



IROP

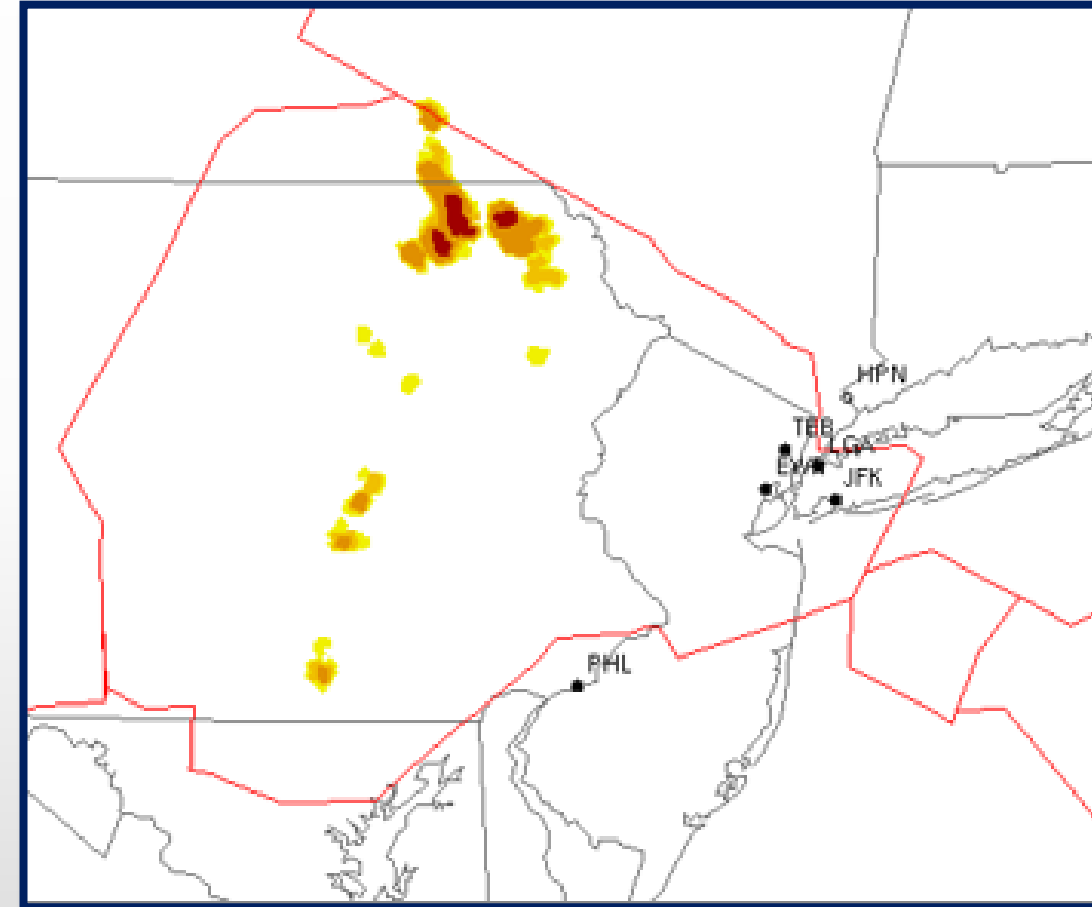
Shawn McClosky & Ralph Tamburro: CDM tasking



**Federal Aviation
Administration**

IROP:

- CDM tasking: determine how often certain weather scenarios occur during SWAP season. When small convective cells in central/eastern Pennsylvania have an outsized impact on departure from N90 and PHL.
- Small cells in PA with little to no convection in northern ZDC or southern ZBW.
- 3 years of data:
 - April 1 through September 30
 - 1300z – 0100z



