

Maui County E9-1-1 Status Report

June 1, 2018 – June 30, 2018



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1. PSAP OPERATIONS

9-1-1 CALL VOLUME MAUI PSAP – JUNE 2018

(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	
2018	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
JUNE	11,072	1,539	13.90%	7,981	72.08%	56.94%	43.06%	317	2.86%	10	0.09%	0	0.00%	1,225	11.06%	0	0.00%

CALL VOLUME MAUI PSAP NOTES:

*Calls with No ALI for June 2018 = 0.09% - Statewide average for 2017 = 0.08%

9-1-1 CALL VOLUME MAUI PSAP – CALENDAR YEAR 2018

9-1-1 Call Volume																	
MAUI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	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	11,856	1,891	15.95%	8,242	69.52%	57.12%	42.88%	383	3.23%	17	0.14%	0	0.00%	1,323	11.16%	0	0.00%
FEB	10,111	1,693	16.74%	6,986	69.09%	56.84%	43.16%	309	3.06%	1	0.01%	0	0.00%	1,122	11.10%	0	0.00%
MAR	10,600	1,685	15.90%	7,424	70.04%	57.26%	42.74%	306	2.89%	14	0.13%	0	0.00%	1,171	11.05%	0	0.00%
APR	10,358	1,579	15.24%	7,242	69.92%	59.42%	40.58%	363	3.50%	14	0.14%	0	0.00%	1,160	11.20%	0	0.00%
MAY	10,881	1,546	14.21%	7,858	72.22%	57.42%	42.58%	335	3.08%	11	0.10%	0	0.00%	1,131	10.39%	0	0.00%
JUNE	11,072	1,539	13.90%	7,981	72.08%	56.94%	43.06%	317	2.86%	10	0.09%	0	0.00%	1,225	11.06%	0	0.00%
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	64,878	9,933		45,733				2,013		67		0		7,132		0	
MON AVG	10,813	1,656	15.32%	7,622	70.48%	57.50%	42.50%	336	3.10%	11	0.10%	0	0.00%	1,189	10.99%	0.00	0.00%

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9-1-1 CALL VOLUME MOLOKAI PSAP – JUNE 2018

9-1-1 Call Volume																	
MOLOKAI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	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
JUNE	522	151	28.93%	309	59.20%	60.19%	39.81%	2	0.38%	5	0.96%	0	0.00%	55	10.54%	0	0.00%

CALL VOLUME MOLOKAI PSAP NOTES:

* Calls with No ALI for June 2018 = 0.96% - Statewide average for 2017 = 0.08%

9-1-1 CALL VOLUME MOLOKAI PSAP – CALENDAR YEAR 2018

9-1-1 Call Volume																	
MOLOKAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	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	619	171	27.63%	367	59.29%	70.57%	29.43%	5	0.81%	3	0.48%	0	0.00%	73	11.79%	0	0.00%
FEB	631	242	38.35%	299	47.39%	67.22%	32.78%	15	2.38%	2	0.32%	0	0.00%	73	11.57%	0	0.00%
MAR	567	154	27.16%	312	55.03%	66.35%	33.65%	0	0.00%	3	0.53%	0	0.00%	98	17.28%	0	0.00%
APR	588	195	33.16%	319	54.25%	57.68%	42.32%	0	0.00%	2	0.34%	0	0.00%	72	12.24%	0	0.00%
MAY	627	174	27.75%	370	59.01%	60.81%	39.19%	5	0.80%	1	0.16%	0	0.00%	77	12.28%	0	0.00%
JUNE	522	151	28.93%	309	59.20%	60.19%	39.81%	2	0.38%	5	0.96%	0	0.00%	55	10.54%	0	0.00%
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	3,554	1,087		1,976				27		16		0		448		0	
MON AVG	592	181	30.50%	329	55.69%	63.80%	36.20%	4.50	0.73%	3	0.46%	0	0.00%	74.667	12.62%	0	0.00%

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9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – JUNE 2018

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP Calls		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	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
JUNE	11,594	1,690	14.58%	8,290	71.50%	57.06%	42.94%	319	2.75%	15	0.13%	0	0.00%	1,280	11.04%	0	0.00%

