Hurricane Agnes

Hurricane Agnes

The 45th Anniversary

June 2017 marks the 45 year anniversary of Hurricane Agnes, one of the most costly natural
Nationwide, there were 122 deaths attributed to Agnes, 50 in the state of Pennsylvania. Total
$3 billion dollars nationwide, with over $2 billion dollars in losses occurring in the Susquehanr
that damage from Agnes (if adjusted to 2017 dollars) would be around $17.5 billion dollars. H
costly natural disaster at the time.

STORM SUMMARY

Devastating floods occurred across the Mid-Atlantic region resulting from the remnants of Hur
Hurricane Agnes came onshore over the Florida Panhandle during the afternoon of June 19th
depression status over the Carolinas, only to re-intensify to tropical storm strength as it reach
storm then moved North, weakening to extra-tropical strength as it passed just west of New Y
across Central New York state. The storm then looped back to the East, crossing Northern Pe


Radar


Current Weather


Rivers & Lakes


Satellite


Forecas


Winter Weather


Graphical Hazards


Weather Hazards Briefing


Fire Weather


Text Fore
State


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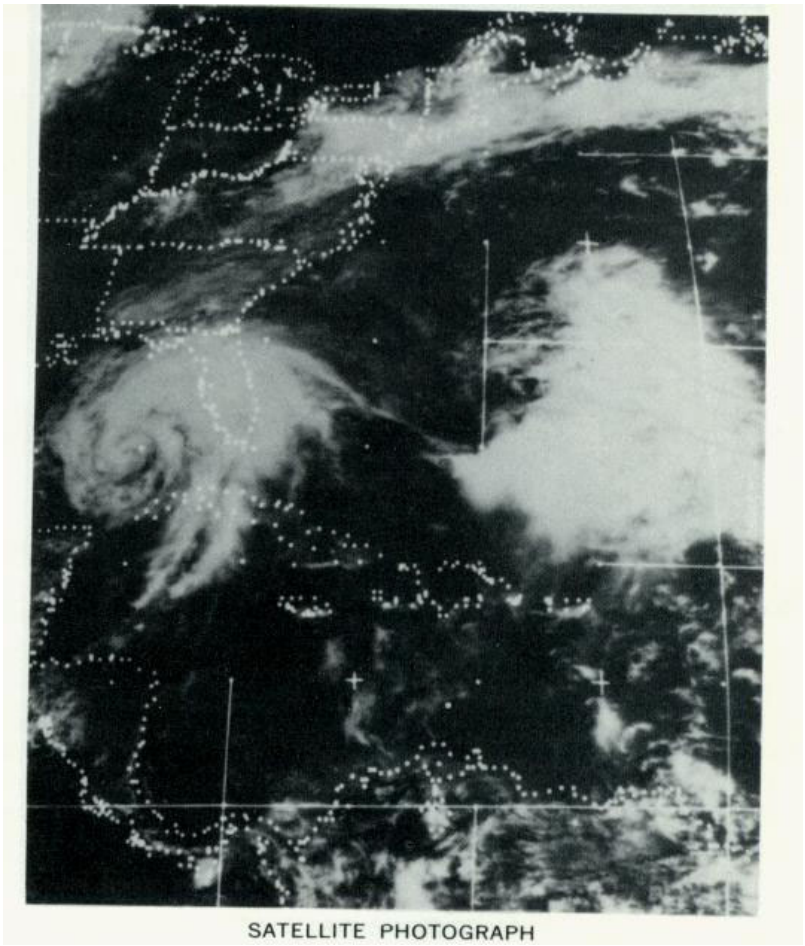
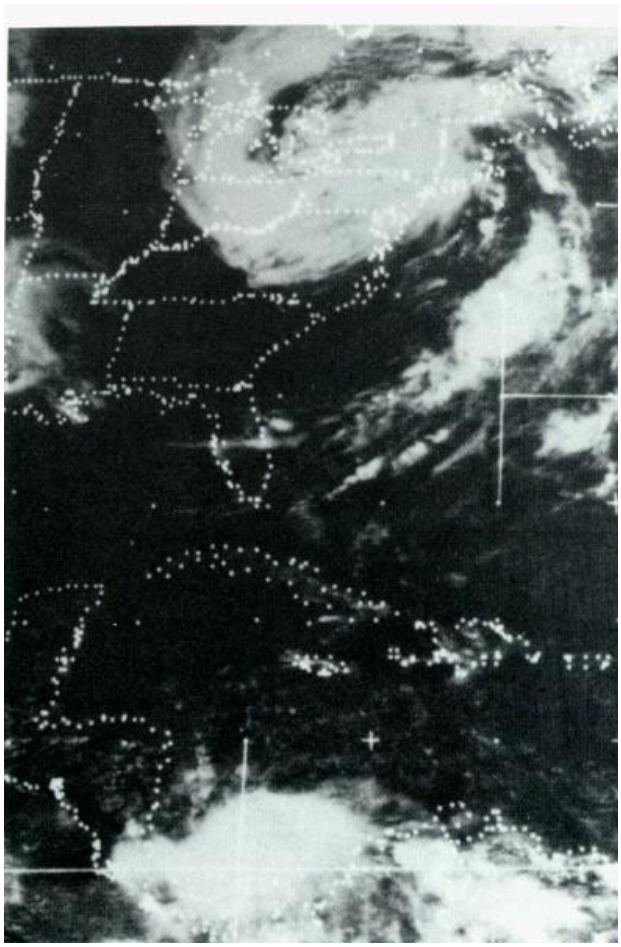
KCCX Local Radar



SATELLITE PHOTOGRAPH



The slow moving remnants of the storm moved across Pennsylvania and dropped generally between 7 and 10 inches of region, although there were some local reports of nearly 18 inches of rain. Eight to 12 inch amounts were also common a with 2 to 6 inch amounts across the southern tier of New York. The heavy rain of Agnes followed a relatively wet May, in

inches of rain fell across the area.

RAINFALL AMOUNTS

The slow moving remnants of the storm moved across Pennsylvania and dropped generally between 7 and 10 inches of the region, although there were some local reports of nearly 18 inches of rain. Eight to 12 inch amounts were also comm Virginia, with 2 to 6 inch amounts across the southern tier of New York. The heavy rain of Agnes followed a relatively wet which 3 to 4 inches of rain fell across the area.

Rainfall amounts across Central Pennsylvania for the four day period from June 20th through June 24th ranged in genera 10 inches. Isolated amounts however approached 18 inches. The heaviest rain (12 to 16 inches) fell in a corridor from W South through Harrisburg and York. The heaviest reported 24 hour rainfall was recorded at Harrisburg, where 12.53 inch between 8 pm on June 21st through 8 pm on June 22nd. Other rainfall totals (June 20-24) include:

HARRISBURG	15 INCHES
WILLIAMSPORT	12 INCHES
YORK	16 INCHES
LEWISTOWN	12 INCHES
STATE COLLEGE	8.5 INCHES
TIOGA	8 INCHES
BRADFORD	8 INCHES
ALTOONA	9 INCHES

