

Surface Training Manual

Decision and Information Sciences Division

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Surface Training Manual

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1 Creating Commodities

1. From the Analysis of Mobility Platform (AMP) **Help** menu, select **Load TDX** (Expanded Tunisia Demo Scenario).
2. Navigate to the **Setup** tab and select the Deployment: **Cargo Commodities** editor.
3. Highlight the commodity that is named **TEU UE** (TEU=Twenty Foot Equivalent Units, UE=Unit Equipment).

+ - ▲ ▼		Order Commodities	Show Commodity Carry Preferences	Show Commodity Movement Summary										
Row	Assign... Priority	Commodity Name	Load Type	Amount / Vehicle	SqFt/St Ratio	Area Stow %	Volume Stow %	Pounds / Pallet	Palletiza...	MT / Contai...	Containe...	HET	Forty Foot	Hot
1	1	FortyFootContainer	Container			75.0	90.0			18.0	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	2	TwentyFootContainer	Container			75.0	90.0			18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3	3	SecondaryCargo	Secondary											<input type="checkbox"/>
4	4	NSDA	RORO	25.0	25.0	50.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
5	5	PAX	PAX	45.0										<input type="checkbox"/>
6	6	Large Wheels	RORO	15.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
7	7	Medium Wheels	RORO	12.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
8	8	Small Wheels	RORO	10.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
9	9	Large Tracks	RORO	20.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
10	10	Medium Tracks	RORO	12.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
11	11	Small Tracks	RORO	10.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
12	12	Palletized UE	Breakbulk	2.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>
13	13	TEU UE	Breakbulk	10.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
14	14	FEU Resupply	Breakbulk	20.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
15	15	TEU Resupply	Breakbulk	10.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
16	16	Bulk Resupply	Breakbulk	2.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>
17	17	Bulk Ammo	Breakbulk	5.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input checked="" type="checkbox"/>
18	18	POL	POL	12.0										<input type="checkbox"/>
19	19	Cont Ammo	Breakbulk	12.0	10.0	0.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	20	Catch All	Breakbulk	12.0	20.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>

4. Click the + (plus sign) button above the table to add a new commodity. This will bring up a dialog box that is populated with information about **TEU UE**.
5. Make the **Commodity Name Ammo UE**.
6. Set the **Assignment Rule Priority** to **14**.
7. Set the **Hot Cargo** value to **Yes**. The dialog form should be filled in like the following example:
8. Click the **OK** button.
9. You should see **Ammo UE** in the commodities table. Order the table by **Assignment Priority** by double clicking on the column.

Define Commodity

Commodity Name: Ammo UE

Assignment Rule Priority: 14

Offload Type: Breakbulk

Amount per vehicle: 10.0

Square feet per ST: 10.0

Area Stow Percentage: 75.0

Volume Stow Percentage: 90.0

Pounds per Pallet: 2000

MT per Container: 18.0

Hot Cargo: Yes No

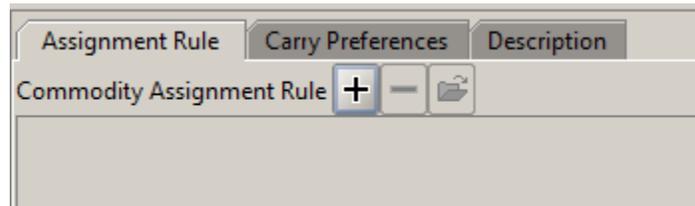
HET: Yes No

Container Size: 40 ft 20 ft

OK Cancel

Row	Assignment Priority	Commodity Name	Load Type	Amount / Vehicle	SqFt/St Ratio	Area Stow %	Volume Stow %	Pounds / Pallet	Palletiza...	MT / Contai...	Containe...	HET	Forty Foot	Hot
1	1	FortyFootContainer	Container			75.0	90.0			18.0	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	2	TwentyFootContainer	Container			75.0	90.0			18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3	3	SecondaryCargo	Secondary											<input type="checkbox"/>
4	4	NSDA	RORO	25.0	25.0	50.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
5	5	PAX	PAX	45.0										<input type="checkbox"/>
6	6	Large Wheels	RORO	15.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
7	7	Medium Wheels	RORO	12.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
8	8	Small Wheels	RORO	10.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
9	9	Large Tracks	RORO	20.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
10	10	Medium Tracks	RORO	12.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
11	11	Small Tracks	RORO	10.0	20.0	75.0	90.0					<input type="checkbox"/>		<input type="checkbox"/>
12	12	Palletized UE	Breakbulk	2.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>
13	13	TEU UE	Breakbulk	10.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
14	14	Ammo UE	Breakbulk	10.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
15	15	FEU Resupply	Breakbulk	20.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	16	TEU Resupply	Breakbulk	10.0	10.0	75.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
17	17	Bulk Resupply	Breakbulk	2.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>
18	18	Bulk Ammo	Breakbulk	5.0	10.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input checked="" type="checkbox"/>
19	19	POL	POL	12.0										<input type="checkbox"/>
20	20	Cont Ammo	Breakbulk	12.0	10.0	0.0	90.0	2000	<input checked="" type="checkbox"/>	18.0	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	21	Catch All	Breakbulk	12.0	20.0	75.0	90.0	0	<input type="checkbox"/>	0.0	<input type="checkbox"/>			<input type="checkbox"/>

10. Highlight the **Ammo UE** record and make sure that the **Assignment Rule** tab is selected in the lower half of the panel.



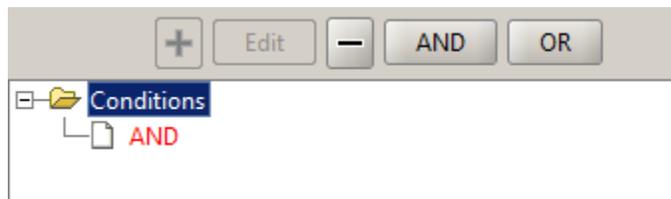
11. Click the + (plus sign) button above the **Assignment Rule** table to bring up the **Add** dialog box.

12. Click in the **Advanced Mode** checkbox. The dialog box should look like this:

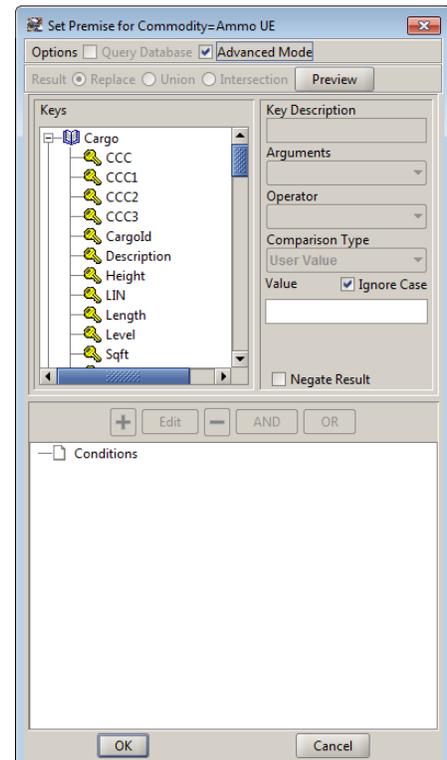
13. In the lower panel, highlight the word **Conditions** in the tree.

14. Click on the **AND** button to add an item to the condition.

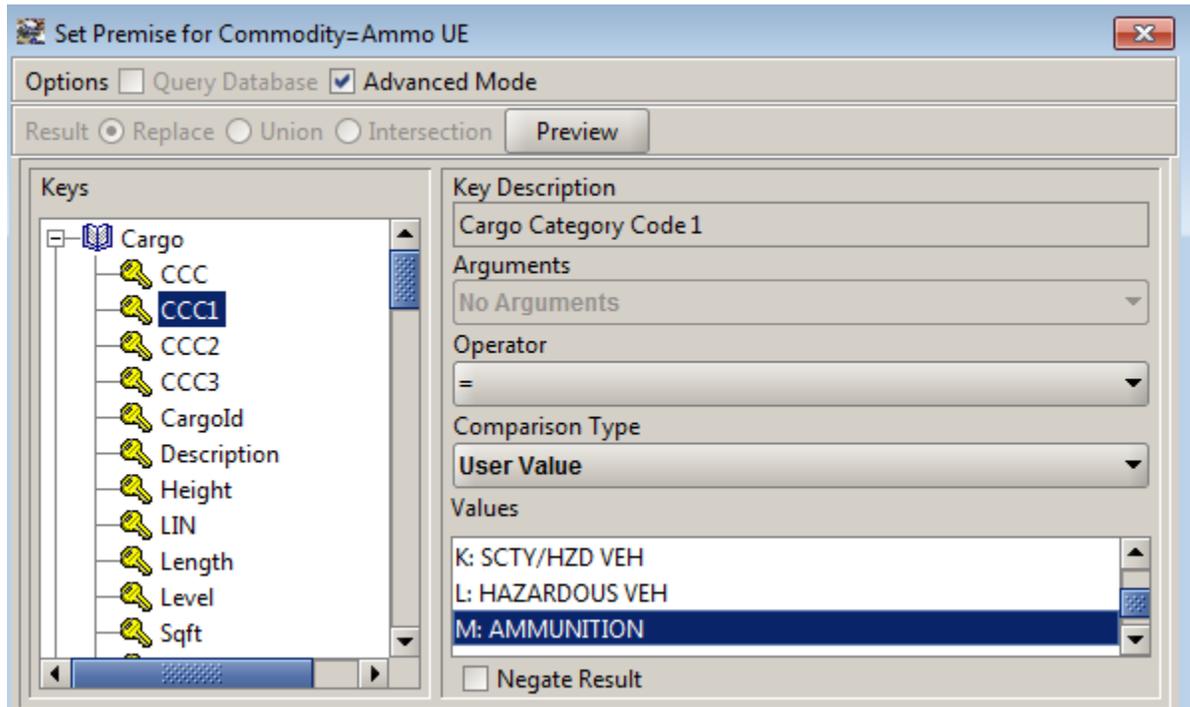
15. Click on the + (plus sign) next to **Conditions** to expand the item. You should see the **AND** that was just added.



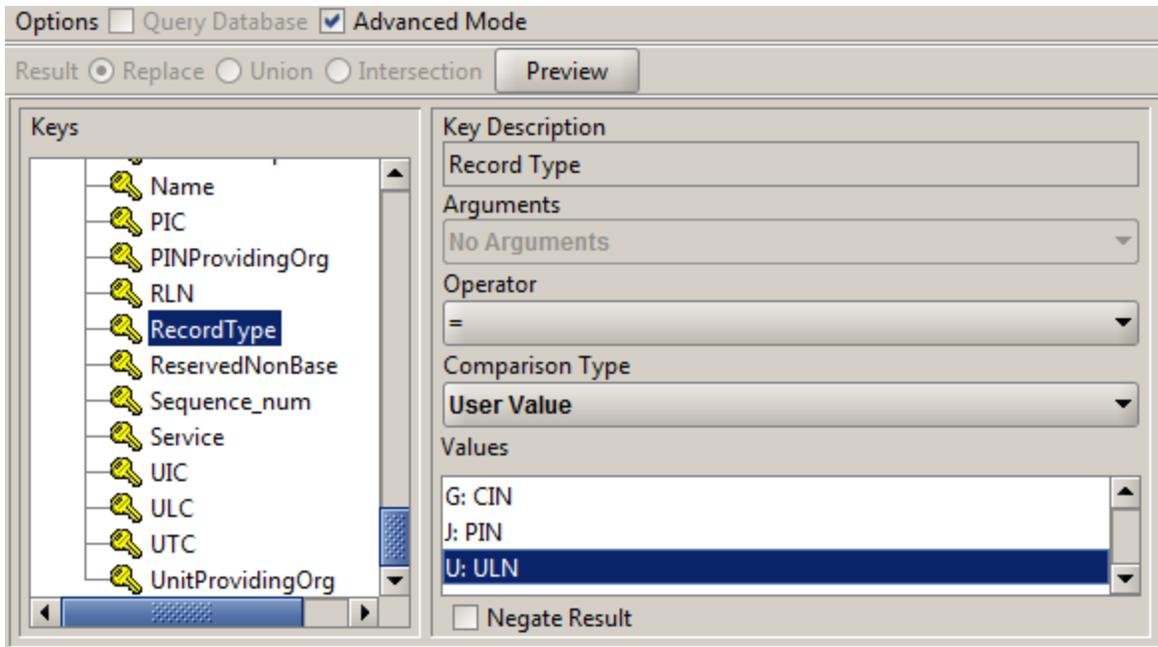
16. Click on the **AND** to highlight it.



