

Mokuleia Fire Memorandum for Record
AKA "Mango Fire"
June 7-11, 2017

June 7, 2017

The Mango fire burned private and state land at Mokuleia. Area impacted included the low gulches and farm land west of Kaala road to Kapuna gulch (see map below Figure 8). The fire started by a truck on the Pioneer land sometime in the morning after 8 am. It was reported that the individual was picking mangos, hence the "Mango Fire." The fire was reported to OANRP at around 1100 hours by the Support Operations Associate (Schneller) that was out doing a vehicle inspection.

It was a hot day (80° F) and a steady trade was blowing (ENE at about 20 mph). RH was around 40%. There was no precipitation recorded on the 7th. The fire spread quickly to the west across the lower elevations. OANRP communicated with the DOFAW on details and Schneller stayed on site to monitor and report. DOFAW Forester Peralta was out on vacation and DOFAW NARS (Takahama) initially took charge. Takahama was later replaced as DOFAW Incident Commander (IC) by Wildlife (Misaki).



Figure 1: Mango fire soon after ignition on June 7 2017

As the fire continued to spread and appeared to threaten the Forestry areas OANRP deployed Ungulate Coordinator (Burt) to assist in observing and advising the Senior Natural Resource Management Coordinator (Rohrer) and the Army Natural Resource Manager (Kawelo). Burt met with Takahama at around 1400 hours and began to report observations. The team was stationed on the Pahole road. Schneller observed from the Kaala road side where Honolulu Fire Department (HFD) set up an IC. Due to

the severity of the reports Kawelo redirects plans and reports to the site meeting Burt and Takahama at about 1530 hrs.



Figure 2: Explosive spread of Fire burning ridges East of Kapuna

Rohrer coordinates for K&S to respond to the fire at the request of DOFAW (Miller). The bill is covered by DOFAW. Airborne Aviation is dispatched from Kauai by DOFAW. In order of appearance Air One was the first bird on site dropping at about 1pm. They then had to go respond to a rescue. The HPD bird for flew alone until K&S arrived, then Airborne arrived from Kauai, the Sikorsky was next on site. DOFAW contracted a Sikorsky (Sillas Air) to assist with larger bucket capacity (approximately 1000 gallons). Sikorsky has an operating cost of approximately \$6000/hour.

Schneller uses Arc On-line to produce a map in the field that greatly clarifies spread and potential risk to resources (Figure 3). GIS staff are able to see points Schneller plots and produce a map for OANRP and DOFAW review.

