DATE: May 26, 1988

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
LONG ISLAND LIGHTING COMPANY	)	Docket No. 50-322-OL-3
	)	(Emergency Planning)
(Shoreham Nuclear Power Station,	)	
	)	
Unit 1)	)	
	)	

SURREBUTTAL TESTIMONY OF DAVID T. HARTGEN, Ph.D., P.E.,
ON BEHALF OF THE STATE OF NEW YORK REGARDING
HOSPITAL EVACUATION TIME ESTIMATES

I. Qualifications and Foundation

Q. Please state your name and occupation.

A. My name is David T. Hartgen. I am currently employed as a Principal Transportation Analyst with the New York State Department of Transportation.

Q. Please state your qualifications.

A. My professional qualifications are summarized on page 1 of my earlier testimony on this subject. See Direct Testimony of David T. Hartgen, Ph.D., P.E., on Behalf of the State of New York

Regarding Hospital Evacuation Time Estimates (April 13, 1988). My resume is Attachment 1 to that testimony.

Q. Please summarize the purpose of this surrebuttal testimony.

A. This surrebuttal testimony: 1) reviews and criticizes the accuracy of the computerized estimates of hospital evacuation times recently developed by LILCO (see Rebuttal Testimony of Edward B. Lieberman and Diane P. Dreikorn on the Remanded Issue of the Bases and Accuracy of LILCO's Hospital Evacuation Time Estimates (May 18, 1988) ("LILCO Rebuttal Testimony"); 2) compares those estimates with mine; and 3) challenges the narrow range of tests conducted by LILCO.

Q. Why is this surrebuttal testimony appropriate?

A. LILCO has conducted a major new analysis on the hospital evacuation time issue, which was not even made known to the State of New York until five weeks after the parties filed their initial testimony on this issue. The text of LILCO's Rebuttal Testimony appears to suggest that this new analysis was initiated in early April, 1988 and was just recently provided to the State of New York. Therefore, it would not have been possible for me to anticipate the preparation of this material at the time I filed my own testimony.

The LILCO Rebuttal Testimony contains new analyses of my scenarios, and at least one new scenario. The new analyses of my scenarios and the new scenarios tested by LILCO are based on a previously unmentioned computer program of over 3000 programming lines which, as LILCO's Rebuttal Testimony at 8 states, is of such complexity that it takes four hours to run each scenario. Further, new analyses and scenarios may contain inputs and outputs that are different from the hand calculations used by LILCO to develop the time estimates in this Plan. The State of New York should be permitted to analyze LILCO's latest effort thoroughly, and offer its comments for the Board's consideration.

II. Findings

Q. Have you reviewed LILCO's Rebuttal Testimony?

A. Yes. Specifically, I have reviewed LILCO's Rebuttal Testimony and the tables attached thereto, as submitted by LILCO on May 18; a supplemental table provided by LILCO under cover of a letter dated May 19, 1988; and underlying data and more supplemental tables provided by KLD under cover of a letter dated May 23, 1988. I also attended a deposition by Mr. Lieberman on May 25. I have reviewed those documents, but the press of time has somewhat hampered that review.

Q. Please describe your understanding of Mr. Lieberman's latest analysis.

A. Mr. Lieberman developed a more sophisticated version of the "trace" spreadsheet that I used to conduct my earlier analyses, which I reported in my initial testimony. He detailed the paths of all hospital evacuation vehicles, not just the "trace" vehicles, and purports to have considered the "interdependency of vehicle trips upon one another."[1] He also appears to have computerized the input origin-destination table and the route-distance-speed table, which were used to estimate travel times, and other inputs. He "verified" this model by checking its results against the hand calculations prepared earlier by LILCO. Then, he conducted a number of tests, roughly corresponding to several of the lower-range tests which I had prepared, and a number of other tests. He then compared his results with my results.

Q. Did Mr. Lieberman conduct his own analysis correctly?

A. There are several problems in the analysis presented in LILCO's Rebuttal Testimony. These are:

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[1]"Interdependency of vehicle trips" or "interconnection" refers to (a) tying together the runs of the same vehicle; or (b) tying together the runs of different vehicles. My simplified model considers the first type, while Mr. Lieberman's model considers both types. However, as noted below, this second type of interdependency does not materially affect the answer.

1. It is not clear whether this new model corrects for the missing patients from St. Charles Hospital, or accounts for the fact that Lydia Hall and Long Island Jewish Hospitals are not operating hospitals. No clear origin-destination table is provided. I note that Lydia Hall Hospital and Massapequa Hospital are still listed as destination hospitals by LILCO, (see Attachment 1 to LILCO's Rebuttal Testimony), although neither Lydia Hall nor Massapequa Hospital appears in the printouts. (Massapequa Hospital was originally listed in LILCO's origin-destination table and was assigned patients, even though it did not appear in the relevant pages of the LILCO Plan.)

2. Even though the vehicles are reported to be interconnected, the model's input does not confirm that. For instance, the base test shows an answer of 12.42. One of Mr. Lieberman's computer printouts (Attachment 1 hereto) shows that this time is for two vehicles leaving St. Charles Hospital (Table 1, page 4), but their prior trip was to Mather Hospital (not to the Suffolk Infirmary, as reported by LILCO in its earlier handwritten calculations). Further, the computer printout does not show how these vehicles are connected to any other vehicles; it shows only that prior runs of

these vehicles are connected to later runs.

3. A particularly serious problem is the apparent assignment of some vehicles to be at <u>two</u> locations at the same time. For instance, page 4 of Table 1 of LILCO's Rebuttal Testimony (Attachment 1 hereto) shows that the two ambulances involved in the trace left Brentwood at hr. 11.21 for the final run to St. Charles Hospital (noted as trips 46 and 45 on page 4 of Table 1). These vehicles <u>arrived at Brentwood at 10.71</u>, from trips #10 and #8. However, on p. 2 of Table 1, trips #10 and #8 are shown as <u>arriving at Good Samaritan Hospital at 10.71</u>. Therefore, the printout shows that the vehicles are in two places at the same time. This is also shown in Attachment 2 hereto, which is a drawing of the vehicles' movements. The discrepancy is shown as an identical time (10.71) at Brentwood and Good Samaritan.

There are at least three possible explanations for this phenomenon:

a. Page 2 of Table 1 is wrong, and the vehicles are actually at Brentwood at 10.71. If this is the case, the patients are also at Brentwood, and must be transported to a reception hospital. So, the trips between this reception

hospital and Brentwood are missing. This causes an error of at least 1 hour (the round-trip distance from Good Samaritan to Brentwood is about 14 miles) in the trace, and possibly in all other trips as well. In other words, the evacuation time is low by about an hour.

b. Page 4 of Table 1 is wrong, and the vehicles are at Good Samaritan at 10.71, but then are dispatched directly from there to St. Charles. This explanation is consistent with the note on the bottom of the third page of Attachment 1 hereto (that Good Samaritan is now considered a dispatch point). But, if Good Samaritan is a dispatch point, the trip from Good Samaritan to St. Charles takes 0.85 hrs (12.06-11.21) according to page 4 of Table 1, or only 0.05 hours longer than the trip from Brentwood to St. Charles according to the handwritten calculations. Since Good Samaritan, Brentwood, and St. Charles are essentially on a straight line, (see Attachment 2 hereto) this means that a trip of 7 miles is accomplished in 0.05 hours, or 3 minutes. This requires a speed of 140 mph.

c. Page 2 of Table 1 is correct. The vehicles are at Good Samaritan at 10.71 and are dispatched directly to St. Charles, but in bypassing Brentwood they save 0.33 hours reprocessing time, so the trip to St. Charles is 1.35 hours (12.06 - 10.71), according to page 4 of Table 1. If this is the case, then the unload time at Good Samaritan is missing, and page 4 of Table 1 is incorrect.

Whichever of these explanations is the correct one, it casts extreme doubt on the accuracy of this latest LILCO model. Since numbers on the trace appear to be incorrect, the other numbers cannot be trusted.

This phenomenon (a vehicle at 2 locations at the same time) also appears in Table 3 of LILCO's Rebuttal Testimony (Attachment 3 hereto). Pages 1 and 3 of Table 3 show that one ambulance (this is the ambulance involved in the longest evacuation time - the trace ambulance) is simultaneously at Brentwood and Huntington Hospital at 12.30 hours. These locations are approximately 15 miles apart. Similar examples exist in other printouts, for instance, Table 2 of Lieberman's Rebuttal Testimony. The same three explanations noted above are possible, but the point is the same - LILCO's

hasty analysis cannot be trusted.

4. The longest time for the base case (12.42) is now associated with a different trace, (i.e., a different vehicle is the last to cross the EPZ) than under the handwritten calculations, but the time is virtually identical to the previously reported time (12.40, as corrected by me). Therefore, the interconnection of vehicles, which could change the trace (if in fact interconnection has been accounted for), does not make a difference in the final answer, because another path has very similar times.

5. Mr. Lieberman's model cannot be verified in the manner stated. That verification involves only the comparison of the model outputs with the hand-calculations, not with actual vehicles run times on streets. In the language of modeling, Mr. Lieberman's tool is internally valid since it duplicates the calculations, but not externally valid since it was not verified in the field.

Q. Using this new model, Mr. Lieberman concludes that your results are not valid. What does your assessment show?

A. Mr. Lieberman asserts (LILCO Rebuttal Testimony at 2) that my earlier tests did not "properly represent the analysis and

methodology that was performed for LILCO" because my tests were "based on an invalid assumption that a trace limited to the last vehicles to evacuate patients . . . is the proper way to perform a wide variety of sensitivity studies." Mr. Lieberman's view is that since the assignment of vehicles must interconnect the vehicles, my analysis (which does not interconnect them) is invalid.

It is <u>not</u> true that my analysis did not interconnect the vehicle runs, as suggested by Mr. Lieberman. My trace model specifically connected the three runs for the two longest path vehicles, but did not interconnect these vehicle runs with other vehicle runs. I recognized this, and in fact suggested that LILCO develop such a model. My testimony was intended to assess the accuracy and bases of the evacuation times, not to develop a whole new model. Therefore, I used a simplified approach.

In criticizing my approach, LILCO's witness has apparently lost sight of the purpose of my original testimony. That purpose was to demonstrate that LILCO's original manual computations were based on a set of assumptions which might not hold true in an emergency, and that variations in those assumptions could lead to substantially different evacuation times. Thus, my trace tested other assumptions. Testing these other assumptions is important because a prudent planner would need to rely on the information that is generated from them.

Even using this simplified approach, I obtained virtually identical answers to Mr. Lieberman's analysis. Contrary to Mr. Lieberman's conclusion, I found that Mr. Lieberman's own analysis, conducted with a complex computer spreadsheet, essentially verified my estimates of evacuation times when provided with similar assumptions. This is shown in the table set forth in Attachment 4 hereto.

The table shows the following:

1. Mr. Lieberman obtained essentially the same "base" answer (12.42) as I did (12.40). The difference is 0.16%, or 1.2 minutes even though his model has a different trace.

2. Mr. Lieberman's test of my Scenario B (reduce all speeds by 3-5 mph) produces essentially the same answer (13.88) as I obtained (14.00). The difference is 0.86%, or 7.2 minutes, even though his test has a different trace.

3. Mr. Lieberman's "lower bound" test used a different set of speeds than my test used. I revised my "lower bound" test to use the same speeds as Mr. Lieberman's, and I obtained essentially the same answer (11.35) as he obtained (11.20). The difference is 1.32%, or 9.0

minutes. This is shown in Attachment 5 hereto.

4. In one case, my Scenario A (LIE 10 mph outbound, 25 inbound, other roads 15 out and 20 in), Mr. Lieberman reports a slightly different answer (14.49) than I report (14.54) but for a different trace. This is a difference of 0.34%, or 3 minutes. His description of this test (see LILCO Rebuttal Testimony at 10) is not clear to me, and it seems that he may have used some different inputs than I used.

With respect to scenario A, Mr. Lieberman argues that it is "unsupportable" to assume a LIE level-of-service F operating speed of 10 mph for the entire 12 hours (LILCO Rebuttal Testimony at 10). However, this evacuation will, in my judgment, be more congested than peak commuter hours or recreational peak hours normally experienced on Long Island, and therefore a very long congestion period is probable. In any case, prudence would dictate that it be tested; we both did so, and obtained similar answers.

5. In another case, my Scenario E (increase expressway speeds by 5 mph), Mr. Lieberman reports a result of 12.25, compared with my result of 11.38, a difference of 7.10%. He attributes the higher time to higher queueing

delays which reduce the benefits of higher speeds. Since the queue data is not shown separately in Mr. Lieberman's output, it is not possible for me to verify that this is the explanation. But if that is the case, more extensive analysis would be warranted to develop plans that would reduce the effect of queues.

6. Mr. Lieberman chose not to report tests of my high-end scenarios, dismissing them as "absurd" and "not credible." See LILCO Rebuttal Testimony at 12. A more prudent approach would have been to test them to confirm or deny my results. In fact, even though LILCO's Rebuttal Testimony at 13 states that my scenario D is not "worthy of further consideration", LILCO did test my scenario D (LIE 6 mph, others 15 mph), and obtained 18.70 hours as an evacuation time, compared with my 20.58 figure. This is reported in LILCO's Table 5, which we learned of through discovery, although Mr. Lieberman did not include it in LILCO's Rebuttal Testimony. Since LILCO declined to provide the input data for this test, it is not clear to me that these results are strictly comparable. But the comparison does show that with lower speeds, LILCO's own model produces very high hospital evacuation times.

