

Oahu Civilian E9-1-1 Status Report

February 1, 2019 – February 28, 2019

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME CIVILIAN PSAPS – FEBRUARY 2019

Source: West Safety Services Viper system

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

9-1-1 Primary PSAP Call Volume																	
Honolulu City & County PSAPs		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	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
February	81,871	16,620	20.30%	62,099	75.85%	43.70%	32.15%	3,127	3.82%	25	0.03%	754	0.92%	13,784	16.84%	697	0.85%

9-1-1 CALL VOLUME CIVILIAN PSAPS – CALENDAR YEAR 2019

9-1-1 Primary PSAP Call Volume																	
Honolulu City & County PSAPs		Wireline		Wireless				VOIP Calls		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	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 Total Call Received	% of Total Calls
JAN	88,651	17,145	19.34%	68,155	76.88%	43.80%	33.08%	3,333	3.76%	18	0.02%	1,427	1.61%	15,027	16.95%	746	0.84%
FEB	81,871	16,620	20.30%	62,099	75.85%	43.70%	32.15%	3,127	3.82%	25	0.03%	754	0.92%	13,784	16.84%	697	0.85%
MAR																	
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	170,522	33,765		130,254				6,460		43		2,181		28,811		1,443	
MON AVG	85,261	16,883	19.82%	65,127	76.37%	43.75%	32.62%	3,230	3.79%	22	0.03%	1,091	1.27%	14,406	16.90%	722	0.85%

NOTE:

- **911** Calls with No ALI for February 2019 = 0.03% - Statewide average for 2018 = 0.09%
- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- 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 **not** included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

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9-1-1 CALL VOLUME BY AGENCY – FEBRUARY 2019

2019	9-1-1 Call Volume by Agency									
	Honolulu Police Department						Honolulu Fire Department			
	No. of Total Calls Received	% of Total Calls	Number of Emergency Calls	Number of Non Emergency Calls	Number of Admin Calls	Number of Dropped Calls	No. of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
February	71,410	87.22%	19,014	37,981	631	13,784	2,521	3.08%	86	35

2019	9-1-1 Call Volume by Agency							
	Emergency Medical Services				Ocean Safety			
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
February	7,212	8.81%	7	130	31	0.04%	30	2

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2019

2019	9-1-1 Call Volume by Agency																	
	Honolulu Police Department						Honolulu Fire Department				Emergency Medical Services				Ocean Safety			
	Number of Total Calls Received	% of Total Calls	No. of Emergency Calls	No. of Non Emergency Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls
JAN	76,658	86.47%	19,605	40,890	1,136	15,027	2,885	3.25%	127	35	8,311	9.37%	114	84	51	0.06%	50	2
FEB	71,410	87.22%	19,014	37,981	631	13,784	2,521	3.08%	86	35	7,212	8.81%	7	130	31	0.04%	30	2
MAR																		
APR																		
MAY																		
JUNE																		
JULY																		
AUG																		
SEPT																		
OCT																		
NOV																		
DEC																		
YTD	148,068		38,619	78,871	1,767	28,811	5,406		213	70	15,523		121	214	82		80	4
MON AVG	74,034	86.85%	19,310	39,436	884	14,406	2,703	3.17%	107	35	7,762	9.09%	61	107	41	0.05%	40	2

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PSAP OPERATION NOTES:

- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- 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) types of 911 calls are combined in the Call Volume statistic.

FOR YOUR INFORMATION

FYI.....For Your Information								
PSAP Operations								
911 Call Volumes								
PSAP	2018		2017		2016		2015	
Oahu Civilian	1,034,193	72.46%	1,022,818	73.60%	1,009,059	71.93%	1,019,402	70.94%
Hawaii County	206,648	14.48%	193,166	13.90%	205,412	14.64%	217,768	15.15%
Maui County	133,869	9.38%	123,685	8.90%	137,333	9.80%	142,952	9.95%
Kauai County	52,623	3.68%	49,902	3.60%	50,955	3.63%	56,874	3.96%
Total	1,427,333	100.00%	1,389,571	100.00%	1,402,759	100.00%	1,436,996	100.00%

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TEXT TO 911 OAHU CIVILIAN PSAPS – CURRENT MONTH – FEBRUARY 2019

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 Oahu Civilian PSAPs 2019						
Month	Total	HPD	HFD	EMS	OS	911 (handled)
January	153	131	1	4	0	17
February	106	92	0	2	0	12
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
YTD	259	223	1	6	0	29
Monthly Avg.	129.5	111.5	0.5	3.0	0.0	14.5

NOTE:

The 9-1-1 handled texts were incidents in which the Division conducted testing or the texter texted 911 in error.

