

# % Plan vs. Actual DPPH Metric Improvement Guide SOP

## Purpose

Deliveries Per Paid Hour is the standard metric and indicator of a station’s On the Road productivity. To increase productivity, we need to control and ultimately increase our DPPH. This leads to a decrease in our Last Mile variable route costs, leading to a lower Cost Per Package (CPP).

## Scope

This SOP applies to NA, EU, and JP; On-Road Station Operators responsible for performing DPPH bridge for their Delivery Station.

## Why Is This Important?

%Plan vs. Actual DPPH - Stations have different factors that impact their unique DPPH, such as dispatched daily volume, delivery channels mix, delivery population density, etc. To account for those factors, in alignment with *Amazon Customer Excellence Systems* (ACES) and Finance teams, we propose using Planned vs. Actual (PvA) DPPH% as a representative of station OTR performance. The Plan DPPH is generated by Route Planning Technology, the routing algorithm that produces the station’s optimal and cost-efficient route plan. The Actual DPPH measures the station’s performance in executing the in-station dispatch and on-road route plan. Stations will have a single task to focus on to improve their cost and OTR productivity - "Nail the Plan" set by the routing. The routing plan is designed to produce a specific rate of packages per hour that is uniquely tailored for each station, which makes it highly attainable yet still challenging. When the station adheres to the Standard Work in dispatching packages, and drivers adhere to Standard Work, the plan will match with the actual rate of deliveries per hour. It's simple enough that it could be calculated manually with division, driving simplicity and understandability.

## Key Definitions

- **Planned DPPH (RTW Planned DPPH):** PerfectMile sequenced packages divided by on-road planned hours from the final Central Operations route plan. The Central Operations planned hours excludes planned routes added in non-standard clusters and manually added routes. In JP, planned paid hours for eDSP stations that are not using WST are adjusted by multiplying # of drivers by 12 hours per day.
- **Dispatch Failure Leakage:** The impact to DPPH from sequenced packages not being dispatched. Examples include physical cube-outs due to wrong van size.
- **Block with No Deliveries (BWND) Leakage:** Impact from blocks hours paid to Amazon Flex Drivers that had no deliveries (no on-road events). A BWND is when a Delivery Partner is marked as overbooked or checked in manually by the station. This is when a DP has been checked in/overridden by the Delivery Station and then the DP not provided with a route. The DP then is paid for not delivering any parcels.
- **Unplanned Leakage:** The sum of all additional non-sequenced paid hours through both Work Summary Tool and via DSP Invoicing. It can take up to 72 hours for DSP WST payments to pull through, with up to 3 weeks for invoicing to be included.
- **Delivery Failure Leakage:** The Delivery Failure Packages, at both the DSP and AMFLEX service types, is the delta of delivered packages from the total packages dispatched per that specific cycle. Delivery failures can be attributed to three main subsets of failures: package issues, customer issues, and other with multiple root causes for each (see below decision tree).
- **Planning Inaccuracy Hours - JP:** Unlike EU and NA, JP cannot cancel a DA who is booked on W-1. Therefore, all DAs must be paid regardless of if their a volume fluctuation. If this happens in EU and NA, the routes are aborted (see above). To capture the increased hours used in JPs process, we have built a Planning Inaccuracy Hours metric. Before this metric existed, these hours would have flagged as unplanned hours - additional hours paid to DAs due to planning inaccuracy.
- **Sequenced packages(Amflex + DSP):** also include the sum of Dispatched but never sequenced(metric 1.3)" and Re-dispatched more that re-sequenced (metric 1.5) from Perfect Mile Plan vs. Actual DPPH Deep-Dive tab. This means any package that makes it on road will be sequenced and considered in Planed DPPH

## Measurement Methodologies

Metric	Standard	Definition	Formula	Historical Performance Link
% Plan vs. Actual DPPH (DSP+Amazon Flex) [WWSC]	100%	Last Mile DPPH performance as compared to the plan generated by routing tool at Delivery Station.		<a href="#">WW DPPH Dashboard &gt; %Plan vs. Actual DPPH Tab</a>