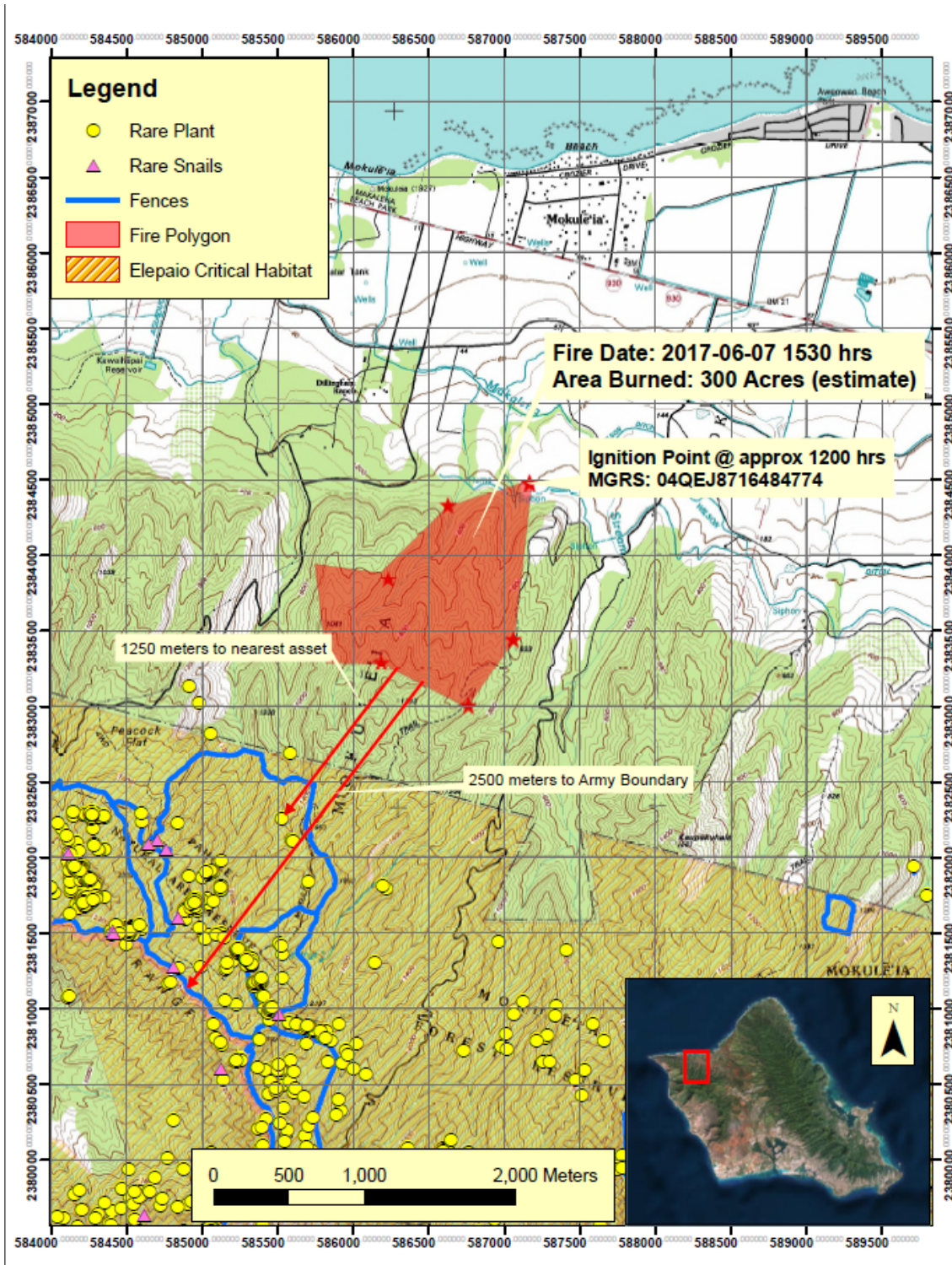




Figure 3: Initial map produce with field points entered on Arc On-line. Map produced at OANRP base and emailed to staff in the field

Spot weather is requested from NWS by Rohrer and reported to DOFAW staff. NWS spot forecasts can be generated by calling NWS (973-5280). In addition a forecast can be requested on line at NWS under the forecasts and fire weather.



National Weather Service Weather Forecast Office
Honolulu, HI

weather.gov



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Hawaiian Fire Weather Products

The Fire Weather program is used by land management personnel primarily for input in decision-making related to pre-suppression and other planning, that may impact firefighter safety, protection of the public and property, and resource allocation. The primary source of information is the routinely issued Fire Weather Planning Forecast. In Hawaii, this product is issued once a day around 5:30 am HST.

The Spot Forecasts are issued by WFO HFO at the request of and in support of wildfire suppression and natural resource management. These forecasts aid the land management and fire control agencies in protecting life and property during wildland fires, hazardous fuels reduction, and the rehabilitation and restoration of natural resources. Spot Forecasts can be issued for the first 36 hours.

Need an outlook on weather conditions beyond the 36 hours included in the Spot Forecast? Use the NWS' Point and Click forecast to get information for up to 7 days ahead.


Enter latitude/longitude pair in decimal degrees (i.e. 21.28 -157.83)

Latitude	Longitude	Forecast Type	
<input type="text" value="21.28"/>	<input type="text" value="-157.83"/>	<input type="text" value="Text Product"/>	<input type="button" value="Get Point Forecast"/>

- Fire Weather Planning Forecast (text)
- Graphic Forecast with Fire Weather Parameters (RH, Transport Winds, Min)
- NWS Spot Forecast Request for Hawaii - Request a Spot Forecast Online
- NWS Spot Request Help
- NWS Spot Request Instructions
- Hawaii RAWs data summary
- Fire Weather Operations Plan Updated: 05/2015
- Hawaii Fire Weather Program Information
- National Fire Weather Program

Wind Observation Plots (Wind barb information)

(updated twice an hour)


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KBDI Information

Today's preliminary observed PHNL KBDI is: 326
The average 6/14 PHNL KBDI is: 496

KBDI Trend for the last year




Figure 4: NWS Fire weather spot forecast request.