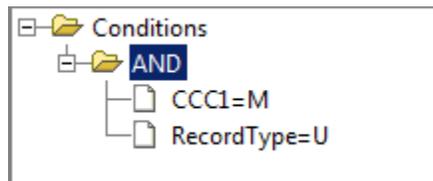
17. In the upper left area of the dialog box, in the **Keys** tree, under the **Cargo** item, click to highlight key **CCC1** (Cargo Category Code 1).
18. Leave **Operator** and **Comparison Type** as is.
19. For the User Value, choose **M: AMMUNITION**.



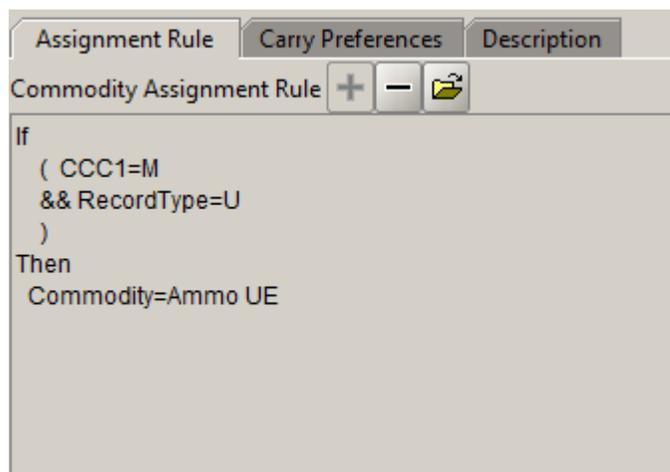
20. Click the + (plus sign) button above the **Conditions** tree to add the item to the **Conditions** tree.
21. In the lower area, expand the **AND** item. You will see that an item has been added: **CCC1=M**.
22. Highlight the **AND** in the **Conditions** tree.
23. In the upper left area of the dialog box, in the **Keys** tree, under the **Unit Info** item, click to highlight **Key Description Record Type**.
24. Leave **Operator** and **Comparison Type** as they are.
25. For the User Value, choose **U: ULN**.



26. Click the + (plus sign) button above the **Conditions** tree to add the item to the **Conditions** tree. Your **Conditions** tree should look like the following:



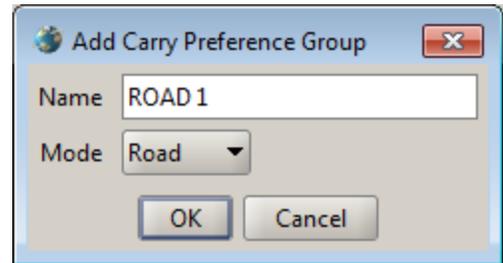
27. Click the **OK** button in the dialog box. In the **Cargo Commodities** tab, you will now see that the condition has been added to the **Ammo UE** item. It will read as:



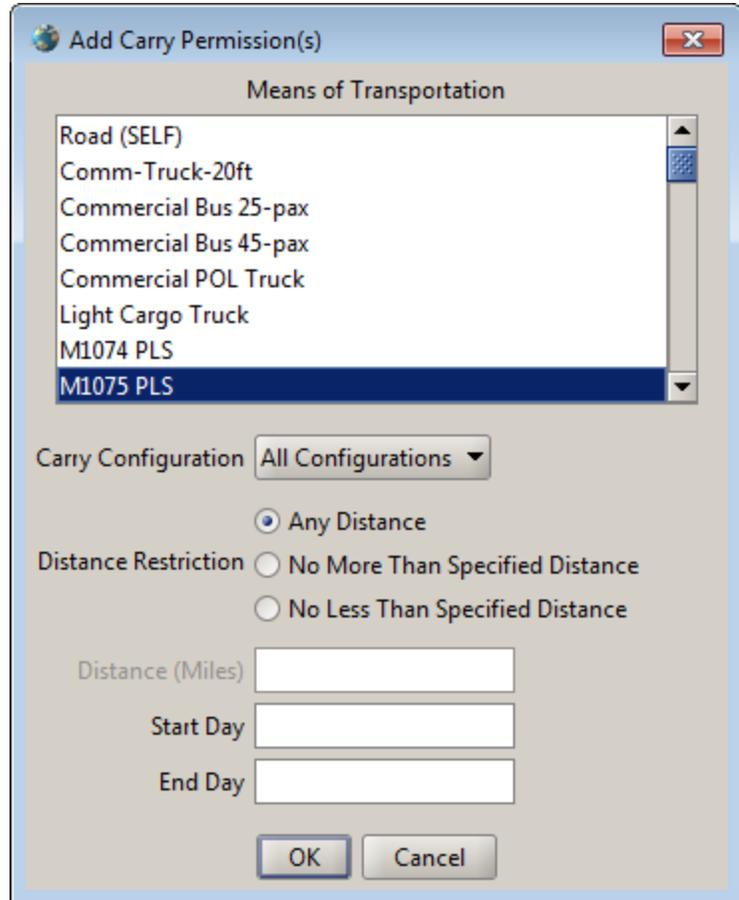
28. Make sure that the **Ammo UE** item is highlighted, and select the **Carry Preferences** tab in the lower portion of the window.

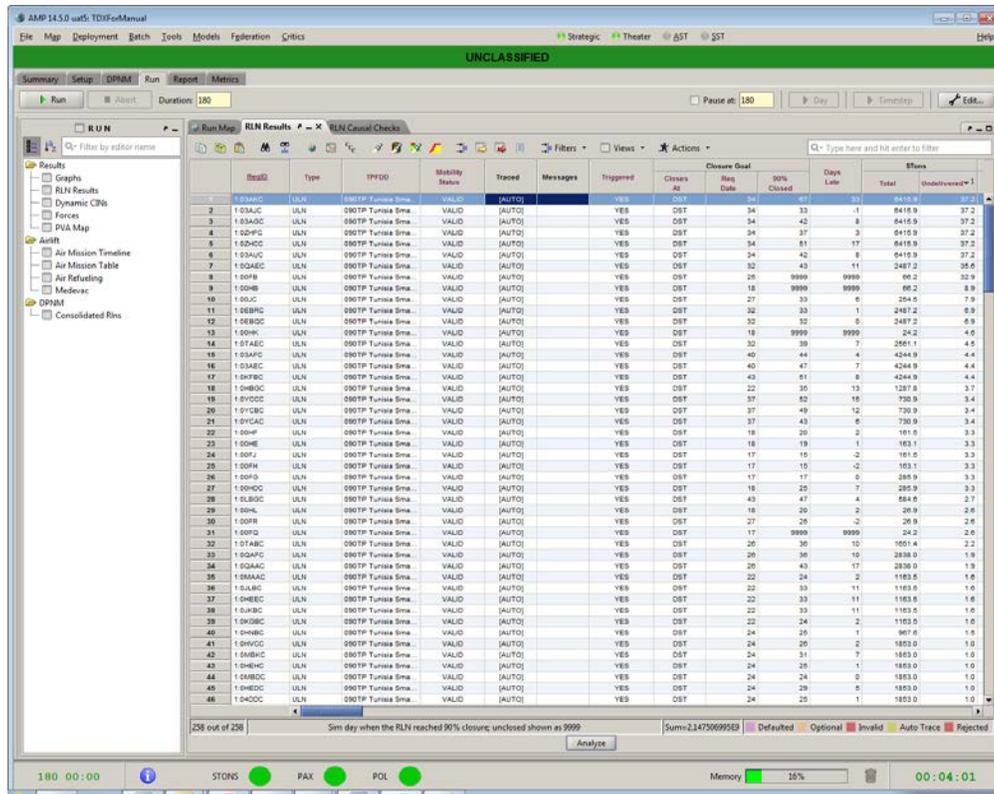
Assignment Rule	Carry Preferences	Description				
Theater CONUS ▼						
Carry Preference Groups						
<input type="button" value="+"/> <input type="button" value="-"/> <input type="button" value="↑"/> <input type="button" value="↓"/>						
Row	Priority	Name	Mode			
Carry Permissions						
<input type="button" value="+"/> <input type="button" value="-"/>						
Row	Means of Transportation	Carry Configuration	Distance Restriction	Distance (Miles)	Start Day	End Day

29. Ensure that the **Theater** name selected is **CONUS**.
30. Click the + (plus sign) button above the **Carry Preference Groups** table. This will bring up a small dialog box labeled **Add Carry Preference Group**.
31. Type **ROAD 1** as the name.
32. Click the **OK** button. This will add a **ROAD 1** item to the **Carry Preference Groups** table.
33. Highlight the **ROAD 1** item.
34. In the **Carry Permissions** table (This is a different table, below the **Carry Preference Groups** table.), click on the + (plus sign) button.



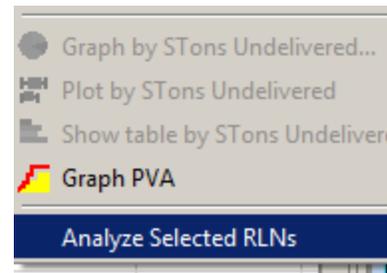
35. For the **Means of Transportation** item, select **M1075 PLS**.
36. Click on the **OK** button.
37. Change the **Theater** to **Tunisia**.
38. Repeat steps 30 through 36 for the **Tunisia** theater.
39. **Save** and **Run** the scenario.
40. Once the run is finished, click on **Run tab → Results-→ RLN Results**.
41. Sort the table twice by the **STons: Undelivered** (STons = Short tons) column (last column at right), so that the largest numbers will be at the top.

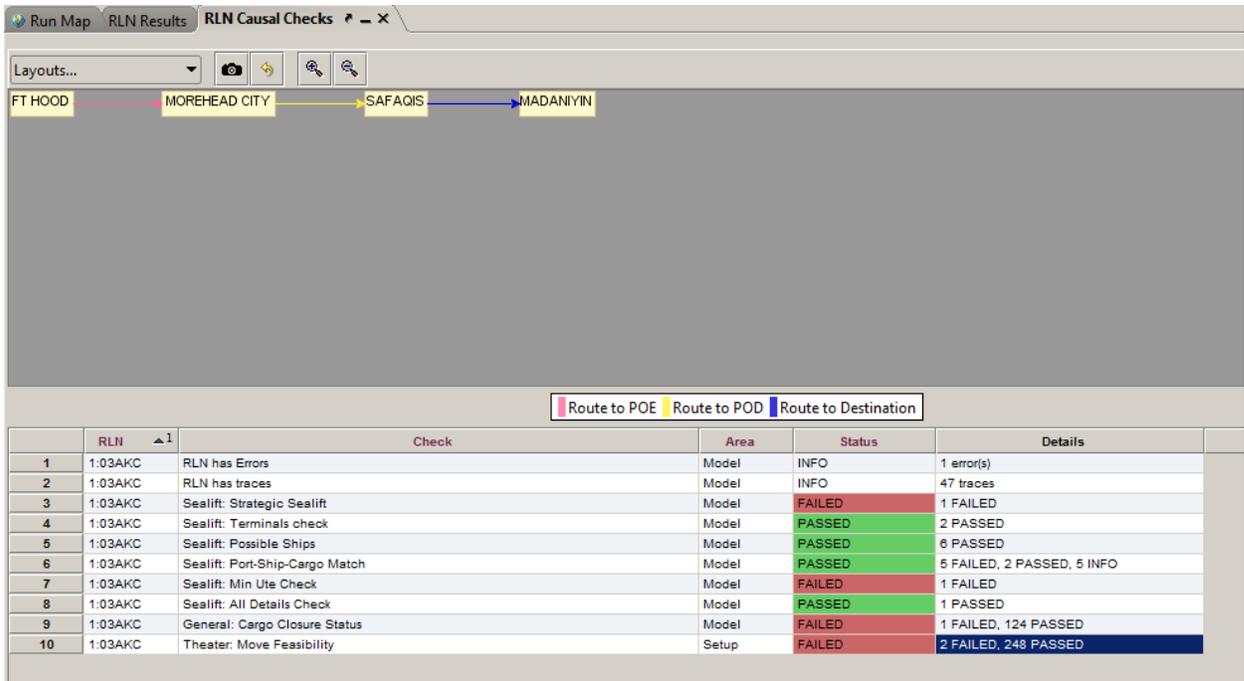




42. Highlight the first record (row) in the table, right click on it, and choose **Analyze Selected RLNs**.

43. In the **RLN Causal Checks** tab that comes up, double click on the **Details** cell (last column at right) for the item whose **Check** (third column) value is **Theater: Move Feasibility** (bottom row).

