

Autumn Raptor Migration Summary 2013

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Raptor migration was steady through the autumn across the state of Pennsylvania, yet peak days were sporadic and daily counts were often lower than anticipated. Watchsites reported the lowest total count in more than a decade, with only a few exceptions. Weather often seemed ideal, but the expected migrants did not appear. Several site leaders commented that the lackluster counts in 2013 made them wonder if we were in contest for the lowest count on record, and many dubbed the autumn migration as “strange.”

Despite the overall lower numbers of migrants, there were some spectacular days across the state, e.g., more than 18,000 Broad-wings funneling over Militia Hill 15 September, 40 Bald Eagles at Bake Oven Knob 5 September, 7 Peregrine Falcons at Jack’s Mountain 7 October, 43 Golden Eagles at Allegheny Front 3 November, and 47 Red-shouldered Hawks passing Rose Tree Park also 3 November.

In sum, the thirteen reporting autumn sites spent 1035 days and 7350 hours counting hawks, down by 12% and 8% from 2012, respectively. The dip in coverage was attributable to lack of coverage at four partial-coverage sites that had been active in recent years (Blue Mountain-Route 183, BWSEPT Pipersville, Bucktoe, and Tussey Mountain). No Swainson’s, Gyrfalcon, or kites were recorded, although Rough-legged Hawk was observed at many sites.

Statewide, 124,465 hawks were

recorded in autumn 2013 at a rate of 16.9 hawks per hour, 28% below 2012 statewide count of 171,925 hawks. All species except Rough-legged Hawk, showed a statewide drop in totals compared to 2012, ranging from a minimum of 8% below 2012 for Turkey Vultures to 67% below 2012 for Northern Goshawk. The one exception was the Rough-legged Hawk, which doubled from 8 in 2012 to 16 sightings in autumn 2013, an early hint of the boreal invasion ahead (Table 2). Counts of eagles were above average statewide, however 2012’s high numbers overshadowed 2013 counts in comparison. Broad-winged Hawks, the most numerous statewide migrant, showed a 26% dip with 69,841 tallied in 2013 against 94,363 in 2012. The second most-numerous raptor, Sharp-shinned Hawk, was 32% below 2012 with 22,056 counted among the thirteen sites. Red-tailed Hawks were 37% below 2012 with a tally of 11,404 statewide (Table 2).

Allegheny Front (Somerset/Bedford) – Allegheny watchers tallied raptors 9% below normal volume with 8679 over 106 days and 832 hours of counting, or 10.4 hawks per hour. Above-average counts of Black (40) and Turkey Vultures (532), Bald Eagle (133), Sharp-shinned Hawk (1440), Golden Eagle (215), American Kestrel (98), and Merlin (40) were recorded (Table 2). Counters set a new autumn record for Bald Eagle at 133. In contrast, below average counts were tallied for Northern Harrier (34),

Cooper’s Hawk (208), Northern Goshawk (7), Broad-winged Hawk (4407), Red-shouldered Hawk (44), Red-tailed Hawk (1289), and Peregrine Falcon (26) (Table 2). More than 100 Golden Eagles were recorded in first week of November, with a one-day peak of 43 on 4 November (Table 1). Late in November, another flood of Golden Eagles stormed the site with including 42 on 30 November. Hawk counts for this site were boosted notably 15 October when 257 Sharp-shinned Hawks, 35 Cooper’s Hawks, and 202 Red-tailed Hawks flew south. The Bald Eagle peak one-day count of 22 coincided with a peak Broad-winged Hawk migration 18 September, as 820 Broad-wings swirled south. Despite these stellar days, overall counts remained below average for most species.

Bake Oven Knob (Lehigh) – At Bake Oven Knob, counters recorded 13,991 hawks from August through early December, 5% below the ten-year average of 14,668. Above average counts were tallied for Black (391) and Turkey Vultures (1145), Bald Eagle (388), Broad-winged Hawk (6447) and Golden Eagle (108) (Table 2). Below average counts were tallied for Osprey (402), Northern Harrier (69), Sharp-shinned Hawk (2579), Cooper’s Hawk (272), Northern Goshawk (18), Red-tailed Hawk (1477) and Peregrine Falcon (35). Bake Oven counters recorded an unusual flight of 40 Bald Eagles 5 September with many flying past after 16:00. On 20 September, 1648 Broad-winged Hawks were recorded, making for the autumn peak one-day count. On 3 November, one of the highest Red-tailed Hawk counts for the autumn (187) was recorded along with the peak count of Golden Eagles (22) and peak one-day total for Red-shouldered Hawk (29). A second notable push of Red-tailed Hawks came 12 November when 202 passed by along with 13 Golden Eagles.