JOHNSTOWN 7 INCHES

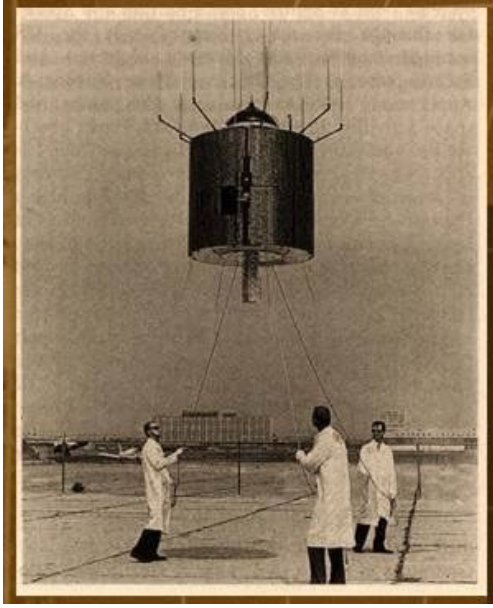
RIVER CRESTS

Many record river crests were achieved along the Susquehanna and Juniata rivers, as well as their tributaries. Most of th records were established back in March of 1936, when heavy rainfall on a deep snowpack produced record flooding. Sor notable river crests due to Agnes include:

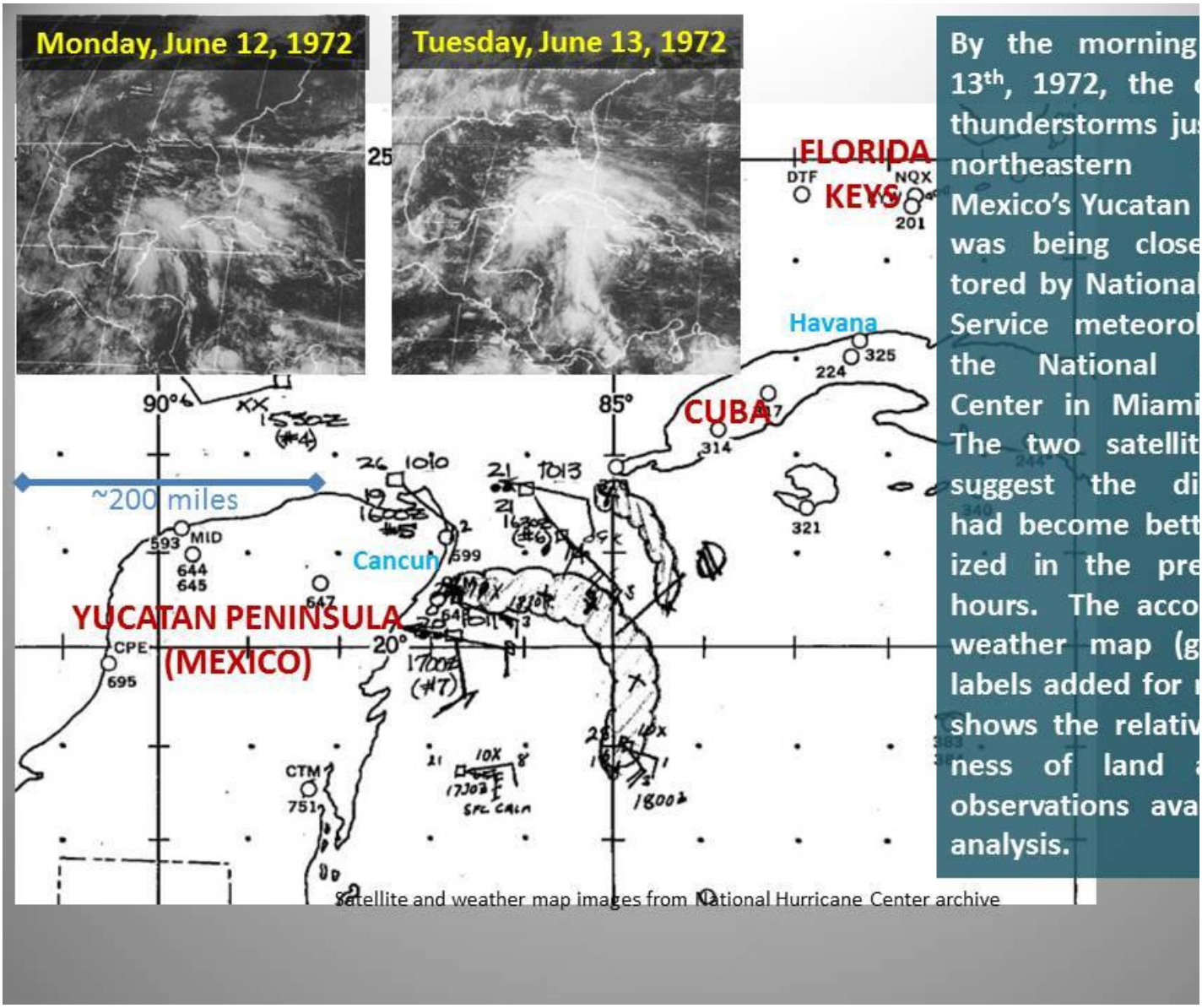
SITE	RIVER OR TRIBUTARY	CREST (FEET)	FLOOD STAGE (FEET)
BLOOMSBURG	SUSQUEHANNA	31.20	19.00
DANVILLE	SUSQUEHANNA	32.32	20.00
SUNBURY	SUSQUEHANNA	35.80	24.00
HARRISBURG	SUSQUEHANNA	32.57	17.00
MARIETTA	SUSQUEHANNA	64.54	49.00
SINNEMAHONING	SINNEMAHONING CR	19.50	17.00
RENOVO	WEST BRANCH SUSQ	26.56	16.00
LOCK HAVEN	WEST BRANCH SUSQ	31.30	21.00
JERSEY SHORE	WEST BRANCH SUSQ	38.40	26.00
WILLIAMSPORT	WEST BRANCH SUSQ	34.75	20.00
MILTON	WEST BRANCH SUSQ	34.55	19.00
LEWISBURG	WEST BRANCH SUSQ	34.23	18.00
CEDAR RUN	PINE CREEK	16.00	12.00
BEECH CR STATION	BALD EAGLE CREEK	12.29	11.00
LOYALSOCKVILLE	LOYALSOCK CREEK	14.74	12.00
WILLIAMSBURG	JUNIATA	18.38	12.00
HUNTINGDON	JUNIATA	20.03	12.00
MAPLETON DEPOT	JUNIATA	33.07	20.00
LEWISTOWN	JUNIATA	42.10	23.00
NEWPORT	JUNIATA	33.97	20.00
CAMP HILL	YELLOW BREECHES CR	18.33	7.00
HOGESTOWN	CONODOGUINET CREEK	17.01	8.00
LANCASTER	CONESTOGA CREEK	27.80	11.00
HARPERS TAVERN	SWATARA CREEK	23.72	9.00
SHERMANSDALE	SHERMAN CREEK	18.09	9.00
PENNS CR STATION	PENNS CREEK	14.85	8.00

GRAPHICS FROM THE MIDDLE ATLANTIC RIVER FORECAST CENTER (MARFC)

The use of satellite images to monitor weather systems was still relatively new technology when this photograph was transmitted from the ATS-3 satellite on June 12, 1972. The highlighted area shows a developing circulation of clouds over the Yucatan Peninsula of Mexico that would become Hurricane Agnes in the coming days.