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – CALENDAR YEAR 2018

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	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	12,475	2,062	16.53%	8,609	69.01%	57.70%	42.30%	388	3.11%	20	0.16%	0	0.00%	1,396	11.19%	0	0.00%
FEB	10,742	1,935	18.01%	7,285	67.82%	57.27%	42.73%	324	3.02%	3	0.03%	0	0.00%	1,195	11.12%	0	0.00%
MAR	11,167	1,839	16.47%	7,736	69.28%	57.63%	42.37%	306	2.74%	17	0.15%	0	0.00%	1,269	11.36%	0	0.00%
APR	10,946	1,774	16.21%	7,561	69.08%	59.34%	40.66%	363	3.32%	16	0.15%	0	0.00%	1,232	11.26%	0	0.00%
MAY	11,508	1,720	14.95%	8,228	71.50%	57.57%	42.43%	340	2.95%	12	0.10%	0	0.00%	1,208	10.50%	0	0.00%
JUNE	11,594	1,690	14.58%	8,290	71.50%	57.06%	42.94%	319	2.75%	15	0.13%	0	0.00%	1,280	11.04%	0	0.00%
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	68,432	11,020		47,709				2,040		83		0		7,580		0	
MON AVG	11,405	1,837	16.12%	7,952	69.70%	57.76%	42.24%	340	2.98%	14	0.12%	0.00	0.00%	1,263	11.08%	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 911 calls made from the Viper System.

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FOR YOUR INFORMATION

FYI For Your Information						
PSAP Operations						
Statewide 911 Call Volumes						
PSAP	2017		2016		2015	
Oahu Civilian	1,022,818	72.16%	1,009,059	71.93%	1,019,402	70.94%
RDC Pearl Harbor	27,916	1.97%	N/A	N/A	N/A	N/A
Hawaii County	193,166	13.63%	205,412	14.64%	217,768	15.15%
Maui County	123,685	8.73%	137,333	9.80%	142,952	9.95%
Kauai County	49,902	3.52%	50,955	3.63%	56,874	3.96%
Total	1,417,487	100.00%	1,402,759	100.00%	1,436,997	100.00%

2016 & 2015 Statewide average does not include Military 911 calls.

TEXT TO 911 – CURRENT MONTH – JUNE 2018

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 2018		
Month	Received at Maui	Received at Molokai
January	13	2
February	19	0
March	24	6
April	19	12
May	12	7
June	7	4
July		
August		
September		
October		
November		
December		
YTD	94	31
Monthly Avg.	16	5

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WIRELESS PSAP TESTING – JUNE 2018

MAUI COUNTY - JUNE 2018						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:

NOTES:

- There were no (0) scheduled Wireless 911 test conducted in June 2018 for the Maui and Molokai PSAPs.
- Verizon Wireless is currently migrating their Wireless network database from West to ComTech.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – JUNE 2018

MAUI COUNTY	9-1-1 TRANSACTIONS								Customer Addresses Affected
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			
		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
2018									
JANUARY	198	180	13	2	3	138	0	0	220
FEBRUARY	210	205	5	0	0	134	0	0	234
MARCH	334	150	18	1	2	163	1	0	380
APRIL	386	135	33	7	2	209	1	0	724
MAY	189	123	62	4	0	244	0	0	627
JUNE	148	72	76	0	0	253	0	0	868
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	1,465	865	207	14	7				3,053
AVG PER MONTH	244	144	35	2	1				509

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 399 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 **148** MSAG transactions were processed in 9-1-1 Net during the current month. Seventy-six (**76**) 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. **868** customer ANI/ALI (telephone number/address) records updated as a direct result.

Seventy-two (**72**) Dispatchable Location transactions were submitted during the current month.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

72 Telephone Number Change Request (TN CR) transactions were processed and **63** were corrected in 9-1-1 Net during the current month, two (**2**) relating to the ESN 399 project.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 253 Open TN CR Transactions.**
- **Refer to chart in the next section “TNCR Current Status”**

142 Open TN CR transactions are a direct result of the ESN 399/359 clean-up and are awaiting approval from Hawaiian Telcom, Inc. **111** Open TN CR transactions are a result of the Dispatchable Location project. 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 – JUNE, 2018

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	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES	TOTAL UNOPENED TNCR RECORDS
MAUI	229	45	44	140
MOLOKAI	24	10	9	5
TOTAL	253	55	53	145

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 – JUNE 2018

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.