7. Mr. Lieberman also conducted a test using

lower (than 100%) hospital occupancies for St. Charles (78.2%), John T. Mather (80.3%) and Central Suffolk (84.0%). According to Table 12, transmitted under cover of a letter dated May 19, 1988, the longest times in this test now are:

	Evac. Time
Central Suffolk Hospital	11.87
John T. Mather Hospital	11.68
St. Charles Hospital	11.81

If these times are to be believed, a roughly 20% reduction in the number of patients to be transported leads to a reduction in time of about 2/3 hour, or about 6%, compated to the baseline test. The tests show, apparently, that the evacuation of hospitals is so low in priority (4th) that even a significant reduction in the number of patients to be evacuated still results in the use of almost 12 hours to evacuate the hospital patients.

This new model still assumes a fixed origin-destination table, that is, it presumes that no changes will be made in the assignment of evacuating patients from evacuating hospitals to reception hospitals, once the evacuation starts. In my prior testimony I expressed concern about this apparent rigidity and my concern that it could lead to vehicles being assigned to full hospitals.

In addition, the new model contains a new origin-destination table, that has been revised from the one used in the hand calculations. The new table (1) does not contain any bus trips (a total of 164 patients were previously transported by bus) (2) appears to have dropped the use of Brunswick, Central General, Middle Island, Massapequa, Nassau Co. Medical Center, Hempstead, Lydia Hall, Mercy, Nassau, South Nassau Community and St. Francis Hospitals. In the prior table these hospitals received 527 patients. It is not clear where these patients are assigned now. The new origin-destination table appears to use only the closest hospitals, thereby shortening the travel distances and the evacuation times.

Even though Mr. Lieberman used a more sophisticated model than I used, and the models are built on slightly different assumptions, he obtained essentially the same answers for 3 of the 4 tests he compared, and the remaining test apparently has different inputs; and one other test may have different inputs.

Q. What does this mean?

A. It means that Mr. Lieberman's model demonstrates, as my trace method demonstrates, that hospital evacuation times are highly sensitive to assumptions about travel speeds.

Q. Given that, what is your opinion of the overall conclusion by

Q. Given that, what is your opinion of the overall conclusion by Mr. Lieberman (see LILCO Rebuttal Testimony at 17) that ". . . the ETE's exhibit a relatively narrow envelope of uncertainty, in the neighborhood of plus or minus 12 percent"?

A. Mr. Lieberman's overall conclusion is unsound because it is based on a limited sensitivity analysis of a narrow range of inputs. It is not surprising, therefore, that he obtained a narrow range of outputs. When he tested other scenarios corresponding to my tests that result in longer evacuation times, he also obtained a wider range of answers, up to almost 19 hours. This of course assumes that the individual tests are accurate, which as noted above, cannot be verified.

In other words, the narrow range of assumptions inputted by Mr. Lieberman produced the narrow range of outputs. It is important that the Board understand that the "accuracy and bases" of the hospital evacuation time estimates are not thoroughly assessed by this limited set of tests.

Q. What is the practical usefulness of Mr. Lieberman's new analysis?

A. At this time, very little. First, the hospital evacuation time estimates in the LILCO Plan are based on LILCO's manual calculations, and do not reflect any of the sensitivity analyses

which LILCO and the State of New York have subsequently conducted. Thus, the Plan still has only limited usefulness as a tool for emergency responders because the estimates stated in the Plan are based on only one set of assumptions. If the conditions actually existing in an emergency are different than those LILCO has assumed in its Plan, then the estimates will not be useful in choosing protective actions in a real emergency.

Second, it is unclear whether Mr. Lieberman intended his model to assist in choosing hospital protective actions at the time of an emergency, based on inputs reflecting conditions (traffic speeds, etc.) actually existing at the time of an emergency. If so, his model is inadequate because, according to his testimony, it takes four hours to run one scenario. There may not be the luxury of that much time during a real emergency.

Q. What other comments do you have?

A. LILCO's Rebuttal Testimony does not address many of the other concerns raised by the State of New York in its testimony. These include:

1. Concerns about the number of patients being evacuated.
2. Concerns about route assignments.
3. Concerns about full reception hospitals.
4. Concerns about closed or unlisted reception hospitals.

5. Concerns about routed distances.
6. Concerns about directions to drivers.
7. Concerns about the failure to communicate with vehicles en route.
8. Concerns about apparently very long travel distances for residents of Central Suffolk Hospital.
9. Concerns about vehicle speeds.
10. Concerns about operating speed on the Long Island Expressway.

These issues are more than just "discrepancies." LILCO's Rebuttal Testimony leaves these considerations unaddressed.

In conclusion, the Board still cannot have confidence in the accuracy and bases of the hospital evacuation times because the tests conducted so far have numerous apparent internal problems, are too narrow in input range, and too many other important issues have not been addressed.

III. Summary

Q. Please summarize your findings.

A. Mr. Lieberman's new analysis is based on a new computer model that has not been subjected to close scrutiny. A preliminary scan suggests it does not interconnect vehicles as reported.

The tests appear to have vehicles in two places at once, a serious defect. And, some of the model's basic inputs appear to have been changed.

Nevertheless, the new model produces essentially the same results, for comparable inputs, as does my trace approach. Therefore, rather than rendering my results invalid, it renders them valid.

The range of tests reported for the new model is narrow, and therefore the range of outputs is narrow. A wider range of inputs, when tested, did in fact produce a wider range of outputs, up to 19 hours.

LILCO's Rebuttal Testimony does not address numerous other concerns expressed by the State of New York in its initial testimony.

In summary, LILCO's Rebuttal Testimony does not address the State of New York's concerns about the "accuracy and bases of hospital evacuation times." The State of New York's conclusion that the evacuation times are unreliable is therefore unchanged.

Q. Does that conclude your testimony?

A. Yes.

ATTACHMENT 1

FACILITY	CODE NAME
Association for the Help of Retarded Children (AHRC)	
Robert Sansone ICF	ARS
Work Activities Center	AWA
Residence	AHR
Little Flower Children Services	
Institution	LFI
Institution, ICF	LCF
Options for Community Living	OCL
Maryhaven Center of Hope	
Community Residence	MCR
Hostel II	M2H
Hostel III	M3H
ICF Facility	MCF
Hostel IV	M4H
Self 1-6 Apartments	MSA
CSS Continuing Treatment	MCS
Day Residential School	MDR
Our Lady of Perpetual Help Convent	OLP
United Cerebral Palsy of Greater Suffolk	
Residence: 442 Randall Road	UCR
Residence: 6 Hemlock Road	UCH
Ridge SOICF	RCF
Ridge Rest Home	RRH
Independent Group Home Living (IGHL)	
West Shore Road	IWS
Longwood Road	ILO
Woodland Avenue	IWO
Chapman Blvd.	ICH
Woodhaven Nursing Home and Home for Adults	WHN
Oak Hollow Nursing Center and Crest Hall Health Related Facility	OKH
Gordon Heights SOICF	GHS
Millcrest Adult Home	MAH

FACILITY	CODE NAME
Timothy Hill Children's Ranch	THR
Riverhead Nursing Home and Health Related Facility	RNH
Sunrest Health Facilities, Inc.	SNR
St. Charles Preschool	SCP
Preschoolers Place of Learning	PPL
BOCES Learning Center	BOC
Homebound Handicapped	HHC
Hospitals	
Suffolk Infirmary	HSI
Central Suffolk Hospital & Nursing Home	HCS
St. Charles Hospital	HSC
John T. Mather Memorial Hospital	HJM

Reception (Host) Facilities	Code Name
Lilco Patchogue District Office	HP
LIDC 133 Carmans Rd., Melville	HM
LaSalle Military Academy	HL
Lilco 300, Wheeler Rd.	HW
IGHL, Day Treatment Center, East Moriches	HI
Lilco Melville	HC

Reception Hospitals	
Smithtown General Hospital	HSGH
St. John's Episcopal Hospital	HSTJ
Southside Hospital	HSSH
Veterans Admin. Medical Center	HVAH
Southhampton Hospital	HSHH
Huntington Hospital	HHHH
Massapequa General Hospital	HMGH
Nassau County Medical Center	HNCM
Hemstead General Hospital	HHGH
Lydia Hall Hospital	HLHH
Good Samaritan Hospital	HGSH
Brunswick General Hospital	HBWH
Central General Hospital	HCGH
Mid-Island Hospital	HMIH
Mercy Hospital	HMCH
Nassau Hospital	HNSH

Monitering Centers	
Patchogue District Office	MP
Brentwood Operation Center	MB
Riverhead Operation Center	MR

Dispatch Points	
Brentwood District Office	BR
Peconic Ambulance	PE
Patchoque Operation Center	PA
Facility Supplied All Transportation	XX
Southhampton Hospital	SH
Huntington Hospital	HH
Good Samaritan Hospital	GH
Veteran's Admin. Medical Center	VH

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
		1	GHS	1	2	BR	0.33	0.83	1.69	2.11	2.64	MB	4.16	4.41	MW	4.49	4.91	BR	5.08
		1	GHS	2	2	BR	0.33	0.83	1.69	2.11	2.64	MB	4.16	4.41	MW	4.49	4.91	BR	5.08
		1	GHS	3	2	BR	0.33	0.83	1.69	2.11	2.64	MB	4.16	4.41	MW	4.49	4.91	BR	5.08
		1	GHS	4	2	BR	0.33	0.83	1.69	2.11	2.64	MB	4.16	4.41	MW	4.49	4.91	BR	5.08
GHS	4	2	HCS	10	2	BR	5.08	5.58	6.68	7.10	7.10	-			-			-	NA
GHS	2	2	HCS	9	2	BR	5.08	5.58	6.68	7.10	7.10	-			-			-	NA
GHS	3	2	HCS	8	2	BR	5.08	5.58	6.68	7.10	7.10	-			-			-	NA
OKH	11	2	HCS	14	2	BR	5.89	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	12	2	HCS	11	2	BR	5.87	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	14	2	HCS	15	2	BR	5.89	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	13	2	HCS	12	2	BR	5.89	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	15	2	HCS	13	2	BR	5.89	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	16	2	HCS	16	2	BR	5.89	6.39	7.32	7.74	7.74	-			-			-	NA
OKH	3	2	HCS	2	1	BR	6.13	6.63	7.56	7.89	7.89	-			-			HSHH	8.81
OKH	4	2	HCS	1	1	BR	6.13	6.63	7.56	7.89	7.89	-			-			HSHH	8.81
SHL	9	2	HCS	3	1	BR	6.22	6.72	7.66	7.99	7.99	-			-			HSHH	8.91
OKH	21	2	HCS	18	2	BR	6.31	6.81	7.74	8.16	8.16	-			-			-	NA
OKH	22	2	HCS	17	2	BR	6.31	6.81	7.74	8.16	8.16	-			-			-	NA
OKH	8	2	HCS	5	1	BR	6.46	6.96	7.89	8.22	8.22	-			-			HSHH	9.14
OKH	6	2	HCS	4	1	BR	6.46	6.96	7.89	8.22	8.22	-			-			HSHH	9.14
OKH	7	2	HCS	6	1	BR	6.46	6.96	7.89	8.22	8.22	-			-			HSHH	9.14
SNK	14	2	HCS	19	2	BR	6.41	6.91	7.85	8.27	8.27	-			-			-	NA
HSI	27	2	HCS	7	1	BR	8.18	8.68	9.61	9.94	9.94	-			-			HSHH	10.67
HSI	37	3	HCS	21	1	SH	8.63	9.13	9.94	10.27	10.27	-			-			HSHH	11.19
HSI	36	3	HCS	20	1	SH	8.63	9.13	9.94	10.27	10.27	-			-			HSHH	11.19
HCS	1	3	HCS	22	1	SH	8.81	9.31	10.12	10.45	10.45	-			-			HSHH	11.39
HCS	4	3	HCS	24	1	SH	9.14	9.64	10.45	10.78	10.78	-			-			HSHH	11.71
HCS	5	3	HCS	23	1	SH	9.14	9.64	10.45	10.78	10.78	-			-			HSHH	11.71
HSI	38	3	HCS	25	1	SH	9.24	9.74	10.54	10.87	10.87	-			-			HSHH	11.80
HSI	55	3	HCS	26	1	BR	9.95	10.45	11.39	11.72	11.72	-			-			HSSH	NA
HSI	49	3	HCS	28	1	BR	9.95	10.45	11.39	11.72	11.72	-			-			HSSH	NA
HSI	53	3	HCS	27	1	BR	9.95	10.45	11.39	11.72	11.72	-			-			HSSH	NA
HSI	56	3	HCS	29	1	BR	10.23	10.73	11.66	11.99	11.99	-			-			HSSH	NA
HSI	57	3	HCS	30	1	BR	10.28	10.78	11.72	12.05	12.05	-			-			HSSH	NA
HSI	63	3	HCS	31	1	BR	10.28	10.78	11.72	12.05	12.05	-			-			HSSH	NA
HJM	9	3	HCS	35	1	SH	10.71	11.21	12.02	12.35	12.35	-			-			HSSH	NA
HSI	64	3	HCS	34	1	BR	10.61	11.11	12.05	12.38	12.38	-			-			HSSH	NA
HSI	60	3	HCS	33	1	BR	10.61	11.11	12.05	12.38	12.38	-			-			HSSH	NA
HSI	65	3	HCS	32	1	BR	10.61	11.11	12.05	12.38	12.38	-			-			HSSH	NA
		1	HHC	3	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.97	5.30	-			BR	6.01
		1	HHC	1	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.97	5.30	-			BR	6.01
		1	HHC	2	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.97	5.30	-			BR	6.01
		1	HHC	5	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.97	5.30	-			BR	6.01
		1	HHC	4	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.97	5.30	-			BR	6.01
		1	HHC	9	1	PE	0.25	0.75	2.02	2.60	3.93	HSTJ	5.18	5.51	-			PE	6.22
		1	HHC	8	1	PE	0.25	0.75	2.02	2.60	3.93	HSTJ	5.30	5.63	-			PE	6.34

