Service Type Compliance (STC) Planning SOP

Purpose

The purpose of this SOP is to provide a supporting document for sites to be able to: plan D+1 service type; sense check service type compliance (STC) to prevent any physical cubeout packages, which negatively impacts DPPH on D0; and deep dive Service Type Compliance (STC) D-1.

Scope

This SOP is intended for the Operations team to ensure that the DSPs are STC compliant as part of daily dispatch process and following their contractual agreement in regards to STC.

Why Is This Important?

Service type sequenced compared to service type physically arriving to site reduces the recurrence of dispatch failed parcels and, therefore, improves DPPH. High STC will improve DA sentiment from having properly loaded vehicles and reduce virtual and physical cubeout headroom, which makes our routes more efficient.

Key Definitions

- **Overutilization** – When the cubic capacity of the virtual service type exceeds the cubic capacity of the physical service type (an XLV route placed in an SP vehicle). This risks physically leaving packages behind and incurring additional costs through adhoc sorts, additional flex capacity, and/or rescue routes.
- **Underutilization** – When the cubic capacity of the virtual service type is beneath the physical service type (an SP route placed inside an XLV vehicle). This risks us failing to utilize available cubic capacity (an SP route with cube headroom being placed in an XLV vehicle).

Measurement Methodologies

Metric	Standard	Definition	Formula	Historical Performance Link	Hourly Performance Link

Service Type Compliance	NA - 95% EU – 90%	Service Type Compliance (STC) is a metric meant to show the level of accuracy between the planned route service type (ST) and the actual executed vehicle type. The expectation is for DSP to bring in the same distribution of van sizes as they planned. More information available on the STC Wiki.	Planned route service type vs Actual route executed vehicle type. STC pass or fail = Route ST Generated ≠ VIN ST of van that route is executed on	PerfectMile > NA AMZL Business Review Dashboard	N/A
%ST Non-compliant - Overutilization	Less than 3.5%	Measures % of vehicles that were over utilized	% of routes where the planned route was large but was executed by a small vehicle	N/A	N/A
%ST Non-compliant - Underutilization	Less than 1.5%	Measures % of vehicles that were under utilized	% of routes where the planned route was small but was executed by a large vehicle	N/A	N/A

Roles and Responsibilities

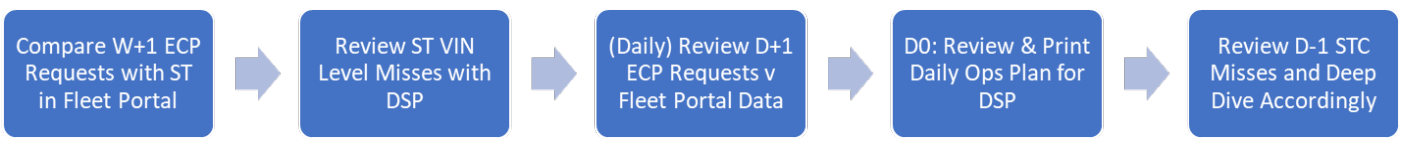
Role	RACI	Responsibility
DA Assist	R	Responsible for escalating cubeout or STC issues to Loadout manager.

Loadout Manager	R, A	Accountable for ensuring the correct service type attends loadout and Day of Ops plan is given to DSPs.
Delivery Operation Manager	C, I	Informed of any escalations of miss-use, deep diving any STC issues.
ACES Team	R, C, I	Support in any DSP miss-use.
DSP Legal and Business Coach Team	I	Informed of any fraud (which includes rostering smaller STs on purpose than what vehicle is mapped as, since this virtually lowers OTR capacity.)
UTR ACES	C	Consulted for any issues D0, including cubeout issues.
OTR ACES, Fleet & LMDX	I	Informed of any data errors in the STC metric.

