



National Transportation Safety Board

**Office of Aviation Safety
Washington, D.C. 20594-2000
October 24, 2016**

**ATTACHMENT 1 to the WEATHER STUDY
CEN16FA276**

One minute observations from the JOT AWOS for the time period 1000-1200 CDT. The following is presented in UTC.

*Submitted by: Mike Richards
NTSB, AS-30*

				DENSITY		VARIABLE	WIND	WIND	WIND	VARIABLE		PRESENT		PRECIPITATION
<u>REPORT TIME</u>	<u>TEMP</u>	<u>DEWPOINT</u>	<u>ALTIMETER</u>	<u>ALTITUDE</u>	<u>VISIBILITY</u>	<u>VISIBILITY</u>	<u>DIRECTION</u>	<u>SPEED</u>	<u>GUST</u>	<u>WIND</u>	<u>SKY CONDITION</u>	<u>WEATHER</u>	<u>LIGHTNING</u>	<u>ACCUMULATION</u>
2016-07-21 15:00:00	87	79	30.09	2300	10		200	6			CLR			
2016-07-21 15:01:00	87	79	30.09	2300	10		220	5			CLR			
2016-07-21 15:02:00	87	79	30.09	2300	10		220	4			CLR			
2016-07-21 15:03:00	87	79	30.09	2300	10		210	4			CLR			
2016-07-21 15:04:00	87	79	30.09	2300	10		200	4			CLR			
2016-07-21 15:05:00	87	79	30.09	2300	10		210	5			CLR			
2016-07-21 15:06:00	87	79	30.09	2300	10		220	5			CLR			
2016-07-21 15:07:00	87	79	30.09	2300	10		220	6			CLR			
2016-07-21 15:08:00	87	79	30.09	2300	10		230	6			CLR			
2016-07-21 15:09:00	87	79	30.09	2300	10		230	6			CLR			
2016-07-21 15:10:00	87	79	30.09	2300	10		240	7			CLR			
2016-07-21 15:11:00	87	79	30.09	2300	10		230	7		190V250	CLR			
2016-07-21 15:12:00	87	79	30.09	2300	10		210	7			CLR			
2016-07-21 15:13:00	87	79	30.09	2300	10		210	6			CLR			
2016-07-21 15:14:00	87	79	30.09	2300	10		230	7			CLR			
2016-07-21 15:15:00	87	79	30.09	2300	10		230	7			CLR			
2016-07-21 15:16:00	88	79	30.1	2400	10		230	7			CLR			
2016-07-21 15:17:00	88	79	30.1	2400	10		230	7			CLR			
2016-07-21 15:18:00	88	79	30.1	2400	10		230	8			CLR			
2016-07-21 15:19:00	88	79	30.1	2400	10		230	7			CLR			
2016-07-21 15:20:00	88	79	30.1	2400	10		220	6			CLR			
2016-07-21 15:21:00	88	79	30.1	2400	10		210	7			CLR			
2016-07-21 15:22:00	88	79	30.1	2400	10		200	8			CLR			
2016-07-21 15:23:00	88	79	30.09	2400	10		200	8			CLR			
2016-07-21 15:24:00	87	79	30.09	2300	10		200	7			CLR			
2016-07-21 15:25:00	87	79	30.09	2300	10		200	8			CLR			
2016-07-21 15:26:00	87	79	30.09	2300	10		200	7			CLR			
2016-07-21 15:27:00	87	79	30.09	2300	10		200	7			CLR			
2016-07-21 15:28:00	87	79	30.09	2300	10		210	6			CLR			
2016-07-21 15:29:00	87	79	30.09	2300	10		220	5			CLR			
2016-07-21 15:30:00	87	79	30.09	2300	10		230	4			CLR			
2016-07-21 15:31:00	87	79	30.09	2300	10		230	4			CLR			