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
		1	NHC	12	1	BR	0.25	0.75	2.06	2.64	3.97	HSTJ	5.63	5.96	-			BR	6.59
		1	NHC	8	1	BR	0.25	0.75	2.06	2.64	3.97	HSTJ	5.63	5.96	-			BR	6.59
		1	NHC	10	1	BR	0.25	0.75	2.06	2.64	3.97	HSTJ	5.63	5.96	-			BR	6.59
		1	NHC	7	1	BR	0.25	0.75	2.06	2.64	3.97	HSTJ	5.84	6.17	-			BR	6.69
		1	NHC	11	1	BR	0.25	0.75	2.06	2.64	3.97	HSTJ	5.63	5.96	-			BR	6.59
		1	NHC	13	1	BR	0.50	1.00	2.31	2.89	4.22	HSTJ	5.96	6.29	-			BR	6.75
		1	NHC	17	2	PE	0.00	0.50	1.77	3.19	4.52	HSGH	5.68	6.10	-			BR	6.52
		1	NHC	18	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	6.10	6.52	-			BR	6.74
		1	NHC	19	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	6.14	6.56	-			BR	6.78
		1	NHC	14	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	5.72	6.14	-			BR	6.56
		1	NHC	21	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	6.14	6.56	-			BR	6.78
		1	NHC	22	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	5.72	6.14	-			BR	6.54
		1	NHC	15	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	5.72	6.14	-			BR	6.54
		1	NHC	16	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	5.72	6.14	-			BR	6.54
		1	NHC	20	2	BR	0.00	0.50	1.81	3.23	4.56	HSGH	5.72	6.14	-			BR	6.54
WHH	10	2	HJM	14	2	BR	5.73	6.23	7.06	7.48	7.49	-			-			-	NA
WHH	7	2	HJM	11	2	BR	5.73	6.23	7.06	7.48	7.49	-			-			-	NA
WHH	12	2	HJM	13	2	BR	5.73	6.23	7.06	7.48	7.49	-			-			-	NA
WHH	8	2	HJM	12	2	BR	5.73	6.23	7.06	7.48	7.49	-			-			-	NA
OKH	19	2	HJM	16	2	BR	6.31	6.81	7.64	8.06	8.07	-			-			-	NA
OKH	17	2	HJM	17	2	BR	6.31	6.81	7.64	8.06	8.07	-			-			-	NA
OKH	18	2	HJM	15	2	BR	6.31	6.81	7.64	8.06	8.07	-			-			-	NA
OKH	20	2	HJM	18	2	BR	6.31	6.81	7.64	8.06	8.07	-			-			-	NA
OKH	10	2	HJM	1	1	BR	6.46	6.96	7.79	8.12	8.13	-			-			MGSH	9.32
OKH	9	2	HJM	2	1	BR	6.46	6.96	7.79	8.12	8.13	-			-			MGSH	9.32
NCF	1	2	HJM	20	2	BR	6.42	6.92	7.76	8.18	8.19	-			-			-	NA
NCF	2	2	HJM	19	2	BR	6.42	6.92	7.76	8.18	8.19	-			-			-	NA
HSI	6	2	HJM	3	1	BR	6.53	7.03	7.86	8.19	8.20	-			-			MGSH	9.38
SNH	7	2	HJM	6	1	BR	6.56	7.06	7.89	8.22	8.23	-			-			MGSH	9.42
SNH	4	2	HJM	4	1	BR	6.56	7.06	7.89	8.22	8.23	-			-			MGSH	9.42
SNH	8	2	HJM	5	1	BR	6.56	7.06	7.89	8.22	8.23	-			-			MGSH	9.42
NHC	17	2	HJM	21	2	BR	6.52	7.02	8.06	8.48	8.49	-			-			-	NA
NHC	22	2	HJM	25	2	BR	6.54	7.04	8.06	8.48	8.49	-			-			-	NA
NHC	16	2	HJM	23	2	BR	6.54	7.04	8.06	8.48	8.49	-			-			-	NA
NHC	15	2	HJM	24	2	BR	6.54	7.04	8.06	8.48	8.49	-			-			-	NA
NHC	20	2	HJM	22	2	BR	6.54	7.04	8.18	8.60	8.61	-			-			-	NA
WHH	23	2	HJM	26	2	BR	6.54	7.04	8.18	8.60	8.61	-			-			-	NA
WHH	20	2	HJM	27	2	BR	6.54	7.04	8.48	8.90	8.91	-			-			-	NA
HSI	13	2	HJM	9	1	BR	7.85	8.35	9.18	9.51	9.52	-			-			MGSH	10.71
HSI	15	2	HJM	10	1	BR	7.85	8.35	9.18	9.51	9.52	-			-			MGSH	10.71
HSI	25	2	HJM	9	1	BR	7.85	8.35	9.18	9.51	9.52	-			-			MGSH	10.71
HSI	12	2	HJM	7	1	BR	7.85	8.35	9.18	9.51	9.52	-			-			MGSH	10.71
HCS	2	3	HJM	28	1	BR	8.81	9.31	10.14	10.47	10.48	-			-			MGSH	11.67
HSI	39	3	HJM	29	1	BR	9.29	9.79	10.62	10.95	10.96	-			-			MGSH	12.15
HSI	40	3	HJM	30	1	BR	9.29	9.79	10.62	10.95	10.96	-			-			MGSH	12.15
HSI	43	3	HJM	31	1	GH	9.29	9.79	11.01	11.34	11.35	-			-			MGSH	12.54

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code	Dispatch Point Name	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code	1st Facility Name	1st Facility Arrival	1st Facility Leave	Next Facility Code	Next Facility Name	Next Facility Arrival	Next Facility Leave	Final Facility Code	Final Facility Name	Final Facility Arrival
HSI	41	3	HJM	33	1	GH	9.29	9.79	11.01	11.34	11.35	-				-				HGSH		12.54
HSI	42	3	HJM	32	1	GH	9.29	9.79	11.01	11.34	11.35	-				-				HGSH		12.54
HJM	2	3	HJM	34	1	GH	9.32	9.82	11.03	11.36	11.37	-				-				HGSH		12.56
HJM	1	3	HJM	35	1	GH	9.32	9.82	11.03	11.36	11.37	-				-				HGSH		12.56
HSC	4	3	HJM	37	1	HH	9.71	10.21	11.04	11.37	11.38	-				-				HGSH		12.57
HJM	3	3	HJM	36	1	GH	9.38	9.88	11.34	11.67	11.68	-				-				HGSH		12.87
HSC	5	3	HJM	38	1	HH	9.74	10.24	11.34	11.67	11.68	-				-				HGSH		12.87
HSC	6	3	HJM	39	1	HH	9.77	10.27	11.34	11.67	11.68	-				-				HGSH		12.87
HSI	51	3	HJM	40	1	HH	9.90	10.40	11.36	11.69	11.70	-				-				HGSH		12.89
HSI	54	3	HJM	41	1	HH	9.95	10.45	11.36	11.69	11.70	-				-				HGSH		12.89
HSI	52	3	HJM	42	1	HH	9.95	10.45	11.37	11.70	11.71	-				-				HGSH		12.90
HSI	59	3	HJM	45	1	HH	10.28	10.78	11.67	12.00	12.01	-				-				HGSH		13.20
HSI	61	3	HJM	43	1	HH	10.28	10.78	11.67	12.00	12.01	-				-				HGSH		13.20
HSI	58	3	HJM	44	1	HH	10.28	10.78	11.67	12.00	12.01	-				-				HGSH		13.20
HSI	62	3	HJM	46	1	HH	10.56	11.06	11.89	12.22	12.22	-				-				HGSH		13.41
HSI	55	3	HJM	47	1	HH	10.61	11.11	11.94	12.27	12.28	-				-				HGSH		13.47
WHN	6	2	HSC	10	2	HH	5.31	5.81	6.66	7.08	7.11	-				-				-		NA
WHN	4	2	HSC	11	2	HH	5.31	5.81	6.66	7.08	7.11	-				-				-		NA
WHN	3	2	HSC	9	2	HH	5.31	5.81	6.66	7.08	7.11	-				-				-		NA
WHN	5	2	HSC	12	2	HH	5.31	5.81	6.66	7.08	7.11	-				-				-		NA
WHN	11	2	HSC	13	2	HH	5.73	6.23	7.08	7.50	7.53	-				-				-		NA
WHN	9	2	HSC	14	2	HH	5.73	6.23	7.08	7.50	7.53	-				-				-		NA
WHN	15	2	HSC	20	2	HH	6.23	6.73	7.58	8.00	8.03	-				-				-		NA
WHN	13	2	HSC	16	2	HH	6.23	6.73	7.58	8.00	8.03	-				-				-		NA
WHN	15	2	HSC	18	2	HH	6.23	6.73	7.58	8.00	8.03	-				-				-		NA
WHN	15	2	HSC	15	2	HH	6.23	6.73	7.58	8.00	8.03	-				-						NA
WHN	14	2	HSC	19	2	HH	6.23	6.73	7.58	8.00	8.03	-				-						NA
WHN	17	2	HSC	17	2	HH	6.23	6.73	7.58	8.00	8.03	-				-				-		NA
HHC	10	2	HSC	3	1	HH	6.59	7.09	7.94	8.27	8.30	-				-				HHBH		9.61
HHC	6	2	HSC	2	1	HH	6.59	7.09	7.94	8.27	8.30	-				-				HHBH		9.61
HSI	4	2	HSC	1	1	HH	6.59	7.09	7.94	8.27	8.30	-				-				HHBH		9.61
HHC	7	2	HSC	4	1	HH	6.69	7.19	8.04	8.37	8.40	-				-				HHBH		9.71
OLF	2	2	HSC	5	1	HH	6.72	7.22	8.07	8.40	8.43	-				-				HHBH		9.74
SNR	13	2	HSC	25	2	HH	6.41	6.91	8.00	8.42	8.45	-				-				-		NA
SNR	11	2	HSC	23	2	HH	6.41	6.91	8.00	8.42	8.45	-				-				-		NA
SNR	15	2	HSC	24	2	HH	6.41	6.91	8.00	8.42	8.45	-				-				-		NA
SNR	10	2	HSC	22	2	HH	6.41	6.91	8.00	8.42	8.45	-				-				-		NA
RCF	3	2	HSC	26	2	HH	6.42	6.92	8.00	8.42	8.45	-				-				-		NA
SNR	12	2	HSC	21	2	HH	6.41	6.91	8.00	8.42	8.45	-				-				-		NA
HHC	13	2	HSC	6	1	HH	6.75	7.25	8.10	8.43	8.46	-				-				HGBH		9.77
WHN	18	2	HSC	28	2	HH	6.54	7.04	8.42	8.84	8.87	-				-				-		NA
WHN	19	2	HSC	29	2	HH	6.54	7.04	8.42	8.84	8.87	-				-				-		NA
WHN	22	2	HSC	30	2	HH	6.54	7.04	8.42	8.84	8.87	-				-				-		NA
HHC	14	2	HSC	27	2	HH	6.54	7.04	8.42	8.84	8.87	-				-				-		NA
HSI	14	2	HSC	7	1	HH	7.85	8.35	9.20	9.53	9.56	-				-				HHBH		10.87
HSI	23	2	HSC	8	1	HH	7.85	8.35	9.20	9.53	9.56	-				-				HHBH		10.87

