

**ANATOMY  
OF A**

**HISTORICAL "LIVE TWEET"**

**The Wreck of the Edmund Fitzgerald**

**Steven Fleegel**

**National Weather Service  
Marquette Michigan**

# Coming Up with the Idea

- Spawned from the live tweets from NWA/AMS conferences
  - #NWAS13    #AMS14    #NWAS14
- Thought it would work out well with the Edmund Fitzgerald
  - But with the short turn around, saved for the following year
- Focused on Twitter due to its chronological timeline
  - Maintained the ability to see the tweets as they occur and the real-time

# Why the Edmund Fitzgerald?

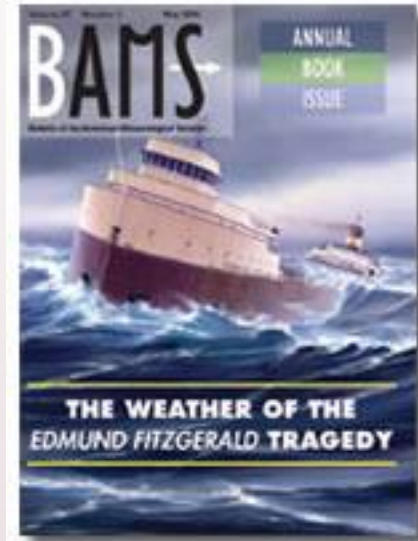


Photo by Bob Campbell, Grand Ledge, MI

- Worst marine incident in the Great Lakes in the last 48 years
  - 29 crewmembers lost
  - Integral part of Upper Michigan history
- Always a lot of interest in the Edmund Fitzgerald
  - “The Wreck of the Edmund Fitzgerald” – Gordon Lightfoot
  - Some mystery in what exactly happened
- **Goal: provide an interesting and informative timeline of the last few days of the Edmund Fitzgerald**

# Developing the Live Tweet

- Had a great foundation with the paper by Hultquist-et al. (2006)
  - Supplemented with information from:
    - National Transportation and Safety Board (NTSB) report
    - Past NWS forecasts and other facts
- Stuck to general information and weather observations
  - This was to avoid providing any opinions on the reason it sunk.



NWS Forecast – Nov. 10, 1975 at 4:39am

LAKE SUPERIOR

STORM WARNINGS IN EFFECT

WEST HALF... NORTHERLY WINDS 38 TO 52 KNOTS BECOMING NORTHWESTERLY 25 TO 40 KNOTS TODAY AND NORTHWEST TO WEST 23 TO 35 KNOTS TONIGHT. CLOUDY. SNOW SQUALLS. WAVES 8 TO 16 FEET.

EAST HALF... SOUTHEASTERLY WINDS 28 TO 35 KNOTS SHIFTING TO NORTH TO NORTHWEST THIS MORNING AND INCREASING TO 38 TO 50 KNOTS THIS AFTERNOON. WINDS BECOMING NORTHWEST TO WEST 25 TO 41 KNOTS TONIGHT. RAIN OCCASIONALLY MIXED WITH SNOW TODAY. SNOW SQUALLS TONIGHT. WAVES 8 TO 15 FEET.

# Developing the Live Tweet – cont.

- Developed the tweets based off the most important items
  - Gathered appropriate images
- Determining HashTag
  - May have been one of the harder things
    - Due to length of Edmund Fitzgerald and character limit of Twitter
  - Kicked around several options
    - Settled on **#EdmundFitz1975**
- TweetDeck
  - Used to schedule all of the tweets
  - Had 65% of the posts time to the exact time they occurred 39 years earlier



Follow

The Fitzgerald reported northeast winds at 52 knots and 10 foot waves at 1:00 am on 11/10/1975. [#EdmundFitz1975](#)