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911 WIRELESS OAHU CIVILIAN PSAP TESTING – FEBRUARY 2019

OAHU CIVILIAN - FEBRUARY 2019						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:
2/19/2019	Verizon	1	3	Oahu PSAP	Pass	

NOTES:

- There was one (1) scheduled Wireless 911 Test for the Oahu Civilian PSAP in February 2019.
- Verizon Wireless has completed migrating their Wireless network database from West to ComTech.
- During the 4th quarter of 2018, there was an increasing amount of “MOBL” class of service type of 911 calls delivered to the State of Hawaii PSAPs. On January 15th, 2019, West completed the position source mapping for ComTech which appears to have resolved this issue.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

OAHU CIVILIAN MSAG TRANSACTIONS CURRENT MONTH/YEAR – FEBRUARY 2019

OAHU CIVILIAN	9-1-1 TRANSACTIONS								
	Total	MSAG	ALI Submitted			Open ALI Discrepancy Records			Customer Addresses Affected
2019		MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	
JANUARY	178	24	154	0	0	403	0	0	683
FEBRUARY	177	1	176	0	0	123	0	0	176
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	355	25	330	0	0				859
AVG PER MONTH	178	13	165	0	0				430

Definitions

- (A) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (B) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 199 attached to them which indicates the need for validation.
- (C) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.
- (D) **Voice over Internet Protocol Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.

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OAHU CIVILIAN MSAG CURRENT MONTH NOTES:

A total of **177** MSAG transactions were processed in 9-1-1 Net during the current reporting month. One (**1**) requests were processed relating to the MSAG database which 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 **176** customer ANI/ALI (telephone/address) records updated as a direct result.

OAHU CIVILIAN TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

176 Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 199 clean-up effort and dispatchable locations. ESN 199 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record.

OAHU CIVILIAN OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 199 Open TN CR Transactions as February 28, 2019**
- **Refer to chart in the next section “TNCR Current Status”**
- **There are no Open ALI-DRs as of February 28, 2019**
- **There is no Open VoIP DRs as of February 28, 2019**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – FEBRUARY, 2019

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)				
PSAP	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
OAHU CIVILIAN	199	7	69	123

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 – FEBRUARY 2019

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.

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. The Windward Mall will be the pilot location starting in March 2018.

There were 149 transactions submitted and 176 processed in February 2019.

Dispatchable Location			
2019	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
Quarter 1			
2018 carryover		2,409	1,704
January	Ala Moana Center, 1450 Ala Moana, Ala Moana	200	45
	Kahala Mall, 4211 Waialae Ave, Kaimuki	0	101
	Aina Haina Shopping Center, 820 W Hind Dr, Aina Haina	0	2
	Hawaii Kai Towne Center, 333 Keahole St, Hawaii Kai	0	6
February	Ala Moana Center, 1450 Ala Moana, Ala Moana	50	137
	Aina Haina Shopping Center, 820 W Hind Dr, Aina Haina	0	1
	International Market Place 2330 Kalakaua Ave, Waikiki	99	26
	Kahala Mall, 4211 Waialae Ave, Kaimuki	0	12
March			
Total		2,758	2,034
YTD Total		349	330

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT – FEBRUARY 2019

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	2,085	100.00%
OAHU Military	3,663	710 (19%)	2,953	2,953	100.00%
TOTAL	140,313	**133,889	6,424	6,424	100.00%

* 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 – FEBRUARY 2019

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 **(Updated)					
PSAP	TOTAL RECORDS SUBMITTED BY BANDWIDTH (A)	TOTAL NEW RECORDS VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	545	85	0	0	100.00%
KAUAI County	306	41	0	0	100.00%
MAUI County	914	222	1	1	100.00%
OAHU Civilian	4,065	888	1	1	100.00%
OAHU Military	56	7	0	0	100.00%
TOTAL	5,886	1,243	2	2	100.00%

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

****Updated Bandwidth VoIP Database received on September 6th, 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) – FEBRUARY 2019

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.