Dispatchable Location			
2018	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
Quarter 2			
Quarter 1 Carryover		2,067	2,046
April	Hale Kamaole, 2737 S Kihei Rd, Kihei	79	110
	Kamaole Sands, 2695 S Kihei Rd, Kihei	15	15
	Maui Parkshore, 2653 S Kihei Rd, Kihei	41	26
May	Maui Kamaole, 2777 S Kihei Rd, Kihei	123	89
June	Maui Kamaole, 2777 S Kihei Rd, Kihei	72	0
Quarter 2 Total		330	240
Total		2,397	2,286

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT – JUNE 2018

Akimeka received the Automatic Location Identification (ALI) records from Spectrum (formally known as Charter Communications) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka is researching and verifying the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that 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 indicates that there are invalid MSAG addresses utilized by the VoIP Provider. These records are being identified, and will be sent back to Spectrum for corrective action.

*Spectrum (Charter) 9-1-1 VoIP Database Verification Project					
PSAP	TOTAL RECORDS SUBMITTED BY SPECTRUM (A)	TOTAL RECORDS MATCHING & VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	22,044	21,638 (98%)	406	406	100.00%
KAUAI County	8,936	8,695 (97%)	241	241	100.00%
MAUI County	18,256	17,517 (96%)	739	739	100.00%
OAHU Civilian	87,414	85,329 (98%)	2,085	920	44.12%
OAHU Military	3,663	710 (19%)	2,953	2,903	98.31%
TOTAL	140,313	**133,889	6,424	5,209	88.49%

* Spectrum VoIP Database received on June 21st, 2017

** Akimeka provided VoIP Records with Latitude/Longitude coordinates

(A)	VoIP Database records submitted by Spectrum to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Spectrum. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – JUNE 2018

Akimeka received the Automatic Location Identification (ALI) records from Bandwidth which is a Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka researched and verified the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that 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 indicates that there were invalid MSAG addresses utilized by the VoIP Provider. These records were identified, and sent back to Bandwidth for corrective action.

Akimeka will update the chart below as we receive updated ALI records from Bandwidth.

*Bandwidth					
9-1-1 VoIP Database Verification Project					
PSAP	TOTAL RECORDS SUBMITTED BY BANDWIDTH (A)	TOTAL RECORDS MATCHING & VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	501	496	5	5	100.00%
KAUAI County	305	303	2	2	100.00%
MAUI County	765	760	5	5	100.00%
OAHU Civilian	3,610	3,596	14	14	100.00%
OAHU Military	53	50	3	3	100.00%
TOTAL	5,234	5,205	29	29	100.0%

***Bandwidth VoIP Database received on April 5th, 2018**

(A)	VoIP Database records submitted by Bandwidth to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Bandwidth. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – JUNE 2018

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	6/26/2018		Added four (4) addresses in Haiku	
	6/26/2018		Added one (1) address in Hana	
	6/26/2018		Added one (1) address in Kaanapali	
	6/26/2018		Added one (1) address in Kaunakakai	
	6/26/2018		Changed one (1) address in Kula	
	6/26/2018		Added two (2) addresses in Makawao	
	6/26/2018		Spatially corrected two (2) address points in Waiehu	
	6/26/2018		Added one (1) address in Waiehu	
	6/25/2018		Added Location Name for one (1) address in Kahului	
	6/25/2018		Spatially corrected one (1) address point in Paia	
	6/25/2018		Spatially corrected two (2) address points in Pukalani	
	6/25/2018		Spatially corrected one hundred sixty-six (166) address points in Kahului	
	6/22/2018		Added two (2) addresses in Haiku	
	6/22/2018		Spatially corrected six (6) address points in Haiku	
		06/20/18		
	6/20/2018		Spatially corrected one (1) address point in Kahului	
	6/20/2018		Added three (3) addresses in Kahului	
	6/19/2018		Spatially corrected seven (7) address points in Kahului	
	6/19/2018		Spatially corrected four (4) address points in Kaunakakai	
	6/19/2018		Spatially corrected three (3) address points in Kihei	
	6/18/2018		Added one (1) address in Wailea	
	6/18/2018		Spatially corrected fifty-five (55) address points in Kahului	
	6/18/2018		Spatially corrected one (1) address point in Lahaina	
	6/18/2018		Spatially corrected one (1) address point in Napili	
	6/18/2018		Spatially corrected four (4) address points in Pukalani	
	6/18/2018		Spatially corrected one hundred twenty-two (122) address points in Waiehu	
	6/18/2018		Spatially corrected eleven (11) address points in Wailuku	
	6/15/2018		Added one (1) address in Haiku	
	6/15/2018		Spatially corrected fifteen (15) address points in Haiku	
	6/15/2018		Spatially corrected nine (9) address points in Kahului	
6/15/2018		Updated one (1) address in Makawao		