1:05 AM - 10 Nov 2014

25 15



Follow

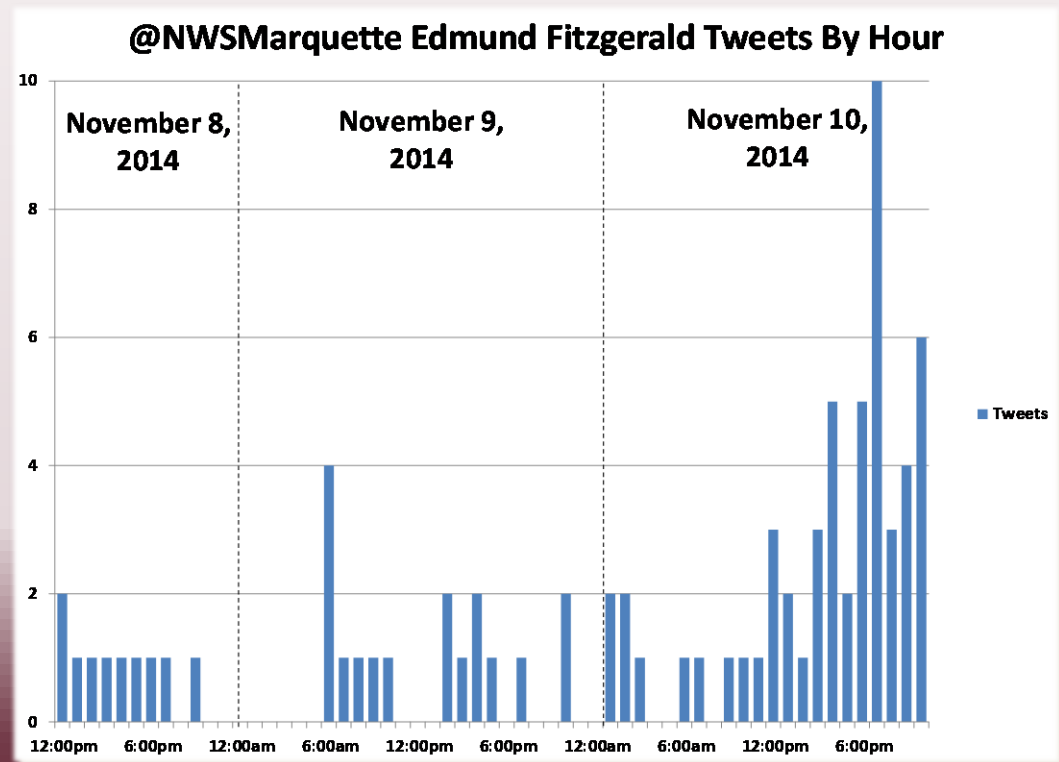
Here is a look at the forecast included in the [@MiningJournal](#) on Nov 10th, 1975. [#EdmundFitz1975](#)

11:15 AM - 10 Nov 2014

25 14

# Brief Overview of the Live Tweet

- 85 Tweets issued over a 4 day period from November 7-10, 2014
  - 4 advertisements
  - 26 informative
  - 55 were timed to the exact time as 39 years earlier





# Tweets



Photo by Bob Campbell, Grand Ledge, MI

**NWS Marquette**  
@NWSMarquette

The Edmund Fitzgerald launched on 6/7/1958  
Lakes Engineering Works in River Rouge, MI  
2:15 PM - 8 Nov 2014

144 112

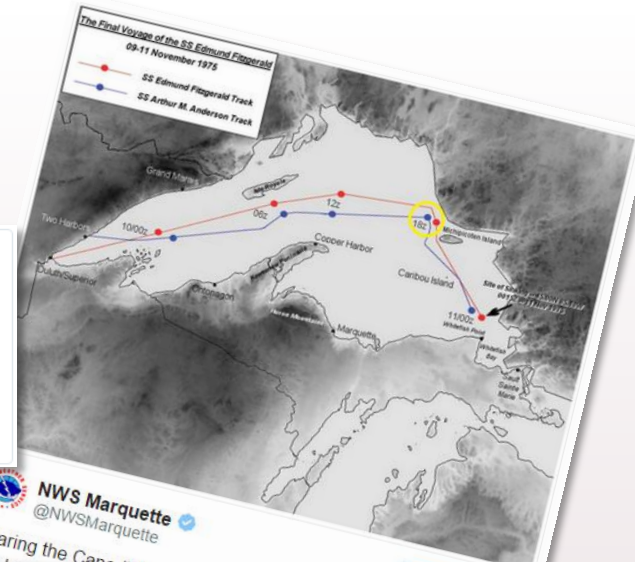


**NWS Marquette**  
@NWSMarquette

Follow

The Edmund Fitzgerald left Superior, Wisconsin on its final voyage at 2:15pm on November 9, 1975. #EdmundFitz1975  
2:15 PM - 9 Nov 2014