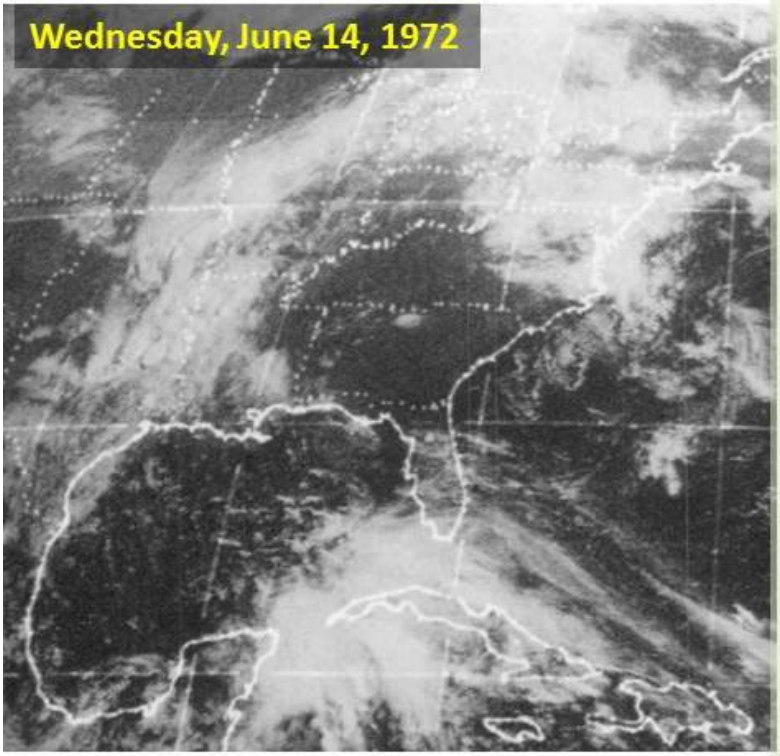


The ATS-3 (Applications Technology Satellite), launched in 1967, was a "work horse" during its l operational life which extended well into the 1990 Still in orbit today in a non-active state, it was the U.S. satellite to take a color photograph of the Ea The inset photo (left) from 1967 shows Hughes Aircraft personnel conducting antenna pattern te prior to launch.



Satellite and weather map images from National Hurricane Center archive

By the morning 13th, 1972, the thunderstorms ju northeastern Mexico's Yucatan was being close tored by National Service meteorol the National Center in Miami The two satellit suggest the di had become bett ized in the pre hours. The acco weather map (g labels added for shows the relativ ness of land observations ava analysis.



On June 14th, 1972, the morning photo from the ATS-3 satellite (left) shows the clouds associated with the slowly organizing disturbance that would shortly become Tropical Storm Agnes.

But also of note is the mass of cloudiness 1000 miles to the northeast, signaling another cloudy, showery late spring day over most of the middle Atlantic region. In fact, by the 14th, many locations in New York, New Jersey, Pennsylvania, and Maryland had already received their full June rainfall quotas. The widespread wet soil conditions and higher than normal stream levels set the stage for the disaster soon to unfold.

The Natio
Service's M
River Fore
known in
Harrisburg
Flood Foreca
was located
floor of the
in Harrisburg
person staf
ponsible fo
river levels
states (and D
the mid Atlan

Thursday, June 15, 1972

...BULLETIN...
NOOA NATIONAL HURRICANE CENTER BULLETIN 11.30AM EDT THURSD
JUNE 15 1972

WEATHER OBSERVATIONS FROM SHIPS AND LAND STATIONS AROUND TH
PENINSULA INDICATE THAT THE LOWEST PRESSURE IN THE TROPICAL
DISTURBANCE HAS MOVED OFF THE NORTHEAST COAST TO FORM A DEP
A FEW SQUALLS WITH WINDS TO 40 MPH ARE OCCURRING WITHIN 150
OF THE YUCATAN CHANNEL. SMALL CRAFT AROUND THE NORTHWESTERN
THE SOUTHEASTERN GULF OF MEXICO AND THRU THE FLORIDA STRAIT
NOT VENTURE INTO OPEN WATERS. THE TROPICAL DEPRESSION IS EX
TO DRIFT NORTHWARD THIS AFTERNOON AND TONIGHT AND CONDITION
FAVOR A SLOW STRENGTHENING. RECONNAISSANCE AIRCRAFT WILL MO
THE SYSTEM THIS AFTERNOON.

ANOTHER BULLETIN WILL BE ISSUED AT 6 P.M. EDT BY THE NATION
HURRICANE CENTER.

The above public statement (scan of original teletype copy) issued by the National H Center in Miami on the morning of June 15, 1972, warned of the increasing threat to interests posed by the tropical depression now located between the Yucatan Penin Cuba. The teletype message below shows conditions reported by the freighter "Zinnia

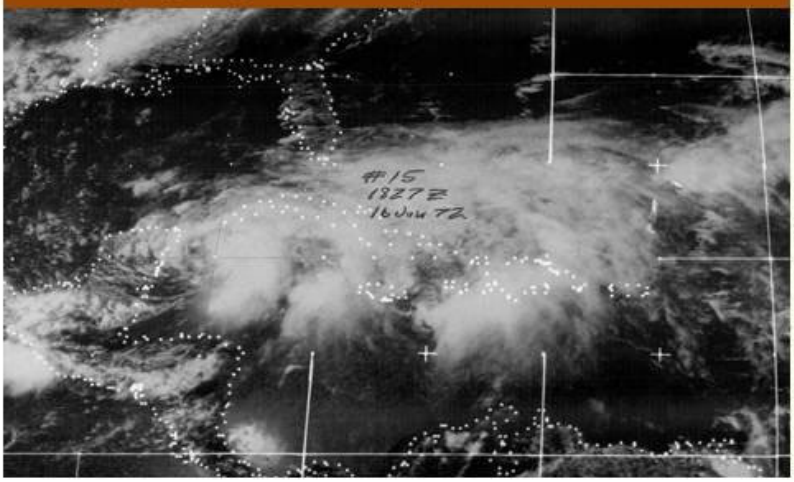
OBS ZINNIA 1 NC 160000
BT
OBS METEO WASHDC
BT
/UNCLAS/
GYTZ STORM 22.8N 85.6W AT 152400 WIND 090 AT 37 KTS DECREASING
BARO 100.7 TEMP 76 HEAVY RAIN SQUALLS THROUGH PAST SIX HOURS
WITH WIND FORCE 9 DURING SQUALLS SKY OVERCAST

4ATS3 13292
15 JUN 72

In 1972, the Natior Service's National Hurr was located in this bu University of Miami cam

Graphics obtained from the NHC online archive

With the upgrade to tropical storm strength on June 16th, "Agnes" became the first named storm of the 1972 Atlantic season. Since the National Hurricane Center began identifying tropical storms and hurricanes with female first names in 1954 (male names were added in 1979), this was the first time the name Agnes had been used. It was also the last time, as it was immediately retired in accordance with NHC custom of preserving the legacy of particularly destructive storms.



...BULLETIN...

WHCA2 KMIA 161600
NOAA NATIONAL HURRICANE CENTER ADVISORY NUMBER 1 TROPIC
AGNES NOON EDT FRIDAY JUNE 16 1972

...TROPICAL STORM FORMS IN NORTHWEST CARIBBEA

THE TROPICAL DEPRESSION WHICH HAS BEEN NEARLY STATIONAR
YUCATAN PENINSULA FOR SEVERAL DAYS HAS STRENGTHENED TO
STORM...THE FIRST OF THE SEASON IN THE ATLANTIC...CARIB
GULF WATERS.

AT NOON...1600Z...THE CENTER OF TROPICAL STORM AGNES WA
LATITUDE 20.0 N LONGITUDE 86.5W OR ABOUT 40 MILES SOUTH
OF COZUMEL ISLAND WHICH IS JUST OFF THE NORTHEAST COAST
YUCATAN MAINLAND. THIS POSITION IS BASED UPON MILITARY
RECONNAISSANCE. THE CENTRAL PRESSURE IS ESTIMATED 998
OR 29.47 INCHES.