OAHU CIVILIAN PSAPS		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	2/15/19 To 2/28/19	Next Delivery 3/1/2019
		Corrected spatial for sixteen (16) records in Kalihi
		Added new address point for five hundred and ninety (590) records in Mililani
		Corrected spatial, added routingID for one (1) record in Mililani
		Corrected spatial, corrected address for one (1) record in Mililani
		Corrected spatial for one hundred and twelve (112) records in Mililani
		Corrected spatial, corrected address for seven (7) records in Kalihi
		Added new address point for one hundred and six (106) records in Kalihi
		Corrected spatial for two (2) records in Kaimuki
		Delivered 2/15/2019
	2/1/19 To 2/14/19	Corrected address, corrected spatial for four (4) records in Kalihi
		Deleted routingID, changed address, corrected spatial for five (5) records in Kalihi
		Corrected address, corrected spatial for one (1) record in Mililani
		Corrected spatial for thirty-nine (39) records in Kalihi
		Added new address point for four hundred and eighty-one (481) records in Mililani
		Corrected spatial, corrected address for one (1) record in Mililani
		Corrected spatial for fifty-eight (58) records in Mililani
		Added new address point for one hundred and sixty-one (161) records in Waipio
		Added new address point for ten (10) records in Ford Island
		Corrected spatial for twenty-three (23) records in Waipio
Added new address point for one hundred and sixty-four (164) records in Kalihi		
Airports		
AMR Response Areas		
Bridges		
Building Footprints		
Bus Stops		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		
Emergency Callboxes		

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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.

OAHU CIVILIAN PSAPS		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
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		
Medic Response Areas		
Medic Stations		
Medical Facilities		
Milepost Markers		
Military Response Areas		
MSAG Communities		
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		

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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.

OAHU CIVILIAN PSAPS		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Parcels		
Parks		
Parks Polygon		
Points of Interest	2/1/19 To 2/14/19	Delivered 2/15/2019
		Corrected spatial for one hundred and forty-three (143) records in Waipahu
		Corrected spatial for forty-eight (48) records in Kalihi
		Added new common place point for one (1) record in Downtown
		Corrected spatial for one (1) record in Mililani
		Corrected spatial for thirty-eight (38) records in Ford Island
Police Beats		
Police Districts		
Police Response Areas	2/1/19 To 2/14/19	Delivered 2/15/2019 Corrected boundary for twenty-six (26) records
Police Stations		
Post Offices		
Schools		
Street Centerlines	2/15/19 To 2/28/19	Next Delivery 3/1/2019
		Corrected prefix, corrected speed for forty-six (46) records in McCully
		Corrected range for one (1) record in Sunset
		Corrected prefixdirection for one (1) record in Airport
		Corrected speed limit, corrected spatial, crosses zip_code for one (1) record in Kalaeloa
		Corrected range for three (3) records in Kaneohe
		Flipped street, corrected range for one (1) record in Waipahu
		Corrected range for two (2) records in Hawaii Kai
		Corrected prefix, corrected street name for twenty (20) records in Honolulu
		Corrected overlap, corrected range for one (1) record in Hauula
		Corrected prefix, corrected speed for twenty-eight (28) records in Manoa
		Corrected range for one (1) record in Hauula
		Corrected speed for one (1) record in McCully
Corrected prefix, corrected street name for one (1) record in Kapahulu		
Corrected range for five (5) records in PC PEN		

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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.