2016-07-21 15:32:00	87	79	30.09	2300	10	220	5	CLR
2016-07-21 15:33:00	87	79	30.09	2300	10	230	6	CLR
2016-07-21 15:34:00	87	79	30.09	2300	10	230	6	CLR
2016-07-21 15:35:00	87	79	30.09	2300	10	220	5	CLR
2016-07-21 15:36:00	87	79	30.09	2300	10	220	6	CLR
2016-07-21 15:37:00	87	79	30.1	2300	10	220	6	CLR
2016-07-21 15:38:00	87	79	30.1	2300	10	220	5	CLR
2016-07-21 15:39:00	88	79	30.1	2400	10	230	5	CLR
2016-07-21 15:40:00	88	79	30.09	2400	10	220	5	CLR
2016-07-21 15:41:00	88	80	30.09	2400	10	230	5	CLR
2016-07-21 15:42:00	88	80	30.09	2400	10	240	6	CLR
2016-07-21 15:43:00	88	80	30.09	2400	10	250	6	CLR
2016-07-21 15:44:00	88	80	30.09	2400	10	250	6	CLR
2016-07-21 15:45:00	89	80	30.09	2500	10	240	6	CLR
2016-07-21 15:46:00	89	80	30.09	2500	10	230	5	CLR
2016-07-21 15:47:00	89	80	30.09	2500	10	220	7	CLR
2016-07-21 15:48:00	89	80	30.09	2500	10	220	7	CLR
2016-07-21 15:49:00	89	80	30.09	2500	10	220	6	CLR
2016-07-21 15:50:00	89	80	30.09	2500	10	230	7	CLR
2016-07-21 15:51:00	89	80	30.09	2500	10	230	7	CLR
2016-07-21 15:52:00	89	80	30.09	2500	10	220	5	CLR
2016-07-21 15:53:00	89	79	30.09	2500	10	210	5	CLR
2016-07-21 15:54:00	89	80	30.09	2500	10	210	6	CLR
2016-07-21 15:55:00	89	80	30.09	2500	10	210	5	CLR
2016-07-21 15:56:00	89	80	30.09	2500	10	220	6	CLR
2016-07-21 15:57:00	89	80	30.09	2500	10	210	7	CLR
2016-07-21 15:58:00	89	80	30.09	2500	10	210	6	CLR
2016-07-21 15:59:00	89	80	30.09	2500	10	210	6	CLR
2016-07-21 16:00:00	88	80	30.09	2400	10	200	6	SCT021
2016-07-21 16:01:00	88	80	30.09	2400	10	210	7	SCT021
2016-07-21 16:02:00	88	80	30.09	2400	10	220	6	SCT021
2016-07-21 16:03:00	88	80	30.09	2400	10	220	5	SCT021
2016-07-21 16:04:00	89	80	30.09	2500	10	230	6	SCT021
2016-07-21 16:05:00	89	80	30.09	2500	10	220	6	SCT021