LAND AND SHIP REPORTS AND PICTURES FROM THE ATS 3 SATEL
THAT MOST OF THE WIND AND WEATHER IS OCCURRING OVER THE
SEMICIRCLE OF THE STORM MAINLY IN THE YUCATAN CHANNEL A
THE NORTHWEST CARIBBEAN SEA.

HIGHEST WINDS ARE ESTIMATED 50 MPH JUST EAST OF THE CEN
GALES ARE OCCURRING OVER THE WATERS 200 MILES TO THE NO
AND EAST AND 100 MILES TO THE SOUTH OF THE CENTER.

AGNES IS FORECAST TO STRENGTHEN VERY SLOWLY WHILE REMAI
NEARLY STATIONARY OR DRIFTING SLIGHTLY TOWARDS THE EAST

RAINS ASSOCIATED WITH THE STORM CONTINUE OVER THE NORTH
CARIBBEAN...FLORIDA STRAITS... AND WESTERN CUBA AND ARE
ELSEWHERE OVER EASTERN CUBA...JAMAICA...PORTIONS OF THE
AND HISPANIOLA BECAUSE OF GENERALLY DISTURBED CONDITION
TROPICS.

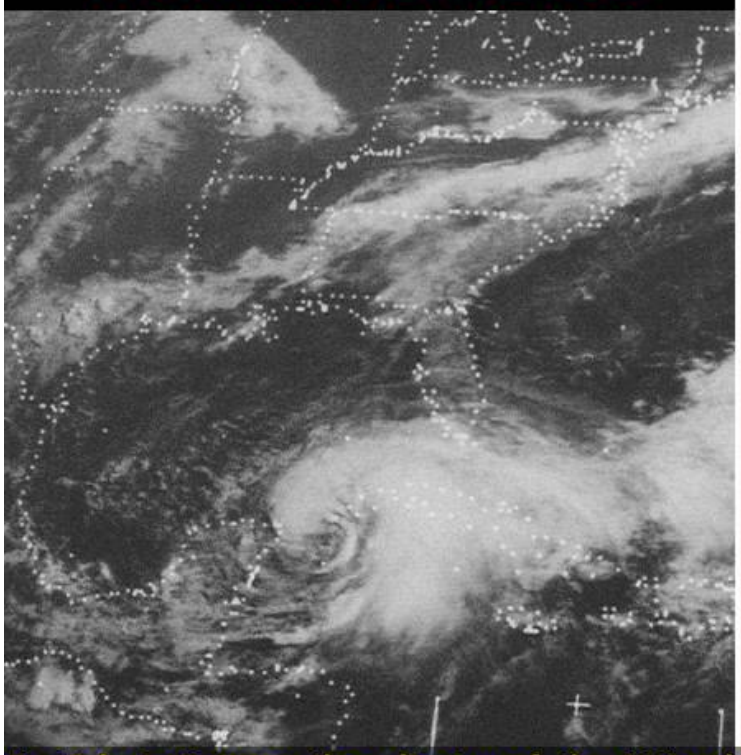
SMALL CRAFT FROM VERO BEACH TO KEY WEST SHOULD REMAIN
WATERS AND THOSE AROUND WESTERN CUBA AND THROUGHOUT THE
CARIBBEAN SHOULD REMAIN IN PORT.

ALL INTERESTS AROUND THE NORTHWEST CARIBBEAN SEA SHOULD
TOUCH WITH FUTURE ADVISORIES AND BULLETINS.

THE NEXT ADVISORY WILL BE ISSUED BY THE NATIONAL HURRI
AT 6 PM EDT WITH AN INTERMEDIATE BULLETIN AT 3 PM EDT.

Saturday, June 17, 1972

HURRICANE AGNES



Dr. Robert Simpson, then director of the National Hurricane Center in Miami, issued the first public statement (right) on the now upgraded Hurricane Agnes. Dr. Simpson, co-creator with Herbert Saffir of the 5-category Saffir-Simpson scale of hurricane strength, retired from the National Weather Service in 1974, and celebrated his 99th birthday in November, 2011.

With sustained winds now near 75 miles per hour (1
the threshold), this historic satellite photo (left) shows
off Cuba's western tip on her first day as a hurr

NOAA NATIONAL HURRICANE CENTER HURRICANE ADVISORY NUME
AGNES 6 PM EDT SATURDAY JUNE 17 1972

...AGNES REACHING HURRICANE STRENGTH...THREATNENS
WESTERN CUBA AND LOWER FLORIDA KEYS...

THE NATIONAL WEATHER SERVICE HAS ISSUED GALE WQRNINGS
HURRICANE WATCH FOR THE WESTERN STRAITS OF FLORIDA AND
KEYS FROM KEY WEST TO DRY TORTGUAS EFFECTIVE AT 6 PM E

ALL INTERESTS IN THE CENTRAL AND LOWER FLORIDA KEYS AN
WEST COASTOF FLORIDA FROM TAMPA BAY SOUTHWARD SHOULD R
IN CLOSE TOUCH WITH LATER ADVISORIES. IF AGNES CONTIN
ITS PRESENT COURSE AND MAINTAINS ITS STRENGTH THE HURR
WATCH WILL BE EXTENDED TO SOME OF THESE AREAS EARLY SU
MORNIN.

AT 6 PM EDT...2200Z...AGNES WAS LOCATED NEAR LATITUDE
NORTH...LONGITUDE 85.1 WEST. THIS IS ABOUT 300 MILES
OF KEY WEST FLA. IT IS MOVING TOWARD THD NORTH ABOUT
WITH STRONGEST SUSTAINED WINDS NEAR 75 MPH AND GUSTS
BRIEFLY TO 95 MPH. GALES EXTEND OUTLWARD 200 MILES TO
AND 100 MILES TO THE SOUTH OF THE CENTER. THE LOWESUN
PRESSURE IS NOW 986 MBS...29.12 INCHES.

AGNES IS PREDICTED TO GAIN FURTHER STRENGTH DURING THE
AND WILL PASS THE WESTERN TIP OF CUBA EARLY SUNDAY MOR
MOVING A LITTLE FASTER ON A COURSE BETWEEN NORTH AND N
NORTHEASTWARD. THIS WOULD BRING THE CENTER ABREAST OF
TORTUGAS LATE SUNDAY NIGHT.

VERY HEAVY RAINS AND NEAR HURRICANE FORCE WINDS WILL A
MANY AREAS OF WESTERN CUBA TONIGHT THROUGH
NOON SUNDAY.

SMALL CRAFT IN THE VICINITY OF CUBA...THE FLORIDA STRA
SHOULD REMAIN IN PORT AND ALONG THE FLORIDA PENINSULA
DAYTONA BEACH AND CEDAR KEY SOUTHWARD SHOULD REMAIN NE
HARBOR. HEAVIER BOATS IN THE PATCH OF AGNES SHOULD
PROCEED WITH CAUSION.