Figure 5: View from Pahole road gate as fire crests ridges East of Kapuna

At approximately 1600 hrs Kawelo initiates request for military support (via Emergency Operations Center-Pete Woolsey) based on threat to OANRP resources present in the Kapuna fence unit and threat to Army land in Makua (Figure 5 and 6). Kawelo had notified DPW ENV Chief at 1430 hrs to convey fire severity and potential for initiating request. The nearest resources are Nothum and Fluneo. Initial back and forth indicates Military resource may be unable to respond on the 7th. Kawelo, Burt and Schneller stay on until about 1730 hrs reporting spread and mapping.



Figure 6: Ridge East of Kapuna as seen from Dillingham Ranch on the afternoon of June 7

At about 1800 hrs two UH 60 (Blackhawks) arrive on scene. OANRP finds out later that the Military request was facilitated by the mutual aid agreement. Kawelo and Rohrer return to the IC (moved to Dillingham Ranch from Kaala road by HFD) at approximately 1830 hrs and meet with DOFAW staff including IC Misaki. Three Army Wildland fire staff report to IC including Chief Gibbs. Chief Gibbs performs aerial recon with DOFAW staff. Blackhawks continue to work the area until approximately 1945 hrs. OANRP staff, Army Wildland are on site until about 2000 planning operations for the next day and watching fire back-burn toward the Pahole road (Figure 7).

Permission to use the Dole dip ponds is negotiated with Dan Nellis (621-3200 or 479-9321). Coordinating dip pond access is critical to relations.

Kapua, Joby, Wildland fire and chief on site until approximately 2000 hrs. Response set for one Blackhawk & one Chinook for Thursday morning 0800 hrs. Chief Gibbs request one UH60 and a UH 47 to support operations form 0800 hrs June 8.

June 7 Summary

Staff	Time	Total Hours
George Schneller	1100-1730	6.5
Matt Burt	1330-1730	4.0

Kapua Kawelo	1500-2000	5.0
Joby Rohrer	1600-2000	4.0



Figure 7: View from Dillingham IC on the night of June 7 as the fire backed down to the Pahole road south of Kapuna

Key points:

1. OANRP representation at the HFD IC (Kaala road, Schneller) and with DOFAW staff (Burt, Kawelo, Rohrer) greatly facilitated communication and coordination.
2. Mutual Aid Agreement facilitates military response
3. Arc Online tools enabled real time mapping as never before
4. Army Wildland staff at the IC were critical in galvanizing support for operations on June 8. Chief Gibbs overflight enabled him to communicate severity directly to DES and IOC.

June 8, 2017

DOFAW staff stay on site working into early morning of June 8 to ensure that the fire did not jump the Pahole road. Many DOFAW staff spend the night on site. Schneller is on site at 0600 hrs watching behavior and reporting to Rohrer and Kawelo. Rohrer and Kawelo report to the IC at 0700 hrs. Kawelo and DOFAW staff conduct an aerial survey at approximately 0730. Kawelo uses Arc On-line to collect points for a new updated map including LZs (Figure 8). New fire map shows area burned within about

600m of the Kapuna fenceline and a total area of approximately 500 acres. This proximity focuses response on preventing fire from reaching the enclosure. DOFAW objective stated at the morning brief also includes keeping the fire contained within the Kaala and Pahole roads.

Two Army wildland fire fighters are flown in to assist DOFAW staff and direct and observe military ships. Chief Gibbs and Justin Turbo (Wildland Fire Management) are stationed at IC throughout the day facilitating military support.