OAHU CIVILIAN PSAPS			
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks	
	Date Created/Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Street Centerlines	2/15/19 To 2/28/19	Corrected parity, corrected range for one (1) record in Makakilo	
		Corrected range for one (1) record in Kaimuki	
		Corrected prefix, corrected street name for fourteen (14) records in Downtown	
		Corrected speed limit, corrected spatial for one (1) record in Aiea	
		Delivered 2/15/2019	
	2/1/19 To 2/14/19	Corrected speed for five hundred and forty-nine (549) records in Manoa	
		Flipped street for one (1) record in Haleiwa	
		Flipped street for twenty-one (21) records in Kapolei	
		Flipped street for eight (8) records in Waipio	
		Flipped street for five (5) records in Makakilo	
		Flipped street for three (3) records in Waipahu	
		Corrected prefix, corrected speed for one (1) record in Manoa	
		Corrected speed for three hundred and twenty-four (324) records in McCully	
		Corrected speed limit for one (1) record in Aiea	
		Corrected one way, speed for two (2) records in McCully	
		Corrected gap for one (1) record in Aiea	
		Flipped street for one (1) record in Ewa Beach	
		Flipped street for one (1) record in Hokulani	
Flipped street for one (1) record in Kalihi			
Corrected prefix, corrected speed for five (5) records in McCully			
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			
WSP Cell Sectors	2/15/19 To 2/28/19	Next Delivery 3/1/2019	
		Added eight (8) sectors per T-Mobile CRS	
		Updated four (4) sectors per Verizon Wireless CRS	
		Added one (1) sector per Sprint CRS	

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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.

OAHU CIVILIAN PSAPS		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
WSP Cell Sectors		Delivered 2/15/2019
	2/1/19 To 2/14/19	Updated two (2) sectors per Sprint CRS
		Added ten (10) sectors per AT&T CRS
		Updated five (5) sectors per Verizon Wireless CRS
		Added thirty-one (31) sectors per Sprint CRS
WSP Cell Towers		Next Delivery 3/1/2019
	2/15/19 To 2/28/19	Updated one (1) tower per Sprint CRS
		Updated one (1) tower per T-Mobile CRS
		Added one (1) tower per T-Mobile CRS
		Updated two (2) towers per Verizon Wireless CRS
		Delivered 2/15/2019
	2/1/19 To 2/14/19	Added five (5) towers per Sprint CRS
		Updated three (3) towers per Sprint CRS
Updated three (3) towers per AT&T CRS		
Updated one (1) tower per Verizon Wireless CRS		

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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
2/21/2019	Off-cycle deliverable: delivered Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD.
2/19/2019	Off-cycle deliverable: delivered corrected Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD.
2/19/2019	Off-cycle deliverable: delivered Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety.
2/15/2019	Delivered Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD.
2/15/2019	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD.
2/15/2019	Delivered Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety.
2/5/2019	Delivered updated layers for HPD TriTech/CentralSquare migration.
2/1/2019	Delivered Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD.
2/1/2019	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD.
2/1/2019	Delivered Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu
2/1/2019	Delivered Address Points, Street Centerlines, Common Places, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, AMR Response

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HONOLULU POLICE DEPARTMENT TRITECH CAD PROJECT

On October 10, 2018, Akimeka participated along with the CAD project team of the Honolulu Police Department on a teleconference GIS kickoff meeting with the TriTech CAD Company. Items that were discussed were GIS requirements for the CAD and RMS systems.

On October 25, 2018, Akimeka’s initial delivery of 11 GIS layers to the TriTech FTP site included: Address Points, Airports, Coastline, Fire Response Areas, Medic Response Areas, MSAG Communities, Parks, Police Beats, State Boundary, Streams, and Street Centerlines.

Two spreadsheets describing the layers were also provided on the FPT site.

MAPFLEX SYSTEM

Akimeka delivered GIS data to the MapFlex system on the following dates in February 2019.

Hawaii County – February 12th, 2019 and February 26th, 2019

Maui County – February 13th, 2019 and February 27th, 2019

Kauai County – February 14st, 2019, and February 28th, 2019

Honolulu – February 1st, 2019, and February 15th, 2019

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

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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.
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)
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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STREET UTILITY CHECK

This is an ongoing project to correct the errors identified. A comparison of the raw CAD generated report from the Street Check Utility was performed between the Street Centerline GIS data on February 1, 2019 and February 28, 2019.

