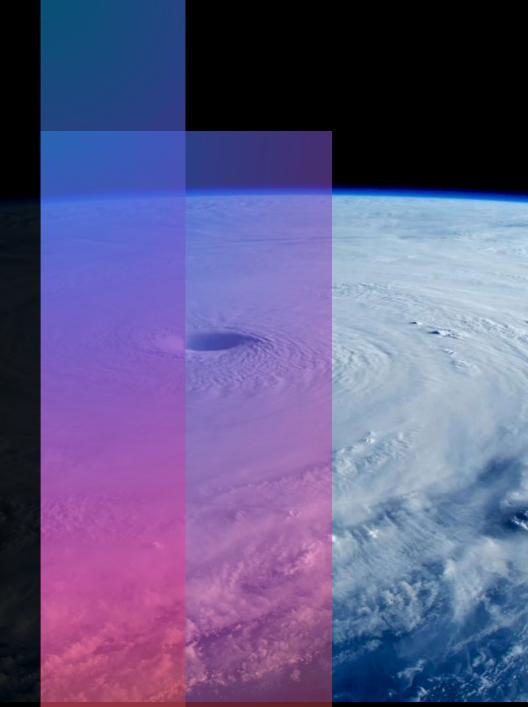
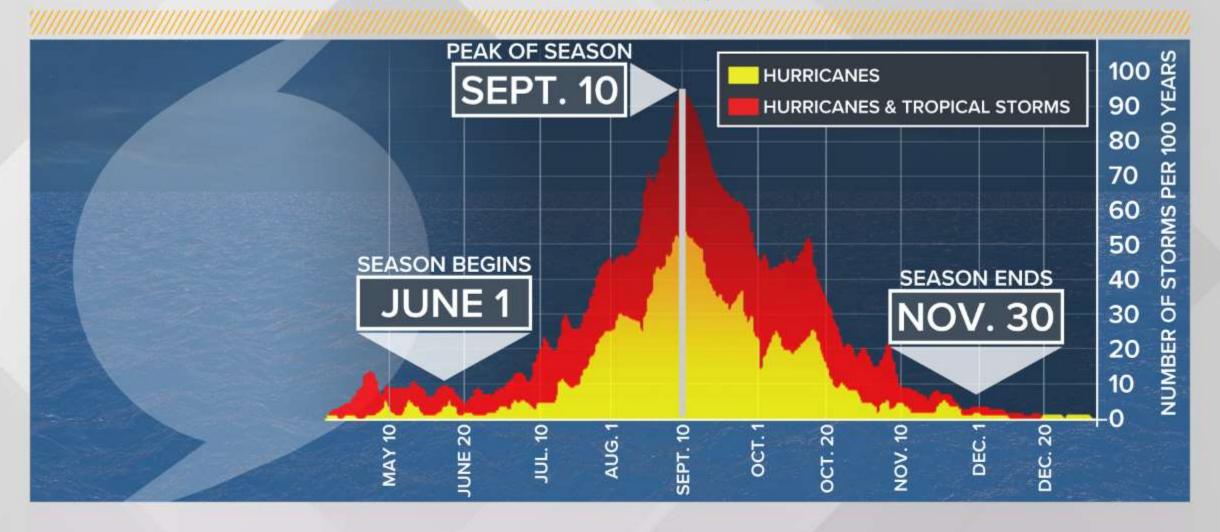
HURRICANE SEASON 2023

