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1. PSAP OPERATIONS

9-1-1 CALL VOLUME HAWAII COUNTY PSAPS – FEBRUARY 2018

(Source: West Safety Services Viper system

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

9-1-1 Call Volume																	
HAWAII 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	No. of Other Calls	% of Total Calls
FEB	16,434	2,927	17.81%	11,395	69.34%	44.55%	55.45%	785	4.78%	17	0.10%	0	0.00%	1,310	7.97%	0	0.00%

CALL VOLUME HAWAII COUNTY PSAP NOTES:

***The percentage of Wireless Phase 2 calls (55.45%) has surpassed the number of Wireless Phase 1 calls (44.55%) in February 2018.**

***911 Calls with No Ali in February 2018 = 0.10% - Statewide average for 2017 = 0.08%**

9-1-1 CALL VOLUME – CALENDAR YEAR 2018

9-1-1 Call Volume																	
HAWAII 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	No. of Other Calls	% of Total Calls
JAN	18,334	3,344	18.24%	12,601	68.73%	46.04%	53.96%	874	4.77%	39	0.21%	0	0.00%	1,476	8.05%	0	0.00%
FEB	16,434	2,927	17.81%	11,395	69.34%	44.55%	55.45%	785	4.78%	17	0.10%	0	0.00%	1,310	7.97%	0	0.00%
MAR																	
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	34,768	6,271		23,996				1,659		56		0		2,786		0	
MON AVG	17,384	3,136	18.02%	11,998	69.03%	45.30%	54.70%	830	4.77%	28	0.16%	0	0.00%	1,393	8.01%	0	0.00%

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9-1-1 CALL VOLUME BY AGENCY – FEBRUARY 2018

2018	9-1-1 Call Volume by Agency									
	Hawaii Police Department					Hawaii Fire Department				
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls
February	12,884	78.40%	0	1,286	0	2,240	13.63%	0	24	0

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2018

2018	9-1-1 Call Volume by Agency									
	Hawaii Police Department					Hawaii Fire Department				
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls
January	14,408	78.59%	0	1,451	0	2,450	13.36%	0	25	0
February	12,884	78.40%	0	1,286	0	2,240	13.63%	0	24	0
March										
April										
May										
June										
July										
August										
September										
October										
November										
December										
YTD	27,292		0	2,737	0	4,690		0	49	0
MON AVG	13,646	78.49%	0	1,369	0	2,345	13.50%	0	25	0

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. Abandoned Calls are not included in the % of Total Calls.**
- **All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.**

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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 – FEBRUARY 2018

NOTE:

- 911 Text messages received at the Fire Department are transfers from the Police Department.
- 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 Hawaii County PSAPs 2018		
Month	Received at Police	Received at Fire
January	27	4
February	14	2
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
YTD	41	6
Monthly Avg.	20.50	3.00

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WIRELESS PSAP TESTING – FEBRUARY 2018

HAWAII COUNTY - FEBRUARY 2018						
Date	**WSP**	**Sites Tested**	**Sectors Tested**	**Tested By:**	**Test Pass/Fail**	**Comments:**

NOTES:

- There were no (0) scheduled Wireless 911 Tests for the month of February 2018.
- Verizon Wireless conducted an ESRK pre-migration test successfully on February 27th.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – FEBRUARY 2018

HAWAII COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
2018		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
JANUARY	243	201	12	25	5	185	0	0	214
FEBRUARY	175	104	15	53	3	161	0	0	190
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	418	305	27	78	8				404
AVG PER MONTH	209	153	14	39	4				202

Definitions

(A) **D**ispatchable **L**ocation - 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) **M**aster **S**treet **A**ddress **G**uide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

(C) **T**elephone **N**umber **C**hange **R**equest - 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) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord - 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 **175** MSAG transactions were processed in 9-1-1 Net during the current month. Fifteen (**15**) 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 Military response areas, and inserting new MSAG records.