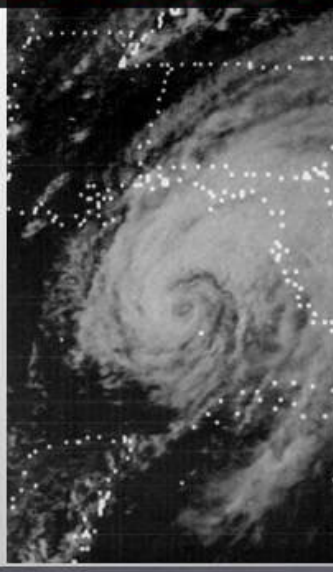
REPEATING THE 6 PM POSITION... 21.3 NORTH... 85.1 WEST

THE NEXT ADVISORY WILL BE ISSUED BY THE NATIONAL HURIC
AT MIDNIGHT WITH INTERMEDIATE BULLETINS AT 8 AND 10 PM

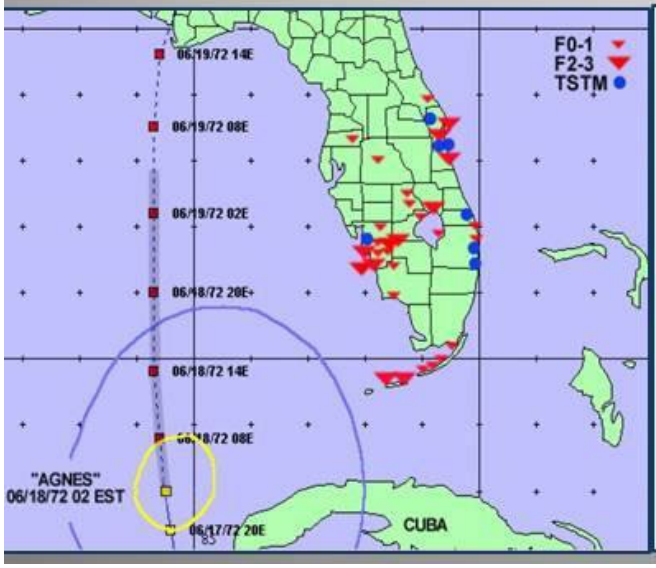
SIMPSON

SUNDAY, JUNE 18, 1972: HURRICANE AGNES TURNS DEA

By midday on June 18th, Agnes was in her second day as a weak hurricane with sustained winds around 75 miles per hour and gusts in squalls of up to 95 m.p.h. She was moving steadily northward across the Gulf of Mexico at a brisk 12 m.p.h. clip. Despite her limited peak wind strength, Agnes nevertheless had a well defined and unusually large circulation, as shown in the satellite photo, and her effects were beginning to be felt across wide areas of the southeastern United States mainland.

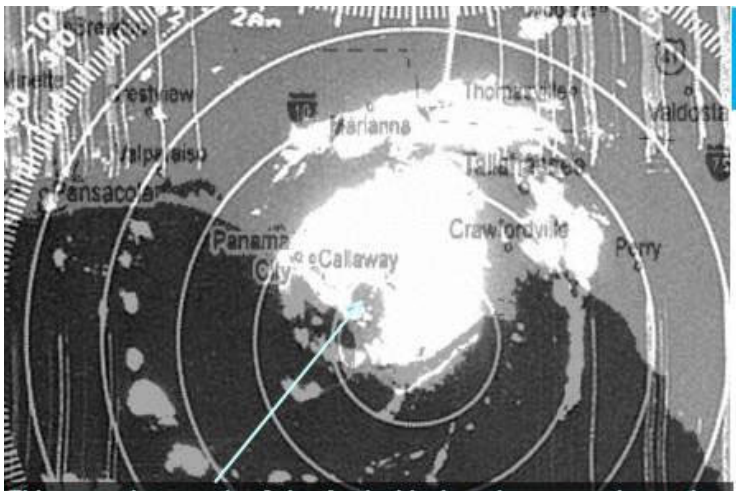


June 18th is generally considered the day Hurricane Agnes turned deadly. While normally remembered only for the massive flooding she brought to the middle Atlantic states in the coming days, Agnes first ravaged Florida on June 18th and 19th with what still stands today as one of the worst tropical storm-spawned tornado outbreaks in history. At least 28 tornadoes resulted in the loss of seven lives, hundreds injured, and extensive destruction of property.



Left: Plot of tornadoes by F-scale and severe thunderstorms of the Agnes outbreak. Agnes is shown at 0200 EDT 18 June 1972 with wind field radii just before the first tornado report in the Keys. Six hourly positions are shown on the track. The heavy shaded part of the track marks the period when Agnes's rainbands were producing tornadoes.

Extracted from: Hagemeyer, Bartlett C. et al., "Thirty Years After Hurricane Agnes - The Forgotten Florida Tornado Disaster". Courtesy of National Weather Service Southern Region Headquarters



This rare photograph of the Apalachicola radar scope shows the white mass representing the heavy rainfall wrapped around Agnes' eye as it passed a few miles northwest of the radar on the afternoon of June 19th. White range rings spaced at 25 mile intervals; coastline geography overlayed for reference.

...BULLETIN...

NOAA NATIONAL HURRICANE CENTER TROPICAL STORM ADVISORY NUMBER 14
AGNES 6PM EDT MONDAY JUNE 19 1972

...TROPICAL STORM AGNES CROSSING FLORIDA PANHANDLE...

GALE WARNINGS REMAIN IN EFFECT FROM ST MARKS TO PANAMA CITY.

REPORTS FROM COASTAL WEATHER STATIONS AND RADARS INDICATE THAT THE CENTER OF AGNES MOVED INLAND NEAR CAPE SAN BLAS AND AT 6PM EDT WAS LOCATED NEAR LATITUDE 30.3 NORTH...LONGITUDE 85.2 WEST. IT IS MOVING TOWARD THE NORTH NORTHEAST ABOUT 15 MPH.

AGNES IS WEAKENING AS IT CROSSES THE PANHANDLE AND WINDS HAVE DECREASED BELOW HURRICANE STRENGTH. HIGHEST SUSTAINED WINDS ARE ESTIMATED 55 MPH IN SQUALLS MAINLY EAST OF THE CENTER.

TIDES OF 3 TO 5 FEET ABOVE NORMAL IN THE AREA OF GALE WARNINGS WILL SUBSIDE SLOWLY TONIGHT.

THE THREAT OF A FEW TORNADOES WILL CONTINUE TO THE EAST OF THE STORM TRACK TONIGHT.

PRECAUTIONS SHOULD BE CONTINUED AGAINST MODERATE TO HEAVY RAINS NEAR AND EAST OF THE PATH OF THE STORM AND THE THREAT OF SOME FLASH FLOODING CONTINUES.

SMALL CRAFT FROM MORGAN CITY EASTWARD AROUND FLORIDA AND NORTHWARD TO CAPE MAY NEW JERSEY SHOULD REMAIN IN SAFE HARBOR.

HURRICANE AGNES MAKES INITIAL LA
MONDAY, JUNE 19, 1972

Late on the afternoon of June 19t
Hurricane Agnes crossed the U. S. n
just west of Apalachicola, Florida, an
weakened back to tropical storm stre

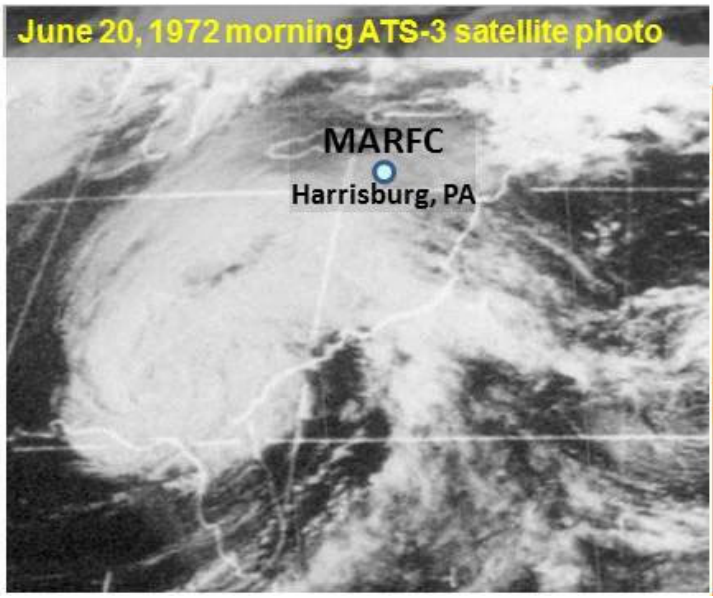
Agnes had reached her peak intensit
northern Gulf of Mexico earlier in
with sustained winds of around 90 n
hour and gusts to 120 m.p.h. in squ
that time, her pressure bottomed ou
millibars (28.88 inches). During th
noon, forward speed had increased t
20 m.p.h., before temporarily slowi
crawl just before landfall. Storm surg
to six feet to the east of the center
generally minor damage to structur
the immediate coastline.