Table 1

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Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
HCS	3	3	HSC	31	1	BR	8.91	9.41	10.26	10.57	10.62	-			-			HSGH	11.83
HCS	8	3	HSC	32	1	BR	9.14	9.64	10.49	10.82	10.85	-			-			HSGH	12.17
HJM	6	3	HSC	35	1	BR	9.42	9.92	10.77	11.10	11.13	-			-			HSGH	12.44
HJM	4	3	HSC	34	1	BR	9.42	9.92	10.77	11.10	11.13	-			-			HSGH	12.44
HJM	5	3	HSC	33	1	BR	9.42	9.92	10.77	11.10	11.13	-			-			HSGH	12.44
HSI	44	3	HSC	36	1	BR	9.57	10.07	10.92	11.25	11.28	-			-			HSGH	12.59
HSC	2	3	HSC	37	1	BR	9.61	10.11	10.96	11.29	11.32	-			-			HSGH	12.63
HSC	3	3	HSC	38	1	BR	9.61	10.11	10.96	11.29	11.32	-			-			HSGH	12.63
HSC	1	3	HSC	39	1	BR	9.61	10.11	11.43	11.76	11.79	-			-			HSGH	13.10
HSI	47	3	HSC	42	1	BR	9.62	10.12	11.45	11.78	11.81	-			-			HSGH	13.12
HSI	48	3	HSC	44	1	BR	9.62	10.12	11.45	11.78	11.81	-			-			HSGH	13.12
HSI	45	3	HSC	40	1	BR	9.62	10.12	11.45	11.78	11.81	-			-			HSGH	13.12
HSI	46	3	HSC	41	1	BR	9.62	10.12	11.45	11.78	11.81	-			-			HSGH	13.12
HSI	50	3	HSC	43	1	BR	9.62	10.12	11.45	11.78	11.81	-			-			HSGH	13.12
HJM	10	3	HSC	45	1	BR	10.71	11.21	12.06	12.39	12.42	-			-			HSGH	13.73
HJM	9	3	HSC	55	1	BR	10.71	11.21	12.06	12.39	12.42	-			-			HSGH	13.73
		1	HSI	4	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.63	5.96	-			BR	6.59
		1	HSI	3	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.30	5.63	-			BR	6.34
		1	HSI	2	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.30	5.63	-			BR	6.34
		1	HSI	5	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.30	5.63	-			BR	6.34
		1	HSI	6	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.51	5.84	-			BR	6.53
		1	HSI	1	1	BR	1.67	2.17	3.07	3.40	3.71	HSTJ	5.30	5.63	-			BR	6.34
		1	HSI	8	1	BR	2.00	2.50	3.40	3.73	4.04	HSSH	6.02	6.35	-			BR	6.91
		1	HSI	9	1	BR	2.00	2.50	3.40	3.73	4.04	HSSH	6.02	6.35	-			BR	6.91
		1	HSI	7	1	BR	2.00	2.50	3.40	3.73	4.04	HSSH	6.02	6.35	-			BR	6.91
		1	HSI	10	1	BR	2.00	2.50	3.40	3.73	4.04	HSSH	6.02	6.35	-			BR	6.91
		1	HSI	11	1	BR	2.00	2.50	3.40	3.73	4.04	HSSH	6.02	6.35	-			BR	6.91
		1	HSI	16	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	18	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	20	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	17	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	21	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	19	1	BR	2.50	3.00	3.90	4.23	4.54	HVAH	6.57	6.90	-			BR	7.52
		1	HSI	22	1	BR	2.67	3.17	4.23	4.56	4.87	HSTJ	6.36	6.69	-			BR	7.05
		1	HSI	25	1	BR	3.50	4.00	4.90	5.23	5.29	HVAH	6.90	7.23	-			BR	7.85
		1	HSI	24	1	BR	3.50	4.00	4.90	5.23	5.29	HSTJ	6.60	6.93	-			BR	7.29
		1	HSI	15	1	FE	2.17	2.67	5.11	5.44	5.49	HVAH	6.90	7.23	-			BR	7.85
(1)		1	HSI	14	1	FE	2.17	2.67	5.11	5.44	5.49	HVAH	6.90	7.23	-			BR	7.85
		1	HSI	13	1	FE	2.17	2.67	5.11	5.44	5.49	HVAH	6.90	7.23	-			BR	7.85
		1	HSI	12	1	FE	2.17	2.67	5.11	5.44	5.49	HVAH	6.90	7.23	-			BR	7.85
		1	HSI	23	1	FE	3.17	3.67	5.28	5.61	5.66	HVAH	6.90	7.23	-			BR	7.85
		1	HSI	29	2	BR	3.83	4.33	5.23	5.65	5.71	HSSH	6.82	7.24	-			BR	7.79
		1	HSI	31	2	BR	3.83	4.33	5.23	5.65	5.71	HSSH	6.82	7.24	-			BR	7.79
		1	HSI	28	2	BR	3.83	4.33	5.23	5.65	5.71	HSSH	6.82	7.24	-			BR	7.79
		1	HSI	30	2	BR	3.83	4.33	5.23	5.65	5.71	HSSH	6.82	7.24	-			BR	7.79
		1	HSI	26	1	BR	4.00	4.50	5.40	5.73	5.79	HSGH	6.51	6.84	-			BR	7.06

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code	Name	Arrival	Leave	Special Facility Arrival	Leave	Leave EPZ	1st Facility Code	Name	Arrival	Leave	Next Facility Code	Name	Arrival	Leave	Final Facility Code	Name	Arrival
		1	HSI	35	2	BR		4.33	4.83	5.73	6.15	6.21	HSSH		7.24	7.66	-						8.21
		1	HSI	34	2	BR		4.33	4.83	5.73	6.15	6.21	HSSH		7.24	7.66	-						8.21
		1	HSI	33	2	BR		4.33	4.83	5.73	6.15	6.21	HSSH		7.06	7.48	-						8.03
		1	HSI	32	2	BR		4.33	4.83	5.73	6.15	6.21	HSSH		7.06	7.48	-						8.03
		1	HSI	27	1	BR		4.50	5.00	5.90	6.23	6.29	HVAH		7.23	7.56	-						8.16
GHS	1	2	HSI	74	2	BR		5.08	5.58	6.29	6.71	6.77	-				-						NA
WHN	2	2	HSI	36	1	BR		5.30	5.80	6.40	6.73	6.78	HVAH		7.68	8.01	-						8.63
WHW	1	2	HSI	37	1	BR		5.30	5.80	6.40	6.73	6.78	HVAH		7.68	8.01	-						8.63
DKH	2	2	HSI	38	1	BR		5.96	6.46	7.00	7.33	7.38	HVAH		8.29	8.62	-						9.24
NHC	4	2	HSI	43	1	BR		6.01	6.51	7.06	7.39	7.44	HVAH		8.35	8.68	-						9.29
NHC	2	2	HSI	41	1	BR		6.01	6.51	7.06	7.39	7.44	HVAH		8.35	8.68	-						9.29
NHC	5	2	HSI	42	1	BR		6.01	6.51	7.06	7.39	7.44	HVAH		8.35	8.68	-						9.29
NHC	3	2	HSI	39	1	BR		6.01	6.51	7.06	7.39	7.44	HVAH		8.35	8.68	-						9.29
NHC	1	2	HSI	40	1	BR		6.01	6.51	7.06	7.39	7.44	HVAH		8.35	8.68	-						9.29
SNR	2	2	HSI	44	1	BR		6.06	6.56	7.33	7.66	7.71	HVAH		8.62	8.95	-						9.57
HSI	3	2	HSI	50	1	BR		6.34	6.84	7.39	7.72	7.77	HVAH		8.68	9.01	-						9.62
SNR	3	2	HSI	46	1	BR		6.06	6.56	7.39	7.72	7.77	HVAH		8.68	9.01	-						9.62
HSI	2	2	HSI	48	1	BR		6.34	6.84	7.39	7.72	7.77	HVAH		8.68	9.01	-						9.62
SNR	1	2	HSI	45	1	BR		6.06	6.56	7.39	7.72	7.77	HVAH		8.68	9.01	-						9.62
HSI	5	2	HSI	47	1	BR		6.34	6.84	7.39	7.72	7.77	HVAH		8.68	9.01	-						9.62
NHC	8	2	HSI	51	1	BR		6.34	6.84	7.66	7.99	8.04	HVAH		8.95	9.28	-						9.90
SNR	5	2	HSI	55	1	BR		6.56	7.06	7.72	8.05	8.10	HVAH		9.01	9.34	-						9.95
HSI	1	2	HSI	49	1	BR		6.34	6.84	7.72	8.05	8.10	HVAH		9.01	9.34	-						9.95
SNR	4	2	HSI	54	1	BR		6.56	7.06	7.72	8.05	8.10	HVAH		9.01	9.34	-						9.95
DKH	5	2	HSI	52	1	BR		6.46	6.96	7.72	8.05	8.10	HVAH		9.01	9.34	-						9.95
SNR	9	2	HSI	53	1	BR		6.56	7.06	7.72	8.05	8.10	HVAH		9.01	9.34	-						9.95
RSH	1	2	HSI	56	1	BR		6.57	7.07	7.99	8.32	8.37	HVAH		9.28	9.61	-						10.23
NHC	11	2	HSI	58	1	BR		6.59	7.09	8.05	8.38	8.43	HVAH		9.34	9.67	-						10.28
HSI	9	2	HSI	61	1	BR		6.91	7.41	8.05	8.38	8.43	HVAH		9.34	9.67	-						10.28
HSI	10	2	HSI	59	1	BR		6.91	7.41	8.05	8.38	8.43	HVAH		9.34	9.67	-						10.28
HSI	7	2	HSI	63	1	BR		6.91	7.41	8.05	8.38	8.43	HVAH		9.34	9.67	-						10.28
NHC	12	2	HSI	57	1	BR		6.59	7.09	8.05	8.38	8.43	HVAH		9.34	9.67	-						10.28
HSI	8	2	HSI	62	1	BR		6.91	7.41	8.32	8.65	8.70	HVAH		9.61	9.94	-						10.56
HSI	24	2	HSI	66	1	BR		7.29	7.79	8.38	8.71	8.76	HVAH		9.67	10.00	-						10.61
HSI	26	2	HSI	65	1	BR		7.06	7.56	8.38	8.71	8.76	HVAH		9.67	10.00	-						10.61
HSI	22	2	HSI	64	1	BR		7.05	7.55	8.38	8.71	8.76	HVAH		9.67	10.00	-						10.61
HSI	11	2	HSI	60	1	BR		6.91	7.41	8.38	8.71	8.76	HVAH		9.67	10.00	-						10.61
HSI	19	2	HSI	69	1	BR		7.52	8.02	8.56	8.89	8.94	HVAH		9.85	10.18	-						10.80
HSI	18	2	HSI	67	1	BR		7.52	8.02	8.65	8.98	9.03	HVAH		9.94	10.27	-						10.89
HSI	17	2	HSI	71	1	BR		7.52	8.02	8.71	9.04	9.09	HVAH		10.00	10.33	-						10.94
HSI	21	2	HSI	70	1	BR		7.52	8.02	8.71	9.04	9.09	HVAH		10.00	10.33	-						10.94
HSI	15	2	HSI	72	1	BR		7.52	8.02	8.71	9.04	9.09	HVAH		10.00	10.33	-						10.94
HSI	20	2	HSI	68	1	BR		7.52	8.02	8.71	9.04	9.09	HVAH		10.00	10.33	-						10.94
DKH	1	2	HSI	73	1	BR		7.73	8.23	8.89	9.22	9.27	HVAH		10.18	10.51	-						11.13
		1	ILO	2	2	BR		0.33	0.83	1.89	2.31	3.14	MP		3.82	4.07	NI		4.81	5.23	BR		6.87
		1	ILO	1	2	BR		0.33	0.83	1.89	2.31	3.14	MP		3.82	4.07	MI		4.81	5.23	BR		6.87

Table 1

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Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code	Dispatch Point Name	Dispatch Point Arrival	Special Facility Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code	1st Facility Name	1st Facility Arrival	1st Facility Leave	Next Facility Code	Next Facility Name	Next Facility Arrival	Next Facility Leave	Final Facility Code	Final Facility Name	Final Facility Arrival
		1	MCF	2	2	BR		0.83	1.33	2.20	2.62	2.80	MP		4.85	5.10	MP		5.29	5.71	BR		6.63
		1	MCF	1	2	BR		0.83	1.33	2.20	2.62	2.80	MP		4.85	5.10	MP		5.29	5.71	BR		6.63
		1	OKH	14	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	13	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	15	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	16	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	12	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	11	2	BR		0.25	0.75	1.74	2.16	2.64	MB		3.98	4.23	ML		4.66	5.08	BR		5.89
		1	OKH	2	1	BR		0.50	1.00	1.99	2.32	2.80	MB		4.14	4.39	ML		4.82	5.15	BR		5.95
		1	OKH	3	1	BR		0.67	1.17	2.16	2.49	2.97	MB		4.31	4.56	ML		4.99	5.32	BR		6.13
		1	OKH	4	1	BR		0.67	1.17	2.16	2.49	2.97	MB		4.31	4.56	ML		4.99	5.32	BR		6.13
		1	OKH	17	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	20	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	21	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	19	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	22	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	18	2	BR		0.67	1.17	2.16	2.58	3.06	MB		4.40	4.65	ML		5.08	5.50	BR		6.31
		1	OKH	8	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	9	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	6	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	10	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	7	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	5	1	BR		1.00	1.50	2.49	2.82	3.30	MB		4.64	4.89	ML		5.32	5.65	BR		6.46
		1	OKH	26	2	BR		1.25	1.75	2.74	3.16	3.64	MB		4.98	5.23	ML		5.66	6.08	BR		6.61
		1	OKH	24	2	BR		1.25	1.75	2.74	3.16	3.64	MB		4.98	5.23	ML		5.66	6.08	BR		6.61
		1	OKH	25	2	BR		1.25	1.75	2.74	3.16	3.64	MB		4.98	5.23	ML		5.66	6.08	BR		6.61
		1	OKH	23	2	BR		1.25	1.75	2.74	3.16	3.64	MB		4.98	5.23	ML		5.66	6.08	BR		6.61
		1	OKH	28	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.16	6.58	BR		6.96
		1	OKH	29	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.16	6.58	BR		6.96
		1	OKH	27	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.16	6.58	BR		6.96
		1	OKH	31	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.16	6.58	BR		6.96
		1	OKH	32	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.16	6.58	BR		6.96
		1	OKH	30	2	BR		1.75	2.25	3.24	3.66	4.14	MB		5.48	5.73	ML		6.49	6.91	BR		7.23
		1	OKH	33	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.00	7.42	BR		7.80
		1	OKH	36	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.33	7.75	BR		8.12
		1	OKH	34	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.00	7.42	BR		7.80
		1	OKH	35	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.00	7.42	BR		7.80
		1	OKH	38	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.00	7.42	BR		7.80
		1	OKH	37	2	BR		2.17	2.67	3.66	4.08	4.56	MB		5.90	6.15	ML		7.00	7.42	BR		7.80
		1	OKH	41	2	BR		2.83	3.33	4.32	4.74	5.04	MB		6.26	6.51	ML		7.84	8.26	BR		8.84
		1	OKH	40	2	BR		2.83	3.33	4.32	4.74	5.04	MB		6.26	6.51	ML		8.17	8.59	BR		8.95
		1	OKH	39	2	BR		2.83	3.33	4.32	4.74	5.04	MB		6.26	6.51	ML		8.26	8.68	BR		9.05
		1	OKH	1	1	PE		0.50	1.00	5.02	5.35	5.43	MB		6.40	6.65	ML		7.03	7.28	BR		7.73
		1	OLP	1	2	BR		0.17	0.67	1.87	2.29	3.14	MP		5.17	5.42	MP		5.71	6.13	BR		6.81
		1	OLP	2	1	BR		0.50	1.00	2.20	2.53	3.39	MP		5.41	5.66	MP		5.66	5.99	BR		6.72
		1	RCF	3	2	BR		0.17	0.67	1.88	2.30	3.49	MB		4.65	4.88	HM		5.67	6.09	BR		6.42

