Hawaiian One-Month and Three-Month Outlooks and Discussion.

Part 1 - Mission Connection

a. <u>Product/Service Description</u>. The Climate Prediction Center (CPC) issues a onemonth and a series of thirteen three-month temperature and precipitation outlooks for selected cities in Hawaii and an accompanying prognostic discussion.

b. <u>Purpose/Intended Use</u>. Since these outlooks pertain to the average temperature and total precipitation for the entire valid period and **not** to the variability within it, they will **not** help people planning events for specific dates or sub-periods. The outlooks will be of most use for economic and business planning, particularly when used with 30 year base period means.

c. <u>Audience</u>. The outlooks and discussion provide information to decision makers in weather and climate sensitive activities sensitive to inter seasonal, seasonal and inter-annual climate variation (e.g. weather risk management, energy/utilities, agriculture, hydrology, etc.).

d. <u>Presentation Format</u>. CPC presents this product in text over NWS dissemination systems and on the CPC web site.

e. <u>Feedback</u>. Go to: <u>http://www.cpc.ncep.noaa.gov/NWS-feedback-form.html</u>

Part 2 - Technical

a. <u>Format and Science Basis</u>. For the discussions, CPC will give the meteorological and climatological basis for the Outlooks. CPC may include analyses of statistical models, a coupled atmosphere/ocean numerical model, meteorological and sea-surface temperature patterns and trends and past analogs, and confidence factors.

CPC will express outlooks for specific Hawaiian cities (Hilo, Honolulu, Lihue, and Kahului), using a 3-category probabilistic format as chances the mean temperature or total precipitation for the period will fall into the most likely of three classes: above, below, or near normal. For each city, CPC defines the classes as climatologically equally likely: the top 10 cases of a thirty year record define the above category (A); the middle 10 cases define the normal category (N), and the bottom 10 cases defining the below category (B). For each city, CPC will indicate the probability anomaly for the most likely class. For cities where a favored class cannot be determined, CPC will indicate those cities with a "EC." EC means equal chances for each of the three climatological classes for the outlook's valid period. For each of the twelve months and each of the thirteen three-month outlook periods (January through March, February through April, etc.), CPC uses the 30-year mean temperature and 30-year mean total precipitation for the climatology and class limits. CPC updates this information once per decade.

The following is a generic format. The latest product is at http://www.cpc.ncep.noaa.gov/products/predictions/90day/fxhw40.html

PROGNOSTIC DISCUSSION FOR 1-MONTH AND 3-MONTH HAWAIIAN OUTLOOKS NWS CLIMATE PREDICTION CENTER CAMP SPRINGS MD 300 PM E-T THU mo. # 20--

CLARIFICATION: EC INDICATES EQUAL CHANCES THAT THE CLIMATE WILL FALL INTO ANY ONE OF THE THREE RANGES OR CATEGORIES WHOSE BOUNDARIES ARE SPECIFIED IN THE TABLES ABOVE. A FORECAST SPECIFICATION OF EC MEANS THERE IS NO PARTICULAR TILT OF THE ODDS TOWARD ABOVE -NORMAL - OR BELOW NORMAL CONDITIONS IN THE OUTLOOK. FOR EXAMPLE -A37 MEANS A 37% HIGHER THAN NORMAL CHANCE THAT TEMPERATURE OR PRECIPITATION WILL BE IN THE ABOVE CLASS - B36 MEANS A 36% HIGHER THAN NORMAL PROBABILITY THAT TEMPERATURE OR PRECIPITATION WILL BE IN THE BELOW CLASS - AND N35 MEANS A 35% HIGHER THAN NORMAL PROBABILITY THAT TEMPERATURE OR PRECIPITATION WILL BE IN THE NEAR NORMAL CLASS. WHEN EC IS SPECIFIED THE PROBABILITY OF THE MOST LIKELY CATEGORY CANNOT BE PREDICTED.

ONE-MONTH OUTLOOK DISCUSSION FOR mo. 20--

(text)

	TEMPERATURE /F/	PRECIPITATION /IN/			
	OTLK AVE LIM	OTLK BLW MEDIAN ABV			
city	(ltr)(#) xx.x x.x	(ltr)(#) xx.x xx.x xx.x			
city					

etc.

City

	TEMPERATURE /F/		PRECIPITATION /IN/			
OTLK PD	OTLK AVE	LIM	OTLK	BLW	MEDIAN	ABV
mmm 20	(ltr)(#) xx.x	X.X	(ltr)(#)	XX.X	XX.X	XX.X
etc.						

City (etc)

FORECASTER: (name) - optional

NOTE - THESE OUTLOOKS ARE INTENDED FOR USE PRIOR TO THE START OF THEIR VALID PERIODS. WITHIN ANY VALID PERIOD OBSERVATIONS AND SHORTER RANGE FORECASTS SHOULD BE CONSULTED. ALSO - THE SET OF THREE MONTH OUTLOOKS WILL BE SUPERSEDED BY THE ISSUANCE OF THE NEW SET NEXT MONTH ON THURSDAY mo. # 20–. THE ONE-MONTH OUTLOOK WILL BE UPDATED ON THURSDAY mo. # 20–. b. <u>Availability</u>. These are scheduled products. CPC issues these once a month on the third Thursday of the month around 8:30 a.m. Eastern local time. CPC does not issue updates or amendments. They will issue corrections as needed. CPC issues the product on NWS dissemination systems under the following product IDs:

WMO heading - FXHW40 KWBC AWIPS ID - PMDHCO

They are also issued on the CPC web site at the URL listed in section a.

c. <u>Other information</u>

<u>Valid Time</u>. CPC will issue thirteen Three-Month Hawaiian outlooks simultaneously with lead times from 0.5 months to 12.5 months. For example, in mid-January, CPC will issue Three-Month Outlooks for February through April, March through May, April through June, and so on to February through April of the next year. CPC will issue the One-Month Hawaiian Outlook for the next month with a lead time of 0.5 months. For example, in mid-January, CPC will issue a One-Month Outlook valid for February.

The discussion for the Three-Month outlooks is valid from 0.5 to 15.5 months after issuance. The discussion for the 30-Day outlook is valid for the following month.

<u>Product Expiration Time</u>. The One-Mouth Outlook, One-Month Outlook Discussion, and 0.5 month lead time Three-Month Outlook expire at the beginning of the valid time (i.e. beginning of the month after issuance). The other Three-Month Outlooks and the Three-Month Outlook discussion (for all 13 Three-Month outlooks) expire when the next set of Three-Month Outlooks are issued (i.e. the third Thursday of the following month).

Creation Software. CPC uses a text editor.