There were **190** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

156 Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 299 clean-up effort and the Dispatchable Location Project. ESN 299 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. Three (**3**) ALI DRs were submitted as the result of 9-1-1 calls. Two (**2**) calls were made from wireline business phones in Hilo and Pepeekeo. One (**1**) call was made from a VoIP residential phone in Ocean View. Hawaii County Fire Department submitted these change requests 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 161 Open TN CR Transactions.**
- **Refer to chart in the next section "TNCR Current Status"**

140 Open TN CR transactions are a direct result of the ESN 299 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Once a telephone number is submitted to West for correction, it is verified against HT records and/or by the customer. West's internal process requires calling each telephone customer individually for verification to update an address in the 9-1-1 database. Akimeka continues to monitor and track the progress of the remaining 140 Referred records.

- **There are currently no Open ALI-DRs.**
- **There are currently no Open VoIP DRs**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – FEBRUARY 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 (INTRADO)**	**OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)**	**TOTAL UNOPENED TNCR RECORDS**
HAWAII	**161**	**138**	**23**	**0**

STATUS
TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1
PENDING STATUS - 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.
REFERRED STATUS - 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.
TOTAL UNOPENED TNCR RECORDS STATUS - 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 – FEBRUARY 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 September 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the **Kings Shops at 690250 Waikoloa Beach Dr., Waikoloa**. 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. There are a total of 3,445 Dispatchable Locations processed to date. There were 104 Dispatchable locations submitted and 127 were processed in February 2018.

Dispatchable Location			
2018 Quarter 1	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
2017 Carryover		3,161	3,131
January	Fairmont Orchid, 681200 N Kaniku Dr, Kamuela	23	12
	Mauna Lani Resort, 681400 Mauna Lani Dr, Kamuela	171	168
	White Sands Village, 776469 Alii Dr, Kailua Kona	7	7
February	Country Club Hilo, 121 Banyan Dr, Hilo	15	15
	Fairmont Orchid, 681200 N Kaniku Dr, Kamuela	0	11
	Hilo Hawaiian Hotel, 71 Banyan Dr, Hilo	53	53
	Hilo Seaside Hotel, 126 Banyan Way, Hilo	5	5
	Mauna Lani Resort, 681400 Mauna Lani Dr, Kamuela	0	12
	Naniloa Volcanoes Resort, 93 Banyan Dr, Hilo	13	13
	Reeds Bay Hotel, 175 Banyan Dr, Hilo	7	7
	Uncle Billys, 87 Banyan Dr, Hilo	11	11
March			
Total		3,466	3,445
YTD Total		305	314

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - FEBRUARY 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 Cilivian	87,414	85,329 (98%)	2,085	541	25.95%
OAHU Military	3,663	710 (19%)	2,953	2,818	95.43%
TOTAL	140,313	**133,889	6,424	4,745	84.3%

*** 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)	Verifcation Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – FEBRUARY 2018

MAPPING LAYERS UPDATED (PART I)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points	2/28/2018		Updated lot numbers for thirty five (35) Addresses in Hilo.
	2/28/2018		Updated lot numbers for twenty five (25) Addresses in Pahoa.
		02/27/18	
	2/27/2018		Updated Lot numbers for fifty nine (59) Addresses in Hilo.
	2/26/2018		Updated Lot numbers for eighty five (85) Addresses in Hilo.
	2/23/2018		Updated Lot Numbers for ninety seven (97) Addresses in Hilo.
	2/22/2018		Updated Lot Numbers for sixteen (16) Addresses in Kamuela.
	2/22/2018		Updated Lot Numbers for seventy (70) Addresses in Hilo.
	2/21/2018		Updated Lot Numbers for one hundred and nineteen (119) Addresses in Kamuela.
	2/20/2018		Updated Lot Numbers for sixty seven (67) Addresses in Kamuela.
	2/16/2018		Updated lot numbers for fifty (50) Addresses in Kailua Kona for Hawaiian Home Lands.
	2/15/2018		Spatially Corrected three hundred and twelve (312) Address Points in Kamuela.
	2/15/2018		Updated Lot Numbers for forty two (42) Addresses in Kailua Kona for Hawaiian Home Lands.
	2/14/2018		Spatially Corrected ninety nine (99) Addresses in Hilo.
	2/14/2018		Spatially Corrected thirty five (35) Addresses in Kamuela.
		02/13/18	
	2/12/2018		Added one (1) address in Keaau.
	2/9/2018		Updated one (1) Address House Number and Street Name in Kamuela.
	2/9/2018		Updated one (1) Address in Keaau.
	2/8/2018		Added nine (9) Addresses in Volcano.
	2/8/2018		Added nine (9) Addresses in Keaau.
	2/8/2018		Added eleven (11) Addresses in Kurtistown.
	2/8/2018		Added four (4) Addresses in Naalehu.
	2/8/2018		Added twenty four (24) Addreses in Pahoa.
	2/8/2018		Added ten (10) Addresses in Captain Cook.
	2/8/2018		Added three (3) Addresses in Honokaa.
	2/8/2018		Added thirteen (13) Addresses in Ocean View.
	2/8/2018		Added six (6) Addresses in Kailua Kona.
	2/8/2018		Added one (1) Address in Keauhou.
	2/8/2018		Added sixteen (16) Addresses in Mountain View.