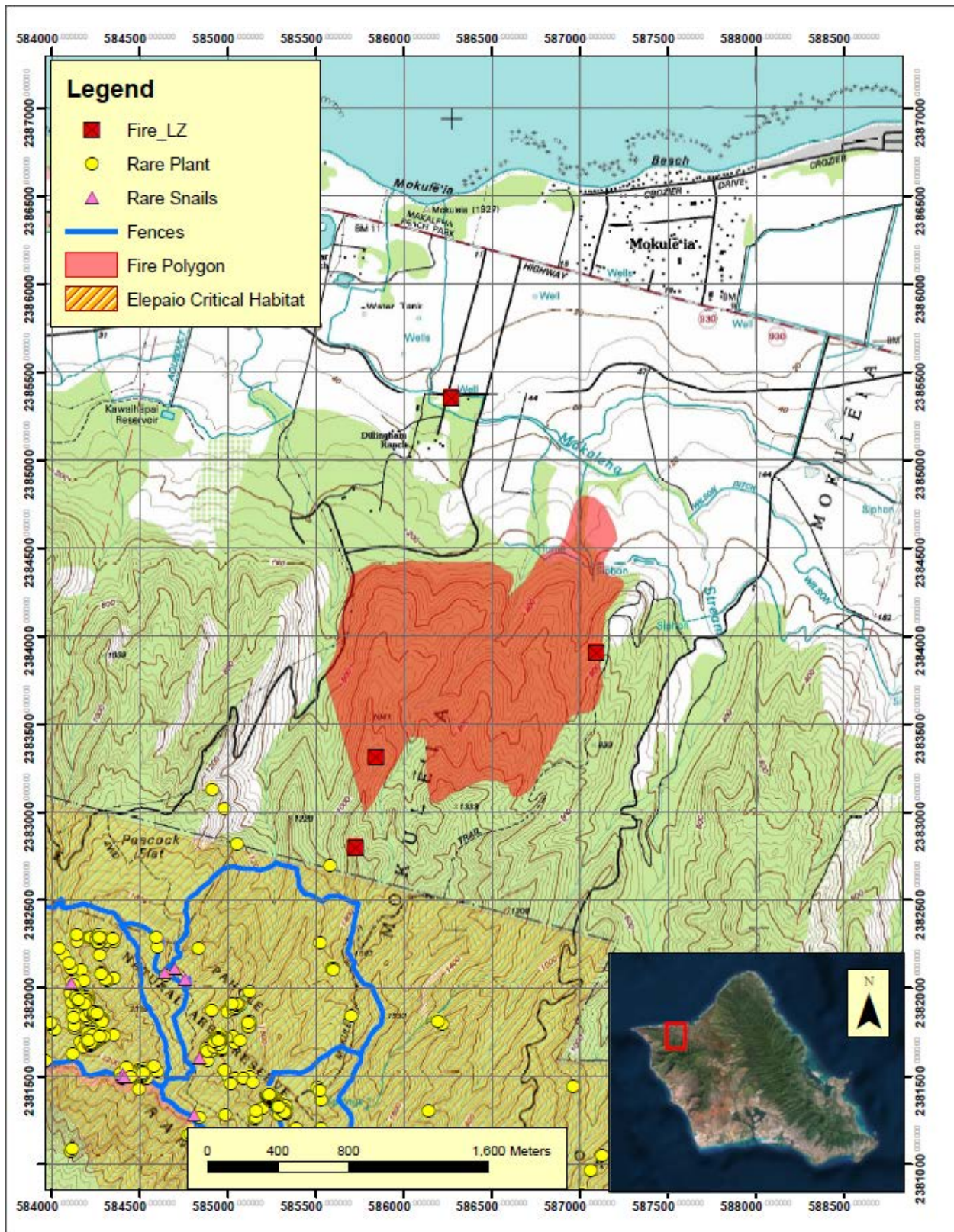


Figure 8: Map revised after aerial survey conducted the morning of June 8. LZ locations taken on the flight provide critical planning and safety information for teams

Pacific Helicopter pilot Steve Aiu is on scene at 0730 hrs and plays a critical role throughout the day directing operations. Aiu functions as air command, in particular directing military ships by indicating drop locations, elevations of the bucket over the site, airspeed and trajectory.

A unique challenge for this fire include the proximity to Dillingham airfield. On the morning of the 8th the airfield was busy, multiple skydiving operations were observed in addition to gliders. This presented a major flight hazard for military ships that had to exit the area to refill water buckets. Wildland Turbo fire indicated that for mainland fires they typically restrict the airspace for a 5 mile radius. As a result DOFAW Zoll work with FAA to institute a TFR thus clearing the airspace. This was a huge benefit and greatly reduce aerial hazards.

Military support includes two UH 60s that report at approximately 0930 hrs and work until about 1300 hrs. UH 47 support is delayed due to bucket issues. Chief Gibbs and Army Wildland work the bucket issue and UH 47 reports at approximately 1300 hrs. UH 60 support returns at approximately 1430 hrs. UH 60 and UH 47 support continue until 1730 hrs. UH 60 are carrying 660 gallon buckets and the UH 47 2000 gallons.



