Week
Carrier	1	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	2	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	3	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	4	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	5	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	6	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	7	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	8	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	9	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	10	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	11	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	12	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	13	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	14	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	15	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	16	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Carrier	17	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Carrier	18	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Carrier	19	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Carrier	20	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Total Carriers	20	20 Devices (5 of each model per site)			

No of Sites **5** **100 Devices (25 of each model for entire test)**

3.4 "Sunday Delivery"

As part of the field evaluation, the USPS will test devices for "Sunday Delivery" operation.

3.5 "Sunday Delivery" Evaluation

- A. Each carrier taking part in this evaluation will be assigned a MDD Device;
- B. Carriers are to utilize the new MDDs as they would using the legacy MDD in their operation;

Document is classified as "Confidential"

- C. Upon return to office, Carrier must cradle the device;
- D. At the end of the week, carrier must complete the questionnaire;
- E. Following week, Carrier will be assigned a different MDD and will follow steps B-D;
- F. This process will continue until Carrier has used each of the devices on for one week; and
- G. Participate in final device review.

3.6 "Sunday Delivery" Device Evaluation Distribution Plan

The current plan for On-Street device evaluation is as follows:

- A. Four MDD Models; and
- B. Eight "Sunday Delivery" Carriers for evaluation per table below:

Device Assignment Schedule - "Sunday Delivery" Evaluation

		1st Sun	2nd Sun	3rd Sun	4th Sun
Carrier	1	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	2	Zebra TC57	Honeywell CT60	Zebra TC77	Honeywell CN85
Carrier	3	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	4	Honeywell CT60	Zebra TC77	Honeywell CN85	Zebra TC57
Carrier	5	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	6	Zebra TC77	Honeywell CN85	Zebra TC57	Honeywell CT60
Carrier	7	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Carrier	8	Honeywell CN85	Zebra TC57	Honeywell CT60	Zebra TC77
Total Carriers	8				

3.7 "Sunday Delivery" Vehicle Device Mounting Support

This test will require installing the MDD vehicle mounting on the Sunday Delivery carrier's vehicle for each device at the start of each week. The Sunday Delivery test will require support from, and coordination of, vehicle MDD Mounting activities from the USPS Vehicle Engineering team.

3.8 Field Support

There will be an onsite test director to answer questions, troubleshoot, and help with data collection. The USPS Engineering team will also be available to provide support.

3.9 Final Report

After the conclusion of Field Evaluation, the USPS TE&Q and Engineering team will compile the data and provide a final report.

Zebra

Honeywell



Zebra

TC 57



Zebra

TC 77



Honeywell

CT 60



Honeywell

CN 85

MDD TR Scanners: Field Evaluation
May 2019

Participant Questionnaire (Complete at the end of each week)

Date: _____

MDD Device: _____
Participant: _____
Office: _____
Gender: _____
Right- or Left-Handed: _____

Serial No: _____
Group: _____
Route No: _____
Height: _____

What is your age?

- Under 20 years
- 20-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- Over 60 years
- Prefer not to answer

1. How long have you worked in your current position?

- 1. Less than one year
- 2. 1 to 5 years
- 3. 6 to 10 years
- 4. 11 to 15 years
- 5. Greater than 15 years

2. Which type of route do you deliver?

- 1. Park and Loop
- 2. Mounted
- 3. Walking route
- 4. Mixed route
- 5. Other (please specify): _____

3. On average, approximately how many scans do you perform daily? _____

4. Describe any battery issues you experienced during the week, if any:

Display Visibility

5. How well were you able to read the information on the screen during indoor use?
 1. Very easy
 2. Easy
 3. Neutral
 4. Difficult
 5. Very difficult

6. How well were you able to read the information on the screen during outdoor use?
 1. Very easy
 2. Easy
 3. Neutral
 4. Difficult
 5. Very difficult

7. Does direct sunlight on the screen affect your view?
 1. Yes
 2. No

8. Rate the clarity and legibility of the icons on the screen:
 1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor

9. Rate the legibility of the key labels on the touchscreen keypad:
 1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor

10. Rate the overall legibility of the device compared to current MDDs:
 1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor

Touchscreen Operation

11. Rate the ease of operating the touch screen in general:

- 1. Very easy
- 2. Easy
- 3. Neutral
- 4. Difficult
- 5. Very difficult

12. Rate the accuracy of key entry using the touchscreen keypad:

- 1. Very easy
- 2. Easy
- 3. Neutral
- 4. Difficult
- 5. Very difficult

13. Rate the text function (ease of use):

- 1. Very easy
- 2. Easy
- 3. Neutral
- 4. Difficult
- 5. Very difficult

14. Rate the ease of manually keying the labels (ease of use):

- 1. Very easy
- 2. Easy
- 3. Neutral
- 4. Difficult
- 5. Very difficult

15. Include additional comments regarding the display or touchscreen below, if any:

Scanning

16. Rate the accuracy of key entry using the touchscreen when sending a text message to your supervisor/entering route/vehicle ID:
1. Very accurate
 2. Accurate
 3. Neutral
 4. Not accurate
 5. Very inaccurate
17. Rate the accuracy of manual barcode entry:
1. Very accurate
 2. Accurate
 3. Neutral
 4. Not accurate
 5. Very inaccurate
18. Rate the ease of reaching the scan key(s) on the device:
1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor
19. Rate the speed at which the scanner read the tracking codes:
1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor
20. Rate the visibility of the red laser aiming with white illumination against the mail pieces, while considering all light conditions:
1. Excellent
 2. Good
 3. Neutral
 4. Poor
 5. Very poor