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

LTG DSNT NW

2016-07-21 16:06:00	89	80	30.09	2500	10	210	6	SCT021	LTG DSNT NW
2016-07-21 16:07:00	89	80	30.09	2500	10	210	7	SCT021	LTG DSNT NW
2016-07-21 16:08:00	89	80	30.09	2500	10	200	8	SCT021	LTG DSNT NW
2016-07-21 16:09:00	89	80	30.09	2500	10	200	8	SCT021	LTG DSNT NW
2016-07-21 16:10:00	89	80	30.09	2500	10	220	6	SCT021	LTG DSNT NW
2016-07-21 16:11:00	90	80	30.09	2500	10	220	5	SCT021	LTG DSNT NW
2016-07-21 16:12:00	90	80	30.09	2500	10	210	6	SCT021	
2016-07-21 16:13:00	90	80	30.1	2500	10	230	6	SCT021	
2016-07-21 16:14:00	90	80	30.1	2500	10	240	7	SCT021	
2016-07-21 16:15:00	90	80	30.1	2500	10	230	7	BKN021	
2016-07-21 16:16:00	90	80	30.1	2500	10	220	6	BKN021	
2016-07-21 16:17:00	89	80	30.1	2500	10	210	6	BKN021	
2016-07-21 16:18:00	89	80	30.1	2500	10	210	6	BKN021	-RA
2016-07-21 16:19:00	88	80	30.1	2400	10	220	6	BKN021	-RA
2016-07-21 16:20:00	88	80	30.1	2400	10	230	6	BKN021	-RA
2016-07-21 16:21:00	87	80	30.1	2300	10	220	6	BKN021	-RA
2016-07-21 16:22:00	87	80	30.09	2300	10	220	7	BKN021 BKN037	-RA
2016-07-21 16:23:00	87	80	30.09	2300	10	220	6	BKN021 BKN037	-RA
2016-07-21 16:24:00	87	80	30.09	2300	10	220	5	BKN021 BKN037	-RA
2016-07-21 16:25:00	87	80	30.09	2300	10	230	4	BKN021 BKN037	-RA
2016-07-21 16:26:00	87	80	30.09	2300	10	230	3	BKN021 BKN037	-RA
2016-07-21 16:27:00	87	80	30.1	2300	10	230	3	BKN021 BKN039	-RA
2016-07-21 16:28:00	87	80	30.1	2300	10	220	3	BKN021 BKN039 BKN050	-RA
2016-07-21 16:29:00	87	80	30.1	2300	10	220	4	BKN021 BKN037 OVC050	
2016-07-21 16:30:00	87	80	30.1	2300	10	220	4	BKN021 BKN037 OVC050	VCTS LTG VCNTY
2016-07-21 16:31:00	87	81	30.1	2300	10	230	4	BKN021 BKN037 OVC050	VCTS LTG VCNTY
2016-07-21 16:32:00	87	81	30.1	2300	10	230	4	BKN021 BKN037 OVC050	VCTS LTG VCNTY
2016-07-21 16:33:00	87	81	30.1	2300	10	230	4	SCT021 BKN039 OVC047	VCTS LTG VCNTY AND DSNT NE
2016-07-21 16:34:00	87	81	30.1	2300	10	230	3	SCT021 BKN039 BKN047	VCTS LTG VCNTY AND DSNT NE
2016-07-21 16:35:00	87	81	30.1	2300	10	210	3	SCT021 BKN042 BKN050	VCTS LTG VCNTY AND DSNT NE AND E
2016-07-21 16:36:00	88	81	30.1	2400	10	210	4	SCT021 BKN042 BKN050	TS LTG AT APRT AND DSNT NE AND E
2016-07-21 16:37:00	88	81	30.1	2400	10	220	4	SCT021 BKN039 BKN046	TS LTG AT APRT AND DSNT NE AND E
2016-07-21 16:38:00	87	80	30.1	2300	10	220	3	SCT021 BKN039 BKN046	TS LTG AT APRT AND DSNT NE AND E
2016-07-21 16:39:00	87	81	30.09	2300	10	220	3	SCT021 BKN039 BKN046	TS LTG AT APRT AND DSNT NE AND E

2016-07-21 16:40:00	87	80	30.09	2300	10	210	4	SCT021 BKN039 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:41:00	87	80	30.09	2300	10	210	4	SCT021 BKN041 BKN050	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:42:00	87	80	30.09	2300	10	220	4	SCT021 BKN041 BKN050	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:43:00	87	80	30.09	2300	10	220	4	SCT021 BKN041 BKN050	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:44:00	87	80	30.09	2300	10	220	3	SCT021 BKN041 BKN050	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:45:00	87	80	30.09	2300	10	220	3	SCT021 BKN039 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:46:00	87	80	30.09	2300	10	220	4	SCT021 BKN039 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:47:00	87	81	30.09	2300	10	220	4	SCT021 BKN039 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:48:00	88	81	30.09	2400	10	220	3	SCT021 SCT027 BKN039	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:49:00	88	81	30.09	2400	10	210	3	SCT021 SCT027 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:50:00	88	81	30.09	2400	10	210	4	SCT021 SCT027 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:51:00	88	81	30.09	2400	10	220	4	SCT021 SCT027 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:52:00	88	81	30.09	2400	10	210	5	SCT027 SCT040 BKN046	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:53:00	88	81	30.09	2400	10	200	4	SCT020 SCT027 BKN042	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:54:00	88	81	30.09	2400	10	210	4	SCT020 SCT027 BKN042	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:55:00	88	81	30.09	2400	10	210	4	SCT020 SCT025 BKN042	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:56:00	88	81	30.09	2400	10	210	4	SCT020 SCT025 BKN042	TS	LTG AT APRT AND DSNT NE AND E
2016-07-21 16:57:00	88	81	30.09	2400	10	210	3	SCT025 BKN042 BKN050		LTG DSNT NE AND E
2016-07-21 16:58:00	88	81	30.09	2400	10	210	4	SCT025 SCT040 BKN046		LTG DSNT NE AND E
2016-07-21 16:59:00	88	81	30.09	2400	10	210	4	SCT023 BKN042		LTG DSNT NE AND E