Figure 9: UH 47 dropping 2000 gallons of water on remaining hot spots on June 8

Other aircraft on site includes HFD air one. However they are redirected to a rescue in the middle of the day. In addition HPD reports and works for much of the day.

Water is provided for the MD500s by HFD at a portable tank off the Kaala road and a portable tank at Dillingham Ranch. Military ships unfortunately have to go to Dole for water making their turnaround time about ten minutes. Developing closer dip locations for larger ships could greatly increase fire fighting effectiveness.

OANRP base continues support through the day getting spot NWS spot forecasts and taking care of miscellaneous items.

Key points:

1. Steve Aiu plays a critical role directing air operations. His many years with HFD experience makes him a natural leader.
2. Large military ships play a decisive role in delivering massive quantities of water that penetrate deeply and cool remaining hot spots.
3. Dip ponds for the large military ships are distant (Dole land). In future additional dips should be identified. The quarry by the airfield would be an ideal dip site but currently is unavailable due to the aquaponics operation. The pond at Dillingham is overgrown and contains endangered water birds. The ocean is not preferred due to bucket corrosion issues. MMR is closer than Dole however would require dropping to the coast on the leeward side.

June 8 Summary

Staff	Time	Total Hours
George Schneller	0600-0700	1.0
Kapua Kawelo	0700-1900	12.0
Joby Rohrer	0700-1900	12.0

June 9, 2017

Burt is on standby to support as needed and goes to the IC in the late morning. Fire behavior is low and DOFAW staff are confident.

June 10-12, 2017

Precipitation on the 10th helps cool remaining hot spots. There is a flare up in the black on the 12th and air one is on scene. DOFAW demobilizes on the morning of June 13.

Updated phone list

CONTACT	OFFICE	CELL	RADIO
East Range baseyard	656-7741		DPW Env. Ch. 6 FM141.101
West Range baseyard	655-9175		
Kapua Kawelo	655-9189	864-1014	
Joby Rohrer	655-6256	295-2556	

Taylor McCarthy	655-6265	381-9585	
Army Wildland Fire			
Jake Faber	653-0201	348-6555	
DPW			
Kapua Kawelo	655-9189	864-1014	
Chief Charles Gibbs	653-0207	907-590-3002	
Manager Justin Turbo	808-798-6579	808-653-0209	
RANGE CONTROL			
KTA Range	497-6660		
Makua Range	655-2533		
Schofield Range	655-1434		
Honolulu Fire Dept.			
Admin/fire operations	831-7774, 834-7773		VHF 123.100
Fire Comm Center	723-7161		
DES (Division of Emergency Services)			
Ken Philips	808-656-6454	808-589-8217	
IOC	808-656-3269/72	808-220-1082	
DPW			
Rhonda Suzuki (Enviro Chief)			
Lisa Graham (Branch Chief)	808-656-3075	808-927-6659	
DLNR			
Wildlife-Ryan Peralta		292-5645	
NARS-Chris Miller	453-6179	286-3868	
Wildlife- Jason Misaki		295-5896	
NARS-Talbert Takahama		295-1115	
Branch Mgr.-Marigold Zoll	973-9787	286-6378	
USFWS			
Dawn Greenlee	792-9400	972-4602	
Patrice Ashfield	792-9400		
Helicopter Support			
Pacific Helicopters	879-9771 (Maui)		
Lincoln Ishii		542-0606	
K&S/Paradise	756-2565 (Oahu) Reservations:293-2570 Kona base mgr:329-6601		
Calvin Dorn (K&S)		895-9615	
Josh Lang (K&S)		741-4354	
Kahekili Kaaa (K&S)		281-2325	
Daniel Spielman (Oahu base mgr)		561-4872	
Windward Aviation	877-3368 (Maui)		
Jim Hobbs		281-4198	
Volcano Helicopters	961-3355 (Big Island)	935-4588 (hanger/fax)	

David Okita		937-3022	
HNL Airport	836-6411		
Dillingham Airport	637-8271		
Snails			
David Cisco	587-0033	559-760-5882	
Dole			
Dan Nellis	621-3200	479-9321	
Monsanto			
Monsanto security		284-7787	