Planned DPPH		How many packages the driver should deliver per hour.		PerfectMile - <a href="#">WW DPPH Dashboard</a>
Actual DPPH		How many packages the driver actually delivered per hour.		PerfectMile - <a href="#">WW DPPH Dashboard</a>
Dispatch Failure Leakage	0	DPPH volume opportunity when the volumes are planned/sequenced in Routing Tool Website (RTW) but not dispatched	Dispatch Failure Leakage =  (Sequenced Packages/Planned Paid Hour(wst))- (Dispatch Packages/Planned Paid Hour(wst))	PerfectMile: <a href="#">Dispatch Failure Leakage 4.1</a>  <a href="#">Dispatch Failure Leakage Deep Dive</a>
Unplanned Leakage	-	Total amount of hours lost due any non-sequenced hour. For exclusion, please check the <a href="#">Wiki</a> .	Unplanned Opp Hours = All Unplanned Hours	<a href="#">WW DPPH Dashboard &gt; %Plan vs. Actual DPPH Tab &gt; Line 4.3</a>  <a href="#">Unplanned Leakage Deep Dive</a>
Delivery Failure Leakage	0	DPPH volume opportunity when the volumes are dispatched from the station but not delivered	Dispatch Failure Leakage = (Dispatched Packages/Planned Paid Hour(wst))- (Delivered Packages/Planned Paid Hour(wst))	PerfectMile: <a href="#">Dispatch Failure Leakage 4.2</a>  <a href="#">Delivery Failure Leakage Deep Dive</a>
BWND Leakage	0	The Amazon Flex drivers are given blocks with no deliveries		PerfectMile: <a href="#">Dispatch Failure Leakage 4.4</a>  <a href="#">BWND Deep Dive</a>

## Roles and Responsibilities

Role	RACI	Responsibility
On Road Area Manager (ORAM)/ Delivery Operations Managers	R	Amazon leader (L4-5) responsible for on-road execution and DPPH performance.
On Road Operations Manager (ORM)	A	Amazon leader (L6) accountable for on-road execution and responsible for inputting WW DPPH bridge.
ACES	C, I	Amazon ACES leadership team responsible for reviewing and supporting Last Mile DPPH to plan performance.

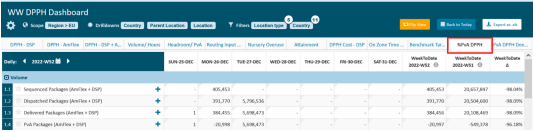
## Safety, Tools, Equipment, Software Needed

- [WW DPPH Dashboard](#)
- [WW DPPH Bridge Wiki](#)
- [%Plan vs. Actual DPPH Bridging Guidelines](#)
- PerfectMile – [WW DPPH Dashboard](#) - %Plan vs. Actual DPPH Tab – Line 3.4: %Plan vs. Actual DPPH (DSP + Amazon Flex) [WWSC]
- PerfectMile – [WW DPPH Dashboard](#) - %Plan vs. Actual DPPH Tab – Line 4.1 -4.4: DPPH leakage
- PerfectMile – [WW DPPH Dashboard](#) - %Plan vs. Actual Deep Dive Tab
- All the above metrics/dashboards are updated daily. However, as paid hour information comes from WST, the correct values appear only after three (3) days.
- Wiki – [PerfectMile WW DPPH Dashboard](#) – Describes all the aspects and updates related to WW DPPH bridge and %Plan vs. Actual DPPH.
- Quicksight Dashboard – [DPPH Fresh](#): Provides graphical representation of the DPPH performance and various leakages.
- Issues: Follow the information on this [Wiki](#) to raise a SIM.

## Process Map



Process Map

Process Step(s)	Image(s)
<p><b>1. Use PerfectMile (PM) or Caravan for Weekly Reporting of %Plan vs. Actual DPPH</b></p> <p>1. Open <a href="#">WW DPPH Dashboard</a>.</p> <p>2. Navigate to %Plan vs. Actual DPPH tab.</p> <p><b>Note:</b> The data is Day minus one (D-1). So, W-1 is available from a Sunday.</p>	 <p><i>Figure 1: PerfectMile Dashboard</i></p>

## 2. Set Time Range/Filters

1. Left-click on the settings cog in the top, left-hand corner to open the Settings tab.
2. Select the Time Frame of 7 days.
3. Use the blue arrow keys to select W-1.
4. In the Filters, section, add a location filter and select your station.
5. In the Drilldowns section, select DSP Level and optional service type.
6. Left-click on the blue “Apply” button to save settings.