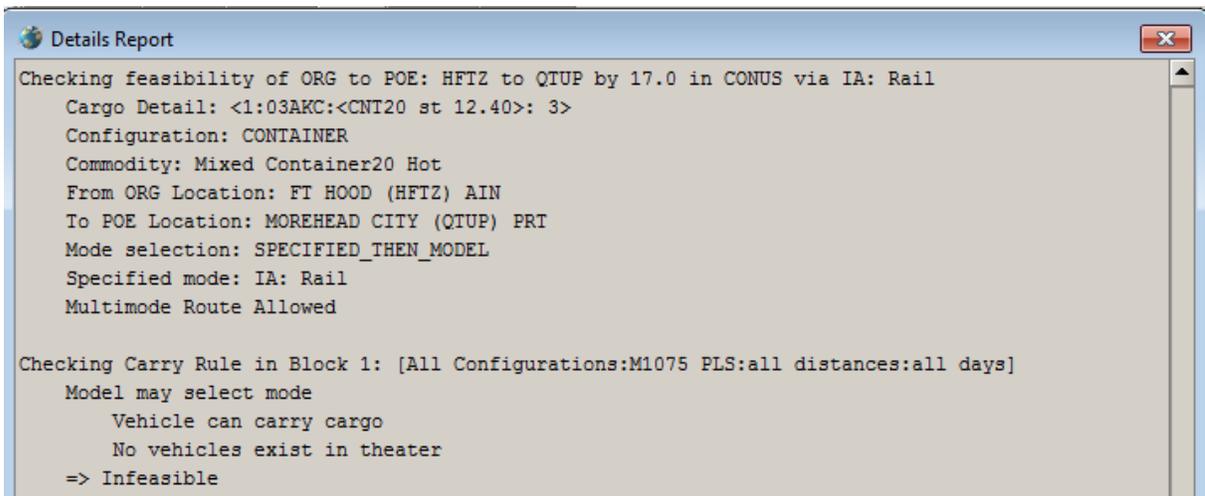




44. In the dialog box that pops up, sort the table by the **Status** column. The items that have a status of **FAILED** will be at the top of the list.

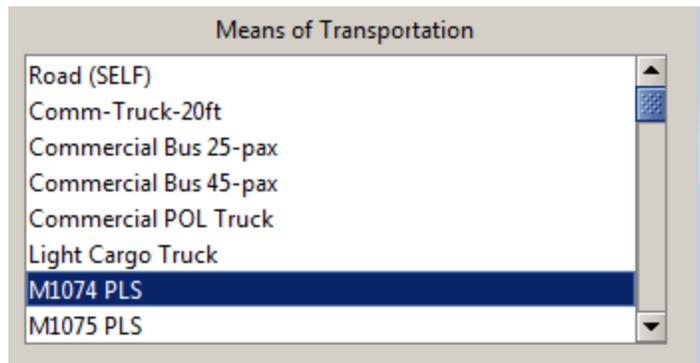


45. Double click on the **Details** cell for the first **FAILED** item. Note that the **Details Report** will state that there are no vehicles that can move the item in the theater.



46. Close the pop-up dialog boxes.
47. Return to the **Setup** tab, **Deployment** → **Cargo Commodities**.
48. Select the **Ammo UE** item.
49. On the **Carry Preferences** tab in the lower portion of the screen, select the **CONUS** theater.
50. Select **ROAD 1** in the **Carry Preference Groups** table.
51. In the **Carry Permissions** table, click on the + (plus sign) button.

52. In the **Add Carry Permissions** window, select **M1074 PLS**.



53. Click the **OK** button.

54. Repeat steps 50 through 53 for the **Tunisia** theater. Both the CONUS theater's and the Tunisia theater's **ROAD 1 Carry Permissions** will list the following two items:

Carry Permissions						
Row	Means of Transportation	Carry Configuration	Distance Restriction	Distance (Miles)	Start Day	End Day
1	M1075 PLS	All Configurations				
2	M1074 PLS	All Configurations				

55. **Save** and **Run** the scenario.
56. Once the run is finished, click on the **Report** tab, **Events** → **Error Log**.

57. You will see the following errors:

	Event	Scheduled	
1	Planning move of 1:03AJC.M7C0001 et al. from FT HOOD -HFTZ-AIN to GULFPORT -JTVH-PRT i...	9 6:00	Move Will Never Be Feasible
2	Planning move of 1:04DDC.M7C0001 from FT POLK -HJVH-AIN to WILMINGTON -ZBES-PRT in t...	9 6:00	Move Will Never Be Feasible
3	Planning move of 1:0HEDC.M7C0001 from FT BENNING -HCML-AIN to MOREHEAD CITY -QTUP-...	9 6:00	Move Will Never Be Feasible
4	Planning move of 1:0HEEC.M7C0001 et al. from FT BLISS -HCRL-AIN to WILMINGTON -ZBES-PR...	9 6:00	Move Will Never Be Feasible
5	Planning move of 1:0HEHC.M7C0001 from FT JACKSON -HGBZ-AIN to MOREHEAD CITY -QTUP-...	9 6:00	Move Will Never Be Feasible
6	Planning move of 1:0HVCC.M7C0001 from FT RILEY -HKBN-AIN to MOREHEAD CITY -QTUP-PRT...	9 6:00	Move Will Never Be Feasible
7	Planning move of 1:0JLBC.M7C0001 et al. from FT SHERIDAN -HKLN-AIN to WILMINGTON -ZBE...	9 6:00	Move Will Never Be Feasible
8	Planning move of 1:0MAAC.M7C0001 et al. from FT BENNING -HCML-AIN to WILMINGTON -ZBE...	9 6:00	Move Will Never Be Feasible
9	Planning move of 1:03AGC.M7C0001 et al. from FT HOOD -HFTZ-AIN to CHARLESTON -DKSD-P...	11 6:00	Move Will Never Be Feasible
10	Planning move of 1:0EBFC.M7C0001 from FT LEONARD WOOD -HGSH-AIN to CHARLESTON -DK...	11 6:00	Move Will Never Be Feasible
11	Planning move of 1:0EBQC.M7C0001 et al. from FT POLK -HJVH-AIN to CHARLESTON -DKSD-P...	11 6:00	Move Will Never Be Feasible
12	Planning move of 1:0EBRC.M7C0001 et al. from FT LEONARD WOOD -HGSH-AIN to CHARLESTO...	11 6:00	Move Will Never Be Feasible
13	Planning move of 1:0TAEC.M7C0001 et al. from FT SILL -HKNN-AIN to CHARLESTON -DKSD-PR...	11 6:00	Move Will Never Be Feasible
14	Planning move of 1:0ZHFC.M7C0001 et al. from FT HOOD -HFTZ-AIN to CHARLESTON -DKSD-P...	11 6:00	Move Will Never Be Feasible
15	Planning move of 1:03AKC.M7C0001 et al. from FT HOOD -HFTZ-AIN to MOREHEAD CITY -QTUP...	12 6:00	Move Will Never Be Feasible
16	Planning move of 1:03AUC.M7C0001 et al. from FT HOOD -HFTZ-AIN to MOREHEAD CITY -QTUP...	12 6:00	Move Will Never Be Feasible
17	Planning move of 1:0QAEC.M7C0001 et al. from FT SILL -HKNN-AIN to CHARLESTON -DKSD-PR...	12 6:00	Move Will Never Be Feasible
18	Planning move of 1:03AFC.M7C0001 et al. from FT HOOD -HFTZ-AIN to CHARLESTON -DKSD-P...	16 6:00	Move Will Never Be Feasible
19	Planning move of 1:0ZHCC.M7C0001 et al. from FT HOOD -HFTZ-AIN to CHARLESTON -DKSD-P...	16 6:00	Move Will Never Be Feasible
20	Planning move of 1:0JXC.M7C0001 from FT LEONARD WOOD -HGSH-AIN to WHITEMAN AFB -Y...	17 6:00	Move Will Never Be Feasible
21	Planning move of 1:0QBJ.M7C0001 from FT LEONARD WOOD -HGSH-AIN to WHITEMAN AFB -Y...	17 6:00	Move Will Never Be Feasible
22	Planning move of 1:03AEC.M7C0001 et al. from FT HOOD -HFTZ-AIN to MOREHEAD CITY -QTUP...	19 6:00	Move Will Never Be Feasible
23	Planning move of 1:0KFBC.M7C0001 et al. from FT HOOD -HFTZ-AIN to NORFOLK -SBEA-PRT in...	20 6:00	Move Will Never Be Feasible
24	Planning move of 1:0LBGC.M7C0001 et al. from FT HOOD -HFTZ-AIN to NORFOLK -SBEA-PRT i...	20 6:00	Move Will Never Be Feasible

These errors indicate that there is no mode of transportation to carry the cargo. One or more asset pools will need to be changed to include the carry types that can carry the cargo created.

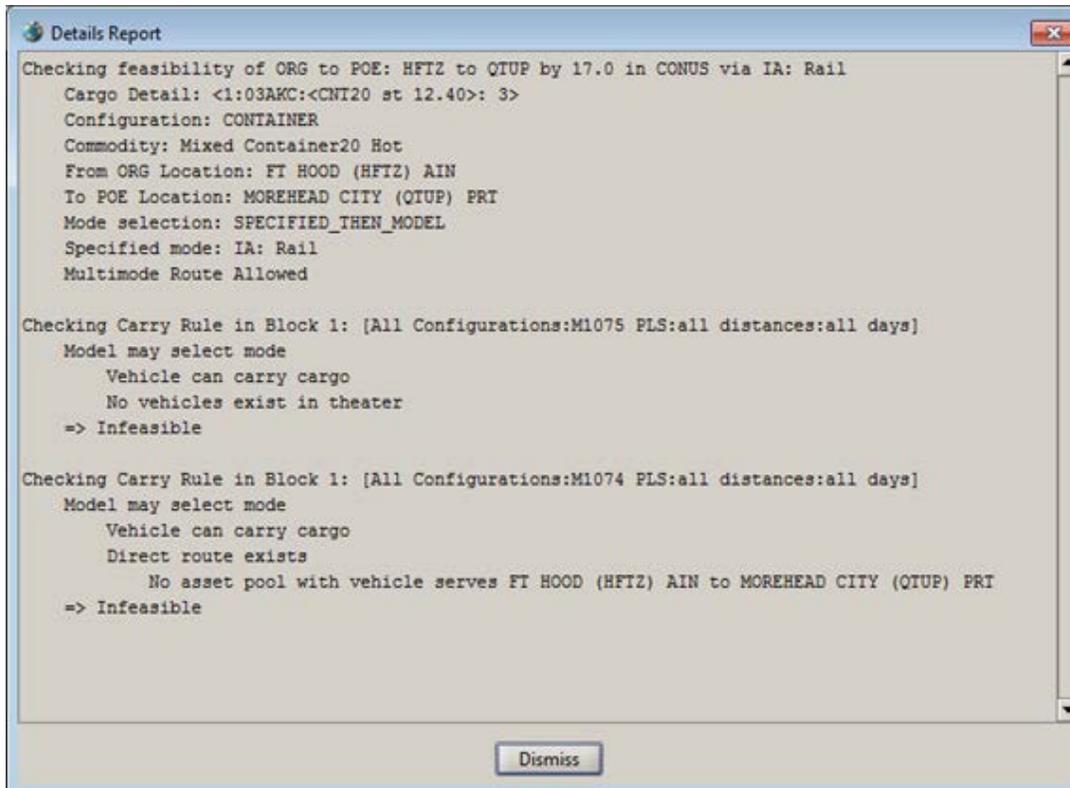
58. Another way to look at this is to click on the **Run tab** → **Results** → **RLN Results**.

59. Sort the table twice by the **STons: Undelivered** column, so that the largest numbers will be at the top.

	RealID	Type	TPFDD	Mobility Status	Traced	Messages	Triggered	Closure Goal		Days Late	STons		
								Closes At	Req Date		90% Closed	Total	Undelivered
1	1:03AKC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	51	17	6415.9	37.2
2	1:03AJC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	33	-1	6415.9	37.2
3	1:03AGC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	42	8	6415.9	37.2
4	1:0ZHFC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	37	3	6415.9	37.2
5	1:0ZHCC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	47	13	6415.9	37.2
6	1:03AUC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	34	66	32	6415.9	37.2
7	1:0QAEC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	32	41	9	2487.2	35.6
8	1:0EBQC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	32	34	2	2487.2	10.9
9	1:0EBRC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	32	36	3	2487.2	6.9
10	1:0TAEC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	32	38	6	2561.1	4.5
11	1:03AFC	ULN	090TP Tunisia Sma...	VALID	[AUTO]		YES	DST	40	47	7	4244.9	4.4

60. Select the first record in the table by left clicking on row number 1, right click on it, and choose **Analyze Selected RLNs**.