Safety, Tools, Equipment, Software Needed

- Siphon
- DPPH Dashboard
- Routing Tools
- Auto Assign
- STC Wiki (WIP)
- Cubeout SOP
- WW DPPH WIKI
- STC Logic Error SIM
- STC Deep Dive Request SIM
- Bag aware planning WIKI
- Example STC SIMs
- WW Fleet Flash QuickSight

Process Map



Process Map

Process Step(s)	Image(s)

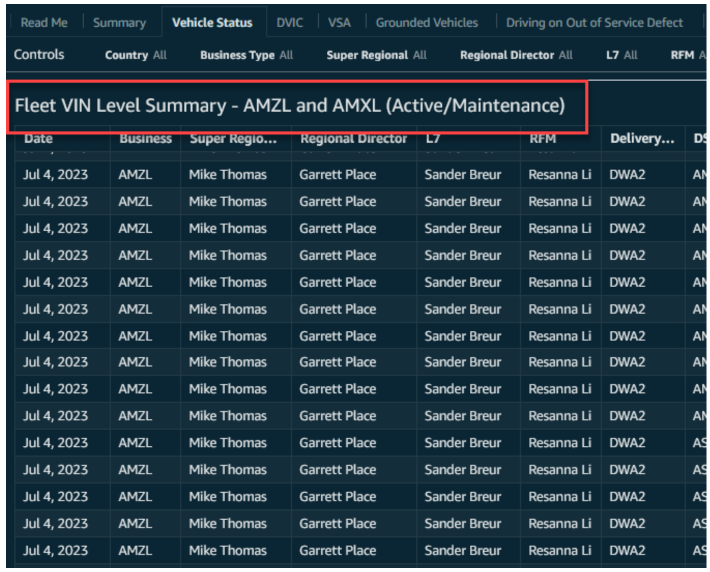
1. Week-1

1. Select the Vehicle Status tab in the [Fleet Flash QuickSight](#).
2. Scroll down and download the Fleet VIN Level Summary view.

Weekly W-1, Ops to ensure inputs are uploaded for DSP **before Friday afternoon upload**.

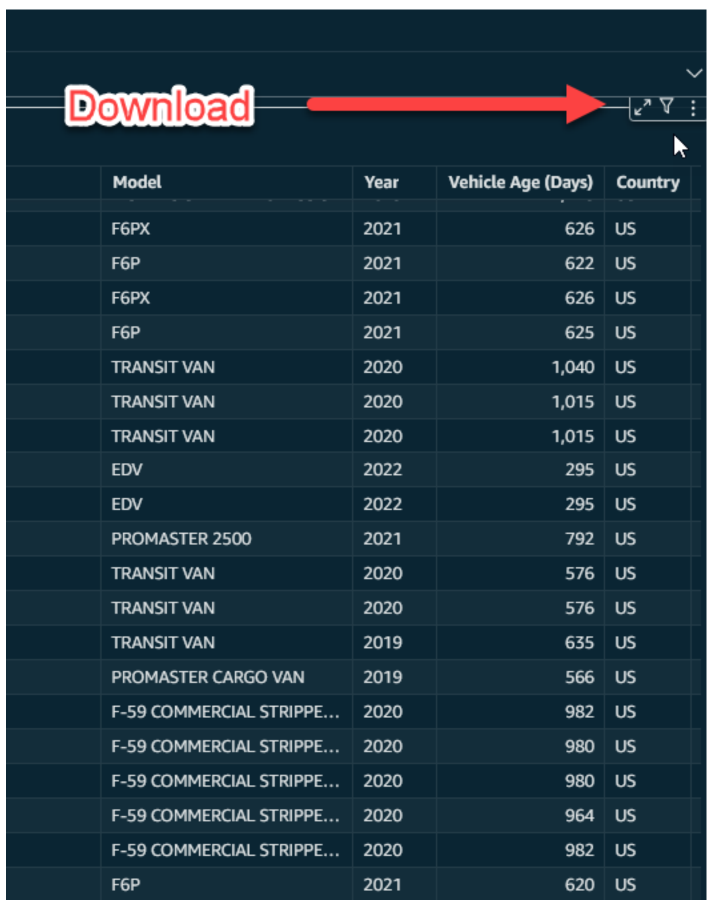
Note:

- DSPs are only able to see generic STs or TCO STs on their side.
- Specialty service types have to be entered in SIPHON by Amazon Ops prior to DSP roster to them on their side. These types include:
  - Milk runs
  - Transportation services
  - DA roundtables
  - Reduced mins.



