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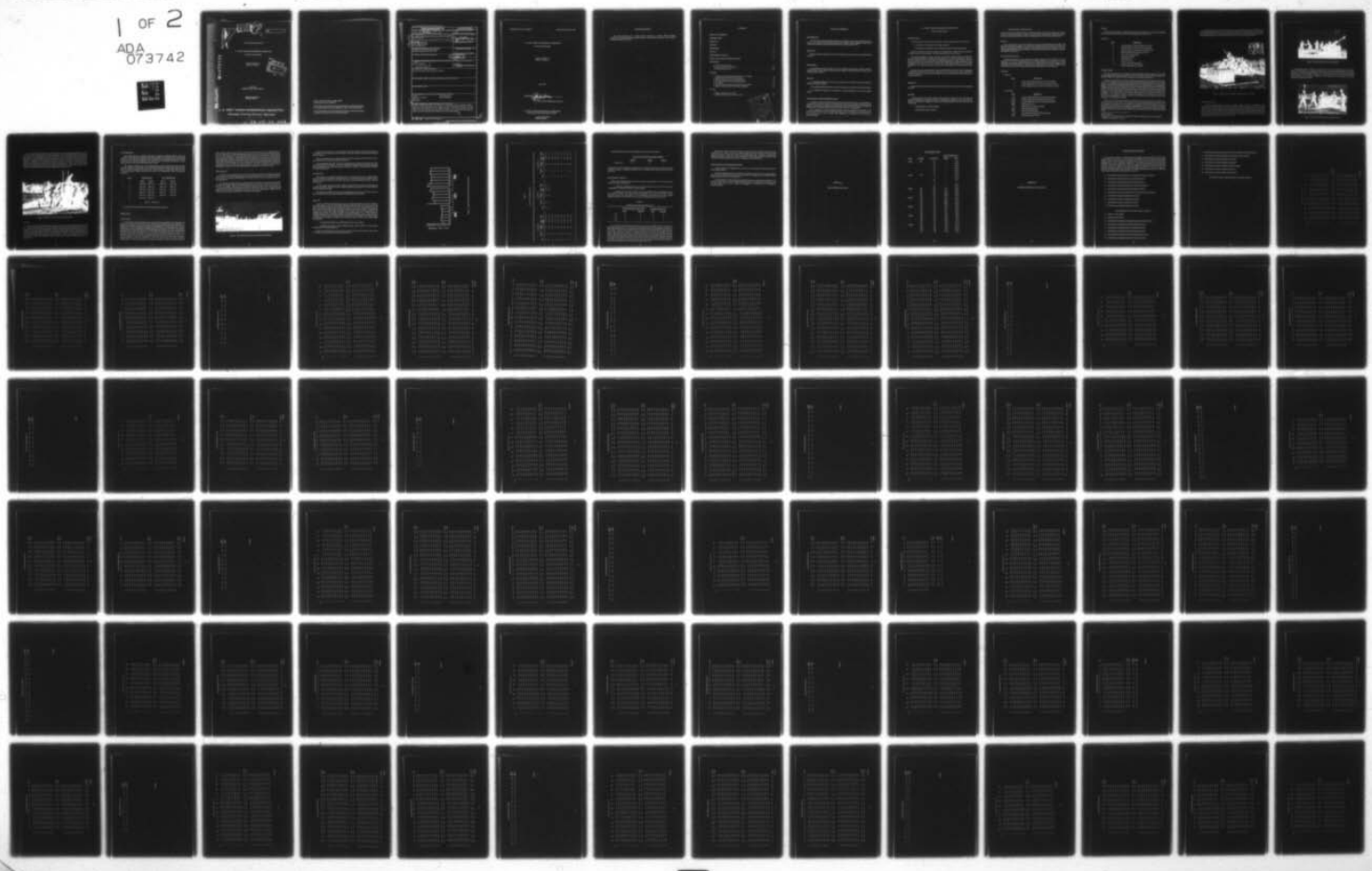

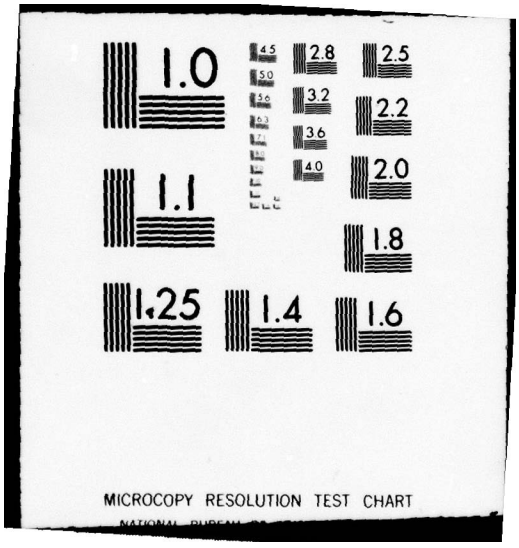
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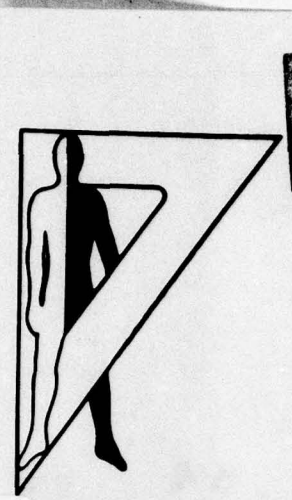

LEVEL II

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Technical Memorandum 9-79

U. S. ARMY HUMAN ENGINEERING LABORATORY

RATE OF FIRE STUDY

Frank R. Paragallo, Jr.
William J. Dousa, Jr.

June 1979
AMCMS Code 612716.H700011

U. S. ARMY HUMAN ENGINEERING LABORATORY
Aberdeen Proving Ground, Maryland

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USAHEL conducted the Rate of Fire Study to: (1) measure the effects of projectile weight on rates of fire and (2) determine realistic maximum rate of fire information for the three howitzers tested. The three howitzers were the 105mm M101A1, the 155mm M114A1, and the 122mm, D-30. The data showed no degradation in firing rate over 60 round missions fired as fast as the crews could load ammunition. This was true for all weapons tested.

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APPROVED: _____
JOHN D. WEISZ
Director
U. S. Army Human Engineering Laboratory

U. S. ARMY HUMAN ENGINEERING LABORATORY
Aberdeen Proving Ground, Maryland 21005

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CONTENTS

EXECUTIVE SUMMARY

BACKGROUND

The US Army Human Engineering Laboratory (USAHEL) conducted a rate-of-fire study in order to help weapon system analysts assess current weapon system capabilities. The test was conducted at Aberdeen Proving Ground, Maryland, during the spring of 1978.

OBJECTIVE

Determine realistic maximum rate-of-fire information for one Soviet and two United States howitzers.

PROCEDURE

The performance of three artillery crews was measured while firing the 105mm, M101A1, 155mm, M114A1, and 122mm, D-30 howitzers as rapidly as possible during the conduct of 50- and 60-round fire missions.

RESULTS

1. A significant difference in rate of fire exists between the 105mm howitzer and both the 122mm and 155mm howitzers.

2. No significant difference exists in rate of fire between the 122mm and 155mm howitzers.

3. No significant differences in performance were found between crews on any weapon system.

CONCLUSIONS AND RECOMMENDATIONS

1. Presently, quoted rates of fire between US and Soviet howitzers are not comparable on the same basis. US data are based on worst case safety and wear considerations while Soviet data appear to be based on maximum crew performance. Data collected during this test should be considered when modeling artillery battles where rates of fire are a consideration.

2. The capability of manual loading procedures should be considered in the design of new howitzer systems. Plans for future howitzers generally require a 6-round-per-minute burst rate of fire. This burst rate of fire is within the capability of a manual crew if the weapon is properly designed.

U. S. ARMY HUMAN ENGINEERING LABORATORY

RATE OF FIRE STUDY

INTRODUCTION

The effectiveness of artillery weapons systems is usually represented by two parameters:

1. The ability of the system to hit a target (accuracy).

2. The effect of the munitions on the target (projectile payload and firing rate).

The first parameter has been the subject of comprehensive testing in both fire direction and ballistic accuracy measurements. Extensive data presently exist in this area.

The second parameter, however, has been only partially studied. Extensive information exists on the effectiveness of a single projectile delivered on a target. Information also exists on the time required to deliver first rounds and adjusting rounds on a target. However, the only information that exists on sustained fire is that which is generated by hardware limitations (tube temperature, wear rates, etc.) of the weapons. Since these rates are generally for worst-case situations (i.e., hot tube, max charge, etc.), they are not necessarily the limiting factor on firing rate.

The US Army Human Engineering Laboratory (USAHEL) Rate of Fire Study was designed to determine realistic rates of fire for three howitzers to allow weapon systems analysts to accurately assess current weapon system capabilities and to provide a data base to predict future weapon performance.

OBJECTIVE

Determine realistic maximum rates-of-fire information for one Soviet and two United States howitzers.

METHOD

Artillery weapons with similar physical and operational characteristics, but with different projectile weights, were required in order to accomplish the objectives of the test. Since the selection was limited to operational howitzers and standard ammunition, the following three were chosen:

1. Model M101A1, 105mm howitzer.

2. Model D-30, 122mm howitzer.

3. Model M114A1, 155mm howitzer.

These three howitzers provided a range of projectile weights from 15 kg to 43 kg. All are towed howitzers with approximately the same crew working area configuration. Differences include type of ammunition fired (fixed or separate loading), breech action, and ramming procedure.

Subjects

Three complete gun crews, each consisting of nine experienced artillerymen—all with a 13B MOS—were used as test subjects. Two crews were obtained from the 1st Battalion, 319th Field Artillery, 82d Airborne Division, stationed at Fort Bragg, North Carolina. The third crew was supplied from the Military Support Division of the Materiel Testing Directorate (MTD), Aberdeen Proving Ground, Maryland.

Controllers/Data Collectors

USAHEL provided two data controllers to monitor firings and to time events; two camera operators to film all firing sequences from two different angles; three personnel to man the audiometric test facility where hearing tests were conducted before and after firing; and two personnel, with instrumentation, to measure blast overpressure from the weapons. MTD provided a test officer to insure that all safety procedures and range regulations were followed.

Apparatus

Weapons:

Qty	Description
1	122mm, Model D-30, Soviet Howitzer, SN 46628-21
2	105mm, Model M101A1 Howitzer, SN 8172 and 8173
2	155mm, Model M114A1 Howitzer, SN 10265 and 10672

Ammunition:

Qty	Description
150	122mm, Model OF462, HE Projectiles (inert-loaded)
1000	105mm, Model M1, HE Projectiles (inert-loaded)
1000	155mm, Model M107, HE Projectiles (inert-loaded)
2000	M78 Dummy Fuzes
150	RGM-2 PD Fuzes, Soviet (inerted)
1000	M67 Propelling Charges
1000	M4A2 Propelling Charges
150	Full and Reduced Soviet Propelling Charges
1000	MK2A4 Percussion Primers

Facilities

The test site was located at Aberdeen Proving Ground, Maryland, Firing Position, Building 680. The howitzers were set up side by side, approximately 50 meters apart.

Equipment

Qty	Description
2	Complete BILI for 105mm, M101A1 Howitzer
2	Complete BILI for 155mm, M114A1 Howitzer
1	Set, Fire Control, Soviet 122mm, D-30 Howitzer
3	DBM 4C Milliken Motion Picture Cameras
1	Sony Video Tape Recorder
5	Digital Stopwatches
3	Tape Recorders
1	2½-ton Van Truck
1	2½-ton Truck with Scaffolding
1	Mobile Audiometric Test Facility

Preparation Phase

All major components of the weapons underwent magnetic particle inspection. The tubes were star gaged and borescoped. Periodic tests of on-carriage fire control were conducted on all weapons. These tests showed all weapon components were within specifications.

Because, at some charges, the blast overpressures associated with the 122mm howitzer were in excess of US standards, a test was conducted to bring the blast overpressures to an acceptable level for crew members employing single hearing protection. Reducing the full charge to a total weight of 2.0 lbs was required before the blast overpressures were lowered to an acceptable level. Therefore, all the Soviet full charges were reduced to a total weight of 2.0 lbs for use in the Rate of Fire Study. Blast overpressure measurements were also taken on the US howitzers using charge 3, M4A2, in the 155mm howitzer and charge 3, M61, in the 105mm howitzer, and found to be acceptable.[1] Tube temperatures were monitored during firings to warn the test controllers of the possibility of a cook-off condition. Extensive investigation was conducted in the areas of cook-offs, tube temperature, maximum rates of fire, and safety hazards associated with rapid firing, prior to creating the test design.

Prior to the first live firing, each crew member had his ears examined by a physician to insure that his ear canals were clear and healthy and that his eardrums were intact. Ear canals were cleaned, as required. All crew members were fitted with and instructed in the use of triple-flange ear plugs. A baseline audiogram was established for each crew member by repeated testing in the mobile, audiometric test facility (ATF). The gun crews' hearing was then monitored during the firing tests by pre- and post-audiometric tests to insure that no one suffered hearing losses.[2]

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[1] See Appendix C.

[2] Hodge, D.C., Price, G.R., Dukes, N., & Murff, S. Effects of artillery noise on the hearing of protected crew personnel. In press.

All projectiles and fuzes in this test were inert. A fixed quadrant elevation of 500 mils and a predetermined azimuth of fire were maintained throughout the testing. Firing was conducted, using established field artillery gunnery procedures. For all firings, the projectiles were fuzed and the propelling charges cut and stacked beside the weapon before firing began (Figure 1).

Figure 1. Projectile and propelling charge placement for testing.

Howitzer Descriptions

The 122mm, D-30 (Figure 2), is a towed artillery weapon which fires a 48-lb HE projectile approximately 15,300 meters at maximum range. The published maximum rate of fire is 6-8 rounds per minute. The weapon has a semiautomatic vertical sliding wedge breechblock which fires case-type, variable charge, separate loading ammunition. The projectile must be loaded and rammed with a short staff. When the cartridge case containing the propelling charge is loaded, the breech automatically closes. Upon firing, the breech automatically opens and ejects the empty cartridge case. The D-30 is manned by a crew of six.

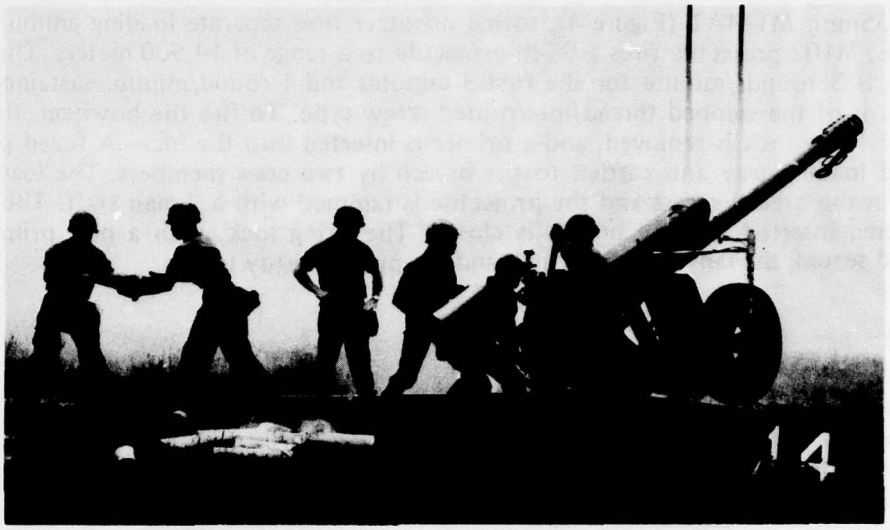

Figure 2. D-30 howitzer and crew during testing.

The 105mm, M101A1 (Figure 3), towed howitzer fires a 33-lb HE projectile to a maximum range of 11,500 meters. The published maximum rate of fire is 10 rounds/minute for the first 3 minutes and 3 rounds/minute thereafter. The weapon incorporates a horizontal sliding wedge breechblock and fires semifixed ammunition. In contrast to the D-30, the 105mm complete round, projectile and cartridge, is loaded into the weapon in one operation. The breech mechanism is operated manually.

Figure 3. M101A1 howitzer and crew during testing.

The 155mm, M114A1 (Figure 4), towed howitzer fires separate loading ammunition. The 155mm, HE, M107 projectile fires a 95-lb projectile to a range of 14,500 meters. The published rate of fire is 3 rounds/minute for the first 3 minutes and 1 round/minute sustained fire. The breechblock is of the stepped thread/interrupted screw type. To fire the howitzer, the breech is opened, the firing lock is removed, and a primer is inserted into the lock. A fuzed projectile is placed on a loading tray and carried to the breech by two crew members. The loading tray is positioned in the breech recess and the projectile is rammed with a 2-man staff. The propelling charge is then inserted and the breech is closed. The firing lock, with a new primer, is then inserted and seated, the lanyard is attached, and the piece is ready to fire.

Figure 4. M114A1 howitzer and crew during testing.

Training

Each gun crew from the 82d Airborne was complete and its members had worked together prior to this experiment. The crew from the Military Support Division of MTD had also worked as a team prior to this study. Although all subjects were experienced artillerymen, several crew members from each of the teams had never fired any of these three howitzers. Consequently, all personnel were instructed by an artillery officer assigned to MTD in the use and function of all three weapons. Training consisted of service-of-the-piece drills on all weapons as well as live firings of all weapons. The experiment started when all crews had demonstrated proficiency on the weapons.

Test Design/Matrix

The testing matrix was carefully structured to provide comparable data for crews and weapons. Two constraints considered in the matrix design were: (1) rest periods were provided for all crews and (2) crews firing the 122mm howitzer were not subjected to more than 60 total rounds per day. This last constraint was a safety factor to limit the total amount of noise exposure that a crew would receive during a day's firing.

The testing consisted of gun crews conducting fire-for-effect missions with each howitzer. The total number of rounds fired in each cell for US howitzers was 60 rounds. Because of the scarcity of Soviet ammunition, the firing of the 122mm howitzer was restricted to 50-round cells. Two crews fired the 122mm howitzer one time each in the testing phase. Figure 5 contains the test matrix.

DAY	MORNING		AFTERNOON	
	Cell 1	Cell 2	Cell 1	Cell 2
1	1/82, 105	APG, 155	2/82, 155	APG, 105
2	2/82, 105	1/82, 155	APG, 105	2/82, 155
3	1/82, 155	2/82, 122	APG, 155	1/82, 105
4	2/82, 105	1/82, 122	APG, 105	2/82, 155
5	1/82, 155	2/82, 105	APG, 155	1/82, 105
6	1/82, 155	2/82, 105		

Figure 5. Test matrix.

Two cells each were conducted in a morning and afternoon session.

PROCEDURE

Test Procedure

At the start of each day, subjects and control personnel assembled at the firing point for instructions. The two crews which were not firing the first mission would fuze projectiles, cut charges, ready primers, and stack the ammunition alongside the howitzer to be used. The crew which was to fire the mission had audiogram tests performed in the audiometric test facility. Concurrently, control personnel set up the cameras, tape recorders, and other data gathering instrumentation around the howitzer to be fired. When the hearing testing was completed, the gun crew occupied their appropriate places. A test officer would then review the mission to be performed by the crew and answer any questions before the mission started. Prior to the start of a cell, the temperature of the tube was measured and recorded. The test officer would then give a warning whistle to alert the controllers to start the cameras, tape recorders, and other instrumentation. Fifteen seconds later, a second blast was blown to initiate the mission. The test

officer initially called out gun orders to the chief of the section who, in turn, called them out to his crew. Once the first round was loaded and ready to fire, the test officer gave the command to fire. From that point on, the section chief fired the mission as rapidly as his crew could respond, with no unsafe practices or running allowed. At the conclusion of the mission, the test officer would again blow a whistle to terminate all data recording. Upon completion of the mission, the crew would immediately go to the ATF van and have their post-firing audiograms. When the hearing tests were completed, this crew and the crew not firing the next mission prepared the ammunition for cell 2. The crew being prepared to fire cell 2 would have their pre-firing audiograms performed at this time. The sequence was repeated for the afternoon session.

Data Acquisition

A 2½-ton truck, positioned to the rear of the firing area, served as a mobile control and instrumentation center for the acquisition of the blast overpressure data. The mobile audiometric test facility was positioned approximately 150 meters to the rear of the weapons, behind a barricade bunker.

All missions were filmed from two different camera locations. One camera was positioned, approximately 20-feet high, on scaffolding mounted on a 2½-ton truck. The truck was placed to the rear and slightly off-center on the howitzer firing the mission. The second camera was located at ground level on the opposite side of the weapon from camera No. 1. It was positioned approximately 10 meters behind and 10 meters to the side of the trunnion (Figure 6). The cameras were turned on 15 seconds prior to the start of the mission.

Figure 6. Data collection equipment placement during testing.

Data from all missions were tape recorded. These data included the call for fire and fire commands, the shot cycle times, and comments by the data collector as he timed and observed the fire missions.

Blast overpressure data were gathered with piezoelectric gauges positioned beside the tube and recorded on an oscilloscope inside the control van.

Tube temperature data were taken with a digital electronic constant pyrometer prior to and at the conclusion of every mission. At no time during the training firings or the actual experiment did the temperature of a tube ever approach a hazardous condition. Tube temperature readings are listed in Appendix A.

Data Reduction

Data reduction and analysis were performed on the motion picture films. Timing data for specific events were obtained by reading the film on a film analyzer and counting the frames between the start and the end of an event. The frame counts thus obtained were then converted into real time.

To help analyze the data, the total number of rounds fired in a mission were divided into 10-round increments. Appendix B has a complete listing and explanation of the data gathered from the films for all firings.

The information obtained from the tape recordings was used to help verify data from the films and explain events that were taking place during filming of the missions.

RESULTS

In order to fulfill the first objective of the test—to measure the effect of projectile weight on crew performance—cycle time for 10-round increments were analyzed. This cycle time was the mean time between rounds for the successive 10-round increments. By comparing the mean cycle time for an increment against other increment cycle times in the same mission, a determination of the effect of projectile weight and fatigue could be made. Figure 7 presents a graph of the average cycle times for the same increment of all missions fired with a caliber. Results of statistical testing on the cycle times revealed no significant difference existed at the 95 percent confidence levels between cycle times for the same increment. Additionally, no differences were noted between the average cycle times for any increment within a caliber. These results suggest the following:

a. No significant differences existed between crews on any weapon.

b. Within each weapon system, projectile weight caused no effect on time between rounds fired for the sample sizes used.

Table 1 lists the total mission times (first round fired to last) for all missions. Also shown are rate-of-fire data computed from the total firing times.

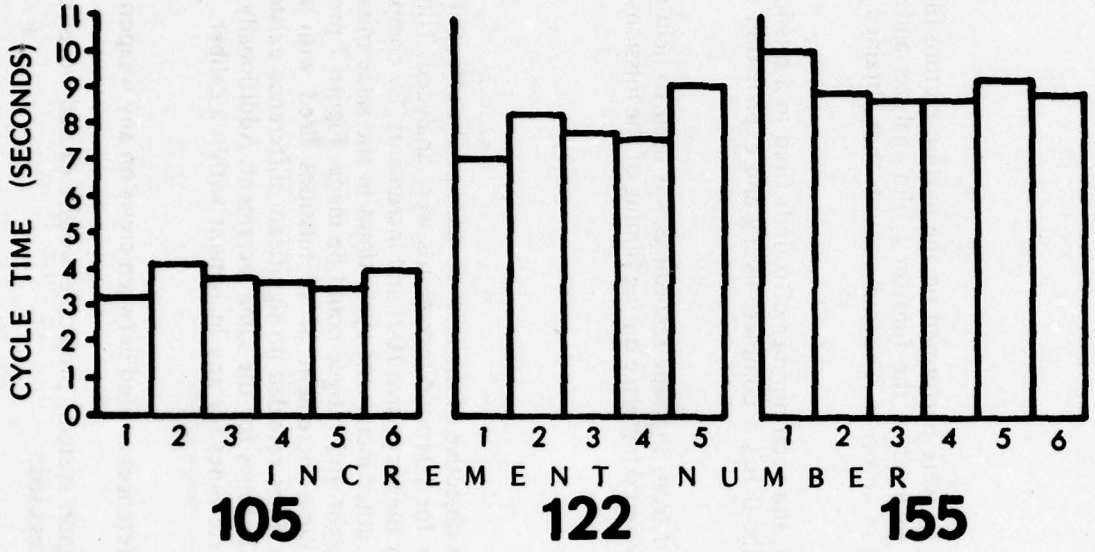

Figure 7. Graph of average cycle times versus increment.

TABLE 1

Mission Times and Rate of Fire

105 MM					122 MM					155 MM				
Crew	Mission No.	Number of Rds	Total Time (min)	Rds/ Min	Crew	Mission No.	Number of Rds	Total Time (min)	Rds/ Min	Crew	Mission No.	Number of Rds	Total Time (min)	Rds/ Min
A	5	60	5.10	11.8	A	10	50	6.13	8.2	A	3	60	9.90	6.1
A	13	60	4.01	15.0	B	14	50	6.89	7.3	A	7	60	8.24	7.3
A	18	60	3.62	16.6						A	16	60	9.15	6.6
B	1	59	4.15	14.2						B	6	60	9.50	6.3
B	12	60	3.17	18.9						B	9	60	8.87	6.8
B	19	60	3.10	19.4						B	17	60	7.57	7.9
C	4	60	3.04	19.7						C	2	60	9.42	6.4
C	8	60	3.11	19.3						C	11	60	8.94	6.7
C	15	60	3.99	15.0						C	20	60	8.94	6.7

The following rates of fire were measured for the three howitzers tested:

	Rates of Fire All Crews in Rounds Per Minute		
	105mm	122mm	155mm
Rate of Fire	17	8	7

A statistically significant difference exists between the 105mm and both the 122mm and 155mm howitzers. However, no significant difference was noted between the 122mm and the 155mm in rate of fire.

DISCUSSION OF RESULTS

While many interesting details were learned about sustained high rate of firing during this test, the two major findings were:

1. Presently configured gun crews can sustain maximum rate of fire for 60 rounds with no degradation in firing rate caused by projectile weight.

2. Maximum rates of fire measured in this test are different than the published rates for US howitzers. However, test results verified the published rates of fire for the D-30. If both maximum rates of fire were based on crew performance, as measured in this test, apparent mismatches between US and Soviet howitzers would be significantly reduced (Table 2).

TABLE 2

Published Versus Measured Rates of Fire

	Presently Published Rates of Fire		Measured Rates of Fire	
	Burst	Sustained	Burst	Sustained
105	10	3	17	17
122	8	8	8	8
155	4	1	7	7

If one were to accept the presently quoted rates of fire, the Soviet 122mm howitzer has a significant advantage in rate of fire over both the US 105mm and 155mm howitzers. However, if the measured rates of fire are compared to the published rates, there is significant improvement in the rates of fire of the US howitzers while the rates for the Soviet howitzer remain the same. Several other problems, common to a particular howitzer, were noticed. Cartridge case jams caused a significant problem. During 105mm missions, all jams were caused by bent cartridge cases, which prevented proper seating and closing of the breech. Sometimes additional pressure on the base of the casing would force it to seat in the breech; at other times, complete removal of the casing was necessary. In almost all occurrences, the cannisters became jammed because of ammunition handling techniques required by the high rate of fire.

Of particular interest on the D-30 howitzer was the fact that although we were using an equivalent zone 1 Soviet charge, the weapon jumped after every round fired. Weapon jump caused the gunner to relay the weapon an estimated 20-30 mils in deflection and quadrant elevation after each round fired. Also, according to the US hearing protection standards a crew could fire only 60 rounds per day at a zone 1 charge from the D-30 howitzer.

CONCLUSIONS AND RECOMMENDATIONS

1. With present crew configurations, rate of fire is not limited by projectile weight up to 60-round fire missions.

2. Presently published rates of fire between US and Soviet howitzers are not comparable on the same basis. Data collected during this test should be considered when modeling artillery battles when rates of fire are a consideration.

3. The capability of manual loading procedures should be considered in the design of new howitzer systems. Plans for future howitzers generally require a 6-round per minute burst rate of fire. This burst rate of fire is within the capability of a manual crew if the weapon is properly designed.