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MAPPING LAYERS UPDATED (PART II)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points	2/8/2018		Added eight (8) Addresses in Hilo.
	2/8/2018		Added two (2) Addresses in Kealakekua.
	2/8/2018		Added four (4) Addresses in Kamuela.
	2/8/2018		Added two (2) Addresses in Paauilo.
	2/8/2018		Added three (3) Addresses in Kapaau.
	2/8/2018		Added one (1) Address in Holualoa.
	2/8/2018		Added one (1) Address in Pepeekeo.
	2/8/2018		Added two (2) Addresses in Laupahoehoe.
	2/8/2018		Added one (1) Address in Paauilo.
	2/8/2018		Updated one (1) Address House Number and Street Name in Honokaa.
	2/7/2018		Spatially Corrected five hundred and eighteen (518) Address Points in Hilo.
	2/7/2018		Added one (1) Address Point in Kurtistown.
	2/6/2018		Spatially Corrected four hundred and four (404) Address Points in Hilo.
	2/5/2018		Spatially Corrected five hundred and twenty two (522) Address Points in Hilo.
	2/2/2018		Updated one (1) Address House Number and Street in Pahoa.
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			

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MAPPING LAYERS UPDATED (PART III)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Fire Response Areas		02/13/18	
	2/5/2018		Updated Zone Codes for Water 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			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			
Ocean Safety			
Parcels		02/13/18	
	2/13/2018		Updated Parcel data.
	2/9/2018		Updated Parcel data in Hawaii County.
Parks			
Parks Polygon			

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MAPPING LAYERS UPDATED (PART IV)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Points of Interest			
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines		**02/27/18**	
	2/26/2018		Corrected length for two (2) Street segments in Keaau.
		02/13/18	
	2/12/2018		Updated one (1) Street range in Keaau.
	2/12/2018		Updated one (1) Street Range in Kapaau.
	2/12/2018		Updated three (3) Street Range in Pahoa.
	2/12/2018		Updated three (3) Street Ranges in Holualoa.
	2/12/2018		Updated one (1) Range in Honokaa.
	2/12/2018		Added one (1) Street in Holualoa.
	2/12/2018		Added one (1) Street in Keaau.
	2/9/2018		Added one (1) New Street in Pahoa.
	2/9/2018		Added six (6) New Streets in Keaau.
	2/9/2018		Updated one (1) Address Range in Pahoa.
	2/2/2018		Corrected twenty four (24) Right Parity in Kurtistown.
	2/2/2018		Corrected one (1) Street MSAG Exception in Kamuela.
	2/2/2018		Updated one (1) Street Range in Kurtistown.
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			

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MAPPING LAYERS UPDATED (PART V)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
WSP Cell Sectors		**02/27/18**	
	2/26/2018		Per VZW CRS
WSP Cell Towers		**02/27/18**	
	2/26/2018		Per VZW CRS

