

# Weather – Part 4

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## *SIGMETs, Convective SIGMETs, AIRMETs, CWAs, PIREPs and Winds Aloft*

1. AIRMETs –
  - a. How long is an AIRMET valid for (routinely)?
  - b. What are the types of AIRMETs and what weather phenomena does each type address?
2. SIGMETs –
  - a. How long is a SIGMET valid for (routinely)?
  - b. What weather phenomena does a SIGMET address?
3. Convective SIGMETs
  - a. How long is a Convective SIGMET valid for (routinely)?
  - b. What weather phenomena does a Convective SIGMET address?
4. CWAs (Center Weather Advisories) –
  - a. How long is a CWA valid for (routinely)?
  - b. Compare and contrast a CWA to SIGMETs and AIRMETs

### Winds Aloft Data Excerpt -

NOTE – The information below has been arranged for you so you can view each reporting station from east (BHM) to west (AMA) that is on or adjacent to your route of flight. This is NOT how the actual data is presented – you have to hunt through the list to find the stations that apply to your intended route. See the last page of this document for the actual data from which this abbreviated and re-arranged table was created.

FD1US1

DATA BASED ON 151200Z

VALID 151800Z FOR USE 1400-2100Z. TEMPS NEG ABV 24000

<b>FT</b>	<b>3000</b>	<b>6000</b>	<b>9000</b>	<b>12000</b>	<b>18000</b>	<b>24000</b>	<b>30000</b>	<b>34000</b>	<b>39000</b>
BHM	1712	1805+12	3206+07	2717+02	2545-08	2549-18	264934	276345	780154
MEM	2012	2407+12	2606+08	2820+02	2651-09	2559-20	268636	760144	760954
LIT	2615	2712+14	2614+09	2719+03	2747-10	2555-19	257536	269744	760954
FSM	2516	2509+15	2614+10	2722+03	2647-10	2659-22	269237	761144	752153
TUL	2814	2405+16	2309+10	2314+02	2645-12	2658-24	268738	761245	753052
OKC	3310	2619+19	2519+11	2626+04	2643-10	2658-23	268537	760944	752352
GAG	0336+11	3110+11	3112+03	2823-13	2748-24	266440	268847	750953	
AMA		3304	3110+11	3210+03	2738-11	2642-25	267139	259645	751052

5. What does FD1US1 in the header indicate?
6. You are approaching Birmingham (BHM) from the east at FL340 – what are the winds and temperature expected at BHM at that flight level?
7. You will continue on a westerly heading that will take you between Memphis (MEM) and Little Rock (LIT) -
  - a. Would a change in altitude provide for more favorable winds?
  - b. If so, what altitude would you request and what improvement in the winds would you expect?
8. If you were making the same trip over BHM heading between MEM and LIT flying VFR at 10,500 ft. –
  - a. What would you expect the winds aloft and temperature to be at BHM?
  - b. What would you expect the winds aloft and temperature to be once you were between MEM and LIT?
9. Missing information?
  - a. Why are there only four digits in the 3000 ft. column for BHM through OKC?
  - b. Why is the 3000 ft. column blank for GAG and AMA?
  - c. Why does AMA only have four numbers in the 6000 ft. column while all the others listed above AMA have a set of numbers that look like '1234+12'?
10. What if you see 9900 in the 3000 ft. column – what does this mean?
11. PIREPS – Decode the following PIREPs:
  - a. UUA /OV OLM145015/TM 2027/FL150/TP PC12/TA M06/SK BKN 085 TOPUKN/IC MOD-SEV MX/RM -ZSE
  - b. UA /OV EHF143027/TM 1754/FL074/TP C172/SK BKN-TOP074
  - c. UA /OV KFNL/TM 1815/FL073/TP C172/WX FV06SM HZ FU/RM MORE HZ E – DURC
  - d. UA/OV KOKC-KTUL/TM 1800/FL120/TP BE90/SK BKN018-TOP055/OVC072-TOP089/CLR ABV/ TA M7/WV 08021/TB LGT 055-072/IC LGT-MOD RIME 072-089
12. What is the term for a pilot who has received specialized training in observing and reporting inflight weather phenomenon, pilot weather reports, or PIREPs?