99 33



**NWS Marquette**  
@NWSMarquette

Nearing the Canadian shoreline, the ships turn to the southeast  
towards Michipicoten Island. #EdmundFitz1975  
Nov 2014

Follow



**NWS Marquette**  
@NWSMarquette

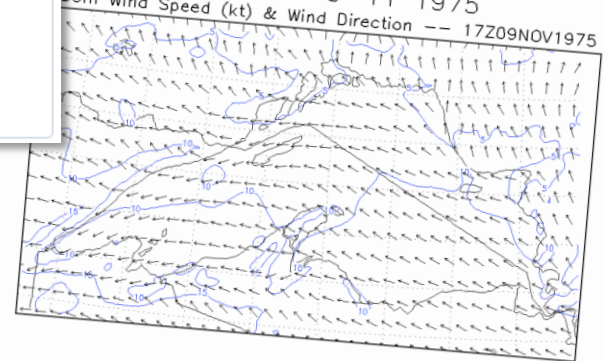
Follow

The Fitzgerald, with 29 officers and crewmembers, sank approximately 17 mi from Whitefish Point, MI.  
#EdmundFitz1975

7:15 PM - 10 Nov 2014

110 36

Final Voyage of the Edmund Fitzgerald  
November 9-11 1975  
50m Wind Speed (kt) & Wind Direction -- 17Z09NOV1975



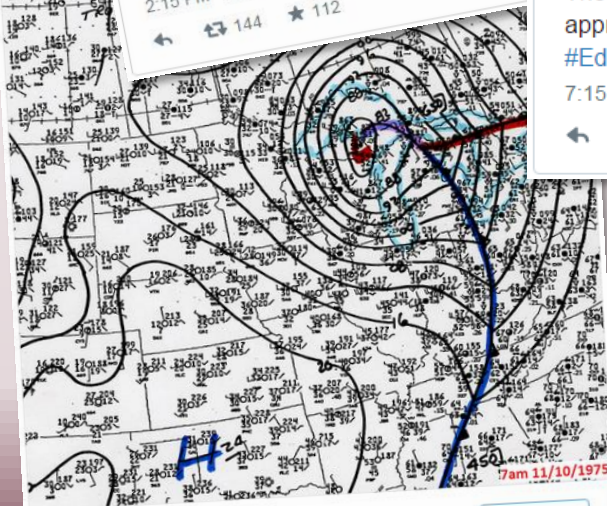
**NWS Marquette**  
@NWSMarquette

Follow

The #EdmundFitz1975 (blue x) is encountering the worst winds of its trip, which can be seen in this model simulation.  
[pic.twitter.com/RN1PH02ipp](https://pic.twitter.com/RN1PH02ipp)

6:45 PM - 10 Nov 2014

47 20

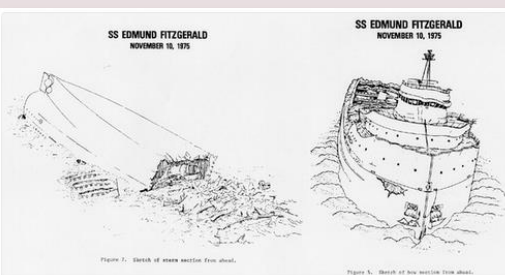


**NWS Marquette**  
@NWSMarquette

Weather Map update: At 7AM on 11/10/1975 the strong low of 983mb was located near Marquette, MI. #EdmundFitz1975

6:50 AM - 10 Nov 2014

16 20



**NWS Marquette**  
@NWSMarquette

Follow

A closer sketch of the bow and stern of the Edmund Fitzgerald from the NTSB report. #EdmundFitz1975

10:00 PM - 10 Nov 2014

31 17

**Mesmerizing**

**Eerie**

**Wonderful tribute**

**Heartbreaking**

**Fascinating**

**Powerful**

**Awesome**



**MC Horner**  
@spacekdet3d

**Follow**

@NWSMarquette Thanks for this. Literally gave me chills. The real time aspect really illustrated 'when the waves turn the minutes to hours'

11:05 AM - 11 Nov 2014



**catemsails**  
@CateMuller

**Follow**

@NWSMarquette Thank you so much! A wonderful tribute, and a great way to engage a new generation with history and weather!

11:17 PM - 10 Nov 2014



**Matt Black**  
@mblackmn

**Follow**

@NWSMarquette I've read a lot about the Fitz but the time between tweets adds context for how the time really passed.