APPENDIX A

TUBE TEMPERATURE DATA

Tube Temperature Data

Date	Howitzer	No. Rounds	Tube Temperature °F	
			Before	After
17 May	105	10	–	93.0
		10	–	103.0
		10	–	116.0
		10	–	123.0
		10	–	121.0
		10	–	118.0
18 May	155	5	–	112.0
		5	–	118.2
		20	–	126.1
		5	–	–
		5	–	141.4
		20	–	85.0
19 May	105	60	65.4	129.6
	155	60	72.5	146.2
	155	60	100.0	164.0
	105	60	84.0	128.0
22 May	105	60	60.1	133.2
	155	60	62.0	130.9
	155	60	103.5	183.2
	105	60	80.0	109.0
23 May	155	60	67.0	123.8
	122	50	69.1	129.9
	155	60	92.7	152.8
	105	60	84.5	102.0
24 May	105	60	58.2	138.7
	122	50	59.6	94.9
	105	60	68.0	95.0
	155	60	63.2	137.4
25 May	155	60	65.4	119.0
	105	60	73.4	141.2
	105	60	84.7	187.3
	155	60	87.0	147.0

APPENDIX B

COMPUTER PRINTOUT OF FILM DATA

Computer Printout of Film Data

This appendix contains a complete listing of all data reduction performed on the motion picture films. All times given are in seconds and hundredths of a second. They represent times between specific events. All missions, whether 50 or 60 rounds, were divided into 10-round segments with 5 or 6 increments, respectively. The computer sheets give a round-by-round breakdown for specific events (Col A, Col B, etc.) and then the mean and median are computed at the end of each 10 rounds. A total mean and median are computed at the end of all rounds fired. All missions are coded by the caliber and mission number at the top of the page; i.e., M105-01. An explanation of the first mission—a 105mm firing—follows. Columns A-J represent the timing between specific events which are as follows:

A – Time between opening the breech and inserting the complete projectile.

B – Time between ramming projectile and closing the breech.

C – Time between closing the breech and firing the howitzer.

D – Time between ramming the projectile and firing the howitzer.

E – Time between closing the breech and firing the howitzer.

F – Time between successive picking up of the projectile from the stockpile.

G – Time between successive openings of the breech.

H – Time between successive ramming of projectiles.

I – Time between successive closings of the breech.

J – Time between successive firings of the howitzer.

The explanation for the 155mm missions is as follows:

A – Same as for the 105mm.

B – Same as for the 105mm.

C – Time between inserting the propelling charge and closing the breech.

D – Time between ramming the round and closing the breech.

E – Time between opening the breech and closing the breech.

F – Time between closing the breech and firing the howitzer.

G – Time between ramming the projectile and firing the howitzer.

H – Time between opening the breech and firing the howitzer.

I – Time between picking the projectile up from the stockpile to firing the howitzer.

J – Time between successive picking up of projectiles from the stockpile.

K – Time between successive openings of the breech.

L – Time between successive ramming of projectiles.

M – Time between successive loading of propellant charge.

N – Time between successive closings of the breech.

O – Time between successive firings of the howitzers.

The 122mm firings are coded identically to the 105mm missions.

ANALYSIS OF DATA (M105 01)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.37	5.62	6.00	0.00						
						0.00	0.00	7.38	7.63	3.12	
2	0.62	0.62	1.13	1.75	2.38						
						0.00	3.00	2.63	8.75	8.75	
3	0.25	6.75	1.13	7.88	8.12						
						0.00	8.63	9.00	2.88	2.75	
4	0.62	0.62	1.00	1.63	2.25						
						6.75	2.75	2.63	2.63	2.38	
5	0.50	0.62	0.75	1.38	1.87						
						9.13	2.38	2.25	2.38	2.38	
6	0.37	0.75	0.75	1.50	1.87						
						2.50	2.38	2.50	2.38	2.38	
7	0.50	0.62	0.75	1.38	1.87						
						2.13	2.38	2.38	2.25	2.25	
8	0.50	0.50	0.75	1.25	1.75						
						2.88	2.25	15.50	15.38	15.50	
9	13.75	0.37	0.87	1.25	15.00						
						2.13	15.38	2.50	2.75	2.50	
10	0.87	0.62	0.62	1.25	2.13						
	0.50	0.62	0.81	1.44	2.13	2.69	2.56	2.63	2.75	2.50	MEDIAN
	2.00	1.19	1.34	2.53	4.14	4.25	4.89	5.19	5.22	4.67	MEAN
						2.38	2.50	2.25	2.13	2.25	
11	0.62	0.50	0.75	1.25	1.87						
						15.62	2.25	2.25	2.25	2.13	
12	0.62	0.50	0.62	1.13	1.75						
						2.50	2.25	2.13	2.13	2.13	
13	0.50	0.50	0.62	1.13	1.63						
						2.13	2.00	2.13	2.50	2.63	
14	0.62	0.87	0.75	1.63	2.25						
						2.25	2.63	36.38	35.88	35.88	
15	34.37	0.37	0.75	1.13	35.50						
						2.13	36.00	2.38	2.50	2.50	
16	0.75	0.50	0.75	1.25	2.00						
						21.50	2.50	2.38	2.25	2.38	
17	0.62	0.37	0.87	1.25	1.87						
						17.25	2.25	2.25	2.38	2.25	
18	0.62	0.50	0.75	1.25	1.87						
						2.25	2.63	3.88	3.88	3.88	
19	1.87	0.50	0.75	1.25	3.12						
						2.38	3.63	2.38	2.38	2.13	
20	0.62	0.50	0.50	1.00	1.63						

(Continued)

	0.62	0.50	0.75	1.25	1.87	2.38	2.50	2.31	2.38	2.31	MEDIAN
	4.13	0.51	0.71	1.23	5.35	7.04	5.86	5.84	5.82	5.81	MEAN
21	0.62	0.50	0.75	1.25	1.87	2.13	2.13	2.13	2.13	2.38	
22	0.37	0.50	0.87	1.38	1.75	3.88	2.38	2.13	2.13	2.25	
23	0.50	0.50	1.00	1.50	2.00	2.38	2.13	2.25	2.25	2.38	
24	0.62	0.50	0.62	1.13	1.75	2.50	2.50	2.63	2.63	2.25	
25	0.50	0.50	0.62	1.13	1.63	2.38	2.25	2.13	2.13	2.13	
26	0.50	0.87	0.62	1.50	2.00	2.13	2.00	2.00	2.38	2.38	
27	0.37	0.62	0.62	1.25	1.63	2.13	2.50	2.38	2.13	2.13	
28	0.37	0.62	7.75	8.38	8.75	2.00	2.13	2.13	2.13	9.25	
29	0.75	0.50	0.62	1.13	1.87	2.38	9.25	9.63	9.50	2.38	
30	0.50	0.75	0.25	1.00	1.50	2.00	2.25	2.00	2.25	1.87	
	0.50	0.50	0.62	1.25	1.81	2.25	2.25	2.13	2.19	2.31	MEDIAN
	0.51	0.59	1.38	1.96	2.47	2.39	2.95	2.94	2.96	2.94	MEAN
31	0.37	0.87	0.25	1.13	1.50	9.50	2.00	1.87	2.00	2.00	
32	0.37	0.62	0.37	1.00	1.38	2.25	2.13	2.13	1.87	2.00	
33	0.50	14.50	0.87	15.38	15.88	1.87	1.87	2.00	15.88	16.38	
34	0.50	1.13	0.62	1.75	2.25	2.25	16.38	16.38	3.00	2.75	
35	0.37	0.62	0.62	1.25	1.63	2.00	2.75	2.63	2.13	2.13	
36	0.37	0.62	0.37	1.00	1.38	16.38	2.13	2.13	2.13	1.87	
37	0.37	0.75	0.25	1.00	1.38	2.50	1.87	1.87	2.00	1.87	
38	0.37	1.13	0.50	1.63	2.00	2.25	1.87	1.87	2.25	2.50	
39	26.88	0.62	0.62	1.25	28.12	1.87	2.50	29.00	28.50	28.63	
40	0.50	0.62	0.50	1.13	1.63	2.00	28.63	2.25	2.25	2.13	
	0.37	0.69	0.50	1.19	1.63	2.25	2.13	2.13	2.19	2.13	MEDIAN

(Continued)

	3.06	2.15	0.50	2.65	5.71	4.29	6.21	6.21	6.20	6.22	MEAN
41	0.25	1.38	0.50	1.87	2.13	2.38	2.25	2.00	2.75	2.75	
42	0.50	1.38	0.50	1.87	2.38	24.88	2.50	2.75	2.75	2.75	
43	0.50	0.62	0.50	1.13	1.63	3.63	2.88	2.88	2.13	2.13	
44	0.62	0.75	0.50	1.25	1.87	2.25	2.00	2.13	2.25	2.25	
45	0.50	0.87	1.13	2.00	2.50	2.63	2.38	2.25	2.38	3.00	
46	1.75	1.75	0.50	2.25	4.00	2.88	3.00	4.25	5.13	4.50	
47	0.62	1.50	0.50	2.00	2.63	2.25	4.63	3.50	3.25	3.25	
48	0.37	0.62	0.62	1.25	1.63	4.13	3.12	2.88	2.00	2.13	
49	0.25	1.25	0.50	1.75	2.00	2.63	2.13	2.00	2.63	2.50	
50	0.50	1.13	0.50	1.63	2.13	2.88	2.63	2.88	2.75	2.75	
	0.50	1.19	0.50	1.81	2.13	2.75	2.56	2.81	2.69	2.75	MEDIAN
	0.59	1.13	0.57	1.70	2.29	5.05	2.75	2.75	2.80	2.80	MEAN
51	0.50	1.13	0.37	1.50	2.00	3.38	2.63	2.63	2.63	2.50	
52	0.75	0.75	0.50	1.25	2.00	2.13	2.50	2.75	2.38	2.50	
53	0.37	0.75	0.37	1.13	1.50	2.63	2.63	2.25	2.25	2.13	
54	1.25	0.87	0.50	1.38	2.63	2.63	2.13	3.00	3.12	3.25	
55	0.50	1.13	0.37	1.50	2.00	2.63	3.25	2.50	2.75	2.63	
56	0.50	1.25	0.25	1.50	2.00	3.12	2.50	2.50	2.63	2.50	
57	0.50	0.75	0.50	1.25	1.75	1.63	2.63	2.63	2.13	2.38	
58	7.00	0.62	0.62	1.25	8.25	3.38	2.25	8.75	8.63	8.75	
59	1.00	0.62	0.50	1.13	2.13	5.38	8.63	2.63	2.63	2.50	
60	0.00	0.00	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	
	0.50	0.75	0.50	1.25	2.00	2.63	2.63	2.63	2.63	2.50	MEDIAN
	1.38	0.87	0.44	1.32	2.69	2.99	3.17	3.29	3.24	3.24	MEAN

(Continued)

Analysis of Data (M105 01) (Continued)

0.50	0.62	0.62	1.25	2.00	2.38	2.50	2.38	2.38	2.38	TOTAL MEDIAN
1.95	1.08	0.83	1.91	3.79	4.36	4.29	4.37	4.38	4.29	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 02)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	3.75	4.13	7.88	0.00	5.62	13.50	0.00	0.00	0.00	0.00	17.75	16.63	14.13	11.38	
2	2.38	2.63	1.63	4.25	6.63	2.88	7.13	9.50	10.75	11.13	11.50	10.63	9.37	9.75	9.63	
3	1.50	1.38	2.00	3.38	4.88	2.75	6.13	7.63	9.25	9.50	9.25	9.63	9.63	9.13	8.88	
4	1.87	1.38	1.50	2.88	4.75	2.50	5.38	7.25	8.63	9.63	8.88	12.38	12.50	12.50	13.38	
5	5.38	1.50	1.50	3.00	8.38	3.38	6.38	11.75	12.38	12.00	13.63	12.75	12.38	12.38	11.13	
6	4.50	1.13	1.50	2.63	7.13	2.13	4.75	9.25	11.50	12.38	11.00	8.75	8.88	8.75	9.75	
7	2.25	1.25	1.38	2.63	4.88	3.12	5.75	8.00	8.88	8.88	9.63	9.00	9.00	9.13	8.38	
8	1.63	1.25	1.50	2.75	4.37	2.38	5.13	6.75	8.38	8.63	8.25	10.38	10.13	10.00	11.63	
9	3.75	1.00	1.38	2.38	6.13	4.00	6.38	10.13	11.38	11.75	11.88	11.13	11.75	11.88	10.00	
10	3.00	1.63	1.50	3.12	6.13	2.13	5.25	8.25	9.63							
	2.38	1.38	1.50	2.94	6.13	2.81	5.94	8.25	9.63	10.38	10.31	10.63	10.13	10.00	10.00	MEDIAN
	2.92	1.69	1.80	3.49	5.92	3.09	6.57	8.72	10.08	10.48	10.50	11.38	11.14	10.85	10.46	MEAN
11	1.38	1.13	2.00	3.12	4.50	2.38	5.50	6.87	8.25	10.00	10.00	8.38	7.88	8.38	8.63	
12	4.25	1.38	1.13	2.50	6.75	2.00	4.50	8.75	10.25	8.63	8.75	11.63	11.88	11.00	10.63	
13	1.25	1.38	1.13	2.50	3.75	2.88	5.38	6.63	8.00	10.50	10.38	7.38	7.38	7.38	8.25	
14	1.13	1.13	1.63	2.75	3.88	2.00	4.75	5.88	8.50	7.63	8.88	8.75	8.50	9.00	8.12	
15	4.63	1.38	1.13	2.50	7.13	4.37	6.87	11.50	12.88	8.75	7.50	11.00	11.25	10.75	13.13	
16	1.63	1.38	1.75	3.12	4.75	2.25	5.38	7.00	8.38	13.38	13.38	10.38	10.38	11.00	8.88	
17	4.50	1.38	1.13	2.50	7.00	2.25	4.75	9.25	10.75	8.75	8.88	11.75	11.75	11.13	11.13	
18	2.25	1.25	1.75	3.00	5.25	3.50	6.50	8.75	10.00	11.13	10.88	8.63	8.50	9.13	10.38	
19	1.63	1.00	1.50	2.50	4.13	2.25	4.75	6.38	7.88	10.25	10.50	9.88	9.63	9.37	8.12	
20	4.37	1.50	1.13	2.63	7.00	2.63	5.25	9.63	10.38	8.75	8.00	10.75	11.25	10.88	11.25	

(Continued)

	1.94	1.38	1.31	2.56	5.00	2.31	5.31	7.88	9.25	9.37	9.44	10.13	10.00	10.06	9.63	MEDIAN
	2.70	1.29	1.42	2.71	5.41	2.65	5.36	8.06	9.52	9.77	9.71	9.85	9.84	9.80	9.85	MEAN
21	1.38	1.25	1.63	2.88	4.25	3.50	6.38	7.75	9.13	10.63	11.25	8.25	8.00	8.50	9.37	
22	3.00	1.38	2.00	3.38	6.38	2.25	5.62	8.63	10.25	9.13	9.37	11.00	11.13	11.50	10.25	
23	4.88	1.38	1.38	2.75	7.63	3.00	5.75	10.63	12.00	10.50	10.25	12.13	12.13	11.50	12.25	
24	1.63	1.38	1.50	2.88	4.50	2.13	5.00	6.63	8.25	11.88	12.13	8.88	8.88	9.00	8.12	
25	1.63	1.25	1.38	2.63	4.25	2.00	4.63	6.25	7.63	8.38	8.12	8.12	8.00	7.88	7.75	
26	2.00	1.13	1.50	2.63	4.63	2.25	4.88	6.87	7.88	8.00	7.63	8.00	7.88	8.00	8.25	
27	1.25	1.50	1.25	2.75	4.00	2.13	4.88	6.13	7.63	7.88	8.38	7.63	8.00	7.75	7.63	
28	4.37	1.50	1.25	2.75	7.13	2.50	5.25	9.63	11.00	7.88	7.75	10.88	10.88	10.88	11.25	
29	1.38	1.13	1.00	2.13	3.50	2.25	4.37	5.75	7.38	10.75	11.00	8.00	7.63	7.38	7.13	
30	1.87	6.25	2.00	8.25	10.13	2.25	10.50	12.38	13.88	7.25	7.13	7.63	12.75	13.75	13.75	
	1.75	1.38	1.44	2.75	4.56	2.25	5.13	7.31	8.69	8.75	8.88	8.19	8.44	8.75	8.81	MEDIAN
	2.34	1.81	1.49	3.30	5.64	2.42	5.72	8.06	9.50	9.23	9.30	9.05	9.52	9.61	9.57	MEAN
31	2.13	2.88	1.38	4.25	6.38	3.75	8.00	10.13	11.38	14.13	13.88	14.13	10.75	10.13	11.63	
32	2.13	1.38	1.38	2.75	4.88	1.87	4.63	6.75	9.50	10.00	11.50	11.50	10.00	10.00	8.12	
33	2.50	1.38	1.38	2.75	5.25	2.13	4.88	7.38	8.12	10.38	8.38	8.75	8.75	8.75	9.00	
34	4.13	1.50	1.00	2.50	6.63	2.00	4.50	8.63	10.00	8.38	9.00	10.63	10.75	10.38	10.25	
35	5.00	1.38	1.38	2.75	7.75	2.50	5.25	10.25	11.50	10.38	10.25	11.13	11.00	11.38	11.88	
36	1.50	1.25	1.38	2.63	4.13	1.87	4.50	6.00	7.38	11.38	11.50	8.00	7.88	7.88	7.25	
37	1.13	1.38	1.50	2.88	4.00	3.12	6.00	7.13	9.00	7.50	8.00	7.63	7.75	7.88	9.13	
38	4.13	1.50	1.00	2.50	6.63	2.38	4.88	9.00	10.00	9.37	8.50	11.50	11.63	11.13	10.38	
39	2.00	1.75	1.00	2.75	4.75	2.50	5.25	7.25	8.12	10.75	10.63	8.50	8.75	8.75	8.88	
40	1.75	1.50	0.87	2.38	4.13	1.87	4.25	6.00	7.50	8.25	8.88	8.63	8.38	8.25	7.63	
	2.13	1.44	1.38	2.75	5.06	2.25	4.88	7.31	9.25	10.19	9.63	9.69	9.37	9.37	9.06	MEDIAN

(Continued)

	2.64	1.59	1.23	2.81	5.45	2.40	5.21	7.85	9.25	10.05	10.05	10.04	9.56	9.45	9.41	MEAN
41	1.87	1.38	0.87	2.25	4.13	2.13	4.37	6.25	7.25	8.00	7.50	7.63	7.50	7.50	7.75	
42	1.87	1.50	0.75	2.25	4.13	2.50	4.75	6.63	7.75	7.63	7.75	7.75	7.88	7.75	8.12	
43	5.62	1.75	0.87	2.63	8.25	2.38	5.00	10.63	11.63	8.25	8.12	11.88	12.13	12.25	12.13	
44	1.87	2.50	0.75	3.25	5.13	1.87	5.13	7.00	8.12	11.88	12.00	8.25	9.00	8.88	8.38	
45	1.63	1.38	1.13	2.50	4.13	2.13	4.63	6.25	7.50	8.38	8.50	8.25	7.13	7.50	7.75	
46	1.75	1.00	1.00	2.00	3.75	2.13	4.13	5.88	7.13	7.88	7.88	8.00	7.63	7.50	7.50	
47	1.50	1.38	1.13	2.50	4.00	2.00	4.50	6.00	7.63	7.25	7.63	7.38	7.75	7.88	7.75	
48	3.88	1.38	1.00	2.38	6.25	2.00	4.37	8.25	9.63	8.00	7.75	10.13	10.13	10.00	10.00	
49	2.25	1.50	0.75	2.25	4.50	2.25	4.50	6.75	7.25	10.88	10.00	8.38	8.50	8.25	8.50	
50	2.00	1.50	0.75	2.25	4.25	2.13	4.37	6.38	7.50	7.38	8.00	7.75	7.75	7.75	7.63	
	1.87	1.44	0.87	2.31	4.19	2.13	4.50	6.50	7.56	8.00	7.94	8.12	7.81	7.81	7.94	MEDIAN
	2.42	1.52	0.90	2.42	4.85	2.15	4.57	7.00	8.14	8.55	8.51	8.54	8.54	8.52	8.55	MEAN
51	2.25	1.50	0.62	2.13	4.37	3.00	5.13	7.38	8.12	8.00	7.63	7.88	7.88	7.75	8.63	
52	4.25	1.38	1.00	2.38	6.63	2.00	4.37	8.63	10.13	8.12	8.88	10.88	10.75	11.13	10.13	
53	6.13	1.63	1.13	2.75	8.88	1.75	4.50	10.63	10.50	11.75	10.13	12.00	12.25	12.38	12.13	
54	2.00	1.38	0.75	2.13	4.13	2.13	4.25	6.25	7.25	10.88	12.00	7.88	7.63	7.25	7.63	
55	2.50	1.38	1.00	2.38	4.88	2.75	5.13	7.63	7.75	8.50	7.63	8.12	8.12	8.38	9.00	
56	3.88	2.50	0.87	3.38	7.25	3.00	6.38	10.25	11.00	8.75	9.37	10.75	11.88	11.75	12.00	
57	1.63	1.38	1.00	2.38	4.00	2.25	4.63	6.25	7.50	11.38	11.88	9.63	8.50	8.63	7.88	
58	5.88	1.38	0.62	2.00	7.88	2.13	4.13	10.00	7.88	11.13	7.75	12.00	12.00	11.63	11.50	
59	2.25	2.75	1.38	4.13	6.38	2.00	6.13	8.38	8.88	8.75	11.38	7.75	9.13	9.88	9.75	
60	1.63	2.38	1.00	3.38	5.00	2.13	5.50	7.13	8.25	9.25	9.88	9.25	8.88	8.50	8.63	
	2.38	1.44	1.00	2.38	5.69	2.13	4.88	8.00	8.19	9.00	9.63	9.44	9.00	9.25	9.37	MEDIAN
	3.24	1.76	0.94	2.70	5.94	2.31	5.01	8.25	8.73	9.65	9.65	9.61	9.70	9.73	9.73	MEAN

(Continued)

Analysis of Data (M155 02) (Continued)

2.13	1.38	1.25	2.63	4.88	2.25	5.06	7.38	8.63	9.19	9.13	9.00	9.00	9.13	9.00	TOTAL MEDIAN
2.71	1.61	1.30	2.91	5.53	2.50	5.41	7.98	9.19	9.59	9.59	9.72	9.69	9.64	9.58	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 03)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	1.75	1.00	2.75	0.00	7.50	10.25	0.00	12.38	13.63	0.00	13.75	13.25	13.38	8.00	
2	1.75	1.25	1.13	2.38	4.13	2.13	4.50	6.25	6.75	7.25	8.25	8.38	8.38	9.75	11.13	
3	1.87	1.25	2.50	3.75	5.62	3.50	7.25	9.13	10.63	7.75	10.63	10.13	10.50	8.88	7.13	
4	1.38	1.63	0.87	2.50	3.88	1.75	4.25	5.62	10.00	10.13	8.25	12.25	11.88	11.88	12.88	
5	5.38	1.25	0.87	2.13	7.50	2.75	4.88	10.25	12.75	11.88	11.88	7.63	7.50	8.00	7.38	
6	1.13	1.13	1.38	2.50	3.63	2.13	4.63	5.75	8.25	7.75	7.25	7.63	7.63	8.25	7.88	
7	1.50	1.13	2.00	3.12	4.63	1.75	4.88	6.38	8.38	7.75	8.63	12.13	12.50	11.13	11.50	
8	5.00	1.50	0.62	2.13	7.13	2.13	4.25	9.25	12.13	12.75	10.75	7.75	7.50	9.13	11.00	
9	2.00	1.25	2.25	3.50	5.50	4.00	7.50	9.50	10.38	7.63	11.38	10.63	10.63	9.37	7.25	
10	1.25	1.25	1.00	2.25	3.50	1.87	4.13	5.38	10.00							
	1.75	1.25	1.06	2.50	4.63	2.13	4.75	6.38	10.19	7.75	9.63	10.13	10.50	9.37	8.00	MEDIAN
	2.36	1.34	1.36	2.70	5.06	2.95	5.65	7.50	10.16	9.61	9.63	10.03	9.97	9.97	9.35	MEAN
11	4.75	1.25	1.13	2.38	7.13	1.50	3.88	8.63	10.50	10.00	7.25	10.75	10.75	10.88	10.50	
12	1.50	1.25	11.63	12.88	14.38	1.63	14.50	16.00	17.50	10.88	10.50	7.25	7.25	17.75	17.88	
13	1.13	1.13	1.63	2.75	3.88	4.13	6.87	8.00	20.25	7.13	17.88	17.50	17.38	7.38	9.88	
14	5.88	1.38	1.13	2.50	8.38	2.13	4.63	10.50	14.88	17.38	9.50	14.25	14.50	14.00	12.00	
15	3.25	1.00	6.38	7.38	10.63	1.87	9.25	12.50	14.63	14.38	12.13	9.50	9.13	14.38	14.13	
16	1.38	1.13	1.25	2.38	3.75	1.50	3.88	5.25	11.38	10.13	14.13	12.25	12.38	7.25	6.87	
17	8.00	1.38	1.00	2.38	10.9	2.13	4.50	12.50	13.88	11.50	6.75	13.38	13.63	13.38	14.00	
18	1.38	1.00	1.50	2.50	3.88	3.25	5.75	7.13	8.88	13.63	14.00	7.38	7.00	7.50	8.63	
19	1.50	0.75	1.63	2.38	3.88	3.75	6.13	7.63	11.63	6.75	9.00	9.13	8.88	9.00	9.50	
20	4.50	0.87	1.00	1.87	6.38	1.38	3.25	7.75	12.38	9.25	9.88	12.88	13.00	12.38	10.00	

(Continued)

Analysis of Data (M155 03) (Continued)

	2.38	1.13	1.38	2.44	6.75	2.00	5.19	8.31	13.13	10.50	10.19	11.50	11.56	11.63	10.25	MEDIAN
	3.33	1.11	2.83	3.94	7.26	2.33	6.26	9.59	13.59	11.10	11.10	11.43	11.39	11.39	11.34	MEAN
21	1.13	1.13	2.50	3.63	4.75	2.00	5.62	6.75	8.50	12.50	9.63	6.25	6.50	8.00	8.63	
22	1.13	1.00	1.63	2.63	3.75	2.50	5.13	6.25	10.50	6.50	9.00	9.00	8.88	8.00	8.50	
23	4.00	1.13	1.00	2.13	6.13	2.00	4.13	8.12	12.13	9.13	8.88	11.75	11.88	11.25	10.75	
24	1.00	1.13	1.75	2.88	3.88	2.50	5.38	6.38	8.63	12.25	10.50	7.50	7.50	8.25	8.75	
25	0.87	1.13	2.00	3.12	4.00	3.50	6.63	7.50	11.00	7.00	8.25	8.12	8.12	8.38	9.37	
26	6.50	1.87	1.38	3.25	9.75	2.25	5.50	12.00	16.25	8.63	9.37	15.00	15.75	15.13	13.88	
27	1.38	1.50	0.87	2.38	3.75	1.87	4.25	5.62	8.50	15.62	14.25	9.13	8.75	8.25	7.88	
28	2.00	1.13	1.38	2.50	4.50	1.63	4.13	6.13	7.50	9.00	7.50	8.12	7.75	8.25	8.00	
29	4.50	1.25	1.38	2.63	7.13	1.75	4.37	8.88	10.63	7.63	8.00	10.50	10.63	10.63	10.75	
30	1.50	1.13	3.63	4.75	6.25	2.00	6.75	8.25	10.13	10.63	10.75	7.75	7.63	9.88	10.13	
	1.44	1.13	1.50	2.75	4.63	2.00	5.25	7.13	10.31	9.06	9.19	8.56	8.44	8.31	9.06	MEDIAN
	2.40	1.24	1.75	2.99	5.39	2.20	5.19	7.59	10.38	9.89	9.61	9.31	9.34	9.60	9.66	MEAN
31	1.25	1.25	3.88	5.13	6.38	2.00	7.13	8.38	12.88	7.38	10.00	9.75	9.88	10.13	10.13	
32	5.00	1.00	0.87	1.87	6.87	1.75	3.63	8.63	13.50	10.25	10.63	14.38	14.13	11.13	10.88	
33	1.50	1.13	1.38	2.50	4.00	1.63	4.13	5.62	7.13	13.75	10.38	6.87	7.00	7.50	7.38	
34	3.38	2.00	1.25	3.25	6.63	2.50	5.75	9.13	10.75	7.38	7.50	9.37	10.25	10.13	11.00	
35	6.50	3.00	0.75	3.75	10.25	1.50	5.25	11.75	14.50	9.88	11.00	14.13	15.13	14.63	13.63	
36	2.00	1.25	1.13	2.38	4.37	2.38	4.75	6.75	8.00	15.25	13.75	9.25	7.50	7.88	8.75	
37	1.87	1.38	1.00	2.38	4.25	1.38	3.75	5.62	8.50	7.25	8.88	8.75	8.88	8.75	7.75	
38	5.13	1.25	2.88	4.13	9.25	1.50	5.62	10.75	12.63	9.37	8.38	11.63	11.50	13.38	13.50	
39	1.13	1.00	1.38	2.38	3.50	1.38	3.75	4.88	8.63	11.00	12.88	8.88	8.63	7.13	7.00	
40	2.38	1.13	1.87	3.00	5.38	1.50	4.50	6.87	8.12	9.25	6.75	8.00	8.12	8.63	8.75	
	2.19	1.25	1.31	2.75	5.88	1.56	4.63	7.63	9.69	9.63	10.19	9.31	9.37	9.44	9.44	MEDIAN