GMT_HOUR	LOCAL HOUR	MAX ZBW WEATHER IMPACT	MAX ZDC WEATHER IMPACT	PEAK ZNY WEATHER IMPACT
2022-04-19 01:00	04/18/2022 21:00	4	3	7
2022-05-03 23:00	05/03/2022 19:00	0	3	6
2022-05-04 00:00	05/03/2022 20:00	0	2	6
2022-05-07 17:00	05/07/2022 13:00	0	1	6
2022-05-16 13:00	05/16/2022 09:00	0	0	7
2022-05-20 15:00	05/20/2022 11:00	1	1	6
2022-05-20 17:00	05/20/2022 13:00	0	2	6
2022-05-20 18:00	05/20/2022 14:00	0	4	8
2022-05-20 19:00	05/20/2022 15:00	0	4	8
2022-05-20 20:00	05/20/2022 16:00	0	3	7
2022-05-20 21:00	05/20/2022 17:00	1	3	6
2022-05-28 15:00	05/28/2022 11:00	3	1	6
2022-07-05 13:00	07/05/2022 09:00	1	2	6
2022-07-05 14:00	07/05/2022 10:00	3	2	6
2022-07-18 01:00	07/17/2022 21:00	3	4	7
2022-07-22 18:00	07/22/2022 14:00	2	0	6
2022-07-22 19:00	07/22/2022 15:00	2	0	7
2022-07-22 20:00	07/22/2022 16:00	2	1	8
2022-07-22 21:00	07/22/2022 17:00	4	2	7
2022-07-25 13:00	07/25/2022 09:00	3	0	8
2022-07-25 14:00	07/25/2022 10:00	4	1	7
2022-07-25 16:00	07/25/2022 12:00	4	3	6
2022-08-07 19:00	08/07/2022 15:00	4	1	7
2022-08-09 19:00	08/09/2022 15:00	4	4	6
2022-08-21 18:00	08/21/2022 14:00	2	4	8
2022-08-23 01:00	08/22/2022 21:00	3	4	6
2022-08-27 00:00	08/26/2022 20:00	1	0	6
2022-09-05 01:00	09/04/2022 21:00	0	2	6
2022-09-19 14:00	09/19/2022 10:00	3	0	6
2022-09-25 16:00	09/25/2022 12:00	0	4	6
2022-09-25 22:00	09/25/2022 18:00	3	3	6
2022-09-25 23:00	09/25/2022 19:00	0	2	7
2022-09-26 00:00	09/25/2022 20:00	0	3	7
2022-09-26 01:00	09/25/2022 21:00	0	3	6

2022:

20 Days 34 total hours



GMT_HOUR	LOCAL HOUR	MAX ZBW WEATHER IMPACT	MAX ZDC WEATHER IMPACT	PEAK ZNY WEATHER IMPACT
2023-04-15 16:00	04/15/2023 12:00	0	4	6
2023-06-03 23:00	06/03/2023 19:00	0	4	6
2023-06-24 23:00	06/24/2023 19:00	3	4	6
2023-06-25 00:00	06/24/2023 20:00	1	1	7
2023-06-25 18:00	06/25/2023 14:00	3	4	7
2023-06-26 13:00	06/26/2023 09:00	0	2	7
2023-06-26 14:00	06/26/2023 10:00	4	2	8
2023-06-27 16:00	06/27/2023 12:00	4	3	7
2023-07-02 00:00	07/01/2023 20:00	0	4	6
2023-07-02 01:00	07/01/2023 21:00	0	4	6
2023-07-09 13:00	07/09/2023 09:00	0	3	8
2023-07-10 22:00	07/10/2023 18:00	3	0	6
2023-07-17 20:00	07/17/2023 16:00	0	3	7
2023-07-17 22:00	07/17/2023 18:00	0	4	8
2023-07-17 23:00	07/17/2023 19:00	0	3	7
2023-07-18 01:00	07/17/2023 21:00	1	4	8
2023-07-24 13:00	07/24/2023 09:00	0	3	6
2023-07-24 14:00	07/24/2023 10:00	1	1	6
2023-07-25 14:00	07/25/2023 10:00	0	0	6
2023-07-25 15:00	07/25/2023 11:00	0	0	7
2023-08-07 17:00	08/07/2023 13:00	4	3	6
2023-08-09 19:00	08/09/2023 15:00	2	1	6
2023-08-09 20:00	08/09/2023 16:00	0	0	6
2023-08-15 01:00	08/14/2023 21:00	1	4	6
2023-08-18 00:00	08/17/2023 20:00	3	1	6
2023-09-07 16:00	09/07/2023 12:00	0	3	6
2023-09-07 17:00	09/07/2023 13:00	0	4	8
2023-09-10 21:00	09/10/2023 17:00	0	4	7