Street Utility Check				
	First Report 06/01/13	1/31/2019	2/28/2019	Improvements/Corrections
Total Number of GIS Records	26,602	31,315	31,282	Decreased by 33 records
Errors Identified				
Zero Errors	5,112	0	0	No change
Low > High Errors	3	0	0	No change
Mixed Parity Errors	1	0	0	No change
Changed Parity Errors	105	10	1	Decreased by 9 records
Address Gap Errors	2,629	2	28	Increased by 26 records
Address Overlap Errors	423	12	29	Increased by 17 records
Flipped Link Errors	1,030	18	371	Increased by 353 records
Total Errors	9,303	42	429	Increased by 387 records

In addition to Akimeka’s internal validation tools, Akimeka will continue to utilize the various CAD reports to further identify and correct the multitude of discrepancies in the GIS data. This is an ongoing and routine process which Akimeka has been using to improve the accuracy of the GIS data for Public Safety.

As a result of the GIS efforts within the military jurisdictional areas covered primarily by the RDC, the GIS data is undergoing several changes within the bases which will cause a fluctuation in the Street Check results, which is to be expected. Any discrepancies that are identified will be corrected in the following GIS deliverable.

TRITECH CAD ADDRESS POINT PROJECT

During the month of February 2018 after several months of discussion and testing, the Address Points were loaded into TriTech and moved into the HFD/EMS shared CAD. Since that time, HFD, EMS, and Akimeka have been working closely together to identify and update subaddress location for various complexes around Oahu. Several hundred new address points have been added to the GIS as a result of this collaboration.

During the month of March 2018, there were only a couple minor updates communicated and one issue identified with addresses within close proximity to the HI freeway.

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1. Akimeka ran an analysis and added routing information into more than 27,000 Address Points to resolve the geotolerance within TriTech.
2. During the month of April 2018, it was identified that the issue related to the H1 Fwy still remain and after investigation it was determined that a component within the SQL server for TriTech requires a potential update to allow for routing to be overridden based off of the Routing ID information.
 - a. A trouble ticket has been opened with TriTech who is further investigating the potential correction, outside of the GIS data.
3. During the month of February 2019, HFD has requested assistance with labelling the mobile map.
 - a. Akimeka worked with HFD to develop a labeling scheme that showed complex names, addresses, and apartment numbers, without label duplication. The labeling scheme requires three additional shapefiles, which will be provided to HFD as part of every deliverable.

SPEED LIMIT UPDATES

Beginning in April 2017, and now that the Street Centerline data has achieved not only an above 98% synchronization rating but also a high degree of accuracy in the spatial accuracy, a new project to correct speed limits has begun. The project is beginning in Waimanalo and continuing in a counter-clockwise patten around the island of Oahu. The initial focus is on Highways, Freeways, and other major roads, but also not limited to additional corrections, especially those which are immediately identified to positively impact vehicle routing, etc.

All updates are shared directly with the PSAPs and the agency most affected (positively) is HFD since they actively use vehicle routing and this will assist in better CAD unit recommendations. During each GIS deliverable, a list of updates are being provided.

1. During the 2017 year, from April 2017 to December 2017, more than 4,200 street segments were updated to reflect posted speed limit restrictions from Waimanalo to Nanakuli.
2. During January 2018, 1,187 segments were updated in Maili, Nanakuli, and Kapolei.
3. Throughout the month of February 2018, 2,025 speed limits were updated in Ewa Beach, Makakilo, and Iroquois.
4. During March 2018, 3,743 street segments were updated across Makakilo, Kunia, Iroquois, Pearl Harbor, Waipahu, Wahiawa, Waialua, and Mililani.
5. During the month of April 2018, Akimeka held on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure the routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
6. During the month of May 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
7. During the month of June 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
8. During the month of July 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).
9. During the month of August 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).