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
2/27/2018	Address Points, Cell Sectors, Parcels, Cell Towers, Points of Interest, Street Centerlines, Common Places for Mapflex.
2/27/2018	Address Points, City, Common Names Alt Table, Display Streets, Fire EMS Zones, First In, Points of Interest, POI Alt Names, Police Zones, Street Centerlines, Street Alt Names, Street Route for Spillman.
2/13/2018	Address Points, Cell Sectors, Cell Towers, Points of Interest, Street Centerlines, and parcels completed for Mapflex.
2/13/2018	Address Points, Parcels, Common Names Alt Tables, Display Streets, Fire EMS Zones, First In, Points of Interest, POI Alt Names, Police Zones, Street Centerlines, Street Alt Names, Street Routes for Spillman

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ADDRESS POINTS AND STREET CENTERLINES UPDATE COMPARISON

On a routine basis, upon receipt of Hawai'i County Planning Department's Address Points and Street Centerlines layer updates, Akimeka compares and incorporates any of the County's additions, changes, and deletions into the Akimeka Address Points and Street Centerlines layers that appear necessary for the dispatch and response of 911 personnel.

The Address Points and Street Centerlines layer comparative analysis was completed on the updates received from the Hawai'i County Planning Department on **February 16, 2018**. Results are as follows:

HAWAII COUNTY	Address Points Layer	Street Centerlines Layer
New Addresses Added	132	
Addresses Removed	0	
Address Street Name Changes	2	
Address Street Number Changes	5	
New Street Segments Added		14
Street Segments Removed		0
Street Segment Range Changes		8
Street Segment Name Changes		0

NOTE:

Some Address Points have multiple updates that are required, including Street Name and Street Number. These updates are counted as separate actions since the changes are required in order to make the GIS layers "9-1-1 capable" for CAD system recommendations affecting public safety dispatch and response operations.

POLICE BEAT REVIEW

Each year as part of a data review process, Akimeka conducts a Police Beats review process. During this time, the Police Beats are reviewed with the written descriptions of the Hawaii Police Beat Boundaries, whereby corrections are made to the Police Beat GIS layer where applicable in an effort to synchronize the GIS layer with the written descriptions and provide the 911 centers in Hawaii with a more accurately defined boundary layer which align with operational jurisdictions.

1. Subsequent to the GIS updates that were provided into the CAD/Mapping Systems in September, there have been no requested updates to the Police Beats.

2. During the 2018 year, the annual review process will continue and any identified updates will subsequently be made.

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CAD SYSTEM DEPLOYMENT

The system has not gone live yet but has received regular GIS updates, as scheduled.

1. On September 28, 2017, Akimeka and Spillman held a conference call to discuss some of the items in the training sessions, noted above. There were two key topics discussed; the Street Name searches and an additional item not previously discussed – the ability to search street names with first 5 characters.
    a. Spillman discussed a workflow they saw being used to make these changes in the GIS. Akimeka reserved a slight hesitation with the workflows because there is room for potential discrepancies for the PSAP. The proposed solution for the Street Names, for instance, requires the creation of a midpoint location on a particular street within a given community. One of the issues with this, is that for several streets in Hawaii County the midpoint will be entirely unrelated to the potential caller's location, and may add time to the call process.
    b. Akimeka identified the proposed solution as a potential fix to a system limitation but may only be a partial solution, leaving a potential gap where during a 9-1-1 call the "solution" may not be of help. Akimeka thought it was best to discuss the items in more detail and include HPD for their approval and awareness of the potential risk involved.
2. On October 5, 2017, HPD had asked Akimeka to hold on the requested updates until the system has gone live and they could test it at that point.
3. On October 11, 2017, after Akimeka had provided the GIS data for delivery, Spillman followed up to query if the changes to include the proposed solution were included.
    a. Akimeka had replied that HPD had asked us not to proceed until further discussed.
    b. Spillman had questioned the rationale of the decision
4. On October 31, 2017, HPD, HFD, Akimeka, and Spillman held a conference call to further discuss the item.
    a. Overview of the request and the issue
        i. These are almost entirely for non-emergency calls or wireless phase I calls
        ii. According to Spillman, hardware or software issues may be involved in the transferring of calls from HPD if calls are dropped
        iii. During traffic stops, officers are often times only giving street names. Issue is that Spillman requires a validated address.
        iv. Discussion of standards were highlighted. Akimeka is obligated to follow industry standards regarding data accuracy. Similarly Spillman briefed that they are required to follow standards. This proposed solution negates both objectives so neither cannot make the change without HPD approving the request.
        v. Akimeka briefed that the solution is likely not all encompassing and will likely open other issues not being recognized before put into a live environment. Their focus is on the GIS data accuracy so if the proposed solution accommodates a portion of scenarios but not all of them, there is a concern with it and what those impacts may be.
    b. Address Locator and GIS changes were discussed
        i. The concern with creating a point in the GIS which represents the center of a given street within a particular community was discussed. For streets which are short in length, this proposed solution may suffice. The issue, discussed by Akimeka, is with regards to longer streets which span across an entire community like Mamalahoa Hwy. The extent to which the map will pan, may require the dispatcher to spend a significant time locating within the map, features which can be used for the validated address. Using the street as the validated address will likely cause issues.
        ii. An additional concern brought forward was that this solution will likely degrade the quality of data being cataloged in RMS. Incidents recorded for just a street name will likely lose some pertinent information on specific addresses.