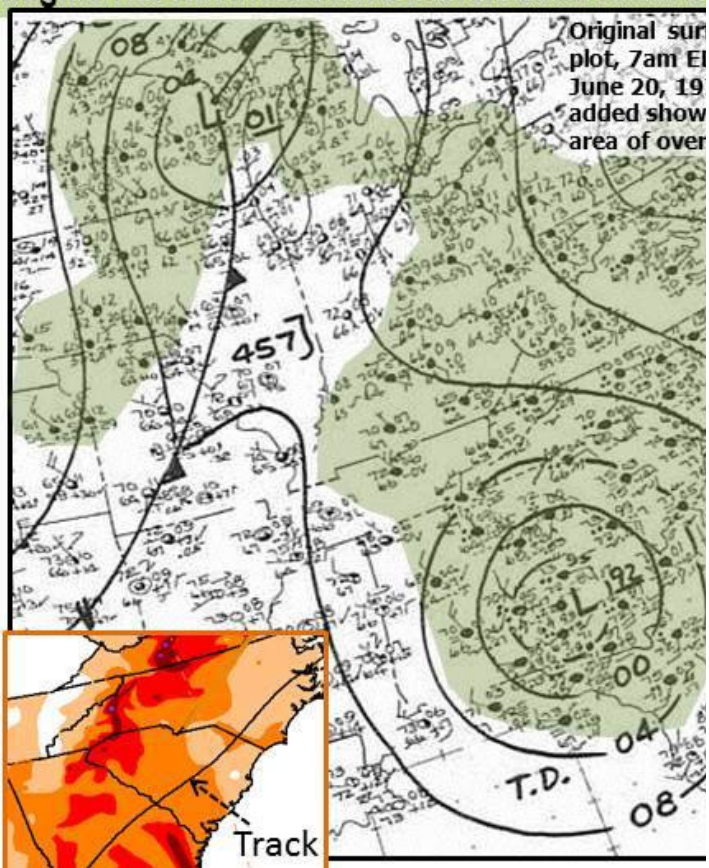
June 19, 1972 9:30 am EDT
ATS-3 satellite image

Tuesday, June 20, 1972 – Agnes, now inland, begins her northeastward march back toward

On the 20th, the moisture laden tropical remnants of what one day earlier was Hurricane Agnes trekked steadily northeastward across Georgia and South Carolina. By afternoon, a heavy rain had spread across southern portions of the Middle Atlantic River Forecast Center's service area, especially the Shenandoah and James River basins in Virginia.

Meanwhile, a strong upper-level weather system and surface cold front moving southeastward from the Great Lakes began developing its own area of heavy rain in western New York and Pennsylvania by late in the day.

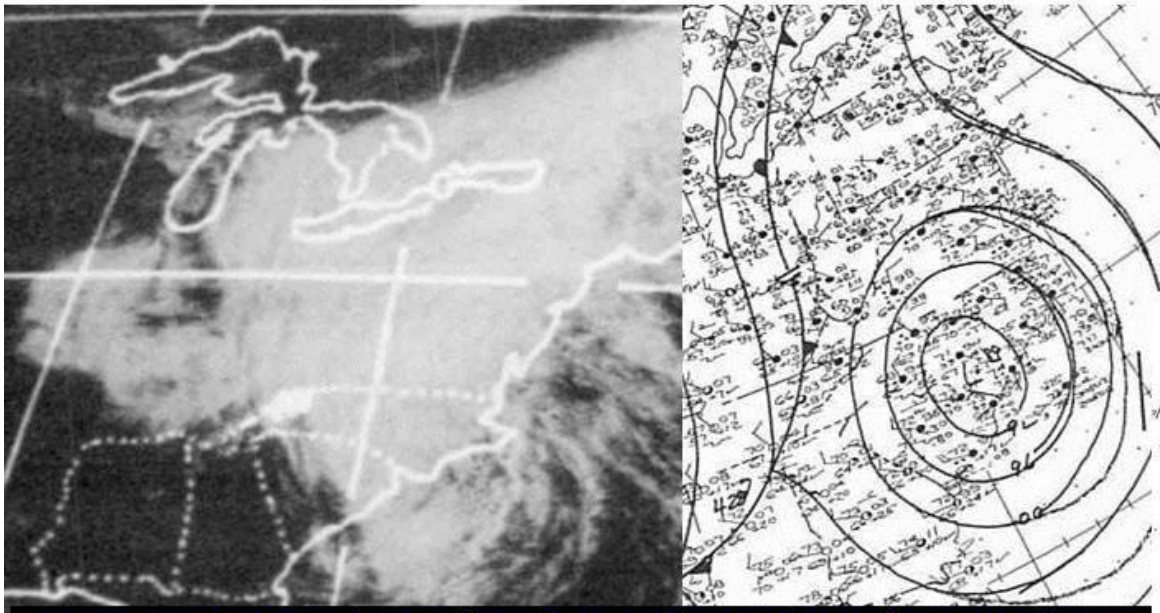




As Agnes' remnants advan
northeastward across the
southeastern U. S. on June
locally heavy rain of up to
reported, but most areas r
less than half that, with lim
flood damage.

Wednesday June 21, 1972: AGNES is REBORN

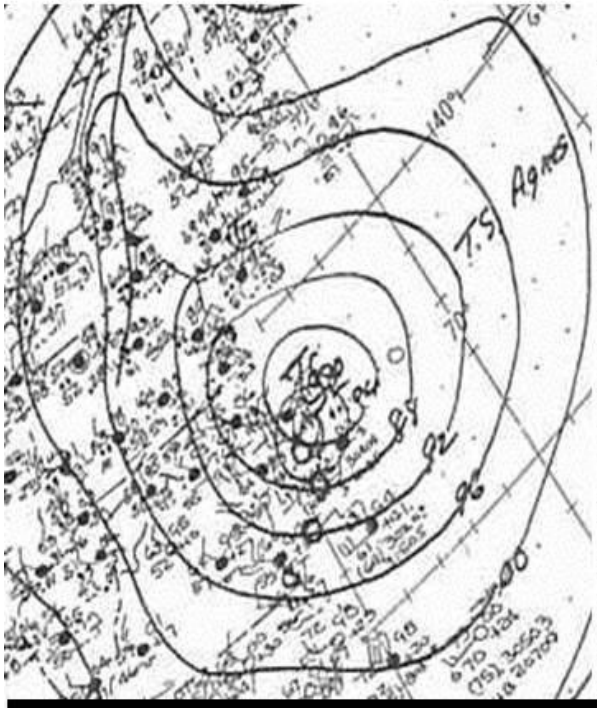
During the night of June 20th-21st, the remnants of Agnes, now over eastern North Carolina, reignited back to tropical storm strength in a relatively rare interaction with a vigorous weather system that had settled in from the Great Lakes region the day before. Rainfall coverage and intensity rapidly increased as tropical moisture streamed inland from the Atlantic Ocean. By the morning of the 21st, reports from the Virginia mountains of severe flash flooding from up to 10 inches of overnight rainfall were being relayed to the staff of the River Forecast Center in Harrisburg, and a steady northward progression of the rain made it clear that a serious river flood threat was evolving throughout Virginia. In addition, several inches of rain had also fallen overnight in upstate New York, and flooding of the Chemung River and its tributaries had commenced.