Council Cup (Luzerne) – Council Cup counted 610 raptors in 100 hours over 25 days, 37% below average for this partial coverage site. Two of the most numerous migrants—Broad-winged and Red-tailed Hawks—showed below average counts at 51 and 105, respectively (Table 2). Notable upswings were observed for Northern Harrier (12) and American Kestrel (41). The one-day peak count of Bald Eagles (7) sailed past 22 September.

Table 1. Peak count dates for selected species at all Pennsylvania watch sites.

Site	Bald Eagle		Golden Eagle	
	Count	Date	Count	Date
Allegheny Front	22	9/18	43	11/4
Bake Oven Knob	40	9/5	22	11/3
<i>Blue Mtn./Rte. 183</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Bucktoe Preserve</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Pipersville (BW)</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Council Cup	7	9/22	1	11/1
Hawk Mountain	21	8/14	20	11/3
Jack’s Mountain	7	9/16, 9/30	12	11/4
Little Gap	21	11/19	12	11/24
Militia Hill	9	9/23	1	10/25, 10/28
Rocky Ridge Park	*	*	*	*
Rose Tree Park	11	9/22	5	11/3
Second Mountain	11	9/22	6	several
Stone Mountain	6	9/8	13	11/23
Tuscarora Summit	7	10/26	3	11/1, 11/2
<i>Tussey Mountain</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Waggoner’s Gap	19	9/14, 11/3	18	11/4, 11/12

Bold counts indicate top three totals by species

**daily count unreported*

A lone Golden Eagle was recorded in early November while the species was on the move statewide.

Hawk Mountain (*Berks/Schuylkill*) – Hawk Mountain’s 2013 total count of 15,271 hawks was 18.5% below average. Hours of effort were above average in 2013 with 1119 over 120 days (Table 2). Despite increased hours, counters tallied below average counts for every species except Black (115) and Turkey Vultures (603), Bald Eagle (377), and Golden Eagle (161). The most numerous migrant for this site, Broad-winged Hawk, showed a 16% dip below the 10-year average, and Red-tailed Hawk showed a 26% drop (Table 2). Even October’s “bread and butter” species, the Sharp-shinned Hawk, was down 17%.

Hawk Mountain’s season started with promise when a strong front ushered 21 Bald Eagles past the lookout 14 August, with most passing late in the day to be tallied by some stalwart Hawk Mountain friends. On 23 August, Bald Eagles made a second strong showing with 20 passing over the ridge. Broad-winged Hawk daily counts surpassed 1000 only once—20 September—when 1338 were sighted. The best late season day was 3 November, when northwest winds ushered 20 Golden Eagles and 219 Red-tailed Hawks past Hawk Mountain, marking the highest one-day count of the month (Table 1, 2).

Jack’s Mountain (*Mifflin*) – Jack’s counters upped their effort in 2013 to 339 hours and 66 days, an increase of 30% above the average of 47 days (Table 2). The increased coverage yielded above average numbers for most species, except Osprey (40), Northern Harrier (18), Northern Goshawk (1), American Kestrel (38), and Merlin (6). On 19 September 1848 Broad-winged Hawks, the one-day peak count, 4 Bald Eagles, and the autumn’s first Golden Eagle (an immature) all passed by. Southeasterly winds 7 October ushered a new one-day site record for Peregrine Falcons (7) past the ridge, along with 60 Sharp-shinned Hawks. Despite light winds, twelve Golden Eagles soared overhead 4 November, the one-day peak count, along with 20 Red-tailed Hawks and a single Bald Eagle.

Little Gap (*Northampton*) – Watchers at Little Gap recorded 12,850 total hawks in 2013, 10% below the 10-year average (Table 2). Only two species had above-average 2013 season totals: Bald Eagle (74) and Golden Eagle (46). The 566

hours of effort were slightly above the 10-year average of 552 (Table 2).

Mid-September brought several stellar days of watching as Broad-winged Hawks swirled south above the site. The first notable flight occurred 16 September 16 with 1580 birds, accompanied by 18 Bald Eagles. Two days later on 18 September, the highest one-day season count of 1759 for Broad-wings passed. The last push occurred 20 September when 1692 Broad-wings sailed overhead, bringing the one week total over 5000 birds! High migrant diversity was tallied 18 October when 13 species were sighted including a season peak count of 261 Sharp-shinned Hawks. Strong northwest winds 19 November urged eagles to the air, bringing a mostly morning flight of Bald Eagles that resulted in the highest one-day count for the year, 21. A few days later, the count team tallied the highest count of Golden Eagles for the autumn, 12, along with 18 Red-tailed Hawks and 5 Bald Eagles.