Army Activity Summary

SIR/CCIR # 170540 ADD-ON # 6

REPORTING IOC, EOC, EAC: USAG-HI IOC/ SSG Stevick /TOR: 120945WJUN17

Subject: ADD-ON # 6 to Serious Incident Report # 170540

1. Category: 3-32
2. Type of Incident: Mutual Aid
3. Date and Time:
 - a. DTG of Incident: 071838WJUN17
 - b. DTG of Receipt: 071838WJUN17
4. Location of Incident: Mokuleia Forest Reserve, HI
5. Personnel Involved:
 - a. Subject:
 - (1) Name: N/A
 - (2) Rank or Grade: N/A
 - (3) Race: N/A
 - (4) Sex: N/A
 - (5) Age: N/A
 - (6) Position: N/A
 - (7) Security Clearance: N/A
 - (8) Unit and Station of Assignment: N/A
 - (9) Duty Status: N/A

Additional Information # 6: At 120945WJUN17 Mr. Chuck Gibbs, Fire Chief reports all Army operations and support were completed on Thursday night. The department of Land and Natural Resources remained on the fire Friday and Saturday to mop up some hot spots and

reinforce the fire line. All fire operations were complete at 1430 on Saturday afternoon. DLNR performed firewatch on Sunday between 1100-1600, no other updates were passed on.

Additional Information #5: As of 091430WJUN17 LTC Phillips, Department of Emergency Services Executive Officer (DES XO), reports a total of 450 acres burned and that fire is 75% contained.

SFC Showers, Natalie, 25th CAB LNO reports the following:

1x CH-47F (ACFT 088) from B/3-25 GSAB conducted 14 Bucket drops with 2.0 flight hours

1x UH-60M (ACFT 422) from A/2-25 AHB conducted 12 Bucket drops with 4.7 flight hours.

1x UH-60L (ACFT 574) from A/3-25 GSAB conducted 8 Bucket drops with 4.5 flight hours.

Additional Information #4: LTC Phillips, Department of Emergency Services Executive Officer (DES XO) reports fire is 75% contained.

Stand by request for UH-60 x1 for Friday morning, 0800.

Additional Information #3: LTC Phillips, Department of Emergency Services Executive Officer (DES XO) reports total acreage 450-500 acres with 20-30% containment. The rate of advance is very slow at this time but expected to increase as the day goes on due to increased temperature and winds. The fire has not hit Army Property yet but is less than a quarter mile away and at significant risk due to forecasted winds. There are currently 4 helicopters working the fire (2 UH60s and two non-DoD). One CH47 was requested. Chief Gibbs, Army Wildland Fire, is on scene as the senior DES representative and two personnel from DPW Environmental.

Additional Information #2: At 0843 this morning, UH60x2 launched to join the firefighting effort. Currently personnel from Army Fire and DPW Environmental are on scene.

Additional Information: Total Flight Time and Fire Buckets Dropped: As received from 25th DOC at 072101WJUN17; Total flight time: 2.0 flight hours, Total fire buckets dropped: 14 fire buckets with 1x HH-60M Tail # 20515, returning to home station at approximately 2020.

Summary of Incident: The Honolulu Fire Department, Honolulu Police Department and Department of Natural Resources are engaging a 200 acre fire (Mokuleia Forest Reserve) a kilometer away from an Endangered Species Management Area and three kilometers away from an endangered greenhouse. The Management Area and the Greenhouse are on State property, however the Management Area and the greenhouse belongs to the Army. The fire is moving East to West, towards Army interest.

At 1657, immediate assistance was requested from the Oahu Branch Forestry and Wildlife Manager thru our DPW Natural Resources Branch. At approximately 1820, UH

60x1 launched. Army Fire personnel x2 and Ms. Kapua Kawelo (DPW Natural Resources) is on scene.

Request for CH47x1 and UH60x1 requested to be on standby for tomorrow morning, 0800.

6. Remarks: No

7. Publicity: Yes

8. Next of Kin Notified: N/A

9. Affects International Relationships: No

10. Command Reporting: COL Stephen E. Dawson, USAG-HI, Commander

11. Originating Point of Contact: Chuck Gibbs, Fire Chief, Army Fire at 808-656-6455 or charles.e.gibbs14@civ@mail.mil

12. This Report has been Approved for Release by: LTC Kenneth J. Phillips, Department of Emergency Services Executive Officer (DES XO) at 656-6453 or kenneth.j.phillips.mil@mail.mil

13. Was USARPAC CG Informed: No