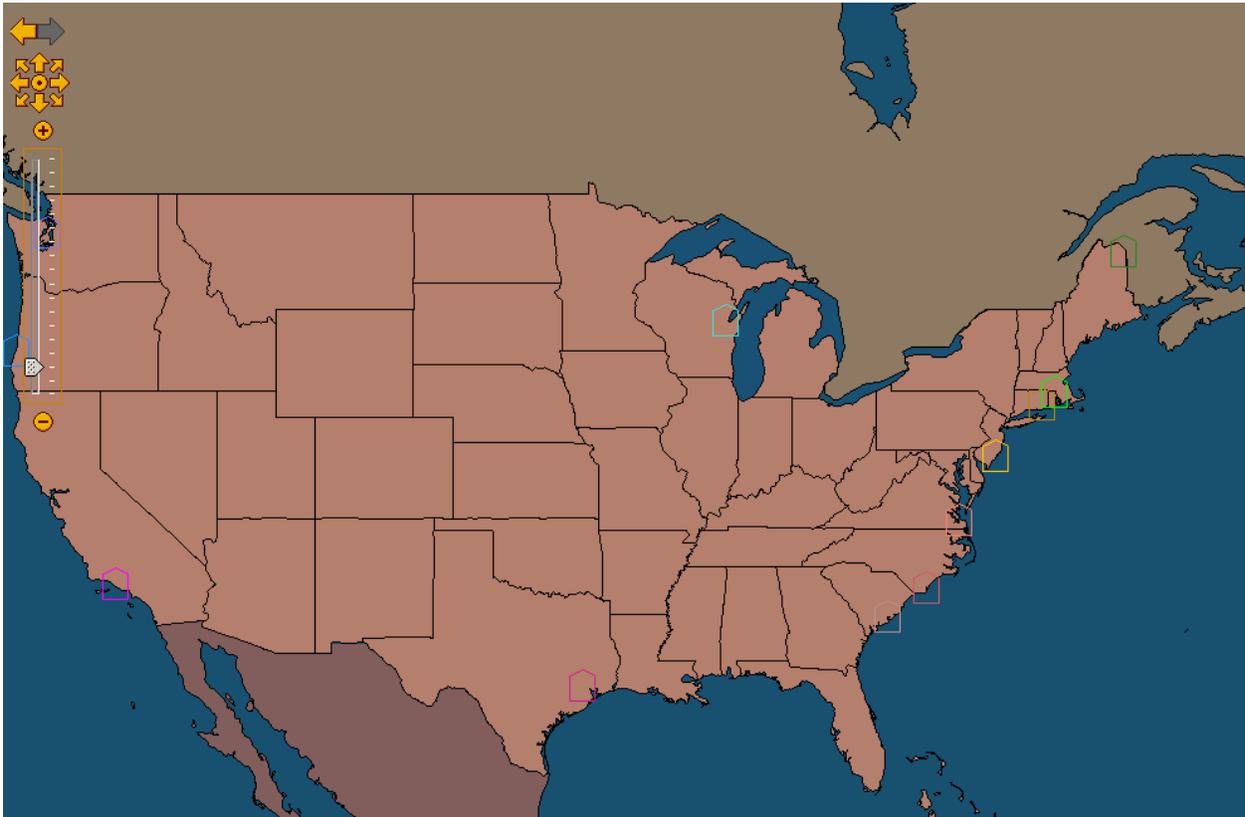
61. In the tab that comes up, double click on the **Details** cell for the item whose **Check** value is **Theater: Move Feasibility**.
62. In the dialog box that pops up, sort the table by **Status**. The remaining item with a status of **FAILED** will be at the top.
63. Double click on the **Details** for that item and you will see the following **Details Report** error:



To fix the current issue, the asset pools will need to be updated.

2 Viewing Asset Pools on the Map

1. To view an asset pool on the map, click on the **Setup** tab and turn on the **Asset Pools** layer.
2. If you zoom to look at the United States, you will see something like the following:



3. This information can be used by the analyst to identify which asset pools may be serving the erroring locations.

3 Updating Asset Pools

1. Navigate to the **Setup** tab, **Vehicles** → **Asset Pools**.
2. Click on the **Show All Pool Locations** at the top of the panel. This will bring up a tab that will display which asset pool serves which locations. This can be used to match the erroring locations with the asset pool that needs to be used. For now, close this tab.

Row	Asset Pool	Service Type	Location ^{▲1}
695	seven	Pickup	FRANKFORT -GYPS-CTY
696	one	Pickup	FREEPORT -HAAZ-CTY
697	five	Pickup	FREEPORT -HABZ-CTY
698	six	Pickup	FREEWAY -HAYS-APT
699	seven	Pickup	FREEWAY -HAYS-APT
700	two	Pickup	FRESNO -HAWS-CTY
701	four	Pickup	FRESNO -HAWS-CTY
702	two	Pickup	FRESNO AIR TERMIN -HAWR-JAP
703	four	Pickup	FRESNO AIR TERMIN -HAWR-JAP
704	two	Pickup	FRESNO IAP -HAYW-ATM
705	four	Pickup	FRESNO IAP -HAYW-ATM
706	seven	Pickup	FT A P HILL -EQYH-AIN
707	ten	Pickup	FT A P HILL -EQYH-AIN
708	seven	Pickup	FT BELVOIR -HCHL-AIN
709	nine	Pickup	FT BELVOIR -HCHL-AIN
710	ten	Pickup	FT BELVOIR -HCHL-AIN
711	five	Pickup	FT BEN HARRISON -HCKL-RTC
712	seven	Pickup	FT BEN HARRISON -HCKL-RTC
713	twelve	Pickup	FT BENNING -HCML-AIN
714	two	Pickup	FT BLISS -HCRL-AIN
715	two	Pickup	FT BRAGG -HCTG-CTY
716	four	Pickup	FT BRAGG -HCTG-CTY
717	seven	Pickup	FT BRAGG -HCTL-AIN
718	ten	Pickup	FT BRAGG -HCTL-AIN
719	eleven	Pickup	FT BRAGG -HCTL-AIN

3. Return to the **Setup** tab, **Vehicles** → **Asset Pools** tab.

4. Select **Asset Pool one**.

Row	Priority	Asset Pool	Type	Queues	Model	Home Node	Theater	Color
1	1	<input checked="" type="checkbox"/> BIZERTE DD	Direct Delivery	<input checked="" type="checkbox"/> 9	Individ...	BIZERTE -BSRL-PRT(TUNISIA)	Tunisia	pink
2	2	<input type="checkbox"/> Tunisia Air	Direct Delivery	<input type="checkbox"/> 0	Individ...	SIDI AHMED AIR BA -BSRR-IAP...	Tunisia	pink
3	3	<input checked="" type="checkbox"/> one	Direct Delivery	<input checked="" type="checkbox"/> 6	Individ...	HOUSTON -LCMT-PRT(TEXAS)	CONUS	violetRed
4	4	<input type="checkbox"/> two	Direct Delivery	<input checked="" type="checkbox"/> 4	Individ...	PORT HUENEME -TNZY-PRT(CAL...	CONUS	magenta
5	5	<input type="checkbox"/> three	Direct Delivery	<input type="checkbox"/> 0	Individ...	BREMERTON SEALAND -CHEX P...	CONUS	mediumP...
6	6	<input type="checkbox"/> four	Direct Delivery	<input checked="" type="checkbox"/> 4	Individ...	COOS BAY -EKWU-PRT(OREGON)	CONUS	dodgerBlue
7	7	<input type="checkbox"/> five	Direct Delivery	<input checked="" type="checkbox"/> 3	Individ...	AUSTIN STRAUBEL I -ASCE-CAPL...	CONUS	turquoise
8	8	<input type="checkbox"/> six	Direct Delivery	<input checked="" type="checkbox"/> 1	Individ...	LORING AFB -NRCH-MAP(MAINE)	CONUS	forestGreen
9	9	<input type="checkbox"/> seven	Direct Delivery	<input checked="" type="checkbox"/> 4	Individ...	PROVIDENCE -TTWZ-PRT(RHOD...	CONUS	green

5. In the lower half of the panel, make sure that the **Vehicles** tab is selected.

6. Click the + (plus sign) button over the **Vehicles** table.

7. Add **10 Vehicle Type M1075 PLS** to the pool.

Add Vehicle to seven ✖

Vehicle Mode:

Vehicle Type:

Number of Vehicles:

Start Day:

End Day:

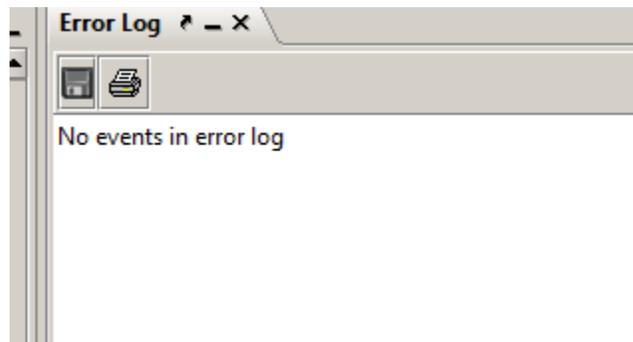
Percent Available:

8. Click the **OK** button.

9. The vehicles table for the selected asset pool will show ten M1075 PLS.

Row	Priority	Pool	Vehicle	Arriving Asset From Setup	Num	Start Day	End Day	% Avail
1	1	one	<input checked="" type="checkbox"/> commercial medium railcar		500			90.0
2	2	one	<input checked="" type="checkbox"/> 54DODX		200			90.0
3	3	one	<input type="checkbox"/> M1088 WOWN MTV Tractor/M...		100			90.0
4	4	one	<input checked="" type="checkbox"/> M1083 WOWN 5-Ton MTV		200			90.0
5	5	one	<input checked="" type="checkbox"/> M1070 HET Tractor/M1000 70-...		270			90.0
6	6	one	<input checked="" type="checkbox"/> Commercial Bus 45-pax		100			95.0
7	7	one	<input checked="" type="checkbox"/> 54DODX		100	15.00		90.0
8	8	one	<input checked="" type="checkbox"/> Commercial 10-Ton Tractor/Co...		200			90.0
9	<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> one	<input checked="" type="checkbox"/> M1075 PLS		10			90.0

10. Repeat steps 4 through 9 for asset pool **two**.
11. Repeat steps 4 through 9 for asset pool **five**.
12. Repeat steps 4 through 9 for asset pool **twelve**.
The additional vehicles in asset pools one, two, five, and twelve will provide sufficient capacity to prevent the errors seen in the previous run.
13. **Save** and **Run** the scenario.
14. After the scenario runs, revisit the **Run** tab **Events** → **Error Log**. Errors should no longer be listed:



15. Revisit the **Run** tab **Results** → **RLN Results** page.
16. Sort the table twice by the **STons Undelivered** column. Note that there are no longer items that are undelivered.

4 Theater Parameters

You can choose to set various theater parameters by selecting the **Theaters** option from the **Setup** tab **Scenarios** → **Theater** section. These parameters can be set differently for each theater in the simulation.

4.1 Theater Name

Include in Simulation: Make sure that the theater you want to run in the simulation is indicated as **YES** in the **Included?** column.

	Theater Name ▲ ¹	Included?	Activation Schedule	Make Missing Available?	Countries/States
1	CONUS	YES	YES	NO	51
2	Tunisia	YES	YES	YES	2

4.2 General Parameters

One or more of four general parameters can be chosen by selecting the corresponding checkbox(es):

- Make UE High Priority
- Project Mode Throughput for Estimating Travel Times
- Project Asset Use for Estimating Travel Times
- Project Location Throughput for Estimating Travel Times

General

Make UE High Priority

Project Mode Throughput for Estimating Travel Times

Project Asset Use for Estimating Travel Times

Project Location Throughput for Estimating Travel Times

4.3 Serials Required

The user may manage surface operations by requiring ground travel in serials (convoys). Convoys may be required for all types of movements or only for specific subsets of movements.

- Military Self Deployed
- Military Direct Delivery
- Line Haul
- Commercial Direct Delivery

Serials Required For	
<input checked="" type="checkbox"/> Military Self Deployed	<input checked="" type="checkbox"/> Line Haul
<input checked="" type="checkbox"/> Military Direct Delivery	<input checked="" type="checkbox"/> Commercial Direct Delivery

4.4 Serial Travel Parameters

These five parameters regulate how serials are formed in the theater:

- **Minimum Vehicles/Serial:** Enter a number for the minimum number of vehicles in the group.
- **Maximum Vehicles/Serial:** Enter a number for the maximum number of vehicles in the group.
- **Maximum Serial Wait:** Enter the amount of time that a number of vehicles that is fewer than the minimum number of vehicles in a serial will wait for additional vehicles before departing.
- **Serial Rate of March:** Enter the maximum speed at which all otherwise unconstrained serials will travel. (If there is a slower vehicle in the serial, the serial will travel at that rate.)
- **Serial Spacing:** Enter the distance that is required between serials on the same route.