CHIEF METEOROLOGIST
BRAD PANOVICH
WCNC CHARLOTTE



TROPICAL FREQUENCY

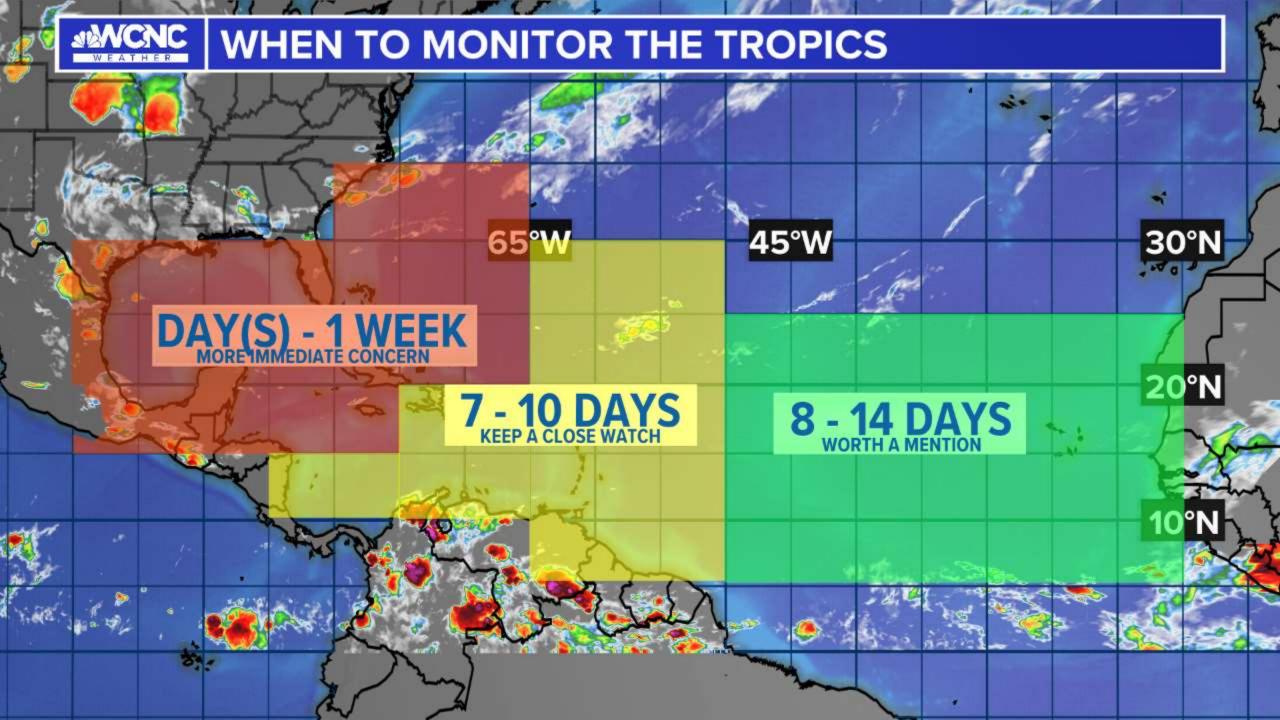




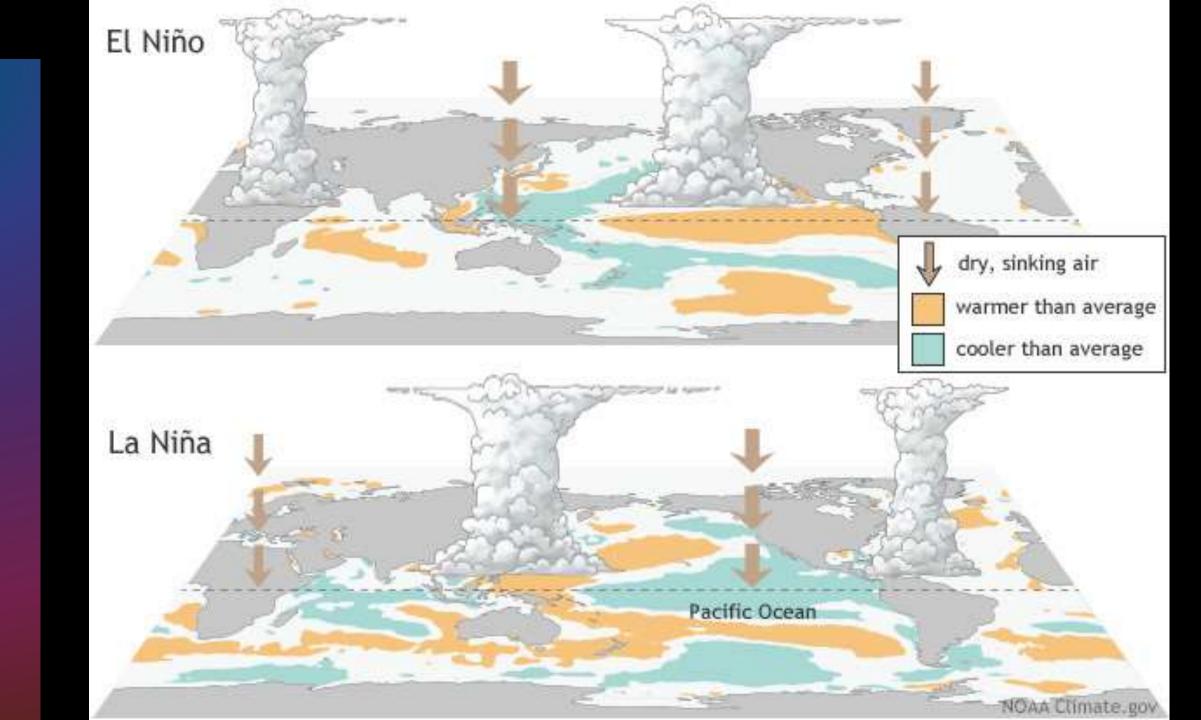
HURRICANE NAME LIST CHANGES (1979-2023)