Date	Business	Super Regio...	Regional Director	L7	RFM	Delivery...	DS
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AN
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AS
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AS
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AS
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AS
Jul 4, 2023	AMZL	Mike Thomas	Garrett Place	Sander Breur	Resanna Li	DWA2	AS

Figure 1: Fleet Flash VIN Level Summary Quicksight



Model	Year	Vehicle Age (Days)	Country
F6PX	2021	626	US
F6P	2021	622	US
F6PX	2021	626	US
F6P	2021	625	US
TRANSIT VAN	2020	1,040	US
TRANSIT VAN	2020	1,015	US
TRANSIT VAN	2020	1,015	US
EDV	2022	295	US
EDV	2022	295	US
PROMASTER 2500	2021	792	US
TRANSIT VAN	2020	576	US
TRANSIT VAN	2020	576	US
TRANSIT VAN	2019	635	US
PROMASTER CARGO VAN	2019	566	US
F-59 COMMERCIAL STRIPPE...	2020	982	US
F-59 COMMERCIAL STRIPPE...	2020	980	US
F-59 COMMERCIAL STRIPPE...	2020	980	US
F-59 COMMERCIAL STRIPPE...	2020	964	US
F-59 COMMERCIAL STRIPPE...	2020	982	US
F6P	2021	620	US

Figure 2: Download Table on VIN Level Summary

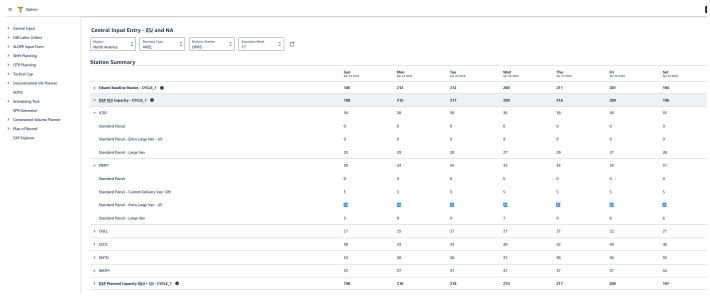


Figure 3: Siphon DSP Entries

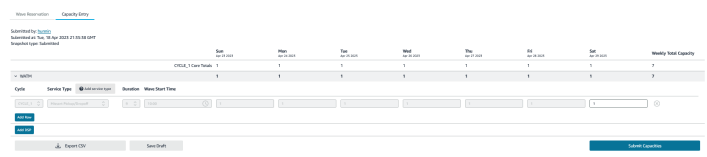


Figure 4: Siphon Entry Validation/Adjustment

2. AM Confirms Siphon/ SUI Requests Match ECP Inputs and Compare Data with Fleet Flash

Area Manager (AM) to confirm Siphon/ SUI requests match Enhanced Capacity Planning (ECP) inputs and compares this data with the fleet flash.

AMs should spot check specialty service types, as there could be up to a 5% reduction from DSP entered capacity.

Deadline for changes:

- W+1 changes: Prior to Saturday noon ECP Engine Run (local time)
- D+1 changes: 4 P.M. local time
- If not OTR, Ops must enter a D+1 SIM.

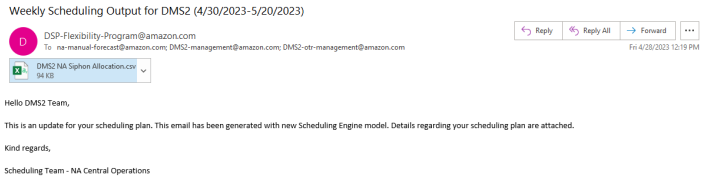


Figure 6: Weekly Scheduling Output Email

3. Day-1

Daily D-1, Ops to ensure inputs are uploaded for DSP **before first noon upload**.

Note:

- DSPs are only able to see generic STs and TCO STs on their side.
- Specialty service type have to be

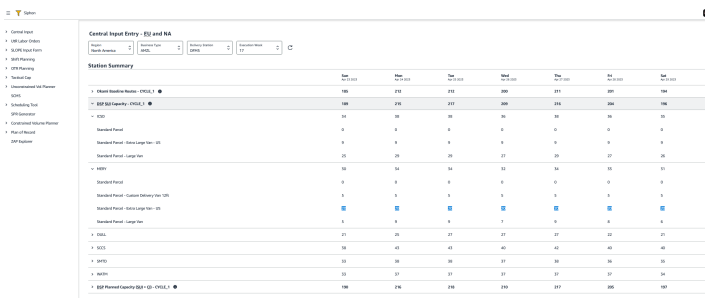


Figure 7: Siphon Entry Validation/Adjustment

entered in SIPHON by Amazon Ops prior to DSP roster to them. These types include:

- Milk runs
- Transportation services
- DA roundtables
- Reduced mins

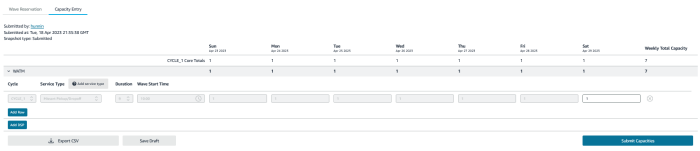


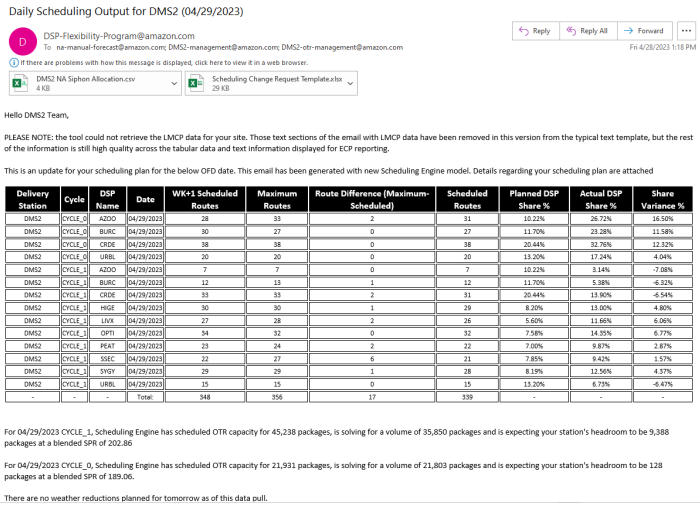
Figure 8: Siphon Entry Validation/Adjustment

4. AM Confirms Siphon/ SUI Requests Match ECP Inputs and Compare Data with Fleet Flash

AM to confirm Siphon/SUI requests match ECP inputs and compares this data with the fleet flash.

AMs should spot check specialty service types, as there could be up to a 5% reduction from DSP entered capacity.

Note: Any changes made by the DSP has to be done prior to first or final ECP engine run; otherwise OTR team has to file a D+1 sim by 7 P.M. local time to capture DSPs' ST changes for the next day.



Daily Scheduling Output for DMS2 (04/29/2023)

DSP-Flexibility-Program@amazon.com
To na-manual-forecast@amazon.com; DMS2-management@amazon.com; DMS2-otr-management@amazon.com

Reply | Reply All | Forward

Fri 4/28/2023 1:18 PM

If there are problems with how this message is displayed, click here to view it in a web browser.

DMS2 NA Siphon Allocation.csv 4 KB

Scheduling Change Request Template.xlsx 29 KB

Hello DMS2 Team,

PLEASE NOTE: the tool could not retrieve the LMCP data for your site. Those text sections of the email with LMCP data have been removed in this version from the typical text template, but the rest of the information is still high quality across the tabular data and text information displayed for ECP reporting.

This is an update for your scheduling plan for the below OFD date. This email has been generated with new Scheduling Engine model. Details regarding your scheduling plan are attached

