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# Tropical Cyclone Advisory (TCM) Survey

[{ The same content can be viewed through survey monkey here. You may choose between English and Spanish in the right corner dropdown menu. }](#)

The National Weather Service (NWS) provides forecasts and analyses of hazardous tropical weather to save lives, mitigate property loss, and improve economic efficiency by issuing forecasts, watches, and warnings to the public through various tropical cyclone graphical and text products.

To increase understanding of these hazards, the NWS strives to improve products. This survey is designed to invite feedback on potential changes to the Tropical Cyclone Forecast/Advisory (TCM) product issued by the National Hurricane Center (NHC) and the Central Pacific Hurricane Center (CPHC). The TCM contains a list of all current coastal watches and warnings for a tropical or subtropical cyclone, as well as the current latitude and longitude coordinates, intensity, and system motion. The advisory contains forecasts of the cyclone positions, intensities, track, and wind fields for 12, 24, 36, 48, 72, 96, and 120 hours from the forecast's nominal initial time. The information collected through this survey may be used for research reports, presentations, publications, educational materials, or future studies.

Please note that the examples shown in this survey are designed to invite feedback and are not an exact representation of the content of NWS tropical cyclone products in the future.

By initiating this survey, you are voluntarily agreeing to participate in the survey and allow your anonymous responses to be used for research purposes. You are also confirming that you, the survey participant, are at least 18 years of age.

Thank you.

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***{The same questions and answers are also offered in English and Spanish.}***

1. Which best describes your professional affiliation? (Multiple Choice)

Weather Software/App Developer  
Weather producer  
Meteorologist for Digital Media  
Broadcast Meteorologist  
Cruiser (non-commercial mariner)  
Commercial Mariner  
Department of Defense (Coast Guard/Navy)  
Government (federal, local, state)  
Emergency Management  
Public Safety  
None of the above

***{If the respondent selects “None of the above”, they will not proceed with the rest of the survey}***

2. Which of the following text products do you use? (Check all that apply)

Tropical Cyclone Public Advisory (TCP)  
Tropical Cyclone Forecast/Advisory (TCM)  
Tropical Cyclone Discussion (TCD)  
Tropical Cyclone Update (TCU)  
Tropical Cyclone Valid Time Event Code (TCV)

***{If the respondent does not select the “Tropical Cyclone Forecast/Advisory”, they will not proceed with the rest of the survey}***

***{If the respondent selects a profession and selects the “Tropical Cyclone Forecast/Advisory” they will proceed with the rest of the survey.}***

## Here is an example of a Tropical Cyclone Forecast/Advisory (TCM):

```
ZCZC MIATCMAT5 ALL
TTAA00 KNHC DDHHMM

HURRICANE INGRID FORECAST/ADVISORY NUMBER 13
NWS NATIONAL HURRICANE CENTER MIAMI FL AL102013
1500 UTC SUN SEP 15 2013

CHANGES IN WATCHES AND WARNINGS WITH THIS ADVISORY...

NONE.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A HURRICANE WARNING IS IN EFFECT FOR...
* CABO ROJO TO LA PESCA

A HURRICANE WATCH IS IN EFFECT FOR...
* NORTH OF LA PESCA TO BAHIA ALGODONES

A TROPICAL STORM WARNING IS IN EFFECT FOR...
* NORTH OF LA PESCA TO RIO SAN FERNANDO
* SOUTH OF CABO ROJO TO TUXPAN

PREPARATIONS TO PROTECT LIFE AND PROPERTY IN THE HURRICANE WARNING
AREA SHOULD BE RUSHED TO COMPLETION.

HURRICANE CENTER LOCATED NEAR 22.5N 95.8W AT 15/1500Z
POSITION ACCURATE WITHIN 15 NM

PRESENT MOVEMENT TOWARD THE WEST-NORTHWEST OR 290 DEGREES AT 5 KT

ESTIMATED MINIMUM CENTRAL PRESSURE 990 MB
MAX SUSTAINED WINDS 65 KT WITH GUSTS TO 80 KT.
64 KT..... 20NE 05E 05W 20NW.
50 KT..... 40NE 10SE 05W 30NW.
34 KT..... 90NE 70SE 30SW 80NW.
12 FT SEAS..120NE 90SE 30SW 90NW.
WINDS AND SEAS VARY GREATLY IN EACH QUADRANT. RADII IN NAUTICAL
MILES ARE THE LARGEST RADII EXPECTED ANYWHERE IN THAT QUADRANT.

REPEAT...CENTER LOCATED NEAR 22.5N 95.8W AT 15/1500Z
AT 15/1200Z CENTER WAS LOCATED NEAR 22.4N 95.6W

FORECAST VALID 16/0000Z 22.8N 96.6W
MAX WIND 65 KT...GUSTS 80 KT.
64 KT... 20NE 05E 05W 20NW.
50 KT... 40NE 10SE 05W 30NW.
34 KT... 90NE 70SE 30SW 80NW.

FORECAST VALID 16/1200Z 23.0N 97.7W
MAX WIND 70 KT...GUSTS 85 KT.
64 KT... 20NE 05E 05W 20NW.
50 KT... 40NE 10SE 05W 30NW.
34 KT... 90NE 70SE 30SW 80NW.

FORECAST VALID 17/0000Z 22.8N 98.7W...INLAND
MAX WIND 35 KT...GUSTS 45 KT.
34 KT... 70NE 05E 05W 0NW.

FORECAST VALID 17/1200Z 22.5N 99.5W...POST-TROP/REMINT LOW
MAX WIND 25 KT...GUSTS 35 KT.

FORECAST VALID 18/1200Z...DISSIPATED

REQUEST FOR 3 HOURLY SHIP REPORTS WITHIN 300 MILES OF 22.5N 95.8W

NEXT ADVISORY AT 15/2100Z

$$
FORECASTER FRANKLIN
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3. What is the primary way you access the forecast information in the Tropical Cyclone Forecast/Advisory (TCM)? (Multiple Choice)

- NHC & CPHC website/ RSS Feed
- Hurricane tracking software (ex: HURREVAC or apps)
- Commercial website
- NWS Gateway
- Satellite data provider
- FTP site

4. How do you consume the information provided in the **Tropical Cyclone Forecast/Advisory (TCM)**? (Check all that apply)

- Parsing data automatically
- Quickly scanning for a few parts of information (ex: only wind, gust)
- Manually reading the entire text product
- Through graphics or other secondary products and services created from the information found in the TCM text product
- None of the above

5. In using the Tropical Cyclone Forecast/Advisory (TCM), please indicate how useful the following pieces of information are individually. (Ranking)

Choose from the following:

Very useful, somewhat useful, neutral, somewhat less useful, not useful

- Estimated Position Accuracy
- Coastal Watches & Warnings
- Synoptic Position (3 hours old position)
- Current 12 Foot Seas Radii
- Eye Diameter

6. Which is the primary text product you access to find the latest watches and warnings from NHC/CPHC? (Multiple Choice)

- Tropical Cyclone Public Advisory (TCP)
- Tropical Cyclone Forecast/Advisory (TCM)
- National Tropical Cyclone Watch/Warning Valid Time Event Code (TCV)
- I don't use text products to find watch/warning information.
- I don't know.

The National Weather Service may consider changing the format of the TCM in the future to make the number of lines in the product more predictable and more easily allow for the addition of new forecast parameters. An example provided on the following page displays the information as a matrix. The "9999" values throughout the example are placeholders for code that is unavailable."