NEW NAMES: 2017 2005 1999

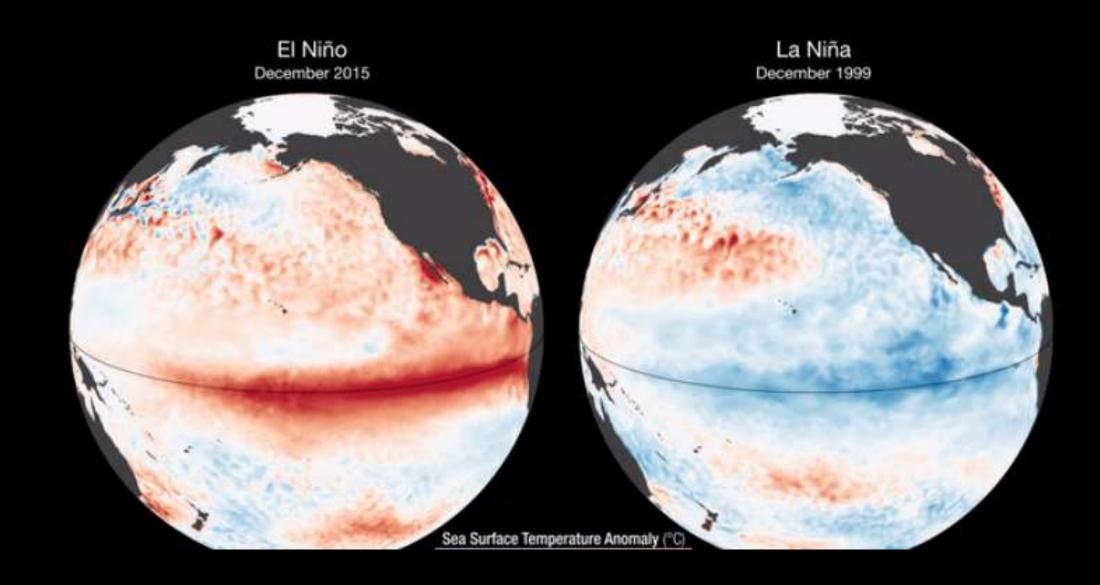
ARLENE	BRET	CINDY	
DON	EMILY	FRANKLIN	
GERT	HAROLD	IDALIA*	
JOSE	KATIA	LEE	
MARGOT	NIGEL	OPHELIA	
PHILIPPE	RINA	SEAN	
TAMMY	VINCE	WHITNEY	