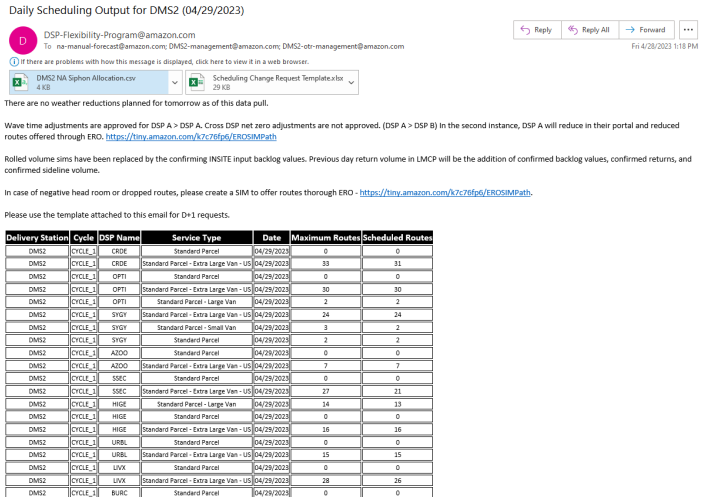
Delivery Station	Cycle	DSP Name	Date	WK+1 Scheduled Routes	Maximum Routes	Route Difference (Maximum-Scheduled)	Scheduled Routes	Planned DSP Share %	Actual DSP Share %	Share Variance %
DMS2	CYCLE_0	AZOO	04/29/2023	28	33	2	31	10.22%	26.72%	16.50%
DMS2	CYCLE_0	BURC	04/29/2023	30	27	0	27	11.70%	23.28%	11.58%
DMS2	CYCLE_0	CRDE	04/29/2023	38	38	0	38	20.44%	32.76%	12.32%
DMS2	CYCLE_0	URBL	04/29/2023	20	20	0	20	13.20%	17.24%	4.04%
DMS2	CYCLE_1	AZOO	04/29/2023	7	7	0	7	10.22%	3.14%	-7.08%
DMS2	CYCLE_1	BURC	04/29/2023	12	13	1	12	11.70%	5.38%	-6.32%
DMS2	CYCLE_1	CRDE	04/29/2023	33	33	2	31	20.44%	13.90%	-6.54%
DMS2	CYCLE_1	HIGE	04/29/2023	30	30	1	29	8.20%	13.00%	4.80%
DMS2	CYCLE_1	LIVX	04/29/2023	27	28	2	26	5.60%	11.66%	6.06%
DMS2	CYCLE_1	OPTI	04/29/2023	34	32	0	32	7.58%	14.35%	6.77%
DMS2	CYCLE_1	PEAT	04/29/2023	23	24	2	22	7.00%	9.87%	2.87%
DMS2	CYCLE_1	SSEC	04/29/2023	22	27	6	21	7.85%	9.42%	1.57%
DMS2	CYCLE_1	SYGY	04/29/2023	29	29	1	28	8.19%	12.56%	4.37%
DMS2	CYCLE_1	URBL	04/29/2023	15	15	0	15	13.20%	6.73%	-6.47%
-	-	-	Total:	348	356	17	339	-	-	-

For 04/29/2023 CYCLE_1, Scheduling Engine has scheduled OTR capacity for 45,238 packages, is solving for a volume of 35,850 packages and is expecting your station's headroom to be 9,388 packages at a blended SPR of 202.86

For 04/29/2023 CYCLE_0, Scheduling Engine has scheduled OTR capacity for 21,931 packages, is solving for a volume of 21,803 packages and is expecting your station's headroom to be 128 packages at a blended SPR of 189.06.

There are no weather reductions planned for tomorrow as of this data pull.

Figure 9: Daily Scheduling Output Email



Daily Scheduling Output for DMS2 (04/29/2023)

DSP-Flexibility-Program@amazon.com

Reply | Reply All | Forward

Fri 4/28/2023 1:18 PM

If there are problems with how this message is displayed, click here to view it in a web browser.

DMS2 NA Siphon Allocation.csv 4 KB | Scheduling Change Request Template.xlsx 29 KB

There are no weather reductions planned for tomorrow as of this data pull.

Wave time adjustments are approved for DSP A > DSP A. Cross DSP net zero adjustments are not approved. (DSP A > DSP B) In the second instance, DSP A will reduce in their portal and reduced routes offered through ERO. https://tiny.amazon.com/k7c76fp6/EROSIMPath

Rolled volume sims have been replaced by the confirming INSITE input backlog values. Previous day return volume in LMCP will be the addition of confirmed backlog values, confirmed returns, and confirmed sideline volume.

In case of negative head room or dropped routes, please create a SIM to offer routes thorough ERO - https://tiny.amazon.com/k7c76fp6/EROSIMPath.

Please use the template attached to this email for D+1 requests.