Serial Travel	
Minimum Vehicles/Serial:	<input type="text" value="5"/>
Maximum Vehicles/Serial:	<input type="text" value="30"/>
Maximum Serial Wait:	<input type="text" value="1.5"/> days
Serial Rate of March:	<input type="text" value="30.0"/> mi/hr
Serial Spacing:	<input type="text" value="500"/> ft

4.5 Cost Modeling Parameters

These two parameters set the default cost per mile, if they are not set specifically by the user:

- **Default Cost per Organic Vehicle Mile:** Enter a number for the cost of military vehicle travel.
- **Default Cost per BBL:** Enter a number for the cost of barrels (BBLs) of fluid over a pipeline.

Cost Modeling		
Default Cost per Organic Vehicle Mile:	<input type="text" value="0.0"/>	dollars
Default Cost per BBL:	<input type="text" value="0.0"/>	dollars

4.6 Rail Travel Parameters

These seven parameters detail the railcar requirements:

- Adequate Railcar Load: Enter the percent of a railcar cargo capacity that defines an adequate load. A railcar with at least an adequate load can depart as soon as all waiting cargo has been unloaded.
- Maximum Railcar Wait: Enter the maximum time that a partially loaded railcar (with less than an adequate load) will wait for additional cargo before departing.
- Minimum Railcars/Train: Enter a number for the minimum number of railcars in a train.
- Maximum Railcars/Train: Enter a number for the maximum number of railcars in a train.
- Maximum Train Wait: Enter the amount of time that a number of railcars that is fewer than the minimum for a train will wait for additional loaded railcars before departing.
- Rail Rate of March: Enter the speed of travel for a train.
- Train Travel Schedule: Select **Continuous** or one of the series of hourly intervals that represents travel/standby schedules for rail travel.

Rail Travel		
Adequate Railcar Load:	<input type="text" value="50"/>	%
Maximum Railcar Wait:	<input type="text" value="0.5"/>	days
Minimum Railcars/Train:	<input type="text" value="10"/>	
Maximum Railcars/Train:	<input type="text" value="60"/>	
Maximum Train Wait:	<input type="text" value="6.0"/>	days
Rail Rate of March:	<input type="text" value="22.0"/>	mi/hr
Train Travel Schedule:	<input type="text" value="Continuous"/>	hrs

4.7 Road Travel Parameters

These parameters detail the road travel requirements:

- **Adequate Truck Load:** Enter the percent of a truck (or other road vehicle) cargo capacity that defines an adequate load. A truck with at least an adequate load can depart as soon as all waiting cargo has been unloaded.
- **Maximum Truck Wait:** Enter the maximum amount of time that a partially loaded truck (with less than an adequate load) will wait for additional cargo before departing.
- **Line Haul Transition Time:** Enter the amount of time allowed for switching tractors and for any other operations required at a line haul transition point.
- **Military Self Deployed Rate of March:** Enter the speed of travel of organic or unit vehicles.
- **Military Self Deployed Schedule:** Select **Continuous** or one of the series of hourly intervals that represents travel/standby schedules for organic military travel, whether carried out individually or in serials.
- **Commercial Schedule:** Select **Continuous** or one of the series of hourly intervals that represents travel/standby schedules for commercial road travel, whether carried out individually or in serials.
- **Military Schedule:** Select **Continuous** or one of the series of hourly intervals that represents travel/standby schedules for nonorganic military travel, whether carried out individually or in serials.
- **MSR Route Finding Factor:** Enter the weight factor of this type of road for the main supply route (MSR).
- **Road Type 1 Route Finding Factor:** Enter the weight factor of this type of road.
- **Road Type 2 Route Finding Factor:** Enter the weight factor of this type of road.
- **Road Type 3 Route Finding Factor:** Enter the weight factor of this type of road.

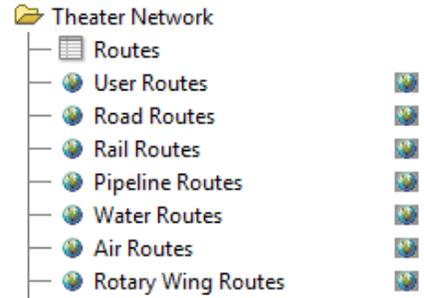
Road Travel

Adequate Truck Load:	<input type="text" value="50"/>	%
Maximum Truck Wait:	<input type="text" value="0.5"/>	days
Line Haul Transition Time:	<input type="text" value="0.3"/>	hrs
Military Self Deployed Rate of March:	<input type="text" value="40.0"/>	mi/hr
Military Self Deployed Schedule:	<input type="text" value="Continuous"/>	hrs
Commercial Schedule:	<input type="text" value="Continuous"/>	hrs
Military Schedule:	<input type="text" value="Continuous"/>	hrs
MSR Route Finding Factor:	<input type="text" value="0.75"/>	
Road Type 1 Route Finding Factor:	<input type="text" value="1.0"/>	
Road Type 2 Route Finding Factor:	<input type="text" value="1.4"/>	
Road Type 3 Route Finding Factor:	<input type="text" value="3.0"/>	

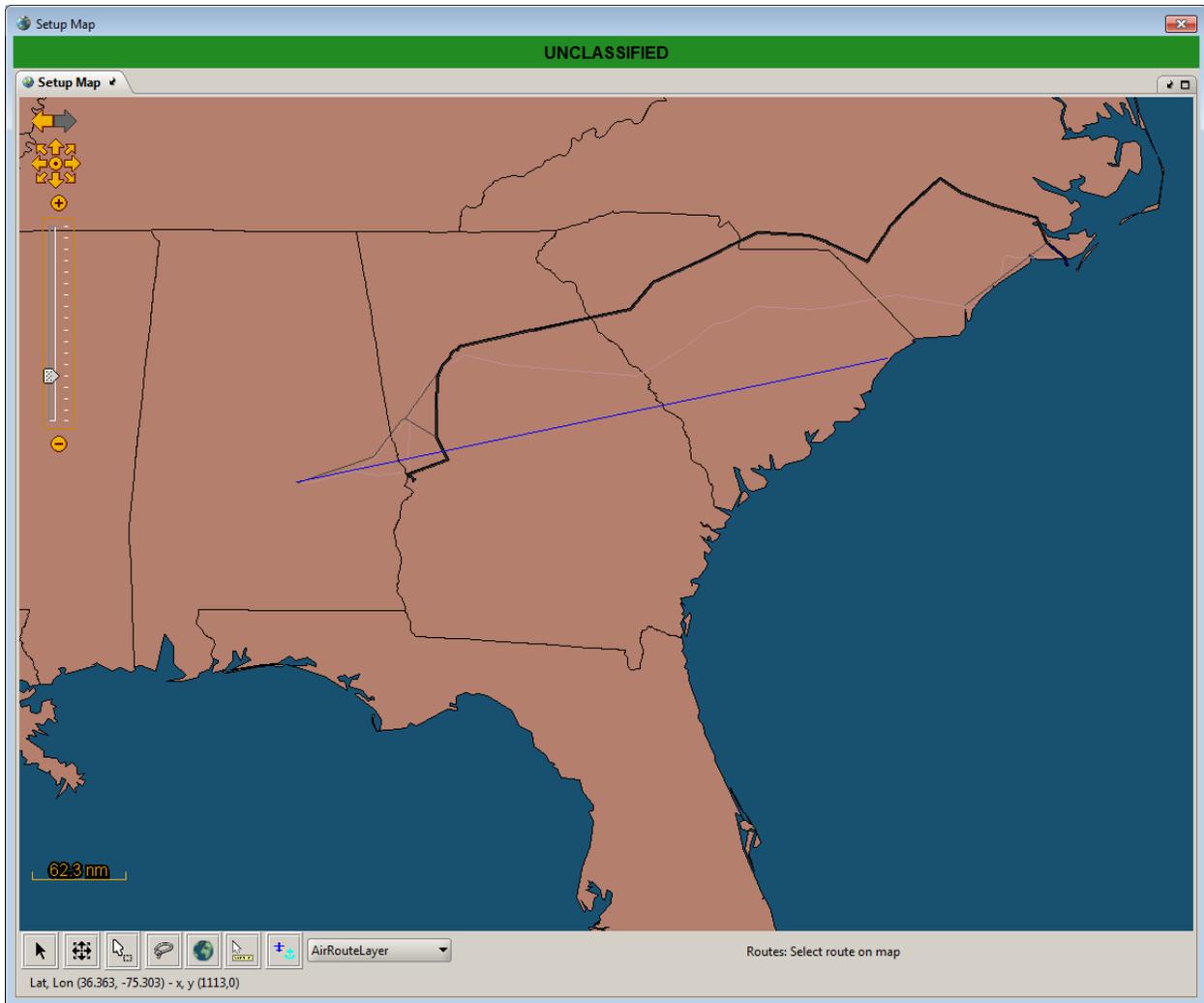
5 Routes

5.1 Viewing a Route

1. In the **Setup** tab, click on the **Theater Network** → **Routes** option.
2. Move the map to its own window by clicking on the arrow in the **Setup Map** tab.
3. Click on the globe icons next to all of the routes in the **Theater Network** section of the editors panel.
4. Open the Routes Table. Check the **Show On Map** checkboxes for the first 15 CONUS routes.
5. Click on a visible route in the **Routes** table to highlight it on the map.