Militia Hill (*Montgomery*) – New records were set by Militia Hill counters in 2013 as a spectacular Broad-winged Hawk flight boosted their season total to 26,189, smashing a prior record of 24,085 set in 2012. The season count was 84% above the ten-year average, despite most species showing below average counts other than Bald Eagle (109), Red-shouldered Hawk (69), Broad-winged Hawk (23,639), American Kestrel (272), and Merlin (38). Rare sightings included a lone Rough-legged Hawk 18 October.

The banner day occurred 15 September with the first kettles sighted east of the watchsite before 10:00. One morning kettle included more than 3000 birds and by midday the count reached 15,000 migrants. By the day’s end, 18,055 Broad-winged Hawks had been tallied, setting a new one-day record for the site. The following two days counters tallied 1653 and 1524 Broad-wings respectively, but after 18 September daily counts dropped precipitously. A north breeze 8 and 9 October brought a variety of migrants including 50 American Kestrels across the two-day period. A total of 166 raptors flew past 15 October including a season one-day peak count of 103 Turkey Vultures and 17 surprisingly late Broad-winged Hawks.

Rocky Ridge Park (*York*) – A limited count at Rocky Ridge (35.3 hours) yielded some encouraging numbers, including 1438 Broad-winged Hawks, 140 Sharp-shinned Hawks, 15 Bald Eagles, and 16 Osprey, among others. The highest one-

day count occurred 22 September with eight species including 449 Broad-wings, 59 Sharp-shins, 24 American Kestrels, and single sightings of Bald Eagle, Northern Harrier, Cooper’s Hawk, Red-shouldered Hawk, and Osprey. The highest one day count for Broad-winged Hawk was 640 on 16 September. York County birders may want to check out this site next autumn.

Rose Tree Park (*Delaware*) – Similar to many sites in 2013, Rose Tree recorded 15% fewer raptor migrants than average, with 6426 this year (Table 2). Higher than average counts were tallied for Northern Harrier (151), Red-shouldered Hawk (181), and Golden Eagle (5), but most other species showed below average totals. The peak one-day count for the season occurred 15 September as 2069 Broad-winged Hawks soared over Rose Tree, along with 9 Osprey and 7 Bald Eagles. The next notable Broad-winged Hawk flight of 547 birds passed south 22 September and coincided with the peak one-day count for Bald Eagles (11). The day also included sightings of all three falcons: 5 American Kestrels, 4 Merlin, and a single Peregrine Falcon. Strong northwest winds 3 November gave Rose Tree counters a new one-day record of 5 Golden Eagle, one adult and four immature. Other sightings for the day included 47 Red-shouldered Hawks (a one-day peak count for the site), 19 Red-tailed Hawks, and 2 Bald Eagles.

Second Mountain (*Lebanon*) – Second Mountain recorded 7979 raptors in 118 days and 861 hours, a slight dip in coverage and birds compared to the ten-year averages (Table 2). Highlights included above average counts for Bald Eagle (181), with a peak of 11 on 22 September. The highest one-day count for the autumn occurred in mid-September as 1340 Broad-wings sailed west along the ridge in advance of an afternoon rain. October’s highest count occurred 21 October as 136 Sharp-shinned Hawks, 24 Red-tailed Hawks, 6 Bald Eagles, and 2 late day Peregrine Falcons kept watchers busy throughout the day. The highest one-day counts for November were had on the 5th, when 118 Red-tailed Hawks, 15 Sharp-shinned Hawks, 9 Black Vultures, 4 Turkey Vultures, 7 Red-shouldered Hawks, and 6 Golden Eagles were tallied.