Example of Actual Winds Aloft Data as Published:

FD1US1

DATA BASED ON 151200Z

VALID 151800Z FOR USE 1400-2100Z. TEMPS NEG ABV 24000

<b>FT</b>	<b>3000</b>	<b>6000</b>	<b>9000</b>	<b>12000</b>	<b>18000</b>	<b>24000</b>	<b>30000</b>	<b>34000</b>	<b>39000</b>
BHM	1712	1805+12	3206+07	2717+02	2545-08	2549-18	264934	276345	780154
HSV	1912	2112+12	2308+07	2515+02	2939-10	2549-19	256934	267345	770456
MGM	1321	1716+13	2113+09	2416+04	2839-07	2645-17	275633	287342	288054
MOB	2212	2524+15	2620+10	2624+06	2727-06	2833-17	285032	285542	286554
FSM	2516	2509+15	2614+10	2722+03	2647-10	2659-22	269237	761144	752153
LIT	2615	2712+14	2614+09	2719+03	2747-10	2555-19	257536	269744	760954
LCH	2411	2517+16	2618+11	2520+06	2327-05	2434-16	273731	274141	275554
MSY	2312	2612+15	2616+11	2518+06	2528-06	2739-17	284931	285641	286354
SHV	2530	2722+15	2516+09	2622+04	2628-07	2747-18	256732	258143	269254
JAN	2619	2630+14	2630+09	2631+05	2734-07	2845-17	276433	277642	278254
GAG		0336+11	3110+11	3112+03	2823-13	2748-24	266440	268847	750953
OKC	3310	2619+19	2519+11	2626+04	2643-10	2658-23	268537	760944	752352
TUL	2814	2405+16	2309+10	2314+02	2645-12	2658-24	268738	761245	753052
BNA	2117	2318+12	2215+07	2519+00	2737-11	2779-21	259536	760746	762454
MEM	2012	2407+12	2606+08	2820+02	2651-09	2559-20	268636	760144	760954
TRI		2116+11	2413+06	2620+00	2636-10	2752-23	770436	771147	782855
TYS	2210	2215+12	2313+07	2619+00	2741-11	2755-23	770335	770746	782556
ABI		3011+18	2910+11	2623+05	2637-09	2554-20	258132	259141	258754
AMA		0334	3110+11	3210+03	2738-11	2642-25	267139	259645	751052
BRO	1716	1809+20	1906+16	9900+10	2010-04	2211-16	241431	222141	192253
CLL	2419	2419+16	2519+11	2433+06	2641-05	2636-16	264431	265241	256353
CRP	1912	2114+18	2309+15	2409+10	2420-05	2425-16	262831	253141	233353
DAL	2528	2817+16	2815+10	2825+05	2741-08	2559-20	257833	258541	258954
DRT	1805	3011+20	2815+14	2515+07	2534-07	2541-17	254531	254841	235753
ELP		3406	3305+10	2816+02	2537-09	2551-21	258534	259542	249152
HOU	2210	2418+16	2415+11	2320+07	2439-06	2643-16	283631	274241	264954
INK		3409+18	2909+11	2718+05	2635-10	2555-20	258432	259240	248553
LBB		3217+20	2814+11	2616+03	2631-10	2550-23	258635	750342	740752
LRD	1710	2014+20	9900+16	2806+09	2418-05	2423-16	252631	252841	213553
MRF			2707+12	2518+05	2538-08	2551-18	256831	256540	246554
PSX	2112	2312+16	2313+14	2316+09	2526-05	2532-16	273530	253841	253853
SAT	1910	2217+19	2511+15	2513+08	2523-06	2532-16	263531	253741	234353
SPS	2811	2814+19	2819+11	2728+03	2735-09	2656-22	258735	750442	750653
T01	2213	2311+17	2312+13	2212+09	2423-05	2628-16	283630	273841	274053
T06	2312	2211+17	2213+13	2313+08	2420-04	2627-16	283831	274341	294753
T07	2214	2215+16	2413+12	2615+08	2621-05	2827-16	294131	294841	305354
4J3	1917	2116+16	2514+11	2616+07	2723-06	2829-17	304531	305541	305053
H51	1814	1807+18	2009+16	1906+10	2210-04	2212-16	261631	232041	222153
H52	1611	1910+18	1911+13	1808+09	2207-04	2410-16	271131	301641	301553
H61	1613	9900+16	9900+13	2605+08	2814-06	2918-16	313730	323641	323153