2023:

19 Days 28 hours



2024:

23 Days 49 Hours

GMT_HOUR	LOCAL HOUR	MAX ZBW WEATHER IMPACT	MAX ZDC WEATHER IMPACT	PEAK ZNY WEATHER IMPACT
2024-04-14 22:00	04/14/2024 18:00	1	0	7
2024-04-14 23:00	04/14/2024 19:00	0	0	7
2024-04-15 00:00	04/14/2024 20:00	0	0	6
2024-04-15 01:00	04/14/2024 21:00	0	1	7
2024-04-18 00:00	04/17/2024 20:00	1	0	6
2024-04-18 01:00	04/17/2024 21:00	4	0	7
2024-04-30 22:00	04/30/2024 18:00	2	1	7
2024-04-30 23:00	04/30/2024 19:00	4	3	6
2024-05-01 00:00	04/30/2024 20:00	4	3	6
2024-05-03 21:00	05/03/2024 17:00	0	1	6
2024-05-03 22:00	05/03/2024 18:00	0	3	6
2024-05-22 18:00	05/22/2024 14:00	3	4	7
2024-05-22 23:00	05/22/2024 19:00	4	4	8
2024-05-23 00:00	05/22/2024 20:00	1	4	7
2024-05-23 01:00	05/22/2024 21:00	3	2	6
2024-05-26 22:00	05/26/2024 18:00	0	4	9
2024-05-26 23:00	05/26/2024 19:00	0	3	8
2024-05-29 22:00	05/29/2024 18:00	0	4	6
2024-06-18 00:00	06/17/2024 20:00	4	4	6
2024-06-18 01:00	06/17/2024 21:00	4	3	6
2024-06-18 17:00	06/18/2024 13:00	1	0	6
2024-06-18 18:00	06/18/2024 14:00	2	0	6
2024-06-18 19:00	06/18/2024 15:00	2	0	7
2024-06-22 01:00	06/21/2024 21:00	3	0	7
2024-06-29 18:00	06/29/2024 14:00	3	1	7
2024-06-29 20:00	06/29/2024 16:00	3	0	8
2024-06-29 21:00	06/29/2024 17:00	4	0	8
2024-06-29 22:00	06/29/2024 18:00	2	0	9
2024-06-29 23:00	06/29/2024 19:00	4	3	9
2024-06-30 00:00	06/29/2024 20:00	4	4	8

GMT_HOUR	LOCAL HOUR	MAX ZBW WEATHER R IMPACT	MAX ZDC WEATHER R IMPACT	PEAK ZNY WEATHER R IMPACT
2024-07-05 00:00	07/04/2024 20:00	3	4	7
2024-07-05 01:00	07/04/2024 21:00	4	2	7
2024-07-14 16:00	07/14/2024 12:00	0	0	6
2024-07-14 17:00	07/14/2024 13:00	0	2	7
2024-07-30 13:00	07/30/2024 09:00	0	4	6
2024-08-01 18:00	08/01/2024 14:00	1	4	6
2024-08-01 20:00	08/01/2024 16:00	1	2	6
2024-08-02 13:00	08/02/2024 09:00	3	0	6
2024-08-02 14:00	08/02/2024 10:00	3	0	6
2024-08-02 15:00	08/02/2024 11:00	3	0	7
2024-08-02 16:00	08/02/2024 12:00	3	1	8
2024-08-03 14:00	08/03/2024 10:00	0	1	6
2024-08-03 15:00	08/03/2024 11:00	0	3	6
2024-08-03 16:00	08/03/2024 12:00	0	4	8
2024-08-28 21:00	08/28/2024 17:00	0	0	6
2024-08-28 22:00	08/28/2024 18:00	0	1	7
2024-08-28 23:00	08/28/2024 19:00	0	2	7
2024-08-31 17:00	08/31/2024 13:00	4	4	7
2024-09-21 18:00	09/21/2024 14:00	0	4	6



Criteria:

ZNY WX ≥ 6

ZBW & ZDC < 4

Last 3 years

April 1 – Sept 30

1300z-0100z

How many days and hours meet the above requirement and what is the timeframe per event?