Stone Mountain (*Huntingdon*) – This autumn, Stone Mountain recorded the second lowest total count in their history, just 3184 hawks, 24% below the ten-year

average. Watch hours and days were comparable to previous years at 351 and 65, respectively (Table 2). In contrast, the Bald Eagle total of 181 was the third highest on record, and above average counts were also tallied for Turkey Vulture (184), American Kestrel (110), and Merlin (32) (Table 2). The dates of 15 and 16 September brought back-to-back Broad-winged Hawk peak flights of 330 and 364. A high one-day count for American Kestrel was set 22 September with 29 birds, bringing hope for future increases. A cold front 18 October ushered more than 200 raptors past Stone Mountain including 111 Sharp-shinned Hawks, 35 Red-tailed Hawks, 11 Cooper's Hawks, 6 Merlin, 3 Bald Eagle and a lone Golden Eagle. A notable flight of Golden Eagles (11) sailed past 3 November along with the site's only Rough-legged Hawk. The highest one-day count of 13 Golden Eagles passed 23 November, accompanied by 16 Red-tailed Hawks, 4 Bald Eagles, one Northern Harrier, one Peregrine Falcon, one Turkey Vulture, and 2 Red-shouldered Hawks.

Tuscarora Summit (Fulton) – Tuscarora watchers recorded 3755 hawks in 59 days and 313 hours of coverage. Counts were 10% below the ten-year average of 4184 (Table 2). Similar to some other sites, 2013 totals included above average counts for Turkey Vulture (461) and Bald Eagle (54). They also recorded above average numbers for all three falcons, including 47 American Kestrels, 11 Merlin, and 17 Peregrine Falcons. Highlights included 658 Broad-winged Hawks 19 September, 4 Peregrine Falcons 6 October, and 7 Bald Eagles 26 October. Golden Eagles were seen daily during the first week of November with a peak count of 3 on 1 and 2 November. The former date also brought the season peak counts of 66 Red-tailed Hawks, 28 Turkey Vultures, 4 Bald Eagles, and 4 Peregrine Falcons.

Waggoner's Gap (Cumberland) – Waggoner's Gap counters covered 142 days and 1105 hours over one of the longest autumn seasons in the state. The 17,477 total raptors were 25% below the ten-year average of 23,189 (Table 2). As at other watchsites, counts were lower than average for most species, with some exceptions. Waggoner's counted an above average number of Bald Eagle—499 compared to their average of 385 (Table 2). Golden Eagles were also above average by a small margin, with 245 counted compared to the average of 234

(Table 2). An early August count of 14 Bald Eagles 4 August rewarded the early watchers, and 138 raptors 24 August was the highest count for the month, which included 6 American Kestrels, 16 Bald Eagles and 81 Broad-winged Hawks. Broad-winged Hawk flights were disappointing with a peak one-day count of just 868 on 19 September. A cold front 14 September brought the highest one-day count for Bald Eagles (19) along with 523 Broad-wings and 74 Sharp-shinned Hawks. Although falcons were below average, 19 October brought 7 Peregrine Falcons shooting past the rocks, a good day in any year.

November began with an eagle parade as 19 Bald Eagles were sighted 3 November, tying the one-day peak count set earlier in the season. Counters also recorded 38 Golden Eagles in the first four days of the month, including 18 on 4 November, the one-day peak count for 2013. Golden Eagles were tallied nearly every day in November with including 18 birds 12 November followed by 17 on 13 November. A late surge was noted 23 November when 15 Golden Eagles were accompanied by three Bald Eagles.

Conclusion

Despite a “strange” and “lackluster” autumn season overall, 2013 yielded some amazing migration days across the state. Outstanding eagle flights were witnessed at all sites, with seven or more Bald Eagles seen at least once at every site. Militia Hill set a new record for Broad-winged Hawks 15 September, recording one of the highest autumn counts ever recorded anywhere in Pennsylvania. Although October held few peak counts, early November opened the door to an eagle storm, with 3 and 4 November bringing some of the best Pennsylvania eagle-watching of any autumn.

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Key to Table 2 headers

BLVU	Black Vulture
TUVU	Turkey Vulture
OSPR	Osprey
BAEA	Bald Eagle
NOHA	Northern Harrier
SSHA	Sharp-shinned Hawk
COHA	Cooper's Hawk
NOGO	Northern Goshawk
RSHA	Red-shouldered Hawk
BWHA	Broad-winged Hawk
RTHA	Red-tailed Hawk
RLHA	Rough-legged Hawk
GOEA	Golden Eagle
AMKE	American Kestrel
MERL	Merlin
PEFA	Peregrine Falcon
SWHA	Swainson's Hawk
Unid	unidentified

Table 2. Autumn 2013 count results for Pennsylvania watchsites.