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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	6/15/2018		Spatially corrected two (2) address points in Napili	
	6/15/2018		Spatially corrected four (4) address points in Pukalani	
	6/15/2018		Spatially corrected nine (9) address points in Waiehu	
	6/15/2018		Spatially corrected eleven (11) address points in Wailuku	
	6/11/2018		Added one (1) address in Haiku	
	6/11/2018		Corrected two (2) addresses in Haiku	
	6/11/2018		Spatially corrected six (6) address points in Haiku	
	6/11/2018		Spatially corrected three (3) address points in Kihei	
	6/11/2018		Spatially corrected one (1) address point in Lahaina	
	6/11/2018		Spatially corrected two (2) address points in Lanai	
	6/11/2018		Spatially corrected one (1) address point in Makawao	
	6/11/2018		Added three (3) addresses in Makawao	
	6/7/2018		Spatially corrected one (1) address point in Kihei	
	6/7/2018		Updated Location Name of one (1) address in Kihei	
		06/06/18		
	6/6/2018		Spatially corrected two (2) address points in Kahului	
	6/6/2018		Updated Location Name of one (1) address in Lanai	
	6/6/2018		Spatially corrected one (1) address point in Lanai	
	6/5/2018		Added two (2) addresses in Haiku	
	6/5/2018		Added one (1) address in Hoolehua	
	6/5/2018		Added one (1) address in Kahului	
	6/5/2018		Added one (1) address in Kaunakakai	
	6/5/2018		Spatially corrected one (1) address in Kula	
	6/5/2018		Added two (2) addresses in Kula	
	6/5/2018		Added one (1) address in Makawao	
	6/5/2018		Added one (1) address in Pukalani	
	6/4/2018		Spatially corrected twenty (20) address points in Haliimaile	
	6/4/2018		Spatially corrected three (3) address points in Napili	
	6/4/2018		Spatially corrected one (1) address point in Waiehu	
	6/4/2018		Spatially corrected fifty-two (52) address points in Wailuku	
6/1/2018		Added one (1) address in Lanai		
6/1/2018		Added one (1) address in Wailuku		
6/1/2018		Spatially corrected twenty (20) address points in Wailuku		

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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)			
Airports			
Bridges			
Building Footprints			
Bus Stops			
Churches			
Coastal Names			
Coastline			
Common Places			
Correctional Facilities			
Emergency Callboxes			
Emergency Operation Centers			
Emergency Shelters			
ESZ/ESN			
Fire Beats			
Fire Districts			
Fire Response Areas			
Fire Stations			
Food & Beverage			
Gas Stations			
Gate Codes			
Government Buildings			
Harbors			
Helipads			
Hiking Trails			
Hospitals			
Hydrants			
Hyrdology Layers			
Incident Response Areas			
Lodging			
Major Roads			
Medic Beats			
Medic Districts			

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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)			
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	6/25/2018		Added one (1) POI in Kahului
		6/20/2018	
	6/20/2018		Added three (3) POI in Kahului
	6/7/2018		Spatially corrected two (2) POI in Kihei
		06/06/18	
	6/6/2018		Spatially corrected two (2) POI in Kahului
	6/6/2018		Updated one (1) POI name in Kihei
	6/6/2018		Updated one (1) POI name in Lahaina
6/6/2018		Spatially corrected one (1) POI in Lanai	
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines	6/26/2018		Modified two (2) street centerline range segments in Haiku
	6/25/2018		Modified three (3) street centerline range segments in Kahului
	6/25/2018		Modified two (2) street centerline range segments in Kihei
	6/25/2018		Modified two (2) street centerline range segments in Kula
	6/25/2018		Modified two (2) street centerline range segments in Lahaina
	6/25/2018		Modified three (3) street centerline range segments in Pukalani
6/22/2018		Extended one (1) street centerline segment in Haiku	