```

ZCZC MIATCMEP3 ALL
TTAA00 KNHC DDHMM

HURRICANE COSME FORECAST/ADVISORY NUMBER 10
NWS NATIONAL HURRICANE CENTER MIAMI FL      EP032013
2100 UTC TUE JUN 25 2013

SUMMARY OF 2100 UTC...INFORMATION
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HURRICANE CENTER LOCATED NEAR...17.9N 112.4W
POSITION ACCURATE WITHIN 15 NM
PRESENT MOVEMENT...NW OR 305 DEGREES AT 15 KT
MAXIMUM SUSTAINED WINDS...70 KT WITH GUSTS TO 85 KT
MINIMUM CENTRAL PRESSURE...985 MB

FORECAST INFORMATION

VT    INT    012    024    036    048    060    072    096    120    144    168
-----
DT    0625    0626    0626    0627    0627    0628    0628    0629    0630    0701    0702
TM    2100    0600    1800    0600    1800    0600    1800    1800    1800    1800    1800
STAT  HU     HU     HU     TS     TS     TD     LO     LO     LO     9999    9999
LAT  17.9    18.5    19.3    20.3    20.9    21.4    21.8    22.0    22.0    9999    9999
LON  112.4   114.3   116.6   119.2   122.0   124.5   127.5   132.0   136.5   999.9   999.9
DIR   NW     WNW    WNW    WNW    WNW    WNW    WNW    W     W     9999    9999
DEG   305    290    290    290    285    285    275    270    270    9999    9999
SPD   15     13     12     13     13     13     10     10     10    9999    9999
WIND   70     75     65     55     40     30     25     25     20    9999    9999
GUST   85     90     80     65     50     40     35     35     30    9999    9999
34NE  150    150    165    150    120    9999    9999    9999    9999    9999    9999
34SE  120    120    135    120    110    9999    9999    9999    9999    9999    9999
34SW   60     60     60     60     0     9999    9999    9999    9999    9999    9999
34NW  105    105    105    105    105    9999    9999    9999    9999    9999    9999
50NE   50     50     50     40    9999    9999    9999    9999    9999    9999    9999
50SE   30     30     40     30    9999    9999    9999    9999    9999    9999    9999
50SW   30     30     30     0     9999    9999    9999    9999    9999    9999    9999
50NW   40     40     40     30    9999    9999    9999    9999    9999    9999    9999
64NE   30     30     30    9999    9999    9999    9999    9999    9999    9999    9999
64SE   20     20     0     9999    9999    9999    9999    9999    9999    9999    9999
64SW   0       0       0     9999    9999    9999    9999    9999    9999    9999    9999
64NW   20     20     0     9999    9999    9999    9999    9999    9999    9999    9999
12NE  330    9999    9999    9999    9999    9999    9999    9999    9999    9999    9999
12SE  540    9999    9999    9999    9999    9999    9999    9999    9999    9999    9999
12SW  480    9999    9999    9999    9999    9999    9999    9999    9999    9999    9999
12NW  180    9999    9999    9999    9999    9999    9999    9999    9999    9999    9999

```

7. Using the matrix above, can you identify the forecast direction of motion for Hurricane Cosme on June 29 at 18Z? (Multiple Choice)

- WNW
- SW
- W
- NW

Please review the two formats of the TCM below.

**A.) Current format of the TCM**

FORECAST INFORMATION											
VT	INT	012	024	036	048	060	072	096	120	144	168