Row	Mode	From Node	To Node	Show On Map	Theater	Source	Priority	Time (days)	Capacity (vehicles/day)	Distance (miles)	Distance Factor	Weight Limit (stons)	Height Limit (inches)
1	Road	FT BENNING -HC...	MAXWELL AFB -P...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.09	3,824.0	95.0	1.1	2,000.0	500.0
2	Rail	FT BENNING -HC...	MAXWELL AFB -P...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.36	2,000.0	193.5	2.2	2,000.0	500.0
3	Road	FT BENNING -HC...	WILMINGTON -Z...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.61	3,964.7	621.5	1.5	2,000.0	500.0
4	Rail	FT BENNING -HC...	WILMINGTON -Z...	<input checked="" type="checkbox"/>	CONUS	Distance	1	1.24	2,000.0	654.9	1.6	2,000.0	500.0
5	Road	FT BENNING -HC...	MOREHEAD CITY ...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.59	3,964.7	610.8	1.2	2,000.0	500.0
6	Rail	FT BENNING -HC...	MOREHEAD CITY ...	<input checked="" type="checkbox"/>	CONUS	Distance	1	1.27	2,000.0	670.7	1.3	2,000.0	500.0
7	Road	FT BENNING -HC...	CHERRY POINT M...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.61	3,964.7	621.2	1.3	2,000.0	500.0
8	Rail	FT BENNING -HC...	CHERRY POINT M...	<input checked="" type="checkbox"/>	CONUS	Distance	1	1.24	2,000.0	653.9	1.3	2,000.0	500.0
9	Road	MAXWELL AFB -P...	FT BENNING -HC...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.09	3,824.0	95.0	1.1	2,000.0	500.0
10	Rail	MAXWELL AFB -P...	FT BENNING -HC...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.36	2,000.0	193.5	2.2	2,000.0	500.0
11	Road	MAXWELL AFB -P...	WILMINGTON -Z...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.65	3,824.0	671.8	1.3	2,000.0	500.0
12	Rail	MAXWELL AFB -P...	WILMINGTON -Z...	<input checked="" type="checkbox"/>	CONUS	Distance	1	1.32	2,000.0	696.2	1.4	2,000.0	500.0
13	Air	MAXWELL AFB -P...	MYRTLE BEACH JE...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.05	-	439.2	1.0	-	-
14	Road	MAXWELL AFB -P...	MOREHEAD CITY ...	<input checked="" type="checkbox"/>	CONUS	Distance	1	0.63	3,824.0	661.1	1.1	2,000.0	500.0
15	Rail	MAXWELL AFB -P...	MOREHEAD CITY ...	<input checked="" type="checkbox"/>	CONUS	Distance	1	1.35	2,000.0	712.0	1.2	2,000.0	500.0
16	Road	MAXWELL AFB -P...	CHERRY POINT M...	<input type="checkbox"/>	CONUS	Distance	1	0.65	3,824.0	671.4	1.2	2,000.0	500.0
17	Rail	MAXWELL AFB -P...	CHERRY POINT M...	<input type="checkbox"/>	CONUS	Distance	1	1.31	2,000.0	695.1	1.2	2,000.0	500.0
18	Air	MAXWELL AFB -P...	CHERRY POINT M...	<input type="checkbox"/>	CONUS	Distance	1	0.06	-	571.5	1.0	-	-
19	Road	GABES -HNTK-APT	GABES -HNTM-CITY	<input type="checkbox"/>	Tunisia	Distance	1	0.02	3,824.0	6.3	3.9	200.0	500.0
20	Road	GABES -HNTK-APT	GABES -HNTM-CITY	<input type="checkbox"/>	Tunisia	Distance	2	0.60	3,824.0	225.3	137.1	2,000.0	500.0
21	Rail	GABES -HNTK-APT	GABES -HNTM-CITY	<input type="checkbox"/>	Tunisia	Distance	1	0.00	2,400.0	1.4	0.8	2,000.0	500.0
22	Pipeline	GABES -HNTK-APT	GABES -HNTM-CITY	<input type="checkbox"/>	Tunisia	Distance	1	0.00	-	5.6	3.4	-	-
23	Road	GABES -HNTK-APT	GABES -HNTS-PRT	<input type="checkbox"/>	Tunisia	Distance	1	0.02	3,824.0	5.7	2.6	200.0	500.0
24	Road	GABES -HNTK-APT	GABES -HNTS-PRT	<input type="checkbox"/>	Tunisia	Distance	2	0.60	3,824.0	224.6	103.8	2,000.0	500.0
25	Rail	GABES -HNTK-APT	GABES -HNTS-PRT	<input type="checkbox"/>	Tunisia	Distance	1	0.00	2,400.0	4.7	2.2	2,000.0	500.0
26	Pipeline	GABES -HNTK-APT	GABES -HNTS-PRT	<input type="checkbox"/>	Tunisia	Distance	1	0.00	-	2.2	1.0	-	-
27	Road	GABES -HNTK-APT	GAFSA -HPBF-APT	<input type="checkbox"/>	Tunisia	Distance	1	0.25	3,824.0	92.2	1.1	2,000.0	500.0
28	Air	GABES -HNTK-APT	GAFSA -HPBF-APT	<input type="checkbox"/>	Tunisia	Distance	1	0.01	-	82.1	1.0	-	-
29	Road	GABES -HNTK-APT	TEBESSA -WSVC...	<input type="checkbox"/>	Tunisia	Distance	1	0.49	3,824.0	183.3	1.2	2,000.0	500.0
30	Rail	GABES -HNTK-APT	TEBESSA -WSVC...	<input type="checkbox"/>	Tunisia	Distance	1	0.23	2,400.0	268.1	1.7	2,000.0	500.0
31	Air	GABES -HNTK-APT	TEBESSA -WSVC...	<input type="checkbox"/>	Tunisia	Distance	1	0.02	-	155.1	1.0	-	-
32	Road	GABES -HNTK-APT	THYNA-EL MAOU ...	<input type="checkbox"/>	Tunisia	Distance	1	0.24	3,824.0	87.8	1.3	2,000.0	500.0
33	Air	GABES -HNTK-APT	THYNA-EL MAOU ...	<input type="checkbox"/>	Tunisia	Distance	1	0.01	-	66.9	1.0	-	-
34	Road	GABES -HNTK-APT	MADANIYIN -NW...	<input type="checkbox"/>	Tunisia	Distance	1	0.15	3,824.0	56.4	1.4	200.0	500.0
35	Air	GABES -HNTK-APT	MADANIYIN -NW...	<input type="checkbox"/>	Tunisia	Distance	1	0.00	-	41.3	1.0	-	-
36	Road	GABES -HNTK-APT	JERBA-ZARZIS -JE...	<input type="checkbox"/>	Tunisia	Distance	1	0.34	3,824.0	127.8	3.3	200.0	500.0
37	Air	GABES -HNTK-APT	JERBA-ZARZIS -JE...	<input type="checkbox"/>	Tunisia	Distance	1	0.00	-	38.7	1.0	-	-
38	Road	GABES -HNTK-APT	BIR EL ATER -BQ...	<input type="checkbox"/>	Tunisia	Distance	1	0.62	3,824.0	230.2	1.8	2,000.0	500.0
39	Air	GABES -HNTK-APT	BIR EL ATER -BQ...	<input type="checkbox"/>	Tunisia	Distance	1	0.01	-	130.3	1.0	-	-
40	Road	GABES -HNTK-APT	FWD BASE -OPAL...	<input type="checkbox"/>	Tunisia	Distance	1	0.14	3,824.0	66.6	1.7	2,000.0	500.0
41	Road	GABES -HNTK-APT	SFAX -VKNG-CITY	<input type="checkbox"/>	Tunisia	Distance	1	0.23	3,824.0	86.0	1.2	2,000.0	500.0
42	Road	GABES -HNTM-CITY	GABES -HNTK-APT	<input type="checkbox"/>	Tunisia	Distance	1	0.02	3,824.0	6.3	3.9	200.0	500.0
43	Road	GABES -HNTM-CITY	GABES -HNTK-APT	<input type="checkbox"/>	Tunisia	Distance	2	0.60	3,824.0	225.3	137.1	2,000.0	500.0
44	Rail	GABES -HNTM-CITY	GABES -HNTK-APT	<input type="checkbox"/>	Tunisia	Distance	1	0.00	2,400.0	1.4	0.8	2,000.0	500.0
45	Pipeline	GABES -HNTM-CITY	GABES -HNTK-APT	<input type="checkbox"/>	Tunisia	Distance	1	0.00	-	5.6	3.4	-	-

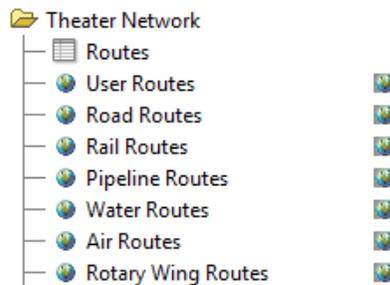


6. Right click on either the highlighted route in the map or on the route in the table.
7. Hover over the option listing the route that you have selected. This will bring up a submenu.
8. Click on the **Show Links** option. A new table will appear in the main workspace showing the transportation links used in the selected route. In the case of the example above, the Railways table will appear, filtered to the links included in the selected route.

Row	Name	Show On Map	Phase	Day	Start/...	From Node	To Node	Country State Name	Length	Line Style	Line Width	Line Color	Rail Rate	Rail Rate Of March
1	BMH+ -1806	<input type="checkbox"/>				intersection 5273	intersection 4563		19.9 *Long...	†	1	102,102,0	2,000.0	22
2	CSXT 2209-1658	<input type="checkbox"/>				intersection 5742	intersection 4430		1.8 *Long...	†	1	102,102,0	4,000.0	22
3	CSXT 4563-1987	<input type="checkbox"/>				intersection 5933	intersection 5047		1.5 *Long...	†	1	102,102,0	4,000.0	22
4	CSXT 4993-3690	<input type="checkbox"/>				intersection 5185	intersection 5001		18.2 *Long...	†	1	102,102,0	4,000.0	22
5	CSXT 4994-2684	<input type="checkbox"/>				intersection 5112	intersection 5185		6.4 *Long...	†	1	102,102,0	4,000.0	22
6	CSXT 4995-1669	<input type="checkbox"/>				intersection 4809	intersection 5112		6.6 *Long...	†	1	102,102,0	4,000.0	22
7	CSXT 800-2004	<input type="checkbox"/>				intersection 5080	intersection 5945		2.4 *Long...	†	1	102,102,0	4,000.0	22
8	CSXT 823-1337	<input type="checkbox"/>				intersection 5414	intersection 4429		27.0 *Long...	†	1	102,102,0	4,000.0	22
9	CSXT 850-2468	<input type="checkbox"/>				intersection 4883	intersection 4658		21.3 *Long...	†	1	102,102,0	4,000.0	22
10	CSXT 857-4378	<input type="checkbox"/>				intersection 5208	intersection 4882		10.9 *Long...	†	1	102,102,0	4,000.0	22
11	CSXT+ 424-2800	<input type="checkbox"/>				intersection 5758	intersection 4660		23.9 *Long...	†	1	102,102,0	4,000.0	22
12	CSXT+ 4566-817	<input type="checkbox"/>				intersection 5047	intersection 5001		30.6 *Long...	†	1	102,102,0	2,000.0	22
13	CSXT+ 4753-486	<input type="checkbox"/>				intersection 4660	intersection 4661		36.4 *Long...	†	1	102,102,0	4,000.0	22
14	CSXT+ 4755-2566	<input type="checkbox"/>				intersection 4661	intersection 5933		14.6 *Long...	†	1	102,102,0	4,000.0	22
15	CSXT+ 4758-1216	<input type="checkbox"/>				intersection 5414	intersection 5415		45.1 *Long...	†	1	102,102,0	4,000.0	22
16	CSXT+ 4762-1682	<input type="checkbox"/>				intersection 5758	intersection 5415		20.0 *Long...	†	1	102,102,0	4,000.0	22
17	CSXT+ 5000-3429	<input type="checkbox"/>				intersection 6383	intersection 5137		32.2 *Long...	†	1	102,102,0	4,000.0	22
18	CSXT+ 5000-SPLIT-3529	<input type="checkbox"/>				intersection 6383	intersection 4809		17.4 *Long...	†	1	102,102,0	4,000.0	22
19	CSXT+ 799-2651	<input type="checkbox"/>				intersection 6214	intersection 5945		3.5 *Long...	†	1	102,102,0	4,000.0	22
20	CSXT+ 802-2589	<input type="checkbox"/>				intersection 5742	intersection 5080		58.6 *Long...	†	1	102,102,0	4,000.0	22
21	CSXT+ 813-314	<input type="checkbox"/>				intersection 4429	intersection 4430		77.8 *Long...	†	1	102,102,0	4,000.0	22
22	CSXT+ 852-671	<input type="checkbox"/>				intersection 4882	intersection 4883		45.5 *Long...	†	1	102,102,0	4,000.0	22
23	GSWR 5496-1415	<input type="checkbox"/>				intersection 5317	intersection 5563		3.7 *Long...	†	1	102,102,0	2,000.0	22
24	NS 3980-2995	<input type="checkbox"/>				intersection 4737	intersection 5208		8.0 *Long...	†	1	102,102,0	2,000.0	22
25	NS 3982-648	<input type="checkbox"/>				intersection 4858	intersection 4737		2.3 *Long...	†	1	102,102,0	2,000.0	22
26	NS 3983-3891	<input type="checkbox"/>				intersection 6281	intersection 4858		1.8 *Long...	†	1	102,102,0	2,000.0	22
27	NS 4572-3712	<input type="checkbox"/>				intersection 5137	intersection 4200		19.1 *Long...	†	1	102,102,0	2,000.0	22
28	NS 4575-2378	<input type="checkbox"/>				intersection 4200	intersection 6064		25.0 *Long...	†	1	102,102,0	2,000.0	22
29	NS 5010-2275	<input type="checkbox"/>				intersection 6064	intersection 4451		31.4 *Long...	†	1	102,102,0	2,000.0	22
30	NS 5012-2937	<input type="checkbox"/>				intersection 4451	intersection 5273		19.3 *Long...	†	1	102,102,0	2,000.0	22
31	NS 524-3407	<input type="checkbox"/>				intersection 5084	intersection 5317		2.1 *Long...	†	1	102,102,0	2,000.0	22
32	NS 793-2934	<input type="checkbox"/>				intersection 6281	intersection 6214		2.6 *Long...	†	1	102,102,0	2,000.0	22
33	NS 847-853	<input type="checkbox"/>				intersection 5084	intersection 4658		32.4 *Long...	†	1	102,102,0	2,000.0	22
34	RAIL LINK - 5695-3749	<input type="checkbox"/>				HCMC intersection	intersection 5563		1.2 *Long...	†	1	102,102,0	2,000.0	22
35	rail 1	<input type="checkbox"/>				QTUP intersection	intersection 4563		0.4 *Long...	†	1	102,102,0	2,400.0	48
36	QTUP VIRTUAL RAIL LINK	<input type="checkbox"/>				MOREHEAD CITY - QTU...	QTUP intersection	ø37	0.0 *Long...	†	1	102,102,0	Maximum	Maximu
37	HCMC VIRTUAL RAIL LINK	<input type="checkbox"/>				FT BENNING - HCMC-AIN	HCMC intersection	ø13	0.0 *Long...	†	1	102,102,0	Maximum	Maximu