June 21, 1972 satellite photo and weather map showing the rapid re-strengthening of Agnes to a tropical storm in eastern North Carolina.

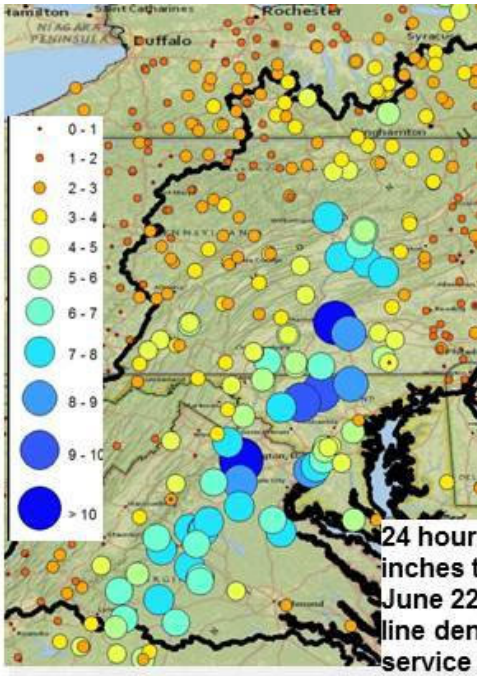
By Thursday morning, June 22nd, 1972,

the magnitude of the catastrophe in progress was becoming clear. Reborn Tropical Storm Agnes churned northward just off the middle Atlantic coast, and now registered the lowest central pressure (977 millibars/28.85″) of her tropical life, including her brief time as a hurricane in the Gulf of Mexico. Maximum sustained winds of 70 miles per hour measured by reconnaissance aircraft were just below the threshold for an upgrade to hurricane strength for a second time. Up to an additional 11 inches of rain had fallen in the previous 24 hours, the heaviest axis extending from central Virginia to south-central Pennsylvania.

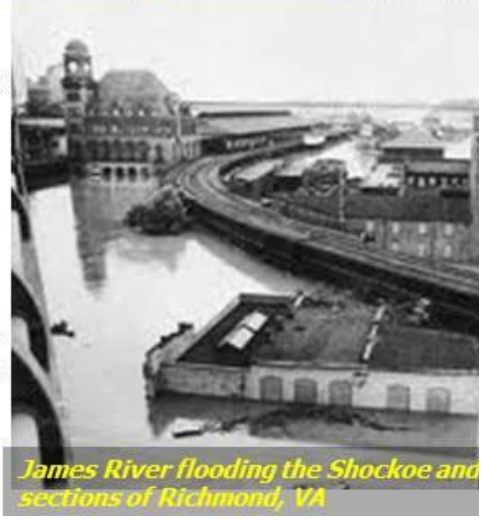


June 22, 1972 7:00 EDT weather map

A wind-driven torrential rain fell through the day across much of Pennsylvania, Maryland, and northern Virginia. While the heaviest rain had just ended farther south and west, rivers in Virginia and Maryland were already raging out of their banks to, in some cases, historic levels. By early evening, the James River at Richmond, Virginia, easily surpassed the previous record flood level set just three years earlier in the aftermath of Hurricane Camille, and continued rising through the night.



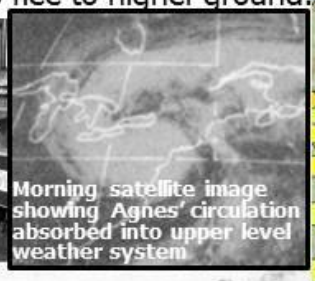
24 hour inches t June 22 line den service



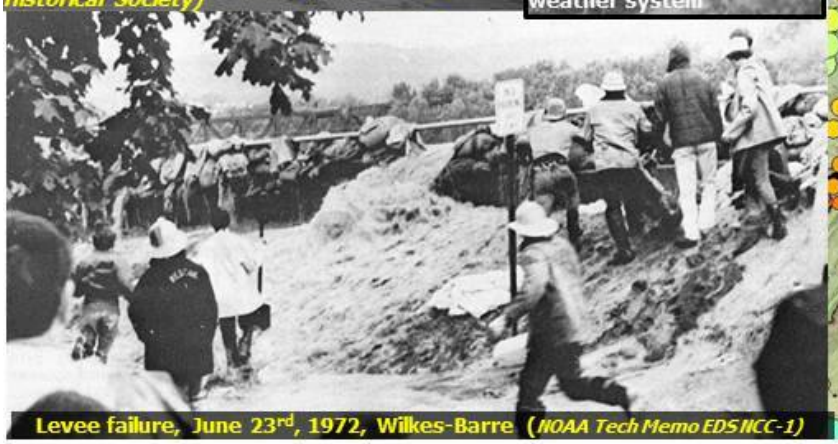
James River flooding the Shockoe and sections of Richmond, VA

While more rain would fall, and the larger rivers would continue rising into the weekend, **Friday, J 1972 is often remembered as the most infamous day of the Agnes disaster**, especia Susquehanna River basin, where rivers rose at rates never before experienced in response to more tha rainfall over large areas of upstate New York and central Pennsylvania during the previous 36 hours. morning, the basin's population was realizing that the records of the great flood of March, 1936 threatened, and the day was spent in frantic preparation to flee or fight the surging water. By day's en Corning and Elmira, New York, were underwater as the Chemung River crested several feet above th record levels. As the Chemung's flood wave moved downstream into the already raging Susqueha residents of northeast Pennsylvania's Wyoming Valley waged a futile sandbagging effort to keep the topping the levees. Sirens signaled the battle's end with the late morning failure of the levee at Wilkes- thousands of residents were forced to flee to higher ground.