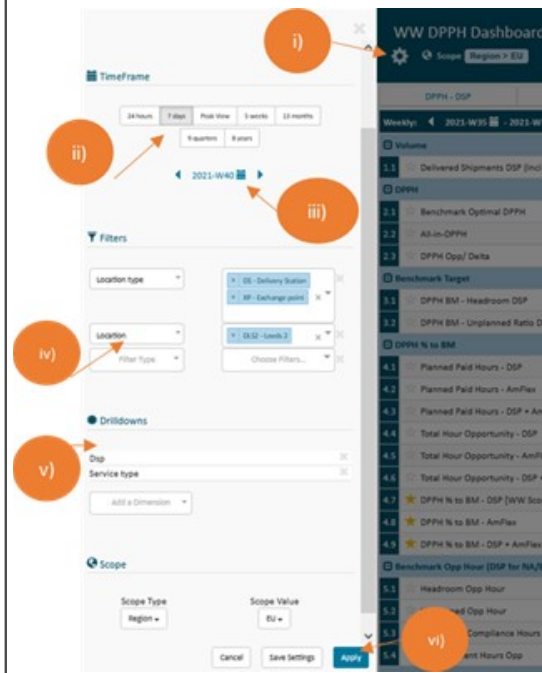


Figure 2: PerfectMile - Selecting Your Station

## 3. %Plan vs. Actual DPPH Focus

Check line 3.4 for your scorecard-feeding KPI.

Category	Metric	2022 W-1	2022 W-2
Volume	Sequenced Packages (AmFlex + DSP)	75,528,710	75,258,381
	Dispatched Packages (AmFlex + DSP)	76,909,215	76,669,294
	Delivered Packages (AmFlex + DSP)	77,876,369	77,869,796
	PVA Packages (AmFlex + DSP)	-1,652,366	-1,674,793
Hours	Plan Paid Hours (AmFlex + DSP)	6,997,044.25	6,994,036.08
	Actual Paid Hours (AmFlex + DSP)	6,070,513.25	5,976,810.08
	PVA Hours (AmFlex + DSP)	62,209.00	68,296.08
Summary	Plan DPPH Sequenced Packages (AmFlex + DSP)	29.50	29.57
	Actual DPPH (AmFlex + DSP)	29.38	29.50
	PVA Delta DPPH (DSP+AmFlex)	-0.12	-0.07
	% PVA DPPH (DSP+AmFlex) [WWSVC]	96.42%	96.00%

Figure 3: PerfectMile - % PVA DPPH Review

## 4. ID the Driver(s) of the Plan vs. Actual Miss by Reviewing Primary Leakages

Once the driving DPPH Leakage(s) is ID'ed, click through to the appropriate Leakage Deep Dive to determine root cause:

- [Dispatch Failure Leakage Deep Dive](#)
- [Delivery Failure Leakage Deep Dive](#)
- [Unplanned Leakage Deep Dive](#)
- [Blocks with No Delivery \(BWND\) Deep Dive](#)

Category	Metric	SUN-22-JAN	MON-23-JAN
Volume	Sequenced Packages (AmFlex + DSP)	14,101,839	16,044,496
	Dispatched Packages (AmFlex + DSP)	13,998,498	16,019,415
	Delivered Packages (AmFlex + DSP)	13,817,389	15,742,243
	PVA Packages (AmFlex + DSP)	-284,550	-302,253
Hours	Plan Paid Hours (AmFlex + DSP)	610,877.00	676,366.00
	Actual Paid Hours (AmFlex + DSP)	621,057.50	684,868.50
	PVA Hours (AmFlex + DSP)	10,180.50	7,902.50
Summary	Plan DPPH Sequenced Packages (AmFlex + DSP)	23.08	23.70
	Actual DPPH (AmFlex + DSP)	22.25	22.99
	PVA Delta DPPH (DSP+AmFlex)	-0.84	-0.71
	% PVA DPPH (DSP+AmFlex) [WWSVC]	96.38%	96.98%
	Total PVA DPPH Leakage Cost	\$292,972	\$308,563
DPPH Leakages	Dispatch Failure Leakage (Combined)	-0.46	-0.25
	BWND Leakages AmFlex	-0.34	-0.21
	Unplanned Leakage (Combined)	-1.57	-0.87
	Delivery Failure Leakage (Combined)	-0.41	-0.60