(Continued)

Analysis of Data (M155 03) (Continued)

	3.01	1.44	1.64	3.08	6.09	1.75	4.82	7.84	10.46	10.07	10.01	10.10	10.10	7.93	9.88	MEAN
41	4.75	1.13	1.13	2.25	7.00	1.63	3.88	8.63	12.25	7.75	10.13	12.50	12.50	11.75	11.88	
42	2.13	0.87	1.13	2.00	4.13	2.88	4.88	7.00	8.88	12.63	10.88	8.25	8.00	8.00	9.25	
43	2.25	1.25	3.00	4.25	6.50	1.63	5.88	8.12	10.63	8.25	8.88	9.00	9.37	11.25	10.00	
44	4.37	1.13	0.87	2.00	6.38	3.25	5.25	9.63	13.00	9.50	10.38	12.50	12.38	10.25	11.88	
45	1.25	1.25	1.50	2.75	4.00	1.75	4.50	5.75	10.13	12.13	13.13	10.00	10.13	10.75	9.25	
46	1.63	1.13	6.25	7.38	9.00	1.87	9.25	10.88	12.63	10.13	7.50	7.88	7.75	12.50	12.63	
47	4.00	1.25	1.13	2.38	6.38	1.75	4.13	8.12	15.25	7.63	13.00	15.38	15.50	10.38	10.25	
48	2.25	1.25	1.75	3.00	5.25	1.75	4.75	7.00	8.63	15.62	10.13	8.38	8.38	9.00	9.00	
49	1.13	1.13	1.50	2.63	3.75	1.50	4.13	5.25	7.75	8.12	9.00	7.88	7.75	7.50	7.25	
50	4.63	1.25	1.13	2.38	7.00	2.25	4.63	9.25	10.88	8.25	7.38	10.88	11.00	10.63	11.38	
	2.25	1.19	1.31	2.50	6.38	1.75	4.69	8.12	10.75	8.88	10.13	9.50	9.75	10.50	10.13	MEDIAN
	2.84	1.16	1.94	3.10	5.94	2.03	5.13	7.96	11.00	10.00	10.04	10.26	10.27	10.20	10.27	MEAN
51	0.87	1.00	3.12	4.13	5.00	2.25	6.38	7.25	9.88	10.38	11.38	7.63	7.38	9.37	9.37	
52	1.13	1.13	2.25	3.38	4.50	1.87	5.25	6.38	10.13	8.25	9.37	9.63	9.75	8.88	8.50	
53	4.25	1.87	1.00	2.88	7.13	2.13	5.00	9.25	11.63	9.63	8.25	11.38	12.13	10.88	11.13	
54	1.87	2.63	1.00	3.63	5.50	1.50	5.13	7.00	9.75	11.25	11.63	9.25	10.00	10.00	9.37	
55	1.50	1.50	1.00	2.50	4.00	2.25	4.75	6.25	8.38	10.50	9.88	9.50	8.38	8.38	9.13	
56	4.37	1.50	1.13	2.63	7.00	1.50	4.13	8.50	11.00	8.25	8.63	11.50	11.50	11.63	10.88	
57	4.50	2.25	1.00	3.25	7.75	1.50	4.75	9.25	8.75	15.00	12.00	12.13	12.88	12.75	12.75	
58	4.13	1.63	1.13	2.75	6.87	1.87	4.63	8.75	10.25	9.00	11.00	10.63	10.00	10.13	10.50	
59	1.63	1.38	1.25	2.63	4.25	1.25	3.88	5.50	7.25	10.75	11.00	8.50	8.25	8.38	7.75	
60	1.75	1.13	0.87	2.00	3.75	3.38	5.38	7.13	8.50	8.00	7.63	7.75	7.50	7.13	9.25	
	1.81	1.50	1.06	2.81	5.25	1.87	4.88	7.19	9.81	10.00	10.44	9.56	9.88	9.69	9.37	MEDIAN
	2.60	1.60	1.38	2.97	5.57	1.95	4.93	7.53	9.55	10.10	10.07	9.79	9.77	9.75	9.86	MEAN

(Continued)

Analysis of Data (M155 03) (Continued)

1.87	1.25	1.25	2.63	5.50	1.87	4.75	7.75	10.50	9.63	9.94	9.50	9.75	9.88	9.88	TOTAL MEDIAN
2.76	1.31	1.81	3.13	5.90	2.20	5.33	8.01	10.86	10.14	10.09	10.15	10.14	10.14	10.07	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 04)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.37	5.50	5.88	0.00	0.00	0.00	7.13	7.13	2.38	
2	0.75	0.37	0.75	1.13	1.87	0.00	2.38	2.25	2.38	2.13	
3	0.62	0.50	0.50	1.00	1.63	0.00	2.00	2.25	2.00	2.00	
4	0.87	0.25	0.50	0.75	1.63	0.00	2.13	2.00	2.50	2.50	
5	0.75	0.75	0.50	1.25	2.00	4.88	2.88	2.75	2.63	2.50	
6	0.62	0.62	0.37	1.00	1.63	3.12	2.00	2.13	2.25	2.25	
7	0.75	0.75	0.37	1.13	1.87	2.88	2.25	2.13	2.13	2.00	
8	0.62	0.75	0.25	1.00	1.63	3.12	2.25	2.25	2.13	2.25	
9	0.62	0.62	0.37	1.00	1.63	2.50	2.00	2.38	2.38	2.25	
10	1.00	0.62	0.25	0.87	1.87						
	0.75	0.62	0.44	1.00	1.63	3.12	2.19	2.25	2.38	2.25	MEDIAN
	0.74	0.56	0.94	1.50	1.75	3.30	2.23	2.81	2.83	2.25	MEAN
11	1.38	1.25	0.50	1.75	3.12	2.63	2.25	2.63	3.25	3.50	
12	0.87	0.75	0.25	1.00	1.87	2.63	3.63	3.12	2.63	2.38	
13	0.75	0.62	0.37	1.00	1.75	2.13	2.25	2.13	2.00	2.13	
14	0.75	0.62	0.25	0.87	1.63	2.50	2.13	2.13	2.13	2.00	
15	0.87	1.00	0.62	1.63	2.50	3.38	2.13	2.25	2.63	3.00	
16	0.62	0.62	0.50	1.13	1.75	2.00	3.00	2.75	2.38	2.25	
17	0.75	0.62	0.50	1.13	1.87	2.38	2.25	2.38	2.38	2.38	
18	0.75	0.50	0.50	1.00	1.75	2.50	2.38	2.38	2.25	2.25	
19	0.50	0.62	0.37	1.00	1.50	2.38	2.38	2.13	2.25	2.13	
20	0.75	0.62	0.37	1.00	1.75	2.38	2.00	2.25	2.25	2.25	

(Continued)

	0.75	0.62	0.44	1.00	1.75	2.44	2.25	2.31	2.31	2.25	MEDIAN
	0.80	0.73	0.43	1.15	1.95	2.49	2.44	2.41	2.41	2.42	MEAN
21	0.75	0.62	0.50	1.13	1.87	2.13	2.13	2.13	2.13	2.25	
22	0.37	0.87	0.75	1.63	2.00	2.25	2.50	2.13	2.38	2.63	
23	0.37	1.00	0.37	1.38	1.75	2.50	2.50	2.50	2.63	2.25	
24	0.62	0.75	0.75	1.50	2.13	2.38	2.25	2.50	2.25	2.63	
25	0.87	0.37	0.75	1.13	2.00	2.50	2.38	2.63	2.25	2.25	
26	0.62	22.38	2.13	24.50	25.13	2.25	2.63	2.38	24.38	25.75	
27	0.50	0.75	0.62	1.38	1.87	2.25	25.63	25.50	3.88	2.38	
28	0.75	0.50	0.62	1.13	1.87	18.88	2.38	2.63	2.38	2.38	
29	0.87	0.62	0.62	1.25	2.13	2.63	2.25	2.38	2.50	2.50	
30	0.62	0.87	0.50	1.38	2.00	6.25	2.38	2.13	2.38	2.25	
	0.62	0.75	0.62	1.38	2.00	2.44	2.38	2.44	2.38	2.38	MEDIAN
	0.64	2.88	0.76	3.64	4.28	4.40	4.70	4.69	4.71	4.72	MEAN
31	0.50	0.75	0.62	1.38	1.87	2.50	2.38	2.25	2.13	2.25	
32	1.00	0.37	0.50	0.87	1.87	2.63	2.25	2.75	2.38	2.25	
33	0.87	0.50	0.37	0.87	1.75	2.63	2.25	2.13	2.25	2.13	
34	0.87	0.62	0.37	1.00	1.87	2.13	2.13	2.13	2.25	2.25	
35	0.87	0.50	0.37	0.87	1.75	2.38	2.25	2.25	2.13	2.13	
36	0.75	0.62	0.37	1.00	1.75	2.63	2.00	1.87	2.00	2.00	
37	0.50	0.62	0.50	1.13	1.63	2.13	2.25	2.00	2.00	2.13	
38	0.50	0.62	0.50	1.13	1.63	2.00	2.00	2.00	2.00	2.00	
39	1.75	0.50	0.50	1.00	2.75	2.38	2.00	3.25	3.12	3.12	
40	0.87	0.50	0.75	1.25	2.13	2.13	3.25	2.38	2.38	2.63	
	0.87	0.56	0.50	1.00	1.81	2.38	2.25	2.19	2.19	2.19	MEDIAN

(Continued)

Analysis of Data (M105 04) (Continued)

	0.85	0.56	0.49	1.05	1.90	2.35	2.28	2.30	2.26	2.29	MEAN
						2.88	2.38	2.25	2.25	2.38	
41	0.75	0.50	0.87	1.38	2.13	2.00	2.75	2.63	2.75	2.38	
42	0.62	0.62	0.50	1.13	1.75	2.50	2.13	2.38	2.38	2.38	
43	0.87	0.62	0.50	1.13	2.00	2.13	2.38	2.25	2.25	2.38	
44	0.75	0.62	0.62	1.25	2.00	2.25	2.38	3.50	3.25	3.25	
45	1.87	0.37	0.62	1.00	2.88	2.38	3.12	2.25	2.50	2.38	
46	1.00	0.62	0.50	1.13	2.13	2.38	2.50	2.63	2.50	2.75	
47	1.13	0.50	0.75	1.25	2.38	2.25	2.63	0.00	0.00	0.00	
48	0.00	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00	
49	0.00	0.37	0.62	1.00	0.00	14.75	0.00	4.13	4.13	4.13	
50	3.12	0.37	0.62	1.00	4.13						
	0.94	0.50	0.62	1.13	2.13	2.38	2.44	2.50	2.50	2.38	MEDIAN
	1.27	0.51	0.62	1.14	2.42	3.59	2.53	2.75	2.75	2.75	MEAN
						4.63	4.50	3.50	3.50	3.63	
51	2.13	0.37	0.75	1.13	3.25	3.38	3.50	3.50	3.50	3.38	
52	2.13	0.37	0.62	1.00	3.12	3.50	3.50	2.63	2.63	2.50	
53	1.25	0.37	0.50	0.87	2.13	2.63	2.50	3.00	2.88	2.88	
54	1.75	0.25	0.50	0.75	2.50	3.25	2.88	3.50	4.37	4.75	
55	2.38	1.13	0.87	2.00	4.37	2.88	4.88	3.63	3.12	3.38	
56	1.13	0.62	1.13	1.75	2.88	3.25	3.63	3.38	3.12	3.00	
57	0.87	0.37	1.00	1.38	2.25	2.88	2.63	2.50	2.88	4.00	
58	0.75	0.75	2.13	2.88	3.63	2.63	4.13	0.00	0.00	0.00	
59	0.00	0.00	0.00	0.00	0.00	4.13	0.00	0.00	0.00	0.00	
60	0.00	0.50	1.00	1.50	0.00						
	1.50	0.37	0.87	1.38	3.00	3.25	3.50	3.44	3.12	3.38	MEDIAN
	1.55	0.53	0.94	1.47	3.02	3.31	3.57	3.20	3.25	3.44	MEAN

(Continued)

Analysis of Data (M105 04) (Continued)

0.75	0.62	0.50	1.13	1.87	2.50	2.38	2.38	2.38	2.38	TOTAL MEDIAN
0.95	0.98	0.69	1.67	2.55	3.23	2.99	3.03	3.04	2.98	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 05)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.37	4.63	5.00	0.00	0.00	0.00	6.63	6.63	3.63	
2	0.75	0.37	1.63	2.00	2.75	0.00	3.50	3.50	3.88	3.88	
3	0.75	0.75	1.63	2.38	3.12	0.00	3.88	3.88	3.63	3.50	
4	0.75	0.50	1.50	2.00	2.75	0.00	3.50	3.50	3.50	3.38	
5	0.75	0.50	1.38	1.87	2.63	5.62	3.12	3.25	3.75	3.50	
6	0.87	1.00	1.13	2.13	3.00	5.25	3.63	3.63	3.00	4.25	
7	0.87	0.37	2.38	2.75	3.63	5.38	4.25	4.13	4.13	3.25	
8	0.75	0.37	1.50	1.87	2.63	6.25	3.25	3.25	3.25	3.12	
9	0.75	0.37	1.38	1.75	2.50	4.13	3.12	3.12	3.50	3.88	
10	0.75	0.75	1.75	2.50	3.25						
	0.75	0.44	1.56	2.06	2.75	5.38	3.50	3.50	3.63	3.50	MEDIAN
	0.78	0.54	1.89	2.42	2.92	5.32	3.53	3.88	3.92	3.60	MEAN
11	0.87	19.63	1.87	21.50	22.38	4.00	4.00	4.13	23.00	23.13	
12	0.75	0.75	1.50	2.25	3.00	2.75	23.00	22.88	4.00	3.63	
13	0.62	0.50	1.50	2.00	2.63	3.38	3.63	3.50	3.25	3.25	
14	0.75	0.37	1.38	1.75	2.50	2.75	3.12	3.25	3.12	3.00	
15	0.62	0.62	1.38	2.00	2.63	20.13	3.12	3.00	3.25	3.25	
16	0.50	41.75	2.13	43.88	44.38	6.63	3.25	3.12	44.25	45.00	
17	0.87	0.50	1.50	2.00	2.88	4.13	44.88	45.25	4.00	3.38	
18	0.75	0.50	1.13	1.63	2.38	3.63	3.38	3.25	3.25	2.88	
19	2.38	0.75	1.13	1.87	4.25	4.37	2.88	4.50	4.75	4.75	
20	0.87	0.37	1.25	1.63	2.50	44.00	4.88	3.38	3.00	3.12	

(Continued)

	0.75	0.56	1.44	2.00	2.75	4.06	3.50	3.44	3.63	3.31	MEDIAN
	0.90	6.57	1.48	8.05	8.95	9.57	9.61	9.63	9.59	9.54	MEAN
21	1.50	0.75	2.00	2.75	4.25	3.50	3.00	3.63	4.00	4.75	
22	0.87	0.37	1.13	1.50	2.38	4.50	4.75	4.13	3.75	2.88	
23	1.00	0.37	0.75	1.13	2.13	2.63	3.12	3.25	3.25	2.88	
24	1.00	0.25	1.13	1.38	2.38	2.63	2.75	2.75	2.63	3.00	
25	0.87	16.63	1.25	17.88	18.75	2.63	2.88	2.75	19.13	19.25	
26	1.00	0.37	1.25	1.63	2.63	2.75	19.38	19.50	3.25	3.25	
27	1.00	0.37	1.00	1.38	2.38	4.25	3.00	3.00	3.00	2.75	
28	0.87	0.62	0.75	1.38	2.25	3.75	2.88	2.75	3.00	2.75	
29	0.87	0.37	1.00	1.38	2.25	15.62	2.75	2.75	2.50	2.75	
30	0.75	0.50	0.87	1.38	2.13	4.50	2.75	2.63	2.75	2.63	
	0.94	0.37	1.06	1.38	2.38	3.63	2.94	2.88	3.12	2.88	MEDIAN
	0.98	2.06	1.11	3.17	4.15	4.68	4.72	4.71	4.72	4.69	MEAN
31	0.75	0.50	0.87	1.38	2.13	2.75	2.63	2.63	2.63	2.63	
32	0.75	0.37	1.25	1.63	2.38	3.63	2.63	2.63	2.50	2.88	
33	0.62	0.50	0.87	1.38	2.00	3.75	2.88	2.75	2.88	2.50	
34	0.87	0.75	1.13	1.87	2.75	3.00	2.63	2.88	3.12	3.38	
35	0.62	4.00	1.13	5.13	5.75	3.50	3.63	3.38	6.63	6.63	
36	0.87	0.50	0.87	1.38	2.25	2.38	6.25	6.50	3.00	2.75	
37	0.87	0.50	0.62	1.13	2.00	3.12	3.00	3.00	3.00	2.75	
38	0.87	0.62	2.00	2.63	3.50	4.25	2.50	2.50	2.63	4.00	
39	0.75	0.37	1.25	1.63	2.38	3.25	4.00	3.88	3.63	2.88	
40	2.25	0.37	1.00	1.38	3.63	5.13	3.00	4.50	4.50	4.25	
	0.81	0.50	1.06	1.50	2.38	3.38	2.94	2.94	3.00	2.88	MEDIAN

(Continued)

	0.93	0.85	1.10	1.95	2.88	3.47	3.31	3.46	3.45	3.46	MEAN
						6.87	4.13	4.37	4.63	4.75	
41	2.50	0.62	1.13	1.75	4.25	2.63	4.88	4.88	4.63	4.50	
42	2.50	0.37	1.00	1.38	3.88	2.88	4.37	5.88	25.25	25.63	
43	4.00	19.75	1.38	21.13	25.13	2.88	25.50	22.50	3.12	3.12	
44	1.00	0.37	1.38	1.75	2.75	6.63	3.25	3.12	6.63	6.63	
45	0.87	3.88	1.38	5.25	6.13	3.00	6.63	6.50	3.00	2.75	
46	0.75	0.37	1.13	1.50	2.25	22.00	2.63	2.88	3.00	2.50	
47	1.00	0.50	0.62	1.13	2.13	4.00	2.63	2.88	2.88	3.25	
48	1.25	0.50	1.00	1.50	2.75	2.88	3.25	3.38	3.63	3.63	
49	1.38	0.75	1.00	1.75	3.12	5.50	3.75	3.38	2.88	3.50	
50	1.00	0.25	1.63	1.87	2.88						
	1.13	0.50	1.13	1.75	3.00	3.50	3.94	3.88	3.38	3.56	MEDIAN
	1.63	2.74	1.16	3.90	5.53	5.93	6.10	5.97	5.96	6.03	MEAN
						4.88	3.50	3.12	3.38	3.00	
51	0.62	0.50	1.25	1.75	2.38	3.88	2.88	3.25	3.38	3.75	
52	1.00	0.62	1.63	2.25	3.25	4.25	3.88	5.88	6.13	5.62	
53	3.00	0.87	1.13	2.00	5.00	5.38	5.62	3.63	3.12	3.38	
54	1.00	0.37	1.38	1.75	2.75	3.00	3.25	3.25	3.25	2.88	
55	1.00	0.37	1.00	1.38	2.38	2.88	2.75	2.50	2.88	3.00	
56	0.75	0.75	1.13	1.87	2.63	3.25	3.12	3.12	3.00	2.88	
57	0.75	0.62	1.00	1.63	2.38	3.00	2.88	4.75	5.00	5.13	
58	2.63	0.87	1.13	2.00	4.63	5.00	5.13	3.38	2.88	2.75	
59	0.87	0.37	1.00	1.38	2.25	3.63	3.00	3.88	4.00	4.13	
60	1.75	0.50	1.13	1.63	3.38						
	1.00	0.56	1.13	1.75	2.69	3.75	3.19	3.31	3.31	3.19	MEDIAN
	1.34	0.59	1.17	1.76	3.10	3.91	3.60	3.67	3.70	3.65	MEAN

(Continued)

Analysis of Data (M105 05) (Continued)

0.87	0.50	1.19	1.75	2.75	3.75	3.25	3.38	3.25	3.25	TOTAL MEDIAN
1.10	2.22	1.32	3.54	4.61	5.50	5.20	5.24	5.25	5.19	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 06)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	1.50	0.75	2.25	0.00	4.63	6.87	0.00	0.00	0.00	0.00	10.00	9.88	10.00	7.63	
2	1.25	1.38	0.87	2.25	3.50	2.25	4.50	5.75	9.75	10.00	7.25	9.00	9.13	8.88	11.50	
3	3.00	1.50	0.62	2.13	5.13	4.88	7.00	10.00	11.25	9.00	12.75	14.25	14.63	14.63	12.13	
4	4.50	1.87	0.62	2.50	7.00	2.38	4.88	9.37	14.38	14.50	11.00	9.13	8.75	8.75	8.25	
5	2.63	1.50	0.62	2.13	4.75	1.87	4.00	6.63	8.12	8.75	8.12	12.00	21.00	26.00	28.88	
6	6.50	10.50	5.62	16.13	22.63	4.75	20.88	27.38	28.25	26.25	29.13	27.63	18.38	13.38	11.38	
7	5.00	1.25	0.62	1.87	6.87	2.75	4.63	9.63	13.38	13.38	12.13	8.25	8.12	9.13	8.38	
8	1.13	1.13	1.63	2.75	3.88	2.00	4.75	5.88	8.38	8.75	7.63	8.12	8.00	7.25	8.75	
9	1.63	1.00	0.87	1.87	3.50	3.50	5.38	7.00	8.38	7.75	8.88	9.75	10.38	10.25	8.88	
10	2.50	1.63	0.75	2.38	4.88	2.13	4.50	7.00	9.50							
	2.63	1.50	0.75	2.25	4.88	2.56	4.81	7.00	9.75	9.50	9.94	9.75	9.88	10.00	8.88	MEDIAN
	3.12	2.33	1.30	3.63	6.90	3.11	6.74	9.85	12.38	12.30	12.11	12.01	12.03	12.03	11.75	MEAN
11	5.13	1.50	0.62	2.13	7.25	1.87	4.00	9.13	10.63	10.00	9.00	11.63	11.50	11.38	11.13	
12	2.25	1.00	1.25	2.25	4.50	2.50	4.75	7.00	8.00	11.25	10.75	7.88	7.38	8.00	8.63	
13	1.38	0.87	1.25	2.13	3.50	2.00	4.13	5.50	7.00	8.00	8.50	7.63	7.50	7.50	7.00	
14	3.12	1.50	0.87	2.38	5.50	2.00	4.37	7.50	8.88	7.13	7.00	8.75	9.37	9.00	9.00	
15	1.63	1.00	1.63	2.63	4.25	1.75	4.37	6.00	7.38	9.13	9.13	7.63	7.13	7.88	7.63	
16	4.63	1.25	0.87	2.13	6.75	1.75	3.88	8.50	9.63	7.88	7.63	10.63	10.88	10.13	10.13	
17	4.25	1.38	1.13	2.50	6.75	2.00	4.50	8.75	9.50	10.25	9.88	9.50	9.63	9.88	10.13	
18	2.25	0.75	0.87	1.63	3.88	1.63	3.25	5.50	6.50	9.88	10.13	8.12	7.50	7.25	6.87	
19	2.13	3.12	0.87	4.00	6.13	1.63	5.62	7.75	8.50	7.38	7.13	7.00	9.37	9.37	9.37	
20	3.63	1.50	0.62	2.13	5.75	1.87	4.00	7.63	7.50	9.88	9.00	10.50	8.88	8.63	8.88	

(Continued)

Analysis of Data (M155 06) (Continued)

	2.69	1.31	0.87	2.19	5.62	1.87	4.25	7.56	8.25	9.50	9.00	8.44	9.13	8.81	8.94	MEDIAN
	3.04	1.39	1.00	2.39	5.43	1.90	4.29	7.32	8.35	9.07	8.81	8.93	8.91	8.90	8.88	MEAN
21	2.13	1.13	0.62	1.75	3.88	1.75	3.50	5.62	6.38	8.12	9.00	7.50	7.13	7.13	7.00	
22	3.12	1.38	0.75	2.13	5.25	1.87	4.00	7.13	8.12	7.38	7.63	8.63	8.88	9.00	9.13	
23	3.50	1.13	0,75	1.87	5.38	2.25	4.13	7.63	8.38	8.75	8.50	8.88	8.63	8.63	9.00	
24	2.50	1.25	0.75	2.00	4.50	1.75	3.75	6.25	6.87	9.13	9.00	8.00	8.12	8.12	7.63	
25	10.25	1.00	0.75	1.75	12.00	1.87	3.63	13.88	15.00	7.63	8.12	15.88	15.62	15.62	15.75	
26	3.50	1.38	0.50	1.87	5.38	1.75	3.63	7.13	7.50	16.00	15.25	8.50	8.88	8.63	8.50	
27	1.75	1.25	1.00	2.25	4.00	1.75	4.00	5.75	7.38	8.50	9.75	8.00	7.88	8.38	8.38	
28	5.88	1.38	0.62	2.00	7.88	1.63	3.63	9.50	10.13	8.38	7.38	11.50	11.63	11.25	11.13	
29	3.75	1.38	0.75	2.13	5.88	1.63	3.75	7.50	7.63	11.50	11.00	8.88	8.88	9.00	9.00	
30	4.63	1.25	0.87	2.13	6.75	2.38	4.50	9.13	9.75	8.50	9.00	9.88	9.75	9.88	10.63	
	3.50	1.25	0.75	2.00	5.38	1.75	3.75	7.31	7.88	8.50	9.00	8.75	8.88	8.81	9.00	MEDIAN
	4.10	1.25	0.74	1.99	6.09	1.86	3.85	7.95	8.71	9.39	9.46	9.56	9.54	9.56	9.61	MEAN
31	1.63	1.50	0.87	2.38	4.00	1.63	4.00	5.62	6.87	9.88	10.50	7.50	7.75	7.75	7.00	
32	3.63	1.25	0.87	2.13	5.75	1.75	3.88	7.50	8.12	7.63	7.00	9.00	8.75	8.75	8.88	
33	2.75	1.38	0.62	2.00	4.75	1.75	3.75	6.50	6.87	9.00	8.75	7.88	8.00	7.75	7.75	
34	2.13	1.13	0.87	2.00	4.13	1.50	3.50	5.62	6.13	7.88	8.00	7.38	7.13	7.38	7.13	
35	3.50	1.38	0.75	2.13	5.62	5.00	7.13	10.63	10.75	7.13	6.75	8.12	8.38	8.25	11.75	
36	1.63	1.38	3.00	4.37	6.00	1.87	6.25	7.88	12.13	8.00	12.13	10.25	10.25	12.50	9.37	
37	1.63	1.00	0.62	1.63	3.25	1.75	3.38	5.00	6.87	11.75	9.37	9.37	9.00	6.63	6.50	
38	5.25	1.25	0.75	2.00	7.25	2.00	4.00	9.25	9.25	8.12	6.25	9.88	10.13	10.25	10.50	
39	2.13	1.87	0.75	2.63	4.75	1.87	4.50	6.63	7.63	9.88	10.88	7.75	8.38	8.38	8.25	
40	1.25	1.00	0.75	1.75	3.00	1.87	3.63	4.88	6.75	8.00	8.88	8.00	7.13	7.13	7.13	
	2.13	1.31	0.75	2.06	4.75	1.81	3.94	6.56	7.25	8.06	8.81	8.06	8.38	8.00	8.00	MEDIAN

(Continued)

	2.55	1.31	0.99	2.30	4.85	2.10	4.40	6.95	8.14	8.73	8.85	8.51	8.49	8.48	8.43	MEAN
41	4.37	1.50	0.62	2.13	6.50	1.63	3.75	8.12	8.75	7.50	6.25	9.37	9.88	9.75	9.50	
42	3.00	1.25	0.75	2.00	5.00	1.75	3.75	6.75	7.50	9.75	9.88	8.50	8.25	8.38	8.50	
43	2.50	1.25	0.87	2.13	4.63	1.75	3.88	6.38	6.75	8.50	8.12	7.63	7.63	7.75	7.75	
44	4.25	1.13	0.50	1.63	5.88	1.63	3.25	7.50	8.50	7.25	7.88	9.63	9.50	9.13	9.00	
45	2.88	1.00	0.87	1.87	4.75	2.50	4.37	7.25	7.50	9.63	8.88	7.50	7.38	7.75	8.63	
46	1.38	1.25	0.87	2.13	3.50	4.13	6.25	7.63	9.13	7.50	8.75	7.25	7.50	7.50	9.13	
47	4.37	2.38	0.75	3.12	7.50	1.63	4.75	9.13	12.50	7.38	9.25	12.25	13.38	13.25	10.75	
48	19.00	1.63	0.75	2.38	21.38	1.87	4.25	23.25	24.13	13.38	10.88	25.50	24.75	24.75	25.00	
49	1.87	1.38	0.87	2.25	4.13	1.63	3.88	5.75	7.00	24.75	25.13	8.00	7.75	7.88	7.63	
50	4.00	1.75	0.75	2.50	6.50	1.50	4.00	8.00	8.75	7.63	7.13	9.25	9.63	9.50	9.37	
	3.50	1.31	0.75	2.13	5.44	1.69	3.94	7.56	8.63	8.06	8.81	8.88	8.88	8.75	9.06	MEDIAN
	4.76	1.45	0.76	2.21	6.97	2.00	4.21	8.98	10.05	10.32	10.21	10.49	10.56	10.56	10.52	MEAN
51	2.50	1.50	0.75	2.25	4.75	1.63	3.88	6.38	6.87	9.50	9.25	7.75	7.50	7.50	7.63	
52	2.88	1.00	0.75	1.75	4.63	1.50	3.25	6.13	7.00	7.63	8.00	8.38	7.88	7.88	7.75	
53	4.50	1.25	0.87	2.13	6.63	2.63	4.75	9.25	9.25	8.25	7.38	9.00	9.25	9.37	10.50	
54	1.63	1.25	0.62	1.87	3.50	1.75	3.63	5.25	7.13	9.13	11.00	8.12	8.12	7.88	7.00	
55	2.00	1.25	1.00	2.25	4.25	2.38	4.63	6.63	7.38	7.75	6.63	7.00	7.00	7.38	8.00	
56	3.50	2.25	0.75	3.00	6.50	1.63	4.63	8.12	10.25	6.87	8.25	9.75	10.75	10.50	9.75	
57	1.75	2.13	0.87	3.00	4.75	2.13	5.13	6.87	7.63	11.00	9.63	7.88	7.75	7.88	8.38	
58	1.38	1.25	1.13	2.38	3.75	2.25	4.63	6.00	7.38	8.00	8.63	8.25	7.38	7.63	7.75	
59	1.38	1.25	1.75	3.00	4.37	1.75	4.75	6.13	7.88	7.13	7.50	7.50	7.50	8.12	7.63	
60	4.13	5.50	1.75	7.25	11.38	2.75	10.00	14.13	12.38	11.00	7.50	10.25	14.50	14.50	15.50	
	2.25	1.25	0.87	2.31	4.69	1.94	4.63	6.50	7.50	8.12	8.12	8.19	7.81	7.88	7.88	MEDIAN
	2.56	1.86	1.02	2.89	5.45	2.04	4.93	7.49	8.31	8.63	8.38	8.39	8.76	8.86	8.99	MEAN

(Continued)

Analysis of Data (M155 06) (Continued)

2.88	1.31	0.75	2.13	5.00	1.87	4.13	7.13	8.12	8.63	8.88	8.63	8.75	8.63	8.88	TOTAL MEDIAN
3.36	1.60	0.97	2.57	5.93	2.17	4.74	8.06	9.27	9.65	9.55	9.61	9.68	9.69	9.66	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 07)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	2.25	0.87	3.12	0.00	5.50	8.63	0.00	11.13	7.63	0.00	12.38	11.88	12.50	9.00	
2	2.63	1.75	1.50	3.25	5.88	2.00	5.25	7.88	12.50	11.88	9.75	8.63	8.25	8.12	7.50	
3	1.50	1.38	1.38	2.75	4.25	1.38	4.13	5.62	8.12	8.50	7.88	11.00	10.88	10.38	10.88	
4	4.63	1.25	0.87	2.13	6.75	1.87	4.00	8.63	10.50	10.88	11.38	8.63	8.88	9.13	9.25	
5	1.87	1.50	1.13	2.63	4.50	2.00	4.63	6.50	8.88	8.75	8.25	8.25	7.88	8.00	7.38	
6	1.87	1.13	1.25	2.38	4.25	1.38	3.75	5.62	7.50	7.75	7.25	9.37	10.00	9.75	11.50	
7	4.00	1.75	1.00	2.75	6.75	3.12	5.88	9.88	11.25	9.88	11.63	9.00	8.50	8.63	6.75	
8	1.38	1.25	1.13	2.38	3.75	1.25	3.63	5.00	8.12	8.50	7.38	7.00	7.13	7.63	7.88	
9	1.00	1.38	1.63	3.00	4.00	1.50	4.50	5.50	7.50	7.13	6.87	9.88	12.00	11.50	11.63	
10	4.00	3.50	1.13	4.63	8.63	1.63	6.25	10.25	12.00							
	1.87	1.44	1.13	2.75	4.50	1.75	4.56	6.50	9.69	8.50	8.06	9.00	8.88	9.13	9.00	MEDIAN
	2.54	1.71	1.19	2.90	5.42	2.16	5.06	7.21	9.75	8.99	8.80	9.35	9.49	9.51	9.08	MEAN
11	1.50	1.75	1.13	2.88	4.37	1.38	4.25	5.75	7.50	12.00	12.00	9.50	7.75	7.75	7.50	
12	1.50	1.25	1.38	2.63	4.13	1.87	4.50	6.00	7.63	7.63	7.50	7.50	7.00	7.25	7.75	
13	16.38	1.50	1.50	3.00	19.38	3.00	6.00	22.38	12.75	7.25	-4.00	10.88	11.13	11.25	12.38	
14	1.13	1.25	1.00	2.25	3.38	1.63	3.88	5.00	8.50	11.38	24.50	9.25	9.00	8.50	7.13	
15	1.63	1.00	2.00	3.00	4.63	1.50	4.50	6.13	8.12	8.88	7.38	7.88	7.63	8.63	8.50	
16	4.00	1.50	1.38	2.88	6.87	1.13	4.00	8.00	10.13	7.38	7.50	9.88	10.38	9.75	9.37	
17	2.00	1.25	1.25	2.50	4.50	1.13	3.63	5.62	7.13	10.63	10.00	8.00	7.75	7.63	7.63	
18	1.38	1.50	0.87	2.38	3.75	1.13	3.50	4.88	6.50	7.38	7.50	6.87	7.13	6.75	6.75	
19	4.00	1.38	0.87	2.25	6.25	1.38	3.63	7.63	9.37	7.25	7.38	10.00	9.88	9.88	10.13	
20	2.00	1.50	2.75	4.25	6.25	1.25	5.50	7.50	9.88	9.88	10.50	8.50	8.63	10.50	10.38	

(Continued)

	1.81	1.44	1.31	2.75	4.56	1.38	4.13	6.06	8.31	8.25	7.50	8.88	8.19	8.56	8.12	MEDIAN
	3.55	1.39	1.41	2.80	6.35	1.54	4.34	7.89	8.75	8.96	9.02	8.82	8.63	8.79	8.75	MEAN
21	0.87	1.25	1.63	2.88	3.75	1.38	4.25	5.13	7.88	8.88	9.25	8.12	7.88	6.75	6.87	
22	3.75	1.25	1.13	2.38	6.13	1.38	3.75	7.50	9.88	7.38	7.00	9.88	9.88	9.37	9.37	
23	1.13	1.38	1.13	2.50	3.63	1.63	4.13	5.25	7.38	10.25	10.00	7.38	7.50	7.50	7.75	
24	1.13	1.13	1.00	2.13	3.25	1.50	3.63	4.75	6.87	7.63	7.63	7.63	7.38	7.25	7.13	
25	3.75	1.38	0.75	2.13	5.88	1.25	3.38	7.13	8.25	7.13	6.13	8.75	9.00	8.75	8.50	
26	2.13	1.38	0.87	2.25	4.37	1.13	3.38	5.50	6.50	9.00	8.88	7.25	7.25	7.38	7.25	
27	1.50	1.25	1.00	2.25	3.75	1.38	3.63	5.13	6.75	6.75	7.38	6.75	6.63	6.75	7.00	
28	3.00	1.50	2.50	4.00	7.00	1.87	5.88	8.88	10.63	6.87	7.00	8.50	8.75	10.25	10.75	
29	1.13	1.38	1.13	2.50	3.63	1.25	3.75	4.88	8.50	9.00	10.88	9.00	8.88	7.50	6.87	
30	2.75	1.25	0.75	2.00	4.75	1.38	3.38	6.13	7.25	9.00	6.50	8.12	8.00	7.63	7.75	
	1.81	1.31	1.06	2.31	4.06	1.38	3.69	5.38	7.63	8.25	7.50	8.12	7.94	7.50	7.50	MEDIAN
	2.11	1.31	1.19	2.50	4.61	1.41	3.91	6.03	7.99	8.19	8.06	8.14	8.11	7.91	7.93	MEAN
31	3.12	1.25	1.25	2.50	5.62	1.13	3.63	6.75	8.25	8.00	8.38	8.75	8.75	9.25	9.00	
32	2.50	3.63	0.75	4.37	6.87	1.63	6.00	8.50	9.25	9.13	8.38	7.75	10.13	9.63	10.13	
33	2.00	1.25	1.38	2.63	4.63	2.13	4.75	6.75	8.25	9.50	10.25	9.75	7.38	8.00	8.50	
34	3.12	1.38	1.25	2.63	5.75	1.50	4.13	7.25	9.88	7.38	8.50	9.63	9.75	9.63	9.00	
35	1.50	1.25	0.62	1.87	3.38	1.25	3.12	4.63	6.25	10.38	9.37	7.75	7.63	7.00	6.75	
36	1.13	1.63	1.63	3.25	4.37	1.25	4.50	5.62	7.38	6.87	7.00	6.63	7.00	8.00	8.00	
37	3.63	1.87	1.25	3.12	6.75	1.13	4.25	7.88	9.88	7.13	7.38	9.88	10.13	9.75	9.63	
38	1.25	1.87	0.62	2.50	3.75	1.38	3.88	5.13	6.87	10.38	10.13	7.75	7.75	7.13	7.38	
39	1.87	1.25	1.50	2.75	4.63	1.50	4.25	6.13	7.13	7.88	7.13	7.75	7.13	8.00	8.12	
40	3.50	1.38	0.87	2.25	5.75	1.00	3.25	6.75	8.25	7.13	7.63	9.25	9.37	8.75	8.25	
	2.25	1.38	1.25	2.63	5.13	1.31	4.19	6.75	8.25	7.94	8.38	8.25	8.25	8.38	8.38	MEDIAN

(Continued)

	2.36	1.67	1.11	2.79	5.15	1.39	4.18	6.54	8.14	8.38	8.41	8.49	8.50	8.51	8.48	MEAN
										9.13	8.63	7.25	7.00	6.87	7.25	
41	2.13	1.13	0.75	1.87	4.00	1.38	3.25	5.38	6.38	6.87	7.13	6.75	6.87	6.87	6.75	
42	1.75	1.25	0.75	2.00	3.75	1.25	3.25	5.00	6.25	7.13	7.00	8.25	8.38	8.38	8.38	
43	3.00	1.38	0.75	2.13	5.13	1.25	3.38	6.38	7.50	8.63	8.38	7.25	7.25	7.13	7.25	
44	1.87	1.38	0.62	2.00	3.88	1.38	3.38	5.25	6.13	6.75	7.00	7.00	6.75	7.38	8.25	
45	1.87	1.13	1.25	2.38	4.25	2.25	4.63	6.50	7.63	6.87	7.88	10.00	10.25	10.00	8.75	
46	4.00	1.38	1.00	2.38	6.38	1.00	3.38	7.38	9.50	10.38	9.13	7.25	7.13	6.87	7.13	
47	2.13	1.25	0.75	2.00	4.13	1.25	3.25	5.38	6.25	7.25	7.00	7.00	7.25	7.25	7.13	
48	2.13	1.50	0.75	2.25	4.37	1.13	3.38	5.50	6.13	7.00	7.50	8.88	8.63	9.00	9.50	
49	3.50	1.25	1.13	2.38	5.88	1.63	4.00	7.50	8.63	9.13	9.13	7.38	7.25	6.75	6.87	
50	1.75	1.13	0.62	1.75	3.50	1.75	3.50	5.25	6.38							
	2.13	1.25	0.75	2.06	4.19	1.31	3.38	5.44	6.38	7.19	7.69	7.25	7.25	7.19	7.25	MEDIAN
	2.41	1.27	0.84	2.11	4.53	1.42	3.54	5.95	7.07	7.91	7.88	7.70	7.68	7.65	7.72	MEAN
										6.87	6.87	6.87	7.00	7.25	7.50	
51	1.75	1.25	0.87	2.13	3.88	2.00	4.13	5.88	7.00	7.13	7.63	8.75	9.00	8.88	8.38	
52	2.88	1.50	0.75	2.25	5.13	1.50	3.75	6.63	8.25	8.75	8.88	7.38	7.13	7.63	8.12	
53	1.38	1.25	1.25	2.50	3.88	2.00	4.50	5.88	7.63	7.00	8.12	8.38	8.38	8.63	8.00	
54	1.63	1.25	1.50	2.75	4.37	1.38	4.13	5.75	8.63	8.63	7.63	9.37	9.50	8.75	8.50	
55	3.38	1.38	0.75	2.13	5.50	1.13	3.25	6.63	8.50	9.63	8.25	9.13	9.25	9.50	9.75	
56	4.25	1.50	1.00	2.50	6.75	1.38	3.88	8.12	8.63	9.37	10.38	7.75	7.63	7.75	7.50	
57	1.63	1.38	1.13	2.50	4.13	1.13	3.63	5.25	6.75	7.88	7.00	9.50	11.25	11.13	11.50	
58	4.13	3.12	1.00	4.13	8.25	1.50	5.62	9.75	10.38	10.75	12.00	9.00	7.25	7.13	7.25	
59	1.13	1.38	0.87	2.25	3.38	1.63	3.88	5.00	6.87	7.88	6.63	7.88	8.00	7.75	7.25	
60	2.38	1.50	0.62	2.13	4.50	1.13	3.25	5.62	6.25							
	2.06	1.38	0.94	2.38	4.44	1.44	3.88	5.88	7.94	8.25	7.88	8.56	8.19	8.19	8.06	MEDIAN
	2.45	1.55	0.98	2.53	4.97	1.48	4.00	6.45	7.89	8.39	8.34	8.40	8.44	8.44	8.38	MEAN

(Continued)

Analysis of Data (M155 07) (Continued)

2.00	1.38	1.06	2.50	4.50	1.38	3.88	6.00	8.12	8.00	7.75	8.38	8.00	8.00	8.00	TOTAL MEDIAN
2.57	1.49	1.12	2.60	5.17	1.57	4.17	6.67	8.26	8.46	8.41	8.47	8.46	8.45	8.38	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 08)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	1.38	3.75	5.13	0.00	0.00	0.00	6.38	5.62	3.38	
2	0.50	0.62	1.50	2.13	2.63	0.00	3.38	3.38	3.38	3.00	
3	0.50	0.62	1.13	1.75	2.25	0.00	3.00	3.00	3.25	3.75	
4	0.50	0.87	1.63	2.50	3.00	0.00	3.63	3.88	3.50	3.12	
5	0.75	0.50	1.25	1.75	2.50	1.25	3.12	3.00	3.12	2.88	
6	0.62	0.62	1.00	1.63	2.25	5.13	2.88	2.75	2.75	2.88	
7	0.50	0.62	1.13	1.75	2.25	4.63	2.88	3.00	3.00	3.00	
8	0.62	0.62	1.13	1.75	2.38	3.25	2.88	2.75	2.75	2.88	
9	0.50	0.62	1.25	1.87	2.38	2.25	2.88	2.63	2.63	2.63	
10	0.25	0.62	1.25	1.87	2.13						
	0.50	0.62	1.25	1.81	2.38	3.25	2.94	3.00	3.12	3.00	MEDIAN
	0.53	0.71	1.50	2.21	2.42	3.30	3.08	3.42	3.33	3.06	MEAN
11	0.37	0.75	1.13	1.87	2.25	2.88	2.75	2.88	3.00	2.88	
12	0.37	0.50	1.13	1.63	2.00	3.38	2.88	2.88	2.63	2.63	
13	0.37	0.62	1.00	1.63	2.00	2.75	2.50	2.50	2.63	2.50	
14	0.37	0.50	1.38	1.87	2.25	2.88	2.63	2.63	2.50	2.88	
15	0.62	0.75	1.13	1.87	2.50	2.50	2.75	3.00	3.25	3.00	
16	0.37	0.62	1.13	1.75	2.13	3.00	3.63	3.38	3.25	3.25	
17	0.62	0.62	1.13	1.75	2.38	2.88	2.63	2.88	2.88	2.88	
18	0.50	0.50	1.25	1.75	2.25	2.50	3.00	2.88	2.75	2.88	
19	0.50	0.50	1.25	1.75	2.25	3.25	2.63	2.63	2.63	2.63	
20	0.62	0.50	1.00	1.50	2.13	4.13	2.63	2.75	2.75	2.50	

(Continued)

	0.44	0.56	1.13	1.75	2.25	2.88	2.69	2.88	2.75	2.88	MEDIAN
	0.47	0.59	1.15	1.74	2.21	3.01	2.80	2.84	2.83	2.80	MEAN
						2.13	2.75	2.63	3.25	3.75	
21	0.50	1.13	1.50	2.63	3.12	2.38	3.75	3.63	3.12	3.00	
22	0.37	0.62	1.38	2.00	2.38	2.63	2.88	2.88	2.88	2.63	
23	0.37	0.62	1.13	1.75	2.13	2.50	2.63	2.75	2.75	2.50	
24	0.50	0.62	0.87	1.50	2.00	3.25	2.75	2.75	2.88	2.63	
25	0.50	0.75	0.62	1.38	1.87	3.12	3.12	3.25	3.12	4.00	
26	0.62	0.62	1.50	2.13	2.75	3.25	3.38	3.25	3.25	3.25	
27	0.50	0.62	1.50	2.13	2.63	3.38	3.12	3.12	3.12	2.88	
28	0.50	0.62	1.25	1.87	2.38	2.00	2.88	2.88	2.88	2.88	
29	0.50	0.62	1.25	1.87	2.38	3.50	2.88	2.88	3.00	2.75	
30	0.50	0.75	1.00	1.75	2.25						
	0.50	0.62	1.25	1.87	2.38	2.88	2.88	2.88	3.06	2.88	MEDIAN
	0.49	0.70	1.20	1.90	2.39	2.81	3.01	3.00	3.03	3.03	MEAN
						3.75	3.00	3.00	2.88	3.12	
31	0.50	0.62	1.25	1.87	2.38	2.38	2.75	2.75	2.63	2.38	
32	0.50	0.50	1.00	1.50	2.00	3.25	2.63	2.63	2.88	2.88	
33	0.50	0.75	1.00	1.75	2.25	2.88	3.00	3.00	3.63	3.75	
34	0.50	1.38	1.13	2.50	3.00	2.88	3.50	3.50	2.75	2.63	
35	0.50	0.62	1.00	1.63	2.13	2.63	2.88	3.00	3.12	3.00	
36	0.62	0.75	0.87	1.63	2.25	2.63	2.75	2.75	2.63	2.63	
37	0.62	0.62	0.87	1.50	2.13	2.75	2.75	2.63	2.63	2.63	
38	0.50	0.62	0.87	1.50	2.00	4.13	2.63	2.63	2.63	2.50	
39	0.50	0.62	0.75	1.38	1.87	2.50	2.50	2.63	2.63	2.63	
40	0.62	0.62	0.75	1.38	2.00						
	0.50	0.62	0.94	1.56	2.13	2.81	2.75	2.75	2.69	2.63	MEDIAN

(Continued)

Analysis of Data (M105 08) (Continued)

	0.54	0.71	0.95	1.66	2.20	2.97	2.84	2.85	2.84	2.81	MEAN
41	0.50	0.62	1.25	1.87	2.38	2.63	2.63	2.50	2.50	3.00	
42	0.75	0.37	1.00	1.38	2.13	3.25	2.88	3.12	2.88	2.63	
43	0.50	0.75	1.00	1.75	2.25	2.63	2.63	2.38	2.75	2.75	
44	0.37	0.62	1.00	1.63	2.00	2.50	2.88	2.75	2.63	2.63	
45	0.37	0.75	0.75	1.50	1.87	2.38	2.63	2.63	2.75	2.50	
46	0.37	0.62	0.87	1.50	1.87	2.38	2.50	2.50	2.38	2.50	
47	0.50	0.75	1.00	1.75	2.25	3.12	2.50	2.63	2.75	2.88	
48	0.37	0.62	1.13	1.75	2.13	3.25	2.75	2.63	2.50	2.63	
49	0.37	0.62	1.00	1.63	2.00	5.88	2.75	2.75	2.75	2.63	
50	0.50	0.75	0.75	1.50	2.00	2.00	2.50	2.63	2.75	2.50	
	0.44	0.62	1.00	1.63	2.06	2.63	2.63	2.63	2.75	2.63	MEDIAN
	0.46	0.65	0.98	1.63	2.09	3.00	2.66	2.65	2.66	2.66	MEAN
51	0.62	0.62	0.50	1.13	1.75	3.00	2.50	2.63	2.50	2.25	
52	0.75	0.75	0.62	1.38	2.13	2.75	2.50	2.63	2.75	2.88	
53	0.87	0.62	1.13	1.75	2.63	3.00	2.75	2.88	2.75	3.25	
54	0.37	0.87	1.00	1.87	2.25	3.12	3.25	2.75	3.00	2.88	
55	0.50	0.75	1.13	1.87	2.38	1.50	2.88	3.00	2.88	3.00	
56	0.75	0.75	0.87	1.63	2.38	2.25	2.88	3.12	3.12	2.88	
57	0.50	0.87	17.75	18.63	19.13	1.50	3.00	2.75	2.88	19.75	
58	0.75	0.62	1.00	1.63	2.38	1.63	20.25	20.50	20.25	3.50	
59	0.75	0.50	1.00	1.50	2.25	2.75	3.00	3.00	2.88	2.88	
60	0.37	0.87	1.00	1.87	2.25	3.00	3.00	2.63	3.00	3.00	
	0.69	0.75	1.00	1.69	2.31	2.75	2.94	2.81	2.88	2.94	MEDIAN
	0.62	0.73	2.60	3.33	3.95	2.45	4.60	4.59	4.60	4.63	MEAN

(Continued)

Analysis of Data (M105 08) (Continued)

0.50	0.62	1.13	1.75	2.25	2.88	2.88	2.75	2.88	2.88	TOTAL MEDIAN
0.52	0.68	1.40	2.08	2.54	2.89	3.17	3.22	3.21	3.17	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 09)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	2.38	0.50	2.88	0.00	4.63	7.50	0.00	10.13	9.50	0.00	10.63	9.50	9.63	7.50	
2	1.87	1.25	0.62	1.87	3.75	2.50	4.37	6.25	8.12	7.88	7.50	7.88	9.25	9.13	9.25	
3	2.25	2.63	0.50	3.12	5.38	2.63	5.75	8.00	9.50	9.13	9.50	10.75	10.00	10.13	9.50	
4	3.50	1.87	0.62	2.50	6.00	2.00	4.50	8.00	9.88	10.13	9.88	10.13	9.75	9.75	9.88	
5	3.75	1.50	0.62	2.13	5.88	2.13	4.25	8.00	9.63	9.75	9.75	8.12	8.12	8.00	7.88	
6	2.13	1.50	0.50	2.00	4.13	2.00	4.00	6.13	7.75	8.00	7.50	8.75	8.75	8.75	9.25	
7	3.38	1.50	0.50	2.00	5.38	2.50	4.50	7.88	9.00	9.13	9.37	10.13	10.63	10.75	10.25	
8	4.13	2.00	0.62	2.63	6.75	2.00	4.63	8.75	10.13	10.50	10.25	8.88	8.88	8.75	8.63	
9	2.75	2.00	0.50	2.50	5.25	1.87	4.37	7.13	8.25	8.75	8.50	10.50	10.50	10.63	10.63	
10	4.75	2.00	0.62	2.63	7.38	1.87	4.50	9.25	10.13							
	3.38	1.94	0.56	2.50	5.38	2.06	4.50	8.00	9.56	9.13	9.44	10.13	9.50	9.63	9.25	MEDIAN
	3.17	1.86	0.56	2.42	5.54	2.41	4.84	7.71	9.25	9.19	9.03	9.53	9.49	9.50	9.19	MEAN
11	3.88	2.00	0.62	2.63	6.50	1.75	4.37	8.25	9.25	10.38	10.50	9.63	9.63	9.63	9.50	
12	1.87	1.87	0.75	2.63	4.50	1.87	4.50	6.38	8.00	9.50	10.13	8.12	8.00	8.12	8.25	
13	2.88	2.13	1.00	3.12	6.00	1.75	4.88	7.75	8.75	8.50	7.88	8.88	9.13	9.37	9.25	
14	4.00	1.50	0.62	2.13	6.13	1.63	3.75	7.75	8.75	9.25	9.25	10.38	9.75	9.37	9.25	
15	2.50	1.75	0.75	2.50	5.00	1.50	4.00	6.50	7.13	9.50	9.13	7.63	7.88	8.00	7.88	
16	2.75	1.63	0.87	2.50	5.25	1.75	4.25	7.00	7.75	7.75	7.88	8.12	8.00	8.12	8.38	
17	4.25	1.87	0.37	2.25	6.50	2.25	4.50	8.75	9.50	8.25	8.25	9.75	10.00	9.50	10.00	
18	2.25	1.13	0.75	1.87	4.13	1.63	3.50	5.75	6.87	9.63	10.00	8.00	7.25	7.63	7.00	
19	1.87	1.38	0.62	2.00	3.88	1.50	3.50	5.38	6.00	7.63	7.13	6.75	7.00	6.87	6.75	
20	4.88	1.75	0.75	2.50	7.38	1.87	4.37	9.25	10.00	6.63	6.75	9.75	10.13	10.25	10.63	

(Continued)

	2.81	1.75	0.75	2.50	5.62	1.75	4.31	7.38	8.38	8.88	8.69	8.50	8.56	8.75	8.81	MEDIAN
	3.11	1.70	0.71	2.41	5.53	1.75	4.16	7.28	8.20	8.70	8.69	8.70	8.68	8.69	8.69	MEAN
21	3.63	1.13	0.50	1.63	5.25	1.75	3.38	7.00	7.88	10.50	10.63	9.37	8.75	8.50	8.38	
22	2.50	1.63	0.62	2.25	4.75	1.50	3.75	6.25	7.13	8.88	8.88	7.75	8.25	8.38	8.12	
23	3.88	1.63	0.62	2.25	6.13	1.63	3.88	7.75	8.12	8.00	7.50	8.88	8.88	8.88	9.00	
24	1.63	1.13	0.75	1.87	3.50	2.25	4.13	5.75	6.87	8.50	9.25	7.00	6.50	6.63	7.25	
25	1.87	1.13	0.50	1.63	3.50	1.63	3.25	5.13	6.50	7.00	7.25	7.50	7.50	7.25	6.63	
26	2.88	1.38	0.50	1.87	4.75	1.63	3.50	6.38	7.00	7.25	6.50	7.50	7.75	7.75	7.75	
27	2.38	1.13	3.75	4.88	7.25	1.50	6.38	8.75	9.37	7.63	7.63	7.13	6.87	10.13	10.00	
28	2.25	1.50	0.37	1.87	4.13	1.63	3.50	5.75	9.88	6.87	10.38	10.25	10.63	7.25	7.38	
29	6.13	1.50	0.50	2.00	8.12	1.63	3.63	9.75	10.75	10.75	7.63	11.50	11.50	11.63	11.63	
30	2.13	3.12	0.62	3.75	5.88	1.50	5.25	7.38	8.25	11.50	11.38	7.38	9.00	9.13	9.00	
	2.44	1.44	0.56	1.94	5.00	1.63	3.69	6.69	8.00	8.25	8.25	7.63	8.50	8.44	8.25	MEDIAN
	2.92	1.52	0.87	2.40	5.32	1.66	4.06	6.99	8.18	8.69	8.70	8.43	8.56	8.55	8.51	MEAN
31	3.50	1.38	0.62	2.00	5.50	1.50	3.50	7.00	7.88	8.88	8.88	10.25	8.50	8.50	8.50	
32	5.00	1.63	0.37	2.00	7.00	1.63	3.63	8.63	9.63	8.63	8.75	10.25	10.50	10.25	10.38	
33	2.13	1.38	0.37	1.75	3.88	1.63	3.38	5.50	6.38	10.25	10.13	7.25	7.00	7.00	7.00	
34	2.38	1.13	1.25	2.38	4.75	1.87	4.25	6.63	7.13	7.00	6.63	6.87	6.63	7.50	7.75	
35	4.13	2.13	0.50	2.63	6.75	1.50	4.13	8.25	9.50	7.13	7.88	9.63	10.63	9.88	9.50	
36	3.88	1.50	0.50	2.00	5.88	3.88	5.88	9.75	10.38	10.00	9.37	9.13	8.50	8.50	10.88	
37	1.63	1.63	0.62	2.25	3.88	1.75	4.00	5.62	8.88	9.37	12.00	9.75	9.88	10.00	7.88	
38	4.63	1.38	0.62	2.00	6.63	1.50	3.50	8.12	8.88	9.63	7.13	10.13	9.88	9.88	9.63	
39	3.12	1.38	0.50	1.87	5.00	2.00	3.88	7.00	7.38	9.88	9.50	8.00	8.00	7.88	8.38	
40	2.38	1.50	0.62	2.13	4.50	2.88	5.00	7.38	8.12	7.88	8.25	7.50	7.63	7.75	8.63	
	3.31	1.44	0.56	2.00	5.25	1.69	3.94	7.19	8.50	9.13	8.81	9.37	8.50	8.50	8.56	MEDIAN

(Continued)

Analysis of Data (M155 09) (Continued)

	3.28	1.50	0.60	2.10	5.38	2.01	4.11	7.39	8.41	8.86	8.85	8.88	8.71	8.71	8.85	MEAN
										7.50	9.00	10.38	10.25	10.13	9.00	
41	3.75	1.38	0.50	1.87	5.62	1.75	3.63	7.38	9.63	10.25	8.75	7.00	6.63	6.75	6.75	
42	2.00	1.00	0.62	1.63	3.63	1.75	3.38	5.38	6.13	6.75	6.50	6.50	6.63	7.00	6.63	
43	2.00	1.13	1.00	2.13	4.13	1.38	3.50	5.50	6.00	6.25	6.75	14.50	15.13	14.50	16.88	
44	9.75	1.75	0.37	2.13	11.88	3.75	5.88	15.62	16.63	15.38	17.25	8.38	8.12	8.75	8.88	
45	0.87	1.50	1.00	2.50	3.38	3.88	6.38	7.25	10.13	8.12	8.50	11.88	11.88	11.63	9.50	
46	4.25	1.50	0.75	2.25	6.50	1.75	4.00	8.25	11.50	12.13	9.75	7.63	7.13	7.13	10.25	
47	2.13	1.00	0.75	1.75	3.88	4.88	6.63	8.75	9.63	7.13	10.63	10.25	10.50	12.00	9.00	
48	1.75	1.25	2.25	3.50	5.25	1.87	5.38	7.13	11.50	11.75	8.50	11.63	13.13	11.63	11.50	
49	4.88	2.75	0.75	3.50	8.38	1.75	5.25	10.13	11.25	11.75	11.63	9.75	8.75	8.50	8.63	
50	3.00	1.75	0.50	2.25	5.25	1.87	4.13	7.13	8.12							
	2.56	1.44	0.75	2.19	5.25	1.81	4.69	7.31	9.88	9.19	8.88	10.00	9.50	9.44	9.00	MEDIAN
	3.44	1.50	0.85	2.35	5.79	2.46	4.81	8.25	10.05	9.70	9.73	9.79	9.81	9.80	9.70	MEAN
										8.88	8.63	7.25	7.00	11.75	12.25	
51	1.63	1.50	5.25	6.75	8.38	2.38	9.13	10.75	11.50	7.63	12.50	15.38	15.62	11.13	10.38	
52	4.50	1.75	0.75	2.50	7.00	1.63	4.13	8.63	14.25	14.88	10.25	7.13	8.00	8.12	9.25	
53	1.38	2.63	0.87	3.50	4.88	2.75	6.25	7.63	8.63	8.25	9.25	10.00	8.38	8.63	7.88	
54	2.13	1.00	1.13	2.13	4.25	2.00	4.13	6.25	8.25	8.25	9.75	9.25	9.63	9.25	9.00	
55	3.63	1.38	0.75	2.13	5.75	1.75	3.88	7.50	9.00	9.50	9.75	7.13	7.00	8.12	8.88	
56	1.00	1.25	1.87	3.12	4.13	2.50	5.62	6.63	8.38	6.87	8.00	9.00	9.00	8.75	7.88	
57	2.00	1.25	1.63	2.88	4.88	1.63	4.50	6.50	9.37	9.50	8.00	9.75	10.00	9.13	9.37	
58	3.75	1.50	0.75	2.25	6.00	1.87	4.13	7.88	9.25	9.63	9.25	7.13	7.00	8.88	9.37	
59	1.63	1.38	2.63	4.00	5.62	2.38	6.38	8.00	9.00	7.38	9.37	9.37	9.37	7.38	7.50	
60	1.63	1.38	0.62	2.00	3.63	2.50	4.50	6.13	9.13							
	1.81	1.38	1.00	2.69	5.25	2.19	4.50	7.56	9.06	8.56	9.25	9.13	8.69	8.81	9.13	MEDIAN
	2.33	1.50	1.63	3.12	5.45	2.14	5.26	7.59	9.68	9.07	9.27	9.14	9.10	9.11	9.18	MEAN

(Continued)

Analysis of Data (M155 09) (Continued)

2.75	1.50	0.62	2.25	5.25	1.81	4.25	7.38	8.94	8.88	8.94	9.00	8.88	8.75	9.00	TOTAL MEDIAN
3.04	1.60	0.87	2.47	5.50	2.07	4.54	7.53	8.96	9.03	9.05	9.07	9.05	9.05	9.02	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M122 10)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.87	3.38	5.00	8.38	9.25	0.00	8.12	11.13	9.75	6.38	
2	3.88	2.00	1.63	3.63	7.50	10.38	9.63	6.75	6.63	5.88	
3	1.00	1.87	0.87	2.75	3.75	6.87	6.38	6.38	7.00	6.87	
4	1.00	2.50	0.75	3.25	4.25	6.50	6.87	6.63	6.38	7.13	
5	0.75	2.25	1.50	3.75	4.50	6.13	6.25	9.63	10.00	10.00	
6	4.13	2.63	1.50	4.13	8.25	9.75	10.88	7.63	7.13	7.88	
7	0.87	2.13	2.25	4.37	5.25	8.12	7.00	7.50	7.38	6.50	
8	1.38	2.00	1.38	3.38	4.75	6.63	6.87	6.38	6.87	6.63	
9	0.87	2.50	1.13	3.63	4.50	7.50	7.00	7.13	6.63	6.13	
10	1.00	2.00	0.62	2.63	3.63						
	1.00	2.19	1.44	3.63	4.63	7.19	7.00	7.13	7.00	6.63	MEDIAN
	1.58	2.33	1.66	3.99	5.56	7.73	7.67	7.68	7.53	7.04	MEAN
11	2.25	1.75	1.00	2.75	5.00	6.50	6.25	7.50	7.25	7.63	
12	1.00	2.25	2.75	5.00	6.00	7.50	7.75	6.50	7.00	8.75	
13	1.50	3.00	0.75	3.75	5.25	6.75	7.63	8.12	8.88	6.87	
14	2.38	2.00	0.87	2.88	5.25	8.25	8.12	9.00	8.00	8.12	
15	1.63	4.13	1.13	5.25	6.87	9.25	7.88	7.13	9.25	9.50	
16	0.50	3.38	0.75	4.13	4.63	6.38	9.88	8.75	8.00	7.63	
17	1.38	2.38	1.13	3.50	4.88	10.50	7.13	8.00	7.00	7.38	
18	0.62	2.88	1.00	3.88	4.50	6.50	7.38	6.63	7.13	7.00	
19	1.38	2.25	0.87	3.12	4.50	7.13	6.75	7.50	6.87	6.75	
20	0.87	3.00	0.87	3.88	4.75	7.00	6.87	6.38	7.13	7.13	

(Continued)

	1.38	2.63	0.94	3.81	4.94	7.06	7.50	7.50	7.19	7.50	MEDIAN
	1.35	2.70	1.11	3.81	5.16	7.57	7.56	7.55	7.65	7.68	MEAN
						6.63	8.00	8.50	7.88	8.00	
21	1.38	2.38	1.00	3.38	4.75	8.50	7.13	8.75	8.75	8.75	
22	3.00	2.38	1.00	3.38	6.38	7.50	8.50	7.75	8.12	8.12	
23	2.25	2.75	1.00	3.75	6.00	9.37	8.38	7.38	8.50	8.38	
24	1.25	3.88	0.87	4.75	6.00	7.50	8.50	8.75	7.13	7.25	
25	1.50	2.25	1.00	3.25	4.75	8.25	7.25	7.63	7.13	7.25	
26	1.87	1.75	1.13	2.88	4.75	6.50	7.25	6.50	7.25	7.13	
27	1.13	2.50	1.00	3.50	4.63	8.38	7.00	7.25	6.87	7.38	
28	1.38	2.13	1.50	3.63	5.00	6.63	6.50	6.75	6.38	6.75	
29	1.63	1.75	1.87	3.63	5.25	6.25	6.75	7.50	8.12	7.50	
30	2.38	2.38	1.25	3.63	6.00						
	1.56	2.38	1.00	3.56	5.13	7.50	7.25	7.56	7.56	7.44	MEDIAN
	1.77	2.41	1.16	3.58	5.35	7.55	7.53	7.68	7.61	7.65	MEAN
						7.50	8.25	6.75	6.38	6.13	
31	0.87	2.00	1.00	3.00	3.88	6.87	6.00	6.13	6.38	6.38	
32	1.00	2.25	1.00	3.25	4.25	6.50	6.50	7.25	7.13	7.13	
33	1.75	2.13	1.00	3.12	4.88	6.13	7.63	6.50	7.25	7.50	
34	0.62	2.88	1.25	4.13	4.75	7.38	7.38	7.25	7.25	7.25	
35	0.50	2.88	1.25	4.13	4.63	7.50	6.50	7.25	6.25	7.50	
36	1.25	1.87	2.50	4.37	5.62	6.87	7.13	8.38	8.88	8.25	
37	2.50	2.38	1.87	4.25	6.75	7.25	8.50	8.88	8.88	7.63	
38	2.88	2.38	0.62	3.00	5.88	10.13	8.88	6.63	6.75	6.87	
39	0.62	2.50	0.75	3.25	3.88	6.87	6.63	7.00	6.50	6.87	
40	1.00	2.00	1.13	3.12	4.13						
	1.00	2.31	1.06	3.25	4.69	7.06	7.25	7.13	6.94	7.19	MEDIAN

(Continued)

Analysis of Data (M122 10) (Continued)

	1.30	2.33	1.24	3.56	4.86	7.30	7.34	7.20	7.16	7.15	MEAN
41	0.37	2.25	1.00	3.25	3.63	6.38	6.63	6.00	6.25	6.13	
42	0.75	2.25	1.63	3.88	4.63	6.50	6.13	6.50	6.50	7.13	
43	1.25	2.25	0.87	3.12	4.37	6.50	6.87	7.38	7.38	6.63	
44	1.38	2.13	1.50	3.63	5.00	7.13	7.13	7.25	7.13	7.75	
45	6.87	2.00	0.87	2.88	9.75	7.75	7.63	13.13	13.00	12.38	
46	0.62	3.00	1.00	4.00	4.63	12.50	13.00	6.75	7.75	7.88	
47	3.25	2.13	0.87	3.00	6.25	7.38	7.25	9.88	9.00	8.88	
48	0.62	3.00	0.75	3.75	4.37	8.75	8.88	6.25	7.13	7.00	
49	1.25	3.12	2.00	5.13	6.38	7.88	7.00	7.63	7.75	9.00	
50	1.50	1.63	1.50	3.12	4.63	8.00	8.50	8.75	7.25	6.75	
	1.25	2.25	1.00	3.44	4.63	7.56	7.19	7.31	7.31	7.44	MEDIAN
	1.79	2.38	1.20	3.58	5.36	7.88	7.90	7.95	7.91	7.95	MEAN
	1.25	2.25	1.00	3.63	4.75	7.31	7.25	7.25	7.13	7.25	TOTAL MEDIAN
	1.56	2.43	1.27	3.70	5.26	7.60	7.60	7.61	7.57	7.50	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 11)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	6.25	2.13	8.38	0.00	5.75	14.13	0.00	21.38							
2	2.25	1.63	1.00	2.63	4.88	2.00	4.63	6.87	9.25	20.75	0.00	18.13	13.50	12.38	8.63	
3	4.37	1.63	1.13	2.75	7.13	2.25	5.00	9.37	10.38	9.88	8.50	10.63	10.63	10.75	11.00	
4	4.75	1.63	1.00	2.63	7.38	2.00	4.63	9.37	11.75	10.13	11.50	11.88	11.88	11.75	11.50	
5	1.87	1.38	0.87	2.25	4.13	2.13	4.37	6.25	7.63	11.88	10.88	8.00	7.75	7.63	7.75	
6	2.63	1.63	1.25	2.88	5.50	2.13	5.00	7.63	9.13	7.63	7.75	8.50	8.75	9.13	9.13	
7	2.13	1.50	0.87	2.38	4.50	1.87	4.25	6.38	7.38	9.50	9.00	8.50	8.38	8.00	7.75	
8	3.63	1.38	1.00	2.38	6.00	2.13	4.50	8.12	9.37	7.50	7.75	9.25	9.13	9.25	9.50	
9	1.50	1.63	0.87	2.50	4.00	2.00	4.50	6.00	7.75	9.75	10.25	8.12	8.38	8.25	8.12	
10	2.00	1.38	2.00	3.38	5.38	2.00	5.38	7.38	9.00	7.63	7.50	8.00	7.75	8.88	8.88	
	2.25	1.63	1.00	2.63	5.38	2.06	4.63	7.38	9.19	9.75	8.75	8.50	8.75	9.13	8.88	MEDIAN
	2.79	2.00	1.21	3.21	5.43	2.42	5.64	7.49	10.30	10.51	9.14	10.11	9.57	9.56	9.14	MEAN
11	3.50	1.63	0.75	2.38	5.88	2.00	4.37	7.88	9.50	8.88	8.88	10.38	10.63	9.37	9.37	
12	2.00	1.50	0.87	2.38	4.37	2.25	4.63	6.63	7.63	9.88	9.25	7.75	7.63	7.75	8.00	
13	2.00	1.50	1.13	2.63	4.63	1.75	4.37	6.38	7.88	7.50	8.00	8.00	8.00	8.25	7.75	
14	3.88	1.38	0.62	2.00	5.88	1.87	3.88	7.75	9.00	8.12	7.88	9.75	9.63	9.13	9.25	
15	4.00	2.50	0.75	3.25	7.25	1.87	5.13	9.13	10.00	9.50	9.13	9.25	10.38	10.50	10.50	
16	2.13	1.50	0.75	2.25	4.37	1.87	4.13	6.25	7.00	10.50	10.38	8.50	7.50	7.50	7.50	
17	3.88	1.63	0.75	2.38	6.25	2.63	5.00	8.88	9.88	7.38	7.63	9.37	9.50	9.50	10.25	
18	1.75	1.38	1.00	2.38	4.13	2.38	4.75	6.50	8.12	9.75	10.38	8.25	8.00	8.25	8.00	
19	2.13	2.13	0.50	2.63	4.75	2.63	5.25	7.38	9.50	7.88	8.38	8.75	9.50	9.00	9.25	
20	3.00	1.75	0.75	2.50	5.50	1.87	4.37	7.38	9.37	9.13	9.00	9.88	9.50	9.75	9.00	

(Continued)

	2.56	1.56	0.75	2.38	5.13	1.94	4.50	7.38	9.19	9.00	8.94	9.00	9.50	9.06	9.13	MEDIAN
	2.83	1.69	0.79	2.47	5.30	2.11	4.59	7.41	8.79	8.85	8.89	8.99	9.02	8.90	8.89	MEAN
21	3.25	1.75	1.00	2.75	6.00	1.87	4.63	7.88	8.88	9.88	8.88	9.13	9.13	9.37	9.37	
22	3.50	1.50	0.62	2.13	5.62	1.87	4.00	7.50	8.63	9.13	9.25	9.50	9.25	8.88	8.88	
23	2.75	1.75	0.62	2.38	5.13	1.87	4.25	7.00	8.25	8.88	9.00	8.25	8.50	8.50	8.50	
24	2.00	1.63	0.75	2.38	4.37	2.13	4.50	6.50	8.12	8.38	8.75	8.00	7.88	8.00	8.25	
25	3.25	1.50	0.75	2.25	5.50	1.75	4.00	7.25	8.88	8.12	8.12	9.37	9.25	9.25	8.88	
26	2.13	1.38	0.87	2.25	4.37	2.13	4.37	6.50	8.00	8.88	8.75	7.63	7.50	7.63	8.00	
27	1.87	1.50	1.00	2.50	4.37	2.38	4.88	6.75	7.88	8.25	7.88	7.63	7.75	7.88	8.12	
28	3.12	1.38	4.00	5.38	8.50	2.00	7.38	10.50	12.00	7.88	8.25	9.50	9.37	12.38	12.00	
29	4.75	1.63	0.62	2.25	7.00	2.88	5.13	9.88	11.63	12.00	12.25	13.88	14.13	10.75	11.63	
30	5.62	2.63	1.00	3.63	9.25	3.88	7.50	13.13	14.38	11.75	11.25	12.13	13.13	13.50	14.50	
	3.19	1.56	0.81	2.38	5.56	2.06	4.56	7.38	8.75	8.88	8.81	9.25	9.19	9.06	8.88	MEDIAN
	3.22	1.66	1.13	2.79	6.01	2.28	5.06	8.29	9.66	9.31	9.24	9.50	9.59	9.61	9.81	MEAN
31	1.87	1.63	0.87	2.50	4.37	2.00	4.50	6.38	9.75	12.38	14.50	10.75	9.75	9.63	7.75	
32	1.63	1.50	0.75	2.25	3.88	2.38	4.63	6.25	7.75	9.75	7.88	7.63	7.50	7.38	7.75	
33	3.50	1.50	0.62	2.13	5.62	2.13	4.25	7.75	9.50	7.63	7.88	9.75	9.75	9.63	9.37	
34	2.13	1.38	0.87	2.25	4.37	2.00	4.25	6.38	8.00	10.00	9.88	8.50	8.38	8.63	8.50	
35	2.25	1.38	0.87	2.25	4.50	2.00	4.25	6.50	8.00	8.12	8.00	8.12	8.12	8.12	8.12	
36	3.25	1.25	0.75	2.00	5.25	2.00	4.00	7.25	8.88	8.00	8.12	9.13	9.00	8.88	8.88	
37	1.75	1.38	0.75	2.13	3.88	2.38	4.50	6.25	7.75	9.25	9.13	7.63	7.75	7.75	8.12	
38	1.38	1.50	0.62	2.13	3.50	2.50	4.63	6.00	8.00	7.38	7.88	7.50	7.63	7.50	7.63	
39	1.38	3.38	0.50	3.88	5.25	2.13	6.00	7.38	9.50	7.50	7.63	7.63	9.50	9.37	9.00	
40	3.25	1.38	0.75	2.13	5.38	2.88	5.00	8.25	9.88	9.50	9.00	10.88	8.88	9.13	9.88	
	2.00	1.44	0.75	2.19	4.44	2.13	4.50	6.44	8.44	8.69	8.06	8.31	8.63	8.75	8.31	MEDIAN

(Continued)

Analysis of Data (M155 11) (Continued)

	2.24	1.63	0.74	2.36	4.60	2.24	4.60	6.84	8.70	8.95	8.99	8.75	8.63	8.60	8.50	MEAN
41	1.38	1.13	0.87	2.00	3.38	2.00	4.00	5.38	7.38	9.63	10.00	8.12	7.88	8.00	7.13	
42	2.25	1.63	0.62	2.25	4.50	2.13	4.37	6.63	8.38	7.38	7.13	8.00	8.50	8.25	8.38	
43	2.75	1.63	0.87	2.50	5.25	2.00	4.50	7.25	9.00	8.38	8.38	8.88	8.88	9.13	9.00	
44	3.50	1.50	0.75	2.25	5.75	2.00	4.25	7.75	9.63	9.00	9.13	9.88	9.75	9.63	9.63	
45	3.12	1.38	0.75	2.13	5.25	2.88	5.00	8.12	10.00	9.75	9.75	9.37	9.25	9.25	10.13	
46	1.38	1.87	0.75	2.63	4.00	2.13	4.75	6.13	8.00	9.75	9.75	8.00	8.50	8.50	7.75	
47	2.88	1.63	0.87	2.50	5.38	3.12	5.62	8.50	9.25	8.75	7.63	9.13	8.88	9.00	10.00	
48	2.13	1.50	0.50	2.00	4.13	2.13	4.13	6.25	6.87	10.38	10.25	9.50	9.37	9.00	8.00	
49	3.00	1.50	0.62	2.13	5.13	2.13	4.25	7.25	8.75	6.87	7.75	8.63	8.63	8.75	8.75	
50	2.38	2.00	0.62	2.63	5.00	2.13	4.75	7.13	8.00	9.37	8.75	8.12	8.63	8.63	8.63	
	2.56	1.56	0.75	2.25	5.06	2.13	4.44	7.19	8.56	9.19	8.94	8.75	8.75	8.88	8.69	MEDIAN
	2.47	1.58	0.73	2.30	4.78	2.26	4.56	7.04	8.52	8.93	8.85	8.76	8.82	8.81	8.74	MEAN
51	4.50	1.25	0.75	2.00	6.50	2.25	4.25	8.75	9.88	8.50	8.75	10.88	10.13	10.25	10.38	
52	2.00	1.50	0.75	2.25	4.25	2.50	4.75	6.75	8.00	10.50	10.63	8.12	8.38	8.38	8.63	
53	2.00	1.38	1.50	2.88	4.88	2.13	5.00	7.00	8.38	8.12	8.25	8.25	8.12	8.88	8.50	
54	1.50	1.63	1.75	3.38	4.88	2.63	6.00	7.50	9.63	8.00	8.75	8.25	8.50	8.75	9.25	
55	1.50	1.63	1.13	2.75	4.25	2.13	4.88	6.38	9.00	9.00	9.50	9.50	9.50	8.88	8.38	
56	5.62	1.75	0.75	2.50	8.12	2.25	4.75	10.38	11.88	9.13	8.00	12.13	12.25	11.88	12.00	
57	3.75	2.13	0.62	2.75	6.50	2.50	5.25	9.00	10.75	11.75	12.00	10.13	10.50	10.38	10.63	
58	2.00	1.75	0.50	2.25	4.25	2.63	4.88	6.87	8.63	10.88	10.88	9.13	8.75	8.63	8.75	
59	2.00	2.00	0.62	2.63	4.63	2.25	4.88	6.87	8.50	8.88	8.75	8.75	9.00	9.13	8.75	
60	2.38	1.50	0.87	2.38	4.75	2.88	5.25	7.63	8.88	9.13	8.75	9.13	8.63	8.88	9.50	
	2.00	1.63	0.75	2.56	4.81	2.38	4.88	7.25	8.94	9.06	8.75	9.13	8.88	8.88	9.00	MEDIAN
	2.72	1.65	0.93	2.58	5.30	2.41	4.99	7.71	9.35	9.39	9.43	9.43	9.37	9.40	9.48	MEAN

(Continued)

Analysis of Data (M155 11) (Continued)

2.25	1.50	0.75	2.38	5.00	2.13	4.63	7.25	8.88	9.13	8.75	8.88	8.88	8.88	8.88	TOTAL MEDIAN
2.71	1.70	0.92	2.62	5.23	2.29	4.91	7.46	9.22	9.30	9.09	9.24	9.16	9.14	9.09	TOTAL MEAN

(Concluded)

Analysis of Data (M155 11) (Continued)

2.25	1.50	0.75	2.38	5.00	2.13	4.63	7.25	8.88	9.13	8.75	8.88	8.88	8.88	8.88	TOTAL MEDIAN
2.71	1.70	0.92	2.62	5.23	2.29	4.91	7.46	9.22	9.30	9.09	9.24	9.16	9.14	9.09	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 12)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.50	3.50	4.00	0.00						
						0.00	0.00	5.13	4.88	2.38	
2	0.62	0.25	1.00	1.25	1.87						
						0.00	2.38	2.25	2.38	2.25	
3	0.50	0.37	0.87	1.25	1.75						
						0.00	2.13	2.25	2.25	2.00	
4	0.62	0.37	0.62	1.00	1.63						
						0.00	2.50	2.63	2.63	2.75	
5	0.75	0.37	0.75	1.13	1.87						
						0.00	2.25	2.13	2.00	2.13	
6	0.62	0.25	0.87	1.13	1.75						
						5.13	1.87	1.87	2.13	1.75	
7	0.62	0.50	0.50	1.00	1.63						
						2.13	2.00	2.00	2.00	2.00	
8	0.62	0.50	0.50	1.00	1.63						
						2.25	2.00	3.00	2.75	2.88	
9	1.63	0.25	0.62	0.87	2.50						
						3.12	2.88	2.00	2.38	3.12	
10	0.75	0.62	1.38	2.00	2.75						
	0.62	0.37	0.81	1.13	1.75	2.69	2.19	2.25	2.38	2.25	MEDIAN
	0.75	0.40	1.06	1.46	1.93	3.16	2.25	2.58	2.60	2.36	MEAN
						2.25	3.12	3.00	2.88	2.00	
11	0.62	0.50	0.50	1.00	1.63						
						1.87	1.87	2.13	2.13	2.13	
12	0.87	0.50	0.50	1.00	1.87						
						2.00	2.13	2.13	2.00	2.13	
13	0.87	0.37	0.62	1.00	1.87						
						2.63	2.25	2.00	2.00	2.00	
14	0.62	0.37	0.62	1.00	1.63						
						2.88	1.87	2.00	2.25	2.13	
15	0.75	0.62	0.50	1.13	1.87						
						2.38	2.25	2.13	1.87	2.00	
16	0.62	0.37	0.62	1.00	1.63						
						2.13	1.87	2.00	2.00	1.87	
17	0.75	0.37	0.50	0.87	1.63						
						2.00	2.00	2.00	2.00	3.50	
18	0.75	0.37	2.00	2.38	3.12						
						2.38	3.63	3.75	23.00	21.87	
19	0.87	19.63	0.87	20.50	21.38						
						2.63	21.75	21.63	2.38	2.25	
20	0.75	0.37	0.75	1.13	1.87						