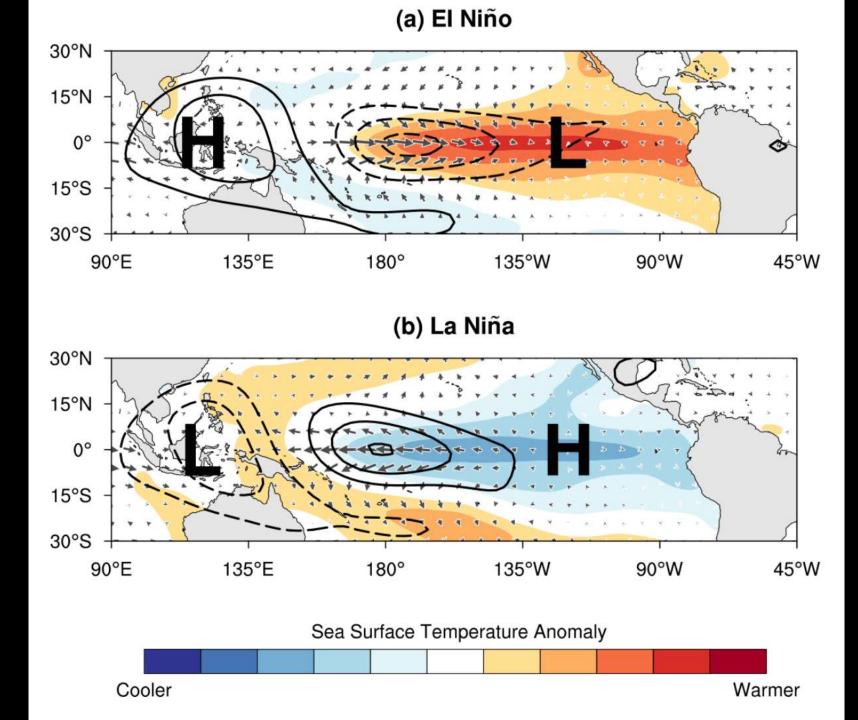


IMPACTS ON THE 2023 HURRCIANE SEASON

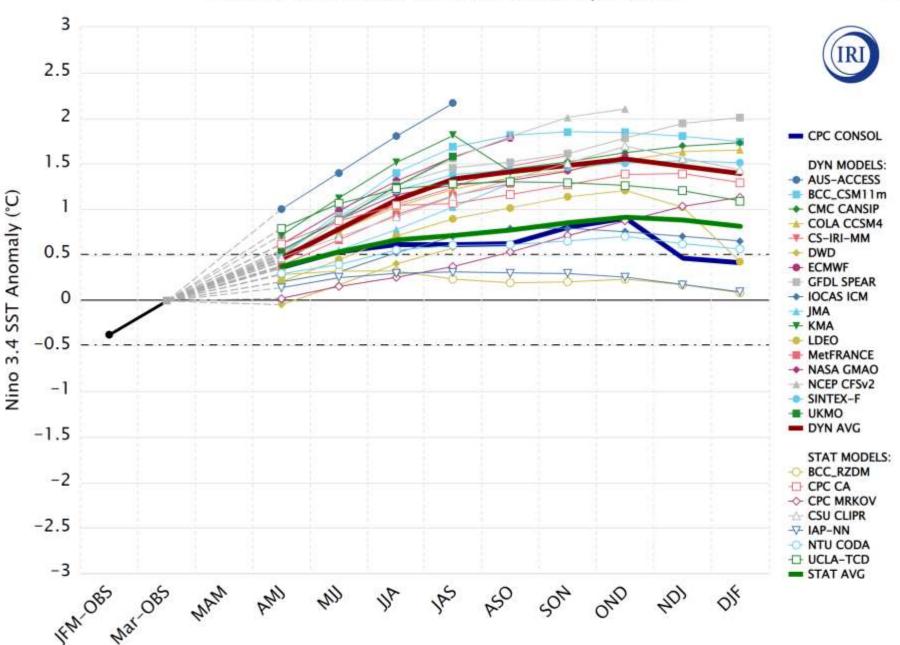


EL NINO DEVELOPING





Model Predictions of ENSO from Apr 2023





HOW LA NINA AFFECTS HURRICANES



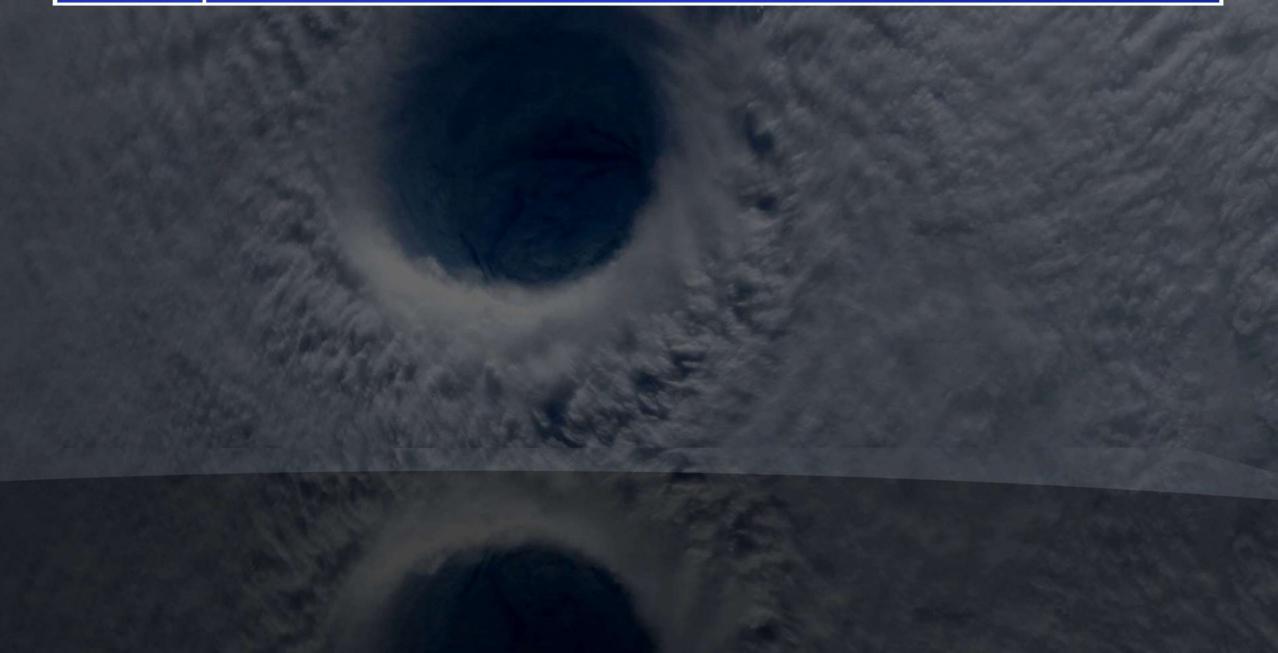


COLORADO STATE UNIVERSITY 2023 HURRICANE SEASON OUTLOOK

2023 HORRICANE SEASON COTECOR			
		AVERAGE	FORECAST
	NAMED STORMS	14.4	13