Ease of Handling the Scanner

21. Rate your ability to comfortably hold and use the scanner with *one hand* while performing the following:

- a) Data entry:
 - 1. Very easy
 - 2. Easy
 - 3. Neutral
 - 4. Difficult
 - 5. Very difficult

- b) Scanning:
 - 1. Very easy
 - 2. Easy
 - 3. Neutral
 - 4. Difficult
 - 5. Very difficult

22. Rate the ease of signature capture for the following:

- a) Sign on glass:
 - 1. Very easy
 - 2. Easy
 - 3. Neutral
 - 4. Difficult
 - 5. Very difficult

- b) Scanning a physical form:
 - 1. Very easy
 - 2. Easy
 - 3. Neutral
 - 4. Difficult
 - 5. Very difficult

Keypad

23. Rate the layout of the alpha, numeric, and function keys on the keypad:

- 1. Excellent
- 2. Good
- 3. Neutral
- 4. Poor
- 5. Very poor

24. Please provide any comments on the ease of using any special keys, if necessary (i.e., <Shift>, <Esc>, etc.):

25. Please provide any comments on any aspects of the keypad layout that influenced your ratings in the previous question, such as key size and key spacing:

26. Did you find the combination of the key size and key spacing to be sufficient? If applicable, please consider winter climates and use of gloves when answering this question.

1. Very easy
2. Easy
3. Neutral
4. Difficult
5. Very difficult

Physical Keys and Keypad

27. Rate the ease of pressing any physical keys on the scanner, including the physical keypad, if the device has one:

1. Very easy
2. Easy
3. Neutral
4. Difficult
5. Very difficult

If you provided a rating of "Difficult" or "Very Difficult," which keys were difficult to press?

28. Did you find the key labels on the physical keypad to be clear and legible during indoor use?

1. Yes
2. No

0. Not applicable

29. Did you find the key labels on the physical keypad to be clear and legible during outdoor use?

1. Yes

2. No

0. Not applicable

Mobile Device Components

30. Please rate the value of the hand strap in terms of assistance while holding the scanner during use:

1. Very useful

2. Useful

3. Neutral

4. Little usefulness

5. Not at all useful

0. Not Applicable

31. Rate the comfort of the hand strap:

1. Very comfortable

2. Comfortable

3. Neutral

4. Uncomfortable

5. Very uncomfortable

0. Not Applicable

32. Rate how it feels to wear the holster:

1. Very comfortable

2. Comfortable

3. Neutral

4. Uncomfortable

5. Very uncomfortable

0. Not Applicable

33. Rate the ease of placing the scanner into, and removing it from, the holster during delivery:

1. Very easy

2. Easy

3. Neutral

4. Difficult

5. Very difficult

0. Not Applicable

34. Rate the ease of placing and removing the scanner from the charging station:

1. Excellent

2. Good

3. Neutral

- 4. Poor
- 5. Very poor

35. Rate the ease of using the stylus:

- 1. Very comfortable
- 2. Comfortable
- 3. Neutral
- 4. Uncomfortable
- 5. Very uncomfortable
- 0. Not Applicable

36. Was the storage space for the stylus conveniently located in a manner that was unobtrusive to scanner use?

- 1. Very Unobtrusive
- 2. Unobtrusive
- 3. Neutral
- 4. Obtrusive
- 5. Very obtrusive
- 0. Not Applicable

37. Do you have any other comments regarding handling the scanner or scanner components during delivery tasks?

38. Describe the main features of this scanner that you found to be useful and easy to use, if any:

39. Describe the main aspects of this scanner that you found difficult to use or uncomfortable, if any:

40. Compare this device to your current MDD. What features do you like better?

41. What features do you dislike about this device compared to the MDD?

The Following three questions are for "Sunday Delivery" test participants only.

42. Rate the accuracy of the turn-by-turn direction tool on the scanner:

- 1. Excellent
- 2. Good
- 3. Neutral
- 4. Poor
- 5. Very poor

43. Rate how you like the turn-by-turn tool in general:

- 1. Excellent
- 2. Good
- 3. Neutral
- 4. Poor
- 5. Very poor

44. Describe any issues you had with the batteries, if any:

Final Ranking

The following form must be turned in at the end of Field Evaluation (Week Four)

Participant: _____

Office Name: _____

Group: _____

Route #: _____

"On-Street" Evaluator

"Sunday Delivery" Evaluator

After using each device for the past four weeks, please rate the devices on a scale of 1 to 5 (according to guide below) in order of overall preference:

1 (Very Poor), 2 (Poor), 3 (Neutral), 4 (Good), 5 (Excellent)



Zebra
TC 57



Zebra
TC 77



Honeywell
CT 60



Honeywell
CN 85

Overall

Ranking	Device	Your Scoring (1-5)
1		
2		
3		
4		

Final comments, if any:

