

Maui County E9-1-1 Status Report

March 1, 2017 – March 31, 2017



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1. PSAP OPERATIONS

9-1-1 CALL VOLUME MAUI PSAP – MARCH 2017

(Source: West Safety Services Viper system)

(*) Totals are based on calls to Primary PSAP.

9-1-1 Call Volume																	
MAUI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAR	11,067	2,168	19.59%	7,283	65.81%	53.99%	46.01%	344	3.11%	8	0.07%	0	0.00%	1,264	11.42%	0	0.00%

CALL VOLUME MAUI PSAP NOTES:

*Calls with No Ali for March 2017 = 0.07% - Statewide average for 2016 = 0.15%

9-1-1 CALL VOLUME MAUI PSAP – CALENDAR YEAR 2017

9-1-1 Call Volume																	
MAUI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
JAN	10,192	1,991	19.53%	6,822	66.93%	58.44%	41.56%	286	2.81%	14	0.14%	0	0.00%	1,079	10.59%	0	0.00%
FEB	9,578	1,888	19.71%	6,354	66.34%	58.59%	41.41%	306	3.19%	9	0.09%	0	0.00%	1,021	10.66%	0	0.00%
MAR	11,067	2,168	19.59%	7,283	65.81%	53.99%	46.01%	344	3.11%	8	0.07%	0	0.00%	1,264	11.42%	0	0.00%
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	30,837	6,047		20,459				936		31		0		3,364		0	
MON AVG	10,279	2,016	19.61%	6,820	66.36%	57.01%	42.99%	312	3.04%	10	0.10%	0	0.00%	1,121	10.89%	0.00	0.00%

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9-1-1 CALL VOLUME MOLOKAI PSAP – MARCH 2017

9-1-1 Call Volume																	
MOLOKAI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAR	369	129	34.96%	196	53.12%	65.82%	34.18%	2	0.54%	3	0.81%	0	0.00%	39	10.57%	0	0.00%

CALL VOLUME MOLOKAI PSAP NOTES:

* Calls with No Ali for March 2017 = 0.81% - Statewide average for 2016 = 0.15%

9-1-1 CALL VOLUME MOLOKAI PSAP – CALENDAR YEAR 2017

9-1-1 Call Volume																	
MOLOKAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
JAN	347	127	36.60%	182	52.45%	58.79%	41.21%	0	0.00%	1	0.29%	0	0.00%	37	10.66%	0	0.00%
FEB	264	90	34.09%	140	53.03%	67.86%	32.14%	3	1.14%	0	0.00%	0	0.00%	31	11.74%	0	0.00%
MAR	369	129	34.96%	196	53.12%	65.82%	34.18%	2	0.54%	3	0.81%	0	0.00%	39	10.57%	0	0.00%
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	980	346		518				5		4		0		107		0	
MON AVG	327	115	35.22%	173	52.87%	64.15%	35.85%	1.67	0.56%	1	0.37%	0	0.00%	35.667	10.99%	0	0.00%

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9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – MARCH 2017

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP Calls		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAR	11,436	2,297	20.09%	7,479	65.40%	54.30%	45.70%	346	3.03%	11	0.10%	0	0.00%	1,303	11.39%	0	0.00%

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – CALENDAR YEAR 2017

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
JAN	10,539	2,118	20.10%	7,004	66.46%	58.45%	41.55%	286	2.71%	15	0.14%	0	0.00%	1,116	10.59%	0	0.00%
FEB	9,842	1,978	20.10%	6,494	65.98%	58.79%	41.21%	309	3.14%	9	0.09%	0	0.00%	1,052	10.69%	0	0.00%
MAR	11,436	2,297	20.09%	7,479	65.40%	54.30%	45.70%	346	3.03%	11	0.10%	0	0.00%	1,303	11.39%	0	0.00%
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	31,817	6,393		20,977				941		35		0		3,471		0	
MON AVG	10,606	2,131	20.09%	6,992	65.95%	57.18%	42.82%	314	2.96%	12	0.11%	0.00	0.00%	1,157	10.89%	0	0.00%

PSAP OPERATION NOTES:

- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) 911 calls are combined in the Call Volume statistic.
- Outgoing 911 calls are included in the totals. These are ringback or callback 911calls made from the Viper System.

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FOR YOUR INFORMATION

FYI For Your Information				
PSAP Operations				
Statewide 911 Call Volumes for 2016 & 2015 compare				
PSAP	2016		2015	
Oahu Civilian	1,009,059	71.93%	1,019,402	70.94%
Hawaii County	205,412	14.64%	217,768	15.15%
Maui County	137,333	9.80%	142,952	9.95%
Kauai County	50,955	3.63%	56,874	3.96%
Total	1,402,759	100.00%	1,436,997	100.00%
*Statewide average does not include Military 911 calls.				

TEXT TO 911 – CURRENT MONTH – MARCH 2017

NOTE:

- Although there is a “Text to 911” plot on the MapFlex, the location of the plot is not reliable. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

TEXT TO 911 Maui County PSAPs 2017		
Month	Received at Maui	Received at Molokai
January	12	1
February	15	0
March	17	2
April		
May		
June		
July		
August		
September		
October		
November		
December		
YTD	44	3
Monthly Avg.	14.67	1.00

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WIRELESS PSAP TESTING – MARCH 2017

MAUI COUNTY - MARCH 2017						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:

NOTES:

- There were no scheduled Wireless 911 tests conducted in March, 2017 for the Maui and Molokai PSAP.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – MARCH 2017

MAUI COUNTY	9-1-1 TRANSACTIONS								Customer Addresses Affected
	Total	Dispatchable Location Transactions Prepared	MSAG	ALI Submitted		Open ALI Discrepancy Records			
		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
2017									
JANUARY	146	134	7	3	2	264	0	0	21
FEBRUARY	231	207	11	7	6	259	0	0	203
MARCH	130	80	16	33	1	228	0	0	68
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	507	421	34	43	9				292
AVG PER MONTH	169	140	11	14	3				97

Definitions

- (A) **Dispatchable Location** - is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party. Please see Dispatchable Location Section for more information.
- (B) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (C) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 299 attached to them which indicates the need for validation.
- (D) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline OR a VoIP phone. These record corrections are treated with a higher priority and should be processed within 48 hours if wireline, and 72 hours if a VoIP phone, as a general guideline.

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MSAG CURRENT MONTH NOTES:

A total of fifty (50) MSAG transactions were processed in 9-1-1 Net during the current month. Sixteen (16) requests were processed relating to the MSAG database. Changes include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS, and inserting new MSAG records. There were sixty-eight (68) customer ANI/ALI (telephone number/address) records updated as a direct result.

Eighty (80) Dispatchable Location transactions were prepared during the current month.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

Sixteen (16) Telephone Number Change Request (TN CR) transactions were processed and corrected in 9-1-1 Net with a valid MSAG address. Sixty-four (64) TN CRs were completed and as a result, nine (9) ESN 399/359 street records were deleted from the MSAG database. One (1) ALI DR was submitted as a result of a 9-1-1 call made from a payphone in Napili. Maui PSAP submitted the request to Akimeka to update the customer information and the discrepancy was corrected in 9-1-1 Net.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 228 Open TN CR Transactions.**
- **Refer to chart in the next section “TNCR Current Status”**

204 Open TN CR transactions are a direct result of the ESN 399/359 clean-up and are awaiting approval from Hawaiian Telcom, Inc. 24 Open TN CR transactions are a result of the Dispatchable Location project submitted in September 2015. (Refer to the “Dispatchable Location” chart below). Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to West for correction, it must be verified against HT records and/or approved by the customer. West's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- **There are no open ALI DRs**
- **There are no open VoIP DRs**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – MARCH, 2017

NOTE:

- 9-1-1 NET is a secure web-based application that provides access to request changes to the MSAG, ALI, TN, and ESN/ELT data supported and maintained by West Safety Services for the Telephone Company (TelCo).
- TNCRs are not requests to change Telephone Numbers (TNs); however, it is a corrective process within 9-1-1 NET to modify location information associated with an Automatic Location Identification (ALI) record to a valid MSAG address for 9-1-1 purposes.

PSAP 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status)				
County	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY WEST SAFETY SERVICES (INTRADO)	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)	TOTAL UNOPENED TNCR RECORDS
MAUI	177	58	77	42
MOLOKAI	51	12	34	5
TOTAL	228	70	111	47

STATUS
<u>TOTAL TNCRS SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1
<u>PENDING STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.
<u>REFERRED STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The West Safety Services Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
<u>TOTAL UNOPENED TNCR RECORDS STATUS</u> - The request is submitted by Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

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DISPATCHABLE LOCATION – STATUS AS OF – MARCH 2017 - PENDING

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a “State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9” presentation. Based on the 9-1-1 Board’s confirmation to add the “Dispatchable Location” information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of August 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the Queen Kaahumanu Shopping Center at 275 Kaahumanu Ave. The “Dispatchable Location” data is entered into the “Driving Directions” field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the “Exact” field should a 911 call be received from that telephone number. Screen shots of the “Before” ALI screen, and the “After” ALI screen with the updated “Dispatchable Location” information visible, were presented to the Dispatch Supervisors. Akimeka received positive feedback from the 911 Dispatch Personnel because the information that the 911 Call Takers will receive, will certainly cut down on the process of determining the exact location of the 911 caller. In addition to this, Akimeka was informed that the Mobile Dispatch Terminals (MDTs) in the Police Vehicles, also are able to view this “Dispatchable Location” information which will reduce the response times for Public Safety. There are currently **2,033** transactions prepared for submission. Present observations indicate that previous transactions that were submitted in 2015 and 2016 are currently being processed.

Dispatchable Location				
2017	Common Name Place MSAG Address	TNCR Transactions Prepared	TNCR Transactions Submitted	Transactions Processed
Quarter 1				
2016 Carryover		1,612	374	347
January	Village By The Sea, 938 South Kihei Rd, Kihei	134	0	3
February	Kealia Resort, 191 N. Kihei Rd, Kihei	46	0	0
	Kihei Beach Resort, 36 S. Kihei Rd, Kihei	52	0	0
	Kihei Kai, 61 N. Kihei Rd, Kihei	18	0	0
	Kihei Sands, 115 N. Kihei Rd, Kihei	13	0	0
	Maalaea Surf, 12 S. Kihei Rd, Kihei	49	0	0
	Sugar Beach, 145 N. Kihei Rd, Kihei	29	0	0
March	Kihei Bay Surf, 715 S. Kihei Rd, Kihei	17	0	0
	Kihei Bay Vista, 679 S. Kihei Rd, Kihei	22	0	0
	Kihei Resort, 777 S. Kihei Rd, Kihei	16	0	0
	Nani Kai Hale, 73 N. Kihei Rd, Kihei	25	0	0
Total		2,033	374	350
YTD Total				

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CHARTER COMMUNICATIONS (TIME WARNER) VOIP DATABASE TNCR

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The Analysis of the database records indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status)			
PSAP	TOTAL RECORDS SUBMITTED BY CHARTER (A)	RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B)	RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C)
HAWAII County	19,135	5	33
KAUAI County	7,911	7	39
MAUI County	15,629	0	7
OAHU Cilivian	82,256	5	66
TOTAL	124,931	17	145

(A)	VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation.
(B)	Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions.
(C)	Akimeka researched and provided Charter with an MSAG valid address.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MARCH 2017

MAPPING LAYERS UPDATED (PART I)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

MAUI COUNTY				
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks	
	Date Created/Edits Performed			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)				
Address Points		03/29/17		
	3/24/2017		Added one address in Haiku	
	3/24/2017		Added one (1) address in Kaluakoi	
	3/24/2017		Added two (2) addresses in Kula	
	3/24/2017		Added two (2) addresses in Makawao	
	3/24/2017		Added one (1) address in Pukalani	
	3/24/2017		Added one (1) address in Wailea	
	3/17/2017		Added one (1) address in Lahaina	
	3/17/2017		Added one (1) address in Haiku	
			03/15/17	
	3/15/2017		Spatially corrected fifty-four (54) address points in Kihei	
	3/15/2017		Added six (6) address points in Kihei	
	3/15/2017		Added one (1) address in Kula	
	3/15/2017		Added one (1) address in Makawao	
	3/15/2017		Added one (1) address in Pukalani	
	3/15/2017		Added one (1) address in Wailuku	
	3/14/2017		Added Location Name for one (1) address in Kihei	
	3/14/2017		Spatially corrected one hundred ninety-three (193) address points in Kihei	
	3/14/2017		Corrected ten (10) addresses in Kihei	
	3/14/2017		Added nine (9) addresses in Kihei	
	3/13/2017		Added one (1) address in Haiku	
	3/13/2017		Spatially corrected one (1) address point in Kaunakakai	
	3/13/2017		Spatially corrected one hundred four (104) address points in Kihei	
	3/13/2017		Added five (5) addresses in Kihei	
	3/13/2017		Added one (1) address point in Kualapuu	
	3/13/2017		Added three (3) address points in Kula	
	3/13/2017		Spatially corrected one (1) address point in Makawao	
	3/13/2017		Added two (2) address points in Makawao	
	3/7/2017		Spatially corrected two hundred five (205) address points in Kihei	
	3/6/2017		Spatially corrected five (5) address points in Haiku	
3/6/2017		Added two (2) address points in Haiku		
3/6/2017		Added Location Name of one (1) address in Hoolehua		

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MAPPING LAYERS UPDATED (PART II)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

MAUI COUNTY			
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points	3/6/2017		Corrected Location Name for two (2) addresses in Hoolehua
	3/6/2017		Spatially corrected eight (8) address points in Kahului
	3/6/2017		Added two (2) addresses in Kahului
	3/6/2017		Updated Location Name for one (1) address in Kahului
	3/6/2017		Added one (1) address in Kaunakakai
	3/6/2017		Spatially corrected one (1) address point in Kaunakakai
	3/6/2017		Added Location Name for one (1) address in Kaunakakai
	3/6/2017		Spatially corrected one (1) address point in Kihei
	3/6/2017		Added two (2) addresses in Kualapuu
	3/6/2017		Spatially corrected one (1) address point in Kualapuu
	3/6/2017		Updated Location Name for one (1) address in Kualapuu
	3/6/2017		Added one (1) address in Kula
	3/6/2017		Added one (1) address in Makawao
	3/6/2017		Added one (1) address in Waiehu
3/6/2017		Added one (1) address in Wailea	
Airports			
Bridges			
Building Footprints			
Bus Stops			
Churches			
Coastal Names		03/15/17	
	3/6/2017		Added one (1) coastal name in Wailea
Coastline			
Common Places			
Correctional Facilities			
Emergency Callboxes			
Emergency Operation Centers			
Emergency Shelters			
ESZ/ESN			
Fire Beats			
Fire Districts			

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MAPPING LAYERS UPDATED (PART III)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

MAUI COUNTY			
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Fire Response Areas			
Fire Stations			
Food & Beverage	3/7/2017	03/15/17	Updated three (3) restaurant names in Kihei
Gas Stations			
Gate Codes			
Government Buildings			
Harbors			
Helipads			
Hiking Trails			
Hospitals			
Hydrants			
Hyrdology Layers			
Incident Response Areas			
Lodging			
Major Roads			
Medic Beats			
Medic Districts			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			
Ocean Safety			
Parcels			
Parks			
Parks Polygon			
Points of Interest		03/15/17	
	3/14/2017		Spatially corrected four (4) POI in Kihei
	3/7/2017		Changed Name for two (2) POI in Kihei

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MAPPING LAYERS UPDATED (PART IV)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

MAUI COUNTY			
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Points of Interest	3/6/2017		Added one (1) POI in Hoolehua
	3/6/2017		Corrected Name for one (1) POI in Hoolehua
	3/6/2017		Spatially corrected one (1) POI in Hoolehua
	3/6/2017		Added address to one (1) POI in Hoolehua
	3/6/2017		Updated Name for one (1) POI in Hoolehua
	3/6/2017		Added four (4) POI in Kaunakakai
	3/6/2017		Corrected two (2) POI names in Kaunakakai
	3/6/2017		Spatially corrected two (2) POI in Kihei
	3/6/2017		Added one (1) POI in Kihei
	3/6/2017		Added three (3) POI in Kualapuu
	3/6/2017		Added five (5) POI in Maunaloa
	3/6/2017		Spatially corrected one (1) POI in Maunaloa
	3/6/2017		Added Street Name to one (1) POI in Maunaloa
	3/6/2017		Added three (3) POI in Pukoo
3/6/2017		Added one (1) POI in Wailea	
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines	3/31/2017		Spatially corrected seven (7) street centerline segments in Hoolehua
		03/29/17	
	3/29/2017		Spatially corrected seven (7) street centerline segments in Hoolehua
	3/29/2017		Partial spatial correction of one (1) street centerline segment in Lanai
	3/28/2017		Spatially corrected nine (9) street centerline segments in Hoolehua
	3/27/2017		Spatially corrected four (4) street centerline segments in Hoolehua
	3/24/2017		Spatially corrected seven (7) street centerline segments in Hoolehua
	3/23/2017		Spatially corrected five (5) street centerline segments in Hoolehua
	3/22/2017		Spatially corrected eleven (11) street centerline segments in Hoolehua
	3/21/2017		Spatially corrected one (1) street centerline segment in Hoolehua
3/20/2017		Spatially corrected eight (8) street centerline segments in Hoolehua	

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MAPPING LAYERS UPDATED (PART V)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

MAUI COUNTY				
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks	
	Date Created/ Edits Performed			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)				
Street Centerlines	3/17/2017		Spatially corrected two (2) street centerline segments in Hoolehua	
	3/17/2017		Partial spatial correction of one (1) street centerline segments in Hoolehua	
		03/15/17		
	3/15/2017		Extended one (1) street centerline range in Makawao	
	3/6/2017		Changed two (2) Street Names in Kahului	
	3/6/2017		Split one (1) street centerline segment in Kaluakoi	
3/6/2017		Corrected one (1) street name in Lahaina		
Subdivisions				
Tow Jurisdictions				
Tsunami Evacuation Zones				
Tsunami Heights				
Waste Water Plants				
WSP Cell Sectors		03/15/17		
	3/15/2017		Per AT&T CRS	
WSP Cell Towers		03/15/17		
	3/15/2017		Per AT&T CRS	

NOTE:

The Parcels layer is provided by Maui County. Akimeka performs edits on the spatial information of the layer for 9-1-1 purposes. Changes to the attribute table are made when needed. The Parcels layer uploaded to the PSAP GIS server is intended for 9-1-1 purposes only and should not be disseminated to other county agencies.

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

- **GIS Key activities include the events such as GIS deliverables, meetings, agreements, etc.**

Date	Key Activities/Updates
3/29/2017	Delivered updated Address Points, Coastal Names, ESN, Food & Beverage, MSAG Communities, Points Of Interest, Police Response Areas, Street Centerlines, WSP Cell Sectors, and WSP Cell Towers for MapFlex
3/29/2017	Delivered .map, .str, .rte., and Maui Cell Coverage.csv which included updated Address Points, Common Places Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph. Also added Street labels and deleted duplicate labels.
3/16/2017	Delivered updated Address Points, Coastal Names, ESN, Food & Beverage, MSAG Communities, Points Of Interest, Police Response Areas, Street Centerlines, WSP Cell Sectors, and WSP Cell Towers for MapFlex
3/15/2017	Delivered .map, .str, .rte., and Maui Cell Coverage.csv which included updated Address Points, Coastal Names, Common Places Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph. Also added Street labels and deleted duplicate labels.

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INTERGRAPH CAD UPGRADE

From April through June 2014, the Maui Police Department worked to upgrade their Intergraph CAD system to the more recent 2014 version. Through this upgrade process, new improvements were identified and the overall functionality of the system from the Map Build process to the Production workstation made significant enhancements in order to streamline the deliverables and continue providing accurate data to the PSAP.

1. On March 1, 2017 – Akimeka delivered an updated Intergraph CAD map which included:
 - a. Address Points, Common Places Lookup Table, Points of Interest, Police Beats, Police Response Areas, Street Centerlines and WSP Cell Towers
 - b. .map, .str, .rte, .ply, CAD Map Build database and Cell Coverage.csv
2. Akimeka delivered an updated Intergraph CAD map March 15, 2017 which included:
 - a. Address Points, Coastal Names, Common Places Lookup Table, Points of Interest, Street Centerlines, and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
 - c. Added Street labels and deleted duplicate and overlapping Street labels
3. Akimeka delivered an updated Intergraph CAD map March 29, 2017 which included:
 - a. Address Points, Common Places Lookup Table, Points of Interest, Street Centerlines, and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
 - c. Added Street labels and deleted duplicate and overlapping Street labels

During April 2017, the Intergraph CAD map will continue to be delivered every other week, which has been coordinated with all mapping system updates and synchronizations with other 911 databases.

MAPFLEX SYSTEM

During the month of March 2017, the MapFlex system received updates manually as a result of MapFlex having several issues pertaining to the automated upload processes.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, West, was implemented across the State of Hawaii, in the below narrative there is some information pertaining to all of the Hawaiian Islands. For a record of historical information regarding the MapFlex system, please see MSRs during the 2015 and 2016 years.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in March 2017
 - a. **Hawaii County** – Mar 14th, 2017 and Mar 28th, 2017
 - b. **Maui County** – Mar 15th, 2017 and Mar 29th, 2017
 - c. **Kauai County** – Mar 16th, 2017 and Mar 30th, 2017
 - d. **Honolulu** – Mar 17th, 2017 and Mar 31st, 2017

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MAPFLEX SYSTEM ISSUES

Below is a detailed list of issues regarding the MapFlex systems throughout the State of Hawaii.

DATE	ISSUE	DESCRIPTION	STATUS
7/24/2016	Automatic Uploads Malfunctioning	It was identified that the Automatic uploads were creating issues within the MapFlex systems, where locators were not being published, etc. as a result of a scripting error at West. Manual uploads have been taking place of the GIS as necessary and agreed by all PSAPs.	Pending
7/24/2016	Blank MapFlex Screen	The MapFlex screen went blank and there was no mapping capability, similar to what had occurred with Maui PD. Resulted from West's automatic update script. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.	Resolved (Nov 2016)
8/2016	Wireless Addresses	MapFlex system began displaying wireless information incorrectly. MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.	Resolved (Nov 2016)
8/2016	Text-to-911 Icons	Icons for text calls have stopped displaying. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.	Resolved (Nov 2016)
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area and landing in the ocean. After installation of new MapFlex version to correct other issues, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.	Resolved (Dec 2016)
11/2016	Wireless Confidence	Sprint calls coming across with unusually high confidence. Coordination is taking place with Sprint and West. West provides the PDE services for Sprint.	Pending
1/18/2017	RDC MapFlex	During a meeting between Akimeka and RDC, it was identified that HPD GIS data was contained within the RDC MapFlex and was missing RDC's data. Due to the proprietary nature of the GIS data provided by Akimeka for the civilian PSAP's mapping systems and the confidential information contained to support HPD operations, it was concerning. Actions were taken to request West to stop this and to pull RDC's archive data. West has since replied that they never knew RDC was military and functioned separately from the civilian PSAPs. HPD, RDC, and Akimeka have taken corrective actions to construct GIS data that will be used as a baseline for the RDC and to remove sensitive information supplied for the RDC MapFlex.	Pending – Notified by West in Feb 2017 that they are still planning this with HT and should be able to move forward soon.

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - MARCH 2017

MAUI COUNTY						
#	Date	Ticket #	Description	PSAP	Urgency	Comments
			None			

NOTE:

There are no Open Service Requests for the Maui County PSAPs for March, 2017.

MAUI PSAP SERVICE REQUESTS YEAR-TO-DATE (YTD) SUMMARY – 2017

MAUI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2017	TOTAL		Open	WIRESLINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2016 Carryover*			0						
January	2	2	0	2	2	0	0	0	0
February	6	6	0	6	6	0	0	0	0
March	1	1	0	1	1	0	0	0	0
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	9	9	0	9	9	0	0	0	0

<u>Note:</u>	*The 2016 Carry Over row indicates the number of Service Requests that were opened in 2016; however, were brought forward into 2017 in an effort to track the service request until completion.
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	Category	Description
Definitions:	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services via 9-1-1 Net for correction.
	Wireless	Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were ported out to a wireless carrier. However, the phone number was never removed from the MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time Warner Cable (TWCBL) for correction

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5. E9-1-1 DATABASE SYNCHRONIZATION

(Reference: NENA 71-501, Version 1.1 – NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI)

As part of Akimeka's value added services, Akimeka conducted the next quarterly database synchronization audit for Maui County in March 2017.

The database synchronization effort included comparing Maui County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **2,703** 9-1-1 MSAG (ESN 300 – 357) records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on March 1, 2017 for Maui County are reported below.

Database synchronization should be part of an ongoing and continuous process to ensure that the databases remain current and synchronized. Since neither database is static in nature, the synchronization process will never yield a 100 percent match rate. As such, NENA's recommended minimum match rate is 98%.

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AUDIT SUMMARY RESULTS – 2016 -2017

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of June 1, 2016		As of September 1, 2016		As of December 1, 2016		As of March 1, 2017	
		9-1-1 MSAG Dated 6-01-16		9-1-1 MSAG Dated 9-01-16		9-1-1 MSAG Dated 12-01-16		9-1-1 MSAG Dated 3-01-17	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		2,689		2,693		2,703		2,703	
Less: 9-1-1 MSAG Exception Records	(1)	75	2.7%	75	2.7%	75	2.7%	75	2.7%
Net 9-1-1 MSAG Records Eligible for Comparison		2,614		2,618		2,628		2,632	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG – GIS Match – No Corrections Required)		2,614	100.00%	2,616	100.00%	2,626	100.00%	2,631	100.00%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	0	0.0%	1	0.0%	1	0.0%	1	0.0%
9-1-1 MSAG Record With No GIS Record	(3)	0	0.0%	1	0.0%	1	0.0%	0	0.0%
Total 9-1-1 MSAG Records No Match		0	0.0%	0	0.0%	0	0.0%	0	0.0%

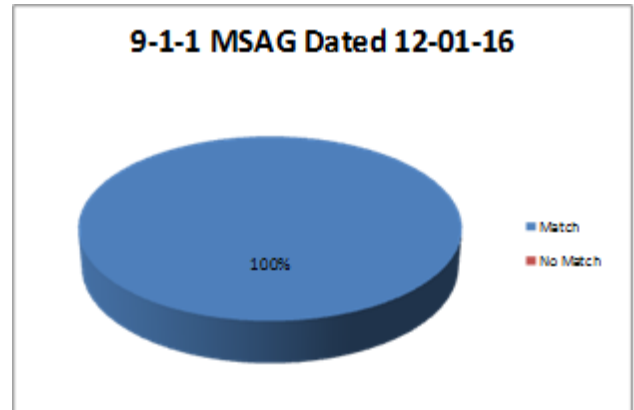
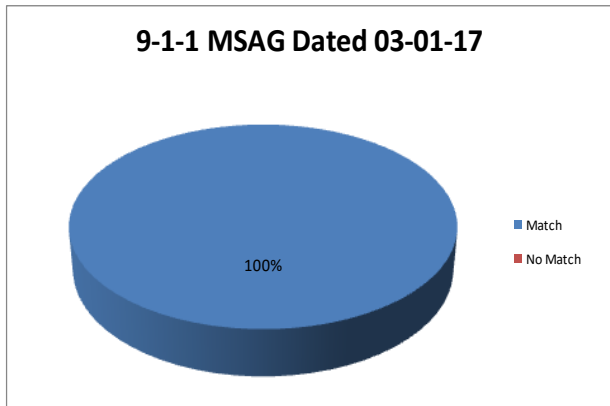
AUDIT SUMMARY NOTES:

- (1)An MSAG Record that will not have a corresponding GIS Street Centerline Record but is required for the routing of E9-1-1 calls (i.e., Emergency Call Box, Foreign Exchange Records, Wireless Shell Records, etc.). No further action is required.
- (2)An MSAG Record that requires minor MSAG attention in 9-1-1Net to correct MSAG Records (i.e., Reassignment of an MSAG Community, modification of the Site Address Range, assignment of an ESN, performing a combine or insert of an existing MSAG Record, etc.).
- (3)An MSAG Record that does not have a corresponding GIS Record and will require additional research and validation. The GIS Section will assist with this effort.

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MSAG AUDIT SUMMARY RESULTS – MARCH 1, 2017 VS DECEMBER 1, 2016



NOTE:

Maui County's level of accuracy or 9-1-1 Match percentage remained constant at 100% as of March 1, 2017 to 100% on December 1, 2016

NENA Recommended Match Rate = 98%

MSAG AUDIT SUMMARY RESULTS NOTES:

- **“MSAG - GIS Minor Corrections”** increased by one (2 to 3) from December 2016 to March 2017. The minor corrections is primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements. Low and high address ranges were then adjusted in the MSAG to correspond with the GIS record. Although this is a minor correction, customer telephone numbers (TNs) need to be validated by the service providers prior to adjusting an address range.
- **“MSAG Record with No GIS Record”** remained consistent (0 to 0) from December 2016 to March 2017. The total of zero MSAG Record with No GIS Record was due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Maui County records.
- **“GIS Record with Minor Corrections”** increased by one (2 to 3) from December 2016 to March 2017. Low and high address ranges, street suffix, and MSAG Community were adjusted in the GIS to correspond with the MSAG record.
- **“MSAG records that don’t match GIS”** remained the same (3 to 3) from December 2016 to March 2017. This is a result in which MSAG records submitted in 9-1-1 Net were not completed prior to the end of the month.
- **Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is “last modified”.**

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

Hawaiian Telcom, Inc. (HTI) provides Maui County and Akimeka, as the PSAP’s agent, with access and visibility to the ESN 359/399 MSAG records which are “known” invalid streets and address ranges. Results of the data provided are as follows:

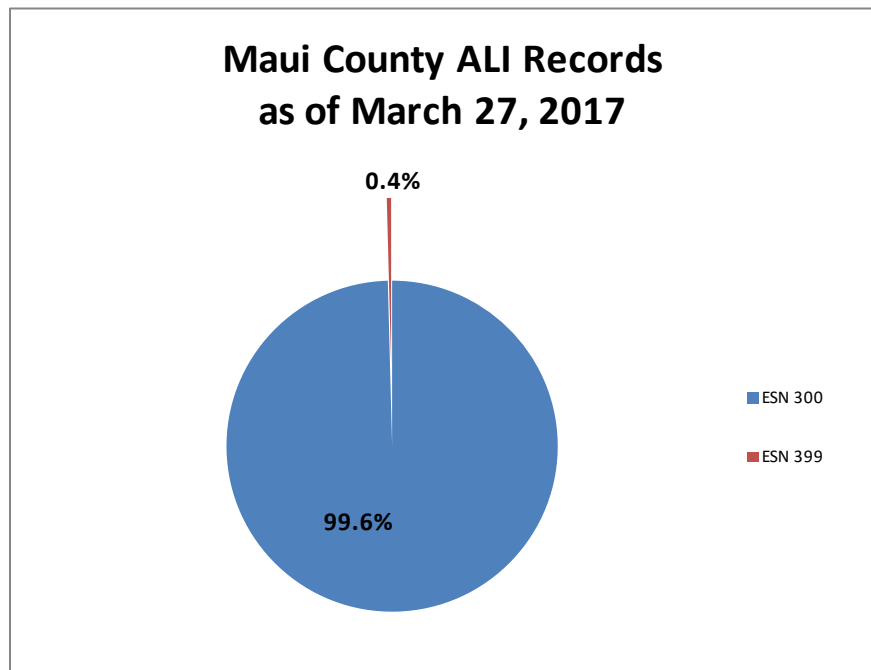
PSAP	ESN	Invalid MSAG Records	
		9-1-1 MSAG Dated 03-01-17	
		# of Records	% of Total MSAG Records (Valid and Invalid)
MAUI	399	38	1.5%
MOLOKAI	359	12	5.2%
TOTAL MAUI		50	1.8%

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AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

As part of Akimeka’s ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Maui County. As of March 27, 2016, **274** ESN 399 (Maui/Lanai) and ESN 359 (Molokai) records, representing **.4%** of Maui County’s total ALI records, require research and corrective action, if needed.



THE TOTAL NUMBER OF ALI RECORDS REMAINS RELATIVELY CONSISTENT.

NOTES:

The number of ESN 359/399 ALI records decreased from 325 to 274 from December 2016 to March 2017 respectively. The decrease reflects the work that Akimeka has done since the last database synchronization in December 2016. Extensive research has gone into verifying the invalid TNs against current County data. This is an ongoing project, as Akimeka continues to research and correct the ESN 359/399 records.