(Continued)

	0.75	0.37	0.62	1.00	1.87	2.31	2.19	2.13	2.06	2.13	MEDIAN
	0.75	2.35	0.75	3.10	3.85	2.31	4.28	4.28	4.25	4.19	MEAN
						1.25	2.25	2.25	2.38	2.13	
21	0.75	0.50	0.50	1.00	1.75	2.88	2.38	2.38	2.38	2.50	
22	0.75	0.50	0.62	1.13	1.87	1.75	2.25	2.25	17.00	17.50	
23	0.75	15.25	1.13	16.38	17.13	19.13	17.75	17.88	3.12	2.50	
24	0.87	0.50	0.50	1.00	1.87	2.50	2.25	2.13	2.13	2.25	
25	0.75	0.50	0.62	1.13	1.87	2.25	2.25	2.38	2.25	2.13	
26	0.87	0.37	0.50	0.87	1.75	2.63	2.25	2.00	2.13	2.13	
27	0.62	0.50	0.50	1.00	1.63	2.38	2.13	2.13	2.25	2.25	
28	0.62	0.62	0.50	1.13	1.75	17.50	2.13	2.25	2.25	2.38	
29	0.75	0.62	0.62	1.25	2.00	2.75	2.38	2.38	2.13	2.00	
30	0.75	0.37	0.50	0.87	1.63						
	0.75	0.50	0.50	1.06	1.81	2.56	2.25	2.25	2.25	2.25	MEDIAN
	0.75	1.98	0.60	2.58	3.33	5.50	3.80	3.80	3.80	3.78	MEAN
						2.50	2.13	2.13	2.25	2.25	
31	0.75	0.50	0.50	1.00	1.75	1.87	2.13	2.25	2.13	2.00	
32	0.87	0.37	0.37	0.75	1.63	2.63	2.13	3.50	3.63	3.75	
33	2.25	0.50	0.50	1.00	3.25	2.13	3.63	2.13	2.13	2.13	
34	0.75	0.50	0.50	1.00	1.75	2.13	2.13	2.13	2.00	2.00	
35	0.75	0.37	0.50	0.87	1.63	2.25	2.13	2.00	2.13	2.00	
36	0.62	0.50	0.37	0.87	1.50	2.38	2.00	2.00	2.00	2.38	
37	0.62	0.50	0.75	1.25	1.87	2.63	2.25	2.38	2.25	2.00	
38	0.75	0.37	0.50	0.87	1.63	2.88	2.00	2.13	2.13	2.13	
39	0.87	0.37	0.50	0.87	1.75	2.63	2.13	2.13	2.38	2.25	
40	0.87	0.62	0.37	1.00	1.87						
	0.75	0.50	0.50	0.94	1.75	2.44	2.13	2.13	2.13	2.13	MEDIAN

(Continued)

Analysis of Data (M105 12) (Continued)

	0.91	0.46	0.49	0.95	1.86	2.40	2.26	2.28	2.30	2.29	MEAN
						1.87	2.25	2.25	2.13	2.25	
41	0.87	0.50	0.50	1.00	1.87	2.00	2.25	2.38	2.25	2.13	
42	1.00	0.37	0.37	0.75	1.75	1.87	2.25	2.25	2.50	3.12	
43	1.00	0.62	1.00	1.63	2.63	1.87	3.00	3.00	3.00	3.75	
44	1.00	0.62	1.75	2.38	3.38	2.25	3.88	3.50	3.25	2.25	
45	0.62	0.37	0.75	1.13	1.75	2.38	2.25	2.88	3.38	3.38	
46	1.25	0.87	0.75	1.63	2.88	2.13	3.25	2.88	2.50	2.38	
47	0.87	0.50	0.62	1.13	2.00	3.00	2.50	2.75	2.63	2.63	
48	1.13	0.37	0.62	1.00	2.13	2.50	2.50	2.25	2.38	2.25	
49	0.87	0.50	0.50	1.00	1.87	3.25	2.38	2.13	3.38	3.38	
50	0.62	1.75	0.50	2.25	2.88						
	0.94	0.50	0.62	1.13	2.06	2.19	2.44	2.56	2.56	2.50	MEDIAN
	0.93	0.65	0.74	1.39	2.31	2.31	2.65	2.63	2.74	2.75	MEAN
						2.63	3.25	3.50	2.25	2.38	
51	0.87	0.50	0.62	1.13	2.00	3.12	2.38	2.25	2.25	2.13	
52	0.75	0.50	0.50	1.00	1.75	2.63	2.13	2.13	2.13	2.25	
53	0.75	0.50	0.62	1.13	1.87	2.50	2.25	2.13	13.00	13.13	
54	0.62	11.38	0.75	12.13	12.75	2.75	13.13	13.75	2.75	2.50	
55	1.25	0.37	0.50	0.87	2.13	2.75	2.63	2.25	2.75	2.88	
56	0.87	0.87	0.62	1.50	2.38	2.38	2.75	2.63	2.13	2.13	
57	0.75	0.37	0.62	1.00	1.75	2.25	2.25	2.63	2.88	3.00	
58	1.13	0.62	0.75	1.38	2.50	6.75	2.88	3.12	2.88	2.75	
59	1.38	0.37	0.62	1.00	2.38	6.75	2.75	5.75	5.75	5.75	
60	4.37	0.37	0.62	1.00	5.38						
	0.87	0.50	0.62	1.06	2.25	2.69	2.69	2.63	2.75	2.63	MEDIAN
	1.27	1.59	0.62	2.21	3.49	3.45	3.64	4.01	3.88	3.89	MEAN

(Continued)

Analysis of Data (M105 12) (Continued)

0.75	0.50	0.62	1.00	1.87	2.44	2.25	2.25	2.25	2.25	TOTAL MEDIAN
0.90	1.24	0.71	1.95	2.81	3.19	3.18	3.27	3.27	3.22	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 13)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.37	3.63	4.00	0.00	0.00	0.00	5.38	5.38	4.88	
2	0.75	0.37	3.12	3.50	4.25	0.00	4.88	5.13	5.25	4.37	
3	1.00	0.50	2.25	2.75	3.75	0.00	4.37	4.37	4.63	4.13	
4	1.00	0.75	1.75	2.50	3.50	4.75	4.13	4.25	4.00	4.13	
5	1.13	0.50	1.87	2.38	3.50	4.13	4.13	4.25	4.13	4.00	
6	1.25	0.37	1.75	2.13	3.38	4.63	4.13	3.88	3.88	3.75	
7	1.00	0.37	1.63	2.00	3.00	6.25	3.75	3.63	4.75	4.50	
8	0.87	1.50	1.38	2.88	3.75	4.37	4.37	4.63	3.88	4.13	
9	1.13	0.75	1.63	2.38	3.50	2.63	4.25	4.25	4.00	3.75	
10	1.13	0.50	1.38	1.87	3.00						
	1.00	0.50	1.75	2.44	3.50	4.50	4.19	4.25	4.13	4.13	MEDIAN
	1.03	0.60	2.04	2.64	3.51	4.46	4.25	4.42	4.43	4.18	MEAN
11	1.00	0.50	1.13	1.63	2.63	4.75	3.75	3.63	3.63	3.38	
12	1.25	0.50	1.38	1.87	3.12	6.38	3.12	3.38	3.38	3.63	
13	0.87	0.50	1.50	2.00	2.88	2.50	3.75	3.38	3.38	3.50	
14	0.87	0.37	1.25	1.63	2.50	6.50	3.50	3.50	3.38	3.12	
15	1.25	2.00	1.50	3.50	4.75	2.13	3.12	3.50	5.13	5.38	
16	1.00	0.37	1.25	1.63	2.63	3.25	5.38	5.13	3.50	3.25	
17	1.00	0.62	1.13	1.75	2.75	2.25	3.12	3.12	3.38	3.25	
18	0.87	0.50	0.87	1.38	2.25	6.75	3.25	3.12	3.00	2.75	
19	1.00	1.00	1.13	2.13	3.12	3.50	2.75	2.88	3.38	3.63	
20	0.87	0.50	1.00	1.50	2.38	2.25	3.63	3.50	3.00	2.88	

(Continued)

	1.00	0.50	1.19	1.69	2.69	3.38	3.38	3.44	3.38	3.31	MEDIAN
	1.00	0.69	1.21	1.90	2.90	4.03	3.54	3.51	3.51	3.47	MEAN
						2.38	3.00	3.00	3.12	3.00	
21	0.87	0.62	0.87	1.50	2.38	2.88	2.88	2.75	2.75	3.00	
22	0.75	0.62	1.13	1.75	2.50	4.25	2.88	3.25	3.00	3.50	
23	1.13	0.37	1.63	2.00	3.12	2.75	3.75	3.63	3.63	3.12	
24	1.00	0.37	1.13	1.50	2.50	2.75	3.38	3.12	3.25	3.12	
25	0.75	0.50	1.00	1.50	2.25	3.12	2.88	3.25	3.88	5.50	
26	1.13	1.13	2.63	3.75	4.88	4.00	5.38	5.38	4.75	3.75	
27	1.13	0.50	1.63	2.13	3.25	2.63	3.75	3.38	3.25	3.12	
28	0.75	0.37	1.50	1.87	2.63	3.12	3.12	3.12	3.25	4.00	
29	0.75	0.50	2.25	2.75	3.50	4.50	4.00	4.13	4.13	3.75	
30	0.87	0.50	1.87	2.38	3.25						
	0.87	0.50	1.56	1.94	2.88	3.00	3.25	3.25	3.25	3.31	MEDIAN
	0.91	0.55	1.56	2.11	3.03	3.24	3.50	3.50	3.50	3.59	MEAN
						4.75	3.75	3.63	3.50	3.50	
31	0.75	0.37	1.87	2.25	3.00	3.00	3.38	3.63	3.75	3.38	
32	1.00	0.50	1.50	2.00	3.00	3.12	3.38	3.25	3.25	3.38	
33	0.87	0.50	1.63	2.13	3.00	4.37	3.38	3.38	3.25	3.88	
34	0.87	0.37	2.25	2.63	3.50	3.50	3.88	4.00	7.25	6.50	
35	1.00	3.63	1.50	5.13	6.13	3.88	6.63	6.50	3.38	3.75	
36	0.87	0.50	1.87	2.38	3.25	2.88	3.75	3.63	3.88	3.50	
37	0.75	0.75	1.50	2.25	3.00	3.50	3.38	3.50	3.25	3.50	
38	0.87	0.50	1.75	2.25	3.12	7.13	3.63	3.50	3.50	2.88	
39	0.75	0.50	1.13	1.63	2.38	4.13	2.88	2.88	2.88	3.88	
40	0.75	0.50	2.13	2.63	3.38						
	0.87	0.50	1.69	2.25	3.06	3.69	3.50	3.56	3.44	3.50	MEDIAN

(Continued)

	0.85	0.81	1.71	2.53	3.38	4.03	3.80	3.79	3.79	3.81	MEAN
						3.63	4.00	4.25	4.25	3.50	
41	1.00	0.50	1.38	1.87	2.88	3.12	3.25	3.25	9.88	10.25	
42	1.00	7.13	1.75	8.88	9.88	3.00	10.38	10.25	3.63	3.00	
43	0.87	0.50	1.13	1.63	2.50	5.00	3.00	3.12	3.00	3.63	
44	1.00	0.37	1.75	2.13	3.12	9.75	3.63	3.38	3.63	3.12	
45	0.75	0.62	1.25	1.87	2.63	3.63	3.12	3.63	3.38	3.25	
46	1.25	0.37	1.13	1.50	2.75	4.25	3.12	2.75	2.88	2.75	
47	0.87	0.50	1.00	1.50	2.38	3.50	2.88	2.75	2.88	3.25	
48	0.75	0.62	1.38	2.00	2.75	3.25	3.25	3.25	3.12	2.63	
49	0.75	0.50	0.87	1.38	2.13	2.25	2.63	2.50	2.50	2.63	
50	0.62	0.50	1.00	1.50	2.13						
	0.87	0.50	1.19	1.75	2.69	3.56	3.19	3.25	3.25	3.19	MEDIAN
	0.89	1.16	1.26	2.42	3.31	4.14	3.92	3.91	3.91	3.80	MEAN
						2.75	2.50	2.63	2.63	2.50	
51	0.75	0.50	0.87	1.38	2.13	2.50	2.63	2.50	2.63	2.88	
52	0.62	0.62	1.13	1.75	2.38	2.63	2.75	2.75	2.50	3.00	
53	0.62	0.37	1.63	2.00	2.63	2.75	3.38	3.38	3.50	3.00	
54	0.62	0.50	1.13	1.63	2.25	2.75	2.75	2.88	2.75	2.63	
55	0.75	0.37	1.00	1.38	2.13	2.63	2.63	2.50	2.50	2.63	
56	0.62	0.37	1.13	1.50	2.13	2.50	2.63	2.63	3.00	3.25	
57	0.62	0.75	1.38	2.13	2.75	2.63	3.12	3.00	2.75	3.75	
58	0.50	0.50	2.38	2.88	3.38	3.12	3.88	4.37	4.37	3.00	
59	1.00	0.50	1.00	1.50	2.50	2.88	2.88	2.63	28.38	29.38	
60	0.75	26.25	2.00	28.25	29.00						
	0.62	0.50	1.13	1.69	2.44	2.69	2.75	2.69	2.75	3.00	MEDIAN
	0.69	3.08	1.36	4.44	5.13	2.71	2.91	2.92	5.50	5.60	MEAN

(Continued)

Analysis of Data (M105 13) (Continued)

0.87	0.50	1.44	2.00	3.00	3.19	3.38	3.38	3.38	3.50	TOTAL MEDIAN
0.89	1.15	1.52	2.67	3.54	3.72	3.63	3.66	4.10	4.07	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M122 14)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	6.13	1.50	7.88	9.37	15.50	4.37	5.88	13.00	12.13	9.25	
2	13.25	0.62	5.00	5.62	18.88	4.25	7.50	8.63	10.13	6.75	
3	14.38	2.13	1.63	3.75	18.13	12.13	13.63	6.75	6.50	6.25	
4	7.50	1.87	1.38	3.25	10.75	9.63	7.00	6.87	7.38	7.50	
5	7.38	2.38	1.50	3.88	11.25	7.00	10.50	7.00	6.25	6.38	
6	3.88	1.63	1.63	3.25	7.13	10.88	7.25	6.87	7.13	7.00	
7	3.50	1.87	1.50	3.38	6.87	6.13	5.62	6.50	5.88	6.13	
8	4.37	1.25	1.75	3.00	7.38	6.87	6.38	6.00	6.38	6.50	
9	4.00	1.63	1.87	3.50	7.50	6.00	5.88	6.75	6.50	7.13	
10	4.88	1.38	2.50	3.88	8.75						
	5.50	1.63	1.69	3.63	9.75	6.87	7.00	6.87	6.50	6.75	MEDIAN
	6.93	1.63	2.66	4.29	11.21	7.47	7.74	7.60	7.58	6.99	MEAN
11	5.62	1.87	1.63	3.50	9.13	6.38	6.63	7.38	7.88	7.00	
12	4.75	2.13	1.00	3.12	7.88	7.50	7.63	6.75	7.00	6.38	
13	5.13	1.75	2.00	3.75	8.88	6.13	7.00	7.38	7.00	8.00	
14	5.88	4.75	2.25	7.00	12.88	8.38	7.00	7.75	10.75	11.00	
15	8.50	2.38	21.87	24.25	32.75	8.12	8.00	10.63	8.25	27.88	
16	4.88	1.63	1.25	2.88	7.75	9.88	31.50	27.88	27.13	6.50	
17	4.13	1.75	1.25	3.00	7.13	25.88	6.75	6.00	6.13	6.13	
18	4.00	1.75	1.00	2.75	6.75	8.12	6.13	6.00	6.00	5.75	
19	3.88	2.00	1.13	3.12	7.00	6.13	5.88	5.75	6.00	6.13	
20	4.00	1.63	1.38	3.00	7.00	5.62	6.13	6.25	5.88	6.13	

(Continued)

	4.81	1.81	1.31	3.12	7.81	7.81	6.87	7.06	7.00	6.44	MEDIAN
	5.07	2.16	3.47	5.64	10.71	9.21	9.26	9.18	9.20	9.09	MEAN
						6.13	6.13	6.50	7.25	7.88	
21	4.37	2.38	2.00	4.37	8.75	6.00	6.13	7.88	7.38	7.00	
22	6.13	1.87	1.63	3.50	9.63	7.75	8.12	7.38	7.38	6.87	
23	5.38	1.87	1.13	3.00	8.38	8.00	8.38	7.25	8.00	8.00	
24	4.25	2.63	1.13	3.75	8.00	6.50	7.63	7.38	7.63	8.38	
25	4.00	2.88	1.87	4.75	8.75	8.25	7.63	9.50	8.88	8.12	
26	5.88	2.25	1.13	3.38	9.25	7.88	7.88	8.50	8.38	8.75	
27	6.50	2.13	1.50	3.63	10.13	10.63	9.00	7.88	7.88	7.63	
28	5.38	2.13	1.25	3.38	8.75	7.00	8.12	8.00	8.00	7.88	
29	5.25	2.13	1.13	3.25	8.50	8.25	7.63	7.38	7.50	7.75	
30	5.00	2.25	1.38	3.63	8.63						
	5.31	2.19	1.31	3.56	8.75	7.81	7.75	7.63	7.75	7.88	MEDIAN
	5.21	2.25	1.41	3.66	8.88	7.64	7.66	7.76	7.82	7.82	MEAN
						7.75	8.00	8.50	8.88	8.88	
31	5.50	2.63	1.38	4.00	9.50	7.50	7.13	8.25	7.50	8.25	
32	6.63	1.87	2.13	4.00	10.63	8.38	9.25	8.00	8.38	7.63	
33	5.38	2.25	1.38	3.63	9.00	7.75	8.38	7.50	8.00	7.88	
34	4.50	2.75	1.25	4.00	8.50	9.37	8.75	7.88	7.25	7.13	
35	3.63	2.13	1.13	3.25	6.87	7.25	6.63	7.75	8.25	8.38	
36	4.75	2.63	1.25	3.88	8.63	11.63	10.75	9.88	9.00	8.75	
37	3.88	1.75	1.00	2.75	6.63	5.75	6.63	7.00	6.87	7.13	
38	4.25	1.63	1.25	2.88	7.13	6.38	6.38	7.63	7.88	8.50	
39	5.50	1.87	1.87	3.75	9.25	7.13	8.63	7.38	7.75	7.75	
40	4.25	2.25	1.87	4.13	8.38						
	4.63	2.19	1.31	3.81	8.56	7.63	8.19	7.81	7.94	8.06	MEDIAN

(Continued)

Analysis of Data (M122 14) (Continued)

	4.82	2.17	1.45	3.63	8.45	7.89	8.05	7.97	7.97	8.02	MEAN
41	3.75	2.00	1.25	3.25	7.00	9.25	8.38	7.88	7.63	7.00	
42	30.63	1.87	2.13	4.00	34.63	7.50	7.13	34.00	33.88	34.75	
43	6.00	1.87	1.25	3.12	9.13	6.75	32.88	8.25	8.25	7.38	
44	4.63	2.13	1.13	3.25	7.88	34.13	8.38	7.00	7.25	7.13	
45	4.63	2.13	1.25	3.38	8.00	8.12	7.13	7.13	7.13	7.25	
46	4.25	2.13	1.25	3.38	7.63	6.38	7.63	7.25	7.25	7.25	
47	5.62	1.63	2.38	4.00	9.63	8.25	6.38	7.75	7.25	8.38	
48	5.88	2.50	1.13	3.63	9.50	6.63	7.63	7.88	8.75	7.50	
49	4.75	2.38	1.50	3.88	8.63	7.38	8.50	7.38	7.25	7.63	
50	4.25	2.00	1.50	3.50	7.75	8.63	8.00	7.50	7.13	7.13	
	4.69	2.06	1.25	3.44	8.31	7.81	7.81	7.63	7.25	7.31	MEDIAN
	7.44	2.06	1.48	3.54	10.98	10.30	10.20	10.20	10.18	10.14	MEAN
	4.88	2.00	1.38	3.50	8.63	7.50	7.63	7.38	7.50	7.50	TOTAL MEDIAN
	5.89	2.06	2.10	4.15	10.05	8.52	8.60	8.56	8.57	8.44	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 15)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	0.87	3.25	4.13	0.00	0.00	0.00	5.13	5.13	3.75	
2	0.50	0.87	1.87	2.75	3.25	0.00	3.88	3.75	3.50	3.50	
3	0.37	0.62	1.87	2.50	2.88	0.00	3.38	3.50	3.50	6.13	
4	0.50	0.62	4.50	5.13	5.62	0.00	6.25	6.38	6.25	3.63	
5	0.62	0.50	1.87	2.38	3.00	5.62	3.75	3.50	3.63	3.25	
6	0.37	0.62	1.50	2.13	2.50	3.63	3.12	3.38	3.12	3.38	
7	0.62	0.37	1.75	2.13	2.75	6.00	3.63	3.38	3.63	3.25	
8	0.37	0.62	1.38	2.00	2.38	3.75	3.00	2.88	2.88	2.75	
9	0.25	0.62	1.25	1.87	2.13	3.38	2.88	2.88	2.88	2.88	
10	0.25	0.62	1.25	1.87	2.13						
	0.37	0.62	1.81	2.25	2.75	3.75	3.50	3.50	3.50	3.38	MEDIAN
	0.43	0.64	2.05	2.69	2.96	4.47	3.73	3.86	3.83	3.61	MEAN
11	0.37	0.37	1.38	1.75	2.13	4.13	2.75	2.88	2.63	2.75	
12	0.37	0.50	5.00	5.50	5.88	2.63	2.63	2.63	2.75	6.38	
13	0.50	0.37	1.38	1.75	2.25	3.00	6.38	6.50	6.38	2.75	
14	0.37	0.37	1.38	1.75	2.13	2.88	2.88	2.75	2.75	2.75	
15	0.37	0.50	1.38	1.87	2.25	3.63	2.75	2.75	2.88	2.88	
16	0.37	0.50	1.50	2.00	2.38	6.50	2.75	2.75	2.75	2.88	
17	0.37	0.50	1.38	1.87	2.25	2.50	3.00	3.00	3.00	2.88	
18	0.50	0.50	1.50	2.00	2.50	2.50	2.75	2.88	2.88	3.00	
19	0.62	0.25	1.63	1.87	2.50	2.00	3.75	3.88	3.63	3.75	
20	0.62	0.50	1.75	2.25	2.88	2.38	3.63	3.63	3.88	4.00	

(Continued)

	0.37	0.50	1.44	1.87	2.31	2.75	2.81	2.88	2.88	2.88	MEDIAN
	0.45	0.44	1.83	2.26	2.71	3.21	3.33	3.36	3.35	3.40	MEAN
21	0.37	0.37	1.38	1.75	2.13	3.63	3.50	3.25	3.12	2.75	
22	0.25	0.50	1.25	1.75	2.00	3.75	2.75	2.63	2.75	2.63	
23	0.50	0.37	1.25	1.63	2.13	3.38	2.63	2.88	2.75	2.75	
24	0.62	0.37	1.13	1.50	2.13	4.25	2.75	2.88	2.88	2.75	
25	0.62	0.50	1.13	1.63	2.25	3.25	2.75	2.75	2.88	2.88	
26	0.37	0.50	1.13	1.63	2.00	2.75	3.00	2.75	2.75	2.75	
27	2.38	1.50	1.25	2.75	5.13	3.38	2.63	4.63	5.62	5.75	
28	0.75	0.37	1.13	1.50	2.25	3.12	5.62	4.00	2.88	2.75	
29	0.62	0.87	1.87	2.75	3.38	2.50	2.88	2.75	3.25	4.00	
30	0.50	0.37	1.13	1.50	2.00	4.63	4.25	4.13	3.63	2.88	
	0.56	0.44	1.19	1.63	2.13	3.38	2.81	2.88	2.88	2.75	MEDIAN
	0.70	0.57	1.26	1.84	2.54	3.46	3.28	3.26	3.25	3.19	MEAN
31	0.25	0.50	4.13	4.63	4.88	2.88	2.88	2.63	2.75	5.75	
32	1.87	0.75	2.88	3.63	5.50	3.63	6.63	8.25	8.50	7.25	
33	0.25	0.62	1.38	2.00	2.25	3.12	6.25	4.63	4.50	3.00	
34	0.62	0.50	1.13	1.63	2.25	3.75	2.88	3.25	3.12	2.88	
35	0.50	0.62	1.13	1.75	2.25	4.00	2.88	2.75	2.88	2.88	
36	0.50	0.50	1.13	1.63	2.13	6.38	2.88	2.88	2.75	2.75	
37	0.50	0.50	1.13	1.63	2.13	4.25	2.88	2.88	2.88	2.88	
38	0.50	0.25	1.38	1.63	2.13	2.88	2.88	2.88	2.63	2.88	
39	0.50	0.25	1.13	1.38	1.87	3.50	2.63	2.63	2.63	2.38	
40	0.25	10.38	1.75	12.13	12.38	2.75	2.50	2.25	12.38	13.00	
	0.50	0.50	1.25	1.69	2.25	3.56	2.88	2.88	2.88	2.88	MEDIAN

(Continued)

Analysis of Data (M105 15) (Continued)

	0.57	1.49	1.71	3.20	3.78	3.71	3.53	3.50	4.50	4.56	MEAN
						3.50	13.13	13.13	3.63	2.88	
41	0.25	0.87	1.00	1.87	2.13	4.00	2.75	3.00	2.88	2.88	
42	0.50	0.75	1.00	1.75	2.25	10.25	2.88	2.75	2.63	2.88	
43	0.37	0.62	1.25	1.87	2.25	2.63	3.12	3.12	3.75	3.63	
44	0.37	1.25	1.13	2.38	2.75	3.00	3.38	3.50	2.75	3.50	
45	0.50	0.50	1.87	2.38	2.88	3.75	5.00	5.25	5.25	5.25	
46	0.75	0.50	1.87	2.38	3.12	2.50	4.13	4.63	4.75	4.50	
47	1.25	0.62	1.63	2.25	3.50	3.63	4.25	3.50	3.25	3.00	
48	0.50	0.37	1.38	1.75	2.25	2.75	3.00	2.88	3.00	2.88	
49	0.37	0.50	1.25	1.75	2.13	6.00	3.12	3.50	3.38	3.38	
50	0.75	0.37	1.25	1.63	2.38						
	0.50	0.56	1.25	1.87	2.31	3.56	3.25	3.50	3.31	3.19	MEDIAN
	0.56	0.64	1.36	2.00	2.56	4.20	4.47	4.53	3.53	3.47	MEAN
						4.13	3.25	3.00	3.38	10.25	
51	0.50	0.75	8.12	8.88	9.37	3.25	10.25	10.50	10.13	4.13	
52	0.75	0.37	2.13	2.50	3.25	2.25	3.88	4.00	4.00	9.88	
53	0.87	0.37	8.00	8.38	9.25	5.00	12.50	12.50	12.75	6.75	
54	0.87	0.62	2.00	2.63	3.50	8.25	4.50	4.00	4.50	6.13	
55	0.37	1.13	3.63	4.75	5.13	3.38	9.13	9.75	9.37	7.50	
56	1.00	0.75	1.75	2.50	3.50	10.13	6.38	6.50	6.38	5.38	
57	1.13	0.62	0.75	1.38	2.50	7.25	3.38	2.88	2.75	3.88	
58	0.62	0.50	1.87	2.38	3.00	6.13	3.88	4.13	4.25	3.38	
59	0.87	0.62	1.00	1.63	2.50	7.63	3.12	3.00	2.75	3.12	
60	0.75	0.37	1.38	1.75	2.50						
	0.81	0.62	1.94	2.50	3.38	5.56	4.19	4.06	4.37	5.75	MEDIAN
	0.77	0.61	3.06	3.67	4.45	5.74	6.03	6.03	6.03	6.04	MEAN