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
		1	RCF	2	2	BR	0.17	0.67	1.88	2.30	3.49	MB	4.63	4.88	MM	5.27	6.07	MF	6.42
		1	RCF	1	2	BR	0.17	0.67	1.88	2.30	3.49	MB	4.63	4.88	MM	5.57	6.09	BR	6.42
		1	RNH	1	1	FE	0.67	1.17	1.44	1.77	1.87	MR	2.11	2.36	ML	5.65	5.98	BR	6.57
		1	RNH	12	2	FE	1.25	1.75	2.02	2.44	2.54	MR	2.78	3.03	ML	6.07	6.49	BR	6.87
		1	RNH	6	2	BR	0.42	0.92	2.55	2.97	3.08	MR	3.32	3.57	ML	6.58	7.00	BR	7.38
		1	RNH	2	2	BR	0.42	0.92	2.55	2.97	3.09	MR	3.32	3.57	ML	6.91	7.33	BR	7.70
		1	RNH	3	2	BR	0.42	0.92	2.55	2.97	3.08	MR	3.32	3.57	ML	6.58	7.00	BR	7.38
		1	RNH	5	2	BR	0.42	0.92	2.55	2.97	3.08	MR	3.32	3.57	ML	6.58	7.00	BR	7.39
		1	RNH	7	2	BR	0.42	0.92	2.55	2.97	3.08	MR	3.32	3.57	ML	6.58	7.00	BR	7.39
		1	RNH	4	2	BR	0.42	0.92	2.55	2.97	3.08	MR	3.32	3.57	ML	6.58	7.00	BR	7.39
		1	RNH	10	2	BR	0.83	1.33	2.97	3.39	3.50	MR	3.74	3.99	ML	7.42	7.84	BR	8.22
		1	RNH	8	2	BR	0.83	1.33	2.97	3.39	3.50	MR	3.74	3.99	ML	7.42	7.84	BR	8.22
		1	RNH	11	2	BR	0.83	1.33	2.97	3.39	3.50	MR	3.74	3.99	ML	7.42	7.84	BR	8.22
		1	RNH	9	2	BR	0.83	1.33	2.97	3.39	3.50	MR	3.74	3.99	ML	7.42	7.84	BR	8.22
		1	RNH	17	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.84	8.26	BR	8.64
		1	RNH	16	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.84	8.26	BR	8.64
		1	RNH	13	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.42	7.84	BR	8.22
		1	RNH	15	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.75	8.17	BR	8.54
		1	RNH	18	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.84	8.26	BR	8.64
		1	RNH	14	2	BR	1.33	1.83	3.47	3.89	3.99	MR	4.23	4.48	ML	7.84	8.26	BR	8.64
		1	SNR	1	1	BR	0.83	1.33	2.14	2.47	2.52	MB	4.15	4.40	MC	5.34	5.67	BF	6.06
		1	SNR	2	1	BR	0.83	1.33	2.14	2.47	2.52	MB	4.15	4.40	MC	5.34	5.67	BR	6.06
		1	SNR	3	1	BR	0.83	1.33	2.14	2.47	2.52	MB	4.15	4.40	MC	5.34	5.67	BR	6.06
		1	SNR	13	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	11	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	15	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	10	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	14	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	12	2	BR	1.00	1.50	2.31	2.73	2.78	MB	4.41	4.66	MC	5.60	6.02	BR	6.41
		1	SNR	9	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	6	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	4	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	7	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	5	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	8	1	BR	1.33	1.83	2.64	2.97	3.02	MB	4.65	4.90	MC	5.84	6.17	BR	6.56
		1	SNR	17	2	BR	1.66	2.16	2.97	3.39	3.44	MB	5.07	5.32	MC	6.26	6.68	BR	7.07
		1	SNR	16	2	BR	1.66	2.16	2.97	3.39	3.44	MB	5.07	5.32	MC	6.26	6.68	BR	7.07
		1	SNR	18	2	BR	1.66	2.16	2.97	3.39	3.44	MB	5.07	5.32	MC	6.26	6.68	BR	7.07
		1	SNR	19	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.64	7.06	BR	7.45
		1	SNR	21	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.68	7.10	BR	7.49
		1	SNR	20	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.64	7.06	BR	7.45
		1	SNR	24	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.68	7.10	BR	7.49
		1	SNR	23	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.64	7.06	BR	7.45
		1	SNR	22	2	BR	2.08	2.58	3.39	3.81	3.86	MB	5.49	5.74	MC	6.68	7.10	BR	7.49
		1	SNR	25	2	BR	2.50	3.00	3.81	4.23	4.28	MB	5.91	6.16	MC	7.06	7.48	BR	7.87
		1	SNR	29	2	BR	2.50	3.00	3.81	4.23	4.28	MB	5.91	6.16	MC	7.06	7.48	BR	7.87

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
		1	SNK	27	2	BR	2.50	3.00	3.81	4.23	4.28	MB	5.91	6.16	HC	7.10	7.52	BK	7.91
		1	SNK	28	2	BR	2.50	3.00	3.81	4.23	4.28	MB	5.91	6.16	HC	7.10	7.52	BK	7.91
		1	SNK	25	2	BR	2.50	3.00	3.81	4.23	4.28	MB	5.91	6.16	HC	7.06	7.48	BK	7.87
		1	SNK	30	2	BR	3.50	4.00	4.81	5.23	5.24	MB	6.69	6.94	HC	7.36	7.78	BK	8.17
		1	SNK	31	2	BR	3.50	4.00	4.81	5.23	5.24	MB	6.69	6.94	HC	7.48	7.90	BK	8.29
		1	SNK	32	2	BR	3.50	4.00	4.81	5.23	5.24	MB	6.69	6.94	HC	7.48	7.90	BK	8.29
		1	WHN	6	2	BR	0.50	1.00	1.83	2.25	2.84	MP	3.28	3.53	MP	3.53	3.95	BK	5.31
		1	WHN	5	2	BR	0.50	1.00	1.83	2.25	2.84	MP	3.28	3.53	MP	3.53	3.95	BK	5.31
		1	WHN	3	2	BR	0.50	1.00	1.83	2.25	2.84	MP	3.28	3.53	MP	3.53	3.95	BK	5.31
		1	WHN	4	2	BR	0.50	1.00	1.83	2.25	2.84	MP	3.28	3.53	MP	3.53	3.95	BK	5.31
		1	WHN	1	1	BR	0.67	1.17	2.00	2.33	2.92	MP	3.36	3.61	MP	3.61	3.94	BK	5.30
		1	WHN	2	1	BR	0.67	1.17	2.00	2.33	2.92	MP	3.36	3.61	MP	3.61	3.94	BK	5.30
		1	WHN	7	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	10	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	9	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	12	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	8	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	11	2	BR	0.92	1.42	2.25	2.67	3.26	MP	3.70	3.95	MP	3.95	4.37	BK	5.73
		1	WHN	15	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	14	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	16	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	13	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	17	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	15	2	BR	1.42	1.92	2.75	3.17	3.76	MP	4.20	4.45	MP	4.45	4.87	BK	6.23
		1	WHN	21	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	20	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	22	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	19	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	18	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	23	2	BR	1.83	2.33	3.17	3.59	4.18	MP	4.62	4.87	MP	4.87	5.29	BK	6.54
		1	WHN	24	2	BR	2.25	2.75	3.59	4.01	4.60	MP	5.04	5.29	MP	5.29	5.71	BK	6.63
		1	WHN	27	2	BR	2.25	2.75	3.59	4.01	4.60	MP	5.04	5.29	MP	5.29	5.71	BK	6.63
		1	WHN	26	2	BR	2.25	2.75	3.59	4.01	4.60	MP	5.04	5.29	MP	5.71	6.13	BK	6.81
		1	WHN	28	2	BR	2.25	2.75	3.59	4.01	4.60	MP	5.04	5.29	MP	5.29	5.71	BK	6.63
		1	WHN	25	2	BR	2.25	2.75	3.59	4.01	4.60	MP	5.04	5.29	MP	5.29	5.71	BK	6.63
		1	WHN	30	2	BR	3.08	3.58	4.41	4.83	5.08	MP	5.52	5.77	MP	5.77	6.19	BK	6.98
		1	WHN	31	2	BR	3.08	3.58	4.41	4.83	5.08	MP	5.52	5.77	MP	5.77	6.19	BK	6.98
		1	WHN	29	2	BR	3.08	3.58	4.41	4.83	5.08	MP	5.52	5.77	MP	5.77	6.19	BK	6.98

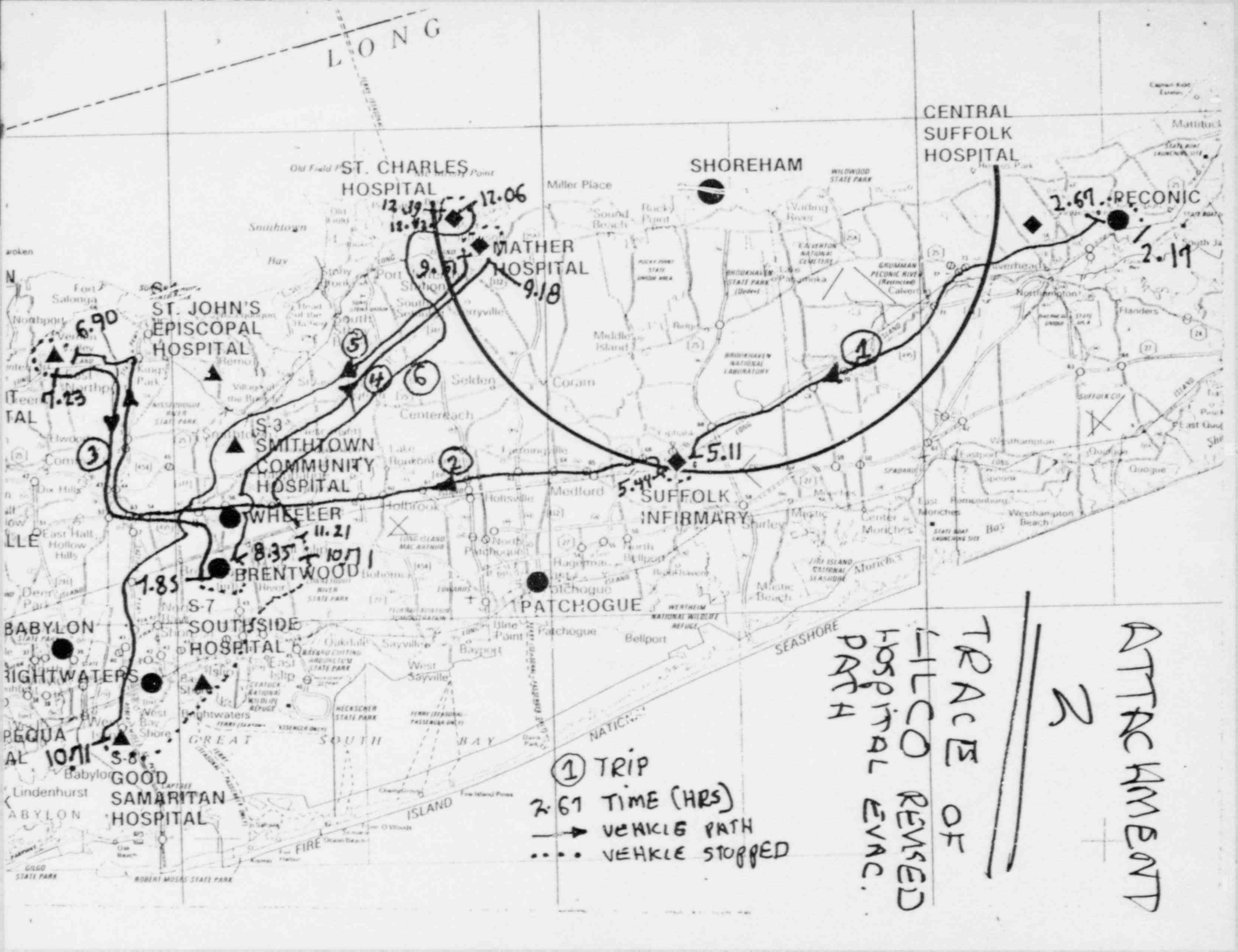

ATTACHMENT 2
TRACE OF ILCO REVISED HOSPITAL EVAC. PATH
CENTRAL SUFFOLK HOSPITAL
SHOREHAM
ST. CHARLES HOSPITAL
MATHER HOSPITAL
ST. JOHN'S EPISCOPAL HOSPITAL
S-3 SMITHTOWN COMMUNITY HOSPITAL
WHEELER
BRENTWOOD
S-7 SOUTHSIDE HOSPITAL
S-8 GOOD SAMARITAN HOSPITAL
SUFFOLK INFIRMARY
PATCHOGUE
RECONIC
BABYLON
RIGHTWATERS
12.39
12.42
12.06
9.51
9.18
6.90
7.23
5.11
5.44
2.67
2.17
11.21
8.35
10.11
7.85
10.11
1 TRIP
2.67 TIME (HRS)
VEHICLE PATH
VEHICLE STOPPED