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10. During the month of September 2018, Akimeka resumed the speed limit updates. 1,081 street segments were updated across Waipio and Pearl City.
11. During the month of October 2018, Akimeka continued the speed limit updates. 1,094 street segments were updated across Aiea, McGrew Point (McGrew Pt) and Pearl City Peninsula (PC PEN).
12. During the month of November 2018, Akimeka continued the speed limit updates. 265 street segments were updated across Halawa and Moanalua Valley.
13. During the month of December 2018, Akimeka continued the speed limit updates. 1,978 street segments were updated across Hale Moku, Hokulani, Salt Lake, Mapunapuna, Radford Terrace, Halsey Terrace, Miller Park, Catlin Park, and Kalihi.
14. During the month of January 2019, Akimeka continued the speed limit updates. 1,843 street segments were updated across Airport, Nuuanu, Downtown, Punchbowl, Makiki, Kakaako, Honolulu, and Ala Moana.
15. During the month of February 2019, Akimeka continued the speed limit updates. 956 street segments were updated across Manoa and McCully.

HONOLULU EMS RESPONSE AREA

During the month of December 2017, EMS requested a high resolution map of the Honolulu Response Area which will likely be divided into 5 separate response areas to better support the EMS operations and ambulance response times.

1. With HPD's approval, Akimeka prepared a map of the requested area and provided to EMS on December 12, 2017.
2. Considering the additional response areas will certainly require the creation of additional ESZ/ESNs; HPD, EMS, and Akimeka will be coordinating so that the project can be mapped out on a timeline so that the changes can take place while maintaining an above 99% synchronization level between GIS, MSAG, and ALI.
3. An operational consideration has already begun a discussion, in that the military ESNs will likely be reallocated to a new numbering so that both civilian and military responses will have enough ESNs to support their individual operations.
4. During the first half of 2018, there will be further discussion on the creation of the new Response Areas, allocation of military ESNs, and create of new ESZs/ESNs.

AMR-H

The American Medical Response Hawaii (AMR-H) Project is a joint venture by the Honolulu Emergency Services Department (HESD) to provide accurate address and location information to its other public safety agencies. This project is to ensure AMR-H is utilizing the same address and location information as the other HESD public safety agencies, and to ensure compliance with National 9-1-1 directives such as the FCC Docket 15-9 regarding location accuracy. The intent is to provide the same accurate location information to all the HESD public safety response agencies to help reduce response times to the 9-1-1 caller.

NOTE:

This work is performed under a separate contract.

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AMERICAN MEDICAL RESPONSE (AMR) HAWAII PROJECT

Since the start of the GIS deliverable schedule with AMR, there have been no reported issues or concerns. In order to open up discussion on any operational improvements via the GIS data, or to identify any updates that can be made, AMR and Akimeka held a brief conference call on December 5, 2017.

1. During the discussion there was overwhelming agreement that the data provided by Akimeka is working great for the dispatchers and first responders at AMR.
2. There were some areas that were discussed where searching for certain addresses will prompt a list of invalid addresses.
 - a. Through the discussion it was identified that the CAD system is aggregating various data sources since they are dispatching throughout the State. The data that Akimeka provides for the island of Oahu is working great, however since the neighbor islands are using various sources of data in different formats, the accuracy of that data is greatly in question and is likely not fully supportive of the search requirements in the CAD.
3. A final topic of discussion was on training for the AMR dispatcher. Joe from AMR who was on the call, took this as an action item to prepare training material for searching criteria, especially intersections. Akimeka volunteered that they can make themselves available to collaborate on the training material if needed.
4. There are no follow up calls scheduled at this time, however Akimeka informed that any issues or improvements identified will be looked at immediately and to send the requests as they are identified.

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4. E9-1-1 OAHU CIVILIAN DATABASE SYNCHRONIZATION

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

Next scheduled Database Synchronization – April 2019

AUDIT SUMMARY RESULTS – 2018 - 2019 -- TBA

AUDIT SUMMARY RESULTS – APRIL 1, 2019 MSAG VS JANUARY 1, 2019 MSAG -- TBA

AUDIT SUMMARY RESULTS - APRIL 1, 2019 MSAG VS JANUARY 1, 2017 MSAG CONTINUED

INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES -- TBA