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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	6/22/2018		Added one (1) street centerline segment in Haiku	
	6/22/2018		Modified one (1) street centerline range segment in Makawao	
	6/22/2018		Modified one (1) street centerline range segment in Maunaloa	
		06/20/18		
	6/19/2018		Modified two (2) street centerline range segments in Kahului	
	6/19/2018		Modified four (4) street centerline range segments in Kaunakakai	
	6/19/2018		Modified one (1) street centerline range segment in Kihei	
	6/19/2018		Modified one (1) street centerline range segment in Napili	
	6/19/2018		Modified four (4) street centerline range segments in Waiehu	
	6/19/2018		Modified one (1) street centerline range segment in Waihee	
	6/19/2018		Modified one (1) street centerline range segment in Wailea	
	6/18/2018		Modified four (4) street centerline range segments in Kahului	
	6/18/2018		Modified one (1) street centerline range segment in Napili	
	6/18/2018		Modified two (2) street centerline range segments in Pukalani	
	6/18/2018		Modified two (2) street centerline range segments in Wailuku	
	6/15/2018		Modified one (1) street centerline range segment in Haliimaile	
	6/15/2018		Modified one (1) street centerline range segment in Lahaina	
	6/15/2018		Modified one (1) street centerline range segment in Napili	
	6/15/2018		Modified one (1) street centerline range segment in Paia	
	6/15/2018		Modified one (1) street centerline range segment in Pukalani	
	6/15/2018		Modified two (2) street centerline range segments in Haiku	
	6/15/2018		Modified three (3) street centerline range segments in Kihei	
	6/15/2018		Modified two (2) street centerline range segments in Makawao	
	6/15/2018		Modified two (2) street centerline range segments in Wailuku	
	6/11/2018		Modified two (2) street centerline range segments in Haiku	
	6/11/2018		Modified two (2) street centerline range segments in Kahului	
	6/11/2018		Modified two (2) street centerline range segments in Lahaina	
	6/11/2018		Modified two (2) street centerline range segments in Waiehu	
	6/11/2018		Modified three (3) street centerline range segments in Hana	
	6/11/2018		Modified three (3) street centerline range segments in Kula	
6/11/2018		Modified one (1) street centerline range segment in Kaluakoi		
6/11/2018		Modified one (1) street centerline range segment in Kihei		

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MAPPING LAYERS UPDATED (PART VI)

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	6/11/2018		Modified one (1) street centerline range segment in Pukalani	
	6/11/2018		Extended one (1) street centerline in Kihei	
	6/11/2018		Extended one (1) street centerline in Maalaea	
	6/7/2018		Updated two (2) street centerline names in Kihei	
		06/06/18		
	6/5/2018		Modified one (1) street centerline range in Haiku	
	6/4/2018		Modified four (4) street centerline ranges in Haliimaile	
	6/4/2018		Modified one (1) street centerline range in Kaanapali	
	6/4/2018		Modified one (1) street centerline range in Kahului	
	6/4/2018		Modified one (1) street centerline range in Waiehu	
	6/4/2018		Modified one (1) street centerline range in Waihee	
	6/4/2018		Modified four (4) street centerline ranges in Kihei	
	6/4/2018		Modified three (3) street centerline ranges in Lahaina	
	6/4/2018		Modified two (2) street centerline ranges in Pukalani	
6/4/2018		Modified two (2) street centerline ranges in Wailuku		
6/1/2018		Modified one (1) street centerline range in Kihei		
Subdivisions				
Tow Jurisdictions				
Tsunami Evacuation Zones				
Tsunami Heights				
Waste Water Plants				
WSP Cell Sectors	6/25/2018		Per ATT CRS	
		6/20/2018		
	6/15/2018		Per Verizon CRS	
	6/11/2018		Per Sprint CRS	
WSP Cell Towers	6/25/2018		Per ATT CRS	
		6/20/2018		
	6/15/2018		Per Verizon CRS	
	6/11/2018		Per Sprint 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.

Maui County E9-1-1 Status Report

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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
6/6/2018	Delivered updated data for MapFlex which included Address Points, Food & Beverage, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
6/7/2018	Delivered .map, .str, .rte., .ply 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
6/20/2018	Delivered updated data for MapFlex which included Address Points, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
6/20/2018	Delivered .map, .str, .rte., .ply 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

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 June 7th, 2018– Akimeka delivered an updated Intergraph CAD map which included:
 - a. Address Points, Common Places Lookup Table, Street Centerlines, and WSP Cell Towers
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
2. Akimeka delivered an updated Intergraph CAD map June 20th, 2018 which included:
 - a. Address Points, Common Places Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph
 - b. .map, .str, .rte, .ply, CAD Map Build database and Cell Coverage.csv

During July 2018, 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.