Table 3

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
		1	GHS	3	2	BR	0.33	0.83	1.57	1.99	2.52	MB	3.66	3.91	HW	3.99	4.41	BR	4.53
		1	GHS	2	2	BR	0.33	0.83	1.57	1.99	2.52	MB	3.66	3.91	HW	3.99	4.41	BR	4.53
		1	GHS	1	2	BR	0.33	0.83	1.57	1.99	2.52	MB	3.66	3.91	HW	3.99	4.41	BR	4.53
		1	GHS	4	2	BR	0.33	0.83	1.57	1.99	2.52	MB	3.66	3.91	HW	3.99	4.41	BR	4.53
GHS	2	2	HCS	9	2	BR	4.53	5.03	6.38	6.80	6.80	-			-			-	NA
GHS	3	2	HCS	8	2	BR	4.53	5.03	6.38	6.80	6.80	-			-			-	NA
GHS	4	2	HCS	10	2	BR	4.53	5.03	6.38	6.80	6.80	-			-			-	NA
HHC	8	2	HCS	1	1	BR	5.69	6.19	7.55	7.83	7.88	-			-			HSHH	8.94
HHC	7	2	HCS	2	1	BR	5.69	6.19	7.55	7.88	7.88	-			-			HSHH	8.94
HHC	10	2	HCS	3	1	BR	5.69	6.19	7.55	7.88	7.88	-			-			HSHH	8.94
OKH	14	2	HCS	16	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	13	2	HCS	15	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	16	2	HCS	14	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	12	2	HCS	13	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	11	2	HCS	12	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	15	2	HCS	11	2	BR	5.69	6.19	7.55	7.97	7.97	-			-			-	NA
OKH	3	2	HCS	4	1	BR	5.93	6.43	7.79	8.12	8.12	-			-			HSHH	9.18
HHC	13	2	HCS	5	1	BR	6.02	6.52	7.88	8.21	8.21	-			-			HSHH	9.27
HSI	1	2	HCS	6	1	BR	6.07	6.57	7.93	8.26	8.26	-			-			HSHH	9.31
OKH	17	2	HCS	19	2	BR	6.11	6.61	7.97	8.39	8.39	-			-			-	NA
HHC	14	2	HCS	18	2	BR	6.04	6.54	7.97	8.39	8.39	-			-			-	NA
HHC	15	2	HCS	17	2	BR	6.04	6.54	7.97	8.39	8.39	-			-			-	NA
HCS	1	3	HCS	20	1	SH	8.94	9.44	10.69	11.02	11.02	-			-			HSHH	12.06
HCS	3	3	HCS	21	1	SH	8.94	9.44	10.69	11.02	11.02	-			-			HSHH	12.08
HCS	2	3	HCS	22	1	SH	8.94	9.44	10.69	11.02	11.02	-			-			HSHH	12.08
HJM	3	3	HCS	23	1	SH	9.56	10.06	11.32	11.65	11.65	-			-			HSHH	12.71
HJM	1	3	HCS	25	1	SH	9.56	10.06	11.32	11.65	11.65	-			-			HSHH	12.71
HJM	2	3	HCS	24	1	SH	9.56	10.06	11.32	11.65	11.65	-			-			HSHH	12.71
HSI	27	2	HCS	7	1	BR	9.51	10.01	11.37	11.70	11.70	-			-			HSHH	12.75
HSI	56	3	HCS	26	1	BR	11.27	11.77	13.13	13.46	13.46	-			-			HGSH	NA
HSI	54	3	HCS	28	1	BR	11.27	11.77	13.13	13.46	13.46	-			-			HGSH	NA
HSI	57	3	HCS	27	1	BR	11.27	11.77	13.13	13.46	13.46	-			-			HGSH	NA
HSI	53	3	HCS	29	1	BR	11.36	11.86	13.22	13.55	13.55	-			-			HGSH	NA
HSI	58	3	HCS	30	1	BR	11.36	11.86	13.22	13.55	13.55	-			-			HGSH	NA
HSI	55	3	HCS	31	1	BR	11.36	11.86	13.22	13.55	13.55	-			-			HGSH	NA
HSI	61	3	HCS	32	1	BR	12.12	12.62	13.98	14.31	14.31	-			-			HGSH	NA
HSI	59	3	HCS	33	1	BR	12.12	12.62	13.98	14.31	14.31	-			-			HGSH	NA
HJM	9	3	HCS	35	1	SH	12.34	12.84	14.09	14.42	14.42	-			-			HGSH	NA
HGC	7	3	HCS	34	1	BR	12.30	12.80	14.15	14.49	14.49	-			-			HGSH	NA
		1	HHC	3	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.55	4.88	-			BR	5.36
		1	HHC	1	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.55	4.88	-			BR	5.36
		1	HHC	2	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.55	4.88	-			BR	5.36
		1	HHC	5	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.55	4.88	-			BR	5.36
		1	HHC	4	1	BR	0.00	0.50	1.81	2.39	3.72	HSTJ	4.55	4.88	-			BR	5.36
		1	HHC	9	1	FE	0.25	0.75	2.02	2.60	3.93	HSTJ	4.76	5.09	-			BR	5.57
		1	HHC	8	1	FE	0.25	0.75	2.02	2.60	3.93	HSTJ	4.88	5.21	-			BR	5.67

RUN # 3

1.36 hrs

ATTACHMENT 3

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code	Dispatch Point Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EPZ	1st Facility Code	1st Facility Name	1st Facility Arrival	1st Facility Leave	Next Facility Code	Next Facility Name	Next Facility Arrival	Next Facility Leave	Final Facility Code	Final Facility Name	Final Facility Arrival
		1	NHC	7	1	BR		6.25	6.75	7.06	7.64	7.97	HSTJ		4.88	5.21	-				II		5.69
		1	NHC	6	1	BR		6.25	6.75	7.06	7.64	7.97	HSTJ		4.88	5.21	-				BR		5.69
		1	NHC	10	1	BR		6.25	6.75	7.06	7.64	7.97	HSTJ		4.88	5.21	-				BR		5.69
		1	NHC	12	1	BR		6.25	6.75	7.06	7.64	7.97	HSTJ		5.09	5.42	-				BR		5.90
		1	NHC	11	1	BR		6.25	6.75	7.06	7.64	7.97	HSTJ		4.88	5.21	-				BR		5.69
		1	NHC	13	1	BR		6.50	7.00	7.31	7.89	8.22	HSTJ		5.21	5.54	-				BR		6.02
		1	NHC	17	2	PE		0.00	0.50	1.77	3.19	4.52	HSGH		5.30	5.72	-				BR		6.00
		1	NHC	18	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.72	6.14	-				BR		6.42
		1	NHC	19	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.76	6.18	-				BR		6.46
		1	NHC	16	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.34	5.76	-				BR		6.04
		1	NHC	14	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.34	5.76	-				BR		6.04
		1	NHC	20	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.34	5.76	-				BR		6.04
		1	NHC	21	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.76	6.18	-				BR		6.46
		1	NHC	22	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.34	5.76	-				BR		6.04
		1	NHC	15	2	BR		0.00	0.50	1.81	3.23	4.56	HSGH		5.34	5.76	-				BR		6.04
NCP	12	2	HJM	13	2	BR		5.39	5.89	6.72	7.14	7.15	-				-				-		NA
WHH	9	2	HJM	11	2	BR		5.39	5.89	6.72	7.14	7.15	-				-				-		NA
WHH	11	2	HJM	12	2	BR		5.39	5.89	6.72	7.14	7.15	-				-				-		NA
WHN	8	2	HJM	14	2	BR		5.39	5.89	6.72	7.14	7.15	-				-				-		NA
HSI	3	2	HJM	2	1	BR		6.07	6.57	7.40	7.73	7.73	-				-				HSSH		9.56
HSI	4	2	HJM	1	1	BR		6.07	6.57	7.40	7.73	7.73	-				-				HSSH		9.56
HSI	5	2	HJM	3	1	BR		6.07	6.57	7.40	7.73	7.73	-				-				NGSH		9.56
NHC	17	2	HJM	15	2	BR		6.00	6.50	7.33	7.75	7.76	-				-				-		NA
NHC	20	2	HJM	17	2	BR		6.04	6.54	7.37	7.79	7.80	-				-				-		NA
NHC	16	2	HJM	16	2	BR		6.04	6.54	7.37	7.79	7.80	-				-				-		NA
NHC	22	2	HJM	18	2	BR		6.04	6.54	7.37	7.79	7.80	-				-				-		NA
HSI	6	2	HJM	4	1	BR		6.23	6.73	7.56	7.89	7.90	-				-				HSSH		9.73
OLP	2	2	HJM	5	1	BR		6.23	6.73	7.56	7.89	7.90	-				-				HSSH		9.73
OKH	10	2	HJM	6	1	BR		6.26	6.76	7.59	7.92	7.93	-				-				HSSH		9.76
SNR	12	2	HJM	19	2	BR		6.22	6.72	7.55	7.97	7.98	-				-				-		NA
SNR	15	2	HJM	22	2	BR		6.22	6.72	7.55	7.97	7.98	-				-				-		NA
SNR	10	2	HJM	21	2	BR		6.22	6.72	7.75	8.17	8.18	-				-				-		NA
SNR	11	2	HJM	20	2	BR		6.22	6.72	7.79	8.21	8.22	-				-				-		NA
SNR	13	2	HJM	23	2	BR		6.22	6.72	7.79	8.21	8.22	-				-				-		NA
WHN	15	2	HJM	25	2	BR		6.28	6.78	7.79	8.21	8.22	-				-				-		NA
WHN	14	2	HJM	24	2	BR		6.28	6.78	7.97	8.39	8.40	-				-				-		NA
NHC	18	2	HJM	26	2	BR		6.42	6.92	7.97	8.39	8.40	-				-				-		NA
NHC	19	2	HJM	27	2	BR		6.46	6.96	8.17	8.59	8.60	-				-				-		NA
HSI	25	2	HJM	7	1	BR		8.51	9.01	9.84	10.17	10.18	-				-				NGSH		12.01
HSI	12	2	HJM	8	1	BR		8.84	9.34	10.17	10.50	10.51	-				-				NGSH		12.34
HSI	15	2	HJM	9	1	BR		8.84	9.34	10.17	10.50	10.51	-				-				NGSH		12.34
HSI	13	2	HJM	10	1	BR		8.84	9.34	10.17	10.50	10.51	-				-				NGSH		12.34
HES	4	3	HJM	28	1	BR		9.18	9.68	10.51	10.84	10.85	-				-				NGSH		12.68
HJM	4	3	HJM	29	1	BR		9.73	10.23	11.06	11.39	11.40	-				-				NGSH		13.23
HJM	5	3	HJM	30	1	BR		9.73	10.23	11.06	11.39	11.40	-				-				NGSH		13.23
HJM	6	3	HJM	31	1	GH		9.76	10.26	11.54	11.87	11.87	-				-				NGSH		13.70

Table 3

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code	Dispatch Point Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EFC	1st Facility Code	1st Facility Name	1st Facility Arrival	1st Facility Leave	Next Facility Code	Next Facility Name	Next Facility Arrival	Next Facility Leave	Final Facility Code	Final Facility Name	Final Facility Arrival
HSC	6	3	HJH	35	1	GH		9.83	10.33	11.61	11.94	11.94	-				-				HGSH		13.77
HSC	3	3	HJH	32	1	GH		9.83	10.33	11.61	11.94	11.94	-				-				HGSH		13.77
HSC	5	3	HJH	36	1	GH		9.83	10.33	11.61	11.94	11.94	-				-				HGSH		13.77
HSC	2	3	HJH	33	1	GH		9.83	10.33	11.61	11.94	11.94	-				-				HGSH		13.77
HSC	1	3	HJH	34	1	GH		9.83	10.33	11.61	11.94	11.94	-				-				HGSH		13.77
HSI	47	3	HJH	37	1	GH		10.77	11.27	12.10	12.43	12.44	-				-				HGSH		14.27
HSI	50	3	HJH	38	1	GH		10.88	11.38	12.21	12.54	12.55	-				-				HGSH		14.38
HSI	48	3	HJH	39	1	GH		10.88	11.38	12.21	12.54	12.55	-				-				HGSH		14.38
HSI	51	3	HJH	42	1	GH		11.03	11.53	12.36	12.69	12.70	-				-				HGSH		14.53
HSI	49	3	HJH	41	1	GH		11.03	11.53	12.36	12.69	12.70	-				-				HGSH		14.53
HSI	52	3	HJH	40	1	GH		11.03	11.53	12.36	12.69	12.70	-				-				HGSH		14.53
HJH	7	3	HJH	43	1	GH		12.01	12.51	13.34	13.67	13.67	-				-				HGSH		15.50
HSI	62	3	HJH	44	1	GH		12.12	12.62	13.45	13.78	13.79	-				-				HGSH		15.62
HSI	63	3	HJH	45	1	GH		12.12	12.62	13.45	13.78	13.79	-				-				HGSH		15.62
HSI	60	3	HJH	46	1	GH		12.12	12.62	13.45	13.78	13.79	-				-				HGSH		15.62
HSI	64	3	HJH	47	1	GH		12.23	12.73	13.56	13.89	13.90	-				-				HGSH		15.73
WHH	5	2	HSC	10	2	WH		4.97	5.47	6.32	6.74	6.78	-				-				-		WA
WHH	6	2	HSC	12	2	WH		4.97	5.47	6.32	6.74	6.78	-				-				-		WA
WHH	3	2	HSC	9	2	WH		4.97	5.47	6.32	6.74	6.78	-				-				-		WA
WHH	4	2	HSC	11	2	WH		4.97	5.47	6.32	6.74	6.78	-				-				-		WA
WHH	18	2	HSC	14	2	WH		5.39	5.89	6.74	7.16	7.20	-				-				-		WA
WHH	7	2	HSC	13	2	WH		5.39	5.89	6.74	7.16	7.20	-				-				-		WA
WCF	2	2	HSC	16	2	WH		5.86	6.36	7.21	7.63	7.66	-				-				-		WA
WCF	1	2	HSC	15	2	WH		5.86	6.36	7.21	7.63	7.66	-				-				-		WA
WHH	13	2	HSC	17	2	WH		5.89	6.39	7.24	7.66	7.70	-				-				-		WA
WHH	17	2	HSC	19	2	WH		5.89	6.39	7.24	7.66	7.70	-				-				-		WA
WHH	16	2	HSC	18	2	WH		5.89	6.39	7.24	7.66	7.70	-				-				-		WA
WHH	15	2	HSC	20	2	WH		5.89	6.39	7.24	7.66	7.70	-				-				-		WA
OHH	21	2	HSC	23	2	WH		6.11	6.61	7.63	8.05	8.08	-				-				-		WA
OHH	20	2	HSC	22	2	WH		6.11	6.61	7.63	8.05	8.08	-				-				-		WA
SHH	4	2	HSC	2	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	5	2	HSC	5	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	6	2	HSC	1	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	7	2	HSC	4	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	8	2	HSC	6	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	9	2	HSC	3	1	HH		6.37	6.87	7.72	8.05	8.08	-				-				HHHH		9.83
SHH	14	2	HSC	26	2	HH		6.22	6.72	7.66	8.08	8.12	-				-				-		WA
OHH	22	2	HSC	25	2	HH		6.11	6.61	7.66	8.08	8.12	-				-				-		WA
OHH	19	2	HSC	21	2	HH		6.11	6.61	7.66	8.08	8.12	-				-				-		WA
OHH	18	2	HSC	24	2	HH		6.11	6.61	7.66	8.08	8.12	-				-				-		WA
DLP	1	2	HSC	27	2	HH		6.31	6.81	8.05	8.47	8.50	-				-				-		WA
WHH	22	2	HSC	28	2	HH		6.31	6.81	8.05	8.47	8.50	-				-				-		WA
WHH	18	2	HSC	30	2	HH		6.31	6.81	8.08	8.50	8.54	-				-				-		WA
WHH	19	2	HSC	29	2	HH		6.31	6.81	8.08	8.50	8.54	-				-				-		WA
HSI	10	2	HSC	7	1	HH		8.84	9.34	10.19	10.52	10.55	-				-				HHHH		12.36
HSI	23	2	HSC	8	1	HH		9.01	9.51	10.36	10.69	10.72	-				-				HHHH		12.47