Figure 4: PerfectMile – Primary Leakage Review

## 5. Report on the Miss

1. In the corner of each cell is a grey triangle. When you hover over these, they will turn blue. Select the blue triangle (your station) on Column Total – Year – W-1 to open Comment function of PerfectMile. See **Figure 5**.
2. Enter report following the steps below (**Figure 6**):
  1. Calculate % of top Plan vs. Actual DPPH leakage, convert into hours or packages and state "why" in one sentence.
  2. Report all the opportunities from 4.1 to 4.4 in largest to smallest order.
  3. Complete each section:
    1. Root cause
    2. Details
    3. Actions with dates and owners
  4. When complete, click “Submit” button.
3. Review submission for accuracy (**Figure 7**).

Attainment	DPPH Cost - DSP	Benchmark Target	
Total 2021-W39 ⓘ	Total 2021-W38 ⓘ	WOW Δ	
	-	-	
	-	-	
	8,488.50	7,840.50	+8.26%
	-	-	
	8,488.50	7,840.50	+8.26%
	14.50	12.50	+16.00%
	-	-	
	14.50	12.50	+16.00%
	99.83%	99.84%	-0.01%
	99.83%	99.84%	-0.01%

Figure 5: PerfectMile – Selecting Comment Function (1)

**New Comment**

Title

%Plan vs Actual(PvA) DPPH WXXX

Root cause\*

0/2000 characters

Details\*

0/2000 characters

Actions\*

0/2000 characters

Usage Policy

Cancel

Submit

Figure 6: PerfectMile – Completing Reporting (2a - 2d)

CW02 - DNM9 98.15% vs. 98.58% - Δ to target 43bps. total opportunity of 702 PVA packages and 56.50 PVA hours = -0.42 DPPH

Created 2023-02-02 14:56:23 UTC

luremo

Value at comment creation

98.17%

Location

DNM9

Root Cause:

Sorted largest to smallest bucket

#1 Unplanned Leakage (Combined) -0.27 (+7.50% WvW)

#2 Delivery Failure Leakage (Combined) -0.14 (-18.73% WvW)

#3 Dispatch Failure Leakage (Combined) -0.01 (+5.40% WvW)

#4 BWND Leakages AmFlex - N/A

Summary:

64% of %PVA DPPH opportunity is in the unplanned leakage; 56.5 hours spent on rescue hours to mitigate routes behind plan due to multiple on-road defects. See bridge below for details.

Details:

#1 Unplanned Leakage (Combined) -0.27

Why 1: 56.5 Unplanned Hours

Why 2: Route Out of Delivery Time (DOOT) / Sweeper

Why 3: Routes Behind Plan

Why 4: DSP Request - Rescue Paid Hours

Rescue Paid:

09.01.2023: Sweeper was not used (KIES)

11.01.2023: Sweeper was not used (KIES)

11.01.2023: Late start due to wrong pick up (RHKG)

13.01.2023: Route interruption of other DSP (FOUR)

13.01.2023: Rescue support due to stem times (FOUR)

14.01.2023: Due to bad weather conditions (RHKG)

14.01.2023: Due to bad weather conditions (RHKG)

#2 Delivery Failure Leakage (Combined) -0.14

Why 1: Customer Issues 266

Why 2: DOOT 2023 -> On-Zone Time Productivity due to new DSPs on new routes

Why 3: Business Closed Shipments 176

#3 Dispatch Failure Leakage (Combined) -0.01

Why 1: 4 OTR packages (3 Customer Rejects, 1 Customer Reschedule) 2 UTR packages (1 Unresolved Problem Solve Package, 1 Pick Left Behind)

Actions:

#1 rescue planning will be adjusted internally (no extra DA needed for planned volume) - (Owner: oezaktan, Due Date: 17th Jan.)

#2 Business Hours of commercial customers are adjusted by ORH, DSPs are informed to not deliver out of the delivery time - (Owner: oezaktan, Due Date: 16th Jan.)

#3 The UTR team will be informed to investigate this case and execute preventive measurements - (Owner: oezaktan, Due Date: 20th Jan.)