10:48 PM - 10 Nov 2014



**Thoroughly Enjoyed**

**Thank You**

**Great mix of tech and history**

**Gave me chills**

**Amazing**

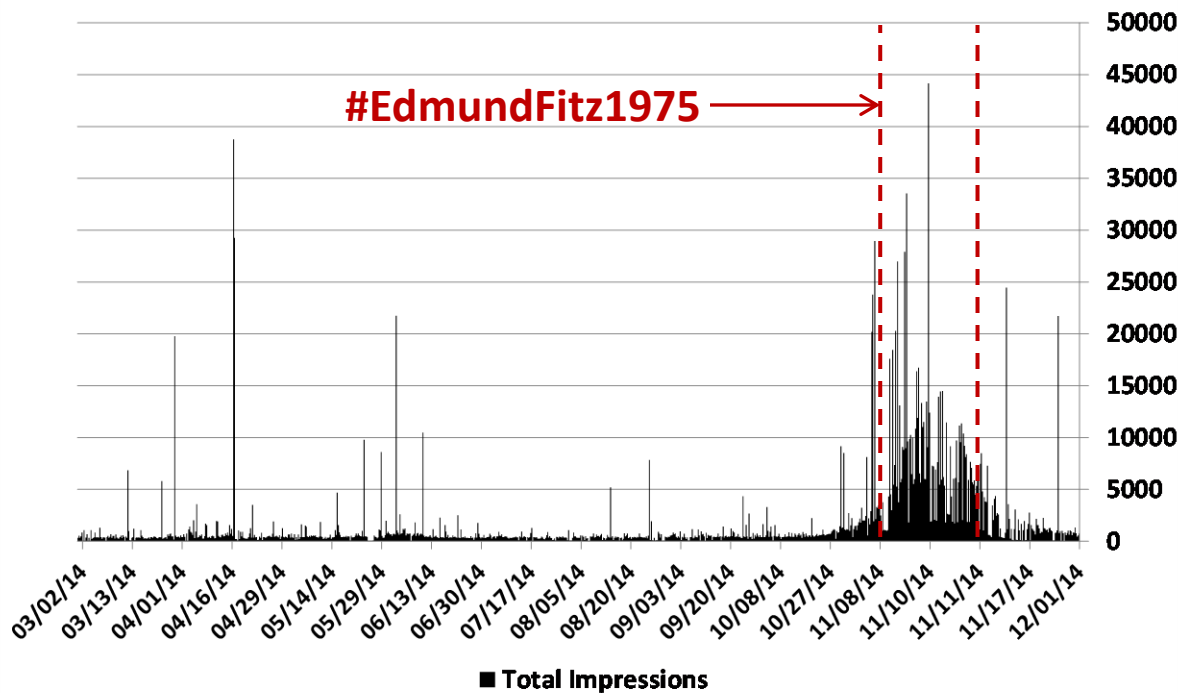
**Great Memorial**

**Well Done**



# Immensely Popular Event for @NWSMarquette

**@NWSMarquette - Impressions  
(Mar 01 - Dec 01, 2014)**



- **56%** increase in followers during the event
- **> 100x** the impressions normally seen during a 5 day period

Twitter	During Event	Normal Month
IMP's	> 918,000	~53,000
RT's	2710	158
Fav's	1640	87

# Great Gov Tweets – via



- 39 tweets in the Top 50 Government Tweets during the event (11/7-10/2014)
  - 12 on 11/9/2014
    - Highest #5
  - 24 on 11/10/2014
    - Highest #7
- Never reached #1, but tough to compete with these images:



Our most popular photo on social media last week → #Bison through the mist @YellowstoneNPS by Cameron Patrick

5:24 PM - 9 Nov 2014

793 869



Visit all national parks, wildlife refuges & public lands for free on #VeteransDay. Please RT to spread the word!