Delivery Station	Cycle	DSP Name	Service Type	Date	Maximum Routes	Scheduled Routes
DMS2	CYCLE_1	CRDE	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	CRDE	Standard Parcel - Extra Large Van - US	04/29/2023	33	31
DMS2	CYCLE_1	OPTI	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	OPTI	Standard Parcel - Extra Large Van - US	04/29/2023	30	30
DMS2	CYCLE_1	OPTI	Standard Parcel - Large Van	04/29/2023	2	2
DMS2	CYCLE_1	SYGY	Standard Parcel - Extra Large Van - US	04/29/2023	24	24
DMS2	CYCLE_1	SYGY	Standard Parcel - Small Van	04/29/2023	3	2
DMS2	CYCLE_1	SYGY	Standard Parcel	04/29/2023	2	2
DMS2	CYCLE_1	AZOO	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	AZOO	Standard Parcel - Extra Large Van - US	04/29/2023	7	7
DMS2	CYCLE_1	SSEC	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	SSEC	Standard Parcel - Extra Large Van - US	04/29/2023	27	21
DMS2	CYCLE_1	HIGE	Standard Parcel - Large Van	04/29/2023	14	13
DMS2	CYCLE_1	HIGE	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	HIGE	Standard Parcel - Extra Large Van - US	04/29/2023	16	16
DMS2	CYCLE_1	URBL	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	URBL	Standard Parcel - Extra Large Van - US	04/29/2023	15	15
DMS2	CYCLE_1	LIVX	Standard Parcel	04/29/2023	0	0
DMS2	CYCLE_1	LIVX	Standard Parcel - Extra Large Van - US	04/29/2023	28	26
DMS2	CYCLE_1	BURC	Standard Parcel	04/29/2023	0	0

Figure 10: Daily Scheduling Output Email (Cont.)

5. Day 0

Once CO have completed sequencing, Loadout manager to download the “DSP-Day of Ops Plan” file in RTW under Dispatch > Planning.

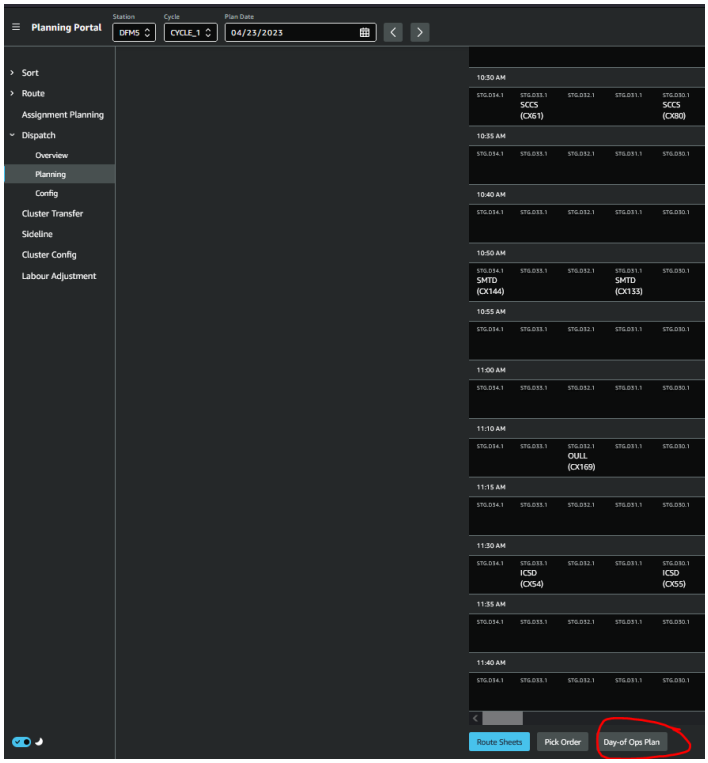
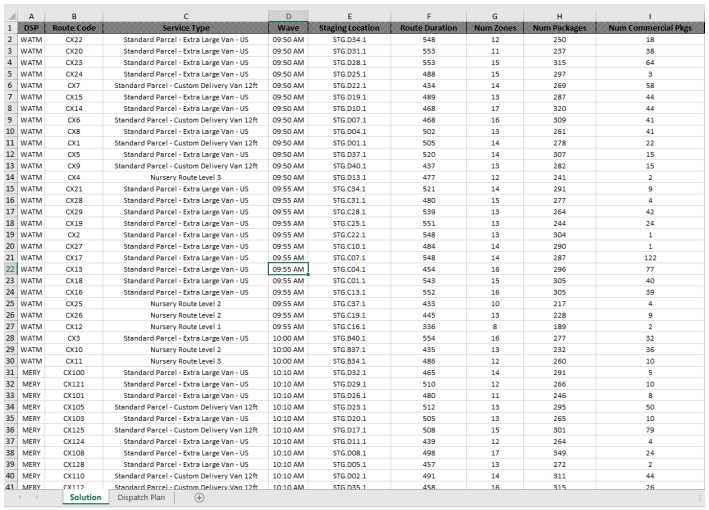