ALLEGHENY FRONT (Bedford/Somerset) - Bob Stewart, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	16	115	5	0	11	20	13	23	13	0	3	352	92	0	0	26	3	0	0	10	561
September	30	227	12	0	80	69	11	297	78	0	4	4062	166	0	1	32	18	7	0	23	4850
October	27	193	13	443	11	19	13	1095	113	0	24	3	727	0	11	39	17	19	0	28	2575
November	24	174	10	89	0	23	7	25	4	7	13	0	287	1	195	1	2	0	0	2	666
December	9	48	0	0	0	2	0	0	0	0	0	0	17	0	8	0	0	0	0	0	27
Total	106	832	40	532	102	133	34	1440	208	7	44	4407	1289	1	215	98	40	26	0	63	8679
Total per hr			0.05	0.64	0.12	0.16	0.04	1.73	0.25	0.01	0.05	5.30	1.55	0.00	0.26	0.12	0.05	0.03	0.00	0.08	10.43
% of flight			0.5	6.1	1.2	1.5	0.4	16.6	2.4	0.1	0.5	50.8	14.9	0.0	2.5	1.1	0.5	0.3	0.0	0.7	100.0
Average last 10 yrs	110.5	806.2	25.7	473.8	108.4	84.9	58.6	1192.5	240.6	8.3	81.6	4931.7	1814.6	3.6	189.2	69.1	32.6	29.9	0.1	205.2	9550.4

BAKE OVEN KNOB (Lehigh) - Dan Kunkle, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	16	139	43	198	70	67	14	17	5	0	2	148	94	0	0	20	4	2	0	31	715
September	30	272	124	306	302	229	28	746	77	2	14	6291	184	0	0	85	39	11	0	130	8568
October	27	216	126	436	30	51	24	1752	176	10	44	8	359	0	26	66	52	21	0	66	3247
November	27	185	98	205	0	41	3	64	14	6	77	0	840	0	82	0	0	1	0	30	1461
December	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	101	818	391	1145	402	388	69	2579	272	18	137	6447	1477	0	108	171	95	35	0	257	13991
Total per hr			0.48	1.40	0.49	0.47	0.08	3.15	0.33	0.02	0.17	7.88	1.81	0.00	0.13	0.21	0.12	0.04	0.00	0.31	17.10
% of flight			2.8	8.2	2.9	2.8	0.5	18.4	1.9	0.1	1.0	46.1	10.6	0.0	0.8	1.2	0.7	0.3	0.0	1.8	100.0
Average last 10 yrs	101.8	793.4	275.5	956.2	519.3	211.3	132.4	3280.2	350.9	32.4	135.1	5903.4	2158.5	1.5	98.5	175.9	96.2	52.2	0.2	279.7	14668.0

COUNCIL CUP (Luzerne) - Donald Kapral, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	10	37	2	0	2	16	1	14	0	0	0	49	0	0	0	11	0	0	0	0	95
October	10	40	0	173	7	12	10	97	10	0	0	2	42	0	0	29	1	0	0	2	385
November	5	23	1	25	1	5	1	15	2	0	0	0	63	0	1	1	0	0	0	15	130
Total	25	100	3	198	10	33	12	126	12	0	0	51	105	0	1	41	1	0	0	17	610
Total per hr			0.03	1.98	0.10	0.33	0.12	1.26	0.12	0.00	0.00	0.51	1.05	0.00	0.01	0.41	0.01	0.00	0.00	0.17	6.10
% of flight			0.5	32.5	1.6	5.4	2.0	20.7	2.0	0.0	0.0	8.4	17.2	0.0	0.2	6.7	0.2	0.0	0.0	2.8	100.0
Average last 5 yrs	25.3	113.8	1.2	162.4	25.4	49.4	5.6	122.6	10.6	0.0	0.8	297.0	234.0	0.0	0.2	26.2	0.0	1.2	0.0	34.6	973.4

HAWK MOUNTAIN (Berks and Schuylkill) - Laurie Goodrich, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	19	179	0	8	52	68	11	35	11	0	1	171	45	0	1	21	8	3	0	5	440
September	30	333	23	74	272	159	32	883	72	2	6	6250	130	0	0	170	51	15	0	79	8218
October	29	287	61	356	65	61	40	2701	262	8	76	9	555	1	26	126	71	24	0	90	4532
November	30	244	25	163	1	81	26	151	44	17	82	0	1245	0	121	4	8	5	0	28	2001
December	12	76	6	2	0	8	0	0	1	1	2	0	47	0	13	0	0	0	0	0	80
Total	120	1119	115	603	390	377	109	3770	390	28	167	6430	2022	1	161	321	138	47	0	202	15271
Total per hr			0.10	0.54	0.35	0.34	0.10	3.37	0.35	0.03	0.15	5.75	1.81	0.00	0.14	0.29	0.12	0.04	0.00	0.18	13.65
% of flight			0.8	3.9	2.6	2.5	0.7	24.7	2.6	0.2	1.1	42.1	13.2	0.0	1.1	2.1	0.9	0.3	0.0	1.3	100.0
Average last 10 yrs	123.3	1087.1	487.5	126.3	533.2	278.4	182.5	4561.8	676.8	37.9	198.6	7686.8	2709.0	2.7	128.9	430.1	169.4	55.3	0.4	176.9	18730.1