2022: 20 Days, 34 hours = 1.95 hour/event

2023: 19 Days, 28 hours = 1.47 hour/event

2024: 23 Day, 49 hours = 2.13 hour/event

Total: 62 Days, 111 hours = 1.79 hour/event



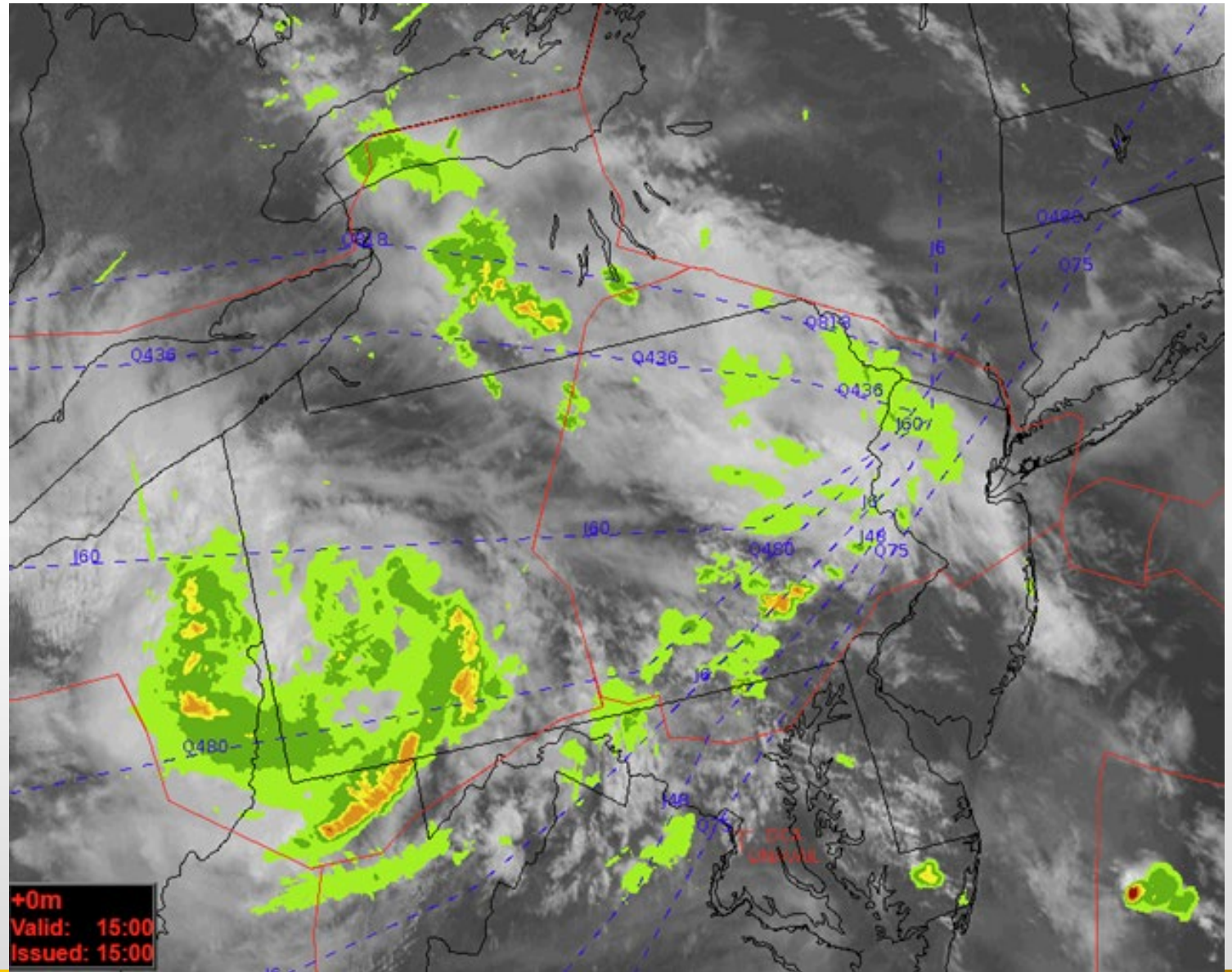
May 20, 2022:

- ZNY 1500-2100
(wx score 6-8)

