Dear Mrs. ACP Editor

Firstly, we would like to thank the new scientific review, which contributes to a better article for sure. Sorry, we did not address properly the problem of the statistical test during the last review. We apologize for that. Below the modifications were described and the answers are in blue and the changes in the text also are in blue color.

Editor Decision:

One point that still requires some clarification is regarding the text introduce in lines **200-201: "Also, a significant test (Test t-Student) was applied to assess the significance of the correlation coefficients amongst the remote sensors compared to the RS (Tables S1 to S4 in the Supplement)."** The tables S1-S4 do not have a complete label that allows the reader to understand the numbers and does not indicate what numbers are significant. Please provide a complete table caption, with p-value, degrees of freedom, etc. Also, the manuscript does not provide any comment on the results in Table S1-S4, regarding the significance of the correlations.

Good point, we thanks for this observation. The Tables are not self-explanatory indeed. Thus, the legends of the Tables S1 to S4 (below) have been modified in the supplement document to improve the reader's understanding. As requested, the p-value and the degrees of freedom were added. Also, a new comment on these results was also added in the manuscript (Text below).

In the results obtained, the average and standard deviations values were computed for different time intervals along the PBL daily cycle (Tables 2 and 3). The computed Pearson's correlation coefficient (r) showed values higher than 0.6 for all remote sensors related to the RS, especially for the ceilometer which showed correlations around 0.8. Also, a significant statistical test (t-Student with 95%) was applied for the 45 days of each IOP, with 2 degrees of freedom, and the results showed that there is statistical significance between the remote sensors and RS (Tables S1 to S4 in the Suplement).

Tabela S1 Student t-test statistics calculated to all different instruments of PBL height in comparison to RS during IOP1 with 2 degrees of freedom. Pearson's correlation coefficient is represented by r, t_c is the critical value and p-value is the probability value.

IOP1 (February 15 to March 31, 2014)

Hours	**02 LT**			**08 LT**			**11 LT**			**14 LT**			**20 LT**		
Sensors	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*
Ceilometer	0.95	1.679	0.27	0.90	1.301	0.54	0.97	2.014	0.75	0.97	2.014	0.12	0.95	1.679	0.19
Lidar	-X-	-X-	-X-	0.95	1.679	0.68	0.97	2.014	0.70	0.95	1.679	0.35	-X-	-X-	-X-
MWR	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-
RWP	0.90	1.301	0.44	0.80	0.850	0.13	0.90	1.301	0.22	0.95	1.679	0.47	0.90	1.301	0.37
Sodar	0.75	0.680	0.23	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	0.80	0.850	0.17

* Confidence interval considered: 95% ($\propto = 0.05$). In order to have statistical significance, the tests of null hypothesis must have p-value > $\propto = 0.05$.

"X" represents where absences measurements occurred.

Tabela S2 Student t-test statistics calculated to all different instruments of PBL height in comparison to RS during IOP2 with 2 degrees of freedom. Pearson's correlation coefficient is represented by r, t_c is the critical value and p-value is the probability value.

IOP2 (September 1 to October 15, 2014)

Hours	**02 LT**			**08 LT**			**11 LT**			**14 LT**			**20 LT**		
Sensors	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*
Ceilometer	0.95	1.679	0.25	0.97	2.014	0.53	0.99	2.412	0.90	0.99	2.412	0.85	0.90	1.301	0.20
Lidar	-X-	-X-	-X-	0.95	1.679	0.49	0.90	1.301	0.60	0.95	1.679	0.47	-X-	-X-	-X-
MWR	0.95	1.679	0.67	0.95	1.679	0.45	0.90	1.301	0.25	0.90	1.301	0.38	0.95	1.679	0.32
RWP	0.80	0.850	0.22	0.95	1.679	0.46	0.90	1.301	0.41	0.90	1.301	0.32	0.75	0.680	0.12
Sodar	0.80	0.850	0.17	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	0.90	1.301	0.56

* Confidence interval considered: 95% ($\propto = 0.05$). In order to have statistical significance, the tests of null hypothesis must have p-value > $\propto = 0.05$.

"X" represents where absences measurements occurred.

Tabela S3 Student t-test statistics calculated to all different instruments of PBL height in comparison to RS during IOP3 with 2 degrees of freedom. Pearson's correlation coefficient is represented by r, t_c is the critical value and p-value is the probability value.

IOP3 (February 15 to March 31, 2014)

Hours	**02 LT**			**08 LT**			**11 LT**			**14 LT**			**20 LT**		
Sensors	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*
Ceilometer	0.97	2.014	0.62	0.80	0.850	0.88	-X-	-X-	-X-	0.95	1.679	0.47	0.97	2.014	0.54
Lidar	-X-	-X-	-X-	0.95	1.679	0.35	-X-	-X-	-X-	0.90	1.301	0.47	-X-	-X-	-X-
MWR	0.80	0.850	0.39	0.90	1.301	0.42	-X-	-X-	-X-	0.80	0.850	0.36	0.70	0.528	0.33
RWP	0.80	0.850	0.25	0.90	1.301	0.33	-X-	-X-	-X-	0.80	0.850	0.27	0.90	1.301	0.31
Sodar	0.70	0.528	0.10	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	0.70	0.528	0.11

* Confidence interval considered: 95% ($\propto = 0.05$). In order to have statistical significance, the tests of null hypothesis must have p-value > $\propto = 0.05$.

"X" represents where absences measurements occurred.

Tabela S4 Student t-test statistics calculated to all different instruments of PBL height in comparison to RS during IOP4 with 2 degrees of freedom. Pearson's correlation coefficient is represented by r, t_c is the critical value and p-value is the probability value.

IOP4 (September 1 to October 15, 2015)

Hours	**02 LT**			**08 LT**			**11 LT**			**14 LT**			**20 LT**		
Sensors	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*	r	$\pm t_c$	p-value*
Ceilometer	0.97	2.014	0.35	0.97	2.014	0.61	-X-	-X-	-X-	0.99	2.412	0.82	0.99	2.412	0.27
Lidar	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-
MWR	0.90	1.301	0.59	0.80	0.850	0.50	-X-	-X-	-X-	0.80	0.850	0.42	0.99	2.412	0.39
RWP	0.80	0.850	0.44	0.90	1.301	0.54	-X-	-X-	-X-	0.70	0.528	0.32	0.97	2.014	0.38
Sodar	0.80	0.850	0.21	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	-X-	0.80	0.850	0.17

* Confidence interval considered: 95% ($\propto = 0.05$). In order to have statistical significance, the tests of null hypothesis must have p-value > $\propto = 0.05$.

"X" represents where absences measurements occurred.