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MAPFLEX SYSTEM

During the month of June 2018, 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 through 2017 years.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in June 2018
 - a. **Hawaii County** – June 5th, 2018 and June 19th, 2018
 - b. **Maui County** – June 6th, 2018 and June 20th, 2018
 - c. **Kauai County** – June 7th, 2018, and June 21st, 2018
 - d. **Honolulu** – June 8th, 2018, and June 22nd, 2018

MAPFLEX ISSUES

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

DATE	ISSUE	DESCRIPTION	STATUS
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.	Partially Resolved (Nov 2016) The overriding ALI with updated Lat/Longs from the GIS is still occurring
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.	Partially Resolved (Dec 2016) According to PSAPs, it's not fully resolved. The icon of the tower still doesn't plot for Phase I.
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
3/22/2017	ArcGIS Address Locator	The locators in MapFlex have a configurations which does not include ESNs. A reported issue has occurred with the Sheraton in Waikiki. The address locator does not differentiate between the Sheraton hotel and the surf break and plots on the surf break. The bigger issue is that this same issue will occur with complexes that have same primary address.	Pending A new SP 5.4 update by West is aimed to correct this issue.

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5/17/2017	VoIP Calls Plotting Incorrectly	<p>Recognized in late April and early May 2017, the PSAPs have been receiving several VoIP calls which are plotting in the incorrect locations. After further research it was determined that it is because MapFlex is configured to plot the received Lat/Long. The problem is that these are not always maintained properly and that ideally the system should first choose to match with the GIS data based on the provided address.</p> <p>During the September 20, 2017 PSAP conference call, HT relayed there was confirmation that the Time Warner records were in fact passing through the West FMCC.</p>	Partially Resolved – the Lat/Longs are no longer being plotted in MapFlex due to a software release.
5/17/2017	Landline Calls Producing X/Y on calls	It was determined that for normal landline calls, the X/Y coordinates are being sent. The PSAPs have asked where these are being generated and why would they be sent for landline calls.	West is looking into this (May - June 2017)
5/23/2018	Phase I & Phase II coverage area	Phase I calls received at the Kihei Maui PSAP are displaying a circular circumference area rather than a cone shaped directional coverage. Phase II calls are not plotting the COF meters correctly.	Pending
5/24/2018	Incorrect Addresses	MapFlex system began displaying incorrect addresses in the bubble display when an Address Point is right mouse clicked to see information by the PSAPs. However, the address in the data is still correct as shown on the left hand side.	Pending
6/27/2018	Moving Labels	It was brought up during the PSAP teleconference with Hawaiian Tel and West that the Hawaii Fire Department submitted a trouble ticket regarding the parcel labels. When the base map is checked on for viewing the owner’s names on the parcel layer, the names of some of the parcels will follow and leave their parcel as the map is panned following streets. This problem was also recreated at the Hawaii Police Department.	Pending

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - JUNE 2018

MAUI COUNTY						
#	Date	Ticket #	Description	PSAP	Urgency	Comments
			None			

Note:

There are no (0) Open Service Request for the Maui County PSAPs for June, 2018.

MAUI PSAP SERVICE REQUESTS YEAR-TO-DATE (YTD) SUMMARY – 2018

MAUI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2018	TOTAL		Open	WIRESLINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2017 Carryover*			0						
January	3	3	0	3	3	0	0	0	0
February	0	0	0	0	0	0	0	0	0
March	2	1	1	2	1	0	0	0	0
April	2	2	1	2	2	0	0	0	0
May	0	0	1	0	0	0	0	0	0
June	0	1	0	0	1	0	0	0	0
July									
August									
September									
October									
November									
December									
TOTAL	7	7	0	7	7	0	0	0	0

<u>Note:</u>	*The 2017 Carry Over row indicates the number of Service Requests that were opened in 2017; however, were brought forward into 2018 in an effort to track the service request until completion.
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Definitions:	Category	Description
	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 Spectrum - 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 June 2018.

The database synchronization effort included comparing Maui County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **2,719** 9-1-1 MSAG (ESN 300 – 357) records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on June 1, 2018 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 remain at a 100 percent match rate. It can be expected that the percentage will fluctuate by a small degree. As such, NENA's recommended minimum match rate is 98%.