iii. Spillman briefed why their system could not do this natively without modifying the data
    1. Akimeka asked why Spillman is the only CAD or Mapping System in the State that has difficulty with this feature.

c. Timeline and Next Steps
    i. HPD mentioned that their go-live date is in one (1) month so if any changes are needed, there is a compressed timeline.
        1. Akimeka briefed that if this is desired and approved by HPD, we would make sure it is finished beforehand.
    ii. Spillman was asked for references of other PSAPs which have implemented this solution so that they can be asked of its use case and any potential issues.
    iii. During the call there was a verbal approval from HPD for Akimeka to move forward with the proposed solution, which could later be tested by HPD and HFD.
    iv. Agreement was made to hold off on the 5 character street name aliases until the first item could be looked at.

5. On November 7, 2017 Akimeka and Spillman held a quick conference call to verify the requirements of the proposed modification. All information was captured and Akimeka prepared the data shortly after the meeting.
6. During November, there were no PSAP references provided to ensure this fix works properly so the modification was asked not to be provided until that occurs.
7. On January 23, 2018, a request was made from Hilo Fire to Akimeka for Water Response Areas to be added for the Spillman CAD.
    a. Akimeka provided HFD with the correspondence with Spillman from October 21, 2016 where the requested layers were provided during the installation/configuration period. Akimeka was unsure why the data was never configured for HFD but prepared a newer dataset to be delivered to Spillman.
        i. The Water Response Areas were sent to Spillman on January 31, 2018.
        ii. One item which Akimeka had recommended was that a revision to the Zone Codes will likely need to be made so that the boundaries are distinct in CAD and the proper equipment can be configured for recommendations. HFD and Akimeka will likely be coordinating during February 2018 on this.
8. On February 13, 2018 the HPD leadership and Akimeka met to further discuss the proposed street search modification.
    a. It was agreed that testing the system to accept various classes of service into CAD would be a good initial test to see if the search were needed. Akimeka agreed to be on site to help in the testing. The meeting is tentatively scheduled in March 2018.
9. On February 14, 2018 Akimeka ran a computer simulation of several streets to represent how the Spillman will pull recommendations using the proposed street search modification. As they had briefed, the results indicated a potentially large discrepancy with how recommendations may be provided. There will be follow on discussions and will carry over into the testing during March.

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MAPFLEX SYSTEM

During the month of February 2018, the MapFlex system received its monthly GIS updates as scheduled.

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 February 2018
    a. **Hawaii County –** February 13th, 2018, and February 27th, 2018
    b. **Maui County –** February 14th, 2018, and February 28th, 2018
    c. **Kauai County –** February 1st, 2018, and February 15th, 2018
    d. **Honolulu –** February 2nd, 2018, and February 16th, 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	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. 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.	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)

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – FEBRUARY 2018

#	Date	Ticket #	Description	PSAP	Urgency	Comments
			None			

Note* There are no (0) opened service request pending for February 2018.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2018

HAWAII COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2018	TOTAL		Open	WIRELINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2017 Carryover*			0						
January	5	5	0	3	3	0	0	2	2
February	3	3	0	2	2	0	0	1	1
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	**8**	**8**	**0**	**5**	**5**	**0**	**0**	**3**	**3**

Note:	* The 2017 Carryover row indicated the number of Service Requests that were opened in 2017 and brought forward into 2018 in an effort to track the service request until completion. Detailed information on service tickets are available upon request.