Length of event: 6 hours

ZNY SWAP: 500 minutes

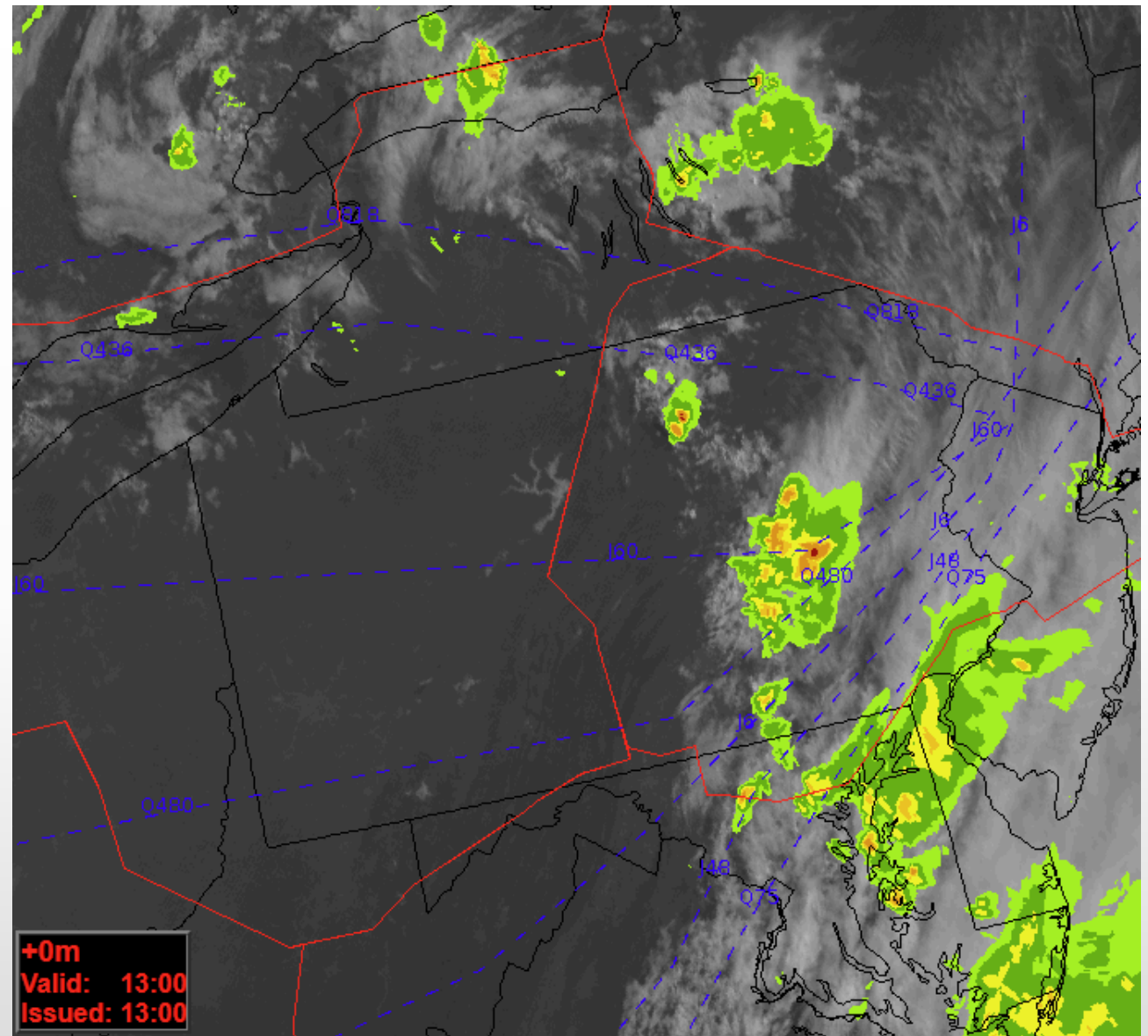
1740-0200z



July 24, 2023

Length of event: 2 hours
capture 1300-1500z

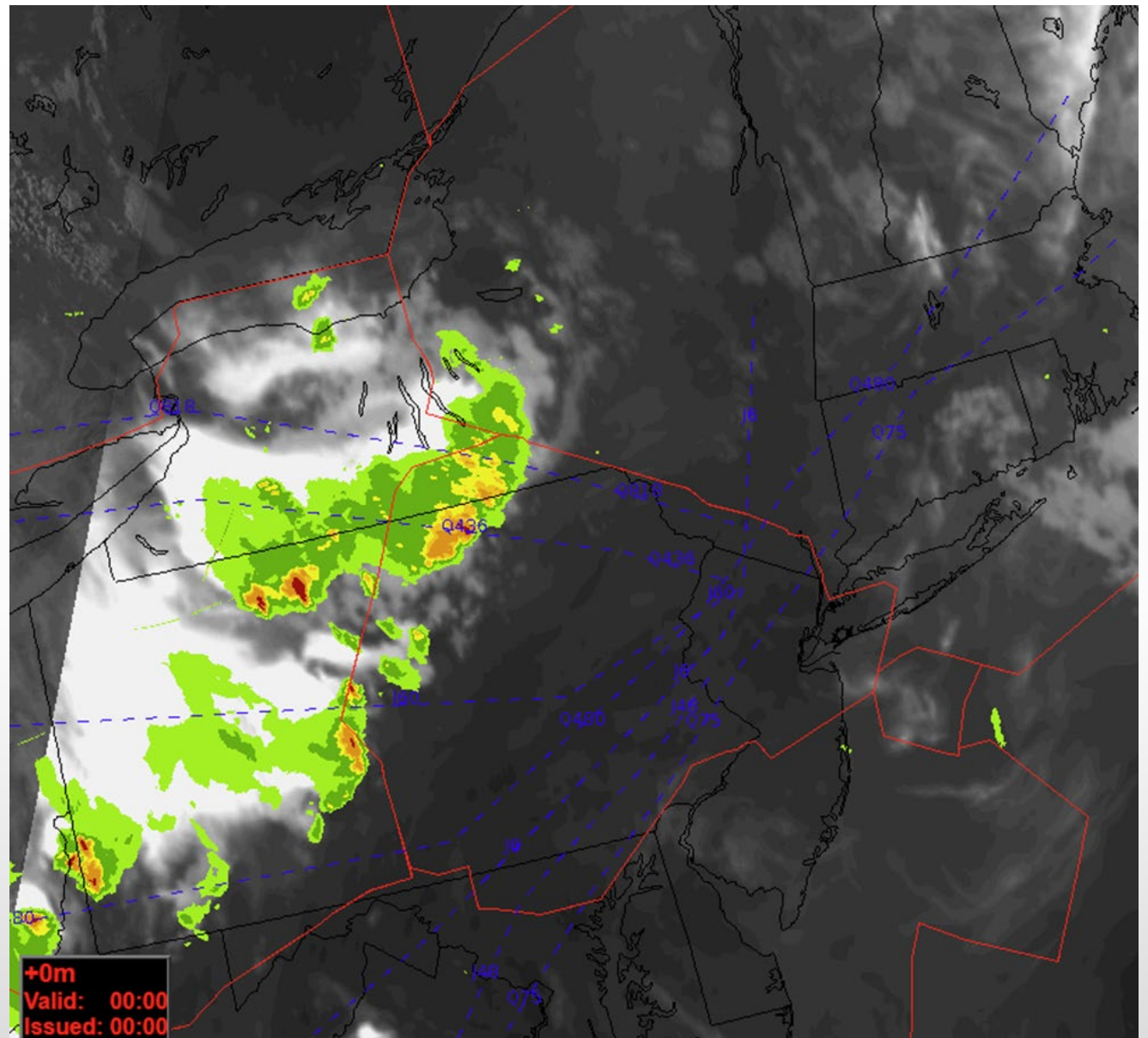
ZNY SWAP 1050
minutes
1030-0400z



June 18, 2024

Length of event: 2 hours
0000-0200

ZNY SWAP 255 minutes
2145-0200z



Conclusion

- Few events where ZNY had weather impacts were 6 or greater while ZBW or/and ZDC weather scores 4 or less.
- When conditions did exist, event lasted average of 1.79 hours
- Structured route advisory might not be realistic
- Due to short timeframe this would be handled better tactically



Discussion / Comments