(Continued)

Analysis of Data (M105 15) (Continued)

0.50	0.50	1.38	1.87	2.38	3.63	3.12	3.25	3.12	3.12	TOTAL MEDIAN
0.58	0.73	1.88	2.61	3.17	4.10	4.07	4.09	4.08	4.05	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 16)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	1.63	1.50	3.12	0.00	3.50	6.63	0.00	15.62	15.50	0.00	9.37	9.13	8.75	6.75	
2	1.13	1.38	1.13	2.50	3.63	1.50	4.00	5.13	6.87	7.75	6.63	7.88	8.00	8.25	22.50	
3	2.38	1.50	1.38	2.88	5.25	15.75	18.63	21.00	21.63	9.13	26.75	30.25	30.50	31.00	16.75	
4	5.88	1.75	1.87	3.63	9.50	1.50	5.13	11.00	29.25	29.75	13.00	8.25	8.00	7.50	7.50	
5	1.13	1.50	1.38	2.88	4.00	1.50	4.37	5.50	7.00	8.12	7.13	8.12	7.63	7.88	8.75	
6	2.13	1.00	1.63	2.63	4.75	2.38	5.00	7.13	7.63	7.13	8.75	10.63	11.25	11.13	10.38	
7	4.00	1.63	1.50	3.12	7.13	1.63	4.75	8.75	10.88	11.88	10.50	8.88	8.63	8.75	8.88	
8	2.38	1.38	1.63	3.00	5.38	1.75	4.75	7.13	7.88	8.25	8.63	7.75	7.63	7.88	7.75	
9	1.50	1.25	1.87	3.12	4.63	1.63	4.75	6.25	7.38	7.75	7.63	9.63	9.50	9.13	9.75	
10	3.50	1.13	1.50	2.63	6.13	2.25	4.88	8.38	9.37							
	2.38	1.44	1.50	2.94	5.25	1.69	4.81	7.13	8.63	8.25	8.69	8.88	8.63	8.75	8.88	MEDIAN
	2.67	1.41	1.54	2.95	5.60	3.34	6.29	8.92	12.35	11.69	11.13	11.19	11.14	11.14	11.00	MEAN
11	1.25	1.13	1.38	2.50	3.75	1.25	3.75	5.00	6.87	8.88	9.75	7.50	7.50	7.38	6.38	
12	2.38	1.13	1.63	2.75	5.13	2.38	5.13	7.50	8.25	7.88	6.75	7.88	7.88	8.12	9.25	
13	3.25	1.75	1.38	3.12	6.38	2.50	5.62	8.88	10.25	8.50	9.13	10.00	10.63	10.38	10.50	
14	3.38	1.13	2.63	3.75	7.13	1.50	5.25	8.63	10.88	10.38	11.25	11.38	10.75	12.00	11.00	
15	1.38	1.25	1.75	3.00	4.37	1.50	4.50	5.88	8.00	10.38	10.25	8.25	8.38	7.50	7.50	
16	5.13	1.38	1.63	3.00	8.12	1.25	4.25	9.37	10.25	9.13	7.88	11.63	11.75	11.63	11.38	
17	1.63	1.13	1.13	2.25	3.88	1.38	3.63	5.25	6.38	11.00	11.25	7.75	7.50	7.00	7.13	
18	1.75	1.13	1.25	2.38	4.13	2.38	4.75	6.50	7.25	8.00	7.63	7.75	7.75	7.88	8.88	
19	0.87	1.25	1.50	2.75	3.63	1.25	4.00	4.88	7.13	6.63	8.12	7.25	7.38	7.63	6.50	
20	3.25	1.50	1.50	3.00	6.25	1.38	4.37	7.63	8.88	7.63	6.63	9.00	9.25	9.25	9.37	

(Continued)

	2.06	1.19	1.50	2.88	4.75	1.44	4.44	7.00	8.12	8.69	8.63	8.06	8.12	8.00	9.06	MEDIAN
	2.42	1.27	1.58	2.85	5.28	1.67	4.53	6.95	8.41	8.84	8.86	8.84	8.88	8.88	8.79	MEAN
21	1.63	1.13	1.25	2.38	4.00	1.38	3.75	5.38	6.63	9.25	9.25	7.63	7.25	7.00	7.00	
22	1.13	1.38	1.38	2.75	3.88	2.13	4.88	6.00	7.75	7.25	7.75	7.25	7.50	7.63	8.38	
23	4.37	1.25	1.25	2.50	6.87	1.38	3.88	8.25	7.50	10.25	7.75	11.00	10.88	10.75	10.00	
24	1.25	1.25	1.25	2.50	3.75	1.25	3.75	5.00	6.50	8.12	10.38	7.25	7.25	7.25	7.13	
25	2.88	1.25	1.25	2.50	5.38	1.75	4.25	7.13	7.13	8.50	7.00	8.63	8.63	8.63	9.13	
26	2.63	1.50	2.13	3.63	6.25	1.38	5.00	7.63	9.37	7.25	9.00	8.75	9.00	9.88	9.50	
27	0.87	1.25	1.38	2.63	3.50	1.25	3.88	4.75	7.50	8.88	9.88	8.12	7.88	7.13	7.00	
28	1.50	1.00	1.25	2.25	3.75	1.25	3.50	5.00	6.38	7.88	6.50	7.13	6.87	6.75	6.75	
29	3.50	1.50	1.13	2.63	6.13	1.13	3.75	7.25	8.25	7.50	7.13	9.13	9.63	9.50	9.37	
30	1.87	1.38	1.13	2.50	4.37	1.13	3.63	5.50	6.38	10.00	9.88	8.25	8.12	8.12	8.12	
	1.75	1.25	1.25	2.50	4.19	1.31	3.81	5.75	7.31	8.31	8.38	8.19	8.00	7.88	8.25	MEDIAN
	2.16	1.29	1.34	2.63	4.79	1.40	4.03	6.19	7.34	8.49	8.45	8.31	8.30	8.26	8.24	MEAN
31	1.75	1.25	1.13	2.38	4.13	1.50	3.88	5.62	6.63	7.25	7.38	7.25	7.13	7.13	7.50	
32	1.87	5.75	1.63	7.38	9.25	1.13	8.50	10.38	11.63	7.38	7.63	7.75	12.25	12.75	12.38	
33	2.25	1.25	0.75	2.00	4.25	1.63	3.63	5.88	6.63	12.75	12.25	12.63	8.12	7.25	7.75	
34	1.25	1.25	1.38	2.63	3.88	5.50	8.12	9.37	8.75	8.25	6.87	5.88	5.88	6.50	10.38	
35	2.00	1.25	1.13	2.38	4.37	1.25	3.63	5.62	6.50	9.75	11.25	12.00	12.00	11.75	7.50	
36	1.75	1.25	1.25	2.50	4.25	1.75	4.25	6.00	7.00	7.25	7.38	7.13	7.13	7.25	7.75	
37	1.13	1.25	1.25	2.50	3.63	1.38	3.88	5.00	6.75	7.50	8.25	7.63	7.63	7.63	7.25	
38	3.00	1.25	1.50	2.75	5.75	1.25	4.00	7.00	7.50	7.88	6.63	8.50	8.50	8.75	8.63	
39	1.00	1.25	1.38	2.63	3.63	1.25	3.88	4.88	6.75	8.50	9.88	7.88	7.88	7.75	7.75	
40	2.38	1.13	4.13	5.25	7.63	1.25	6.50	8.88	9.63	7.75	6.63	8.00	7.88	10.63	10.63	
	1.81	1.25	1.31	2.56	4.25	1.31	3.94	5.94	6.87	7.81	7.50	7.81	7.88	7.69	7.75	MEDIAN

(Continued)

Analysis of Data (M155 16) (Continued)

	1.84	1.69	1.55	3.24	5.07	1.79	5.03	6.86	7.78	8.43	8.41	8.46	8.44	8.74	8.75	MEAN
41	4.50	1.38	1.63	3.00	7.50	1.25	4.25	8.75	10.75	9.75	11.00	13.13	13.38	10.88	10.88	
42	2.00	2.00	2.25	4.25	6.25	1.75	6.00	8.00	9.25	12.00	11.25	8.75	9.37	10.00	10.50	
43	3.25	1.38	1.50	2.88	6.13	1.25	4.13	7.38	8.25	10.25	9.88	11.13	10.50	9.75	9.25	
44	3.63	1.38	1.50	2.88	6.50	1.13	4.00	7.63	8.38	9.25	9.13	9.50	9.50	9.50	9.37	
45	2.50	1.38	1.38	2.75	5.25	1.38	4.13	6.63	7.00	9.88	9.50	8.38	8.38	8.25	8.50	
46	3.00	1.75	1.38	3.12	6.13	1.25	4.37	7.38	7.75	8.25	8.25	8.75	9.13	9.13	9.00	
47	2.63	1.13	1.25	2.38	5.00	2.63	5.00	7.63	7.88	9.25	9.13	8.75	8.12	8.00	9.37	
48	1.63	1.50	1.50	3.00	4.63	0.87	3.88	5.50	6.75	8.38	9.37	8.38	8.75	9.00	7.25	
49	2.63	1.38	1.38	2.75	5.38	1.38	4.13	6.75	7.13	8.25	7.38	8.38	8.25	8.12	8.63	
50	5.88	4.13	1.25	5.38	11.25	1.87	7.25	13.13	13.13	8.63	8.25	11.50	14.25	14.13	14.63	
	2.81	1.38	1.44	2.94	6.13	1.31	4.19	7.50	8.06	9.25	9.25	8.75	9.25	9.31	9.31	MEDIAN
	3.16	1.74	1.50	3.24	6.40	1.48	4.71	7.88	8.63	9.39	9.31	9.66	9.96	9.68	9.74	MEAN
51	2.88	1.38	1.50	2.88	5.75	1.38	4.25	7.13	8.00	14.00	14.88	11.88	9.13	9.37	8.88	
52	2.25	1.25	1.63	2.88	5.13	1.87	4.75	7.00	7.75	9.00	8.88	8.25	8.12	8.25	8.75	
53	1.25	1.25	1.63	2.88	4.13	1.75	4.63	5.88	7.25	8.12	8.75	7.75	7.75	7.75	7.63	
54	2.88	1.63	1.38	3.00	5.88	3.50	6.50	9.37	11.00	8.12	8.38	10.00	10.38	10.13	11.88	
55	1.75	1.63	1.13	2.75	4.50	1.50	4.25	6.00	7.00	12.00	11.38	10.25	10.25	10.00	8.00	
56	3.00	1.50	1.38	2.88	5.88	1.13	4.00	7.00	6.87	9.50	8.38	9.63	9.50	9.75	9.37	
57	2.25	1.63	2.88	4.50	6.75	1.63	6.13	8.38	8.75	8.25	8.75	8.00	8.12	9.63	10.13	
58	3.12	1.38	1.50	2.88	6.00	6.25	9.13	12.25	13.88	9.50	10.75	11.63	11.38	10.00	14.63	
59	1.38	1.25	1.50	2.75	4.13	1.25	4.00	5.38	10.88	10.25	14.13	12.38	12.25	12.25	7.25	
60	2.88	1.75	1.00	2.75	5.62	1.00	3.75	6.63	6.38	12.75	7.00	8.50	9.00	8.50	8.25	
	2.56	1.44	1.50	2.88	5.69	1.56	4.44	7.00	7.88	9.50	8.81	9.81	9.31	9.69	8.81	MEDIAN
	2.36	1.46	1.55	3.01	5.38	2.13	5.14	7.50	8.77	10.15	10.13	9.82	9.59	9.56	9.48	MEAN

(Continued)

Analysis of Data (M155 16) (Continued)

2.25	1.38	1.38	2.75	5.25	1.44	4.25	7.00	7.75	8.50	8.75	8.50	8.50	8.75	8.88	TOTAL MEDIAN
2.43	1.48	1.51	2.99	5.42	1.97	4.95	7.36	8.88	9.46	9.32	9.35	9.35	9.35	9.30	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 17)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O	
1	0.00	2.50	1.00	3.50	0.00	7.25	10.75	0.00	13.38	8.25	0.00	13.25	12.00	12.13	6.38	
2	1.13	1.25	1.13	2.38	3.50	1.50	3.88	5.00	11.50	11.88	6.50	7.50	9.13	8.63	8.88	
3	2.13	2.88	0.62	3.50	5.62	1.75	5.25	7.38	8.50	8.75	8.63	9.00	8.50	8.50	8.63	
4	2.50	2.38	0.62	3.00	5.50	1.87	4.88	7.38	8.38	8.88	8.63	9.00	9.63	9.50	10.00	
5	2.88	3.00	0.50	3.50	6.38	2.38	5.88	8.75	9.50	9.00	10.00	16.38	15.25	15.25	15.25	
6	9.25	1.87	0.50	2.38	11.63	2.38	4.75	14.00	15.75	15.88	15.25	8.12	7.50	7.50	7.13	
7	2.13	1.25	0.50	1.75	3.88	2.00	3.75	5.88	7.00	6.87	7.25	6.50	6.75	6.75	6.63	
8	1.38	1.50	0.50	2.00	3.38	1.87	3.88	5.25	6.75	6.75	6.87	8.88	9.13	9.13	8.88	
9	3.38	1.75	0.50	2.25	5.62	1.63	3.88	7.25	8.88	9.25	8.75	7.25	6.75	7.13	7.38	
10	1.87	1.25	0.87	2.13	4.00	1.87	4.00	5.88	7.00							
	2.13	1.81	0.56	2.38	5.50	1.87	4.37	7.25	8.69	8.88	8.63	8.88	9.13	8.63	8.63	MEDIAN
	2.96	1.96	0.68	2.64	5.50	2.45	5.09	7.42	9.66	9.50	8.98	9.54	9.40	9.39	8.79	MEAN
11	1.75	3.25	0.62	3.88	5.62	1.87	5.75	7.50	8.50	7.38	7.25	7.13	9.13	8.88	8.88	
12	1.13	1.25	0.62	1.87	3.00	1.87	3.75	4.88	6.50	8.38	9.00	8.38	6.38	6.38	6.38	
13	1.38	1.13	0.62	1.75	3.12	1.75	3.50	4.88	6.38	6.50	6.38	6.63	6.50	6.50	6.38	
14	1.38	1.38	0.50	1.87	3.25	1.63	3.50	4.88	6.13	6.38	6.13	6.13	6.38	6.25	6.13	
15	1.00	1.38	0.62	2.00	3.00	1.63	3.63	4.63	6.25	6.25	6.63	6.25	6.25	6.38	6.38	
16	1.25	1.38	0.75	2.13	3.38	1.63	3.75	5.00	6.25	6.38	6.00	6.25	6.25	6.38	6.38	
17	3.75	2.00	0.87	2.88	6.63	1.87	4.75	8.50	9.88	6.38	6.50	9.00	9.63	9.75	10.00	
18	1.50	1.38	0.50	1.87	3.38	1.75	3.63	5.13	6.38	9.88	9.75	7.50	6.87	6.50	6.38	
19	1.13	1.50	2.13	3.63	4.75	0.00	3.63	4.75	6.13	6.38	6.50	6.13	6.25	7.88	6.13	
20	2.88	2.38	0.50	2.88	5.75	1.50	4.37	7.25	7.38	7.63	6.38	8.12	9.00	7.38	8.88	

(Continued)

	1.38	1.38	0.62	2.06	3.38	1.75	3.69	4.94	6.38	6.44	6.50	6.87	6.44	6.50	6.38	MEDIAN
	1.71	1.70	0.77	2.47	4.19	1.72	4.03	5.74	6.97	7.15	7.05	7.15	7.26	7.22	7.19	MEAN
21	1.25	1.38	0.87	2.25	3.50	1.38	3.63	4.88	6.25	7.63	8.88	7.25	6.25	6.63	6.50	
22	1.13	1.38	1.50	2.88	4.00	1.63	4.50	5.62	7.13	6.25	6.38	6.25	6.25	6.87	7.13	
23	3.50	1.63	0.37	2.00	5.50	1.63	3.63	7.13	9.37	6.25	7.00	9.37	9.63	8.50	8.50	
24	1.38	1.50	1.00	2.50	3.88	1.50	4.00	5.38	6.25	9.75	8.38	6.25	6.13	6.75	6.63	
25	1.00	1.38	0.75	2.13	3.12	1.63	3.75	4.75	6.38	6.38	7.13	6.75	6.63	6.38	6.50	
26	3.88	1.38	0.50	1.87	5.75	1.38	3.25	7.13	8.63	6.25	6.13	9.00	9.00	8.75	8.50	
27	1.50	1.38	1.50	2.88	4.37	1.63	4.50	6.00	6.87	9.13	8.50	6.13	6.13	7.13	7.38	
28	1.38	2.63	0.37	3.00	4.37	1.75	4.75	6.13	7.13	7.13	7.25	7.13	8.38	7.25	7.38	
29	3.38	1.50	0.37	1.87	5.25	1.50	3.38	6.75	7.63	7.50	7.38	9.37	8.25	8.25	8.00	
30	2.63	1.38	0.37	1.75	4.37	1.38	3.12	5.75	5.62	9.13	8.12	7.38	7.25	7.25	7.13	
	1.44	1.38	0.62	2.19	4.37	1.56	3.69	5.88	7.00	7.31	7.31	7.19	6.94	7.19	7.25	MEDIAN
	2.10	1.55	0.76	2.31	4.41	1.54	3.85	5.95	7.13	7.54	7.51	7.49	7.39	7.38	7.36	MEAN
31	3.63	1.50	0.50	2.00	5.62	1.50	3.50	7.13	7.75	6.38	7.13	8.12	8.25	8.38	8.50	
32	3.63	1.50	0.37	1.87	5.50	1.50	3.38	7.00	8.00	8.25	8.63	8.63	8.63	8.50	8.50	
33	1.87	1.25	0.62	1.87	3.75	1.25	3.12	5.00	5.75	8.63	8.38	6.63	6.38	6.63	6.38	
34	1.25	4.88	1.50	6.38	7.63	1.63	8.00	9.25	10.25	6.25	6.50	5.88	9.50	10.38	10.75	
35	3.75	1.50	0.50	2.00	5.75	1.50	3.50	7.25	8.00	11.00	10.75	13.25	9.88	8.88	8.75	
36	1.63	1.38	1.00	2.38	4.00	1.38	3.75	5.38	6.38	8.50	8.75	6.63	6.50	7.00	6.87	
37	1.38	1.13	1.00	2.13	3.50	1.38	3.50	4.88	6.25	6.63	7.00	6.75	6.50	6.50	6.50	
38	3.25	1.75	0.62	2.38	5.62	1.38	3.75	7.00	8.00	6.50	6.13	8.00	8.63	8.25	8.25	
39	1.87	1.13	0.75	1.87	3.75	1.50	3.38	5.25	5.88	8.63	8.25	6.87	6.25	6.38	6.50	
40	3.38	1.25	0.50	1.75	5.13	1.50	3.25	6.63	5.50	8.38	6.63	8.12	8.25	8.00	8.00	
	2.56	1.44	0.62	2.00	5.31	1.50	3.50	6.81	7.06	8.31	7.69	7.44	8.25	8.12	8.12	MEDIAN

(Continued)

	2.56	1.73	0.74	2.46	5.03	1.45	3.91	6.47	7.18	7.91	7.81	7.89	7.88	7.89	7.90	MEAN
										6.13	7.63	7.63	8.88	8.88	9.50	
41	3.38	2.50	0.50	3.00	6.38	2.13	5.13	8.50	8.88	8.88	9.88	7.38	6.50	6.50	6.00	
42	0.87	1.63	0.50	2.13	3.00	1.63	3.75	4.63	6.00	6.25	6.50	6.63	8.00	8.00	7.88	
43	1.00	3.00	0.50	3.50	4.50	1.50	5.00	6.00	7.63	8.25	7.25	10.00	8.25	8.50	8.75	
44	3.75	1.25	0.75	2.00	5.75	1.75	3.75	7.50	8.12	8.75	9.13	6.63	6.87	7.13	6.75	
45	1.25	1.50	1.00	2.50	3.75	1.38	3.88	5.13	6.13	6.50	6.38	6.63	6.63	6.75	6.87	
46	1.50	1.50	1.13	2.63	4.13	1.50	4.13	5.62	6.50	6.75	6.63	8.63	9.25	8.75	8.63	
47	3.50	2.13	0.62	2.75	6.25	1.38	4.13	7.63	8.38	9.13	9.00	7.75	7.38	7.38	8.12	
48	2.25	1.75	0.62	2.38	4.63	2.13	4.50	6.75	7.38	7.88	8.25	8.63	8.38	8.25	7.63	
49	2.63	1.50	0.50	2.00	4.63	1.50	3.50	6.13	7.13	7.50	7.63	8.63	9.00	9.37	9.25	
50	3.63	1.87	0.87	2.75	6.38	1.38	4.13	7.75	8.88							
	2.44	1.69	0.62	2.56	4.63	1.50	4.13	6.44	7.50	7.69	7.63	7.69	8.12	8.12	8.00	MEDIAN
	2.38	1.86	0.70	2.56	4.94	1.63	4.19	6.56	7.50	7.60	7.82	7.85	7.91	7.95	7.94	MEAN
										9.25	9.37	6.87	6.13	6.00	6.25	
51	1.13	1.13	0.75	1.87	3.00	1.63	3.50	4.63	5.88	6.00	6.13	6.00	6.00	6.00	5.75	
52	1.00	1.13	0.75	1.87	2.88	1.38	3.25	4.25	5.62	5.75	5.88	7.63	7.88	7.75	7.88	
53	2.75	1.38	0.62	2.00	4.75	1.50	3.50	6.25	7.75	8.25	7.63	9.75	9.75	9.63	9.63	
54	4.88	1.38	0.50	1.87	6.75	1.50	3.38	8.25	9.13	9.63	9.75	6.63	6.87	6.87	6.75	
55	1.75	1.63	0.50	2.13	3.88	1.38	3.50	5.25	6.25	6.75	6.50	7.75	7.63	7.63	7.63	
56	3.00	1.50	0.50	2.00	5.00	1.38	3.38	6.38	7.13	7.50	8.00	6.25	6.13	6.25	6.50	
57	1.25	1.38	0.62	2.00	3.25	1.63	3.63	4.88	6.13	6.38	6.13	6.38	6.25	6.13	5.75	
58	1.50	1.25	0.50	1.75	3.25	1.25	3.00	4.50	5.50	6.63	6.00	7.38	7.88	7.88	8.00	
59	2.88	1.75	0.50	2.25	5.13	1.38	3.63	6.50	6.87	8.00	8.50	7.50	7.13	7.13	7.13	
60	1.87	1.38	0.50	1.87	3.75	1.38	3.25	5.13	6.00							
	1.81	1.38	0.50	1.94	3.81	1.38	3.44	5.19	6.19	7.13	7.06	7.13	7.00	7.00	6.94	MEDIAN
	2.20	1.39	0.57	1.96	4.16	1.44	3.40	5.60	6.63	7.41	7.39	7.21	7.16	7.13	7.13	MEAN

(Continued)

Analysis of Data (M155 17) *(Continued)*

1.87	1.50	0.62	2.13	4.37	1.50	3.75	6.00	7.06	7.50	7.25	7.38	7.50	7.38	7.38	TOTAL MEDIAN
2.31	1.70	0.70	2.40	4.69	1.70	4.08	6.27	7.51	7.82	7.72	7.83	7.81	7.80	7.70	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 18)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	5.00	6.87	11.88	0.00	0.00	0.00	13.13	9.13	3.63	
2	0.50	1.00	1.38	2.38	2.88	0.00	3.50	3.63	3.38	2.88	
3	0.62	0.75	0.87	1.63	2.25	0.00	2.88	3.00	3.25	3.25	
4	0.75	1.00	0.87	1.87	2.63	0.00	3.38	3.25	3.00	3.25	
5	0.62	0.75	1.13	1.87	2.50	3.00	3.00	2.88	2.88	4.37	
6	0.50	0.75	2.63	3.38	3.88	5.13	4.37	4.13	4.13	3.00	
7	0.25	0.75	1.50	2.25	2.50	2.88	3.00	3.00	3.00	2.63	
8	0.25	0.75	1.13	1.87	2.13	3.12	2.63	2.88	3.00	2.88	
9	0.50	0.87	1.00	1.87	2.38	2.25	5.50	5.25	5.25	5.38	
10	0.25	0.87	1.13	2.00	2.25						
	0.50	0.81	1.13	1.94	2.50	3.00	3.19	3.25	3.25	3.25	MEDIAN
	0.47	1.25	1.85	3.10	2.60	3.28	3.53	4.57	4.11	3.47	MEAN
11	0.75	0.62	1.00	1.63	2.38	2.88	5.25	5.75	5.50	5.38	
12	0.75	0.75	0.75	1.50	2.25	3.00	3.00	3.00	3.12	2.88	
13	0.50	0.62	0.75	1.38	1.87	2.88	3.00	2.75	2.63	2.63	
14	0.37	0.62	0.87	1.50	1.87	8.00	2.63	2.50	2.50	2.63	
15	1.00	0.75	0.87	1.63	2.63	3.50	5.25	5.88	6.00	6.00	
16	0.62	0.50	2.63	3.12	3.75	3.12	3.25	2.88	2.63	4.37	
17	0.50	0.50	0.75	1.25	1.75	2.50	4.37	4.25	4.25	2.38	
18	0.50	0.75	0.87	1.63	2.13	5.62	2.38	2.38	2.63	2.75	
19	0.62	0.37	0.87	1.25	1.87	2.63	2.63	2.75	2.38	2.38	
20	0.50	0.62	0.62	1.25	1.75	3.75	2.50	2.38	2.63	2.38	

(Continued)

	0.56	0.62	0.87	1.50	2.00	3.06	3.00	2.81	2.63	2.69	MEDIAN
	0.61	0.61	1.00	1.61	2.22	3.79	3.42	3.45	3.42	3.38	MEAN
21	0.62	0.62	0.75	1.38	2.00	2.63	2.25	2.38	2.38	2.50	
22	0.62	1.13	1.00	2.13	2.75	3.25	2.50	2.50	3.00	3.25	
23	0.87	0.50	1.00	1.50	2.38	1.87	3.88	4.13	3.50	3.50	
24	0.75	0.50	1.00	1.50	2.25	2.88	2.75	2.63	2.63	2.63	
25	0.50	0.62	4.37	5.00	5.50	2.75	2.88	2.63	2.75	6.13	
26	0.75	0.62	0.62	1.25	2.00	3.75	6.87	7.13	7.13	3.38	
27	0.50	0.62	0.75	1.38	1.87	3.38	2.75	2.50	2.50	2.63	
28	0.75	0.62	1.25	1.87	2.63	6.50	2.25	2.50	2.50	3.00	
29	0.75	0.62	0.62	1.25	2.00	2.50	3.12	3.12	3.12	2.50	
30	0.62	0.50	0.75	1.25	1.87	2.63	2.50	2.38	2.25	2.38	
	0.69	0.62	0.87	1.44	2.13	2.81	2.75	2.56	2.69	2.81	MEDIAN
	0.68	0.64	1.21	1.85	2.53	3.21	3.17	3.19	3.17	3.19	MEAN
31	0.87	0.50	0.75	1.25	2.13	2.88	2.25	2.50	2.50	2.50	
32	0.87	0.50	0.75	1.25	2.13	2.88	2.38	2.38	2.38	2.38	
33	1.00	0.37	0.62	1.00	2.00	2.38	2.38	2.50	2.38	2.25	
34	0.75	1.00	0.75	1.75	2.50	2.25	2.50	2.25	2.88	3.00	
35	0.75	4.25	1.00	5.25	6.00	3.00	3.25	3.25	6.50	6.75	
36	0.75	0.37	0.75	1.13	1.87	2.63	6.75	6.75	2.88	2.63	
37	0.75	0.37	0.75	1.13	1.87	2.38	2.63	2.63	2.63	2.63	
38	0.62	0.50	0.75	1.25	1.87	6.25	2.63	2.50	2.63	2.63	
39	0.62	12.00	1.63	13.63	14.25	2.50	2.25	2.25	13.75	14.63	
40	1.13	1.25	0.87	2.13	3.25	3.00	16.13	16.63	5.88	5.13	
	0.75	0.50	0.75	1.25	2.13	2.75	2.56	2.50	2.75	2.63	MEDIAN