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 a quarterly database synchronization audit for Hawaii County in **February 2018**.

The database synchronization effort included comparing Hawaii County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **4,549** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on February 1, 2018 for Hawaii 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%**.

The database synchronization process is essential to monitor and ensure the level of accuracy of the E9-1-1 databases and prepare for Next Generation 9-1-1 (NG9-1-1). As such, Akimeka will perform database synchronization audits on a quarterly basis as part of it ongoing maintenance process. Results of the database synchronization audit will be included and reported in the Monthly Status Report (MSR) accordingly.

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AUDIT SUMMARY RESULTS – FEBRUARY 2018

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of May 1, 2017		As of August 1, 2017		As of November 1, 2017		As of February 1, 2018	
		9-1-1 MSAG Dated 05-01-17		9-1-1 MSAG Dated 08-01-17		9-1-1 MSAG Dated 11-01-17		9-1-1 MSAG Dated 2-01-18	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		**4,520**		**4,537**		**4,542**		**4,549**	
Less: 9-1-1 MSAG Exception Records	(1)	51	1.1%	51	1.1%	51	1.1%	51	1.1%
Net 9-1-1 MSAG Records Eligible for Comparison		**4,469**		**4,486**		**4,491**		**4,498**	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		**4,460**	**99.8%**	**4,476**	**99.8%**	**4,470**	**99.5%**	**4,482**	**99.6%**
9-1-1 MSAG -- GIS No Match Minor Correction Required	(2)	8	0.2%	9	0.2%	16	0.4%	11	0.2%
9-1-1 MSAG Record With No GIS Record	(3)	1	0.0%	1	0.0%	5	0.1%	5	0.1%
Total 9-1-1 MSAG Records No Match		**9**	**0.2%**	**10**	**0.2%**	**21**	**0.5%**	**16**	**0.4%**

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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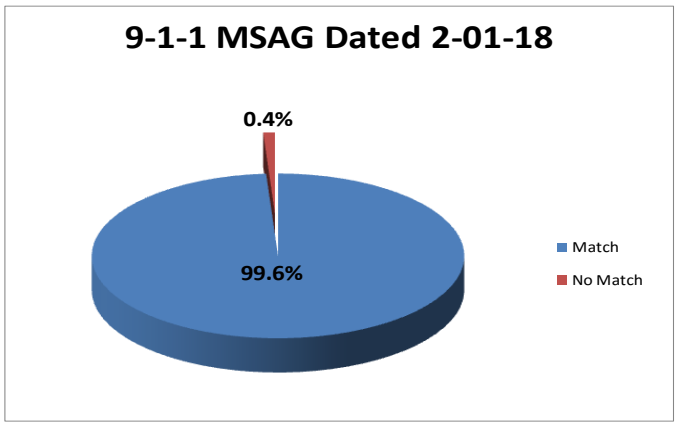
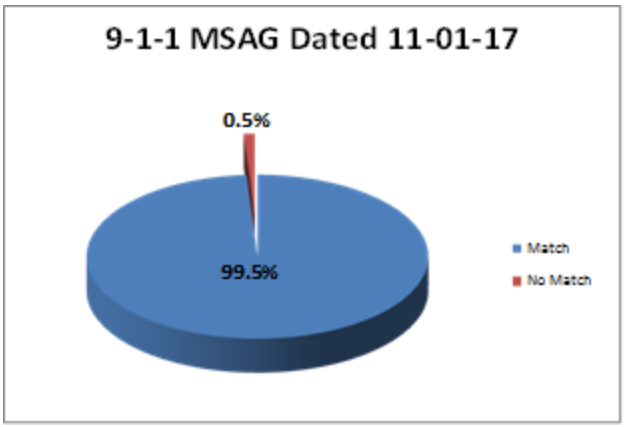
AUDIT SUMMARY RESULTS COMPARISION – FEBRUARY 1, 2018 VS NOVEMBER 1, 2017