DT	0625	0626	0626	0627	0627	0628	0628	0629	0630	0701	0702
TM	2100	0600	1800	0600	1800	0600	1800	1800	1800	1800	1800
STAT	HU	HU	HU	TS	TS	TD	LO	LO	LO	9999	9999
LAT	17.9	18.5	19.3	20.3	20.9	21.4	21.8	22.0	22.0	9999	9999
LON	112.4	114.3	116.6	119.2	122.0	124.5	127.5	132.0	136.5	999.9	999.9
DIR	NW	NW	NW	NW	NW	NW	NW	W	W	9999	9999
DEG	295	290	290	290	285	285	275	270	270	9999	9999
SPD	15	13	12	13	13	13	10	10	10	9999	9999
WIND	70	75	65	55	40	30	25	25	20	9999	9999
GUST	85	90	80	65	50	40	35	35	30	9999	9999
34NE	150	150	165	150	120	9999	9999	9999	9999	9999	9999
34SE	120	120	135	120	110	9999	9999	9999	9999	9999	9999
34SW	60	60	60	60	0	9999	9999	9999	9999	9999	9999
34NW	105	105	105	105	105	9999	9999	9999	9999	9999	9999
50NE	50	50	50	40	9999	9999	9999	9999	9999	9999	9999
50SE	30	30	40	30	9999	9999	9999	9999	9999	9999	9999
50SW	30	30	30	0	9999	9999	9999	9999	9999	9999	9999
50NW	40	40	40	30	9999	9999	9999	9999	9999	9999	9999
64NE	30	30	30	9999	9999	9999	9999	9999	9999	9999	9999
64SE	20	20	0	9999	9999	9999	9999	9999	9999	9999	9999
64SW	0	0	0	9999	9999	9999	9999	9999	9999	9999	9999
64NW	20	20	0	9999	9999	9999	9999	9999	9999	9999	9999
12NE	330	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999
12SE	540	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999
12SW	480	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999
12NW	180	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999

**B.) Proposed Matrix Format**

```

FORECAST VALID 26/0600Z 18.5N 114.3W
MAX WIND 75 KT...GUSTS 90 KT.
64 KT... 30NE 20SE 0SW 20NW.
50 KT... 50NE 30SE 30SW 40NW.
34 KT...150NE 120SE 60SW 105NW.

FORECAST VALID 26/1800Z 19.3N 116.6W
MAX WIND 65 KT...GUSTS 80 KT.
64 KT... 30NE 0SE 0SW 0NW.
50 KT... 50NE 40SE 30SW 40NW.
34 KT...165NE 135SE 60SW 105NW.

FORECAST VALID 27/0600Z 20.3N 119.2W
MAX WIND 55 KT...GUSTS 65 KT.
50 KT... 40NE 30SE 0SW 30NW.
34 KT...150NE 120SE 60SW 105NW.

FORECAST VALID 27/1800Z 20.9N 122.0W
MAX WIND 40 KT...GUSTS 50 KT.
34 KT...120NE 105SE 0SW 105NW.

FORECAST VALID 28/1800Z 21.8N 127.5W...POST-TROP/REMNT LOW
MAX WIND 25 KT...GUSTS 35 KT.

EXTENDED OUTLOOK. NOTE...ERRORS FOR TRACK HAVE AVERAGED NEAR 150 NM
ON DAY 4 AND 175 NM ON DAY 5...AND FOR INTENSITY NEAR 15 KT EACH DAY

OUTLOOK VALID 29/1800Z 22.0N 132.0W...POST-TROP/REMNT LOW
MAX WIND 25 KT...GUSTS 35 KT.

OUTLOOK VALID 30/1800Z 22.0N 136.5W...POST-TROP/REMNT LOW
MAX WIND 20 KT...GUSTS 30 KT.

```

8. Which of the following formats do you prefer to examine the wind field over time? Please select one of the following: [\(Multiple Choice\)](#)

A.) Current format of the TCM      B.) Proposed Matrix Format

9. From your perspective, what application of effort would be required to use the proposed matrix format? [\(Multiple Choice\)](#)

Minimal effort

Moderate effort

Significant effort

This change would prevent me from reading/parsing the TCM.

**Please click "Done" to submit your answers below. Thank you for your participation!**

10. If you have additional comments regarding the TCM, please share them in the box below. (Note: This is optional. You may submit your survey without providing comments.) [\(Optional\)](#)