(Continued)

Analysis of Data (M105 18) (Continued)

	0.81	2.11	0.86	2.97	3.79	3.01	4.31	4.36	4.44	4.45	MEAN
						3.00	3.63	3.63	3.00	2.63	
41	1.13	0.62	0.50	1.13	2.25	13.63	2.75	2.25	2.38	2.63	
42	0.62	0.75	0.75	1.50	2.13	6.38	2.63	2.63	3.88	5.13	
43	0.62	2.00	2.00	4.00	4.63	2.75	5.13	5.25	3.88	2.38	
44	0.75	0.62	0.50	1.13	1.87	2.88	2.25	2.25	2.25	2.25	
45	0.75	0.62	0.50	1.13	1.87	5.00	2.25	2.38	2.25	2.38	
46	0.87	0.50	0.62	1.13	2.00	1.75	2.25	2.38	2.38	2.38	
47	1.00	0.50	0.62	1.13	2.13	2.63	2.50	2.25	2.13	2.25	
48	0.75	0.37	0.75	1.13	1.87	2.00	2.25	2.13	2.13	2.00	
49	0.62	0.37	0.62	1.00	1.63	2.50	2.13	2.13	27.50	27.50	
50	0.62	25.75	0.62	26.38	27.00						
	0.75	0.62	0.62	1.13	2.06	2.81	2.38	2.31	2.38	2.38	MEDIAN
	0.77	3.21	0.75	3.96	4.74	4.25	2.78	2.72	5.18	5.15	MEAN
						2.13	27.63	27.88	2.50	2.63	
51	0.87	0.37	0.75	1.13	2.00	2.38	2.50	2.50	2.50	2.38	
52	0.87	0.37	0.62	1.00	1.87	26.38	2.25	2.25	2.13	2.88	
53	0.87	0.25	1.38	1.63	2.50	3.75	3.12	3.63	3.63	2.50	
54	1.38	0.25	0.25	0.50	1.87	1.87	2.38	1.75	2.00	2.25	
55	0.75	0.50	0.50	1.00	1.75	1.50	2.38	2.13	2.13	2.13	
56	0.50	0.50	0.50	1.00	1.50	4.37	2.00	2.25	2.88	3.12	
57	0.75	1.13	0.75	1.87	2.63	1.63	3.12	3.25	2.50	2.25	
58	0.87	0.37	0.50	0.87	1.75	2.38	2.25	2.00	2.25	2.25	
59	0.62	0.62	0.50	1.13	1.75	3.12	2.38	2.25	2.00	2.00	
60	0.50	0.37	0.50	0.87	1.38						
	0.81	0.37	0.50	1.00	1.81	2.38	2.38	2.25	2.38	2.31	MEDIAN
	0.80	0.47	0.62	1.10	1.90	4.95	5.00	4.99	2.45	2.44	MEAN

(Continued)

ANALYSIS OF DATA (M105 19)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	1.00	4.37	5.38	0.00	0.00	0.00	6.63	5.88	2.50	
2	0.87	0.25	1.00	1.25	2.13	0.00	2.63	2.25	2.38	2.00	
3	0.50	0.37	0.62	1.00	1.50	0.00	2.13	2.00	1.87	2.00	
4	0.37	0.25	0.75	1.00	1.38	0.00	2.00	2.13	2.13	2.25	
5	0.50	0.25	0.87	1.13	1.63	3.12	2.00	2.00	2.13	1.87	
6	0.50	0.37	0.62	1.00	1.50	5.00	2.00	1.87	1.87	1.87	
7	0.37	0.37	0.62	1.00	1.38	2.50	1.87	1.87	1.75	1.50	
8	0.37	0.25	0.37	0.62	1.00	2.38	1.25	1.75	1.87	2.38	
9	0.87	0.37	0.87	1.25	2.13	1.87	3.00	2.50	2.50	2.50	
10	0.37	0.37	0.87	1.25	1.63						
	0.50	0.37	0.81	1.06	1.50	2.50	2.00	2.00	2.13	2.00	MEDIAN
	0.53	0.39	1.10	1.49	1.58	2.97	2.11	2.56	2.49	2.10	MEAN
11	2.00	0.37	0.50	0.87	2.88	1.87	2.25	3.88	3.88	3.50	
12	0.62	0.50	0.37	0.87	1.50	2.13	3.38	2.00	2.13	2.00	
13	2.63	0.50	0.50	1.00	3.63	2.50	1.87	3.88	3.88	4.00	
14	0.75	0.37	0.75	1.13	1.87	2.63	4.13	2.25	2.13	2.38	
15	0.75	0.12	0.87	1.00	1.75	2.38	2.38	2.38	2.13	2.25	
16	0.62	0.37	0.62	1.00	1.63	2.75	2.38	2.25	2.50	2.25	
17	1.00	0.62	0.62	1.25	2.25	3.63	2.13	2.50	2.75	2.75	
18	0.62	0.37	0.50	0.87	1.50	2.88	2.75	2.38	2.13	2.00	
19	1.25	0.50	0.62	1.13	2.38	2.25	2.13	2.75	2.88	3.00	
20	0.62	0.37	0.62	1.00	1.63	3.00	2.88	2.25	2.13	2.13	

(Continued)

AD-A073 742 HUMAN ENGINEERING LAB ABERDEEN PROVING GROUND MD F/G 19/5
U.S. ARMY HUMAN ENGINEERING LABORATORY RATE OF FIRE STUDY.(U)
JUN 79 F R PARAGALLO, W J DOUSA

UNCLASSIFIED HEL-TM-9-79 NL

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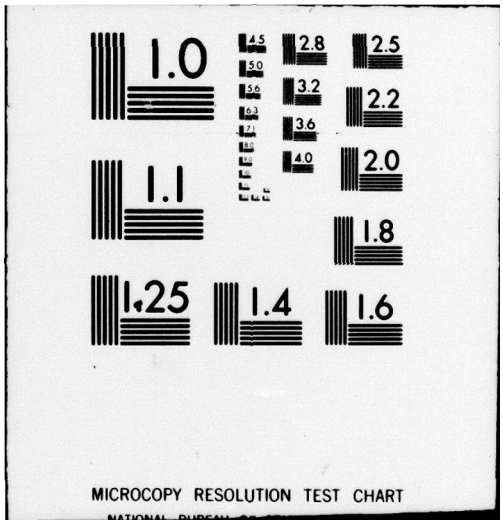
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7.1
MICROCOPY RESOLUTION TEST CHART

Analysis of Data (M105 18) (Continued)

0.75	0.62	0.75	1.44	2.13	2.88	2.63	2.63	2.63	2.63	TOTAL MEDIAN
0.69	1.38	1.05	2.43	2.97	3.79	3.71	3.87	3.79	3.68	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M105 19)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	
1	0.00	1.00	4.37	5.38	0.00	0.00	0.00	6.63	5.88	2.50	
2	0.87	0.25	1.00	1.25	2.13	0.00	2.63	2.25	2.38	2.00	
3	0.50	0.37	0.62	1.00	1.50	0.00	2.13	2.00	1.87	2.00	
4	0.37	0.25	0.75	1.00	1.38	0.00	2.00	2.13	2.13	2.25	
5	0.50	0.25	0.87	1.13	1.63	3.12	2.00	2.00	2.13	1.87	
6	0.50	0.37	0.62	1.00	1.50	5.00	2.00	1.87	1.87	1.87	
7	0.37	0.37	0.62	1.00	1.38	2.50	1.87	1.87	1.75	1.50	
8	0.37	0.25	0.37	0.62	1.00	2.38	1.25	1.75	1.87	2.38	
9	0.87	0.37	0.87	1.25	2.13	1.87	3.00	2.50	2.50	2.50	
10	0.37	0.37	0.87	1.25	1.63						
	0.50	0.37	0.81	1.06	1.50	2.50	2.00	2.00	2.13	2.00	MEDIAN
	0.53	0.39	1.10	1.49	1.58	2.97	2.11	2.56	2.49	2.10	MEAN
11	2.00	0.37	0.50	0.87	2.88	1.87	2.25	3.88	3.88	3.50	
12	0.62	0.50	0.37	0.87	1.50	2.13	3.38	2.00	2.13	2.00	
13	2.63	0.50	0.50	1.00	3.63	2.50	1.87	3.88	3.88	4.00	
14	0.75	0.37	0.75	1.13	1.87	2.63	4.13	2.25	2.13	2.38	
15	0.75	0.12	0.87	1.00	1.75	2.38	2.38	2.38	2.13	2.25	
16	0.62	0.37	0.62	1.00	1.63	2.75	2.38	2.25	2.50	2.25	
17	1.00	0.62	0.62	1.25	2.25	3.63	2.13	2.50	2.75	2.75	
18	0.62	0.37	0.50	0.87	1.50	2.88	2.75	2.38	2.13	2.00	
19	1.25	0.50	0.62	1.13	2.38	2.25	2.13	2.75	2.88	3.00	
20	0.62	0.37	0.62	1.00	1.63	3.00	2.88	2.25	2.13	2.13	

(Continued)

Analysis of Data (M105 19) (Continued)

	0.75	0.37	0.62	1.00	1.81	2.56	2.38	2.38	2.31	2.31	MEDIAN
	1.09	0.41	0.60	1.01	2.10	2.60	2.63	2.65	2.65	2.63	MEAN
						2.00	2.00	2.50	2.75	2.75	
21	1.13	0.62	0.62	1.25	2.38	2.25	3.00	2.38	2.75	2.63	
22	0.50	1.00	0.50	1.50	2.00	2.38	2.50	3.00	2.38	2.38	
23	1.00	0.37	0.50	0.87	1.87	2.38	2.25	2.13	2.13	2.00	
24	0.87	0.37	0.37	0.75	1.63	2.38	2.13	1.87	2.13	2.25	
25	0.62	0.62	0.50	1.13	1.75	2.88	2.13	2.50	2.88	2.88	
26	1.00	1.00	0.50	1.50	2.50	2.50	3.00	3.00	2.75	31.25	
27	1.00	0.75	29.00	29.75	30.75	2.25	31.25	31.00	30.75	2.25	
28	0.75	0.50	0.50	1.00	1.75	2.50	2.38	2.25	2.13	2.00	
29	0.62	0.37	0.37	0.75	1.38	2.00	1.87	1.87	2.13	2.13	
30	0.62	0.62	0.37	1.00	1.63						
	0.81	0.62	0.50	1.06	1.81	2.38	2.31	2.44	2.56	2.31	MEDIAN
	0.81	0.62	3.33	3.95	4.76	2.35	5.25	5.25	5.28	5.25	MEAN
						30.75	2.13	2.00	2.00	2.13	
31	0.50	0.62	0.50	1.13	1.63	2.25	1.87	2.00	2.50	2.38	
32	0.62	1.13	0.37	1.50	2.13	3.63	2.50	2.50	1.87	1.87	
33	0.62	0.50	0.37	0.87	1.50	2.00	2.00	2.38	11.13	11.25	
34	1.00	9.25	0.50	9.75	10.75	1.75	11.13	12.50	3.63	3.50	
35	2.38	0.37	0.37	0.75	3.12	2.63	3.63	2.50	2.75	3.00	
36	1.25	0.62	0.62	1.25	2.50	2.00	2.88	2.75	2.50	2.38	
37	1.13	0.37	0.50	0.87	2.00	10.25	2.38	2.13	2.13	2.00	
38	0.87	0.37	0.37	0.75	1.63	2.88	2.00	1.87	1.87	2.00	
39	0.75	0.37	0.50	0.87	1.63	3.00	2.00	2.38	2.38	2.25	
40	1.13	0.37	0.37	0.75	1.87						
	0.94	0.44	0.44	0.87	1.94	2.75	2.25	2.38	2.44	2.31	MEDIAN

(Continued)

	1.02	1.40	0.45	1.85	2.88	6.11	3.25	3.30	3.28	3.28	MEAN
41	1.25	0.75	0.50	1.25	2.50	2.50	2.25	2.38	2.75	2.88	
42	0.87	0.62	0.37	1.00	1.87	1.38	2.88	2.50	2.38	2.25	
43	0.62	0.75	0.37	1.13	1.75	3.50	2.25	2.00	2.13	2.13	
44	0.75	0.50	0.37	0.87	1.63	2.13	2.13	2.25	2.00	2.00	
45	0.75	0.50	0.37	0.87	1.63	2.50	2.00	2.00	2.00	2.00	
46	0.62	0.37	0.50	0.87	1.50	2.50	1.87	1.75	1.63	1.75	
47	0.50	0.37	0.50	0.87	1.38	1.75	1.87	1.75	1.75	1.75	
48	0.50	0.25	2.25	2.50	3.00	2.50	1.87	1.87	1.75	3.50	
49	0.75	0.37	0.50	0.87	1.63	2.25	3.25	3.50	3.63	1.87	
50	0.75	0.37	1.87	2.25	3.00	2.00	2.00	2.00	2.00	3.38	
	0.75	0.44	0.50	0.94	1.69	2.38	2.06	2.00	2.00	2.06	MEDIAN
	0.74	0.49	0.76	1.25	1.99	2.30	2.24	2.20	2.20	2.35	MEAN
51	0.75	0.37	1.38	1.75	2.50	2.50	3.50	3.50	3.50	3.00	
52	0.62	0.50	0.62	1.13	1.75	2.25	2.88	2.75	2.88	2.13	
53	0.62	0.37	0.50	0.87	1.50	2.00	2.13	2.13	2.00	1.87	
54	0.62	0.50	0.37	0.87	1.50	2.63	1.87	1.87	2.00	1.87	
55	0.75	0.37	0.37	0.75	1.50	3.12	1.87	2.00	1.87	1.87	
56	0.75	0.37	0.37	0.75	1.50	2.88	1.87	1.87	1.87	1.87	
57	0.62	0.37	0.50	0.87	1.50	2.25	2.00	1.87	1.87	2.00	
58	0.50	0.37	0.50	0.87	1.38	1.63	2.00	1.87	1.87	1.87	
59	0.62	12.00	0.37	12.38	13.00	1.50	1.87	2.00	13.63	13.50	
60	0.62	0.62	0.25	0.87	1.50	1.63	13.50	13.50	2.13	2.00	
	0.62	0.37	0.44	0.87	1.50	2.25	2.00	2.00	2.00	1.94	MEDIAN
	0.65	1.59	0.52	2.11	2.76	2.24	3.35	3.34	3.36	3.20	MEAN

(Continued)

Analysis of Data (M105 19) (Continued)

0.75	0.37	0.50	1.00	1.63	2.38	2.13	2.25	2.13	2.25	TOTAL MEDIAN
0.81	0.82	1.13	1.94	2.70	3.11	3.17	3.23	3.22	3.15	TOTAL MEAN

(Concluded)

ANALYSIS OF DATA (M155 20)

RD #	COL A	COL B	COL C	COL D	COL E	COL F	COL G	COL H	COL I	COL J	COL K	COL L	COL M	COL N	COL O
1	0.00	3.75	1.75	5.50	0.00	10.38	15.88	0.00	0.00	0.00	0.00	19.13	17.25	16.63	8.88
2	1.38	1.87	1.13	3.00	4.37	2.63	5.62	7.00	31.38	22.13	8.75	9.75	9.88	10.25	9.88
3	2.38	2.00	1.50	3.50	5.88	2.25	5.75	8.12	19.13	9.50	9.88	8.88	9.00	8.75	8.63
4	1.38	2.13	1.25	3.38	4.75	2.13	5.50	6.87	18.25	10.00	9.63	12.13	11.75	11.75	13.00
5	3.88	1.75	1.25	3.00	6.87	3.38	6.38	10.25	21.25	8.63	12.00	25.13	25.75	26.13	24.88
6	17.00	2.38	1.63	4.00	21.00	2.13	6.13	23.13	37.50	19.50	24.63	9.75	11.38	10.88	10.88
7	2.13	4.00	1.13	5.13	7.25	2.13	7.25	9.37	28.88	18.38	11.00	10.13	10.00	10.25	10.63
8	1.25	3.88	1.38	5.25	6.50	2.50	7.75	9.00	21.13	10.50	10.38	10.50	8.12	8.12	7.38
9	1.38	1.50	1.38	2.88	4.25	1.75	4.63	6.00	18.00	10.00	8.00	10.00	10.25	9.88	10.13
10	3.38	1.75	1.00	2.75	6.13	2.00	4.75	8.12	18.13						
	2.13	2.06	1.31	3.44	6.13	2.19	5.94	8.12	21.13	10.25	10.13	10.13	10.25	10.25	10.13	MEDIAN
	3.79	2.50	1.34	3.84	7.44	3.12	6.96	9.76	23.74	13.58	11.78	12.82	12.60	12.51	11.58	MEAN
11	1.38	1.63	1.00	2.63	4.00	2.00	4.63	6.00	17.50	8.25	9.75	7.75	7.63	7.63	7.63
12	1.63	1.50	0.75	2.25	3.88	1.87	4.13	5.75	15.00	10.00	7.75	8.00	7.88	7.63	7.50
13	1.75	1.50	1.63	3.12	4.88	2.00	5.13	6.87	16.00	7.63	7.50	7.63	7.63	8.50	8.63
14	3.50	1.50	1.38	2.88	6.38	2.13	5.00	8.50	18.13	8.00	8.50	10.25	10.25	10.00	10.13
15	1.13	1.38	1.13	2.50	3.63	1.87	4.37	5.50	16.88	8.25	10.00	7.63	7.50	7.25	7.00
16	1.50	1.50	1.25	2.75	4.25	2.00	4.75	6.25	14.75	9.88	7.00	7.38	7.50	7.63	7.75
17	1.38	1.87	0.87	2.75	4.13	1.87	4.63	6.00	15.13	7.38	8.00	7.88	8.25	7.88	7.75
18	2.75	1.87	1.87	3.75	6.50	1.87	5.62	8.38	17.50	7.63	7.63	9.00	9.00	10.00	10.00
19	1.25	1.87	1.13	3.00	4.25	1.87	4.88	6.13	17.50	7.63	9.88	8.38	8.38	7.63	7.63
20	1.38	1.63	1.13	2.75	4.13	1.75	4.50	5.88	15.62	9.50	7.88	8.00	7.75	7.75	7.63

(Continued)

	1.44	1.56	1.13	2.75	4.19	1.87	4.69	6.06	16.44	8.12	7.94	7.94	7.81	7.69	7.69	MEDIAN
	1.76	1.63	1.21	2.84	4.60	1.92	4.76	6.53	16.40	8.41	8.39	8.19	8.18	8.19	8.16	MEAN
										8.38	7.50	7.38	7.38	7.13	7.50	
21	1.25	1.63	0.87	2.50	3.75	2.13	4.63	5.88	14.75	7.50	7.50	9.50	9.50	9.63	16.75	
22	3.25	1.63	1.00	2.63	5.88	9.25	11.88	15.13	24.00	8.00	9.37	7.75	7.50	7.38	0.25	
23	1.63	1.38	0.87	2.25	3.88	2.13	4.37	6.00	16.25	9.13	7.75	7.63	7.75	7.88	7.63	
24	1.50	1.50	1.00	2.50	4.00	1.87	4.37	5.88	14.75	7.88	7.38	8.12	8.12	8.12	8.25	
25	2.25	1.50	1.00	2.50	4.75	2.00	4.50	6.75	15.13	8.00	8.38	7.38	7.50	7.75	7.75	
26	1.25	1.63	1.25	2.88	4.13	2.00	4.88	6.13	14.88	7.38	7.88	7.88	7.88	7.63	7.88	
27	1.25	1.63	1.00	2.63	3.88	2.25	4.88	6.13	15.38	7.88	7.63	9.37	9.37	10.00	9.75	
28	3.00	1.63	1.63	3.25	6.25	2.00	5.25	8.25	17.25	7.63	9.88	8.12	8.75	8.12	8.50	
29	1.25	2.25	1.00	3.25	4.50	2.38	5.62	6.87	18.13	9.88	8.50	8.75	8.00	8.12	7.63	
30	1.50	1.50	1.13	2.63	4.13	1.87	4.50	6.00	15.88							
	1.50	1.63	1.00	2.63	4.13	2.06	4.75	6.13	15.62	7.94	7.81	8.00	7.94	8.00	7.81	MEDIAN
	1.81	1.63	1.08	2.70	4.51	2.79	5.49	7.30	16.64	8.16	8.18	8.19	8.18	8.18	8.19	MEAN
										8.25	7.50	7.75	7.75	7.75	7.75	
31	1.75	1.50	1.13	2.63	4.37	1.87	4.50	6.25	15.38	8.00	8.00	8.63	8.88	9.00	9.13	
32	2.38	1.75	1.25	3.00	5.38	2.00	5.00	7.38	16.50	8.75	9.00	9.50	9.50	9.50	9.37	
33	2.88	1.75	1.25	3.00	5.88	1.87	4.88	7.75	17.13	8.00	9.50	8.00	7.75	7.63	7.50	
34	1.38	1.50	1.13	2.63	4.00	1.75	4.37	5.75	16.63	9.63	7.13	7.38	7.38	7.50	7.88	
35	1.63	1.50	1.25	2.75	4.37	2.13	4.88	6.50	14.88	7.50	8.00	7.75	7.75	7.88	7.38	
36	1.38	1.50	1.38	2.88	4.25	1.63	4.50	5.88	14.75	7.63	7.38	7.50	9.50	9.37	9.63	
37	1.50	3.50	1.25	4.75	6.25	1.87	6.63	8.12	16.75	7.63	9.75	11.25	12.13	12.13	12.88	
38	3.00	4.37	1.25	5.62	8.63	2.63	8.25	11.25	22.00	9.63	12.75	10.88	7.75	8.25	7.50	
39	1.13	1.25	1.75	3.00	4.13	1.87	4.88	6.00	19.88	11.88	7.88	-54.38	8.38	7.63	7.50	
40	-61.13	64.00	1.00	65.00	3.88	1.75	66.75	5.62	15.50							
	1.56	1.63	1.25	3.00	4.37	1.87	4.88	6.38	16.56	8.12	8.00	7.88	8.06	8.06	7.81	MEDIAN

(Continued)

Analysis of Data (M155 20) (Continued)

	-4.41	8.26	1.26	9.52	5.11	1.94	11.46	7.05	16.94	8.69	8.69	2.42	8.68	8.66	8.65	MEAN
41	2.50	1.75	1.00	2.75	5.25	2.50	5.25	7.75	16.00	8.63	7.00	70.63	8.38	8.38	9.13	
42	1.25	1.63	1.50	3.12	4.37	3.00	6.13	7.38	17.63	7.50	9.50	8.25	8.12	8.63	9.13	
43	1.13	1.50	1.13	2.63	3.75	2.13	4.75	5.88	16.75	8.25	8.88	8.75	8.63	8.25	7.38	
44	2.63	2.00	1.13	3.12	5.75	1.87	5.00	7.63	17.63	8.38	7.50	9.00	9.50	9.50	9.25	
45	15.13	1.63	1.50	3.12	18.25	3.25	6.38	21.50	31.13	9.63	9.25	21.75	21.38	21.75	23.13	
46	1.38	1.50	1.00	2.50	3.88	2.25	4.75	6.13	29.13	9.63	23.00	9.25	9.13	8.63	7.63	
47	1.25	1.75	1.63	3.38	4.63	2.00	5.38	6.63	16.63	20.88	7.88	7.75	8.00	8.63	8.38	
48	1.50	1.50	1.13	2.63	4.13	3.50	6.13	7.63	17.38	8.50	8.25	8.50	8.25	7.75	9.25	
49	1.38	1.38	1.50	2.88	4.25	2.00	4.88	6.25	16.75	8.50	9.25	9.13	9.00	9.37	7.88	
50	2.75	1.63	1.00	2.63	5.38	1.87	4.50	7.25	17.63	8.00	7.88	9.25	9.50	9.00	8.88	
	1.44	1.63	1.13	2.81	4.50	2.19	5.13	7.31	17.50	8.50	8.56	9.06	8.81	8.63	9.00	MEDIAN
	3.09	1.63	1.25	2.88	5.96	2.44	5.31	8.40	19.66	9.79	9.84	16.23	9.99	9.99	10.00	MEAN
51	1.63	1.50	1.13	2.63	4.25	2.13	4.75	6.38	16.63	9.00	8.88	7.75	7.63	7.75	8.00	
52	1.25	1.38	1.50	2.88	4.13	2.13	5.00	6.25	15.25	9.13	7.88	7.50	7.38	7.75	7.75	
53	1.13	1.63	1.13	2.75	3.88	1.75	4.50	5.62	15.38	7.38	8.12	8.00	8.25	7.88	7.50	
54	1.63	1.38	1.13	2.50	4.13	2.25	4.75	6.38	15.50	8.00	7.38	7.88	7.63	7.63	8.12	
55	0.87	1.50	1.25	2.75	3.63	2.25	5.00	5.88	15.62	7.88	8.50	7.75	7.88	8.00	8.00	
56	2.38	2.00	1.13	3.12	5.50	2.13	5.25	7.63	17.38	7.63	7.63	9.13	9.63	9.50	9.37	
57	2.75	1.63	1.13	2.75	5.50	2.13	4.88	7.63	17.00	8.38	8.00	8.38	8.00	8.00	8.00	
58	1.50	1.63	1.00	2.63	4.13	2.13	4.75	6.25	15.75	9.25	9.37	8.12	8.12	8.00	8.00	
59	2.25	1.50	1.00	2.50	4.75	2.13	4.63	6.87	16.25	8.12	8.00	8.75	8.63	8.63	8.63	
60	1.87	1.63	1.25	2.88	4.75	2.13	5.00	6.87	15.88	8.88	8.50	8.12	8.25	8.50	8.50	
	1.63	1.56	1.13	2.75	4.19	2.13	4.81	6.38	15.81	8.25	8.06	8.06	8.06	8.00	8.00	MEDIAN
	1.73	1.58	1.16	2.74	4.46	2.11	4.85	6.57	16.06	8.36	8.23	8.14	8.14	8.16	8.19	MEAN

(Continued)

Analysis of Data (M155 20) (Continued)

1.50	1.63	1.13	2.88	4.37	2.13	4.88	6.63	16.75	8.38	8.19	8.38	8.25	8.25	8.12	TOTAL MEDIAN
1.25	2.87	1.22	4.09	5.31	2.39	6.47	7.57	18.15	9.36	9.09	9.27	9.24	9.23	9.09	TOTAL MEAN

(Concluded)

Blast Overpressure Data

Blast overpressure measurements were taken in the crew area for all firings. Peak pressure levels and B-durations were recorded and stored on magnetic tape and are available upon request. The inclosed table gives a listing of some of the peak pressure levels which were monitored manually and recorded. The average duration time which is listed at the bottom of each howitzer was found to be very constant for the particular charge and howitzer fired.

TABLE 1C

Live Readings of Peak Pressure Level At Crew Position to Right of Breach

		105mm (Chg 3, M61)			155mm (Chg 3, M4A2)			122mm (Equiv. Zone 1)		
Date	Time	PPL dB	S.D. dB	N	PPL dB	S.D. dB	N	PPL dB	S.D. dB	N
16 May	Morning	–	–	–	–	–	–	175.8	0.70	9
17 May	Morning	170.0	0.97	10	–	–	–	–	–	–
19 May	Morning	172.4	1.35	49	172.9	1.38	60	–	–	–
	Afternoon	172.3	0.87	55	173.5	1.53	53	–	–	–
22 May	Morning	171.6	1.12	54	172.7	1.49	53	–	–	–
	Afternoon	–	–	–	172.2	1.24	27	–	–	–
23 May	Morning	–	–	–	–	–	–	176.5	0.87	48
	Afternoon	171.9	1.11	29	173.3	0.89	45	–	–	–
24 May	Morning	–	–	–	–	–	–	176.6	0.95	29
	Afternoon	171.2	1.20	24	171.8	1.07	5	–	–	–
25 May	Morning	171.5	0.91	19	173.1	1.03	26	–	–	–
	Afternoon	171.4	1.12	25	172.5	1.26	59	–	–	–
		Average B-duration = 23 m sec			Average B-duration = 27 m sec			Average B-duration = 19 m sec		

APPENDIX C

BLAST OVERPRESSURE DATA