MILITIA HILL (Montgomery) - Andy Fayer, Jamie Stewart, Rich Conroy, co-compilers

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	30	234	0	0	152	64	32	366	49	0	13	23617	16	0	0	157	18	12	0	45	24541
October	28	219	0	571	52	45	25	555	84	1	56	22	62	1	2	115	17	7	0	33	1648
Total	58	453	0	571	204	109	57	921	133	1	69	23639	78	1	2	272	35	19	0	71	26189
Total per hr			0.00	1.26	0.45	0.24	0.13	2.03	0.29	0.00	0.15	52.18	0.17	0.00	0.00	0.60	0.08	0.04	0.00	0.16	57.81
% of flight			0.0	2.2	0.8	0.4	0.2	3.5	0.5	0.0	0.3	90.3	0.3	0.0	0.0	1.0	0.1	0.1	0.0	0.3	100.0
Average last 10 yrs	59.6	446.0	34.2	526.4	285.2	91.9	77.8	1107.9	157.9	1.8	62.3	11308.8	163.1	0.2	3.5	253.3	28.2	25.9	0.3	65.6	14202.2

JACK'S MOUNTAIN (Mifflin) - Ron Singer, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total	
September	23	136	8	0	37	51	7	127	22	0	2	4718	24	0	1	18	3	0	0	0	1	5019
October	26	125	15	135	3	16	7	447	36	1	17	18	338	0	13	18	3	16	0	0	7	1074
November	17	78	2	4	0	7	4	8	1	0	5	0	176	0	32	2	0	0	0	0	4	245
Total	66	339	25	139	40	74	18	582	59	1	24	4720	538	0	46	38	6	16	0	12	6338	
Total per hr			0.07	0.41	0.12	0.22	0.05	1.72	0.17	0.00	0.07	13.92	1.59	0.00	0.14	0.11	0.02	0.05	0.00	0.04	18.70	
% of flight			0.4	2.2	0.6	1.2	0.3	9.2	0.9	0.0	0.4	74.5	8.5	0.0	0.7	0.6	0.1	0.3	0.0	0.2	100.0	
Average last 10 yrs	46.8	270.1	14.5	130.0	58.2	47.1	25.8	465.1	46.5	1.8	7.7	2476.5	410.1	0.2	26.1	43.0	9.6	7.3	0.1	15.0	3782.7	

LITTLE GAP (Northampton) - Michael Schall, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	12	48	7	0	9	24	1	6	2	0	1	21	6	0	0	7	2	0	0	0	86
September	28	196	9	1	233	124	17	576	66	1	3	6858	112	0	1	96	28	7	0	29	8161
October	25	179	23	217	32	40	38	1978	139	5	40	5	432	0	21	51	30	19	0	33	3103
November	22	143	32	59	0	68	13	131	38	5	47	0	1006	0	64	1	10	4	0	22	1500
Total	87	566	71	277	274	256	69	2691	245	11	91	6884	1556	0	86	155	70	30	0	84	12850
Total per hr			0.13	0.49	0.48	0.45	0.12	4.75	0.43	0.02	0.16	12.16	2.75	0.00	0.15	0.27	0.12	0.05	0.00	0.15	22.70
% of flight			0.6	2.2	2.1	2.0	0.5	20.9	1.9	0.1	0.7	53.6	12.1	0.0	0.7	1.2	0.5	0.2	0.0	0.7	100.0
Average last 10 yrs	90.3	551.9	77.2	460.1	407.4	177.6	111.3	3198.3	404.4	26.3	106.5	6933.7	1957.1	1.1	68.0	195.2	80.6	37.1	0.0	108.4	14350.6