RUN # 2

Table 1

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code Name	Dispatch Point Arrival	Dispatch Point Leave	Special Facility Arrival	Special Facility Leave	Leave EFZ	1st Facility Code Name	1st Facility Arrival	1st Facility Leave	Next Facility Code Name	Next Facility Arrival	Next Facility Leave	Final Facility Code Name	Final Facility Arrival
MCS	5	3	MSC	31	1	BR	9.27	9.77	10.62	10.95	10.98	-			-			HBBH	12.72
MCS	6	3	MSC	32	1	BR	9.31	9.81	10.66	10.99	11.02	-			-			HBBH	12.77
MSC	4	3	MSC	33	1	BR	9.93	10.33	11.18	11.51	11.54	-			-			HBBH	13.29
MSI	36	3	MSC	34	1	BR	9.97	10.47	11.32	11.65	11.68	-			-			HBBH	13.43
MSI	37	3	MSC	35	1	BR	9.97	10.47	11.32	11.65	11.68	-			-			HBBH	13.43
MSI	40	3	MSC	38	1	BR	10.37	10.87	11.72	12.05	12.08	-			-			HBBH	13.83
MSI	39	3	MSC	36	1	BR	10.37	10.87	11.72	12.05	12.08	-			-			HBBH	13.83
MSI	38	3	MSC	37	1	BR	10.37	10.87	11.72	12.05	12.08	-			-			HBBH	13.83
MSI	42	3	MSC	40	1	BR	10.37	10.87	12.19	12.52	12.55	-			-			HBBH	14.30
MSI	41	3	MSC	39	1	BR	10.37	10.87	12.19	12.52	12.55	-			-			HBBH	14.30
MSI	43	3	MSC	41	1	BR	10.51	11.01	12.33	12.66	12.69	-			-			HBBH	14.44
MSI	46	3	MSC	44	1	BR	10.70	11.20	12.52	12.85	12.88	-			-			HBBH	14.63
MSI	45	3	MSC	42	1	BR	10.70	11.20	12.52	12.85	12.88	-			-			HBBH	14.63
MSI	44	3	MSC	43	1	BR	10.70	11.20	12.52	12.85	12.88	-			-			HBBH	14.63
MSM	10	3	MSC	46	1	BR	12.34	12.84	13.69	14.02	14.05	-			-			HBBH	15.39
MSM	8	3	MSC	45	1	BR	12.34	12.84	13.69	14.02	14.05	-			-			HBBH	15.39
		1	MSI	1	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.26	5.59	-			BR	6.67
		1	MSI	6	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.42	5.75	-			BR	6.23
		1	MSI	5	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.26	5.59	-			BR	6.07
		1	MSI	3	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.26	5.59	-			BR	6.07
		1	MSI	4	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.26	5.59	-			BR	6.07
		1	MSI	2	1	BR	1.67	2.17	2.93	3.26	3.56	MSTJ	5.54	5.87	-			BR	6.35
		1	MSI	8	1	BR	2.00	2.50	3.26	3.59	3.89	MSSW	6.20	6.53	-			BR	7.12
		1	MSI	9	1	BR	2.00	2.50	3.26	3.59	3.89	MSSW	6.20	6.53	-			BR	7.12
		1	MSI	7	1	BR	2.00	2.50	3.26	3.59	3.89	MSSW	6.20	6.53	-			BR	7.12
		1	MSI	10	1	BR	2.00	2.50	3.26	3.59	3.89	MSSW	6.20	6.53	-			BR	7.12
		1	MSI	11	1	BR	2.00	2.50	3.26	3.59	3.89	MSSW	6.20	6.53	-			BR	7.12
		1	MSI	16	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	17	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	18	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	19	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	20	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	21	1	BR	2.50	3.00	3.76	4.09	4.39	MVAH	6.78	7.11	-			BR	7.76
		1	MSI	22	1	BR	2.67	3.17	4.09	4.42	4.72	MSTJ	6.42	6.75	-			BR	7.23
		1	MSI	24	1	BR	3.33	3.83	4.76	5.09	5.14	MSTJ	6.83	7.16	-			BR	7.64
RUN		1	MSI	25	1	BR	3.50	4.00	4.76	5.09	5.14	MVAH	7.53	7.86	-			BR	8.51
		1	MSI	13	1	PE	2.17	2.67	5.09	5.42	5.47	MVAH	7.86	8.19	-			BR	8.84
#1		1	MSI	15	1	PE	2.17	2.67	5.09	5.42	5.47	MVAH	7.86	8.19	-			BR	8.84
		1	MSI	14	1	PE	2.17	2.67	5.09	5.42	5.47	MVAH	7.86	8.19	-			BR	8.84
		1	MSI	12	1	PE	2.17	2.67	5.09	5.42	5.47	MVAH	7.86	8.19	-			BR	8.84
		1	MSI	28	2	BR	3.83	4.33	5.09	5.51	5.57	MSSW	7.88	8.30	-			BR	8.89
		1	MSI	30	2	BR	3.83	4.33	5.09	5.51	5.57	MSSW	7.88	8.30	-			BR	8.89
		1	MSI	31	2	BR	3.83	4.33	5.09	5.51	5.57	MSSW	7.88	8.30	-			BR	8.89
		1	MSI	29	2	BR	3.83	4.33	5.09	5.51	5.57	MSSW	7.83	8.30	-			BR	8.89
		1	MSI	26	1	BR	4.00	4.50	5.26	5.59	5.64	MSSW	7.09	7.42	-			BR	7.71
		1	MSI	23	1	PE	3.17	3.67	5.26	5.59	5.64	MVAH	8.03	8.36	-			BR	9.01

Table 3

Prior Run	Prior Run Number	Wave Number	This Run	This Run Number	Type	Dispatch Point Code			Special Facility		Leave EPZ	1st Facility Code			Next Facility Code			Final Facility Code	
						Name	Arrival	Leave	Arrival	Leave		Name	Arrival	Leave	Name	Arrival	Leave	Name	Arrival
		1	HSI	35	2	BR	4.33	4.83	5.59	6.01	6.07	HSSH	8.38	8.80	-			BR	9.38
		1	HSI	33	2	BR	4.33	4.83	5.59	6.01	6.07	HSSH	8.38	8.80	-			BR	9.38
		1	HSI	34	2	BR	4.33	4.83	5.59	6.01	6.07	HSSH	8.38	8.80	-			BR	9.38
		1	HSI	32	2	BR	4.33	4.83	5.59	6.01	6.07	HSSH	8.38	8.80	-			BR	9.38
		1	HSI	27	1	BR	4.50	5.00	5.76	6.09	6.14	HVAH	8.53	8.86	-			BR	9.51
GHS	1	2	HSI	74	2	BR	4.53	5.03	5.78	6.20	6.27	-	-	-	-			-	RR
WHN	2	2	HSI	37	1	BR	4.96	5.46	6.22	6.55	6.60	HVAH	8.99	9.32	-			BR	9.92
WHN	1	2	HSI	36	1	BR	4.96	5.46	6.22	6.55	6.60	HVAH	8.99	9.32	-			BR	9.92
NHC	1	2	HSI	40	1	BR	5.36	5.86	6.62	6.95	7.00	HVAH	9.39	9.72	-			BR	10.37
NHC	2	2	HSI	42	1	BR	5.36	5.86	6.62	6.95	7.00	HVAH	9.39	9.72	-			BR	10.37
NHC	5	2	HSI	41	1	BR	5.36	5.86	6.62	6.95	7.00	HVAH	9.39	9.72	-			BR	10.37
NHC	4	2	HSI	38	1	BR	5.36	5.86	6.62	6.95	7.00	HVAH	9.39	9.72	-			BR	10.37
NHC	3	2	HSI	39	1	BR	5.36	5.86	6.62	6.95	7.00	HVAH	9.39	9.72	-			BR	10.37
FNH	1	2	HSI	43	1	BR	5.50	6.00	6.76	7.09	7.14	HVAH	9.53	9.86	-			BR	10.51
NHC	9	2	HSI	44	1	BR	5.57	6.07	6.95	7.28	7.33	HVAH	9.72	10.05	-			BR	10.70
NHC	11	2	HSI	46	1	BR	5.69	6.19	6.95	7.28	7.33	HVAH	9.72	10.05	-			BR	10.70
NHC	6	2	HSI	45	1	BR	5.69	6.19	6.95	7.28	7.33	HVAH	9.72	10.05	-			BR	10.70
DKH	2	2	HSI	47	1	BR	5.76	6.26	7.02	7.35	7.41	HVAH	9.79	10.12	-			BR	10.77
SNR	2	2	HSI	50	1	BR	5.87	6.37	7.13	7.46	7.52	HVAH	9.90	10.23	-			BR	10.88
SNR	1	2	HSI	48	1	BR	5.87	6.37	7.13	7.46	7.52	HVAH	9.90	10.23	-			BR	10.88
NHC	12	2	HSI	51	1	BR	5.90	6.40	7.28	7.61	7.66	HVAH	10.05	10.38	-			BR	11.03
DKH	4	2	HSI	52	1	BR	5.93	6.43	7.28	7.61	7.66	HVAH	10.05	10.38	-			BR	11.03
SNR	3	2	HSI	49	1	BR	5.87	6.37	7.28	7.61	7.66	HVAH	10.05	10.38	-			BR	11.03
DKH	8	2	HSI	56	1	BR	6.26	6.76	7.52	7.85	7.91	HVAH	10.29	10.62	-			BR	11.27
DKH	6	2	HSI	54	1	BR	6.26	6.76	7.52	7.85	7.91	HVAH	10.29	10.62	-			BR	11.27
DKH	5	2	HSI	57	1	BR	6.26	6.76	7.52	7.85	7.91	HVAH	10.29	10.62	-			BR	11.27
DKH	7	2	HSI	53	1	BR	6.26	6.76	7.61	7.94	7.99	HVAH	10.38	10.71	-			BR	11.36
DKH	9	2	HSI	55	1	BR	6.26	6.76	7.61	7.94	7.99	HVAH	10.38	10.71	-			BR	11.36
HSI	2	2	HSI	58	1	BR	6.35	6.85	7.61	7.94	7.99	HVAH	10.38	10.71	-			BR	11.36
HSI	8	2	HSI	62	1	BR	7.12	7.62	8.38	8.71	8.76	HVAH	11.15	11.48	-			BR	12.12
HSI	11	2	HSI	60	1	BR	7.12	7.62	8.38	8.71	8.76	HVAH	11.15	11.48	-			BR	12.12
HSI	10	2	HSI	59	1	BR	7.12	7.62	8.38	8.71	8.76	HVAH	11.15	11.48	-			BR	12.12
HSI	9	2	HSI	63	1	BR	7.12	7.62	8.38	8.71	8.76	HVAH	11.15	11.48	-			BR	12.12
HSI	7	2	HSI	61	1	BR	7.12	7.62	8.38	8.71	8.76	HVAH	11.15	11.48	-			BR	12.12
HSI	22	2	HSI	64	1	BR	7.23	7.73	8.49	8.82	8.87	HVAH	11.25	11.58	-			BR	12.23
HSI	24	2	HSI	65	1	BR	7.64	8.14	8.90	9.23	9.28	HVAH	11.67	12.00	-			BR	12.65
HSI	26	2	HSI	66	1	BR	7.71	8.21	8.97	9.30	9.35	HVAH	11.74	12.07	-			BR	12.72
HSI	21	2	HSI	69	1	BR	7.76	8.26	9.02	9.35	9.40	HVAH	11.79	12.12	-			BR	12.77
HSI	19	2	HSI	68	1	BR	7.76	8.26	9.02	9.35	9.40	HVAH	11.79	12.12	-			BR	12.77
HSI	18	2	HSI	67	1	BR	7.76	8.26	9.02	9.35	9.40	HVAH	11.79	12.12	-			BR	12.77
HSI	20	2	HSI	71	1	BR	7.76	8.26	9.02	9.35	9.40	HVAH	11.79	12.12	-			BR	12.77
HSI	17	2	HSI	70	1	BR	7.76	8.26	9.23	9.56	9.61	HVAH	12.00	12.33	-			BR	12.98
HSI	16	2	HSI	72	1	BR	7.76	8.26	9.30	9.63	9.68	HVAH	12.07	12.40	-			BR	13.05
DKH	1	2	HSI	73	1	BR	8.48	8.98	9.74	10.07	10.12	HVAH	12.51	12.84	-			BR	13.49
		1	ILG	2	2	BR	0.33	0.83	1.72	2.14	2.97	MP	3.59	3.84	HI	4.58	5.00	BR	6.91
		1	ILO	1	2	BR	0.33	0.83	1.72	2.14	2.97	MP	3.59	3.84	HI	4.58	5.00	BR	6.91

Attachment 4

Comparison of Hospital Evacuation Time Estimates

Scenario	Description	Evacuation Times (h) Hartgen	Lieberman	Dif (%)
Base	Rev. 9 assumptions	12.40	12.42	-0.16
A.	LIE 10 mph out, 25 in others 15 and 20	14.54	14.49	+0.35
B.	Reduce all speeds by 3-5 mph	14.00	13.88	+0.86
C.	Reduce all speeds by 10 percent	13.07	-	-
D.	LIE 6 mph out, 15 in, others 15 and 20	20.58	18.70	+10.05
E.	Increase Expy speeds by 5 mph	11.38	12.25	-7.10
F.	"lower bound" (high speeds)	8.97 11.35*	- 11.20	- +1.34
G.	2nd Trip to Huntington Hosp. instead of V.A.	12.72	-	-
"Table 12"	Lower occupancy rates for evacuating hospitals**	-	11.87	-

*Recalculated using the LILCO speeds on p. 15-16 of LILCO's Rebuttal Testimony.