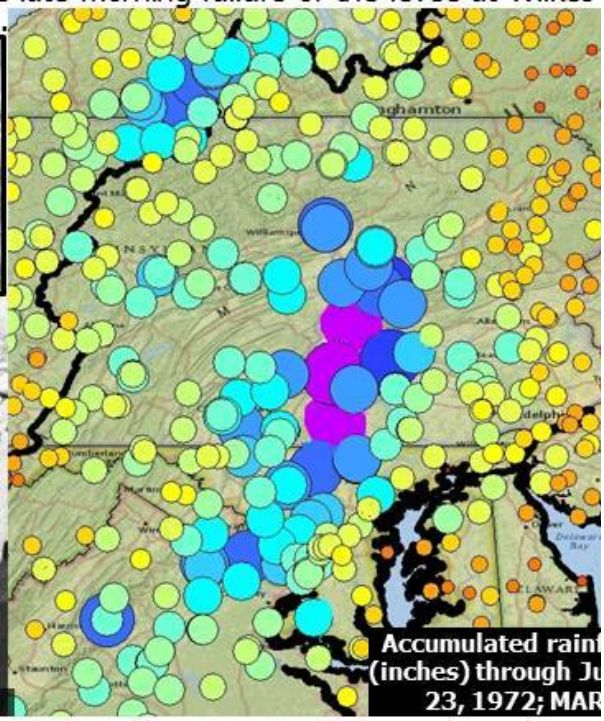
Downtown Elmira *(courtesy of Chemung Co. Historical Society)*



Morning satellite image showing Agnes' circulation absorbed into upper level weather system

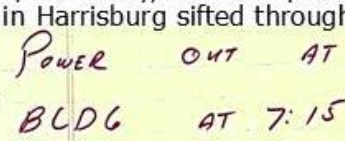


Levee failure, June 23rd, 1972, Wilkes-Barre *(NOAA Tech Memo EDS NCC-1)*



Accumulated rain (inches) through Ju 23, 1972; MAR

As conditions worsened, the basin's infrastructure began to crumble. Telephone, water, electricity, and transporta failed through the day, and staff at the River Forecast Center in the Federal Building in Harrisburg sifted through arriving reports, often erroneous, to provide updated forecasts for the public, emergency personnel, and government officials, while at the same time concerned about their own homes and families. This scan of a page (right) from the June 23rd logbook reporting the loss of critical electrical service illustrates the challenges faced by staff.



POWER OUT AT
BLDG AT 7:15

Saturday, June 24th, 1972 was Agnes' high water mark for most Pennsylvania communities along the Susquehanna River in an unusually long, nearly simultaneous, crest from the New York state line to its mouth at the Chesapeake Bay in Maryland. The total costs in human life and property damage were not fully known, yet the enormity of the disaster was obvious. Hundreds of thousands had lost their homes, or were without power, fresh water, telephone, and media service. Many roads, railroads, and bridges were destroyed. Some communities, including Wilkes-Barre and Harrisburg, were also reeling from the tragic irony of extensive fire damage in flooded neighborhoods. Despair was widespread, but acts of incredible heroism and generosity were also common.

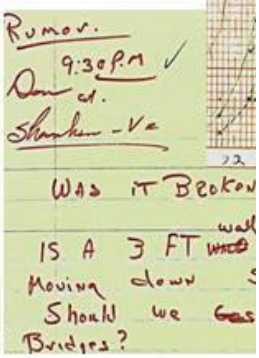
Wilkes-Barre, PA, June 24, 1972 *(from NOAA TM)*

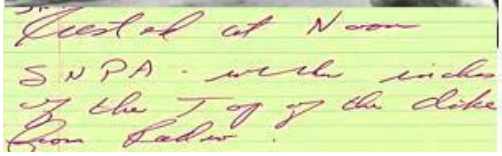
An airlifted rooftop generator allowed the restoration of limited power to the River Forecast Center in Harrisburg, but communications were still spotty, and staff spent Friday night and Saturday separating rumors and erroneous reports from data needed for forecast preparation.

below: Susquehanna River nears crest at Harrisburg as Market St. Bridge becomes submerged; just upstream, several spans of Walnut St. bridge that were later destroyed in 1996 flood.

right: National Guard patrols outside Federal Building (RFC on 11th floor at top of image).

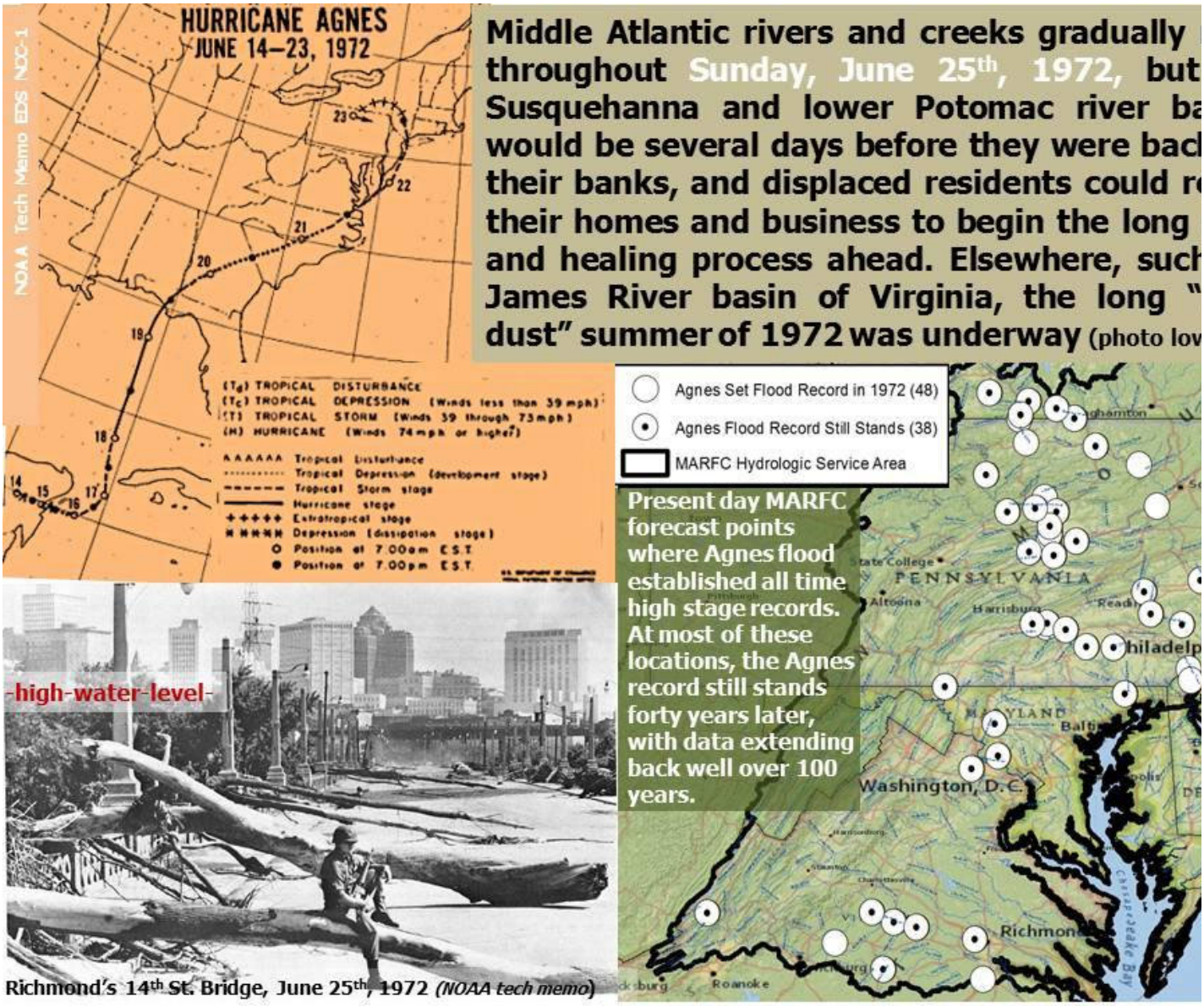
right: actual 1972 worksheet used by RFC forecaster to estimate volume of water at Wilkes-Barre.





left: dramatic photo showing Susquehanna River cresting just below the top edge of the Sunbury floodwall, constructed following the devastating 1936 flood (courtesy of Sunbury Municipal Authority); also, the accompanying crest verification received and logged 2 hours later at the RFC.

above: entry from RFC rumored (later dispelle water" moving toward Island nuclear power construction near Midd



Richmond's 14th St. Bridge, June 25th, 1972 *(NOAA tech memo)*