ROSE TREE PARK (Delaware) - Holly Merker, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	1	3	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	7
September	30	207	0	4	127	18	81	382	52	0	10	3682	16	0	0	97	18	6	0	23	4516
October	28	192	45	220	26	17	46	607	72	1	57	6	76	0	0	90	12	8	0	17	1300
November	23	131	16	154	1	6	19	92	22	1	114	0	152	0	5	4	3	1	0	13	603
Total	82	533	61	378	156	41	151	1081	146	2	181	3688	244	0	5	191	33	15	0	53	6426
Total per hr			0.11	0.71	0.29	0.08	0.28	2.03	0.27	0.00	0.34	6.92	0.46	0.00	0.01	0.36	0.06	0.03	0.00	0.10	12.06
% of flight			0.9	5.9	2.4	0.6	2.3	16.8	2.3	0.0	2.8	57.4	3.8	0.0	0.1	3.0	0.5	0.2	0.0	0.8	100.0
Average last 10 yrs	93.3	601.8	100.0	424.6	223.8	150.6	82.5	1303.9	206.0	3.7	174.8	4150.9	400.1	0.2	3.8	193.0	38.1	17.0	0.2	68.1	7529.8

ROCKY RIDGE (York) - Randy Phillips, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	4	25	0	0	14	10	3	97	1	0	1	1438	5	0	0	29	0	0	0	0	1598
October	2	11	2	41	2	5	3	43	6	0	0	0	10	0	1	5	0	0	0	0	118
Total	6	35	2	41	16	15	6	140	7	0	1	1438	15	0	1	34	0	0	0	0	1716
Total per hr			0.06	1.17	0.46	0.43	0.17	4.00	0.20	0.00	0.03	41.09	0.43	0.00	0.03	0.97	0.00	0.00	0.00	0.00	49.03
% of flight			0.1	2.4	0.9	0.9	0.3	8.2	0.4	0.0	0.1	83.8	0.9	0.0	0.1	2.0	0.0	0.0	0.0	0.0	100.0
Average last 10 yrs	36.0	124.0	5.0	31.0	33.0	78.0	22.0	298.0	34.0	1.0	9.0	1539.0	146.0	0.0	3.0	51.0	2.0	2.0	0.0	10.0	2265.0

SECOND MOUNTAIN (Lebanon) - David Schwenk, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	21	121	28	73	21	11	0	6	6	0	2	116	27	0	0	6	0	1	0	2	299
September	29	244	87	136	77	92	23	373	50	1	4	3377	105	0	3	43	7	2	0	29	4409
October	28	232	107	305	10	38	35	1334	81	0	42	7	274	1	16	41	20	16	0	26	2353
November	28	211	71	158	0	39	10	91	10	2	70	0	370	0	56	0	0	1	0	17	895
December	12	53	0	0	0	1	0	0	0	1	0	0	13	0	8	0	0	0	0	0	23
Total	118	861	293	672	108	181	68	1804	147	4	118	3500	789	1	83	90	27	20	0	74	7979
Total per hr			0.34	0.78	0.13	0.21	0.08	22.6	0.17	0.00	0.14	4.07	0.92	0.00	0.10	0.10	0.03	0.02	0.00	0.09	9.27
% of flight			3.7	8.4	1.4	2.3	0.9	22.6	1.8	0.1	1.5	43.9	9.9	0.0	1.0	1.1	0.3	0.3	0.0	0.9	100.0
Average last 10 yrs	134.7	959.4	390.5	730.8	182.6	156.5	119.5	2279.2	265.9	33.4	129.5	3879.3	1193.1	2.7	90.5	111.2	39.1	25.8	0.6	68	9698.9

STONE MOUNTAIN (Huntingdon) - Greg Grove, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOFA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	2	6	0	0	0	5	0	0	2	0	0	12	0	0	0	3	1	0	0	1	24
September	23	126	0	0	48	44	5	142	37	2	9	1150	33	0	0	68	12	5	0	6	1561
October	20	103	1	142	6	13	16	472	73	0	18	2	268	0	4	39	19	7	0	15	1095
November	18	105	3	42	0	31	2	36	6	4	26	0	250	1	76	0	0	2	0	1	480
December	2	11	0	0	0	0	0	0	1	0	0	0	11	0	12	0	0	0	0	0	24
Total	65	351	4	184	54	93	23	650	119	6	53	1164	562	1	92	110	32	14	0	23	3184
Total per hr			0.01	0.52	0.15	0.26	0.07	1.85	0.34	0.02	0.15	3.32	1.60	0.00	0.26	0.31	0.09	0.04	0.00	0.07	9.07
% of flight			0.1	5.8	1.7	2.9	0.7	20.4	3.7	0.2	1.7	36.6	17.7	0.0	2.9	3.5	1.0	0.4	0.0	0.7	100.0
Average last 10 yrs	61.2	336.7	19.0	149.9	79.4	71.2	60.0	827.7	170.1	9.3	55.7	1436.3	991.7	1.0	108.6	87.2	30.4	17.6	0.3	49	4164.6