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9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of September 1, 2017		As of December 1, 2017		As of March 1, 2018		As of June 1, 2018	
		9-1-1 MSAG Dated 9-01-17		9-1-1 MSAG Dated 12-01-17		9-1-1 MSAG Dated 3-01-18		9-1-1 MSAG Dated 6-01-18	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		2,717		2,717		2,722		2,719	
Less: 9-1-1 MSAG Exception Records	(1)	75	2.7%	75	2.7%	75	2.7%	74	2.7%
Net 9-1-1 MSAG Records Eligible for Comparison		2,642		2,642		2,647		2,645	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		2,633	100.00%	2,640	100.00%	2,645	100.00%	2,625	100.00%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	8	0.0%	2	0.0%	1	0.0%	20	0.0%
9-1-1 MSAG Record With No GIS Record	(3)	1	0.0%	0	0.0%	1	0.0%	0	0.0%
Total 9-1-1 MSAG Records No Match		9	0.0%	2	0.0%	2	0.0%	20	0.0%

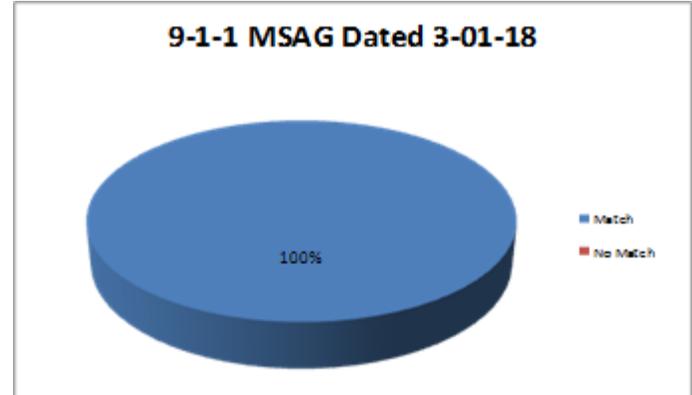
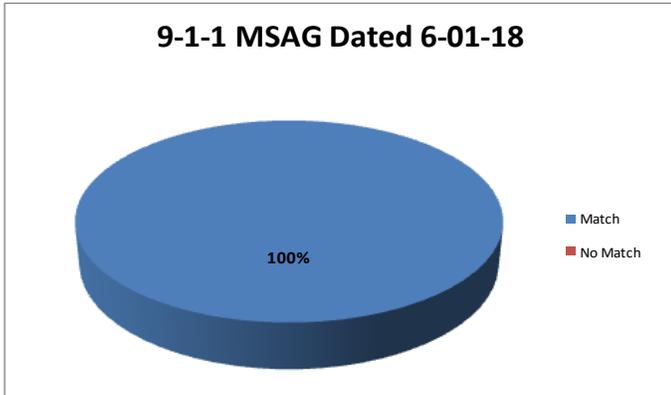
AUDIT SUMMARY NOTES:

- (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.

MSAG AUDIT SUMMARY RESULTS – JUNE 1, 2018 VS MARCH 1, 2018

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Maui County's level of accuracy or 9-1-1 Match percentage remained constant
at 100% as of June 1, 2018 to 100% on March 1, 2018

NENA Recommended Match Rate = 98%

MSAG AUDIT SUMMARY RESULTS NOTES:

- “MSAG - GIS Minor Corrections” increased (1 to 20) from March 2018 to June 2018. Minor corrections were 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” decreased (1 to 0) from March 2018 to June 2018. The decrease 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 (1 to 21) from March 2018 to June 2018. 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” increased (2 to 20) from March 2018 to June 2018. 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”.

INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

Maui County E9-1-1 Status Report

June 1, 2018 - June 30, 2018

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 03-01-18		9-1-1 MSAG Dated 06-01-18	
		# of Records	% of Total MSAG Records (Valid and Invalid)	# of Records	% of Total MSAG Records (Valid and Invalid)
MAUI	399	26	1.0%	24	1.0%
MOLOKAI	359	4	1.8%	3	1.4%
TOTAL MAUI		30	1.1%	27	1.0%

Maui County E9-1-1 Status Report

June 1, 2018 - June 30, 2018

As part of Akimeka’s ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Maui County. As of June 28, 2018, **101** ESN 399 (Maui/Lanai) and ESN 359 (Molokai) records, representing **.2%** of Maui County’s total ALI records, require research and corrective action, if needed.