Figure 11: Siphon Downloading Day-of Ops Plan



	A	B	C	D	E	F	G	H	I
1	DSP	Route Code	Service Type	Wave	Staging Location	Route Duration	Num Zones	Num Packages	Num Commercial Pkgs
2	WATM	CX22	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D34.1	548	12	250	18
3	WATM	CX20	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D31.1	553	11	237	38
4	WATM	CX23	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D28.1	553	15	315	64
5	WATM	CX24	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D25.1	488	15	297	3
6	WATM	CX7	Standard Parcel - Custom Delivery Van 12ft	09:50 AM	STG.D22.1	434	14	269	58
7	WATM	CX15	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D19.1	489	13	287	44
8	WATM	CX14	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D10.1	468	17	320	44
9	WATM	CX6	Standard Parcel - Custom Delivery Van 12ft	09:50 AM	STG.D07.1	468	16	309	41
10	WATM	CX8	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D04.1	502	13	261	41
11	WATM	CX1	Standard Parcel - Custom Delivery Van 12ft	09:50 AM	STG.D01.1	505	14	278	22
12	WATM	CX5	Standard Parcel - Extra Large Van - US	09:50 AM	STG.D37.1	520	14	307	15
13	WATM	CX9	Standard Parcel - Custom Delivery Van 12ft	09:50 AM	STG.D40.1	437	13	282	15
14	WATM	CX4	Nursery Route Level 3	09:50 AM	STG.D13.1	477	12	241	2
15	WATM	CX21	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C34.1	521	14	291	9
16	WATM	CX28	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C31.1	480	15	277	4
17	WATM	CX29	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C28.1	539	13	264	42
18	WATM	CX19	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C25.1	551	13	244	24
19	WATM	CX2	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C22.1	548	13	304	1
20	WATM	CX27	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C10.1	484	14	290	1
21	WATM	CX17	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C07.1	548	14	287	122
22	WATM	CX13	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C04.1	454	16	296	77
23	WATM	CX18	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C01.1	543	15	305	40
24	WATM	CX16	Standard Parcel - Extra Large Van - US	09:55 AM	STG.C13.1	552	16	305	39
25	WATM	CX25	Nursery Route Level 2	09:55 AM	STG.C37.1	433	10	217	4
26	WATM	CX26	Nursery Route Level 2	09:55 AM	STG.C19.1	445	13	228	9
27	WATM	CX12	Nursery Route Level 1	09:55 AM	STG.C16.1	336	8	189	2
28	WATM	CX3	Standard Parcel - Extra Large Van - US	10:00 AM	STG.B40.1	554	16	277	32
29	WATM	CX10	Nursery Route Level 2	10:00 AM	STG.B37.1	435	13	232	36
30	WATM	CX11	Nursery Route Level 3	10:00 AM	STG.B34.1	486	12	260	10
31	MERY	CX100	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D32.1	465	14	291	5
32	MERY	CX121	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D29.1	510	12	266	10
33	MERY	CX101	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D26.1	480	11	246	8
34	MERY	CX105	Standard Parcel - Custom Delivery Van 12ft	10:10 AM	STG.D23.1	512	13	295	50
35	MERY	CX103	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D20.1	505	13	265	10
36	MERY	CX125	Standard Parcel - Custom Delivery Van 12ft	10:10 AM	STG.D17.1	508	15	301	79
37	MERY	CX124	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D11.1	439	12	264	4
38	MERY	CX108	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D08.1	498	17	349	24
39	MERY	CX128	Standard Parcel - Extra Large Van - US	10:10 AM	STG.D05.1	457	13	272	2
40	MERY	CX110	Standard Parcel - Custom Delivery Van 12ft	10:10 AM	STG.D02.1	491	14	311	44
41	MERY	CX112	Standard Parcel - Custom Delivery Van 12ft	10:10 AM	STG.D35.1	458	16	315	26

Solution | Dispatch Plan

Figure 12: Day of Ops Plan Download

6. Loadout Manager Distributes Day of Ops Breakdown to DSPs for Proper STC Van Assignments

DSP can also look under Cortex for planned ST.

Note: Ensure the Yard Marshal/DA assistants have a copy to ensure of any cubeouts or ST deviation from Day of Ops plan.