Figure 7: PerfectMile – Submission Review (3)

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1/18/2025, 7:06 PM

## Metric: % Plan vs. Actual DPPH Miss

**Explanation:** % Plan vs. Actual DPPH is flagged in PerfectMile by Station/Regional Leadership indicating a performance miss.

Process Step(s)	Image(s)
<p><b>Root Cause 1:</b> Dispatch Failure Leakage</p> <p>Refer to the <a href="#">Dispatch Failure Leakage Deep Dive</a>.</p> <p><b>Root Cause 2:</b> Delivery Failure Leakage Deep Dive</p> <p>Refer to the <a href="#">Delivery Failure Leakage Deep Dive</a>.</p> <p><b>Root Cause 3:</b> Unplanned Leakage Deep Dive</p> <p>Refer to the <a href="#">Unplanned Leakage Deep Dive</a>.</p> <p><b>Root Cause 4:</b> Blocks with No Delivery (BWND)</p> <p>Refer to the <a href="#">Blocks with No Delivery (BWND) Deep Dive</a>.</p>	

## Frequently Asked Questions (FAQs)

**FAQ #1 - Where can I go if I have a dashboard tech issue or an education issue?**

**Answer:** Follow this SIM path using the Help button in PerfectMile. Metric/tech issues will go direct to ORBIT. DPPH Education issues will go direct to WW DPPH SME Team.



*SIM Flow*

**FAQ #2 - I have a problem with Plan vs. Actual DPPH on WWSC. Who can I talk to?**

**Answer:** Please visit the [WWSC Wiki](#). If you have a tech related question, there are SIMs in their FAQ section.

**FAQ #3 - Can you beat 100%?**

**Answer:** No. In %Plan vs. Actual, we cannot deliver more than we sequenced and we cannot pay less than we planned. This also means we cannot dispatch more than we sequence, which means we should not have a positive dispatch failure package or delivery failure package number.

**FAQ #4 - Is there an allowance for any of the leakages? For example, in Unplanned.**

**Answer:** No. Instead of giving a leakage an allowance for Operations to "spend," Plan vs. Actual DPPH is designed so that each and every station has a unique plan. It is your goal to execute your plan. The bridge between your plan and actual are defects which we need to solve for.

**FAQ #5 - In DPPH % to BM I needed to focus on leakages like Headroom and Nursery Overuse. Do I still need to focus on these?**

**Answer:** Yes and No. With DPPH split into pre and post-plan defects, Operations need to understand where Plan comes from and how AMZL

can create a better plan. For example, if we maintain Headroom within a 2-3% level and resolve nursery overuse our Plan will be more reliable. As %Plan vs. Actual DPPH covers post-plan defects, Delivery Operations should aim to execute their Plan DPPH with zero post-plan defects (i.e., delivering everything that was sequenced and only paying what we planned for.

#### **FAQ #6 - What is the target?**

**Answer:** Q1 2023 WWSC target for %Plan vs. Actual DPPH is 98.58%. Any Delivery Station exceeding the target will be awarded top tier (100%) status on the WWSC.

#### **FAQ #7 - How do I split Amazon Flex and DSP in the combined metrics?**

**Answer:** Use drill-down "Provider Type" in PerfectMile Settings.

#### **FAQ #8 - My Sequenced Packages metric does not match RTW?**

**Answer:** Remove Provider Type filters and use drill-down "Cycle Name" to see the split by Cycle. This should match RTW. If there are difference, please raise a SIM as per FAQ1.

#### **FAQ #9 - What is a Delivered Package?**

**Answer:** Count of shipments that have successfully completed their life cycle in the Amazon Logistics network by reaching the customer.

#### **FAQ #10 - If I have a dispatch or delivery failure package and I re-sequence have I solved my original failure mode?**

**Answer:** No. Each time a parcel is sequenced it is captured in the total "sequenced shipments" number. Therefore, if a parcel is reprocessed, it will be captured twice in the "sequenced shipments" number. Hence, if a parcel is reprocessed and subsequently delivered, you will see one failure and one successful event out of two attempts (i.e., 50% Plan vs. Actual DPPH for that shipment). **Note:** Any package reprocessed will be categorized into the Plan vs. Actual Deep Dive metric "Re-sequenced Packages".