11:38 AM - 9 Nov 2014

1,281 651



Cady Coleman  
@Astro\_Cady

Wow.Beautiful in so many ways: @astro\_reid @Astro\_Alex are handing over "The View" to @AstroSamantha @AstroTerry

8:07 AM - 9 Nov 2014

243 340

# A Quick Comparison to Other Events

TOPSY

#EdmundFitz1975

#NWAS14

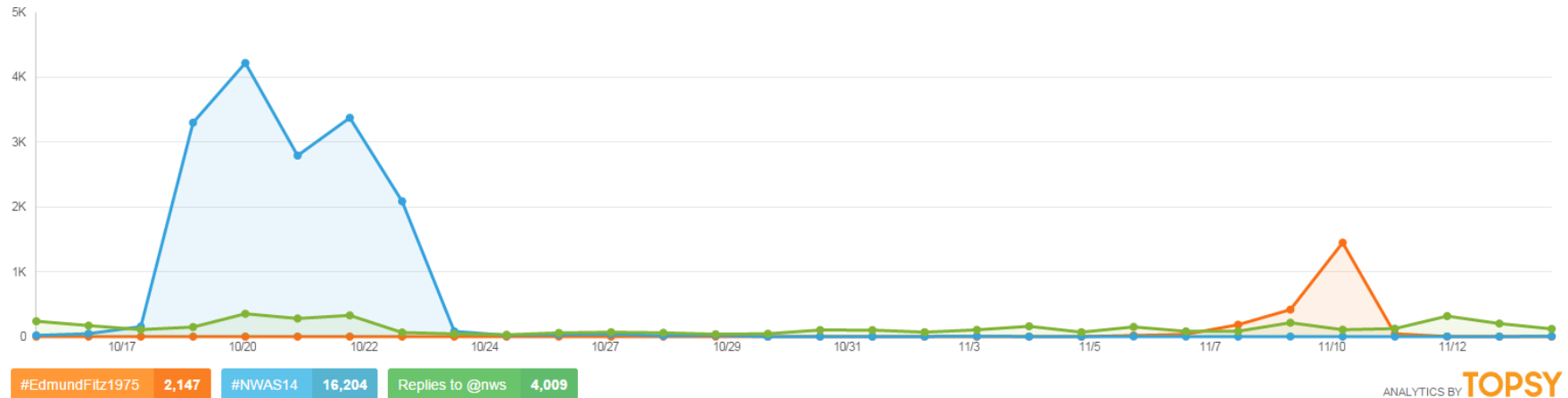
@nws

Search

Advanced search

Tweets per day: #EdmundFitz1975, #NWAS14, and @nws

October 16th — November 15th

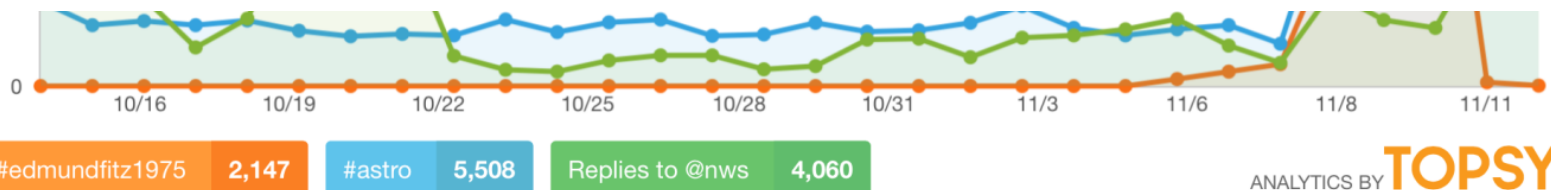


Support

Terms & Conditions

Sign In

English



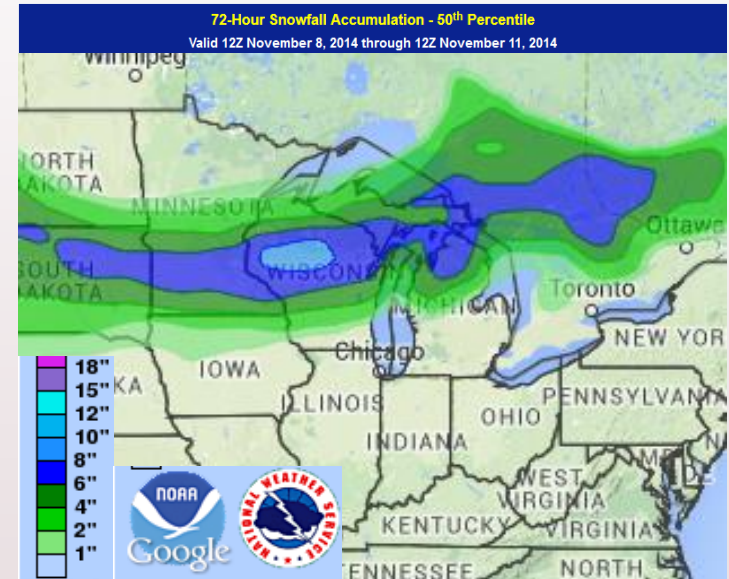
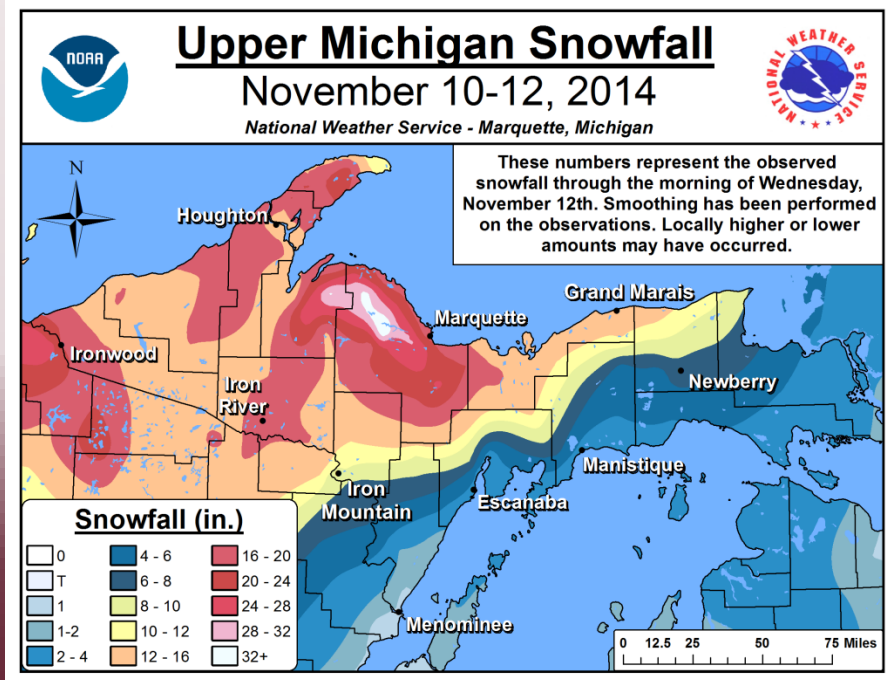
# Events that Aided Distribution

- Early promotion helped get the word out
  - Email to Great Lakes Offices
- Picked up by several news organizations (TV/Print)
  - WGN, Weather Channel, MLive, Milwaukee Journal Sentinel
  - Aided the viral nature of the tweets
- @NWS account retweeted a few tweets around 8:50pm on the 8th
