



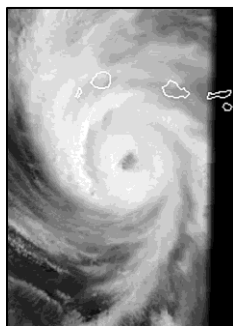
Central Pacific Hurricane Center, Honolulu, HI
Contact Person: Michael Cantin, 808-973-5270

Remembering Iniki 20 Years Later *Tracking Tropical Cyclones*

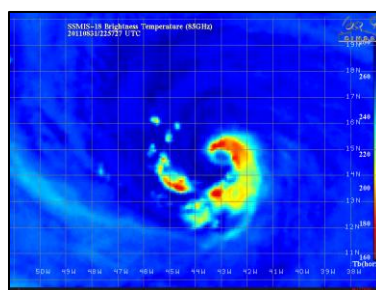
During the week of September 10th through 14th the Central Pacific Hurricane Center in Honolulu will be remembering Hurricane Iniki and discussing the present and future of hurricane information and safety. Today's topic is *Tracking Tropical Cyclones*.

As Hurricane Iniki approached Hawaii during September of 1992, forecasters at the Central Pacific Hurricane Center were using a series of sophisticated data sets to best chart the expected course of the storm. Over the past 20 years these data sets have expanded and improved. In this document we'll take a look at satellite, forecast model, and aircraft data.

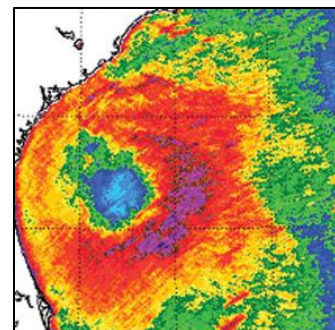
The Central Pacific Basin is not a data rich region. There are vast expanses of ocean without consistent data sources, especially surface information. With such a lack of surface data, satellites play a vital role in tracking tropical cyclones. Since 1992 the amount of satellites gathering information over the Pacific has grown, and the quality of data has improved. In addition to being able to "see" tropical cyclones, satellite imagery can now look into the storm to identify specific storm structure, precipitation patterns, near storm environment, and even wind speeds.



Iniki Visible Satellite



Microwave Precipitation Imagery



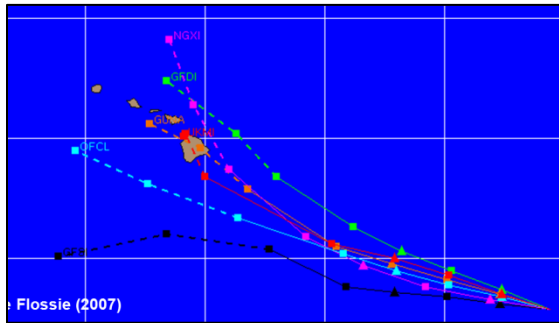
Satellite Derived Wind Speed

Many sources of weather information including satellite-based, aircraft, and surface-based, are routinely integrated into sophisticated weather computer models. Over the past 20 years the amount and quality of these computer models has improved dramatically. This has led to significant improvements in tropical cyclone track forecasts. In the Central Pacific specifically, forecast accuracy has improved by 25 to 50 percent since 1992.



Central Pacific Hurricane Center, Honolulu, HI
2525 Correa Rd. Suite 250, Honolulu, HI
808-973-5270 (office) 808-973-5271 (fax)

Currently there are dozens of computer models utilized in the forecast process. Many of which did not exist when Iniki impacted the state 20 years ago. These models attempt to forecast the track and intensity of tropical cyclones. The models are accurate enough to also help in forecasting the initial generation of a cyclone.



Model Tropical Cyclone Tracks

	* EAST PACIFIC SHIPS INTENSITY FORECAST *								
	* GOES INPUT INCLUDED *								
	* KIRA CP012008 08/08/08 00 UTC *								
TIME (HR)	0	6	12	18	24	36	48	60	72
V (KT) NO LAND	35	36	37	38	39	41	43	42	42
V (KT) LAND	35	36	37	38	39	41	43	42	42
V (KT) LGE mod	35	35	36	36	37	38	41	43	44
SHEAR (KTS)	14	15	13	6	4	3	5	9	14
SHEAR DIR	100	117	127	160	111	55	178	234	237
SST (C)	26.6	26.7	26.8	26.7	26.6	26.3	26.1	26.2	26.5
POT. INT. (KT)	131	131	133	132	130	127	126	127	130
200 MB T (C)	-54.3	-54.1	-54.4	-54.5	-54.3	-54.5	-54.4	-54.2	-54.2
TH_E DEV (C)	7	6	6	6	6	7	7	8	8
700-500 MB RH	50	51	47	47	41	39	37	33	34
GPS VTEX (KT)	8	8	9	9	8	8	8	7	6
850 MB ENV VOR	24	31	30	38	42	39	38	19	-1
200 MB DIV	8	24	20	-7	2	7	-13	-13	-16
LAND (KM)	1009	932	868	823	800	802	876	1025	1125
LAT (DEG N)	11.2	11.4	11.5	11.6	11.7	12.0	12.5	13.0	13.6
LONG (DEG W)	150.6	151.8	153.0	154.3	155.5	157.8	160.4	163.1	165.8
STM SPEED (KT)	13	12	12	12	12	12	13	13	13

Statistical Intensity Model Forecasts

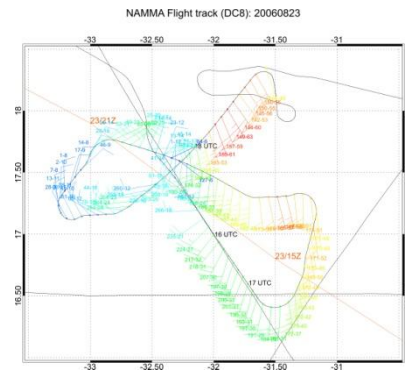
When a tropical cyclone appears as a direct threat to the state of Hawaii, forecasters at the Central Pacific Hurricane Center can request that a hurricane hunter aircraft be dispatched to the storm. The hurricane hunter aircraft can either fly around the periphery of the storm or actually pass directly through its core. Instruments called dropsondes are released in the storm gathering weather information as they fall to the surface, while onboard radar technology gathers data in and around the flight level.



Hurricane Hunter Aircraft



Dropsonde



Hurricane Hunter Wind Data Plot

Forecasters at the Central Pacific Hurricane Center rely on satellite, model, aircraft, and many other important sources of information while tracking tropical cyclones across the Central Pacific. It is this important information that helps us do our best to keep the great people of Hawaii safe when storms threaten.



Central Pacific Hurricane Center, Honolulu, HI
2525 Correa Rd. Suite 250, Honolulu, HI
808-973-5270 (office) 808-973-5271 (fax)