**Transmitted by letter, May 19, 1988.

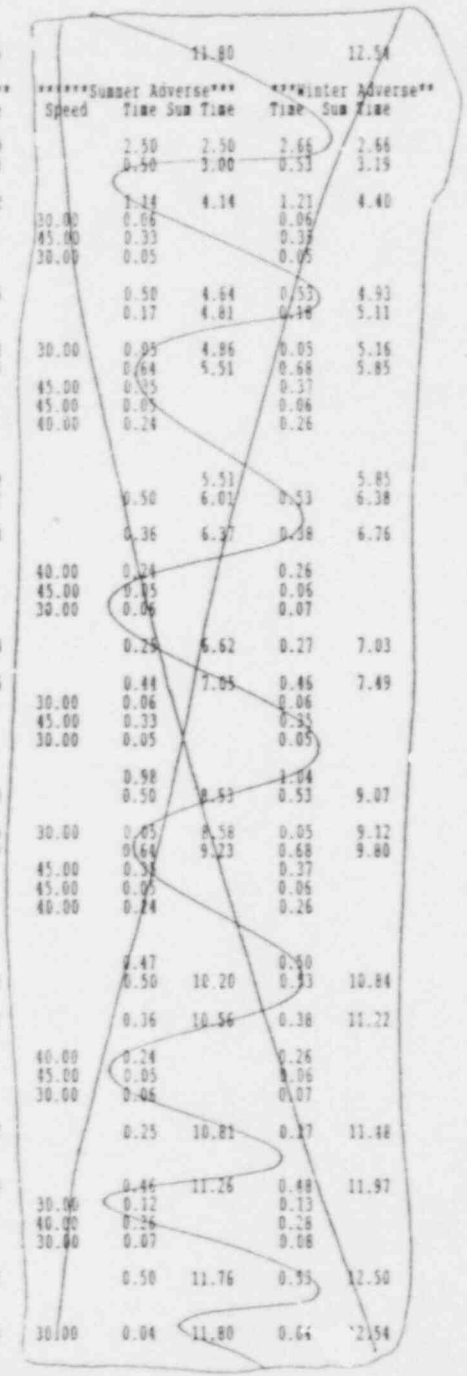
ATTACHMENT 5

Date 5/24/88
Unrestricted speeds, version 2:
Test of Lieb. 5/18/88
Scenario SHOREHAM HOSPITAL EVACUATION
FULL 10 MILE-MAX. TIME VEHICLES

NOTE: Adverse speeds NOT adjusted

SCENARIO: 9 Answer: Max time: 11.35

Item	Length	Scale	Dist.	Normal Speed	Normal Time	Normal Sum Time	Summer Adverse Speed	Summer Adverse Time	Summer Adverse Sum Time	Winter Adverse Time	Winter Adverse Sum Time	Notes
17.1 Ambul arrive at Brentw.					2.50	2.50		2.50	2.50	2.66	2.66	Input distribution
17.2 Processing at Br					0.50	3.00		0.50	3.00	0.53	3.19	Processing time
17.3 Travel to Suff. Infirm.			17.96		0.92	3.92		1.24	4.24	1.21	4.40	
Rt.111			1.76	25.00	0.07		30.00	0.06		0.06		
LIE 56-66			14.67	55.00	0.27		45.00	0.33		0.33		
R 101/LI Av.	2.58	0.59	1.53	6.70	0.23		30.00	0.05		0.05		
17.4 Loading					0.33	4.25		0.50	4.64	0.53	4.93	
Queue at S.I. (?)								0.17	4.81	0.18	5.11	Docum. unclear
17.5 Trv to EPI boundry			1.53	6.70	0.23	4.48	30.00	0.05	4.86	0.05	5.16	
17.6-.8 Bdry to Recpt Hosp.			27.79		1.72	6.19		0.64	5.51	0.68	5.85	V.A. Hosp.
LIE 56-55			15.60	20.00	0.78		45.00	0.35		0.37		
LIE 55-53			2.42	20.00	0.12		45.00	0.05		0.06		
Sunken/Pul/B&Ch/Mi	16.50	0.59	9.77	12.00	0.81		40.00	0.24		0.26		
Other												
17.7 Monitoring						6.39			5.51		5.85	Monit. at S.I.
17.9 Unload					0.33	6.52		0.50	6.01	0.53	6.38	lance
17.10 Trv to Brentwood.			14.08		0.51	7.03		0.36	6.37	0.38	6.76	
Other												
Mi/B&Ch/Pul/Sunken			9.77	25.00	0.39		40.00	0.24		0.26		
LIE 53-55			2.42	55.00	0.04		45.00	0.05		0.06		
Rt. 111			1.89	25.00	0.08		30.00	0.06		0.07		
17.11 Processing					0.25	7.28		0.25	6.62	0.27	7.03	
23.3 Trv to Suff. Inf.			17.96		0.38	7.66		0.44	7.05	0.46	7.49	
Rt.111			1.76	25.00	0.07		30.00	0.06		0.06		
LIE 56-66			14.67	55.00	0.27		45.00	0.33		0.33		
Rt 101/LIav			1.53	35.00	0.04		30.00	0.05		0.05		
Queue at S.I.					0.01			0.98		1.04		Documentation unclear.
23.4 Loading					0.33	8.00		0.50	8.53	0.53	9.07	
23.5 Trv to EPI bdry			1.53	35.00	0.04	8.05	30.00	0.05	8.58	0.05	9.12	
23.8 Trv to Recpt. Hosp.			27.79		0.94	8.99		0.64	9.23	0.68	9.80	
LIE 66-55			15.60	40.00	0.39		45.00	0.35		0.37		
LIE 55-53			2.42	40.00	0.06		45.00	0.05		0.06		
Sunken/Pul/B&Ch/Mi	16.50	0.59	9.77	20.00	0.49		40.00	0.24		0.26		
Other												
Queue at Recpt. Hosp (?)					0.29			0.47		0.50		Docum. unclear
23.9 Unloading					0.33	9.61		0.50	10.20	0.53	10.84	
23.10 Trv to Brentwood			14.08		0.51	10.12		0.36	10.56	0.38	11.22	
Other												
Mi/B&Ch/Pul/Sunken			9.77	25.00	0.39		40.00	0.24		0.26		
LIE 53-55			2.42	55.00	0.04		45.00	0.05		0.06		
Rt. 111			1.89	25.00	0.08		30.00	0.06		0.07		
23.11 Processing					0.25	10.37		0.25	10.81	0.27	11.48	
St. Charles Hosp. 3'rd Wave												
SC.3 Trv to St. Charles			16.27		0.63	10.99		0.46	11.26	0.48	11.97	
Rt. 111			3.71	25.00	0.15		30.00	0.12		0.13		
Rt. 347			10.44	25.00	0.42		40.00	0.36		0.28		
Rt 25A/Myrt/Hosp			2.12	35.00	0.06		30.00	0.07		0.08		
SC.4 Loading					0.33	11.32		0.50	11.76	0.53	12.50	
SC.5 Trv to EPZ bdry												
Hosp/Myrt/Rt 25A	1.70	0.63	1.07	35.00	0.03	11.35	30.00	0.04	11.80	0.04	12.54	



Cumulative Distrib

Distance	Sum time	Where
0.0.	2.50	at Brent.
0.01	3.00	process
17.96	3.92	at S.I.
17.96	4.25	load
19.49	4.48	at EPI Bdry
47.27	6.19	at Rec Ho
47.27	6.52	unload
61.35	7.03	at Brent.
61.35	7.28	process
79.31	7.66	at S.I.
79.31	8.00	load+q
80.84	8.05	at EPI bdry
108.62	8.99	at Rec Ho
108.62	9.61	q + unld
[illegible]	10.12	at Brent.
122.70	10.37	process
138.97	10.99	at St Cha
138.97	11.32	q + load
140.04	11.35	at EPI bd

Percent Distributions

item	Distance	%	Time	%
Strt-disp			3.50	0.31
Trv-empty	80.34	0.57	2.95	0.26
Loading			0.99	0.09
Trv-full	59.70	0.43	2.96	0.26
Queuing			0.30	0.03
Unloadng			0.66	0.06
TOTAL	140.04	1.00	11.35	1.00

DATE: May 26, 1988

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
LONG ISLAND LIGHTING COMPANY	)	Docket No. 50-322-OL-3
	)	(Emergency Planning)
(Shoreham Nuclear Power Station	)	
	)	
Unit 1)	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the "Surrebuttal Testimony of David T. Hartgen, Ph.D., P.E., on Behalf of the State of New York Regarding Hospital Evacuation Time Estimates" have been served on the following this 26th day of May 1988 by U.S. Mail, first class, except as noted by asterisks.

Mr. Frederick J. Shon
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Spence W. Perry, Esq.
William R. Cumming, Esq.
Office of General Counsel,
Federal Emergency Management Agency
500 C Street, S.W., Room 840
Washington, D.C. 20472

Dr. Jerry R. Kline
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. James P. Gleason, Chairman
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Anthony F. Earley, Jr., Esq.
General Counsel
Long Island Lighting Company
175 East Old Country Road
Hicksville, New York 11801

Ms. Elisabeth Taibbi
Clerk
Suffolk County Legislature
Suffolk County Legislature
Office Building
Veterans Memorial Highway
Hauppauge, New York 11788

Mr. L.F. Britt
Long Island Lighting Company
Shoreham Nuclear Power Station
North Country Road
Wading River, New York 11792

Ms. Nora Bredes
Executive Director
Shoreham Opponents Coalition
195 East Main Street
Smithtown, New York 11787

Adrian Johnson, Esq.
New York State Department of Law
120 Broadway, 3rd Floor
Room 3-16
New York, New York 10271

MHB Technical Associates
1723 Hamilton Avenue
Suite K
San Jose, California 95125

E. Thomas Boyle
Suffolk County Attorney
Building 158 North County Complex
Veterans Memorial Highway
Hauppauge, New York 11788

Mr. Jay Dunkleburger
New York State Energy Office
Agency Building #2
Empire State Plaza
Albany, New York 12223

Joel Blau, Esq.
Director, Utility Intervention
N.Y. Consumer Protection Board
Suite 1020
Albany, New York 12210

Mr. Donald P. Irwin
Hunton & Williams
707 East Main Street
P.O. Box 1535
Richmond, Virginia 23212

Stephen B. Latham, Esq.
Twomey, Latham & Shea
33 West Second Street
Riverhead, New York 11901

Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Hon. Patrick G. Halpin
Suffolk County Executive
H. Lee Dennison Building
Veterans Memorial Highway
Hauppauge, New York 11788

Dr. Monroe Schneider
North Shore Committee
P.O. Box 231
Wading River, New York 11792

Lawrence Coe Lanpher, Esq.
Kirpatrick & Lockhart
1800 M Street, N.W.
South Lobby - Ninth Floor
Washington, D.C. 20036

Edwin J. Reis
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. James P. Gleason
Chairman
Atomic Safety and Licensing Board
513 Gilmoure Drive
Silver Spring, MD 20901

David A. Brownlee, Esq.
Kirkpatrick & Lockhart
1500 Oliver Building
Pittsburgh, Pennsylvania 15222

Mr. Stuart Diamond
Business/Financial
NEW YORK TIMES
229 W. 43rd Street
New York, New York 10036

Douglas J. Hynes
Town Board of Oyster Bay
Town Hall
Oyster Bay, New York 11771

Mr. Philip McIntrie
FEMA
26 Federal Plaza
New York, New York 10278

Adjuicatory File
Atomic Safety and Licensing
Board Panel Docket
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Martha E. Radley
Keyboard Specialist
NYS Dept. of Economic Development
Alfred E. Smith Office Building
17th Floor
Albany, New York 12225
(518) 474-1273

* By Telecopier also

** By Federal Express