NOTE:

Hawaii County's level of accuracy or 9-1-1 Match percentage remained constant

from 99.6% as of February 1, 2018 to 99.5% as of November 1, 2017

NENA Recommended Match Rate = 98%

AUDIT SUMMARY RESULTS

COMPARISON NOTES:

- There continues to be a tremendous work effort to synchronize the MSAG and GIS data. Akimeka continues to work closely with County Planning to address problem areas. Hawai`i County has worked very hard to assign addresses and name and range street centerlines which have helped facilitate Akimeka's synchronization efforts.
- "MSAG - MSAG with Missing GIS Records" decreased from twenty-one (21) to sixteen (16) records from November 2017 to February 2018. MSAG records with missing record were due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Hawaii County.
- "MSAG - GIS Minor Corrections" decreased from sixteen (16) to eleven (11) records from November 2017 to February 2018. The non-match condition of the nine records are a result in which MSAG records submitted in 9-1-1 Net were not completed prior to the end of month. The MSAG section will monitor these records to ensure they are processed in 9-1-1Net prior to the May 2018 re-analysis
- "GIS Record with No Matching MSAG Record" increased from twenty-four (24) to twelve (12) records from November 2017 to February 2018. This includes GIS records that have no MSAG records, and/or GIS records that do not match the MSAG record exactly.
- "GIS Record with No MSAG Record" decreased from seven (7) to two (2) records from November 2017 to February 2018. This was primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements.
- Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is "touched".

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

At the request of the County of Hawai'i Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Hawai'i County and Akimeka, as the PSAP's agent, with access and visibility to the ESN x99 MSAG records which are "known" invalid streets and address ranges. Results of the data provided are as follows:

HAWAII	Invalid MSAG Records	
	9-1-1 MSAG Dated 02-01-17	
	Number of Records	% of Total Inlavid MSAG Records
ESN 299	278	5.8%

These invalid MSAG records represent **5.8%** of the Total MSAG records for Hawai'i County. The individual ALI records associated with these records are provided below.

TN CRs are submitted by Akimeka when valid MSAG addresses are identified and validated against the GIS data. Akimeka will continue to investigate and report on these ESN 299 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

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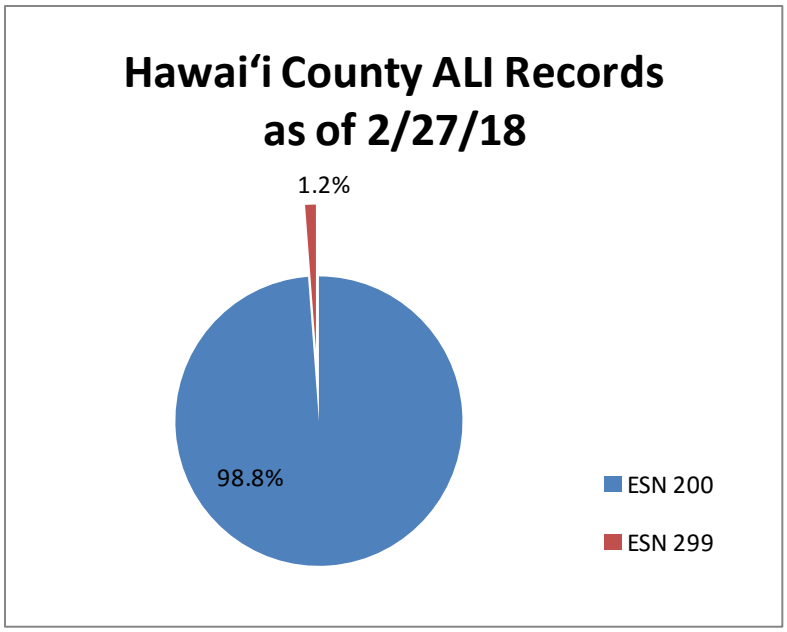
AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Hawai'i County. As of February 27, 2018, **830** ESN 299 records, representing **1.2%** of Hawai'i County's total ALI records, require research and corrective action, if needed. These ALI discrepancy reports may result in a No Record Found (NRF) condition during a 9-1-1 call.