	HURRICANES	7.2	6
	MAJOR HURRICANES	3.2	2



TROPICAL INGREDIENTS



THERE MORE TO IT THAN JUST THE NUMBER OF STORMS THOUGH





HOW WIND SHEAR IMPACTS HURRICANES



HURRICANE ACTION TIMELINE

5 DAYS

CAUTION WITH THE CONE

400-MILE SPREAD UNDERSTA

START TASKS THAT TAKE 2 OR MORE DAYS TO COMPLETE 4 DAYS

IDENTIFY IMPACTS

UNDERSTAND IMPACTS AND TIMING

> COUNTDOWN TO WIND ARRIVAL

3 DAYS

PREPARE FOR IMPACTS

HIGH-RES MODELS ARE NOW CREDIBLE

WATCH FOR EVACUATION ORDERS

2 DAYS

DEADLINE

ALL DECISIONS MADE BY NOW

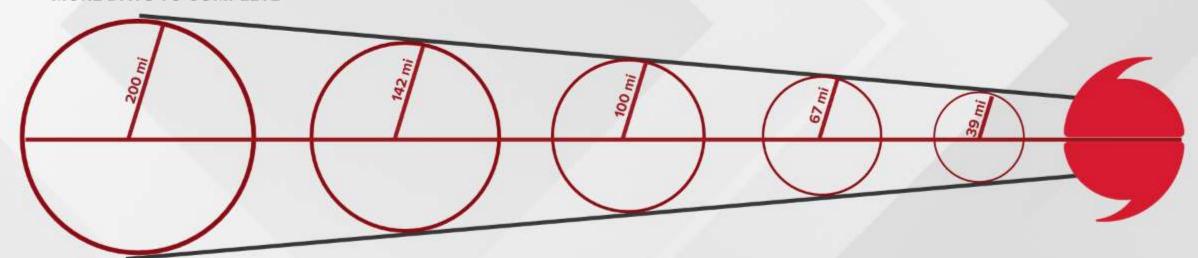
CONFIDENCE ON IMPACTS VERY HIGH

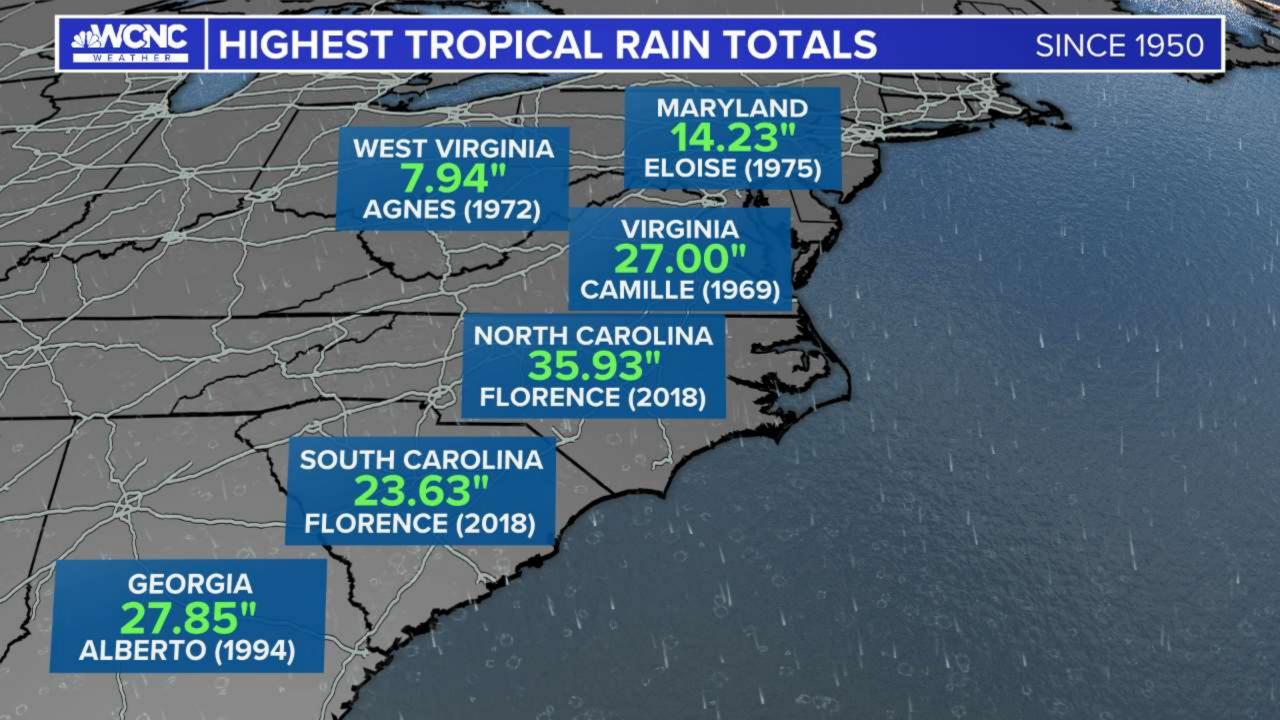
<24 HRS

STAY

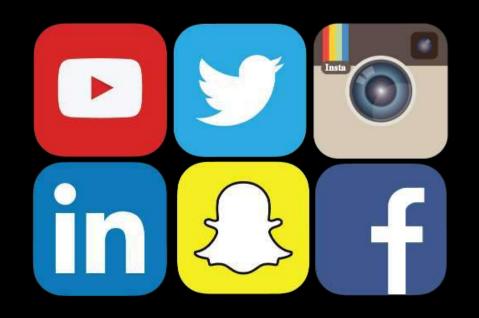
TRAVEL & OUTDOOR TASKS ARE NOT SAFE

LISTEN TO LOCAL OFFICIALS









QUESTIONS COMMENTS

@wxbrad
wxbrad@gmail.com