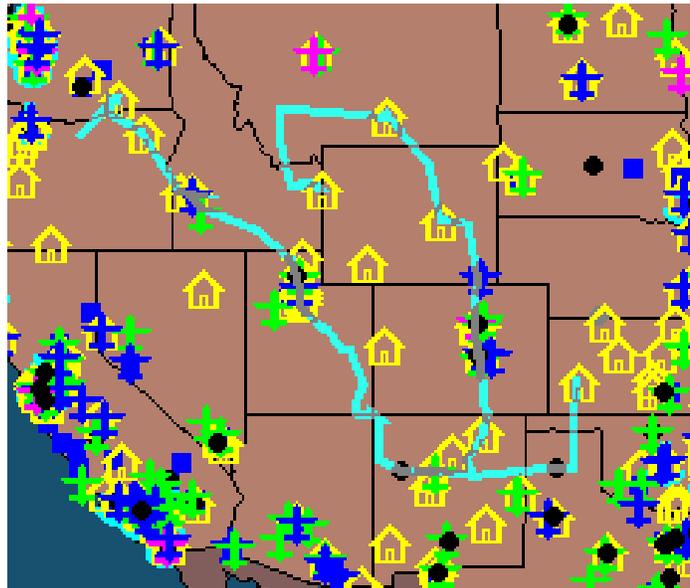
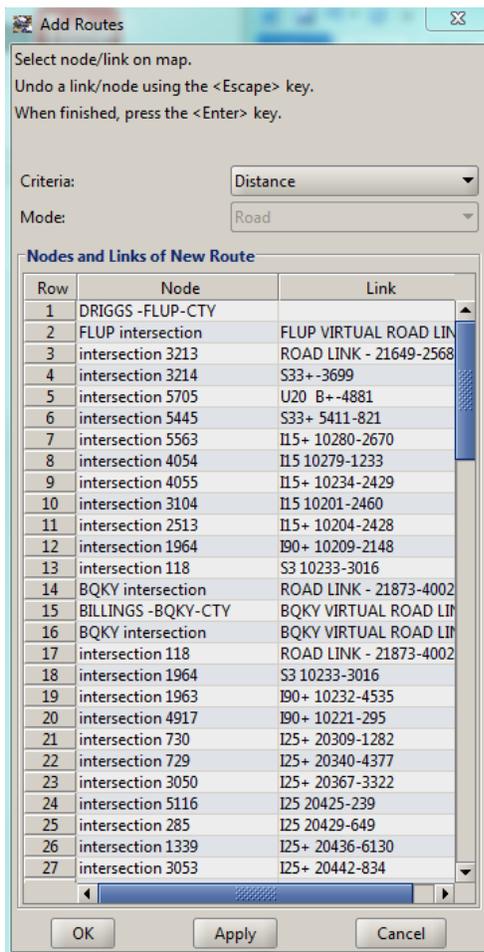
5.2 Adding a Route

1. In the **Setup** tab, click on the **Theater Network** → **Routes** option. From the **Routes** table, you can change the source, priority, and preferences or you can mark a route as a user route. To edit the links in the route, continue through the steps that follow.
2. Open the **map** in a new window by clicking on the arrow on the **Setup Map** tab. Zoom to the area that interests
3. Check the **Show On Map** checkboxes for the first 15 **CONUS** routes.
4. Click on the globe icons next to all of the routes in the **Theater Network** section of the editors panel.



Also click on the globe icon next to the **Nodes** option in the same area.

5. On the **Routes** panel, select the + (plus sign) button to create a new route. The **Add Routes** dialog box will appear.
6. Ensure that the correct **Criteria** and **Mode** are selected; keep the Criteria option as **Distance** and the Mode option as **Road**.
7. Select the origin of the route (for example, **DRIGGS –FLUP-CTY**).
8. Select either a node, an intersection, or a link that is going in the direction.
9. Repeat step 8 until the complete route is highlighted.

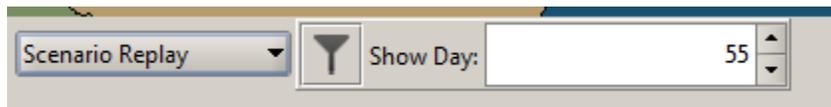


8. Select **OK**.
9. The new route will be included in the routes panel. Note that the source is now **User (Distance)**.
10. Click on the new route in the routes table. The route will be highlighted in the map.

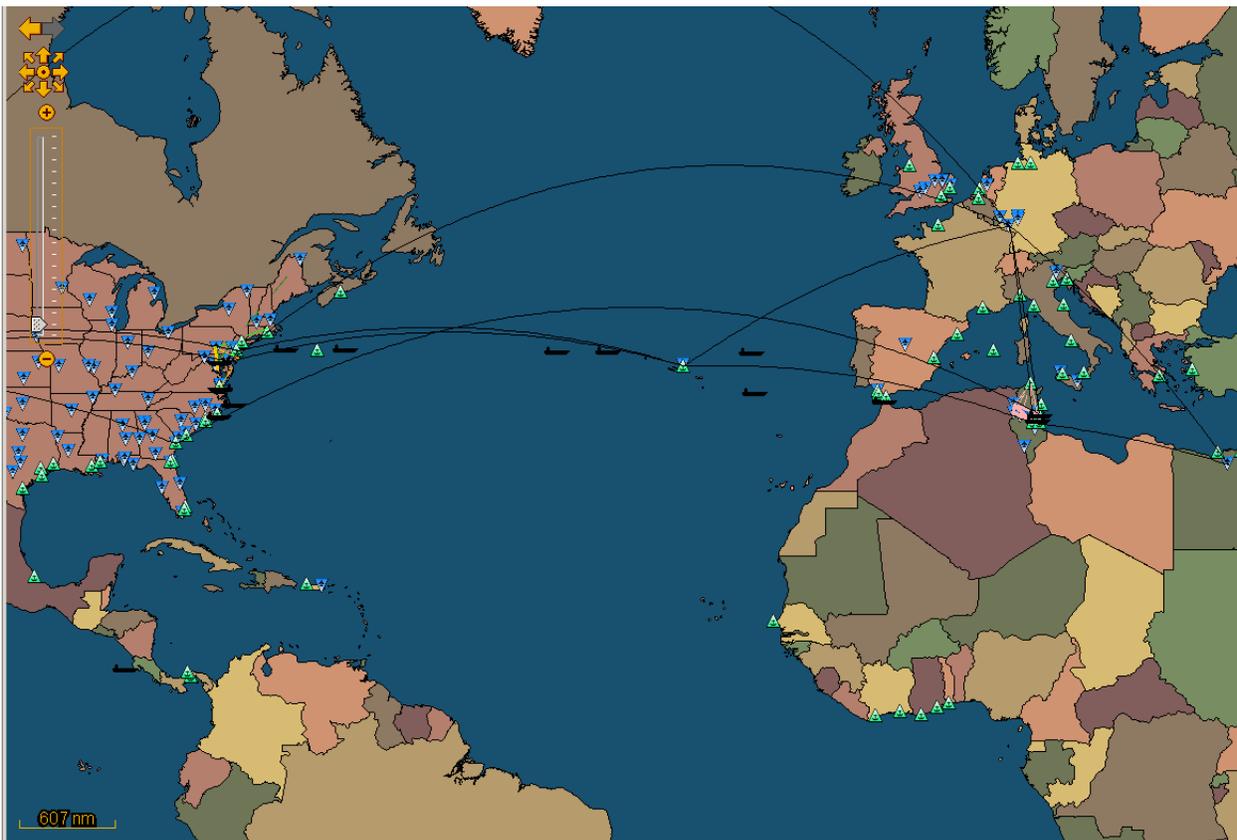
6 Viewing Route Information

After a run has completed, it can be useful to look at the movement along the routes. To view a specific day's activity, follow these steps:

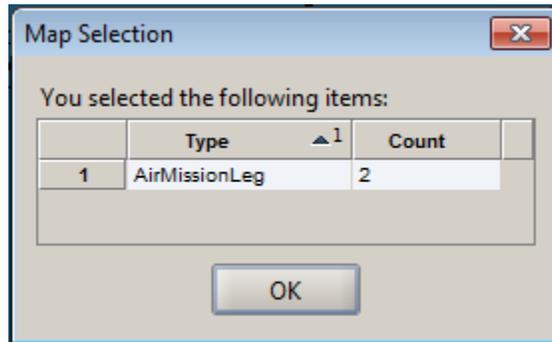
1. After a run has finished, navigate to the Run tab.
2. At the bottom of the page, there is a box with a drop-down arrow. Select **Scenario Replay**.
3. Then in the box nearby, select to show a day earlier in the run (for example, Day 55).



4. The map will then display the movement activities for the selected day.



- Click on one of the routes. This will create a pop-up window displaying the route type and quantity of activity.

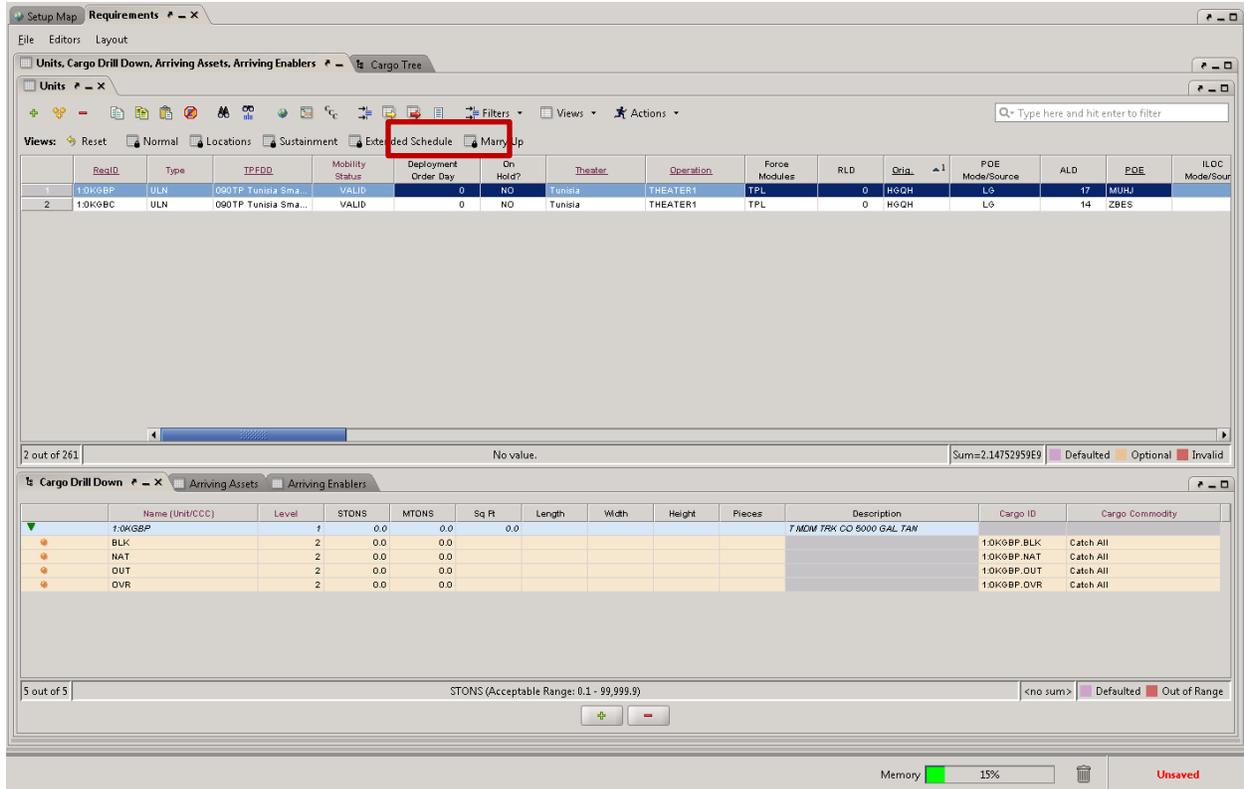


- Double click on the activity type (for example, AirMissionLeg) to view the associated movement data. For the example, the AirMissionLeg Viewer identifies the aircraft type, start location mission time, end location and number of RLNs, full or partial included in the movement.