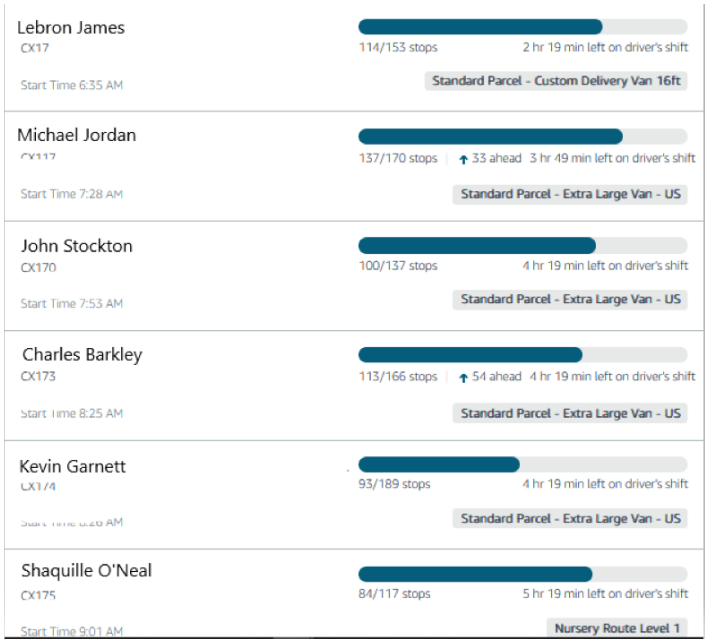


Figure 13: Cognix Route Monitoring View for STC

7. Yard Marshal/ DA Assistants Escalate

Issues

Yard Marshal/DA Assistants will escalate any issues regarding cube outs to the Loadout AM to investigate why the route cubed out.

8. Loadout Manager Checks Planned ST of the Route and VIN of the Van

1. Find corresponding VIN and prefix mapping from VIN Decoder.
2. Compare actual vs. planned ST of route in RTW.
3. Problem Solve:
    1. STC VIN mapping match vs planned route ST= Cubeout
    2. STC VIN mapping mismatch vs planned route ST = Driver rejected

Figure 14 - Where to Locate a VIN Number

9. Countermeasures

If there are still packages left to be loaded and Ops has determined the DSP/DA has followed the proper loading guidance, SR Ops/Ops to have a Seek To Understand conversation with DSP post-loadout for cubeouts on launchpad and adjust, if needed, inputting Service Type requests into ECP to avoid the same misses on future D-0.

To see current allowed exceptions to break STC (NA AMZL), refer to **Exceptions** below. Current allowed exceptions to break STC (NA AMZL).	

Exception(s)

Exception(s)	**Image(s)**
1. Peak/Prime Cube increases (NA only) Currently, NA has both 60% aisle utilizations (off Peak/Prime) and 90% aisle utilizations (Peak/Prime); these will increase to use the full cubic space of a van during our heaviest time frames.	
2. Steady State Allowed Exceptions to Break STC (NA AMZL) The following are current allowed exceptions to break STC (NA AMZL), which accounts for the 5% gap from goal: • No qualified DA back-up to take route with planned service type (i.e., no step van, EDV, CDV DA, that can execute in a different vehicle). • RGU issues with a ST that is routed in an area that doesn't fit with that vehicle type (further escalation to Central Ops required). • Mechanical failure D-0 and need to change STs day of from planned STs.	

Frequently Asked Questions (FAQs)

FAQ 1: How does STC impact safety performance?

Answer: STC impacts safety performance by ensuring vans are not getting more cubic volume then what they were supposed to be getting based on ST the DA is using.

FAQ 2: Is there an impact to DA Experience?

Answer: Using a smaller vehicle artificially lowers DA workload, thus altering the DA's expectation of what a true route size looks like.

FAQ 3: How does STC impact Cost?

Answer: DPPH/Cube utilization – Cost performance degrades in one of two ways. We lower the number of packages we can fit on a van virtually and signal the vans are virtually full and, therefore, we need more vans to cover the same volume. Or we take on too much volume, which causes cubeouts, which drives Flex.

FAQ 4: Does STC impact my capacity?

Answer: Not having the correct inputs could artificially raise or lower true OTR Capacity. Daily and weekly OTR capacity accuracy, as STP (short-term planning), MTP (mid-term planning, and LRP (long-range planning) teams all use STs to help plan network volume at the station and network levels. This can also have a negative impact on preferred RGUs.