TUSCARORA SUMMIT (Fulton) - Dale Gearhart, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOFA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	24	138	13	0	67	34	20	288	30	2	11	1569	11	0	4	19	5	3	0	40	2116
October	28	140	5	387	18	15	34	505	41	1	10	2	267	0	17	25	5	7	0	33	1372
November	7	35	3	74	0	5	6	12	4	0	12	0	123	0	12	3	1	7	0	5	267
Total	59	313	21	461	85	54	60	805	75	3	33	1571	401	0	33	47	11	17	0	78	3755
Total per hr			0.07	1.47	0.27	0.17	0.19	2.57	0.24	0.01	0.11	5.02	1.28	0.00	0.11	0.15	0.04	0.05	0.00	0.25	12.00
% of flight			0.6	12.3	2.3	1.4	1.6	21.4	2.0	0.1	0.9	41.8	10.7	0.0	0.9	1.3	0.3	0.5	0.0	2.1	100.0
Average last 10 yrs	63.7	338.9	25.4	336.3	84.8	51.8	60.0	896.8	83.2	2.4	26.3	1974.1	473.7	1.0	34.4	38.0	9.5	14.1	0	72.5	4184.3

WAGGONER'S GAP (Cumberland) - David Grove, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOFA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	29	186	0	0	34	75	18	35	18	0	3	247	77	0	0	33	4	3	0	10	557
September	30	272	0	0	182	194	29	1453	111	0	12	5647	118	0	0	113	33	16	0	41	7949
October	30	285	24	1137	38	101	59	3805	283	0	47	8	806	1	43	99	48	34	0	57	6590
November	28	247	23	272	1	85	35	172	27	21	85	0	1245	2	177	1	10	4	0	23	2183
December	25	135	26	10	0	44	0	2	2	4	2	0	82	1	25	0	0	0	0	0	198
Total	142	1105	73	1419	255	499	141	5467	441	25	149	5902	2328	4	245	246	95	57	0	131	17477
Total per hr			0.07	1.35	0.24	0.48	0.13	5.21	0.42	0.02	0.14	5.62	2.22	0.00	0.23	0.23	0.09	0.05	0.00	0.12	16.64
% of flight			0.4	8.2	1.5	2.9	0.8	31.5	2.5	0.1	0.9	34.0	13.4	0.0	1.4	1.4	0.5	0.3	0.0	0.8	100.5
Average last 10 yrs	14.1	1130	100	1550	469	385	261	7625	829	63	247	7242	3509	5	234	330	110	61	0	169	23189

2013 TOTALS FOR ALL WATCHSITES

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOFA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	116	797	83	279	199	270	52	122	57	0	12	1,067	341	0	1	116	22	9	0	59	2,689
September	321	2,447	278	521	1,593	1,104	289	5,744	645	10	89	68,698	920	0	10	938	232	84	0	446	81,601
October	308	2,202	422	4,563	300	433	350	15,391	1,376	27	431	76	4,216	4	180	743	295	178	0	407	29,392
November	229	1,576	284	1,245	4	391	126	797	172	63	531	0	5,757	4	821	17	34	25	0	160	10,431
December	61	329	32	12	0	55	0	2	4	6	4	0	170	1	66	0	0	0	0	0	352
Total	1035	7350	1099	6620	2096	2253	817	22056	2254	106	1067	69841	11404	9	1078	1814	583	296	0	1072	124465
Total per hr			0.15	0.90	0.29	0.31	0.11	3.00	0.31	0.01	0.15	9.50	1.55	0.00	0.15	0.25	0.08	0.04	0.00	0.15	16.93
% of flight			0.9	5.3	1.7	1.8	0.7	17.7	1.8	0.1	0.9	56.1	9.2	0.0	0.9	1.5	0.5	0.2	0.0	0.9	100.0
2012 totals	1175	7978	1389	7166	3208	2647	1088	32555	3377	326	1469	94363	18062	8	1337	2557	749	409	3	1202	171925
% change from 2012	-12%	-8%	-21%	-8%	-35%	-15%	-25%	-32%	-33%	-67%	-27%	-26%	-37%	13%	-19%	-29%	-22%	-28%	-100%	-11%	-28%