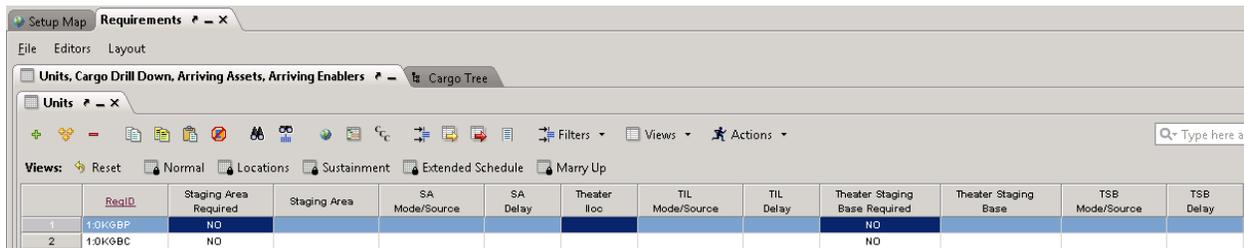
Tail Number	Mission Id	Start Time	Start GEO	Start Location	Start Purpose	End Time	End GEO	End Location	End Purpose	Total Crew Rest Time	Cargo
1 B747-400-XDAT008	B747-400-XDAT008-D...	55.4	LEXG	HUNTER AAF	LOAD	55.8	FUQN	THYNA-EL MAOU	UNLOAD		2
2 B747-400-XDAT013	B747-400-XDAT013-D...	56.0	LEXG	HUNTER AAF	LOAD	56.4	FUQN	THYNA-EL MAOU	UNLOAD		1

- Zoom into the eastern portion of the United States. Different types of routes will be shown. Routes shown by lines consisting of shorter dashes are rail routes; lines with longer dashes are road routes. The color of each line represents the color assigned to the asset pool that is traveling on the route. Wider lines indicate that the object traveling has cargo, while narrower lines mean it is being repositioned. Solid black lines are air routes.





5. Scroll to the right in the Requirements table to view the **Staging Area Required** and **Theater Staging Base Required** fields.



6. Double click in the **Staging Area Required** field for **ReqID 1:0K9BC** to change from the default “NO” to “YES.”
7. Enter the GEOLOC code HNTM in the **Staging Area** field, change **SA Mode/Source** to **PA - Mode Source Optional** and enter **2.0** for **SA Delay**. This tells the model to stage inbound cargo for this movement requirement at a specific location (in this case, Gabes City), to move it to the Staging Area by any means (model defined), and to hold the cargo there for two days after either more than 90% or 100% of the cargo has arrived.

	ReqID	Staging Area Required	Staging Area	SA Mode/Source	SA Delay
1	1:0KGBP	NO			
2	1:0KGBC	YES	HNTM	PA	2.0

8. Double click in the **Theater Staging Base Required** field and select **YES** for both ReqID **1:0KGBP** and ReqID **1:0KGBC**.
9. For both ReqIDs, enter the GEOLOC **NWXN** for the **Theater Staging Base** field and **PA** for the **TSB Mode/Source** field (TSB = Theater Staging Base).
10. Set the delay for the **TSB Delay** field for **1:0KGBC** at **2.0** days, and set the **TSB Delay** field for **1:0KGBP** at **10.0** days.

	ReqID	Staging Area Required	Staging Area	SA Mode/Source	SA Delay	Theater Iloc	TIL Mode/Source	TIL Delay	Theater Staging Base Required	Theater Staging Base	TSB Mode/Source	TSB Delay
1	1:0KGBP	NO							YES	NWXN	PA	10.0
2	1:0KGBC	YES	HNTM	PA	2.0				YES	NWXN	PA	2.0

11. In the views ribbon, click the **Marry Up** button.

	ReqID	Staging Area Required	Staging Area	SA Mode/Source	SA Delay	Theater Iloc	Mod
1	1:0KGBP	NO					
2	1:0KGBC	YES	HNTM	PA	2.0		

12. In the **Marry Up** editor, double click in the **Marry Up Flag** field for both ReqIDs so that they read **YES**.
13. For **DST Marry Up**, select **NO** for both ReqIDs.

- Click in the **TSB Marry Up** field and select **BEFORE DELAY** for **1:0KGBP** and **AFTER DELAY** for **1:0KGBC**. This simulates cargo arriving and receiving a PM (preventive maintenance) check before marrying up with unit personnel, and it simulates the unit conducting training operations with its equipment before intra-theater deployment.

ReqID	Marry Up Flag	POD Marry Up	SA Marry Up	TSB Marry Up	DST Marry Up
1	1:0KGBP	YES	No	No	BEFORE DELAY
2	1:0KGBC	YES	No	No	AFTER DELAY

- Run the scenario. Once it is done, navigate to RLN results and select ReqIds 1:0KGBP and 1:0KGBC. Click on the Display RLN History button above the table to display the RLN History for 1:0KGBC (first screen that follows) and the RLN History for 1:0KGBP (second screen). Note that upon its arrival at the POD, cargo moves to the Staging Area (SA) and Theater Staging Base (TSB). Note also that passengers move through the TSB.

RLN History - 1:0KGBC

Cargo #	Time	Required	Event	Location	Prev Ev
1	00:00	0.0	Available	FT LEE-HIGH-AIN	-1
2	00:00	22.0	Get FOB Move Request	FT LEE-HIGH-AIN	6051
3	00:00	14.0	Assign mode Road for move from FT LEE-HIGH-AIN to WILMINGTON-CBES	FT LEE-HIGH-AIN	10068
4	00:00	14.0	Scheduled Commercial Bus (1:0) position ramp-D	FT LEE-HIGH-AIN	10069
5	00:07	14.0	Assigned vehicle	FT LEE-HIGH-AIN	11173
6	00:28	14.0	Road Onloading	FT LEE-HIGH-AIN	10071
7	00:28	14.0	Train Arrival (Commercial Bus (1:0) bus)	WILMINGTON-CBES-PAT	10044
8	00:28	14.0	Train Arrival (Commercial Bus (1:0) bus)	WILMINGTON-CBES-PAT	10045
9	00:28	14.0	Road Onloading	WILMINGTON-CBES-PAT	23003
10	00:28	21.0	Ship Onload - SCHEDULED EXPRESS	WILMINGTON-CBES-PAT	10044
11	00:28	21.0	Ship Onload	WILMINGTON-CBES-PAT	10045
12	00:28	21.0	Ship Annual	GABES-HNTM-PAT	10046
13	00:28	21.0	Ship Onload	GABES-HNTM-PAT	10047
14	00:28	21.0	Ship Onload - SCHEDULED EXPRESS	GABES-HNTM-PAT	10048
15	00:28	21.0	Ship Onload	GABES-HNTM-PAT	10049
16	00:28	21.0	Assign mode Road for move from GABES-HNTM-CTY to MADANYN	GABES-HNTM-PAT	10050
17	00:28	22.0	Assign mode Road for move from GABES-HNTM-CTY to MADANYN	GABES-HNTM-PAT	20001
18	00:28	22.0	Scheduled Commercial 10 Ton Tractor/Commercial Scheduling (1:0)	GABES-HNTM-PAT	20002
19	00:28	22.0	Scheduled Commercial 10 Ton Tractor/Commercial Scheduling (1:0)	GABES-HNTM-PAT	20003
20	00:28	22.0	Scheduled Commercial 10 Ton Tractor/Commercial Scheduling (1:0)	GABES-HNTM-PAT	20004
21	00:28	22.0	Scheduled M1074 PLS (1:0) bus BICERTE DD ramp-D	JAOB11	20005
22	00:28	22.0	Assigned vehicle	GABES-HNTM-PAT	20006
23	00:28	22.0	Road Onloading	GABES-HNTM-PAT	20007
24	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	GABES-HNTM-PAT	20008
25	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	GABES-HNTM-CTY	20009
26	00:28	22.0	Entering Node (Commercial 10 Ton Tractor/Commercial Scheduling) 143	GABES-HNTM-CTY	20010
27	00:28	22.0	Road Onloading	GABES-HNTM-CTY	20011
28	00:28	22.0	Assigned vehicle	GABES-HNTM-CTY	20012
29	00:28	22.0	Road Onloading	GABES-HNTM-CTY	20013
30	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	GABES-HNTM-CTY	20014
31	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20015
32	00:28	22.0	Entering Node (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20016
33	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20017
34	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20018
35	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20019
36	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20020
37	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20021
38	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20022
39	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20023
40	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20024
41	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20025
42	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20026
43	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20027
44	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20028
45	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20029
46	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20030
47	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20031
48	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20032
49	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20033
50	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20034
51	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20035
52	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20036
53	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20037
54	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20038
55	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20039
56	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20040
57	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20041
58	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20042
59	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20043
60	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20044
61	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20045
62	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20046
63	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20047
64	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20048
65	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20049
66	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20050
67	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20051
68	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20052
69	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20053
70	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20054
71	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20055
72	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20056
73	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20057
74	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20058
75	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20059
76	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20060
77	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20061
78	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20062
79	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20063
80	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20064
81	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20065
82	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20066
83	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20067
84	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20068
85	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20069
86	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20070
87	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20071
88	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20072
89	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20073
90	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20074
91	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20075
92	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20076
93	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20077
94	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20078
95	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20079
96	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20080
97	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20081
98	00:28	22.0	Road Onloading (Commercial 10 Ton Tractor/Commercial Scheduling) 143	MADANYN-INNOV-AFD	20082
99	00:28	22.0	Assigned vehicle	MADANYN-INNOV-AFD	20083
100	00:28	22.0	Road Onloading	MADANYN-INNOV-AFD	20084

RLN History - 1:0KGBP

Cargo #	Time	Required	Event	Location	Prev Ev
1	00:00	0.0	Available	FT LEE-HIGH-AIN	-1
2	14:00:00	22.0	Get FOB Move Request	FT LEE-HIGH-AIN	1948
3	14:00:00	17.0	Assign mode Road for move from FT LEE-HIGH-AIN to LANOLLEY AFB-MUH-	FT LEE-HIGH-AIN	21892
4	14:00:00	17.0	Scheduled Commercial Bus (45-pac (1:0) 777777) position ramp-D	FT LEE-HIGH-AIN	22207
5	16:12:13	17.0	Assigned vehicle	FT LEE-HIGH-AIN	22206
6	16:12:13	17.0	Road Onloading	FT LEE-HIGH-AIN	20730
7	16:00:11	17.0	Road Departure (Commercial Bus (45-pac (1:0) BICERTE DD)	FT LEE-HIGH-AIN	20740
8	16:00:09	17.0	Road Arrival (Commercial Bus (45-pac (1:0) BICERTE DD)	LANOLLEY AFB-MURKUMAP	34027
9	16:00:09	17.0	Entering Node (Commercial Bus (45-pac (1:0) BICERTE DD)	LANOLLEY AFB-MURKUMAP	34023
10	16:00:09	17.0	Road Onloading	LANOLLEY AFB-MURKUMAP	34025
11	16:00:09	17.0	Road Onloading	LANOLLEY AFB-MURKUMAP	34031
12	16:00:09	21.0	Assign mode Road for move from GABES-HNTM-APT to MADANYN	GABES-HNTM-APT	40094
13	16:00:09	22.0	Assign mode Road for move from MADANYN-INNOV-AFD to GABES-HNTM-APT	GABES-HNTM-APT	40708
14	16:00:09	22.0	Assign mode Road for move from MADANYN-INNOV-AFD to GABES-HNTM-APT	GABES-HNTM-APT	40708
15	16:00:09	22.0	Scheduled Commercial Bus (45-pac (1:0) BICERTE DD ramp-D	GABES-HNTM-APT	46025
16	16:00:09	22.0	Assigned vehicle	GABES-HNTM-APT	46025
17	16:00:09	22.0	Road Onloading	GABES-HNTM-APT	46025
18	16:00:09	22.0	Road Departure (Commercial Bus (45-pac (1:0) BICERTE DD)	GABES-HNTM-APT	46025
19	16:00:09	22.0	Road Arrival (Commercial Bus (45-pac (1:0) BICERTE DD)	MADANYN-INNOV-AFD	46025
20	16:00:09	22.0	Entering Node (Commercial Bus (45-pac (1:0) BICERTE DD)	MADANYN-INNOV-AFD	46025
21	16:00:09	22.0	Road Onloading	MADANYN-INNOV-AFD	46025
22	16:00:09	22.0	Marry up - 1:0KGBP	MADANYN-INNOV-AFD	46025
23	16:00:09	22.0	Road Arrival (Commercial Bus (45-pac (1:0) BICERTE DD ramp-D	MADANYN-INNOV-AFD	46025
24	16:00:09	22.0	Delay until	MADANYN-INNOV-AFD	46025
25	16:00:09	22.0	Assigned vehicle	MADANYN-INNOV-AFD	46025
26	16:00:09	22.0	Road Onloading	MADANYN-INNOV-AFD	46025
27	16:00:09	22.0	Road Departure (Commercial Bus (45-pac (1:0) BICERTE DD)	MADANYN-INNOV-AFD	46025
28	16:00:09	22.0	Road Arrival (Commercial Bus (45-pac (1:0) BICERTE DD)	GABES-HNTM-CTY	140213
29	16:00:09	22.0	Entering Node (Commercial Bus (45-pac (1:0) BICERTE DD)	GABES-HNTM-CTY	140214
30	16:00:09	22.0	Road Onloading	GABES-HNTM-CTY	140214
31	16:00:09	22.0	Final Delivery	GABES-HNTM-CTY	140214



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