  - Retweets took off after that point



# Complicated by a Snowstorm

- Had go/no-go date of November 6<sup>th</sup>
  - Storm originally forecasted to go south (Chicago Area)
- By the 8<sup>th</sup>, it had shifted into the U.P.



- 3 day snowfall totals from the event
  - **30.2"** at NWS Marquette

# Live Tweet Aided Winter Storm Awareness

- 11 storm tweets sent during the event
  - Staff fit them in gaps with the live tweet
- **> 110,000** - Twitter Impressions from posts dealing with the storm

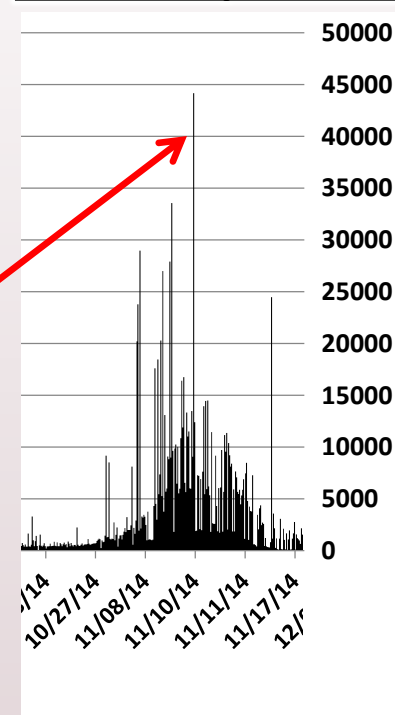
*Largest Snowstorm in Marquette since 2007?*



Rank	3 Day Snowfall	Dates
1	49.4	Dec 07-09 1977
2	41.6	Dec 16-18 1981
3	37.9	Apr 04-06 2007
4	36.4	Nov 30-Dec 02 1985
5	33.4	Mar 12-14 1988
6	33.1	Nov 26-28 2001
7	32.4	Mar 13-15 1997
8	31.7	Nov 22-24 1991
9	31.0	Jan 02-04 1999
10	30.9	Mar 01-03 2007

This storm will likely bring the highest storm total snowfall for many areas across Upper Michigan in the past 3-6 years.