#### **FAQ #11 - I'm seeing the same package in section 3 of the Plan vs. Actual Deep Dive tab. Are the duplicates impacting my Plan vs. Actual?**

**Answer:** No. These metrics are pulling problem-solve scan info. If there are multiple Reason Codes attached to those packages then this is a station issue. It is not being double counted in overall PVA metric. It's only an insight into potential reasons why those packages were not dispatched.

#### **FAQ #12 - Is there a weighting between the Plan vs. Actual Leakages?**

**Answer:** No. They all have the same level of importance.

#### **FAQ #13 - If I have dispatch failure packages, for example cube-out, which service type should I use when re-sequencing through Central Operations?**

**Answer:** Please use the same service type that was used during the 1st cycle. If you change the service type, you will risk the hours being pulled into Unplanned even though the routes have been sequenced. For example, if I have a standard parcel - medium van on cycle1 cube-out, I would re-sequence on Ad\_hoc\_1 cycle using standard parcel - medium van.

#### **FAQ #14 - I need support with Service Type Compliance metrics. They are showing as incorrect.**

**Answer:** If you have any issues with the Service Type Compliance (STC) deep dive metric, please use this [STC Logic Error](#) and [STC Deep Dive Request](#) support SIMs.

#### **FAQ #15 - Do minute reductions/offsets impact our Plan vs. Actual DPPH?**

**Answer:** Minute reductions and Block length changes are pre-plan defects and impact your Plan DPPH. If your inputs are wrong, then Plan DPPH is likely to be unachievable unless you spend money solving this post-plan through the use of unplanned hours.

#### **FAQ #16 - Customer cancellation are out of station control. Why are these included in Plan vs. Actual DPPH?**

**Answer:** A customer cancellation is a type of delivery failure. We (AMZL) have spent money upstream processing this parcel and, therefore, it is accounted for in both our numerator (packages) and denominator (paid hours). Even though it is not directly station controllable these events will be accounted for by the Benchmark target.

#### **FAQ #17 - Is there an allowance for Miss sort routes?**

**Answer:** No. Plan vs. Actual DPPH is fully transparent and highlights the costs of all routes that a Delivery Station sequences and does not sequence, such as unplanned routes. Your "allowance" is the difference between 100% and the WWSC target.

#### **FAQ #18 - How do I deep dive a specific package number and which tool is recommended?**

**Answer:** We recommend using [Dexter](#). In Dexter this will show you the package status updates including "Picked-up" (Dispatched) and

"Delivered." Search by Package ID and click on Shipment Status.

#### **FAQ #19 - Why can I see duplicate package IDs in the Delivery Failure mode deep dive?**

**Answer:** Metrics in sections 5, 6, 7 and 8 are all potential reasons of why a package was not delivered successfully. They work by counting each time a package is marked using the Rabbit application by the DA. If the DA/DP marks the package more than once, it may receive multiple flags and therefore can be counted in multiple buckets. Please be aware the total sum of the potential delivery failure buckets may not sum up to the total delivery failure packages as the potential buckets are based on human input upon failing to deliver. Note: Feb 2023, the WW team are investigating how to make this into a waterfall logic.

#### **FAQ #20 - Why do cost metrics on the Plan vs. Actual tab show a \$ value when the corresponding hours and dpph leakages are blank or 0? For example if BWND \$ = 1715, yet hours = '-'**

**Answer:** This is an [issue](#) with how PerfectMile handles null values. If it is null, PerfectMile replaces the factor with a 1, instead of a 0, that's why the cost is 1715 which is the cost of one hour. Unfortunately, we don't have control on this, but it doesn't affect the weekly or monthly values

#### **FAQ #21 - What is the "ADHOC" cycle in PerfectMile? For example, I can see this cycle in my Plan vs. Actual score, yet my DS does not have an "ADHOC" cycle.**

**Answer:** When PerfectMile cannot find the correct cycle attribution from a route or set of hours on road, it will label these as miscellaneous using "ADHOC" label. This is not the same as the "AD\_HOC\_1" cycle used to cover volume missed on the core cycles. If you are seeing the miscellaneous label, these are uncategorized attributed routes or hours.

#### **FAQ #22 - The Re-sequenced Packages, metric 1.4 on Deep Dive tab, when drilled down by cycle\_name is this the no. of shipments re-sequenced on that cycle or from that cycle?**

**Answer:** The re-sequenced packages show packages sequenced from that cycle.