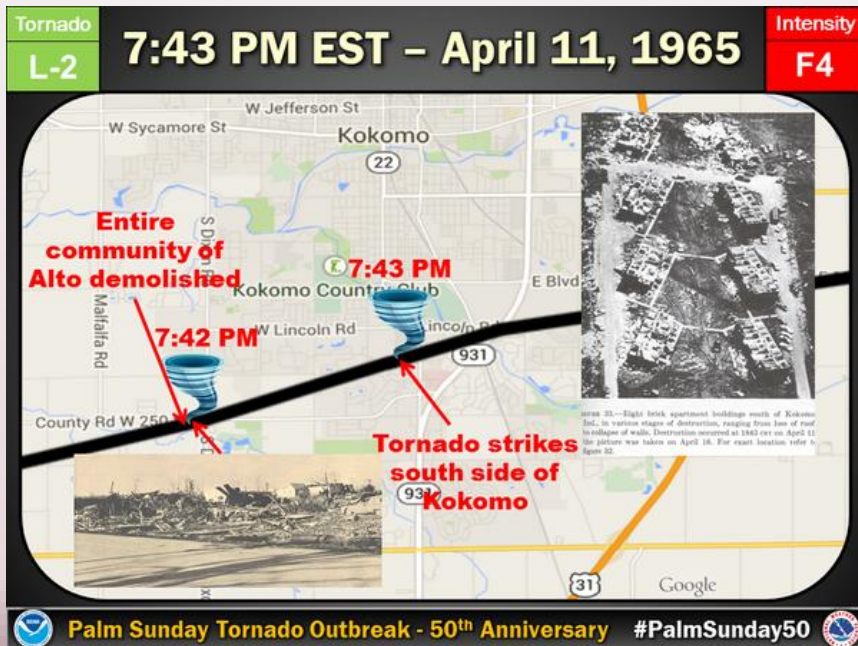
Twitter Impressions



**This tweet had our highest impression in 2014**

# Recent Live Tweets in NWS

## Palm Sunday – 50<sup>th</sup> Anniversary – NWS IWX



## 1965 Twin Cities Tornado Outbreak – NWS MPX

### 50<sup>th</sup> Anniversary: 1965 Twin Cities Tornado Outbreak May 6<sup>th</sup>, 1965

We will be live tweeting this event on the evening of Wednesday May 6<sup>th</sup>, 2015

- Follow @NWSTwinCities and hashtag #msptornadoes65 as we tweet the details of the outbreak as they occurred 50 years ago
- We will begin live tweeting at 6 PM and conclude at midnight
- We will be tweeting very frequently at times, to simulate the reports as they came in on this evening 50 years ago
- You can utilize the 'mute' function in Twitter if you don't want to see these tweets, just remember to unmute us afterward!

# Lessons Learned

- Make sure staff is aware of the live tweet event possibly going viral
  - Ops staff calling SM Focal Point because TweetDeck “wouldn’t shut-up”
    - Tied to @NWS retweet on the evening of Nov. 8, 2014
- Have a set template
- Two Minor issues with TweetDeck
  - Occasionally scheduled tweets wouldn’t show up
    - They were still issued at the proper time
  - Unable to schedule animated gifs



# Summary

- Extremely successful event for @NWSMarquette
  - 56% increase in followers
  - ~17 times the normal monthly Twitter Impressions/Retweets/Favorites
    - In just 5 days
- Great way to raise awareness
  - Of past weather events
  - For Preparedness
  - For the office
- You can view all of the tweets that were sent on Storify:
  - <http://bit.ly/1DZUvZ6>

# Acknowledgements

- Big thanks to **Tom Hultquist** (NWS MPX) and **Michael Dutter** (NWS MQT) for the raw images from their paper (Reexamination of the 9–10 November 1975 “Edmund Fitzgerald” Storm Using Today’s Technology)